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Working Paper

Javier Torres*

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Abstract

Proficiency in the host-country language is one of the most important assimilation dimensions for immigrants. This paper analyzes changes in the English proficiency of recent immigrants to Canada using a panel data of four years. Probit and ordered probit estimations show how specific characteristics relate to language proficiency improvement or decline. I use speaking abilities as an overall indicator of language proficiency and separate the sample according to immigrants' initial level: basic, intermediate or advanced. Overall, immigrants show relatively small improvements in language proficiency in the first four years. Still, those arriving under the family immigrant category with an intermediate or advanced level are less likely to improve and more likely to decrease their English proficiency. These results suggest that newcomers in this category experience a particularly different environment in the host country. The effect is not statistically robust for immigrants with a basic knowledge of English.

JEL Classification: F22, J15

Keywords: Migration, Language Acquisition, Immigrant Assimilation.

*PhD Student, Department of Economics, University of British Columbia (Email: jtorres@interchange.ubc.ca). Financial support from the Canadian Labour Market and Skills Researcher Network (CLSRN) is gratefully acknowledge.

Introduction

Proficiency in the host-country language is an important dimension of immigrant assimilation. It defines the extent of their interactions with the new environment and determines the optimal use of their skills (e.g., the access to medical services and employment opportunities). For Canada, newcomers language proficiency in English or French is of paramount importance as 20% of the total population is foreign-born and every year around a quarter of a million immigrants are accepted as permanent residents. According to Citizenship and Canada (2009), over the last decade about 37% of accepted permanent residents spoke neither of the official languages. The proportion of non-speakers has declined over time (48% in 2000 to 29% in 2009), but the cumulative effect might have a significant impact on language assimilation for present and future newcomers.

Most of the literature on language assimilation focuses on the effects of host-country language proficiency on earnings. These studies commonly find a positive and statistically significant relation between language proficiency and earnings.¹ Naturally, those able to communicate proficiently in the host-country language will have a better chance to use their skills efficiently.

The limited research on the determinants of host-country language proficiency mainly uses a cross section perspective, focusing on the characteristics of language proficient migrants. Few papers examine the particular determinants of language improvement. The more robust results of these cross-section analyses indicate that language proficiency is positively related to education and time spent in the host country. For instance, Dustmann (1994) uses the German Socio-Economic survey of 1984 to analyze immigrants from Italy, Spain, Yugoslavia, Turkey and Greece who legally arrive in Germany after 1956. He uses an ordered probit to show that older migrants have a lower probability of achieving high language proficiency, that years of residence in the host-country improve speaking and writing fluency and that language proficiency is an important determinant of migrant earnings.

This literature has generated some interesting ideas. Chiswick and Miller (1995, 1996 and 2001) propose a human capital approach to identify the main factors that influence language proficiency, classifying the variables in broad categories: exposure, efficiency, economic incentives and wealth. They also put forward compelling hypotheses, e.g. linking immigrant's origin language to the degree of difficulty with regard to learning the host-country language (language distance). Chiswick and Miller (2001) apply this human capital model to male immigrants using the 1991 Canadian census. The authors argue that the use of English (or French) increases with years of residence and relates positively to education. They also find that proficiency is greater the younger the age at migration and the linguistically closer the mother tongue is to English (or French).

Dustmann (1999) develops a model of human capital investment linking it to the expected duration of the migration. He examines the relationship between immigrants' language proficiency and their duration in the host country (years already spent plus expected years). He studies male immigrants arriving between 1955 and 1973, using the first wave of the German Socio-Economic Panel. Based on simultaneous equations estimation, he finds evidence that immigrants who stay longer are significantly more likely to speak German well or very well.

Concurrently, Lazear (1999) presents a culture acquisition model in which he argues that the size of ethnic enclaves is negatively related to the rate at which immigrants learn the host-country culture. His empirical

¹A literature review list should include but not be limited to Carliner (1981), Grenier (1984), Rivera-Batiz (1990), Chiswick (1991), Dustmann (1994) and Chiswick and Miller (1995 and 2002)

analysis of the 1900 and 1990 U.S. censuses as well as Chiswick and Miller analysis of Australia (1996) and the U.S. (2002) appear to corroborate this proposition. However, these studies may reflect self-selection on the part of immigrants. Investigating the migration history (most of it illegal) of 7,000 households in 52 Mexican communities, Bauer, Epstein and Gang (2005) find that migrants with a high level of English proficiency choose to reside in small ethnic enclaves, while those with a low level of English proficiency choose to reside in large ethnic enclaves.

Among the studies that directly investigate changes in host-country language proficiency, Chiswick (1991) and Hou and Beiser (2006) are of particular interest. Chiswick (1991) uses data from a survey of over 800 apprehended illegal immigrants in the U.S. (from October 1986 to October 1987) that retrospectively self-assesses their present and past language skills. He shows that both speaking and reading skills improve with duration of residence and more so for people with high levels of education. Hou and Beiser (2006) utilize the three surveys of the Refugee Resettlement Project (RRP) of Canada, a decade-long longitudinal study, and concluded that the major language improvements occurred in the first years.² Initial education and age at arrival are statistically important in the first years. For language assimilation in the long run they put emphasis on Canadian education and employment in Canada. However, the visibly endogeneity of these last variables coupled with the limited number of observations (1,349 initially) and large attrition (only 647 observations by the third survey) hinders the validity of the study.³

This study takes advantage of a longitudinal data set to examine the characteristics of immigrants who change their English proficiency upon arrival in Canada.⁴ I employ the three waves of the Longitudinal Survey of Immigrants to Canada (LSIC) which follows newcomers during their first four years. I categorize newcomers' initial English proficiency in three groups (basic, intermediate and advanced) and evaluate the probability they would raise or lower their language proficiency between the first and third (last) interview of the survey. I relate this change in language proficiency to human capital variables, such as education and age; and put emphasis on the effect of immigration categories arguing that they could reflect either inherent non-observable characteristics or specific environments that may hinder English proficiency improvement.

After controlling for demographic characteristics, family characteristics and ethnic interactions (new friends and co-workers of the same ethnicity), I find that though the level of English proficiency does not substantially change during the first four years, people arriving as family immigrants with an intermediate or advanced level have a lower probability of improving their proficiency, and a higher probability of losing it. The effect is null, however, for immigrants arriving with a basic level of English Proficiency. Among demographic variables, age and education show robustly consistent and significant coefficients. Younger and more educated immigrants are more likely to improve their English proficiency upon arrival and less likely to lose it.

²The Refugee Resettlement Project (RRP) interviewed 1,349 Southeast Asian Refugees in and nearby Vancouver in 1981. Two follow up interviews were done. One in 1983 and the other in 1991; being able to locate 1,169 and 647 members of the original sample, respectively.

³Dustmann and Van Soest (2001, 2002) studies should also be mentioned. They use a panel data of immigrants based on seven waves of the German Socio-Economic Panel from 1984 to 1993. They employ the panel to circumvent potential problems relating to unobserved heterogeneity and measurement error in language proficiency. Though the main contribution of both papers hinges on a better estimation of the effect of language proficiency on earnings, a section in both is dedicated to evaluate the determinants of language proficiency.

⁴Other studies have taken advantage of the Longitudinal Survey of Immigrants to Canada (LSIC). Of particular interest is the one from Aydemir (2009) who uses the exogenous assignment of refugees over the metropolitan areas of Canada to assess the effects of ethnic concentration in a given Forward Sortation Area (FSA) on human capital investments such as language classes and job-related training. He finds that ethnic concentration fosters investment in language and job related training.

Longitudinal Survey of Immigrants to Canada (LSIC)

The LSIC was conducted by Statistics Canada and Citizenship and Immigration Canada (CIC) on immigrants arriving between October 1st, 2000 and September 30th, 2001. The newcomers were interviewed three times: 6 months, 24 months and 48 months after arrival. Only immigrants who applied from outside the country and were 15 years old or older at the time of arrival were followed; even then only those who responded to the first wave were traced for the second, and only those who responded to the second wave were traced for the third.⁵ The numbers of observations per wave are 12040, 9322 and 7716, respectively.⁶

Survey interviews were conducted face-to-face or by phone in one of 15 languages (including English and French) chosen by Statistics Canada to include about 93% of newcomers.⁷ Phone interviews were conducted *when a face-to-face interview was not possible* (LSIC microdata user guide, pg.37) and interviews lasted between 65 and 90 minutes.

The LSIC provides information on a variety of immigrant characteristics, including demographics (sex, age, country of origin, etc.), education, employment, social networks and language proficiency.⁸ The section on language proficiency is of particular interest. It includes 6 self-assessed questions addressing the ability to speak, write and read in the official languages (3 for English and 3 for French), each having five possible answers: fairly well, well, intermediate, bad and not at all. The question on speaking proficiency is the primary focus of the study. Nevertheless, the LSIC has 10 additional questions (5 for English and 5 for French) addressing how easy it is for immigrants to communicate during the course of day-to-day activities; such as telling their address, indicating their occupation before arriving, understanding a message over the phone, speaking with a doctor and re-scheduling an appointment. Each question has four possible answers: easy, with some help, with a lot of help and can not do it.

The study focuses on immigrants between 25 and 55 years old living in English Canada, whose mother tongue is not English and were admitted under one of three immigration categories: Skilled Immigrant - Principal Applicant, Skilled Immigrant - Spouse and Dependant, and Family Immigrants (Spouse, fiancé, sons, daughters, parents, grandparents and others).⁹ The age range chosen reflects the intent to have groups with relatively similar number of observations across ages. Analysis of the full LSIC sample shows that family immigrants have a disproportional presence after the age of 55, while skilled workers (Principal Applicants) represent a relatively small proportion of those below 25 (see table 1). From 25 to 55 the selected immigrant categories have a more even distribution, and the restriction eliminates a relatively minor share of the newcomers. Only 23% of the whole database is younger than 25 or older than 55. The categories selected represent the majority of immigrants to Canada (according to CIC 81% of all permanent residents accepted in 2001 belong to these categories).

My focus on English Canada is based on the higher number of observations available and the low levels

⁵In an study of the health evolution of recent immigrants to Canada Fuller-Thomson, Noack and George (2011) state that about half of the immigrants who did not complete the second or third LSIC survey were contacted but did not or could not complete the interview.

⁶Concerns about attrition problems are minimized as previous research has not found an important selection process between the waves. For instance, comparing sampled vs lost observations Fuller-Thomson, Noack and George (2011) find no mark difference in age, gender, immigration class or place of birth.

⁷The 15 languages are: English, French, Punjabi, Spanish, Arabic, Tagalog, Tamil, Cantonese, Mandarin, Farsi, Russian, Urdu, Korean, Serbo-Croatian and Gujarati

⁸The LSIC also contains information on foreign credentials, health, income and perception of settlement.

⁹This group can also incorporate brothers or sisters, nephews or nieces, granddaughters or grandsons as long as they are orphaned, under 18 years of age and not married or in a common-law relationship.

of bilingualism.¹⁰ Most immigrants to French Canada reside in Montreal, a city with a large bilingual population.¹¹ One could claim that learning French in Montreal differs significantly from learning it elsewhere in Quebec or learning English in provinces other than Quebec. Only a small number of observations would remain if Montreal were excluded from French Canada. In the end, all immigrants to Quebec were eliminated from the sample.¹² The final number of observations totaled 3346.¹³

The other two important immigrant groups represented in the LSIC, though with a smaller number of observations, are Business Immigrants and Refugees. The distinctive characteristics of these groups make it difficult to compare them to the selected sample. Table 2 shows that the average business immigrant accrued savings for more than \$ 93,000 (Cdn.) six months after arrival, five times more than skilled workers (Principal Applicants) and around twelve times more than family immigrants. It is fair to say that a substantial level of wealth would change the influence key variables (such as education and age) have on the language assimilation process. Incorporating savings as a control variable may not be sufficient to disentangle the non-linearities as no other immigrant category resides in their financial neighbourhood.

The same reasoning applies to government refugees. The amount of savings they have six months after immigrating is minimal (C\$ 240). About 70% of them receive social assistance in those six months (see table 3); at least ten times more than skilled workers and family immigrants. The amount of assistance received is also greater for refugees (\$ 7,731 versus less than \$ 4,000 for skilled workers and family immigrants recipients). Aydemir (2009) explains that most refugees are eligible for federal income support and training in their first year and for provincial support later on provided they search for work or take classes.¹⁴

In addition to the LSIC, information from the 20% sample of the 2001 Canadian census is used to construct a measure of the importance of the ethnic community in each CMA/CA. Specifically, I calculate the number of immigrants from a particular country of origin as a fraction of the total population in a given CMA/CA. The exception are Spanish speaking countries (namely Latin America and Spain), which I cluster into a single region given their common language and culture. Although crude, this metric facilitates understanding the correlation between the presence of an ethnic community and improvement in language proficiency.¹⁵

Requirements for Becoming a Landed Immigrant: Family Immigrant vs Skilled Worker

The foreign born face different requirements for obtaining landed immigrant status according to their category of immigration. Some are required to invest in the country, others to demonstrate desirable professional skills, while others might be accepted if facing persecution (on account of race, religion, nationality or political opinion). These requirements follow Canada's immigration policy components: a social component, a humanitarian component and an economic component (see Young (1998)). This study focuses on the social

¹⁰In addition, immigrants to Quebec follow the Quebec-immigration rules that emphasize initial French proficiency and abilities to assimilate into the "Quebec culture".

¹¹Statistics Canada reports that in 2001 the share of the population in Montreal who spoke only French at home was 62.4% while the share who spoke English (either alone or in combination with other languages) was 24.3%. In Toronto and Vancouver the share of population who spoke only English was 62.5% and 65.3% respectively. However, the share who spoke French (either alone or in combination with other languages) in each of these cities was less than 1.5%.

¹²The few immigrants who move out or move into Quebec are also eliminated from the sample.

¹³Additional minor restrictions regarding non-missing values for key variables were included. For instance, people claiming to be working but who didn't have an answer for the ethnicity of their co-workers were eliminated.

¹⁴There is another category in the LSIC, Provincial Nominees. However the Provincial Nominee program was fairly new at the time of the LSIC first wave. The number of immigrants in this category is negligible.

¹⁵A similar measure is constructed by Dustmann and Fabbri (2003) in their study of language fluency of non-white immigrants in the UK and its effect on earnings and employment.

and economic components as the humanitarian component pertains to the acceptance of refugees.

The social component relates to the reunification of Canadian citizens and permanent residents with their closest relatives. Under the immigration rules in place when LSIC immigrants applied, sponsors of family immigrants must be at least 19 years old and be Canadians or permanent residents.¹⁶ They must be able and commit themselves to provide financial support for their relatives for a ten-year period.¹⁷ This financial condition was not required when sponsoring a spouse or children younger than 19 years of age, single and without children of their own.

Family immigrants must have a close relationship with the sponsor. For instance, they can be a spouse (in a heterosexual marriage) or a fiancé, children 19 years old or younger, children older than 19 but dependent on their parents, children under 19 intended for adoption, parents or grandparents. They can also be brothers, sisters, nephews, nieces or grandchildren provided they are single, under 19 years of age and orphaned.¹⁸ Family immigrants have to meet the criteria relating to health and good character, but they don't have to meet any other criteria, such as education level, language fluency or employment skills.

The economic component of immigration policy is designed to foster the development of Canada by selecting immigrants based on their capacity to invest or create jobs, or on their occupational skills.¹⁹ The first two refer to the investor and entrepreneur categories (grouped under the title business immigrants), while the third refers to the skilled worker category. Again, I shall focus only on the last category.

A nine-factor points system was used to evaluate skilled workers. The system assigns points by age, education, vocational preparation, experience, occupational demand, arranged employment, knowledge of English or French, demography, personal suitability and a demographic control factor.²⁰ Applicants required 70 points to be considered but the presence of a relative in the country reduces the threshold by 5 points. Spouse and dependants accompanying applicants were admitted without being evaluated.

Once we condition for observable factors (such as age, gender, education, initial level of language fluency among others), improvements in English fluency upon arrival by immigration categories indicate either different environments and incentives for language assimilation or different unobservable abilities to improve language fluency. Neither family immigrants nor companions of skilled workers were required to pass an evaluation to enter Canada (besides health and good character considerations). They are both close family dependants and, given our sample age restriction, of a working age.²¹ The comparison between family immigrants and skilled worker applicants is less straightforward. Skilled worker applicants were individually evaluated. Only to the extent that control variables capture unobservable abilities can it be argued that the different language assimilation pattern is due to different incentives.

¹⁶All of the immigrants interviewed by the LSIC were accepted under the 1976 Immigration Act. In 2002 a new set of rules for accepting immigrants was implemented under the Immigrant and Refugee Protection Act.

¹⁷Sponsors should meet Statistics Canada Low Income Cut-Off (LICO) one year prior to the application and sign, together with their relatives, an agreement concerning their financial obligations

¹⁸If The sponsor is alone in Canada and has none of the relatives mentioned, he or she can sponsored any relative.

¹⁹Green and Green (1999) describe the economic goals of Canada's immigration policy from 1870 to 1997. Ferrer, Picot and Riddell (2012) assess the evolution of Canada's immigration policy; particularly since the introduction of the points system (late 1960s) up to late 2000s.

²⁰The demographic control factor was not based on the applicant's characteristics but on the level of immigrants accepted every year.

²¹The age restriction addresses the main distinction when thinking about family immigrants; namely that they are considerably older than the rest.

Describing My Sample

Table 4 presents the descriptive statistics of the selected sample. Average, standard deviations and fractions are calculated using the survey weights of the LSIC, as required by the Research Data Center information release policy.²² The table shows groupings by immigration category, CMA/CA of residence and country of origin.

Regarding immigration categories, we see that about 82% of immigrants in the sample are skilled workers (counting principal applicants as well as spouses and dependants). According to CIC statistics the ratio of skilled workers to family immigrants is close to 2 to 1. This is owing to the imposed age restrictions. The family immigrant category has a significant presence in less than 25 and more than 55 age range for newcomers. The focus on migrants between 25 and 55 distorts the initial distribution.

Immigrants also cluster geographically. Vancouver and Toronto received about three quarters of the sampled immigrants. The distribution is similar to the one observed by the 2001 Canadian Census. According to it, between 1991 and 2001 of all foreign-born arrivals living in English Canada, around 50% resided in Toronto and 20% in Vancouver. Moreover, few countries dominate the immigration inflow. In the sample China, India and the Philippines provide more than half of all immigrants. The 2001 census shows that these three countries were the main source of immigrants for the 1991 to 2001 period.

A curious fact to keep in mind is that 31% to 50% of the interviews were conducted by phone (31% in wave 1, 50% in wave 2 and 40% in wave 3).²³ Thus, misclassifying one's English speaking proficiency might have proved difficult, even in the context of a self-reported question.

Dustmann and Van Soest (2001, 2002) argue that self-reported language proficiency is likely to suffer from misclassification errors. It is suspected that undervaluation occurs at the top and overvaluation at the bottom.²⁴ I address these concerns by grouping the responses into three categories: basic, intermediate and advanced English proficiency. The basic category has the two lowest levels of proficiency and the advanced category the two highest. I do this for the speaking, writing and reading proficiency questions.²⁵ This approach will not overcome language proficiency misclassifications but it could minimize them.

Only about one fifth of immigrants grouped in the basic speaking category decided to have the first interview in English (see table 5). For immigrants in the advanced category the opposite is true; 79% chose to have the first interview in English. Immigrants in the intermediate category were split 40% and 60% between English and not English. The distribution is similar for all the waves and supports the validity of the broad grouping of self-reported proficiency. Immigrants with low English proficiency would not be able to give an interview in English (particularly if conducted over the phone), while immigrants with high proficiency would.

The evolution of language proficiency over the years presents a common pattern (see table 6). The majority of immigrants start with an advanced level of English proficiency. With the exception of speaking proficiency, more than 70% claim to have advanced English proficiency (65% in speaking, 78% in reading and 72% in writing). The proportion of those with basic or intermediate proficiency declines between the first and the second interview. The changes between the second and third waves are small, suggesting that

²²Maximum and minimum values are prohibited to be released.

²³The distribution is similar to the one observed for the whole survey: 32%, around 50% and 37% - LSIC microdata user guide, pg.35.

²⁴It should be noted that Dustmann and Van Soest focus is on presenting a methodology to overcome inference problems when using language ability as an explanatory variable.

²⁵A similar procedure is done by Dustmann (1994, pg. 136).

immigrants decide (or not) to adapt to the new dominant language soon after arrival. In the last interview between 74% and 82% of immigrants claim to have advanced English proficiency.

The alternative five measures show the same trend and have even higher proportions of those claiming English proficiency by the third wave. The responses to some of the additional questions would imply a very high level of English proficiency. For instance, providing home addresses and describing past occupations is easily done by 92% and 81% of immigrants. Such high numbers likely don't reflect the fluency of newcomers but the straightforwardness of the questions.

When transition matrixes are constructed, immigrants exhibit minor transitions from the higher proficiency categories to the lower ones (see table 7). At most 10% of those in the advanced category in the first interview report having an intermediate or basic proficiency in the second interview, regardless of the fluency metric. With regard to speaking, writing and reading, people improving from a basic category spread almost evenly across the intermediate and advanced categories.

English proficiency improvement (and decline) from the first to the second interview is very similar to the cumulative change from the first to the third interview, which was conducted around four years after arrival. It appears that most of the language proficiency improvement occurs in the first years.²⁶ The alternative proficiency measures show a similar trend (see table 8).

Econometric Considerations

The lack of adequate data on host-country language proficiency has precluded the development of a standard way to approach the subject. The most common and intuitive methodology involves the use of an ordered probit model. Dustmann (1994, pg. 139) presents a detailed application of the ordered probit model to language proficiency. The maximum likelihood estimation of a non-linear model with 3 possible levels (basic, intermediate and advanced) seems suitable to estimate language proficiency. Yet, the use of cross-section data casts doubts on the interpretation of the results. Instead of determinants of host-country language proficiency one may be describing the characteristics of those currently fluent. Moreover, importantly for this study, the variables related to life long host-country language proficiency may not be the same as those related to improvement upon arrival (nor have the same importance).

The LSIC allows for a direct measurement of English proficiency improvement. Linking the change in English proficiency from the first to the third wave to the initial characteristics of immigrants would identify the key variables for improvement. Still, there are features of the proposed approach that need to be considered. A linear set up helps present the possible endogeneity problems. Assume that the latent variable, language proficiency (y_{it}), is fully measurable and can be represented as a linear combination of variables. X_i incorporates constant individual characteristics (such as education, age, gender, etc), immigration categories (e.g., family immigrants, skilled workers - S and F, etc.) and ethnic network characteristics (e.g., the initial number of co-workers of the same ethnicity). Consider an individual factor ρ_i reflecting unobserved constant language abilities and a time-variant individual factor μ_{it} representing changing language abilities. We can then represent language proficiency as:

$$y_{it} = \alpha_t + X_i\beta_t + \rho_i + \mu_{it} + \varepsilon_{it}$$

²⁶The short span of the panel prevents the evaluation of other moments of English fluency improvements later in the life of immigrants.

Where ε_{it} is a normal distributed error. The fact that the coefficients associated with individual characteristics change over time (β_t) indicates that a particular variable may have a different effect over the years. The coefficients of some variables may be close to zero at the time of arrival but become important years later. Now, if we take the difference between an initial and a final level of language proficiency, assuming a panel of three periods, we would drop the time-invariant individual language ability ρ_i and get:

$$\begin{aligned} y_{i3} - y_{i1} &= \alpha_3 - \alpha_1 + X_i(\beta_3 - \beta_1) + (\mu_{i3} - \mu_{i1}) + (\varepsilon_{i3} - \varepsilon_{i1}) \\ \Delta y_i &= \Delta\alpha + X_i(\Delta\beta) + \xi_i \\ \tilde{y}_i &= \tilde{\alpha} + X_i\tilde{\beta} + \xi_i \end{aligned}$$

where ξ_i is equal to $\mu_{i3} - \mu_{i1} + \varepsilon_{ig3} - \varepsilon_{ig1}$. If we assume that μ_{it} and ε_{it} are independent across individuals then the covariance of the errors across observations ($cov(\xi_i, \xi_j)$) should be negligible. Nevertheless, the covariance between the new error term and the independent variables X_i might not be zero. The time-variant individual factors (μ_{it}) might linger on the difference equation and relate to some of the regressors. For example, the ethnic network (co-workers and friends of the same ethnicity and the size of the ethnic community) could have been deliberately chosen based on the present and future individual language abilities (ρ_i, μ_{i1} and μ_{i3}). In that case, by construction, ξ_i would be related to the ethnic network part of X_i . The problem needs to be kept in mind since it could render the results descriptive in nature. Only if the variable studied has no relation with the difference of the time-variant individual factors can exogeneity be argued.

The problem becomes more complex once we take into consideration that language proficiency is not easily measurable and that the initial level of proficiency may influence the cost of improvement. That is, improvements at the initial stages might be easier than improvements at intermediate or advanced levels.

In considering these possible problems, I use two types of maximum likelihood estimations. The first is a simple probit model (shown together with a linear probability model), where the dependent variable is an indicator of language improvement, one if the immigrant's language proficiency at wave 3 is higher than the language proficiency at wave 1 and zero otherwise. Clearly this estimation is not applicable to immigrants with high English proficiency in their first wave as the indicator would always be zero. Because improvements from a basic English level could be more likely than improvements from an intermediate level, I separate immigrants accordingly to their initial language proficiency. I estimate one probit for immigrants with basic English proficiency and another for those with intermediate proficiency. I also estimate a probit model for losing language proficiency, where the dependent variable is one if the language proficiency at wave 3 is lower than the language proficiency at wave 1 (zero otherwise). Again, I exclude immigrants with an initial basic English level and run separate estimations for those with advanced and intermediate English proficiency. The second model is an ordered probit where I continue separating the samples according to the initial language proficiency or including the initial level as a dummy.

There are 4 categories of independent variables: demographics, type of immigration, family variables and choice variables. Demographics include age at the time of the first interview, gender and years of education. I include dummies for two immigration categories; i.e., skilled worker - spouse and dependant and family immigrants; making skilled worker - principal applicant the base category. Family variables incorporate the number of members in a household, a dummy if the immigrant is married, a dummy if the declared address in the first wave is near to an English as a Second Language Assessment Center, and savings in Canadian

dollars declared in the first interview.²⁷ The choice variables have one set of dummies describing ethnic friendships, another set representing the proportion of co-workers from the same ethnicity and a calculation of the portion of all the people having same ethnicity in a given metropolitan area (CMA/CA). Specifically, I include 3 dummies representing developed friendships upon arrival, one for new friendships with few or no friends of the same ethnicity, one for friendships with half of new friends of the same ethnicity and one for most or all of those new friends of the same ethnicity (the base case are migrants without new friends). I also have 3 dummies representing ethnic co-workers at wave 1: one for few or no co-workers of the same ethnicity, one for half of co-workers of the same ethnicity and one for most or all ethnic co-workers (the base case is not employed immigrants). In addition, I include a set of regions of origin and CMA/province dummies.²⁸ Appendix A provides a dictionary of variables.

I choose the speaking level as a measure of overall English proficiency. Though achieving a very basic speaking proficiency might be undemanding, intermediate and advanced levels are difficult to attain. Recall that a comparatively low proportion of immigrants is able to speak English at an advanced level. Only 65% claim to have advanced speaking proficiency upon arrival. Also, once the basic structures of English and a basic vocabulary are mastered reading is substantially simplified. Higher standards of writing can be achieved by people with intermediate proficiency when enough time is given. Verbal communication is telling. It requires on the spot fluency. Moreover, 60% or more of the interviews in the first and last waves were face-to-face, giving less opportunity to misclassify speaking fluency. The three measures have a positive and somewhat high correlation though (higher than 0.70).

My interest lies in investigating the effect of human capital variables as well as immigration categories on English speaking improvement from wave 1 to wave 3.

Results

Levels of English Proficiency

Table 9 presents an ordered probit of the level of speaking proficiency for the third wave of the surveys. The base specification has demographic variables, immigrant categories and family variables. The five specifications include information on the similarity of the ethnicity of co-workers or friends. The results show the characteristics of individuals with a high level of communication skills. Some demographic variables are quite significant. Young and educated immigrants tend to have a high level of English proficiency (gender doesn't seem to play a role). Immigrant categories are also quite relevant. Family immigrants and spouses or dependants of skilled workers have a lower level of English speaking proficiency, family immigrants being at the greatest disadvantage.²⁹ In contrast, family variables, such as marriage and household size, do not show robust significance through the specifications. Lastly, having few ethnic friends or co-workers workers (in the first six months after arrival) is associated with a higher level of speaking proficiency. This is likely a

²⁷In order to start classes in the English as a Second Language program the immigrant's proficiency has to be evaluated in an Assessment Center.

²⁸The regions included are: Central America, South America, The West (U.S., U.K., West Europe and Oceania), East Europe, South Europe, Africa, West and Central Asia, Eastern Asia, Southeast Asia and Southern Asia. The CMA/province list includes: Toronto, Vancouver, Calgary, Edmonton and Ottawa as CMAs; and groups the provinces by: rest of British Columbia, rest of Ontario; Manitoba, Saskatchewan and rest of Alberta in one group; and Newfoundland and Labrador, Prince Edward Island, Nova Scotia and New Brunswick in another.

²⁹Immigrant categories are incorporated as dummies hence the magnitudes of the change between categories is the same and the otherwise not comparable order probit coefficients can be compared.

self-selection driven result. Those with higher communication abilities would be able to have friends or work with others outside their own ethnic group. Just as well the sign and significance of the ethnic concentration variable indicate that those who live in metropolitan areas with a larger ethnic enclave have a lower speaking proficiency by the third wave. I replicate the analysis for reading and writing proficiency with similar results: age and education have the same sign and significance. Immigration categories also show the same correlation with language proficiency, and the coefficient of the family immigrant dummy was more negative than the spouses or dependants of skill workers in all cases (see tables 10 and 11). The main difference lies in the relation between ethnic acquaintances (friend and co-workers) and English proficiency, which is not robust for the new measures of communication skills.

Language Proficiency Improvement: Basic and Intermediate Levels

Separating the sample by the initial level of language proficiency allows for the identification of possible non-linearities in the explanatory variables. I find that for people with an initial basic level of language proficiency only age and education appear robustly significant. Consistent with human capital theory, younger and more educated immigrants are more likely to improve their English proficiency. The additional time that young age confers provides an incentive to improve upon the initial proficiency level. Likewise, educated immigrants have more to gain from improving their communication skills. It is curious that no other variable shows statistical robustness. Immigrant category dummies have a negative sign but weak significance, while the share of ethnic acquaintances (in and outside of work) show no significance.

Immigrants arriving with an intermediate level of English proficiency show again the importance of education and age for language improvement. For them, however, immigration categories also play a role. Immigrants arriving as spouses or dependants of skill workers or as family immigrants are less likely to improve their language proficiency than skilled workers. The result could be driven by the need skilled workers have to enter the Canadian labour market and the returns to English proficiency. Of the two immigrant categories, family immigrants seem to be the less likely to improve, suggesting that they may live in an environment that doesn't require much communication in English.

To get a better picture of the language assimilation process and gain degrees of freedom table 14 aggregates the samples of immigrants with basic and intermediate skills. The first three columns run linear probability models, the second three run probit models and the last three add a dummy for basic language proficiency at arrival. The results are consistent with the previous findings. Age and years of education are crucial factors in determining English proficiency improvement. Regarding immigrant categories, only family immigrant appear statistically relevant with a negative coefficient. It should be noted that for all these variables the size of the coefficients is similar to that found in previous tables.

The last three columns though show that immigrants with basic English on arrival are more likely to improve their language proficiency than immigrants arriving with an intermediate proficiency level. The result is consistent with an increasing marginal cost of improving language proficiency. Immigrants at lower proficiency levels would have less difficulty improving than immigrants at higher levels.

Decline in Language Proficiency: Intermediate and Advanced Levels

The probability of immigrants losing their English proficiency is also related to demographic variables and immigration categories regardless of the initial level of proficiency. For immigrants arriving with an

intermediate or advanced level of English proficiency education and age have the expected effect (see tables 15 and 16). The initial proficiency of older immigrants is more likely to decline by the third wave, while the opposite is true for educated immigrants. The results mirror those found in tables 12 and 13

Regarding immigrant categories one sees that newcomers arriving as family are more likely to lose their English proficiency as time passes. I argue that the high significance of the coefficients indicate that family immigrants face a different environment than skilled workers or their dependants. An environment that doesn't require English communication on a regular basis would predispose migrants to lose their proficiency. It is interesting to note though that the coefficient of the family immigrant dummy is larger (more than double) and more significant (0.1% versus around 2%) for immigrants arriving with an intermediate level of English. That is, arriving as a family immigrant has a larger effect on people with an intermediate level than those with an advanced English proficiency. No other variables show robust significance.

I merge both samples (intermediate and advanced) as before and analyze if the findings hold. Table 17 has six columns. The first three run linear regressions while the second three run probit models. In all the columns a dummy for the initial level of English is added. Overall, the findings hold. The sign, size and significance of age, education and the family immigrant dummy are consistent with tables 15 and 16. Also consistent with the results of table 14, the initial level of English proficiency affects the probability of losing it. Immigrants with a high level of proficiency have a higher probability of decreasing their level than immigrants arriving with an intermediate level. Non-linearities in the change of language proficiency are present as much for improving it as for losing it.

Ordered Probit Conditioning on Initial English Proficiency

I replicate the estimations of the level of English proficiency (on the third wave) but include the initial level of proficiency as a control (see table 18). I run the three estimations for those with a basic level first, three for those with a basic or intermediate level, adding a dummy for initial basic proficiency, and finally three for all the sample controlling for initial basic and intermediate levels.

Once again age and education are statistically relevant to determining English proficiency. Given the lack of statistical robustness of other variables, I would argue that human capital factors are relevant to immigrant English proficiency improvement, and as such they provide a non-economic dimension of societal assimilation.

The family immigrant dummy shows a negative coefficient throughout the table but its significance is not quite robust for people with an initial basic proficiency when controlling for ethnic concentration (third column). The result is similar to the findings in table 12. When those with intermediate or advanced initial proficiency are added, there is no decline in family immigrant significance. Though the sample size more than quadruples when these two groups are included, the evidence suggests that immigration categories don't play a significant role in English improvement for immigrants with basic proficiency.

Conclusions

This paper examines the changes in immigrants' English proficiency in their first four years in Canada. The data shows that immigrants do not change their English proficiency in considerable manner and that most of the change happens in the first two years after arrival. The proportion of immigrants at an advanced English speaking level rises from 65% six months after arrival to 74% two years after arrival. There is no increase

from the second to the fourth year. Still, I analyze the probability of improving or losing English speaking proficiency. I separate the sample according to immigrants' initial English speaking level: basic, intermediate and advanced. In this way I address the different effect explanatory variables might have depending on the initial level of English proficiency,

Two demographic variables show robustly consistent and significant coefficients in all the specifications: age and years of education. Regardless of their initial level, younger and more educated immigrants are more likely to improve their English proficiency (if they start at a basic or intermediate level) and less likely to lose it (if they start at an intermediate or advanced level). These two variables highlight human capital considerations. The benefits of better English communication are enjoyed to greater extend by educated migrants and for a longer time by younger migrants.

Regarding immigration categories, those arriving as family immigrants with an intermediate level are less likely to improve their proficiency (than skilled workers). This result might be driven by the environment this type of immigrant faces; which may not require continuous communication in English. However, an explanation based on unobservable time-variant individual abilities for family immigrants can't be disregarded. The effect of the family immigrants' dummy is null for immigrants arriving with basic English proficiency. With a beginner's level, arriving as a particular type of immigrant might not significantly influence the required changes to English proficiency. Family immigrants are also more likely to lose their English proficiency. The coefficients found are positive and significant in all the specifications and robust for the initial level of English proficiency (intermediate or advanced).

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A Dictionary of Variables

Age	Declared age in years at wave 1
Gender	Dummy variable - 1 if male, 0 if female
Yrs of Educ.	Number of years of Education obtained before arrival
Skilled Worker (S and D)	Dummy variable - Spouse and Dependents of an Skilled Worker Immigrant
Family Immg.	Dummy variable - Family Immigrant
ESL Centre	Dummy variable - 1 if the first three digits of the zipcode coincide with the presence of an ESL evaluation centre; zero otherwise
Married	Dummy variable - 1 if the person has an spouse or is in a common-law union, zero otherwise
Household size	Declared number of people living in the household in wave 1
Savings Wave1 (in 10,000)	Declared savings in Canada or abroad in wave 1
Few Ethn Friends	Dummy variable - 1 if at wave 1 the immigrant made new friends - a few from the same ethnicity, 0 otherwise
Some Ethn Friends	Dummy variable - 1 if at wave 1 the immigrant made new friends - Half from the same ethnicity, 0 otherwise
All Ethn Friends	Dummy variable - 1 if at wave 1 the immigrant made new friends - All or most from the same ethnicity, 0 otherwise
Some Ethn. Coworkers	Dummy variable - 1 if at wave 1 the immigrant is working and some of his/her coworker are from the same ethnicity, 0 otherwise
Half Ethn Coworkers	Dummy variable - 1 if at wave 1 the immigrant is working and half of his/her coworker are from the same ethnicity, 0 otherwise
All Ethn. Coworkers	Dummy variable - 1 if at wave 1 the immigrant is working and all or most of his/her coworker are from the same ethnicity, 0 otherwise

Table 1: Age Distribution by Immigration Category

	Less than 25	25 to 34	35 to 44	45 to 55	More than 55
Family Immigrants	45.34	19.02	8.60	32.57	91.92
Skilled Workers (PA)	2.23	45.66	48.24	30.05	.
Skilled Workers (S and D)	28.73	28.21	29.96	13.95	.
Business Immigrants	10.05	1.60	6.34	13.94	.
Govt. Refugees	6.49	2.84	2.94	3.85	.
Others	7.16	2.68	3.96	5.64	.
	100	100	100	100	100

	Less than 25	25 to 34	35 to 44	45 to 55	More than 55
Dist. by Age Group	16	29	36	11	7

Table 2: Average Savings 6 Months After Arrival by Immigration Group

	Average Savings
Family Immigrants	\$ 7,852
Skilled Workers (PA)	\$ 18,248
Skilled Workers (S and D)	\$ 20,005
Business Immigrants	\$ 93,365
Govt. Refugees	\$ 240
Others	\$ 2,703

Table 3: Government Social Assistance by Immigration Group

	Share Who Receives Social Assistance	Average Amount for Recipients
Family Immigrants	2%	3,297
Skilled Workers (PA)	7%	2,936
Skilled Workers (S and D)	7%	3,750
Business Immigrants	.	.
Govt. Refugees	70%	7,731
Others	16%	6,003

Table 4: Descriptive Statistics

	Average	Standard Deviation
Age	35.4	7.1
Gender	0.5	
Total Years of Education	15.5	3.3
Education in English (last degree)	0.4	
Skilled Worker Principal Applicant	0.49	
Skilled Worker Spouse and Dependants	0.31	
Family Immigrant Spouse and Fiance	0.20	
ESL Centre near	0.12	
Number of Members 0 to 4	0.24	0.50
Number of Members 5 to 14	0.66	0.85
Number of Members higher than 18	2.35	1.06
Share of Ethnic Concentration (*100)	1.83	1.54
Interview by phone Wave 1 ^a	0.31	
Interview by phone Wave 2	0.50	
Interview by phone Wave 3	0.40	
CMA/CA of Residence		
Toronto	0.57	
Vancouver	0.17	
Calgary	0.06	
Edmonton	0.04	
Ottawa	0.03	
Rest (48 CMA/CAs)	0.14	
Country of Origin		
China	0.25	
India	0.18	
Phillipines	0.10	
Pakistan	0.06	
South Korea	0.05	
Rest (90 countries)	0.36	
Number of Observations	3466	

^a Interviews are done by phone or face-to-face

Table 5: Share of Interviews in English

	Interview in wave 1		Interview in wave 2		Interview in wave 3	
	English	Not English	English	Not English	English	Not English
Wave 1						
Basic	18%	82%				
Intermediate	40%	60%				
Advanced	79%	21%				
Total	62%	38%				
Wave 2						
Basic			19%	81%		
Intermediate			43%	57%		
Advanced			80%	20%		
Total			69%	32%		
Wave 3						
Basic					19%	81%
Intermediate					47%	53%
Advanced					82%	18%
Total					70%	30%

Table 6: Evolution of English Proficiency

		Wave 1 (6 months)	Wave 2 (24 months)	Wave 3 (48 months)
Main Measurements				
Speaking Abilities	Basic	15	9	9
	Intermediate	20	17	17
	Advanced	65	74	74
Reading Abilities	Basic	8	7	7
	Intermediate	13	10	11
	Advanced	78	84	82
Writing Abilities	Basic	11	8	9
	Intermediate	17	14	15
	Advanced	72	77	76
Alternative Measurements				
Giving your Address	Can not / With a Lot of Help	5	3	3
	With Some Help	4	2	1
	Easily	92	95	96
Explaining your Past Occup.	Can not / With a Lot of Help	8	5	5
	With Some Help	12	9	6
	Easily	81	86	89
Taking a Message	Can not / With a Lot of Help	10	7	6
	With Some Help	20	16	12
	Easily	69	78	82
Explaining Symptoms to a Doctor	Can not / With a Lot of Help	17	14	10
	With Some Help	23	20	17
	Easily	60	66	73
Setting up a Meeting	Can not / With a Lot of Help	10	7	6
	With Some Help	14	10	7
	Easily	76	83	87

Table 7: Changes in English Proficiency

		Wave 2			Wave 3		
		Basic	Intermediate	Advanced	Basic	Intermediate	Advanced
Speaking Abilities	Basic	47	28	100	46	26	100
	Intermediate	8	33	100	8	34	100
	Advanced	1	9	90	1	10	89
Wave 1							
				Wave 1			
				Basic			
				Intermediate			
				Advanced			
<hr/>							
		Wave 2			Wave 3		
		Basic	Intermediate	Advanced	Basic	Intermediate	Advanced
Writing Abilities	Basic	51	24	100	51	24	100
	Intermediate	9	32	100	11	30	100
	Advanced	1	9	90	2	10	88
Wave 1							
				Wave 1			
				Basic			
				Intermediate			
				Advanced			
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		Wave 2			Wave 3		
		Basic	Intermediate	Advanced	Basic	Intermediate	Advanced
Reading Abilities	Basic	58	16	100	53	20	100
	Intermediate	10	27	100	9	27	100
	Advanced	1	6	93	2	8	90
Wave 1							
				Wave 1			
				Basic			
				Intermediate			
				Advanced			

Table 8: Communication Abilities Changes

Understanding a Phone Message			Wave 2			Wave 3			
	Can not	With help	Easily	Can not	With help	Easily	Can not	With help	Easily
Wave 1	Can not	46	31	100	Can not	41	29	100	
	With help	7	34	100	Can not	6	26	100	
	Easily	1	8	100	Wave 1	1	5	100	
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Table 9: Ordered Probit - Level of Speaking at Wave 3 (Coefficients)

	(1)	(2)	(3)	(4)	(5)
Age	-0.038 (0.004)***	-0.038 (0.004)***	-0.038 (0.004)***	-0.038 (0.004)***	-0.039 (0.003)***
Gender	0.047 (0.102)	0.057 (0.099)	0.052 (0.093)	0.065 (0.093)	0.068 (0.094)
Yrs of Educ	0.160 (0.015)***	0.157 (0.015)***	0.157 (0.015)***	0.152 (0.015)***	0.148 (0.012)***
Skill Worker (S and D)	-0.358 (0.076)***	-0.337 (0.072)***	-0.337 (0.082)***	-0.322 (0.078)***	-0.312 (0.076)***
Family Inmg.	-0.852 (0.075)***	-0.833 (0.077)***	-0.790 (0.081)***	-0.777 (0.083)***	-0.770 (0.083)***
ESL Centre	0.094 (0.130)	0.092 (0.128)	0.094 (0.137)	0.092 (0.135)	0.097 (0.138)
Married	-0.050 (0.066)	-0.046 (0.067)	-0.049 (0.068)	-0.048 (0.069)	-0.040 (0.074)
Householld size	-0.021 (0.007)***	-0.015 (0.008)**	-0.014 (0.009)*	-0.009 (0.009)	-0.016 (0.011)*
Savings wave 1 (in 10,000)	0.014 (0.008)*	0.013 (0.008)*	0.013 (0.008)*	0.012 (0.008)*	0.011 (0.008)*
Few ethn Friends		0.408 (0.076)***		0.377 (0.074)***	0.349 (0.081)***
Half Ethn Friends		0.401 (0.065)***		0.392 (0.061)***	0.364 (0.062)***
All Ethn. Friends		-0.010 (0.086)		0.005 (0.069)	0.005 (0.071)
Some Ethn. Coworkers			0.215 (0.073)***	0.167 (0.079)**	0.197 (0.085)***
Half Ethn. Coworkers			0.113 (0.041)***	0.0881 (0.043)**	0.124 (0.042)***
All Ethn. Coworkers			-0.314 (0.052)***	-0.303 (0.045)***	-0.243 (0.048)***
Ethnic Concent.					-0.124 (0.050)***
Obs	3466	3466	3466	3466	3466
R	0.2782	0.2858	0.2856	0.2919	0.2977

Note: Standard Errors are robust and clustered at the CMA/CA level. *, ** and *** denote significance at 10%, 5% and 1% levels respectively. All regressions include 9 source region-of-origin dummies and 8 area-of-residence dummies.

Table 10: Ordered Probit - Level of Reading at Wave 3 (Coefficients)

	(1)	(2)	(3)	(4)	(5)
Age	-0.038 (0.002)***	-0.038 (0.002)***	-0.039 (0.002)***	-0.039 (0.002)***	-0.040 (0.002)***
Gender	0.083 (0.065)	0.093 (0.064)	0.102 (0.066)	0.112 (0.068)*	0.114 (0.069)*
Yrs of Educ	0.178 (0.017)***	0.1754 (0.017)***	0.1748 (0.016)***	0.1732 (0.017)***	0.1697 (0.016)***
Skill Worker (S and D)	-0.261 (0.056)***	-0.244 (0.056)***	-0.257 (0.056)***	-0.244 (0.057)***	-0.240 (0.058)***
Family Inmg.	-0.806 (0.050)***	-0.806 (0.056)***	-0.782 (0.060)***	-0.787 (0.067)***	-0.777 (0.067)***
ESL Centre	0.023 (0.101)	0.027 (0.010)	0.018 (0.101)	0.022 (0.100)	0.019 (0.113)
Married	-0.057 (0.099)	-0.048 (0.099)	-0.060 (0.097)	-0.052 (0.097)	-0.042 (0.089)
Householld size	-0.007 (0.010)	-0.003 (0.010)	-0.003 (0.011)	0.000 (0.011)	-0.007 (0.001)
Savings wave 1 (in 10,000)	0.008 (0.003)**	0.007 (0.003)**	0.007 (0.003)**	0.006 (0.003)**	0.005 (0.003)**
Few ethn Friends		0.238 (0.095)**		0.233 (0.095)**	0.196 (0.105)*
Half Ethn Friends		0.118 (0.089)		0.126 (0.089)	0.083 (0.095)
All Ethn. Friends		-0.101 (0.106)		-0.087 (0.101)	-0.091 (0.108)
Some Ethn. Coworkers			0.080 (0.089)	0.043 (0.098)	0.077 (0.098)
Half Ethn. Coworkers			-0.041 (0.048)	-0.052 (0.056)	-0.015 (0.065)
All Ethn. Coworkers			-0.174 (0.041)***	-0.157 (0.046)***	-0.088 (0.059)
Ethnic Concent.					-0.136 (0.040)***
Obs	3466	3466	3466	3466	3466
R - square	0.3069	0.3106	0.3084	0.3117	0.3188

Note: Standard Errors are robust and clustered at the CMA/CA level. *, ** and *** denote significance at 10%, 5% and 1% levels respectively. All regressions include 9 source region-of-origin dummies and 8 area-of-residence dummies.

Table 11: Ordered Probit - Level of Writing at Wave 3 (Coefficients)

	(1)	(2)	(3)	(4)	(5)
Age	-0.036 (0.005)***	-0.036 (0.005)***	-0.036 (0.005)***	-0.036 (0.005)***	-0.037 (0.004)***
Gender	0.135 (0.078)*	0.143 (0.078)*	0.153 (0.075)**	0.162 (0.077)**	0.165 (0.078)**
Yrs of Educ	0.176 (0.016)***	0.174 (0.017)***	0.172 (0.016)***	0.170 (0.016)***	0.167 (0.016)***
Skill Worker (S and D)	-0.274 (0.063)***	-0.261 (0.063)***	-0.266 (0.063)***	-0.257 (0.063)***	-0.257 (0.060)***
Family Inmg.	-0.741 (0.088)***	-0.739 (0.088)***	-0.702 (0.100)***	-0.704 (0.101)***	-0.700 (0.100)***
ESL Centre	0.001 (0.098)	0.004 (0.095)	-0.004 (0.101)	-0.002 (0.099)	0.003 (0.103)
Married	-0.045 (0.073)	-0.037 (0.076)	-0.049 (0.072)	-0.043 (0.075)	-0.030 (0.073)
Householld size	-0.003 (0.013)	0.000 (0.014)	0.002 (0.013)	0.004 (0.014)	-0.002 (0.014)
Savings wave 1 (in 10,000)	0.005 (0.005)	0.005 (0.004)	0.005 (0.004)	0.004 (0.004)	0.003 (0.004)
Few ethn Friends		0.171 (0.134)		0.158 (0.128)	0.129 (0.140)
Half Ethn Friends		0.189 (0.089)**		0.191 (0.088)**	0.162 (0.097)*
All Ethn. Friends		-0.099 (0.093)		-0.083 (0.084)	-0.081 (0.089)
Some Ethn. Coworkers			0.114 (0.071)	0.085 (0.080)	0.111 (0.079)
Half Ethn. Coworkers			-0.001 (0.042)	-0.011 (0.042)	0.022 (0.048)
All Ethn. Coworkers			-0.269 (0.038)***	-0.257 (0.042)***	-0.195 (0.046)***
Ethnic Concent.					-0.124 (0.032)***
Obs	3466	3466	3466	3466	3466
R - square	0.2676	0.2710	0.2714	0.2742	0.2801

Note: Standard Errors are robust and clustered at the CMA/CA level. *, ** and *** denote significance at 10%, 5% and 1% levels respectively. All regressions include 9 source region-of-origin dummies and 8 area-of-residence dummies.

Table 12: Improvement for People Beginning at a Basic Level (wave 1 to wave 3)

	Linear Model			Probit Model (Marginal Effects)				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Age	-0.011 (0.004)***	-0.011 (0.004)***	-0.011 (0.004)***	-0.012 (0.003)***	-0.016 (0.004)***	-0.015 (0.004)***	-0.017 (0.004)***	-0.017 (0.004)***
Gender	0.015 (0.053)	0.016 (0.055)	0.031 (0.052)	0.028 (0.050)	0.012 (0.080)	0.013 (0.080)	0.039 (0.079)	0.036 (0.075)
Yrs of Educ	0.028 (0.006)***	0.027 (0.007)***	0.025 (0.007)***	0.022 (0.007)***	0.051 (0.015)***	0.051 (0.016)***	0.049 (0.015)***	0.044 (0.015)***
Skill Worker (S and D)	-0.058 (0.101)	-0.057 (0.099)	-0.058 (0.098)	-0.037 (0.094)	-0.077 (0.148)	-0.076 (0.142)	-0.076 (0.143)	-0.042 (0.148)
Family Inmg.	-0.210 (0.104)**	-0.212 (0.104)**	-0.198 (0.098)**	-0.158 (0.092)*	-0.212 (0.145)	-0.216 (0.140)	-0.189 (0.135)	-0.134 (0.145)
ESL Centre	0.022 (0.031)	0.023 (0.034)	0.018 (0.032)	-0.004 (0.032)	0.009 (0.051)	0.012 (0.053)	0.002 (0.051)	-0.015 (0.049)
Married	0.033 (0.062)	0.031 (0.055)	0.051 (0.054)	0.042 (0.052)	0.017 (0.087)	0.022 (0.075)	0.049 (0.075)	0.043 (0.069)
Household size	-0.009 (0.010)	-0.009 (0.010)	-0.009 (0.010)	-0.011 (0.008)	-0.022 (0.012)*	-0.021 (0.011)*	-0.021 (0.010)**	-0.026 (0.008)***
Savings wave 1 (in 10,000)	0.005 (0.002)***	0.005 (0.002)***	0.005 (0.002)**	0.004 (0.002)*	0.008 (0.004)*	0.007 (0.004)*	0.006 (0.003)*	0.004 (0.003)*
Few Ethn Friends		0.074 (0.110)	0.088 (0.107)	0.068 (0.102)		0.084 (0.188)	0.079 (0.180)	0.046 (0.180)
Half Ethn Friends		-0.033 (0.063)	-0.035 (0.062)	-0.063 (0.052)		-0.032 (0.081)	-0.041 (0.073)	-0.084 (0.060)
All Ethn. Friends		0.000 (0.055)	0.006 (0.052)	0.013 (0.053)		-0.016 (0.084)	-0.011 (0.076)	-0.002 (0.085)
Some Ethn. Coworkers			-0.097 (0.056)*	-0.061 (0.053)			-0.112 (0.068)	-0.082 (0.067)
Half Ethn. Coworkers			0.017 (0.043)	0.040 (0.043)			0.007 (0.074)	0.048 (0.076)
All Ethn. Coworkers			-0.099 (0.071)	-0.066 (0.069)			-0.156 (0.098)	-0.105 (0.098)
Ethnic Concent.				-0.054 (0.009)***				-0.090 (0.006)***
Obs	591	591	591	591	589	589	589	589
R - square	0.4076	0.4089	0.4169	0.4346	0.3623	0.3633	0.3721	0.3923

Note: Robust standard errors are in parenthesis and clustered at the CMA/CA level. *, ** and *** denote significance at 10%, 5% and 1% levels respectively. All regressions include 9 source region-of-origin dummies and 8 area-of-residence dummies.

Table 13: Improvement for People Beginning at an Intermediate Level (wave 1 to wave 3)

	Linear Model			Probit Model (Marginal Effects)				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Age	-0.011 (0.004)***	-0.011 (0.043)	-0.011 (0.004)***	-0.012 (0.004)***	-0.013 (0.005)***	-0.013 (0.005)***	-0.014 (0.005)***	-0.015 (0.004)***
Gender	0.044 (0.003)	0.045 (0.033)	0.044 (0.030)	0.049 (0.026)*	0.052 (0.032)	0.054 (0.036)	0.052 (0.033)	0.058 (0.033)
Yrs of Educ	0.026 (0.005)***	0.025 (0.005)***	0.025 (0.005)***	0.022 (0.005)***	0.030 (0.006)***	0.029 (0.006)***	0.028 (0.007)***	0.026 (0.006)***
Skill Worker (S and D)	-0.096 (0.038)**	-0.095 (0.038)**	-0.091 (0.037)**	-0.083 (0.038)**	-0.102 (0.040)**	-0.100 (0.041)**	-0.096 (0.039)**	-0.087 (0.039)**
Family Immig	-0.179 (0.044)***	-0.177 (0.004)***	-0.171 (0.004)***	-0.179 (0.039)***	-0.212 (0.055)***	-0.210 (0.050)***	-0.204 (0.049)***	-0.219 (0.045)***
ESL Centre	0.062 (0.064)	0.061 (0.062)	0.059 (0.062)	0.044 (0.073)	0.075 (0.070)	0.074 (0.068)	0.071 (0.067)	0.055 (0.083)
Married	-0.002 (0.108)	-0.005 (0.110)	-0.001 (0.111)	-0.016 (0.099)	-0.010 (0.0132)	-0.016 (0.133)	-0.013 (0.133)	-0.033 (0.119)
Household size	0.015 (0.005)***	0.015 (0.005)***	0.015 (0.005)***	0.009 (0.005)*	0.016 (0.006)***	0.016 (0.006)***	0.016 (0.006)***	0.008 (0.006)***
Savings wave1 (in 10,000)	0.001 (0.004)	0.001 (0.004)	0.001 (0.004)	0.001 (0.003)	0.001 (0.005)	0.001 (0.005)	0.001 (0.005)	0.001 (0.004)
Few Ethn. Friends		0.045 (0.066)	0.039 (0.066)	0.028 (0.079)	0.028 (0.069)	0.070 (0.069)	0.062 (0.069)	0.053 (0.083)
Half Ethn. Friends		0.051 (0.071)	0.050 (0.069)	0.028 (0.087)	0.086 (0.073)	0.086 (0.073)	0.085 (0.007)	0.061 (0.094)
All Ethn. Friends		0.014 (0.080)	0.015 (0.078)	0.013 (0.079)	0.025 (0.085)	0.025 (0.085)	0.026 (0.084)	0.023 (0.086)
Some Ethn. Coworkers			0.030 (0.041)	0.051 (0.004)	0.035 (0.053)	0.035 (0.053)	0.035 (0.053)	0.073 (0.051)
Half Ethn. Coworkers			0.024 (0.021)	0.037 (0.032)	0.027 (0.021)	0.027 (0.021)	0.027 (0.021)	0.046 (0.034)
All Ethn. Coworkers			-0.012 (0.035)	0.024 (0.032)	-0.010 (0.039)	-0.010 (0.039)	-0.010 (0.039)	0.028 (0.036)
Ethnic Concent.			-0.074 (0.037)**					-0.089 (0.045)**
Obs	694	694	694	694	684	684	684	684
R - square	0.1630	0.1638	0.1645	0.1917	0.1252	0.1264	0.1270	0.1501

Note: Robust standard errors are in parenthesis and clustered at the CMA/CA level. *, ** and *** denote significance at 10%, 5% and 1% levels respectively. All regressions include 9 source region-of-origin dummies and 8 area -of-residence dummies.

Table 14: Improvement for People Beginning at Intermediate or Basic Level (wave 1 to wave 3)

	Linear Model			Probit Model(Marginal Effects)			Probit Model (Marginal Effects)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Age	-0.12 (0.004)***	-0.01 (0.004)***	-0.01 (0.004)***	-0.02 (0.005)***	-0.02 (0.005)***	-0.02 (0.004)***	-0.02 (0.005)***	-0.02 (0.004)***	-0.02 (0.004)***
Gender	0.03 (0.013)*	0.04 (0.014)***	0.04 (0.016)**	0.04 (0.017)**	0.05 (0.018)***	0.05 (0.019)***	0.04 (0.017)**	0.05 (0.018)***	0.04 (0.019)**
Yrs of Educ	0.03 (0.005)***	0.03 (0.006)***	0.02 (0.005)***	0.04 (0.001)***	0.04 (0.001)***	0.04 (0.009)***	0.04 (0.001)***	0.4 (0.001)***	0.03 (0.009)***
Skill Worker (S and D)***	-0.08 (0.059)	-0.07 (0.056)	-0.07 (0.054)	-0.08 (0.071)	-0.08 (0.067)	-0.07 (0.067)	-0.08 (0.071)	-0.7 (0.067)	-0.07 (0.067)
Family Inmg.	-0.20 (0.056)***	-0.19 (0.050)***	-0.18 (0.052)***	-0.21 (0.075)***	-0.20 (0.066)***	-0.19 (0.072)***	-0.21 (0.075)***	-0.2 (0.066)	-0.19 (0.072)***
ESL Centre	0.03 (0.025)	0.03 (0.024)	0.01 (0.033)	0.03 (0.032)	0.02 (0.031)	0.01 (0.039)	0.03 (0.032)	0.02 (0.030)	0.01 (0.039)
Married	0.01 (0.059)	0.02 (0.064)	0.00 (0.057)	0.00 (0.082)	0.00 (0.088)	-0.02 (0.082)	0.0001 (0.082)	0.004 (0.088)	-0.02 (0.082)
Household size	0.003 (0.005)	0.004 (0.005)	0.000 (0.003)	0.000 (0.006)	0.001 (0.005)	-0.01 (0.004)	0.0002 (0.006)	0.001 (0.005)	-0.01 (0.004)
Savings wave1 (in 10,000)	0.003 (0.003)	0.003 (0.003)	0.002 (0.003)	0.004 (0.004)	0.003 (0.004)	0.002 (0.003)	0.004 (0.004)	0.003 (0.004)	0.002 (0.003)
Few Ethn Friends		0.04 (0.005)	0.03 (0.0053)		0.05 (0.065)	0.03 (0.074)		0.05 (0.064)	0.03 (0.074)
Half Ethn Friends		0.02 (0.044)	0.01 (0.052)		0.04 (0.057)	0.00 (0.074)		0.03 (0.057)	0.004 (0.074)
All Ethn. Friends		0.01 (0.055)	0.01 (0.053)		0.003 (0.073)	0.01 (0.075)		0.002 (0.072)	0.006 (0.075)
Some Ethn. Coworkers		0.01 (0.038)	0.03 (0.037)		0.01 (0.046)	0.06 (0.043)		0.01 (0.047)	0.06 (0.043)
Half Ethn. Coworkers		0.03 (0.019)	0.04 (0.026)*		0.03 (0.024)	0.05 (0.003)*		0.02 (0.023)	0.05 (0.003)*
All Ethn. Coworkers		-0.06 (0.036)	-0.02 (0.038)		-0.08 (0.044)	-0.03 (0.048)		-0.08 (0.044)*	-0.03 (0.048)
Ethnic Concent.			-0.06 (0.021)***			-0.09 (0.024)***			-0.09 (0.024)***
Basic level							0.23 (0.024)***	0.23 (0.027)***	0.24 (0.023)***
Obs	1284	1284	1284	1284	1284	1284	1284	1284	1284
R-square	0.2695	0.2732	0.2954	0.2287	0.2325	0.2564	0.2287	0.2325	0.2564

Note: Robust standard errors are in parenthesis and clustered at the CMA/CA level. *, ** and *** denote significance at 10%, 5% and 1% levels respectively. All regressions include 10 source region-of-origin dummies and 9 area -of-residence dummies.

Table 15: Language Proficiency Decrease for People Beginning at an Intermediate Level (wave 1 to wave 3)

	Linear Probability Model			Probit Model: Marginal Effects				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Age	0.007 (0.001)***	0.01 (0.001)***	0.01 (0.002)***	0.01 (0.002)***	0.004 (0.001)***	0.004 (0.001)***	0.004 (0.001)***	0.004 (0.001)***
Gender	-0.010 (0.006)	-0.01 (0.007)	-0.01 (0.007)*	-0.01 (0.007)*	-0.01 (0.005)	-0.01 (0.006)	-0.01 (0.007)	-0.01 (0.007)
Yrs of Educ	-0.017 (0.004)***	-0.02 (0.004)***	-0.02 (0.004)***	-0.01 (0.004)***	-0.01 (0.003)***	-0.01 (0.003)***	-0.01 (0.003)***	-0.01 (0.002)***
Skill Worker (S and D)***	0.016 (0.024)	0.01 (0.021)	0.01 (0.021)	0.01 (0.021)	0.02 (0.024)	0.02 (0.020)	0.02 (0.018)	0.02 (0.018)
Family Immig.	0.107 (0.027)***	0.11 (0.027)***	0.11 (0.029)***	0.11 (0.029)***	0.11 (0.035)***	0.10 (0.034)***	0.10 (0.033)***	0.10 (0.031)***
ESL Centre	-0.025 (0.022)	-0.02 (0.021)	-0.02 (0.023)	-0.02 (0.025)	-0.03 (0.020)	-0.03 (0.019)	-0.03 (0.018)	-0.03 (0.021)
Married	0.024 (0.027)	0.03 (0.027)	0.03 (0.026)	0.03 (0.029)	0.03 (0.015)**	0.03 (0.013)**	0.03 (0.013)**	0.03 (0.013)**
Household size	-0.008 (0.005)	-0.01 (0.005)	-0.01 (0.005)	-0.01 (0.005)	-0.01 (0.005)	-0.004 (0.005)	-0.005 (0.005)	0.00 (0.005)
Savings wave1 (in 10,000)	-0.001 (0.001)	-0.001 (0.0005)**	-0.001 (0.0004)***	-0.001 (0.001)	-0.002 (0.002)	-0.002 (0.001)*	-0.002 (0.001)*	-0.001 (0.001)
Few Ethn Friends	-0.06 (0.041)	-0.06 (0.039)	-0.06 (0.040)	-0.05 (0.040)	-0.04 (0.026)	-0.04 (0.026)	-0.04 (0.023)	-0.04 (0.024)
Half Ethn Friends	-0.03 (0.021)	-0.03 (0.021)	-0.03 (0.021)	-0.03 (0.022)	-0.03 (0.008)***	-0.03 (0.008)***	-0.03 (0.008)***	-0.03 (0.008)***
All Ethn. Friends	-0.01	-0.01	-0.01	-0.01	-0.004	-0.004	-0.003	-0.001
Some Ethn. Coworkers								
Some Ethn. Coworkers								
Half Ethn. Coworkers								
All Ethn. Coworkers								
Ethnic Concent.								
Obs	694	694	694	694	613	613	613	613
R-square	0.1694	0.1724	0.1753	0.18	0.2305	0.2363	0.2425	0.24

Note: Robust standard errors are in parenthesis and clustered at the CMA/CA level. *, ** and *** denote significance at 10%, 5% and 1% levels respectively. All regressions include 10 source region-of-origin dummies and 9 area -of-residence dummies.

Table 16: Language Proficiency Decrease for People Beginning at an Advanced Level (wave 1 to wave 3)

	Linear Probability Model				Probit Model (Marginal Effects)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Age	0.004 (0.001)***	0.004 (0.001)***	0.004 (0.001)***	0.005 (0.001)***	0.003 (0.001)***	0.003 (0.001)***	0.003 (0.001)***	0.003 (0.001)***
Gender	0.001 (0.024)	0.000 (0.024)	-0.002 (0.022)	-0.001 (0.023)	0.004 (0.018)	0.003 (0.019)	0.002 (0.018)	0.002 (0.018)
Yrs of Educ	-0.014 (0.002)***	-0.014 (0.002)***	-0.014 (0.002)***	-0.014 (0.001)***	-0.013 (0.002)***	-0.012 (0.002)***	-0.012 (0.002)***	-0.012 (0.002)***
Skill Worker (S and D)**	0.003 (0.015)	0.002 (0.015)	0.003 (0.015)	0.002 (0.015)	0.004 (0.012)	0.003 (0.012)	0.004 (0.012)	0.003 (0.012)
Family Inmg.	0.050 (0.020)**	0.049 (0.019)***	0.046 (0.018)**	0.046 (0.019)**	0.044 (0.022)**	0.043 (0.020)**	0.039 (0.019)**	0.039 (0.021)*
ESL Centre	-0.004 (0.013)	-0.005 (0.013)	-0.005 (0.013)	-0.009 (0.013)	-0.002 (0.014)	-0.002 (0.015)	-0.002 (0.014)	-0.004 (0.014)
Married	0.013 (0.012)	0.010 (0.012)	0.014 (0.012)	0.011 (0.013)	0.016 (0.009)*	0.015 (0.009)*	0.017 (0.009)**	0.015 (0.010)
Household size	-0.004 (0.002)**	-0.004 (0.001)***	-0.005 (0.002)**	-0.004 (0.002)*	-0.002 (0.001)*	-0.003 (0.001)***	-0.004 (0.002)**	-0.003 (0.002)
Savings wave1 (in 10,000)	-0.002 (0.001)*	-0.002 (0.001)*	-0.002 (0.001)*	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)
Few Ethn Friends		-0.029 (0.019)	-0.027 (0.021)	-0.027 (0.020)		-0.025 (0.012)**	-0.024 (0.012)**	-0.023 (0.012)**
Half Ethn Friends		-0.035 (0.027)	-0.037 (0.027)	-0.037 (0.028)		-0.027 (0.016)*	-0.029 (0.017)*	-0.028 (0.017)*
All Ethn. Friends		0.000 (0.019)	-0.004 (0.019)	-0.007 (0.021)		-0.001 (0.014)	-0.004 (0.015)	-0.005 (0.015)
Some Ethn. Coworkers			-0.010 (0.007)	-0.012 (0.007)*			-0.010 (0.006)	-0.011 (0.007)*
Half Ethn. Coworkers			0.006 (0.010)	0.001 (0.009)			0.005 (0.009)	0.003 (0.008)
All Ethn. Coworkers			0.063 (0.019)***	0.054 (0.021)**			0.047 (0.014)***	0.041 (0.014)***
Ethnic Concent.				0.021 (0.010)**				0.010 (0.005)**
Obs	2181	2181	2181	2181	2181	2181	2181	2181
R-Square	0.0742	0.0764	0.0807	0.0852	0.1177	0.1218	0.1274	0.1305

Note: Robust standard errors are in parenthesis and clustered at the CMA/CA level. *, ** and *** denote significance at 10%, 5% and 1% levels respectively. All regressions include 9 source region-of-origin dummies and 8 area -of-residence dummies.

Table 17: Lang. Prof. Decrease for People Beginning at an Intermediate or Advanced Level

	Linear Probability Model			Probit Model (Marginal Effects)		
	(1)	(2)	(3)	(4)	(5)	(6)
Age	0.005 (0.001)***	0.005 (0.001)***	0.005 (0.001)***	0.004 (0.000)***	0.004 (0.000)***	0.004 (0.000)***
Gender	-0.003 (0.018)	-0.004 (0.015)	-0.005 (0.016)	0.001 (0.015)	-0.001 (0.014)	-0.001 (0.014)
Yrs of Educ	-0.016 (0.002)***	-0.015 (0.002)***	-0.015 (0.001)***	-0.013 (0.002)***	-0.013 (0.002)***	-0.012 (0.002)***
Skill Worker (S and D)***	0.002 (0.012)	0.000 (0.012)	-0.001 (0.011)	0.003 (0.011)	0.002 (0.010)	0.001 (0.010)
Family Inmg.	0.081 (0.020)***	0.076 (0.019)***	0.076 (0.019)***	0.073 (0.022)***	0.066 (0.020)***	0.066 (0.021)***
ESL Centre	-0.015 (0.013)	-0.015 (0.014)	-0.018 (0.014)	-0.012 (0.013)	-0.012 (0.014)	-0.013 (0.014)
Married	0.008 (0.009)	0.008 (0.010)	0.006 (0.010)	0.015 (0.008)*	0.015 (0.008)**	0.014 (0.008)
Household size	-0.003 (0.003)	-0.004 (0.003)*	-0.003 (0.003)***	-0.003 (0.002)	-0.004 (0.002)	-0.003 (0.003)
Savings wave1 (in 10,000)	-0.002 (0.003)***	-0.002 (0.001)***	-0.002 (0.001)***	-0.002 (0.001)	-0.001 (0.001)	-0.001 (0.001)
Few Ethn Friends		-0.039 (0.015)**	-0.038 (0.014)***		-0.030 (0.008)***	-0.028 (0.008)***
Half Ethn Friends		-0.046 (0.022)**	-0.044 (0.020)**		-0.033 (0.012)***	-0.032 (0.011)***
All Ethn. Friends		-0.011 (0.013)	-0.013 (0.014)		-0.007 (0.009)	-0.007 (0.009)
Some Ethn. Coworkers		-0.010 (0.007)	-0.013 (0.006)**		-0.007 (0.006)	-0.009 (0.005)
Half Ethn. Coworkers		-0.004 (0.014)	-0.009 (0.012)		-0.001 (0.012)	-0.004 (0.011)
All Ethn. Coworkers		0.047 (0.012)***	0.038 (0.009)***		0.033 (0.009)***	0.028 (0.007)***
Ethnic Concent.			0.020 (0.009)**			0.009 (0.005)*
Intermediate Level	-0.078 (0.014)***	-0.086 (0.015)***	-0.85 (0.015)***	-0.052 (0.005)***		-0.056 (0.006)***
Advanced Level					0.056 (0.006)***	
Obs	2875	2875	2875	2875	2875	2875
R-Square	0.0695	0.0751	0.0801	0.1139	0.1228	0.1257

Note: Robust standard errors are in parenthesis and clustered at the CMA/CA level. *, ** and *** denote significance at 10%, 5% and 1% levels respectively. All regressions include 9 source region-of-origin dummies and 8 area-of-residence dummies.

Table 18: Ordered Probit (coefficients) - Language Proficiency at Wave 3 Conditioning on Initial Level

	Initial Level: Basic			Initial Level: Basic + Interm.			Initial Level: All		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Age	-0.035 (0.008)***	-0.037 (0.008)***	-0.040 (0.007)***	-0.039 (0.009)***	-0.040 (0.009)***	-0.042 (0.006)***	-0.033 (0.004)***	-0.034 (0.003)***	-0.035 (0.002)***
Gender	-0.026 (0.175)	0.078 (0.171)	0.071 (0.163)	0.063 (0.051)	0.103 (0.053)*	0.111 (0.054)**	0.029 (0.090)	0.055 (0.080)	0.060 (0.082)
Yrs of Educ	0.132 (0.029)***	0.124 (0.029)***	0.109 (0.030)***	0.116 (0.022)***	0.111 (0.022)***	0.099 (0.019)***	0.118 (0.017)***	0.113 (0.017)***	0.107 (0.014)***
Skill Worker (S and D)***	-0.148 (0.250)	-0.133 (0.250)	-0.036 (0.262)	-0.166 (0.169)	-0.154 (0.161)	-0.133 (0.160)	-0.050 (0.101)	-0.046 (0.099)	-0.034 (0.096)
Family Inmg.	-0.605 (0.211)***	-0.554 (0.218)**	-0.402 (0.239)*	-0.599 (0.146)***	-0.571 (0.139)***	-0.544 (0.150)***	-0.488 (0.079)***	-0.457 (0.083)***	-0.439 (0.081)***
ESL Centre	0.011 (0.070)	-0.018 (0.071)	-0.047 (0.081)	0.069 (0.118)	0.064 (0.119)	0.023 (0.150)	0.080 (0.104)	0.078 (0.109)	0.083 (0.114)
Married	-0.104 (0.296)	0.000 (0.293)	-0.041 (0.274)	-0.076 (0.120)	-0.068 (0.125)	-0.119 (0.116)	-0.071 (0.069)	-0.069 (0.071)	-0.061 (0.077)
Household size	-0.021 (0.023)	-0.017 (0.021)	-0.040 (0.021)*	0.017 (0.011)	0.020 (0.010)**	0.003 (0.012)	0.009 (0.007)	0.017 (0.009)*	0.009 (0.012)
Savings wave1 (in 10,000)	0.019 (0.003)***	0.016 (0.003)***	0.011 (0.004)***	0.012 (0.007)*	0.011 (0.007)	0.008 (0.005)*	0.013 (0.008)	0.012 (0.008)	0.010 (0.007)
Few Ethn Friends	0.338 (0.359)	0.338 (0.359)	0.233 (0.371)	0.257 (0.169)	0.257 (0.169)	0.187 (0.192)	0.187 (0.079)***	0.295 (0.079)***	0.254 (0.094)***
Half Ethn Friends	-0.218 (0.242)	-0.218 (0.242)	-0.386 (0.169)*	0.095 (0.113)	0.095 (0.113)	-0.004 (0.150)	0.246 (0.064)***	0.246 (0.064)***	0.206 (0.063)***
All Ethn. Friends	0.004 (0.166)	0.004 (0.166)	0.026 (0.193)	0.022 (0.152)	0.022 (0.152)	0.017 (0.164)	0.038 (0.080)	0.038 (0.080)	0.039 (0.083)
Some Ethn. Coworkers	-0.335 (0.207)	-0.335 (0.207)	-0.209 (0.213)	-0.075 (0.080)	-0.075 (0.080)	0.030 (0.106)	0.033 (0.059)	0.033 (0.059)	0.072 (0.063)
Half Ethn. Coworkers	-0.101 (0.155)	-0.101 (0.155)	0.021 (0.158)	0.027 (0.045)	0.027 (0.045)	0.097 (0.059)	0.006 (0.051)	0.006 (0.051)	0.050 (0.041)
All Ethn. Coworkers	-0.484 (0.224)*	-0.484 (0.224)*	-0.302 (0.227)	-0.260 (0.100)***	-0.260 (0.100)***	-0.132 (0.101)	-0.278 (0.050)***	-0.278 (0.050)***	-0.200 (0.050)***
Ethnic Concent.			-0.306 (0.056)***			-0.236 (0.075)***			-0.155 (0.049)***
Basic Level				-0.499 (0.043)***	-0.494 (0.047)***	-0.527 (0.045)***	-1.322 (0.051)***	-1.266 (0.056)***	-1.309 (0.046)***
Intermediate Level							-0.739 (0.033)***	-0.698 (0.043)***	-0.724 (0.032)***
Obs	591	591	591	1285	1285	1285	3466	3466	3466

Note: Robust standard errors are in parenthesis and clustered at the CMA/CA level. *, ** and *** denote significance at 10%, 5% and 1% levels respectively. All regressions include 10 source region-of-origin dummies and 9 area-of-residence dummies.