

# THE MUSLIM EFFECT: WAGE DIFFERENTIALS IN THE CANADIAN LABOUR MARKET

by

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## **ABSTRACT**

The economic literature concerning the effect of religious affiliation on wages is sparse, and the literature that exist focus on Judeo-Christian faiths. This paper studies the effect of religious affiliation on wages in the Canadian labour market using census data. The study focuses on Muslims, the largest and fastest growing non-Christian religious minority in Canada. First, the general Canadian population is considered. Next, the immigrant effect is removed by considering only Canadian-born residents. A brief discussion of the immigrant population is then presented, followed by the study of a more homogenous group. The results indicate that a Muslim effect may exist that lowers individuals' wages in the Canadian labour market. Further, the aggregate Muslim population reports lower wages as a result of the larger proportion of immigrants.

**Keywords:** economic, religion, religious, religiosity, wage, labour, labor, Muslim, Islam, immigrant, Canada, Canadian, discrimination

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## INTRODUCTION

According to 2001 Canadian census data, Muslims have surpassed Jews as the largest non-Christian religion in Canada. With Muslims accounting for just over two percent of the general population, Canada remains a predominantly Christian nation (76 percent), with people who do not affiliate themselves with any religion a distant second (17 percent). Although Muslims have surpassed Jews in number, their wages lag far behind that of Jews, and most other Canadians. Jews currently report the highest wages in Canada, while Muslims fall on the opposite end of the wage spectrum, reporting lower wages than people of all other religions (2001 Census PUMF). Given the size and growth of the Muslim population – they are also the fastest growing religious denomination according to the 1991 and 2001 censuses – one wonders whether the lower wages they report can be attributed to their religious affiliation.

One possible explanation for the lower wages is that Muslims may obtain lower levels of education, have poor communication skills, or are otherwise less qualified. They may also choose to live in areas that pay less, or this may simply be a result of the disproportionately higher number of immigrants in the Muslim population. Discrimination in the labour market may be another possibility. Discrimination may affect Muslims in two ways. Taste-based discrimination may be the culprit, in which case employers may simply have prejudice against Muslims. On the other hand, statistical discrimination is also a possibility; for

instance, the high number of immigrants in the Muslim population may lead employers to believe that Muslims, on average, have worse communication skills than their counterparts. As a result, they may inaccurately subject non-immigrant or above average Muslim applicants to higher barriers to entry.

This paper addresses whether the lower wages Muslims report in the Canadian labour market can be explained by factors such as occupation, educational attainment, and immigration status. In an effort to do this, the following two questions are investigated:

1. Do Muslims in the Canadian labour market earn lower wages than individuals who report no religious affiliation when observable characteristics are controlled for?
2. Does any wage differential remain when the immigrant effect is removed?

This study finds that self-reported Muslims do indeed face a statistically significant wage gap compared to their non-religious counterparts. When controls are included for characteristics such as place of origin, educational attainment, occupation, and immigration status, among others, the differential tends to decrease in magnitude, but generally remains statistically significant. When only Canadian-born individuals are considered, the Muslim effect remains statistically significant for men and becomes statistically insignificant for women after controlling for personal, location, and work characteristics, though the



magnitude of the effect remains negative and large. Statistically significant differentials are found within the immigrant population for men and women as well. Finally, due to the possibility of heterogeneity across ethnicities and locations, only Canadian-born South Asians in Toronto are considered. The wage differentials are all statistically insignificant, but imply that Canadian-born South Asian Muslims in Toronto may be working jobs characterized by lower wages.

## LITERATURE REVIEW

The effects of family background on an individual's earnings potential were discussed in scholarly economic literature as early as the 1970's, but the primary focus was on factors such as parental income, place of birth, number of siblings, and geographic location of upbringing (Corcoran, Jencks and Olneck 1976). Little, if any, attention was devoted to religion as a potential determinant of earnings until the 1980's. Even in 1998, there was no classification in the Journal of Economic Literature (JEL) for religion and economics (Iannoccone 1998). Given that the volume of economic literature in the field is sparse, more attention has been given to religion in macroeconomic literature than in microeconomic literature in the recent past (see Barro and McCleary 2003, McCleary and Barro 2006, Guiso, and Sapienza and Zingales 2003 among others).

Chiswick and Tomes separately published the two pioneering studies directly relating religion and wages.<sup>1</sup> Chiswick (1983) conducted a study using the 1970 United States (U.S.) Census of Population to identify whether Jews in the U.S. invest more in schooling than non-Jews, and whether their returns to

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<sup>1</sup> A handful of studies were conducted using income as the primary dependent variable, such as the one published in The American Journal of Sociology in 1969 on how religious affiliation affects household income, as opposed to individual wages (Gockel 1969).

schooling are any different. He restricted the analysis to white native-born men with at least one foreign-born parent, and regressed log earnings on education, labour market experience, and controls for region, marital status, place of parents' birth for non-Jews and ethnicity. He found that Jews have higher levels of education, earnings, and returns to education. Similar results were found after controlling for parents' countries of origin and work characteristics. Finally, he conducted the regressions using only observations from New York, New Jersey, and Connecticut, the regions with the highest concentration of Jews, and found that while the positive differentials are smaller, they remain statistically significant.

Tomes (1983) investigated returns to schooling and job market experience among Jews, Roman Catholics, Protestants and other religions using the 1971 Canadian Census. He restricted the sample to Canadian born white men between the ages of 25 and 64 and controlled for fluency in official languages, ethnicity, marital status, region, whether the parents are foreign-born, whether the individual holds a degree, self-employment status and job characteristics. Running separate regressions for Quebec and the rest of Canada, and for Montreal and Toronto (due to the high concentration of Jews in the two metropolitan areas), he found that Jews make higher investments in schooling and receive a higher rate of return. He also found that Protestants receive higher levels and returns to schooling than Catholics, and these returns are higher than for people of other religions and no religion. He essentially replicated his 1983 paper in 1984 for U.S. residents using the NORC General Social Survey 1973-

1980 in which he considered religious upbringing instead of current religious affiliation. Although the results were similar, he noted that the returns to education reported for Canada are not the same as those reported for the U.S. He also found the Jewish earnings differential to be insignificant, likely due to the small sample of Jews in the dataset (Tomes 1984).

Tomes' 1983 paper pointed out that an appropriate extension of his study would include adding controls for family characteristics such as parental income, education, and family size; Meng and Sentance (1984) did precisely this. They employed the 1973 Canadian National Mobility Study to control for the following in addition to what Tomes controlled for: father's education, father's occupation, mother's education, number of brothers, number of sisters, and whether the head of the household one grew up with was his/her father. Their study corroborates Tomes' results and asserts that the additional controls are unnecessary.

Tomes (1985) extended his 1983 paper with a newer data set by using the 1981 Canadian Census. He reported that the high returns to education that Jews appeared to receive, using the 1971 data, are insignificant in the 1981 census data. He did however conclude that for men, Jews still earn higher wages; religion does not appear to significantly affect wages for other groups. For women, he presented preliminary results indicating Jews earn less, whereas Roman Catholics earn more, in comparison to Protestants. He also noted that his study reveals Jews do not receive a higher rate of return to human capital, which contradicted prior studies at the time.

On a related note, there is considerable recent literature on how ethnicity or visible minority status affects wages in Canada (Pendakur and Pendakur 1998 and 2007, Hum and Simpson 1999). In their 1998 paper, Pendakur and Pendakur used the 1991 Census Public Use Microdata File (PUMF) to evaluate the earnings gap faced by visible minorities in the Canadian labour market. They further investigated differentials within the visible minority group as well as the visible minority effect within selected metropolitan areas. The authors found that visible minority status has a negative effect on the earnings of men, whereas the effect on women is positive or insignificant. They note that much heterogeneity exist *within* whites and visible minorities. Their general results were verified using the 2001 Census as well (Pendakur and Pendakur 2007).<sup>2</sup>

Chiswick has gone on to analyze the Jewish earnings relationship further in the recent past (Chiswick and Huang 2008, Chiswick 1993), but otherwise, little literature exists on the relationship between wages and religion. Additionally, the literature thus far has focused strictly on Judeo-Christian religions. Two notable exceptions are the papers published by Model and Lin (2002) and Kaushal, Kaestner and Reimers (2007). Model and Lin conducted a cross-country study of the labour markets in Canada and Britain as these pertain to Muslims, Hindus, and Sikhs. However, their primary interest was which country offers more favorable labour market conditions for immigrants. Likewise, Kaushal, Kaestner and Reimers had a different focus, in that they measured how real weekly earnings changed for Muslims in the U.S. labour market following the

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<sup>2</sup> The primary focus of the 2007 paper was not wage differentials, but rather an analysis of which portion of the income distribution visible minorities face wage differentials.

September 11 terrorist attacks in 2001. They found that Muslims saw a temporary decrease in wages of approximately 10 percent.

Past literature on the effect of religion on wages do not focus on non-Judeo-Christian religions, nor control for potential effects of ethnicity thoroughly. While the research focusing on visible minorities considers ethnicity, it does not consider the effects of religion on wages. This paper studies the effect religious affiliation has on wages, while controlling for ethnicity. The religious group of interest is Muslims, the largest non-Christian religious group in Canada; most of whom report visible minority status.

## DATA AND METHODOLOGY

The data used comes from the 2001 Census Public Use Microdata Files (PUMF) of Canada which is a 2.7 percent sample of Canadian citizens, permanent residents, and temporary residents. This is a subsample of the dataset employed by Pendakur and Pendakur (2007), which uses the main database of the 2001 Census. Table A1 in the Appendix reports the coefficients presented by Pendakur and Pendakur along with the ones found using the PUMF with similar restrictions on data.

In following Pendakur and Pendakur (1998), only individuals between the ages of 20 and 64 are considered, and all individuals who are either full-time students or whose major source of income is not wages are excluded. Although the census includes data on individuals who are not permanent residents, these individuals are not included in the analysis.<sup>3</sup> Likewise, religious affiliation is unavailable for individuals in the Atlantic Provinces, thus they are not included either. Therefore, the results of this study apply only to the permanent residents of the non-Atlantic Canadian provinces whose major source of income is wages.

Table 1 reports relevant statistics for the variables that are used. The dependent variable, *logwage*, is the natural log of reported wages. In the restricted sample, Jews report the highest wages and Sikhs reported the lowest. Muslims report the second lowest wages and individuals who report having no

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<sup>3</sup> This restriction excludes refugee claimants and people in Canada on a temporary resident visas (work/study) or ministerial permits. This is the same restriction imposed by Pendakur and Pendakur in their 1998 paper.

affiliation to any religion report the third highest wages behind Jews and Protestants. The independent variable of interest is *muslim*, a dummy variable which takes the value one if a respondent states he/she is a Muslim. The analysis is presented in a sequence of regressions with added controls from each of the following categories: origin and immigration characteristics, personal characteristics (including location characteristics), and work characteristics.

Origin and immigration characteristics include ethnicity, immigrant<sup>4</sup> status, years since immigration to Canada and its square; these controls are included in all regression results presented<sup>5</sup>. Coefficients reported with the label 'personal' in Tables 2 and 3 include origin and immigration characteristics as well as the highest level of education, marital status, language abilities, household size, potential Canadian labour market experience and its square, along with location controls. Education, marital status, language abilities, and location controls are included as dummy variables, whereas, household size, Canadian labour market experience and its square are included as linear variables. A review of the relevant literature suggests that experience is a difficult attribute to control for and many studies use a proxy such as age minus years of education minus a certain number, such as six. The method employed in this paper involves calculating the highest number of years an individual can gain Canadian labour market experience when not in school full-time as derived by Pendakur and Pendakur (1998).

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<sup>4</sup> Immigrant refers to all individuals who report a place of birth outside of Canada except those who are Canadian citizens by birth.

<sup>5</sup> Immigrant variables are only included in regressions that include immigrants.



Coefficients reported with the label 'work' in Tables 2 and 3 include the relevant preceding characteristics along with the following four work characteristics: whether the job is a full-time or a part-time position, the number of weeks worked in the year preceding the census, the type of occupation, and the industry. The number of weeks worked enters the regression linearly, and the others are included as dummy variables.

### *Methodology*

Each of the regressions in Tables 2 and 3 include the natural log of wages, *logwage*, as the dependent variable and include religious affiliation as an independent variable. The primary regressions of interest take the following form:

$$\ln Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4$$

Where:

*Y* : annual wage earnings

*X*<sub>1</sub> : dummy variables that represent self reported religious affiliation

*X*<sub>2</sub> : origin characteristics and immigration characteristics

*X*<sub>3</sub> : personal and location characteristics

*X*<sub>4</sub> : work characteristics

Given the general form above, variables are included or omitted in order to isolate the effects of characteristics on the coefficient of *muslim*.

In the analysis, comparisons are made between coefficients of *muslim* in different regressions using the same sub-sample. To test whether these

differences are statistically significant, a Hausman test is conducted with the following null hypotheses (selected results in Table A2):

$$\beta^* - \beta = 0$$

Where:

*$\beta^*$  : coefficient of muslim in regression with X control variables*

*$\beta$  : coefficient of muslim in regression with Y control variables*

*Such that X > Y*

## RESULTS AND INTERPRETATION

In order to explain the difference in earnings that Muslims face in the Canadian labour market, the natural log of wages is regressed on the various dummies for religion, ethnicity, and immigration variables when appropriate; individuals who report no religious affiliation is the base category. Using the description in section III, this implies the following regression:

$$\ln Y = \alpha + \beta_1 X_1 + \beta_2 X_2$$

Then  $X_3$  is added, followed by  $X_4$  to see how adding controls for relevant factors affect the coefficient of *muslim*. The methodology is quite simple, but the resulting changes in the coefficient of *muslim* are illuminating and at times confounding. The analysis is presented in four major sections. Table 2 reports the coefficients associated with *muslim* for the first three. First, all permanent residents of Canada are considered<sup>6</sup>. Next, the Muslim effect is isolated from any potential immigrant effect by considering only the Canadian-born, followed by a brief discussion of immigrants. Finally, Canadian-born South Asians in Toronto are considered to control for potential unobserved heterogeneity within ethnicities and geographic locations; Table 3 reports the coefficients of *muslim* for this group.

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<sup>6</sup> "Permanent residents" refers to the full restricted sample that is used for this paper. It includes all the Canadian-born as well as the immigrants. It does not include individuals who are not permanent residents (temporary resident visa holders, refugee claimants, ministerial permit holders, etc).

### *All Permanent Residents*

Table 2 reports that consistent with what is discussed in the data section, Muslim men report lower wages than all others except Sikhs and Buddhists when only ethnicity and immigration characteristics are controlled for, roughly 11 percent less than individuals with no religious affiliation. On the other end of the spectrum, Jewish men report the highest wages—roughly 26 percent higher than their non-religious counterparts—followed by Protestants; no other religious groups, for men, report a positive wage differential.

The rows labeled ‘Personal’ in Table 2 display the coefficients once personal and geographic controls are included. It is interesting to note that for men, including personal and geographic controls increases the wage differential for Muslims from -0.114 to -0.181, both statistically significant. Typically, one expects differentials to be explained away by personal characteristics. The statistically significant increase suggests that Muslim men tend to have personal characteristics and live in geographic locations that are positively correlated with wages. Since most of the personal characteristics controlled for, as well as location of residence, are attributes that individuals can choose, this may imply that Muslim men are engaging in wage maximizing behavior. That is, Muslim men tend to have preferable<sup>7</sup> characteristics such as higher levels of education, larger household size, and a large proportion of them are married; these are all variables that are positively correlated with wages. A closer look at levels of

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<sup>7</sup> In this case, we refer to the word “preferable” to mean characteristics that are positively correlated with wage.

education in the sample<sup>8</sup> reveal that roughly 49 percent of Muslim men in Canada have at least a university certificate or diploma, compared to less than 25 percent of non-Muslim men and 27 percent of non-religious men; similarly, nearly 13 percent of Muslim men hold either a master's or doctorate, compared to about five percent and six percent respectively for non-Muslim and non-religious men. Muslim men also have higher average household size, and 83 percent of Muslim men are legally married or have never been married, compared to 69 and 65 percent of non-Muslim and non-religious men respectively<sup>9</sup>.

The row labeled 'Work' reports the coefficients when controls are included for work characteristics. The inclusion of work characteristics reduces the wage gap to negative 12 percent, which is still statistically significant. The decrease in magnitude suggests that Muslim men generally have work characteristics that decrease their wages. In the restricted sample, roughly eight percent of Muslim men work part-time, compared to approximately five and six percent for non-Muslim and non-religious men respectively. Muslim men also work fewer weeks compared to their non-Muslim and non-religious counterparts.

The first row for women in Table 2 reveals that Muslim women report the lowest wages – 16 percent lower than the non-religious – followed closely by Hindu women, when only controls for ethnicity and immigration are considered. At the top end of the wage spectrum, Jewish women report the highest earnings

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<sup>8</sup> The sample in this case refers to the sample that is used for running regressions for all permanent residents of Canada.

<sup>9</sup> Legally married and never married are the two marital status categories that are positively correlated with wage.

– a 26 percent positive differential compared to the non-religious—followed by Catholic women, who report a statistically significant 3.8 percent positive wage differential; these are the only two groups who report higher wages than their non-religious counterparts.

The differential decreases from negative 16.1 percent to negative 15.4 percent when personal controls are added, both statistically significant. The differing effects for men and women may be explained by different relative personal characteristics for Muslim men and women when compared to their non-Muslim counterparts. Specifically, the relative levels of education attained by Muslim men and women compared to their non-Muslim counterparts may explain part of it. While 37 percent of Muslim women hold a university certificate or diploma, 27 and 28 percent of non-Muslim and non-religious women are in the same category respectively; this difference is considerably smaller than the difference for men. After controlling for work characteristics, the magnitude of the coefficient of Muslim decreases from negative 15.4 percent to negative 10.2 percent. The proportion of Muslim women working part-time is no different from non-Muslims or non-religious individuals, but Muslim women work fewer weeks compared to both the non-Muslims and non-religious groups, 41 weeks compared to 44 weeks.

The wage differentials faced by Muslim men and women in the Canadian labour market cannot be explained fully by the variables considered in this study and the results show that Muslims tend to have work characteristics that are negatively correlated with wages as well. Although this may be a result of

choices they make, there is a body of literature detailing the possibility of discrimination leading to minorities working in lower paying industries (Pendakur and Pendakur 2007). This paper will not attempt to identify which of these effects is the cause of this differential.

Finally, it is worth noting that a higher proportion of Muslims (94 percent) in the sample are immigrants compared to non-Muslims (21 percent) and non-religious people (25 percent). Since immigrants earn lower wages—four percent less for men and 11 percent less for women—the negative wage differential may in fact be an immigrant effect instead of a Muslim effect. Thus in the next section, the Muslim effect on wages is isolated from the immigrant effect by looking at only Canadian-born individuals.

### *Canadian-born*

The wage differential for Muslim men is initially quite large and negative, nearly 39 percent, with controls for ethnicity only. Adding controls for personal characteristics and location decreases the differential to negative 29.8 percent. The addition of work controls reduces the differential further to negative 17 percent, but it remains statistically significant. A Hausman test reveals that the difference in coefficients from the personal regression to the work regression is indeed statistically significant once again, suggesting that even in the Canadian-born population, Muslim men hold jobs characterized by lower wages. The results for the Canadian-born men indicate that much of the wage differentials faced by them may indeed be a Muslim effect, and not just an immigrant effect.

For women, the initial differential is statistically significant at negative 30.1 percent. Nearly half of that is explained away and becomes statistically insignificant after including controls for personal and location characteristics, and the magnitude of the differential decreases further as work characteristics are included. The results for women are not as clear since the statistically insignificant differentials are of large magnitude and thus may be a result of the small sample of Canadian-born Muslims. The notion that Muslim women suffer from only an immigrant effect cannot be ruled out.

### *Immigrants*

The fact that Muslim women in the general population face a negative wage differential, and they face no statistically significant differential in the Canadian-born population suggests that the Muslim effect in the general population may only be an immigrant effect for the women. In the immigrant population, however, negative wage differentials persist for Muslim men and women regardless of the characteristics controlled for, approximately nine percent for each with all controls. This implies that the aggregate Muslim population in Canada may be facing lower wages for up to three reasons: the Muslim effect, the immigrant effect, and the Muslim-immigrant effect. Men appear to face all three effects, whereas women's wages are only lower as a result of the immigrant effect and the Muslim-immigrant effect.



### *Canadian-born South Asians in Toronto*

The analyses conducted thus far include variables that may exhibit high degrees of heterogeneity within the variables themselves. For instance, although various ethnicities have been controlled for, there could be considerable heterogeneity within ethnicities. Pendakur and Pendakur (1998) address a similar issue in which they show that although visible minorities face negative wage differentials in the wage market as an aggregate group, within visible minorities, some face positive differentials while others face negative differentials. Similar arguments about within geographic location heterogeneity may be made.

The next portion of the analysis focuses on Canadian-born South Asians in Toronto. South Asians account for nearly 40 percent of Muslims in Canada, 26 percent of Canadian-born Muslims, and Toronto is the place of residence for 49 percent of Muslims, 37 percent of the Canadian-born<sup>10</sup>. As noted previously, roughly 94 percent of Muslims in the sample are foreign born, and less than seven percent of South Asians are Canadian-born. As a result, the sample size for this analysis is quite small at 176 observations, 90 female and 86 males, and some religions have either no observations or have very few. Since the sample size is so small, all non-Muslims will be pooled into one category to increase precision. The results are presented in Table 3, in which non-Muslims are the base category; note that the coefficients on 'muslim' are still insignificant.

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<sup>10</sup> These numbers are based on the restricted sample used for regressions.

Results for regressions are reported separately for men and women, and indicate that men face a negative earnings differential, 31.3 percent, when no controls are included. The inclusion of personal characteristics results in a decrease of the differential to negative 20.4 percent. Adding work characteristics changes the wage differential to a *positive* 23.7 percent. While on the surface this may seem like a favorable result for Muslims, the differential is statistically insignificant, and suggests South Asian Muslim men in Canada have work characteristics correlated with lower wages. A Hausman test comparing the coefficients of *muslim* from the regressions with and without work characteristics indicate that the difference in the coefficient is significant and lends credence to the notion that Canadian-born South Asian Muslim men may face a form of discrimination in the Toronto labor market that results in them taking lower paying jobs or working in lower paying industries.

For women, a negative wage differential of 32 percent exists without controls. Including personal characteristic controls reduces the differential to less than one percent and the inclusion of their work characteristics in the regression changes the sign of the coefficient. Once again, this differential is statistically insignificant, and the change in the coefficient from one regression to the next is significant signaling the women also hold lower paying jobs or work in lower paying industries.

### *Immigrant and Ethnicity Variables*

Table A2 reports the coefficients for immigrant and ethnicity variables. Consistent with past studies, the immigrant indicator has a negative coefficient, years since immigration has a positive coefficient and its square has a negative coefficient in each regression (Hum and Simpson 1999 and Borjas 1999). Years since immigration and its square are insignificant for men when personal, or personal and work characteristics are included. Otherwise, all immigrant variables are statistically significant.

The reported coefficients of ethnicity, in which Canadians are the base category for all regressions<sup>11</sup>, indicate that all men in the general population who are not of European, American, Australian, or New Zealander ethnicities face a statistically significant negative wage differential when all controls are included; this is consistent with the results reported in studies conducted on visible minorities (Pendakur and Pendakur 1999 and 2007, Hum and Simpson 1999). In the Canadian-born population, only men of African, Caribbean, and Aboriginal descent face statistically significant wage differentials. In the immigrant population, only men of European and Canadian descent face statistically significant and positive differentials.

In the general female population, only South Asians, Latin/South Americans, and Aboriginals face a statistically significant negative wage differential; Europeans face a positive differential when all controls are included. Within the Canadian-born, Arabs and Aboriginals face a negative differential, and

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<sup>11</sup> In the restricted sample, there are approximately 500 people who report Canadian ethnicity and immigrant status; none of these people are Canadian citizens by birth.

Europeans continue earning more. For immigrants, only Aboriginals and Latin/South Americans face differentials, which are both negative.

## **CONCLUSION**

This study consistently finds that in the general population, Muslims in the Canadian labour market earn lower wages than their non-religious counterparts. These differentials persist even after controlling for origin, personal, occupational, and location characteristics. Further, an investigation of Canadian-born individuals reveals that the statistically significant differential persists for Muslim men even when the immigrant effect is removed, and it is larger in magnitude.

Canadian-born Muslim women do not face a statistically significant wage differential once personal, location, and work characteristics are controlled for. The coefficients are negative, large in magnitude, and have high standard errors associated with them, which may be a result of the small sample of Canadian-born Muslim women. This makes it difficult to discern whether a negative Muslim effect truly exists for Canadian-born women or if the effect seen in the general population for women is an immigrant effect.

A study of the immigrant population reveals that the aggregate Muslim population finds lower wages in the labour market for up to three identifiable reasons: the Muslim effect, the immigrant effect, and the Muslim-immigrant effect. Finally, the effect of being Muslim on wages is isolated from any within ethnicity and geographic location heterogeneity by looking at only Canadian-born South Asians in Toronto. The results are all statistically insignificant, possibly due to the small sample size, so firm conclusions are not drawn from these.

However, the change in coefficient between regressions with and without work characteristics indicate that Canadian-born South Asian Muslim men in Toronto are taking jobs characterized by lower wages, which may be the result of a form of discrimination in the labour market (Pendakur and Pendakur 2007).

Future researchers in this field would be well advised to test whether any endogeneity issues exist when current religious affiliation is the variable of interest. There is a possibility that the poor are disproportionately attracted to Islam, and that is the reason for the negative wage differentials seen in much of this study. One way to control for this would be to consider only those who are born into the religions they practice at the time of survey. Another important factor to consider is whether there is a piety effect that may bias the coefficient of religious affiliation. For instance, if Muslims are more religious than Christians and religiosity is negatively correlated with wages, then this piety effect may explain some or all of the wage differential seen in the results of this paper. Alternatively, since most of the Muslims in Canada are foreign-born, a more in depth study of the immigrant population may be warranted with better controls for factors such as quality of schooling, non-Canadian labour market experience, fluency in official languages.

## **APPENDICES**

### **Appendix A**

This section contains Tables 1, 2 and 3.

**Table 1 (Part 1 of 2)**  
**Summary Statistics of Restricted Sample (2001 Canadian Census PUMF)**

|                                       |                                    | Male                            | Female    |          |
|---------------------------------------|------------------------------------|---------------------------------|-----------|----------|
| Wages                                 | Log Wage (Mean/SD)                 | 10.4/0.84                       | 9.93/0.98 |          |
| Religion                              | No Religion                        | 17.65%                          | 14.71%    |          |
|                                       | Catholic                           | 44.71%                          | 45.57%    |          |
|                                       | Protestant                         | 26.74%                          | 28.99%    |          |
|                                       | Christian Orthodox                 | 4.41%                           | 4.49%     |          |
|                                       | Muslim                             | 1.65%                           | 1.51%     |          |
|                                       | Jewish                             | 1.06%                           | 1.02%     |          |
|                                       | Buddhist                           | 1.05%                           | 1.15%     |          |
|                                       | Hindu                              | 1.26%                           | 1.17%     |          |
|                                       | Sikh                               | 1.18%                           | 1.06%     |          |
|                                       | Eastern religions                  | 0.29%                           | 0.32%     |          |
|                                       | Ethnicity                          | Canadian                        | 22.79%    | 21.98%   |
|                                       |                                    | European                        | 28.00%    | 25.76%   |
|                                       |                                    | African/Caribbean               | 1.44%     | 1.67%    |
| Arab                                  |                                    | 0.73%                           | 0.57%     |          |
| West Asian                            |                                    | 0.46%                           | 0.40%     |          |
| South Asian                           |                                    | 3.03%                           | 2.84%     |          |
| Other Asian                           |                                    | 5.00%                           | 5.56%     |          |
| American/New Zealander,/Australian    |                                    | 0.13%                           | 0.12%     |          |
| Aboriginals                           |                                    | 1.24%                           | 1.24%     |          |
| Latin/South Americans                 |                                    | 0.47%                           | 0.50%     |          |
| Multiple: Canadian, British, French   |                                    | 30.39%                          | 32.71%    |          |
| Multiple: excluding Can/ Brit/ French |                                    | 6.30%                           | 6.63%     |          |
| Immigrants                            |                                    | Immigrant                       | 21.68%    | 21.78%   |
|                                       |                                    | Yrs since Immigration (Mean/SD) | 4.5/10.6  | 4.3/10.1 |
| Highest Level of Education            |                                    | Less than Grade 5               | 0.94%     | 0.90%    |
|                                       |                                    | Grades 5 to 8                   | 3.98%     | 2.88%    |
|                                       |                                    | Grades 9 to 13                  | 16.41%    | 13.99%   |
|                                       | Secondary - high school grad       | 14.74%                          | 17.09%    |          |
|                                       | Trades certificate or diploma      | 5.12%                           | 2.93%     |          |
|                                       | College w/o any certificate        | 6.11%                           | 6.86%     |          |
|                                       | Trade certificate or diploma       | 11.00%                          | 6.07%     |          |
|                                       | College certificate or diploma     | 12.95%                          | 19.05%    |          |
|                                       | University w/o any certificate     | 3.56%                           | 3.36%     |          |
|                                       | University certificate/diploma     | 6.19%                           | 7.63%     |          |
|                                       | Bachelor/first professional degree | 12.55%                          | 13.89%    |          |
|                                       | Certificate above bachelor         | 1.77%                           | 2.18%     |          |
|                                       | Master's degree                    | 3.72%                           | 2.83%     |          |
|                                       | With earned doctorate              | 0.95%                           | 0.34%     |          |
| Language Knowledge                    | English only                       | 69.43%                          | 68.95%    |          |
|                                       | French only                        | 10.63%                          | 12.06%    |          |
|                                       | Both                               | 19.94%                          | 18.99%    |          |
| Marital Status                        | Divorced                           | 5.33%                           | 7.85%     |          |
|                                       | Legally married                    | 69.48%                          | 68.13%    |          |
|                                       | Separated                          | 1.87%                           | 3.20%     |          |
|                                       | Never legally married              | 22.89%                          | 19.46%    |          |
|                                       | Widowed                            | 0.42%                           | 1.36%     |          |
|                                       | Household Size (Mean/SD)           | 3.4/1.24                        | 3.4/1.23  |          |



**Table 1 (Part 2 of 2)**  
**Summary Statistics of Restricted Sample (2001 Canadian Census PUMF)**

|  |                                     | Male                                    | Female     |        |
|--|-------------------------------------|---|------------|--------|
| Location                               | Non-CMA                             | 36.82%                                  | 36.10%     |        |
|  | Quebec                              | 2.26%                                   | 2.20%      |        |
|  | Montreal                            | 11.14%                                  | 11.14%     |        |
|  | Ottawa- Hull                        | 3.64%                                   | 3.65%      |        |
|  | Toronto                             | 16.66%                                  | 16.88%     |        |
|  | Hamilton                            | 2.31%                                   | 2.33%      |        |
|  | London                              | 1.37%                                   | 1.42%      |        |
|  | Winnipeg                            | 2.27%                                   | 2.33%      |        |
|  | Calgary                             | 3.47%                                   | 3.58%      |        |
|  | Edmonton                            | 3.26%                                   | 3.45%      |        |
|  | Vancouver                           | 6.53%                                   | 6.60%      |        |
|  | Small CMAs                          | 10.26%                                  | 10.31%     |        |
|  | Industry                            | Agriculture, forestry, fishing and hunt | 3.36%      | 1.57%  |
|  |                                     | Mining and oil and gas extraction       | 1.99%      | 0.43%  |
| Utilities                              |                                     | 1.34%                                   | 0.47%      |        |
| Construction                           |                                     | 9.53%                                   | 1.50%      |        |
| Manufacturing                          |                                     | 21.58%                                  | 10%        |        |
| Wholesale trade                        |                                     | 6.34%                                   | 3.43%      |        |
| Retail trade                           |                                     | 8.16%                                   | 11.49%     |        |
| Transportation and warehousing         |                                     | 7.66%                                   | 2.95%      |        |
| Information and cultural industries    |                                     | 2.67%                                   | 2.59%      |        |
| Finance and insurance                  |                                     | 3.09%                                   | 6.69%      |        |
| Real estate and rental and leasing     |                                     | 1.62%                                   | 1.50%      |        |
| Professional, scientific and technical |                                     | 6.09%                                   | 5.97%      |        |
| Management of companies/enterprises    |                                     | 0.08%                                   | 0.12%      |        |
| Administrative/support, waste managers |                                     | 3.27%                                   | 3.50%      |        |
| Educational services                   |                                     | 4.64%                                   | 10.29%     |        |
| Health care and social assistance      |                                     | 3.07%                                   | 18.56%     |        |
| Arts, entertainment and recreation     |                                     | 1.36%                                   | 1.46%      |        |
| Accommodation and food services        |                                     | 3.22%                                   | 6.31%      |        |
| Other services except public admin.    |                                     | 4.16%                                   | 4.82%      |        |
| Public administration                  |                                     | 6.77%                                   | 6.33%      |        |
| Occupation                             |                                     | Senior managers                         | 2.25%      | 0.78%  |
|  |                                     | Other managers                          | 12.61%     | 8.04%  |
|  |                                     | Professionals                           | 14.03%     | 18.93% |
|  |                                     | Semi-professionals/ technicians         | 6.98%      | 8.52%  |
|  |                                     | Supervisors                             | 1.13%      | 1.73%  |
|  |                                     | Supervisors: crafts and trades          | 4.63%      | 0.99%  |
|  | Administrative/senior clerical      | 2%                                      | 10.96%     |        |
|  | Skilled sales and service           | 4%                                      | 4%         |        |
|  | Skilled crafts and trades           | 16%                                     | 1.03%      |        |
|  | Clerical personnel                  | 4.66%                                   | 15.82%     |        |
|  | Intermediate sales/ service         | 6%                                      | 13.82%     |        |
|  | Semi-skilled manual workers         | 16.38%                                  | 5.29%      |        |
|  | Other sales and service             | 4.68%                                   | 8.12%      |        |
|  | Other manual workers                | 4.58%                                   | 1.97%      |        |
|  | Full Time Employee                  | 94.60%                                  | 77.10%     |        |
|  | Canadian Labour Exp. Yrs. (Mean/SD) | 21.9/11.8                               | 20.75/11.2 |        |
| Weeks Worked (Mean/SD)                 | 46.7/10.8                           | 44.7/13.3                               |            |        |

**Table 2**  
**Muslim Coefficients for Log Wage Regressions by Sex for All Residents, Canadian-born, and Immigrants respectively**

| Sex     | Group         | Model                     | Coefficient | SE     | N      | R2    |
|---------|---------------|---------------------------|-------------|--------|--------|-------|
| Males   | All Residents | Ethnicity and Immigration | -0.114***   | 0.0256 | 127538 | 0.034 |
|         |               | Personal                  | -0.181***   | 0.0245 | 126697 | 0.203 |
|         |               | Work                      | -0.122***   | 0.0206 | 125388 | 0.400 |
|         | Canadian Born | Ethnicity                 | -0.388***   | 0.107  | 98199  | 0.017 |
|         |               | Personal                  | -0.298***   | 0.0906 | 98146  | 0.219 |
|         |               | Work                      | -0.169*     | 0.0774 | 97232  | 0.411 |
|         | Immigrants    | Ethnicity and Immigration | -0.115***   | 0.028  | 29339  | 0.084 |
|         |               | Personal                  | -0.152***   | 0.027  | 28551  | 0.172 |
|         |               | Work                      | -0.094***   | 0.023  | 28156  | 0.378 |
| Females | All Residents | Ethnicity and Immigration | -0.161***   | 0.0335 | 116272 | 0.017 |
|         |               | Personal                  | -0.154***   | 0.033  | 115337 | 0.138 |
|         |               | Work                      | -0.102***   | 0.0265 | 113384 | 0.462 |
|         | Canadian Born | Ethnicity                 | -0.301**    | 0.112  | 89913  | 0.006 |
|         |               | Personal                  | -0.171      | 0.105  | 89887  | 0.150 |
|         |               | Work                      | -0.149      | 0.0917 | 88471  | 0.477 |
|         | Immigrants    | Ethnicity and Immigration | -0.195***   | 0.038  | 26359  | 0.056 |
|         |               | Personal                  | -0.179***   | 0.037  | 25450  | 0.120 |
|         |               | Work                      | -0.090**    | 0.030  | 24913  | 0.423 |

Notes:

The base category for religion is people without any religious affiliation.

Data were selected for 20-64 years of age, whose primary source of income is from wages and salaries. People who are full time in school, and those without any schooling and income were dropped as well.

'Ethnicity and Immigration' controls for the variables ethnicity, immigrant dummy, years since immigration and years since immigration squared. For Canadian Born residents, only ethnicity applies.

'Personal' adds experience, marital status, household size, highest level of schooling, knowledge of official languages and location in terms of CMAs.

'Work' adds full-time/part-time status, weeks worked, industry and occupation variables.

(\*\*\*) denotes significance at 0.1 percent, (\*\*) at 1 percent and (\*) at 5 percent significance level.

Source: 2001 Census of Canada, Public Use Micro-file

**Table 3**  
**Muslim Coefficients for South Asian Canadian-born residents of Toronto**

| Sex    | Model    | Coefficient | SE    | N  | R2    |
|--------|----------|-------------|-------|----|-------|
| Male   | Religion | -0.313      | 0.318 | 86 | 0.015 |
|        | Personal | -0.204      | 0.254 | 86 | 0.483 |
|        | Work     | 0.237       | 0.244 | 85 | 0.891 |
| Female | Religion | -0.323      | 0.307 | 90 | 0.014 |
|        | Personal | -0.004      | 0.247 | 90 | 0.324 |
|        | Work     | 0.318       | 0.273 | 89 | 0.671 |

Notes:

The base category for religion is 'non-Muslim'.

Data were selected for 20-64 years of age, whose primary source of income is from wages and salaries. People who are full time in school, and those without any schooling and income were dropped as well.

'Religion' includes a lone 'Muslim' dummy.

'Personal' adds experience, marital status, household size, highest level of schooling and knowledge of official languages.

'Work' adds full-time/part-time status, weeks worked, industry and occupation variables.

(\*\*\*) denotes significance at 0.1 percent, (\*\*) at 1 percent and (\*) at 5 percent significance level.

Source: 2001 Census of Canada, Public Use Micro-file

## Appendix B

**Table A1:  
Comparison of coefficients for Visible Minority**

| Sex    |                  | with PUMF         | Pendakur & Pendakur (2007) |
|--------|------------------|-------------------|----------------------------|
| Female | Visible Minority | -0.04**<br>(.02)  | -0.04***<br>(.01)          |
| Male   | Visible Minority | -0.10***<br>(.02) | -0.08***<br>(.01)          |

Notes:

Pendakur & Pendakur (2007), Table 2, uses the 2001 Census of Canada, Main Database. I use the 2001 Census of Canada, Public Use Microdata File. Data were selected for all Canadian-born residents of Canada, 25-64 years of age, whose primary source of income is from wages and salaries. People without any schooling were dropped from the sample as were those without any earnings. In the regressions using the PUMF, I drop all the aboriginals. The base category in both regressions is 'white', people who are neither visible minorities, nor aboriginals. The regressions include personal, location, and work characteristics; standard errors in parenthesis.

(\*) denotes significance at 10 percent

(\*\*\*) denotes significance at 1 percent

**Table A2**  
**Results of Hausman Tests**

|        |               |                  | Difference | SE     |
|--------|---------------|------------------|------------|--------|
| Male   | All           | personal to work | -0.0587*   | 0.0132 |
|        | Canadian Born | personal to work | -0.1293*   | 0.0469 |
|        | Immigrant     | personal to work | -0.0575*   | 0.0148 |
|        | South Asian   | personal to work | -0.4406*   | 0.0828 |
| Female | All           | personal to work | -0.0516*   | 0.0196 |
|        | Canadian Born | personal to work | -0.0215    | 0.0516 |
|        | Immigrant     | personal to work | -0.0893*   | 0.0219 |
|        | South Asian   | personal to work | -0.3218*   | 0.0874 |

Notes:

The differences are computed using the coefficients found in Tables 2 and 3.

(\*) denotes statistical significance at 5 percent

**Table A3 (Part 1 of 3)**  
**Selected Coefficients: Ethnicity and Immigration, All Residents**

|  | Male                 |                     |                     | Female               |                      |                      |
|--|----------------------|---------------------|---------------------|----------------------|----------------------|----------------------|
|  | Origin/Img           | Personal            | Work                | Origin/Img           | Personal             | Work                 |
| <b>European</b>                              | 0.113 <sup>0</sup>   | -0.003              | 0.005               | 0.123 <sup>0</sup>   | 0.014                | 0.017*               |
|  | -0.007               | -0.007              | -0.006              | -0.009               | -0.009               | -0.007               |
| <b>African/Caribbean</b>                     | -0.208 <sup>0</sup>  | -0.220 <sup>0</sup> | -0.137 <sup>0</sup> | 0.111 <sup>0</sup>   | 0.023                | 0.011                |
|  | -0.023               | -0.022              | -0.019              | -0.022               | -0.022               | -0.018               |
| <b>Arab</b>                                  | -0.009               | -0.107 <sup>0</sup> | -0.049*             | 0.006                | -0.102*              | -0.037               |
|  | -0.032               | -0.030              | -0.024              | -0.048               | -0.047               | -0.038               |
| <b>West Asian</b>                            | -0.022               | -0.147 <sup>0</sup> | -0.109 <sup>0</sup> | 0.107*               | -0.048               | -0.036               |
|  | -0.040               | -0.038              | -0.032              | -0.052               | -0.052               | -0.040               |
| <b>South Asian</b>                           | 0.031                | -0.115 <sup>0</sup> | -0.073 <sup>0</sup> | 0.111 <sup>0</sup>   | -0.043               | -0.057*              |
|  | -0.024               | -0.023              | -0.019              | -0.032               | -0.031               | -0.026               |
| <b>Other Asian</b>                           | -0.084 <sup>0</sup>  | -0.222 <sup>0</sup> | -0.156 <sup>0</sup> | 0.156 <sup>0</sup>   | 0.003                | -0.025               |
|  | -0.015               | -0.014              | -0.012              | -0.017               | -0.017               | -0.013               |
| <b>American/New Zealander/Australian</b>     | 0.126*               | -0.019              | 0.032               | 0.152*               | 0.076                | 0.108*               |
|  | -0.064               | -0.060              | -0.055              | -0.069               | -0.065               | -0.051               |
| <b>Aboriginals</b>                           | -0.489 <sup>0</sup>  | -0.392 <sup>0</sup> | -0.209 <sup>0</sup> | -0.224 <sup>0</sup>  | -0.097 <sup>0</sup>  | -0.082 <sup>0</sup>  |
|  | -0.027               | -0.026              | -0.022              | -0.028               | -0.027               | -0.021               |
| <b>Latin/South Americans</b>                 | -0.202 <sup>0</sup>  | -0.204 <sup>0</sup> | -0.122 <sup>0</sup> | -0.195 <sup>0</sup>  | -0.216 <sup>0</sup>  | -0.160 <sup>0</sup>  |
|  | -0.034               | -0.032              | -0.027              | -0.050               | -0.049               | -0.044               |
| <b>Multi: including Can, British, French</b> | 0.108 <sup>0</sup>   | -0.006              | 0.005               | 0.093 <sup>0</sup>   | -0.029 <sup>0</sup>  | -0.003               |
|  | -0.007               | -0.006              | -0.005              | -0.008               | -0.008               | -0.006               |
| <b>Multi: excluding Can, British, French</b> | 0.035**              | -0.059 <sup>0</sup> | -0.024 <sup>0</sup> | 0.055 <sup>0</sup>   | -0.048 <sup>0</sup>  | -0.008               |
|  | -0.011               | -0.010              | -0.009              | -0.013               | -0.013               | -0.010               |
| <b>Immigrant</b>                             | -0.435 <sup>0</sup>  | -0.061**            | -0.039*             | -0.567 <sup>0</sup>  | -0.210 <sup>0</sup>  | -0.111 <sup>0</sup>  |
|  | -0.017               | -0.019              | -0.016              | -0.021               | -0.023               | -0.018               |
| <b>Yrs Since Img.</b>                        | 0.033 <sup>0</sup>   | -0.001              | 0.000               | 0.044 <sup>0</sup>   | 0.015 <sup>0</sup>   | 0.007 <sup>0</sup>   |
|  | -0.001               | -0.002              | -0.001              | -0.002               | -0.002               | -0.001               |
| <b>Yrs Since Img. Squared</b>                | -0.0004 <sup>0</sup> | 0.000               | 0.000               | -0.0006 <sup>0</sup> | -0.0003 <sup>0</sup> | -0.0002 <sup>0</sup> |
|  | 0.000                | 0.000               | 0.000               | 0.000                | 0.000                | 0.000                |

Note: Restrictions are the same as in Table 2 with the exception that (\*\*\*) has been replaced with (<sup>0</sup>).

**Table A3 (Part 2 of 3)**  
**Selected Coefficients: Ethnicity and Immigration, Canadian-born**

|  | Male                |                     |                    | Female              |                     |                     |
|--|---------------------|---------------------|--------------------|---------------------|---------------------|---------------------|
|  | Origin              | Personal            | Work               | Origin              | Personal            | Work                |
| <b>European</b>                              | 0.124 <sup>0</sup>  | -0.007              | 0.000              | 0.139 <sup>0</sup>  | 0.012               | 0.018**             |
|  | -0.007              | -0.007              | -0.006             | -0.009              | -0.009              | -0.007              |
| <b>African/Caribbean</b>                     | -0.422 <sup>0</sup> | -0.219 <sup>0</sup> | -0.083*            | 0.012               | -0.038              | -0.059              |
|  | -0.061              | -0.052              | -0.042             | -0.054              | -0.051              | -0.044              |
| <b>Arab</b>                                  | -0.052              | -0.028              | -0.015             | -0.322*             | -0.342*             | -0.262*             |
|  | -0.095              | -0.074              | -0.062             | -0.146              | -0.144              | -0.125              |
| <b>West Asian</b>                            | -0.076              | -0.052              | -0.058             | 0.024               | -0.065              | -0.100              |
|  | -0.174              | -0.153              | -0.123             | -0.194              | -0.175              | -0.110              |
| <b>South Asian</b>                           | -0.341 <sup>0</sup> | -0.213*             | -0.091             | 0.068               | -0.048              | -0.004              |
|  | -0.098              | -0.083              | -0.067             | -0.109              | -0.097              | -0.072              |
| <b>Other Asian</b>                           | -0.008              | -0.079*             | -0.023             | 0.291 <sup>0</sup>  | 0.094*              | 0.026               |
|  | -0.037              | -0.031              | -0.024             | -0.041              | -0.039              | -0.029              |
| <b>American/New Zealander/Australian</b>     | 0.139               | 0.007               | 0.033              | 0.302*              | 0.223*              | 0.102               |
|  | -0.099              | -0.089              | -0.072             | -0.124              | -0.105              | -0.078              |
| <b>Aboriginals</b>                           | -0.484 <sup>0</sup> | -0.385 <sup>0</sup> | -0.20 <sup>0</sup> | -0.225 <sup>0</sup> | -0.084 <sup>0</sup> | -0.073 <sup>0</sup> |
|  | -0.028              | -0.027              | -0.023             | -0.028              | -0.027              | -0.022              |
| <b>Latin/South Americans</b>                 | -0.53**             | -0.281              | -0.164             | -0.141              | -0.076              | 0.021               |
|  | -0.177              | -0.147              | -0.101             | -0.166              | -0.141              | -0.118              |
| <b>Multi: including Can, British, French</b> | 0.105 <sup>0</sup>  | -0.006              | 0.006              | 0.091 <sup>0</sup>  | -0.034 <sup>0</sup> | -0.003              |
|  | -0.007              | -0.006              | -0.005             | -0.008              | -0.008              | -0.006              |
| <b>Multi: excluding Can, British, French</b> | 0.027*              | -0.045 <sup>0</sup> | -0.016             | 0.020               | -0.059 <sup>0</sup> | -0.010              |
|  | -0.012              | -0.011              | -0.009             | -0.014              | -0.014              | -0.010              |

Note: Restrictions are the same as in Table 2 with the exception that (\*\*\*) has been replaced with (<sup>0</sup>).

**Table A3 (Part 3 of 3)**  
**Selected Coefficients: Ethnicity and Immigration, Immigrants**

|  | Male                 |                      |                      | Female               |                      |                      |
|--|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
|  | Origin/Img           | Personal             | Work                 | Origin/Img           | Personal             | Work                 |
| <b>European</b>                              | 0.181**              | 0.116*               | 0.092*               | 0.095                | 0.057                | -0.039               |
|  | -0.0579              | -0.055               | -0.043               | -0.072               | -0.070               | -0.051               |
| <b>African/Caribbean</b>                     | -0.079               | -0.111               | -0.059               | 0.144                | 0.085                | -0.012               |
|  | -0.061               | -0.058               | -0.047               | -0.0746              | -0.0728              | -0.0528              |
| <b>Arab</b>                                  | 0.101                | 0.011                | 0.045                | 0.076                | 0.006                | -0.037               |
|  | -0.065               | -0.062               | -0.049               | -0.086               | -0.085               | -0.063               |
| <b>West Asian</b>                            | 0.064                | -0.049               | -0.034               | 0.133                | 0.027                | -0.069               |
|  | -0.069               | -0.066               | -0.053               | -0.089               | -0.088               | -0.065               |
| <b>South Asian</b>                           | 0.157*               | 0.001                | 0.012                | 0.152                | 0.027                | -0.093               |
|  | -0.061               | -0.058               | -0.046               | -0.078               | -0.076               | -0.056               |
| <b>Other Asian</b>                           | 0.0007               | -0.117*              | -0.076               | 0.153*               | 0.065                | -0.055               |
|  | -0.059               | -0.056               | -0.044               | -0.073               | -0.071               | -0.052               |
| <b>American/New Zealander/Australian</b>     | 0.209*               | 0.076                | 0.104                | 0.118                | 0.069                | 0.032                |
|  | -0.101               | -0.096               | -0.087               | -0.108               | -0.103               | -0.079               |
| <b>Aboriginals</b>                           | -0.300               | -0.130               | -0.225               | -0.246               | -0.109               | -0.297*              |
|  | -0.177               | -0.144               | -0.118               | -0.216               | -0.21                | -0.128               |
| <b>Latin/South Americans</b>                 | -0.0816              | -0.076               | -0.028               | -0.181*              | -0.170*              | -0.211**             |
|  | -0.0662              | -0.063               | -0.051               | -0.088               | -0.086               | -0.066               |
| <b>Multi: including Can, British, French</b> | 0.246 <sup>0</sup>   | 0.122*               | 0.097*               | 0.148*               | 0.029                | -0.057               |
|  | -0.0596              | -0.056               | -0.045               | -0.075               | -0.072               | -0.052               |
| <b>Multi: excluding Can, British, French</b> | 0.160**              | 0.024                | 0.048                | 0.182*               | 0.049                | -0.037               |
|  | -0.0602              | -0.057               | -0.045               | -0.075               | -0.073               | -0.053               |
| <b>Yrs Since Img.</b>                        | 0.034 <sup>0</sup>   | 0.021 <sup>0</sup>   | 0.013 <sup>0</sup>   | 0.044 <sup>0</sup>   | 0.034 <sup>0</sup>   | 0.019 <sup>0</sup>   |
|  | -0.001               | -0.002               | -0.002               | -0.0018              | -0.0023              | -0.00178             |
| <b>Yrs Since Img. Squared</b>                | -0.0004 <sup>0</sup> | -0.0002 <sup>0</sup> | -0.0002 <sup>0</sup> | -0.0006 <sup>0</sup> | -0.0004 <sup>0</sup> | -0.0002 <sup>0</sup> |
|  | -3E-05               | -4E-05               | -0.00003             | -4E-05               | -5E-05               | -0.00003             |

Note: Restrictions are the same as in Table 2 with the exception that (\*\*\*) has been replaced with (<sup>0</sup>).



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