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Assessment of IRCC Settlement Service Impacts

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TABLE OF CONTENTS

INTRODUCTION	1
DESCRIPTION OF IRCC-FUNDED SETTLEMENT SERVICES	4
DATA SOURCES	7
A PORTRAIT OF SETTLEMENT SERVICE USAGES	11
Profiles of participants and non-participants: simple comparison	11
Determinants of service usage: whole sample	17
Subgroup analysis and intersectionality	24
AN EXPLORATION OF SETTLEMENT SERVICE PATHWAYS	28
Identification of settlement service pathways — process and issues	28
NEXT STEPS	37
REFERENCES	39
APPENDIX: ADDITIONAL TABLES	48

INTRODUCTION

Immigration has long played a vital role in the Canadian economy and society. It has been a key response to Canada's aging population and persistently low birth rates (Chatham, 2020). According to the 2016 census, immigrants accounted for more than 80% of Canada's population growth (Statistics Canada, 2019). It is estimated that by the early 2030s, Canada's population growth will rely exclusively on immigration (IRCC, 2020a).

Immigration has also contributed to the Canadian economy. Immigrants help address labour market shortages, filling vacancies in various sectors (IRCC, 2020a). Today, more than one-quarter of Canadian workers are immigrants (IRCC, 2020a; Cheatham, 2020). About 600,000 immigrants are self-employed and/or business owners who provide jobs for over 260,000 Canadians (IRCC, 2020a).

Immigration is also important to Canada for social reasons. Immigrants are politically engaged – more than 80% of citizens who came to Canada as economic immigrants and 62% as refugees voted in the 2011 federal election (IRCC, 2020a). More recently, the COVID-19 global pandemic further underscores the vital role immigrants play in Canada's society. Many immigrants work in the healthcare sector to help keep Canadians safe and healthy (IRCC, 2020b). Other industries, including information technology, agriculture, and manufacturing, also rely on newcomer workers to maintain supply chains (IRCC, 2020b).

Overall, immigration has helped build Canada as a diverse country with strong economic and social foundations, and with continued potential for further growth and prosperity. The Government of Canada is committed to an even higher target for immigration in the coming years. In October 2020, plans were announced to bring in more than 1.2 million immigrants over the next three years – an increase to make up for the shortfall in 2020 due to hurdles created by the global pandemic (IRCC, 2020b).

The success of Canada's immigration system depends on a strong settlement sector. Through contribution agreements, Immigration, Refugees and Citizenship Canada (IRCC) funds service providers across Canada (outside of Quebec¹) to deliver a broad range of settlement services supporting newcomers (IRCC, 2020a). These services help newcomers acquire **knowledge** about

¹ Settlement and resettlement services in Quebec are administered by the Government of Quebec. The federal government provides an annual grant to Quebec to compensate the province for the delivery of settlement and integration services in the province.

living and working in Canada, improve their official **language** skills, prepare for **labour market** entry, and/or form meaningful **connections in their communities**.

A recent evaluation of the Settlement Program confirmed the alignment between settlement services and Government of Canada priorities (IRCC, 2017a). It also highlighted the continued need for settlement services to support newcomer integration² in Canada, especially for vulnerable populations such as refugees. The evaluation found positive results for the full range of settlement services, with the majority of service users gaining knowledge about life in Canada, improving language ability, using official languages, acquiring knowledge about working in Canada, finding employment, forming connections to communities and public institutions, and participating in the broader community.

While recent and rigorous, the 2017 IRCC report faced two limitations: the lack of a reliable counterfactual capturing the outcomes of newcomers who would not have had accessed IRCC-funded settlement services (IRCC, 2017a) and the short timeframe of the analysis. This research project aims to address these gaps and strengthen the evidence base upon which policies and program decisions related to immigration can be made. The Social Research and Demonstration Corporation (SRDC) research team receive funding from IRCC to conduct this multi-year research project. We expect to generate findings that allow IRCC to take fuller advantage of its large, rich, and complex data in the Immigration Contribution Agreement Reporting Environment (iCARE) as well as the Longitudinal Immigration Database (IMDB) from Statistics Canada. The recent introduction of the IRCC service module to the IMDB helps integrate data from newcomers who have never used IRCC services,³ allowing for the construction of a comparable counterfactual to estimate the impacts of IRCC services more precisely. Ultimately, we aim to not only provide a fuller examination of the impacts of settlement services on the integration success of immigrants to Canada, but also facilitate discussions about service improvement and innovations among stakeholders – grounded in evidence-based research.

² Canada adopts a modern definition of “newcomer integration,” viewing it as a two-way process that involves not only immigrants adapting to life in Canada but also Canada welcoming and adapting to newcomers (IRCC, 2017a).

³ Newcomers could use settlement services funded by provincial or municipal governments, as well as non-profit organizations, that are not captured in the IRCC service module of IMDB. These alternative services could act as substitute or supplementary services to IRCC-funded settlement services. As a result, any assessment of IRCC service impacts using only the IMDB is estimating the incremental impacts of providing IRCC services on top of the already available settlement services funded.

As a conclusion to the first stage of the research project, this report describes the **profile of typical service users** of IRCC-funded settlement services, by examining:

- Who are service users in terms of demographic characteristics? Do users of different services or service pathways differ from each other? If so, in what ways are they different? Do service users differ from non-users? If so, in what ways?
- What are the potential factors (specifically, observable characteristics) determining service usage?

And then explores the **typical service pathways** — or the combination and sequence of multiple services newcomers frequently access, by seeking to answer the following question:

- What are the typical sequences of settlement services, or service plans, that newcomers use?

The exploration of service usages follows the steps presented in the project's logic model and research framework (SRDC, 2021) with a special focus on the services that are most appropriate for impact assessment using the IMDB data. The exploration also aims to inform the estimation model construction of the second stage of the research project (including the identification of potential comparison group samples that will provide the best comparability).

The rest of the report is organized as follows. First, we discuss the IRCC-funded settlement services and the data we use in the analysis. We then compare the characteristics of the participants versus non-participants of the IRCC-funded settlement services. We also present the results of the regression analysis on the characteristics of participants in different service plans to identify potential determinants of service selection and use. In the fifth section, we discuss our exploration of the service pathways that newcomers take, before concluding with a discussion of the next steps of the research project.

DESCRIPTION OF IRCC-FUNDED SETTLEMENT SERVICES

Current settlement services in Canada are needs-based, i.e., services are designed and delivered in alignment with the evolving needs of immigrants (Ashton, Pettigrew, and Galatsanou, 2016). As previously mentioned, settlement services are funded by IRCC and delivered by a network of community-based, non-profit organizations. These services help newcomers gain knowledge about living and working in Canada, improve their official language skills, prepare for labour market entry, and/or form meaningful connections in their communities. The organizations vary in terms of staff size, ranging from a few staff who may or may not be paid to a few hundred staff (Canadian Council for Refugees, 1998; David Tilson, 2010).

The major categories of services provided to the newcomers are needs assessment and referrals, information and orientation, language assessment and training, employment-related services, and building community connections.

Needs assessment and referral services

Needs assessment and referral services (NARS) identify and assess newcomers' needs, determine their eligibility for other direct services, and provide referrals and linkages (Okoye, 2020; Citizenship and Immigration Canada (CIC), 2011). Newcomers taking part in need assessments often get the opportunities to set goals and develop realistic and personalized settlement plans. NARS may be conducted multiple times throughout a newcomer's settlement journey. NARS outputs include needs assessments, settlement plans, referrals to both IRCC and non-IRCC settlement services.

Information and orientation services

Information and orientation services (IO) — offered through group, individual, and/or family orientations — provide newcomers with much needed guidance, information, and resources to help them start their settlement and integration journey in Canada. These services address gaps in information with respect to day-to-day needs, while also strengthening newcomers' understanding of their rights and responsibilities (Okoye, 2020; CIC, 2011). IO services include the provision of information and referrals to language training, as well as community resources for employment, healthcare, legal services, education, banking, and recreation (Okoye, 2020; CIC, 2015).

Language services

Language training services aim to improve newcomers' knowledge of English or French so that they can participate in Canadian society (Okoye, 2020; CIC, 2015). These include formal language training programs such as Language Instruction for Newcomers to Canada (English) and Cours de langue pour les immigrants au Canada (French). These programs can be general — focusing on daily life — or related to specific goals that newcomers might have, like finding a job or applying for citizenship. Language training services can also include informal language learning sessions such as conversation groups or one-on-one conversation lessons that help newcomers practice their English or French. These sessions do not involve any formal tests and may also be considered a community connectivity service.

Employment-related services

Employment-related services help newcomers gain knowledge and skills to enter the Canadian labour market (Okoye, 2020; CIC, 2015). Services range from job bridging programs and career pathways exploration, to work placements that assist newcomers to gain Canadian experience (IRCC, 2017b). Some services also incorporate interventions related to career counselling, such as supports for resume writing, interview preparation, interpersonal skills training, and training to enhance newcomers' understanding of Canadian workplace culture. Employment-specific language training is also part of this body of services.

Building community connections

Building community connections are services that help newcomers connect with people, institutions, and organizations — including employers — in their community (Okoye, 2020; CIC, 2015). These activities range from conversation circles, community events, settlement supports in schools and libraries to mentoring, cultural awareness, and networking activities. Host matching programs are also part of community connections services, where newcomers are matched with volunteer Canadians, including established immigrants. This helps not only the newcomers themselves, who can learn more about life in Canada from the volunteers, but also the volunteers who can learn about a new culture from the newcomers (Okoye, 2020).

Supplementary support services

Support services aim to address barriers for newcomers to facilitate their access to other settlement services (Okoye, 2020; CIC, 2013). These include transportation and care for newcomer children to help facilitate their engagement and participation in language training or informational sessions, for example. IRCC also provides document translation and language

interpretation services for newcomers who have difficulty understanding or speaking the official languages. In addition, clients who need crisis counselling are also assigned a counsellor to help them with traumas and crisis, which may be common among refugees. Finally, there are also special provisions for persons with disabilities to help respond to their unique needs.

DATA SOURCES

The following data sources are linked at the individual newcomer level to establish a consolidated analysis file for the current research project:

The Longitudinal Immigration Database (IMDB), which includes data from the Immigrant Landing File and the Non-Permanent Resident File (NRF). The IMDB datasets contain administrative information for all immigrants and temporary residents in Canada (with the exception of the non-permanent residents who only ever held a visitor's permit). Each year, the administrative datasets are updated with new temporary residents' and immigrants' records. The data include individual characteristics such as gender and landing age, year of birth, immigration admission category, knowledge of the official languages, education at landing, and source country. The dataset also provides information on citizenship acquisition status. The research team has access to the permanent resident dataset from 1952 to 2018 and the NRF from 1980 to 2018.

The settlement service module includes data of newcomers who have accessed and used IRCC-funded settlement services since 2013. A distinction is made between foreign (recipients of pre-arrival services) and domestic services. The foreign and domestic data files contain information on the type and number of services used at the individual level. Both files are then divided into specific service files with detailed information on the services received (i.e., information at the service level). Foreign services include (i) employment-related services, (ii) information and orientation, (iii) needs assessment and referrals, and (iv) community connection services. Domestic services are grouped into seven main services: (i) employment-related, (ii) language assessment, (iii) language training, (iv) information and orientation, (v) needs assessment and referrals, (vi) community connection, and (vii) the Resettlement Assistance Program. The research team has information on each service file from 2013 to 2018.⁴

The T1 Family File (T1FF), which captures information on tax records provided by the Canada Revenue Agency. The T1FF contains information on family size, total household income, wages, donations, etc. The research team has T1FF data from 1982 to 2017.⁵

Each of the three datasets contains a non-confidential person identification number, "*IMDB_ID*" which is a linkage key to combine information of the same individual across the different datasets. The research team linked these datasets to create an analysis sample file for cohorts landing between 2014 and 2018, inclusive.

⁴ Since the deployment of the iCARE was gradual, not all service data were captured in 2013. The SRDC research team was advised by IRCC to examine service usage from 2014 onwards for completeness.

⁵ The 2018 tax year data will be available in 2022.

We begin our analysis by considering individuals who landed in only 2014 (this group will be referred to as the 2014 cohort). We restricted the dataset for this cohort to those aged from 18 to 65 years in 2014 who were living outside Quebec⁶ and remaining as a resident in Canada throughout the study period (up to 2018).⁷

A preliminary examination of the service module identified a number of very similar records of services that require data cleaning.⁸ The research team undertook an extensive data exploration and quality check to identify any challenges associated with using the IMDB and settlement services modules. The main data issues found were as follow:

- Timing of services: The settlement service module of IMDB includes only the month and year in which a service was provided. For newcomers who accessed multiple services within the same month, it was impossible for researchers to determine the specific order of the individual's service pathway.
- Extreme number of service entries per user:
 - Total number of services by the type of service: The maximum number of services per person as observed from the data was 123 for employment-related services, 1,404 services for information and orientation, 156 services for needs assessment and referrals, 504 services for community connections, 49 language training services and six services for language assessments.
 - Total number of services per month: We did not expect the number of services accessed in a month to be substantially higher than the number of work days in a month (19 to 22 on average). However, we found some individuals in the sample who accessed as many as 60 employment-related services in a month, or 111 information and orientation services, 36 needs assessment and referral services, or 102 community connection services. Fortunately, the percentage of individuals who used a higher number of services than available workdays in a month was negligible (up to 0.16% of participants).
 - Based on SRDC's experience working with settlement service providers in other IRCC-funded projects, submission of service information to the iCARE requires

⁶ We used the most recent province of residence based on their tax records in the T1FF.

⁷ Some newcomers left Canada and therefore did not remain as residents.

⁸ The service records identified look mostly similar — almost identical — in the data. However, based on SRDC's observation of service organizations' submission to the iCARE system, it is possible some would report multiple entries for a multi-day service or a single-day multiple topic services. The data extraction to IMDB removes the exact dates of services and the records may appear overly similar. Count of services could be inflated.

substantial effort and organization capacity of the service providers to be accurate. Human errors may result in multiple entries of the same service at the end of each month. Also, certain service programs involve a range of activities and service providers create multiple service entries to capture all the activities to fit iCARE system's data entry organization.

- Timing inconsistency of life events.
 - Citizenship before service start date: Being a permanent resident is a criterion for eligibility of IRCC-funded settlement services.⁹ However, the data contain a small number of individuals who became citizens before the start of their settlement services in Canada.
 - Decease date before service start date: The IMDB data provides information on the decease date of immigrants. A handful of individuals had a decease date before the start date of the services they had taken. This is an obvious data error, but it suggests that there may be other inaccuracies in the dates recorded in the data.
- Data limitations on statistical inference.
 - Small subpopulation groups: Despite a population level database, some demographic characteristics have a limited number of observations in a cohort (some demographic groups represent 0.02 to 1.18% of the cohort).
 - Imputations changing the distributions of some variables: The IMDB dataset contains some imputed variables. For instance, the level of education and education qualification were imputed for some newcomers. Between 2011 and 2014, those who had no information on education were coded as "o" or "None" instead of missing. To deal with this missing information, IRCC/Statistics Canada imputed missing individual education information using education variables from 2008 to 2010 and other characteristics such as admission age, immigration category, intended occupation, gender and country of last permanent residence. The nearest neighbour imputation method was used. Although imputations have been generally used in Statistics Canada's datasets without any substantial issue, we observed a change in the distribution of some variables in IMDB without the imputed values. Usage of the imputed values could substantially alter the results of the analyses.

⁹ Permanent resident status after service start date was not checked. Some temporary residents may be eligible to use settlement services if they have been approved for permanent residence and are waiting for other documents.

Based on the work in examining the IMDB data for possible issues, the SRDC research team adopted the following practices to manage identified challenges:

- Multiple services with the same subject or content were reduced into a single detailed service entry: Using the detailed topic or program for each service, we created an intensity variable that showed the number of detailed programs in a month. For instance, for information and orientation, the same topics (e.g., Becoming Canadian) in the same month can be collapsed to reduce the number of services per month.
- Detailed services per person per month were limited to 22 (the maximum number of working days in a month).
- Observations with problematic chronological dates were dropped: We dropped the few cases where the start of a service started after the citizenship date.
- Observations of people who were deceased, those who became non-resident, or those with no tax record since landing were also dropped because it is not possible to derive outcome indicators for these small number of cases.
- Groups with small sample sizes that were conceptually logical were combined.
- Categories for imputed observations were created and treated as missing.
- Detailed service content was looked at both from the perspective of service incidence, as well as service intensity: Using the detailed topic or program for each service, we created an intensity proxy that showed the number of detailed services in a month. We collapsed the dataset to reduce the number of detailed services in a month, keeping a record of the intensity for each detailed topic or program. For instance, for information and orientation, the same topics (e.g., Becoming Canadian) in the same month could be collapsed to reduce the number of services per month. This was, however, not helpful in reducing the likelihood of situations where the number of observations of a specific detailed service is too small for statistical inference. The research team decided to conduct service usage and pathway analysis based on the broad service category instead of the detailed service content for the first stage of the project. The impacts of some specific service content could be further examined in the second stage as long as there are a sufficient number of observations.

After the data cleaning, the final analytical sample size for the 2014 arriving cohort came to approximately 153,050.¹⁰

¹⁰ Note that sample sizes in this report are rounded to suit the vetting process at the Research Data Centre.

A PORTRAIT OF SETTLEMENT SERVICE USAGES

For this report, “participants” are defined as those who participated in any of the IRCC provided services between 2014 and 2018. “Non-participants” are those newcomers who have not taken any IRCC services. It should be noted that non-participants could have received settlement services or employment services funded by non-IRCC sources.¹¹ Our total sample includes 153,050 observations – 78,455 (51%) of those are the participants of the IRCC provided services and 74,595 (49%) are non-participants. We first compare the basic demographic characteristics of participants and non-participants using the analysis sample we described in last section, then we discuss the usages of specific service among participants.

PROFILES OF PARTICIPANTS AND NON-PARTICIPANTS: SIMPLE COMPARISON

The following are the simple comparisons of the participants and the non-participants in the 2014 cohort of newcomers. In our analysis we focus on the characteristics that might influence a newcomer’s probability of accessing the services and may affect the choice of the services they use, based on the findings in the literature and our previous experience. These include gender, age, education, immigration category and applicant status, skill level of intended occupation, birth region, province of residence, knowledge of official languages, and indicator variables of prior time spent in Canada before landing (pre-landing tax filer and non-permanent resident status prior to landing). Please refer to Figures Figure 1–Figure 3 for the graphic representations of these results. The list below summarizes the key findings and differences between the characteristics of those who took part and who did not take part in the services.

- **More than half of the participants of IRCC-funded services are female** (58%), while non-participants are more equally split, with 50% of them being female.

¹¹ Provincial and municipal governments have funded various service organizations, including some IRCC-funded organizations, to provide settlement services that are similar to the IRCC funded settlement services to newcomers. Employment and Social Development Canada (ESDC) and provincial governments also funded employment services that newcomers could have been eligible to use. Unfortunately, the IMDB data does not link to any record of services funded by non-IRCC sources. Given that there is no exclusion criterion to any IRCC-funded service if a newcomer has received or is receiving service from elsewhere, estimates related to IRCC settlement services using the IMDB data can only account for the incremental impacts of the IRCC settlement services compared to the status quo.

- The **participants tend to be slightly older**, with about 13% of them being 45–54 years old in 2014 compared to 9% of non-participants. A majority (61%) of non-participants are 18–34 of age while only half (50%) of participants were that age in 2014.
- **Participants are more likely to have a spouse:** About 68% of participants and 52% of non-participants are married or in a common law relationship.
- **Participants have a larger family size**, with 51% having more than two people in their family in 2014, compared to only 34% of non-participants.
- **Participants are slightly less likely to be a principal applicant of immigration**¹² – only 66% are principal applicants compared to 76% of non-participants.
- **Over one-quarter of participants of IRCC-funded settlement services (27%) speak neither French nor English.** In contrast, only 14% of non-participants speak neither French nor English.
- As expected, most newcomers come to Canada as economic work program class immigrants, but **there are more economic work program class immigrants among non-participants (43%) than among participants (35%).** Interestingly, **immigrants who arrive under the economic business program are almost twice more likely to be participants of IRCC services.** Also, the percentage of refugees among participants is almost five times higher than that of non-participants (14% of participants vs. 3% of non-participants).
- **Participants and non-participants of IRCC settlement services distribute similarly across provinces and territories, with the exception of Manitoba**, where there are twice as many service participants as non-participants.
- **Participants of services are most likely to be born in Asia** (76% of participants and 67% of non-participants) **or Africa** (10% of participants and 6% of non-participants). However, non-participants are significantly more likely than participants to be from North America, Europe, and Australia.

¹² Regarding the definition of “principal applicant”, IRCC has this description in the “Guide 5525 – Basic guide: Sponsor your spouse, partner or child”: “when a family applies together, one member must be the main or “principal” applicant. For example, a mother applying for permanent residence with her three children would be the principal applicant. When parents are included in an application, dependent children cannot be principal applicants.” Retrieved from <https://www.canada.ca/en/immigration-refugees-citizenship/services/application/application-forms-guides/guide-5525-basic-guide-sponsor-your-spouse-partner-child.html> on March 21, 2022.

- **Participants are less educated than non-participants:** About 21.5% of participants have secondary school diplomas or less, compared to 15.7% of non-participants.
- Figure 3 shows the percentages of participants and non-participants in different categories (i.e., worker status and skill levels of intended occupation). **Service participants are more likely to be new workers** (those who have never worked before), **other non-workers** (homemakers and those who have not identified their intended occupation) and **students**, and are less likely to indicate trades and technical skills (skill level B) in their intended occupation than that of non-participants. The percentages of higher skills (levels O – managerial and A – professional) workers, lower skills (levels C/D) workers, and retirees are similar among participants and non-participants. For a detailed explanation of each skills level, see Table 3 in the appendix.
- Finally, **participants of services are much less likely to have been a temporary resident in Canada before landing.** About 65% of non-participants compared to 27% of participants have a record in the NRF before their landing.

Please refer to the Table 4 in the appendix for more detailed statistical figures.

Figure 1 Basic characteristics of participants and non-participants in IRCC-funded services: gender, marital status, and language

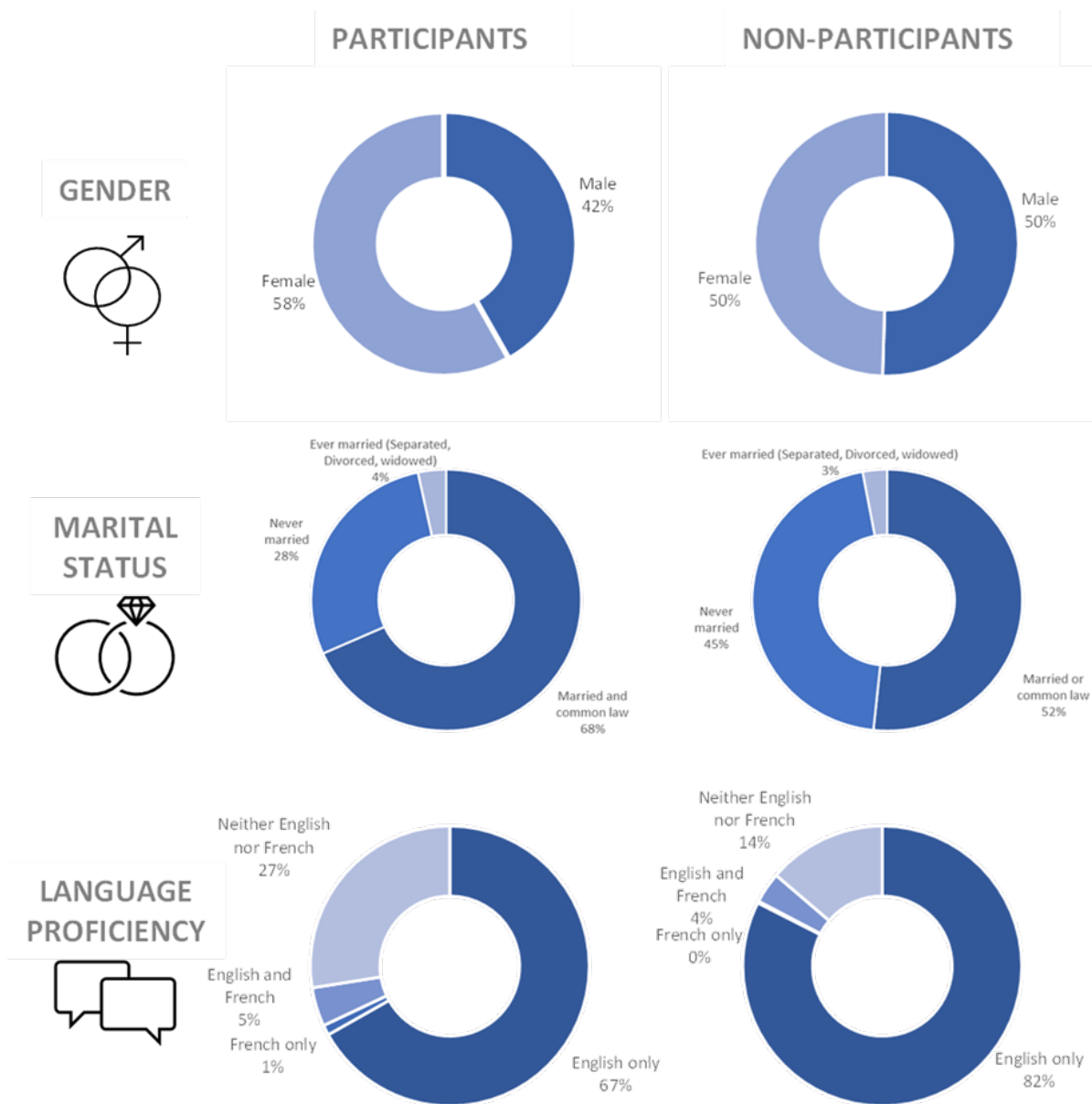


Figure 2 Basic characteristics of participants and non-participants in IRCC-funded services: age, immigration category, province, and birth region

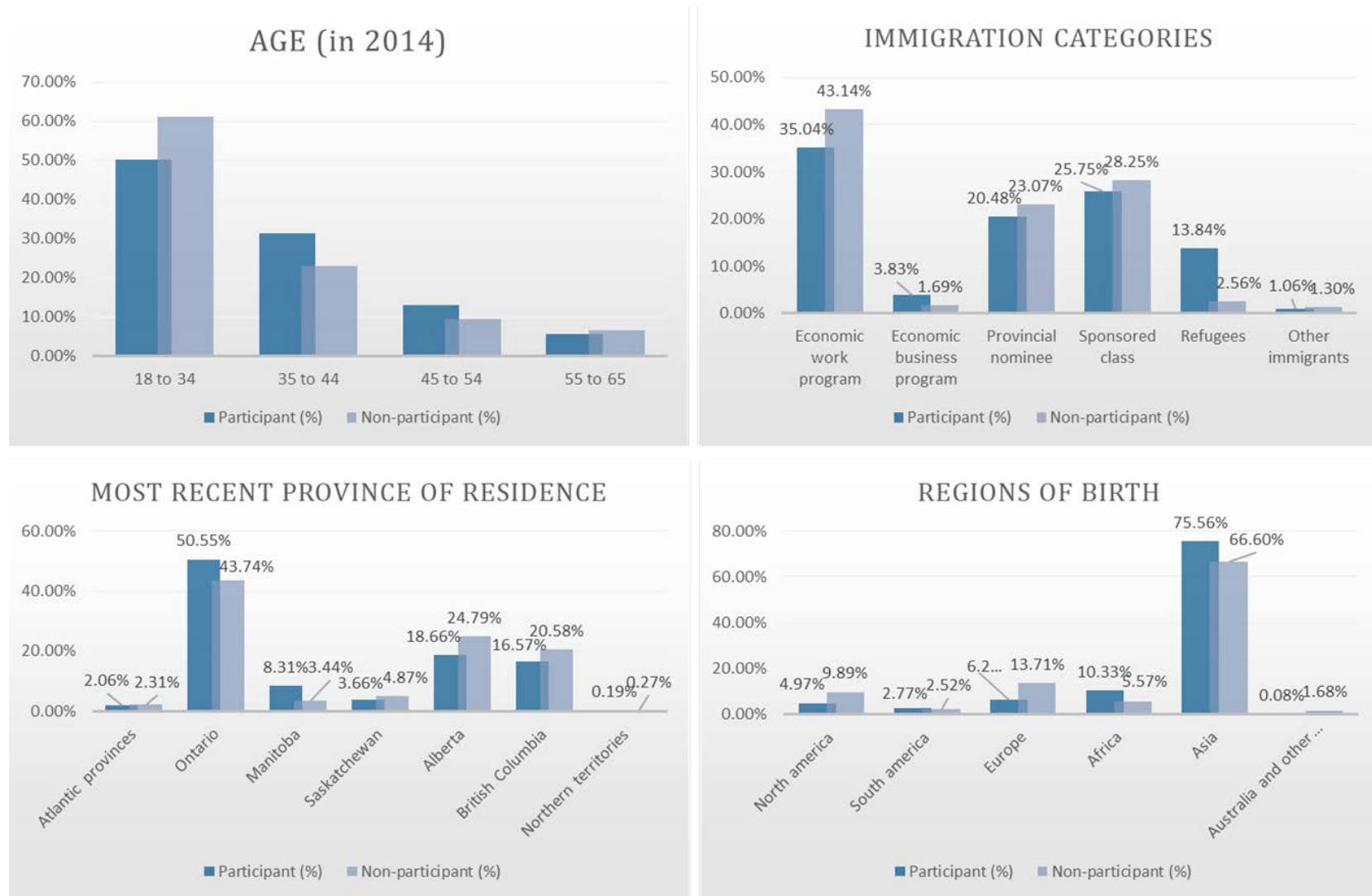
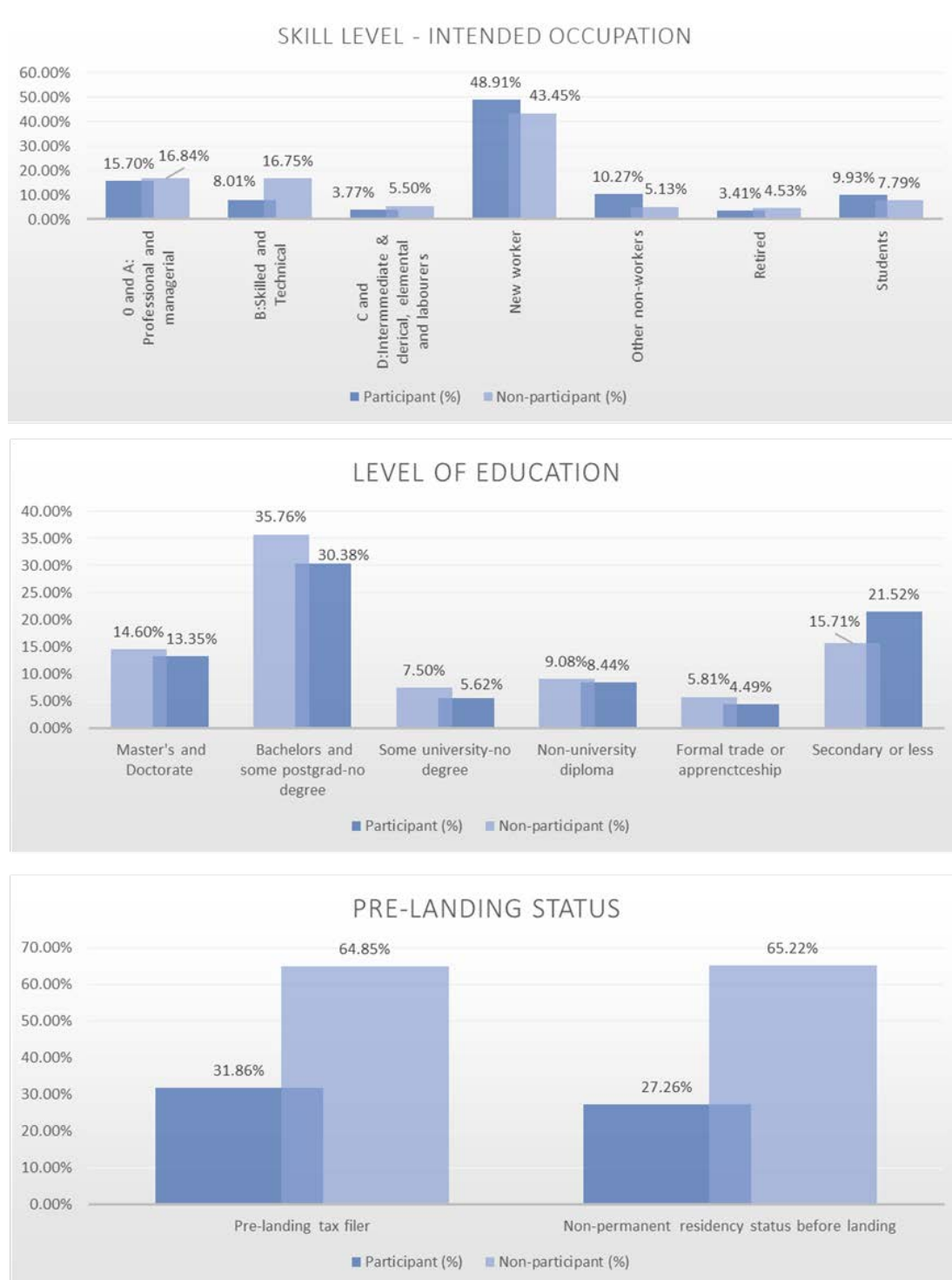


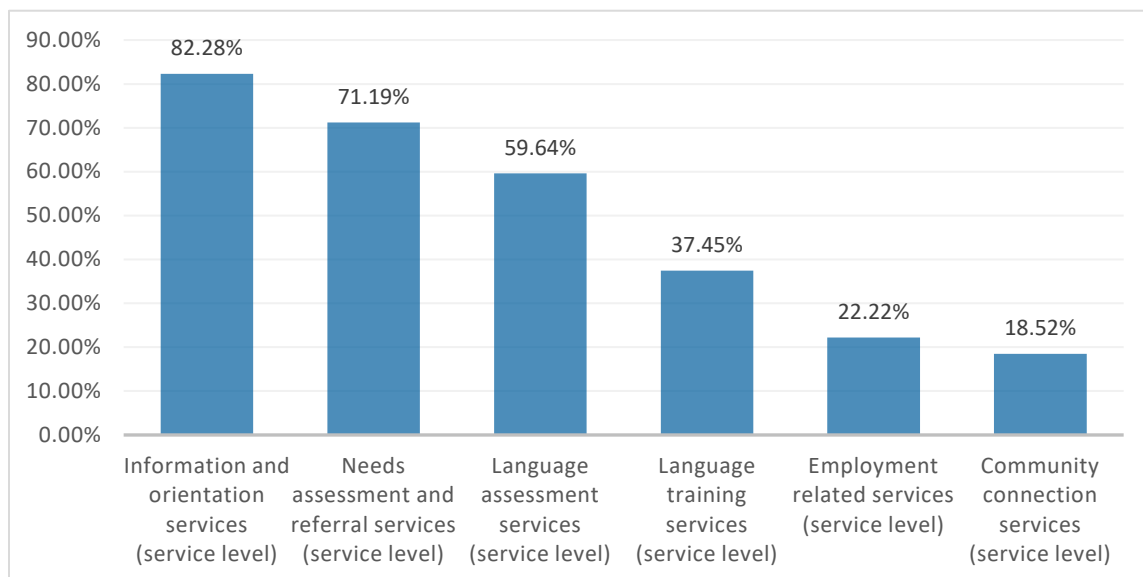
Figure 3 Basic characteristics of participants and non-participants of the IRCC-funded services: skill level, education, and pre-landing status



Usage of specific settlement services among service participants

This section presents the usages of specific services among newcomers who had used one or more IRCC-funded settlement services. Figure 4 below summarizes the percentages of participants in various specific services. As expected, information and orientation services are the most used by the newcomers (82%), followed by the needs assessment services (71%). Language assessment and language training are used by about 60% and 38% of newcomers and only about one-fifth of the users take part in community connections and employment-related services. In the sections that follow, we discuss the characteristics of the newcomers who partake in these different service types and highlight their differences.

Figure 4 Usage of services (% of users participating in a service)



DETERMINANTS OF SERVICE USAGE: WHOLE SAMPLE

Tabulations of the participant characteristics provide us with some basic idea about who the service users are. However, to get a more precise picture of who uses which services, we run a multivariate regression analysis. In the regression we control for various characteristics to see which ones have a significant correlation with participation in the services. The results of the regression show us the relation between each characteristic and the probability of participating in services/using a particular service while accounting for the possible effects of other characteristics. Potentially, each of the characteristics included in the regression could be a “determinant” of service participation, even though the regression does not demonstrate any causal effect between the characteristic and the participation decision.

We first look at the determinants of general participation in any service. Following our basic comparison, our regression analysis includes gender, age, principal applicant status, immigration category,¹³ continent of birth, most current province of residence, skill level, education, knowledge of official languages, indicator of having previously been a non-permanent resident, and pre-landing tax filler indicator, as potential determinants. The results of the regression can be seen in the first column of Table 1 below. Note that when interpreting the results of the regression, we must be mindful of the reference category, to which we are comparing other groups. For service participation, the reference categories are (unless stated otherwise): men, 35–44 years old, principal applicants, newcomers arriving under the economic work program, born in Asia, residing in Ontario, other non-workers (homemakers and those who did not indicate their intended occupation), those with secondary education or less, and those who do not know either of the official languages.¹⁴

Table 1 presents the results of the six regression analyses for specific settlement service usage among IRCC service participants, examining the characteristics of the likelihood for using a specific settlement service relative to other IRCC settlement services.

¹³ Ideally, the analysis should divide the sample by immigration category to account for the contextual differences of newcomers' integration journey. Unfortunately, the sub-sample of refugees is not sufficiently large to examine all the potential characteristics reliably and to meet the Statistics Canada requirements of disclosure. In the later sub-group analysis, we have to combine the refugee sample with other immigrants' sample and examine the distinct differences of the economic class newcomers.

¹⁴ The research team recognizes the reference category is an atypical combination of characteristics of newcomers. This is an unintentional result of statistical package programming during the analysis.

Table 1 Regression on participation indicators controlling for demographic characteristics

	Participants		Information and orientation	Needs, assessment and referrals	Language assessment	Language training	Employment-related service	Community connection
Gender								
Male (reference category)								
Female								
Age in 2014								
18 to 34								
35 to 44 (reference category)								
45 to 54								
55 to 65								
Applicant type								
Principal applicant (reference category)								
Spouse/dependent								
Class of immigration								
Economic work program (reference category)								
Economic business program								
Provincial nominee								
Sponsored class								
Refugees								
Other immigrants								

	Participants		Information and orientation	Needs, assessment and referrals	Language assessment	Language training	Employment-related service	Community connection
Continent of birth								
North America								
South America								
Europe								
Africa								
Asia (reference category)								
Australia and other international								
Most current province of residence								
Atlantic provinces								
Ontario (reference category)								
Manitoba								
Saskatchewan								
Alberta								
British Columbia								
Northern territories								
Skill level – intended occupation								
0 and A: Professional and managerial								
B: Skilled and technical								
C and D: Intermediate and clerical, elemental, and labourers								
New worker								

	Participants		Information and orientation	Needs, assessment and referrals	Language assessment	Language training	Employment-related service	Community connection
Other non-workers (reference category)								
Retired								
Students								
Education								
Secondary or less (reference category)								
Formal trade or apprenticeship								
Non-university diploma								
Some university — no degree								
Bachelors and some postgrad-no degree								
Master's and doctorate								
Knowledge of official language								
English only								
French only								
English and French								
Neither English nor French (reference category)								
Canadian Experience								
Ever non-permanent resident								
Never a non-permanent resident (reference category)								

Note: Shading denotation — More likely: Positive and statistically significant at 5% level Less likely: Negative and statistically significant at 5% level.

Key findings

Based on the multivariate analysis results, we summarize the statistically significant partial correlations into a few stylized facts about the potential “determinants” of service usages. Although there are a number of characteristics that are correlated with service usages, we found that all of the characteristics we have examined explain only a small portion of the service usage variation.¹⁵

Usage of any service:

- Women are more likely to participate than men.
- Those who only speak French are more likely to participate than those who speak neither French nor English.
- Those with apprenticeship/trade or non-university diplomas are more likely to use services than those with secondary education or less.
- Newcomers of the prime working age (35–44) are most likely to participate in the services.
- Refugees and other classes of immigrants are also more likely to use the services compared to economic work program immigrants.

The multivariate analysis results (partial correlations) align with the descriptive analysis (simple correlations) and with the existing knowledge of the characteristics of service users (IRCC, 2021).

Usage of specific service among service participants:

- Women are more likely than men to use information services, language assessment and training and community connections services, while there is no gender difference in usage of needs assessment services or employment-related service.

¹⁵ The R-squared associated with our estimation is consistently below 0.2. Although it is not an exact metric, the value is usually associated with high mis-classification errors if the model is used to predict service usages.

- Spouse/dependents are more likely than principal applicants¹⁶ to use any settlement service other than information and orientation, where both principal applicants and spouse/dependents are equally likely to engage.
- Those arriving under the economic work program are most likely to use needs assessment and referrals but less likely than any other immigration class to use language assessment and training services. The lower usage of language assessment and training services is consistent with the selection criterion of economic work program.
- Newcomers residing in Ontario are most likely to use needs assessment and referrals but least likely to use language training and community connections services.
- Newcomers born in Asia are least likely to take part in employment-related services.
- Interestingly, after controlling for occupation skill levels and demographic characteristics, there is no correlation between education levels and participation in employment-related services.
- Skilled workers (with the occupation skill level o: managerial, A: professional, or B: skilled and technical) are most likely to participate in employment-related services.
- Younger newcomers (in the 18–34 and 35–44 age groups) are most likely to participate in employment-related services.
- Those who speak only French are more likely than those who speak neither English nor French to participate in any settlement services other than needs assessment and referrals.
- Those who speak English only are less likely than those who speak neither of the official languages to participate in any settlement services other than employment-related services.
- Those who speak neither French nor English are least likely to use employment-related services.
- Those who have ever been a non-permanent resident before landing are less likely to use any of the services. Newcomers who have filed taxes prior to landing are less likely to access all the services except information and orientation and needs assessment and referrals.

¹⁶ Note that principal applicant category includes both single and married newcomers. We chose to exclude the marital status from the regression, given that it is highly correlated with the “spouse/dependent” status.

These key findings provide us with some basic understanding of the participants' characteristics. In the next section, we go one step further and take a look at the characteristics of participants of different services in each sub-group of participants.

SUBGROUP ANALYSIS AND INTERSECTIONALITY

It is possible for there to be some fundamental differences between different newcomers. For example, those who arrive in Canada as refugees may face a unique set of challenges and they may have different needs and goals compared to those who arrive as economic class newcomers. Principal applicants, spouses and dependants may have different needs and interests in different services. Similarly, men and women may have different approaches to and priorities in accessing services. Thus, to get a clearer picture of the characteristics of service users and to better understand the patterns of service participation, we have divided our data into sub-samples. First, we separate economic newcomers (economic work program, provincial nominees, and economic business newcomers), those who arrive under the sponsorship category and refugees/other immigrants, and look at their usage of services. We then look at men and women separately, and then consider the differences between the principal applicants and spouses/dependents. We present the partial correlation estimates from the multivariate regressions in Table 7 (Appendix) and explore key findings with statistical significance. Differences without statistical significance from the reference category are not discussed.

Immigration classes — key findings with statistical significance

- Men and women of economic class immigration are equally likely to access the services. In contrast, women in the sponsorship and refugee classes are more likely than their male counterparts to participate in the services.
- In general, spouse/dependents and principal applicants are equally likely to participate in the services. However, spouses/dependents who arrive under the sponsorship category are less likely to be service participants.
- Among economic class immigrants, newcomers from South America are most likely to access the services, followed by newcomers born in Asia.
- Among economic class immigrants, c newcomers with formal trades, non-university diploma or Master's and Doctorate degrees are more likely than those with secondary education or less to access services.

- Among economic class immigrants, younger (18–34) newcomers are less likely to participate in IRCC-funded settlement services than a slightly older group (35–44), and the younger service participants to prefer employment-related services over other settlement services.
- Among sponsorship class immigrants, newcomers from Africa are most likely to access services.

Male vs. female newcomers — key findings with statistical significance

- Male spouses or dependents are more likely than male principal applicants to participate in IRCC-funded settlement services. There is no statistically significant difference in the likelihood of participation in any service among female principal applicants and female spouse or dependents.
- For women, those 35–44 years of age are most likely to participate in services compared to their older or younger counterparts. For men, this age range is wider, those 35–54 years of age are most likely to participate in IRCC provided services.
- Men 45–54 years old are more likely than their younger counterparts (35–44 years old) to participate in language training.
- Women from Africa are more likely to use community connections than women born in Asia while men from Africa are less likely to use community connection services than men born in Asia.
- Women living in Atlantic provinces are less likely to use employment services than women in Ontario. In contrast, men in Atlantic provinces are more likely to use employment services than men in Ontario.
- In terms of different skills levels, female newcomers who are “non-worker” have the highest probability of participating in IRCC-funded settlement services. For male newcomers those with skills levels B, C and D are more likely to participate in services than the reference group “non-worker” male newcomers.
- For female newcomers, those who have some formal trade or apprenticeship are more likely to participate in any services than those with secondary school education or lower. Female service users who have some formal trade or apprenticeship also are more likely than female service users with only secondary education or lower to use language services.

- Male newcomers with a bachelor's degree are most likely to participate in services compared to men with other educational attainment. They are also most likely to use community connections and needs assessment/referrals services.
- For both sexes, service users with a bachelor's degree or higher education are the most likely ones to participate in employment-related services compared to service users with other educational attainment.

Principal vs. spouse/dependent applicants — key findings

- For both principal applicants and the spouse/dependents, women are more likely to use all types of services than men apart from needs assessments and employment-related services — there is no statistical difference between men and women participation rates for these services.
- For principal applicants, those with secondary school education or less are most likely to participate in services. They are also most likely to use language assessment services. Those with some university degree and higher are more likely to use employment services.
- In contrast, for spouse/dependents, those with secondary school education or less are least likely to participate in services. Those with formal education credentials (trade, university and higher) are more likely to use employment services and language assessment.
- Spouse/dependents with non-university diplomas are most likely to use language training, while spouse/dependents with bachelor's degree and higher are least likely to use language training services.

There may be different explanations for these findings. Some of these are expected (e.g., newcomers with higher degrees/higher skill levels using employment services), and some are less intuitive. At this point of our analysis, we are being agnostic in our interpretations, and are taking the findings as given. In the next stage of the project, we will use these correlations to create propensity scores for participation in service(s) and use these to match non-participants with participants based on their observable characteristics.

GBA+ discussion

Overall, there does appear to be a gender difference in service usage (women are more likely than men to use services) and there are some differences for spouse/dependents. These differences could be explained by the different family roles of women vs. men (or principal applicant vs. spouse/dependent) and their different responsibilities. The fact that there is a

higher likelihood of younger adults taking part in services is also understandable, as this group is the most in need of finding a job and supporting their family or in need of starting their life in Canada.

The differences between newcomers born in different continents could be related to cultural differences or differences in social trust due to their life experience in their home country. It is impossible to pinpoint the exact sources of these differences with our data. The discrepancies between service usage across provinces could be because of the availability of the services, or the differences of composition among the provincial nominees.

Some of the above noted differences could also be due to communication and information-sharing among newcomers. For example, a principal applicant may be more apt to share important settlement information with their spouse/dependent, or there may be a more effective transfer of information within some of the ethnic and cultural communities. Finally, those who have been in Canada prior to landing (pre-landing tax filers, those with non-PR status) may either be familiar enough with the country to not need the services or believe that the services will not be useful to them, thus explaining their low participation.

AN EXPLORATION OF SETTLEMENT SERVICE PATHWAYS

The next step in the project is to identify any common pathways that newcomers might follow during their integration journey. If we can identify systematic similarities among participants in specific groupings of services, we can strengthen the matching process in the second phase of the project. In the following sections, we present some descriptive analysis and provide general information and statistics of access and timing of services; describe the terminology and define the pathways. While the data does not show distinct settlement service pathways that particular types of newcomers used, we note the most common patterns of services and summarize the characteristics of those who engage in these most common pathways.

IDENTIFICATION OF SETTLEMENT SERVICE PATHWAYS — PROCESS AND ISSUES

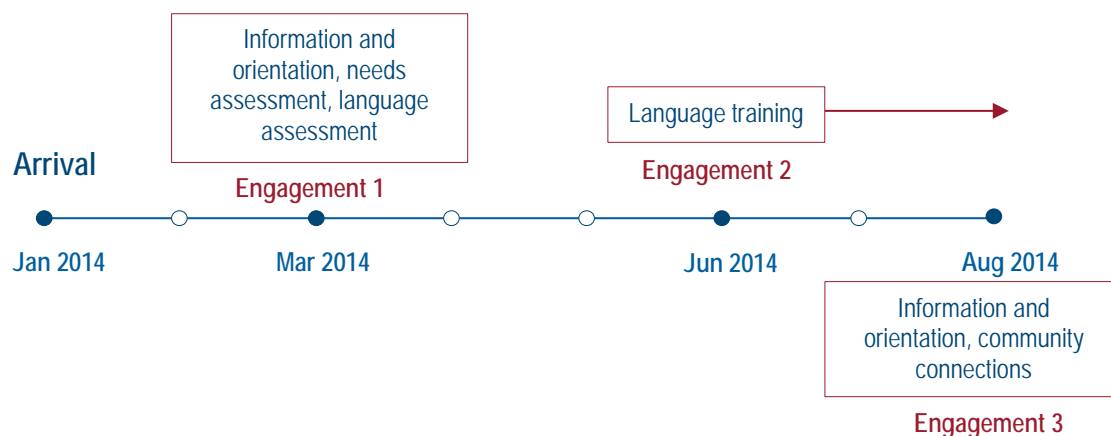
One of the goals in the first phase of the project is to examine whether there are some common “pathways” that newcomers take when navigating the services provided by IRCC. However, newcomers often use the services concurrently, with many taking more than one service in their first month, repeating the services month after month and using services for different lengths of time. Since the data provided through IMDB is reported monthly, it is impossible to identify the exact order of the services taken in the same month.¹⁷ This creates a challenge in defining an exact pathway of services as a collection of sequential single services. The smallest unit of the length or duration of a service is measured in months in the data. Services starting and ending in the same month might actually range from one hour of service to a daily program taking place within the same month. The precise length or duration of the service is not identifiable. Because of these data challenges, we look at the newcomers' service pathway as a series of “engagements” instead of a series of precisely observed sequence of services.

¹⁷ Service providers' submissions to the iCARE contain the date(s) of the service provided and it is in theory possible to determine the sequences of services. However, the reality is much more complex. In some earlier versions of iCARE, some services were reported in a single entry with a start and an end date with the specific dates of services listed in a separated variable, but service providers could also report each date of the service as a separated service entry. The inconsistent reporting is likely to lead to unreliable determination of service sequence within a short period of time. Recent versions of iCARE have changed the structure to allow more consistent reporting. Based on typical Statistics Canada's data quality control standard, it is assumed that reducing the timing of each service to the calendar month is a reflection of the level of data accuracy.

The first engagement is defined as the combination of services a newcomer starts within the first month of their participation. The second engagement is the combination of services a newcomer starts during their second month of service usage, and so on. The months of engagement do not have to be consecutive – we will explore the gaps in the service usages later in this section. As previously noted, services could be taken over different lengths of time, some ending in the same month they started and some lasting for several months. An "engagement" will only include the services that were started in that month.

For an example, consider newcomer A, who arrived in Canada in January 2014 (Figure 5). Newcomer A went to a service provider in March 2014 and took part in information and orientation, needs assessment and language assessment services. In June 2014, newcomer A started the language training, and in August 2014, newcomer A took part in information and orientation and community connections services, while A was still enrolled in the language training which started in June. Thus, under our working definitions, the first engagement is composed of "information and orientation-needs assessment-language assessment" in March 2014, while the second engagement has "language training" only from June onwards, while the third engagement includes "information and orientation-community connections" in August. Note that the third engagement does not include the language training even though the newcomer was still enrolled in that service. Figure 5 below shows this sample pathway. For the rest of this section, we use the word “engagement” to describe the interactions between service providers and newcomers.

Figure 5 An example of engagement pathway



"Timing" of service engagements

The exact types of services used by the participants are important – however, the timing of engagements may also matter and systematically differ across participants. For example, some

users may take up services in a continuous period, while others may come and go and have breaks between engagements. Some may participate in services immediately upon arrival, while others may delay their participation. Some reasons behind these differences may be benign. For example, someone may take a break between services to do something else, such as education or skill training not funded by IRCC. Some reasons may be more worrisome, such as the lack of awareness or the lack of access to services needed for a specific demographic group. Currently, the data does not allow us to investigate the reasons of service timing, but we want to summarize the data on timing to get a better picture of newcomers' pathways through the services.

We summarize the basic statistics of service usage timing in Table 2 below. Here we look at the timing of accessing services:

- At what point after arrival did newcomers seek services?
- What is the proportion of those who used only one service?
- How many participants took breaks (four months or more)¹⁸ between their engagements with the service providers?
- How many newcomers who used services in an educational institution (which services are typically longer than services from non-educational service providers)?
- How many used services provided by more than one organization?

In terms of when did newcomers first use IRCC settlement services, a majority of settlement service participants (70%) accessed their first service within the first six months after arrival. Only about a fifth accessed the first service after a year in Canada.

Among service participants, 74.8% have a second engagement, 58.7% have a third engagement, 47.6% have a fourth engagement, 39.1% have a fifth engagement, 32.5% have a sixth engagement and 27.3% have a seventh engagement. The percentage with a higher number of engagements continues to decrease until the maximum number of engagements (56). For tractability, we have focused our analysis on the first six engagements.

¹⁸ The research team examine the distribution of the number of months of breaks in between services and found a substantial drop in percentages between 3 and 4 months of break length. We speculate the substantial drop in percentages reflect the completion of a course of services address individuals' needs before the next prevalence of needs appear.

In terms of the duration of service engagement, almost one-quarter of service participants use no more than a single month of services, and about 2% of participants have a single spell of multiple months of services (for example, language training that could last several months).

Table 2 **Patterns of service usage — descriptive statistics**

Types of service users	Percentage of users
Duration before accessing services (up to 6 months)	69.50%
Duration before accessing services (7 months to a year)	8.90%
Duration before accessing services (over a year)	20.50%
Single engagement: Users with a single month of services and all services ended in that first month	23.30%
Single engagement: Users with multiple months of services (e.g., several months of language training)	1.90%
Multiple engagements: No breaks in services used in the first six engagements	30.10%
Multiple engagements: Few breaks in services used in the first six engagements (1–2 breaks)	40.40%
Multiple engagements: Many breaks in services used in the first six engagements (3 and more breaks)	4.30%
Used a service provided by a postsecondary institution	11.20%
Used services from multiple organizations	49.90%

About one-third (30%) of service participants are continuously involved in IRCC-funded settlement services for the first six engagements. About 40% have one or two breaks (of four or more months) and only 4% of service participants have many (3 or more) breaks in their service history. Examination of first six engagements capture the majority of service usages.

Almost a half of service users participate in services from multiple organizations. This is not surprising — service providers often refer their clients to other settlement service organizations, especially for language assessment or training.

Thus, most newcomers who participate in the services start using them very soon after arrival (within the first six months) and use services more or less within a short period of time, with no

more than one or two breaks between engagements. It appears that arrival and the start of the settlement process is the only trigger of the services, and it is very difficult to predict accurately who needs services at a particular point after the first six months.

Note that about one-quarter of newcomers engaged with IRCC-funded settlement services only access the services once. There are multiple potential reasons for this, which cannot be narrowed down using the existing data. For example, it is possible for a newcomer to simply need some information and guidance to start their life in Canada, which could be provided within the context of a single service. It is also possible for a newcomer to require a service, receive it, not find it useful and therefore not seek additional services. Newcomers may also find other settlement services not funded by IRCC and so not have their participation captured in either the iCARE system or the IMDB, making it difficult to predict service participation using that data.

Given the nature of the data and the service engagement exploration, identification of chronological service pathways is neither likely to be possible nor informative. The focus of the service pathways analysis is thus shifted toward examination of service combinations taken by newcomers.

Top service combinations

Under the earlier definitions of engagements, we find that there are 59 combinations of services in the first engagement, 1,159 combinations of services in the first and second engagements and 6,243 combinations of first, second and third engagements. While the number of combinations is quite high, some pathways will be more common than others. To further investigate the most common pathways and the proportion of participants following them, we focused on the top ten service combinations for the first engagement, first and second engagement, and first, second and third engagements. Because each additional engagement significantly increases the possible combinations, we do not focus on pathways beyond the first three engagements. Figures below show the top ten service combinations for each of the engagement sequences.

If we examine the first engagement only (Figure 6), a considerable proportion of the participants (26%) use a combination of information and orientation and needs assessment services. Almost one-fifth (19%) of the participants use information and orientation alone and 18% use language assessment in their first month of service usage.

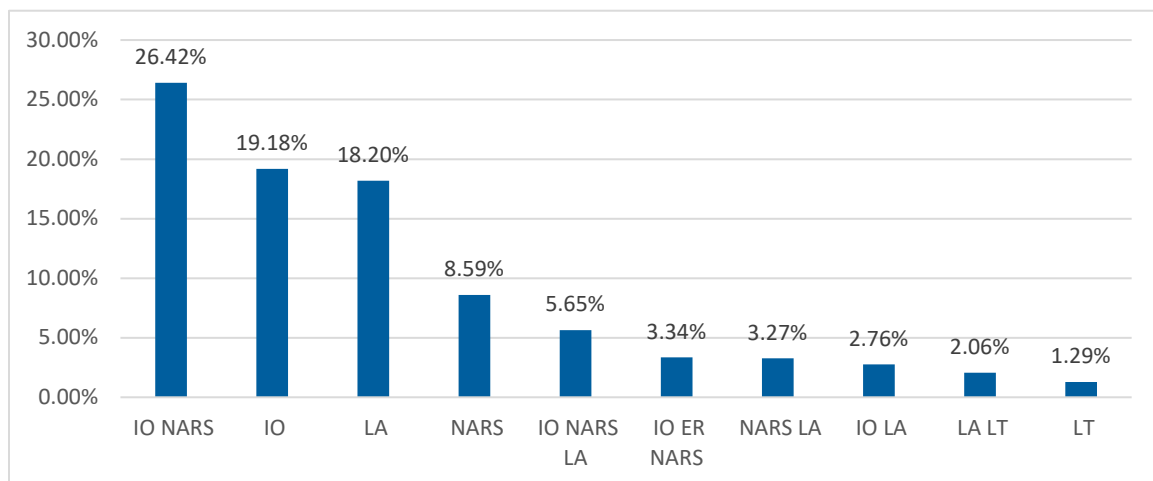
As we extend the pathway horizon to the second and third engagements (Figure 7 and Figure 8), there is a significant reduction in the proportion of participants using any specific combination of services. For the first and second engagements together, the top three service combinations are information and orientation/needs assessment and referrals (7.34%), information and orientation/needs assessment/information and orientation (7%) and language assessment/language training (5.7%). Similarly, when we consider the first three engagements'

combination, the top three most commonly used service combinations are information and orientation/needs assessment, language assessment (alone), and information and orientation (alone), with each combination being used by less than 8% of the participants. Many participants have their unique combinations of IRCC-funded settlement services.

The uniqueness of the service usage combination is not surprising, given how much importance is put on the customization of the services for each newcomer's needs by the service providers. Each newcomer's unique circumstances, abilities, priorities, and goals shape the person's pathway through the services.

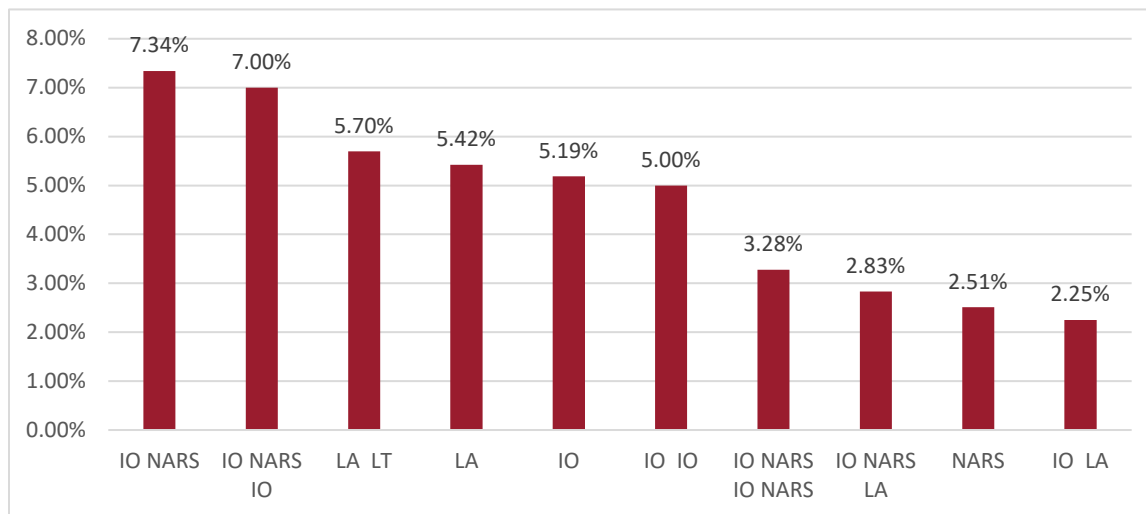
It appears that information and orientation and needs assessment services are some of the more popular services offered to newcomers, by itself or in combination with other services. Information and orientation services are also often used repeatedly by participants. Unfortunately, even though the data include information of the service content and the intensity of information and orientation sessions, the complexity of the content and intensity can be difficult to discern without more detailed information. Given the wide range of potential interactions that could fall under the umbrella of information and orientation, we should be careful in interpretation of the frequency of use of these services. Further investigation via consultations with practitioners should provide a better basis for analysis.

Figure 6 Top ten service combinations: first engagement, all participants



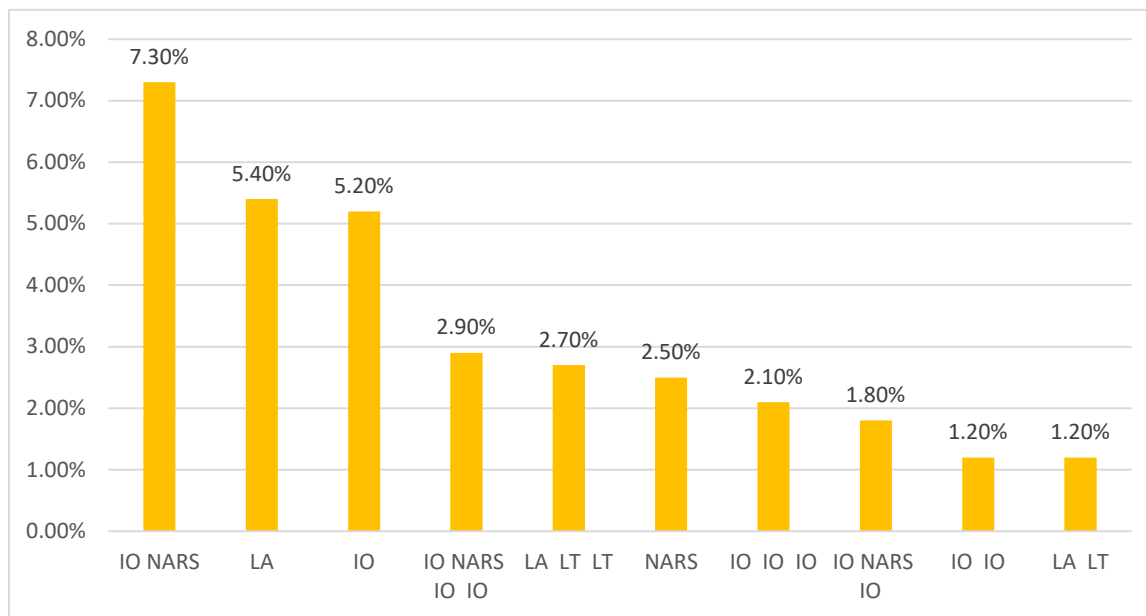
IO — information and orientation; NARS — Needs Assessment and Referrals; LA — Language assessment; LT — Language training; CC — Community connections; ER — Employment-related services

Figure 7 Top ten service combinations: first and second engagements, all participants



IO — information and orientation; NARS — Needs Assessment and Referrals; LA — Language assessment; LT — Language training; CC — Community connections; ER — Employment-related services

Figure 8 Top ten service combinations: first, second and third engagements, all participants



IO — information and orientation; NARS — Needs Assessment and Referrals; LA — Language assessment; LT — Language training; CC — Community connections; ER — Employment-related services

Characteristics of users for top ten service combinations

Despite the uniqueness of service combinations for most newcomers, we still observe that the top few service combinations for the first three engagements are used by at least 7.3% of service participants. Each of the top service combinations may be used by different types of newcomers. It is interesting to find out whether any of the characteristics are significantly related to a particular combination of services.

As stated above, the five most common service “pathways” for the first three engagements are:

- Information and orientation and needs assessment and referrals.
- Information and orientation (as a standalone service, meaning that a person only engages in one information and orientation session within their first three engagements and no other services).
- Information and orientation, needs assessment and referrals, information and orientation, information and orientation sequence.
- Language assessment, language training, language training.
- Language assessment (as a standalone service).

We considered these five service combinations within the first three engagement are some “typical” service choices, relative to other unique combinations. To understand which participant characteristics are associated with each of these five combinations, we made use of multivariate regressions to examine the relation between observable characteristics and the incidence of each service combination.

The results of the regressions are available in the Appendix Table 8. Overall, the characteristics of the participants of these combinations of services are similar to the characteristics of the service participants at any point in time.¹⁹ There are, however, a few differences that are worth noting:

1. Women and spouse/dependents are less likely to be participants of these five common pathways (with the exception of language assessment–language training–language training) compared to men and principal applicants, respectively, even though in general, women or spouse/dependents are more likely to be service participants.

¹⁹ Note, that in general, the characteristics of users of Information Orientation and needs assessments and referrals services are similar, and characteristics of users of language assessment and training are similar.

2. Newcomers aged 18–34 and 55–65 are more likely to follow the five common pathways, although in general those who are 35–44 are most likely to use settlement services.
3. Newcomers who know English are more likely to use the five common pathways compared to those who know French or who don't know any official language, with the exception of language assessment–language training–language training.
4. Those who have ever been non-permanent residents and pre-landing tax filers are more likely to use common pathways compared to those who had not spent time in Canada before landing, although these groups are also less likely to use any services at all.

Although more research is needed to explain these findings, we suggest that one of the explanations could be different approaches to the needs of different clients. For example, a male client who knows English and have been in Canada before landing may require a straightforward intervention: the service providers may need to give them the information about the services, perhaps conduct a needs assessment and provide them with guidance on the next steps. However, women (who are also more likely to be reported as spouse/dependents in application²⁰ compared to men) may need more customized approach with multiple steps to address the complex needs they may have because of the gender roles. Similarly, those of prime working age may need to have customized interventions to help them secure commensurate employment, and thus they will be less likely to participate in most common service combinations. Again, the data do not contain any information that could provide explanation in of the actual reasons of the choices, and these are just some conjectures consistent with the pattern of the data. More research is needed to understand the factors driving these differences in services choices.

²⁰ See the Appendix for the tabulation of characteristics for different newcomer categories.

NEXT STEPS

At the time of the writing, SRDC's exploration of IRCC-funded settlement service patterns is likely the first for non-IRCC researchers. We found some interesting patterns in service usages and choices, but at the same time, there are various data limitations in explaining the reasons behind the service choices. For example, we had tried to use as many characteristics as possible in our exploration, but we found that the multivariate regression models have a low overall explanatory power of the variation in service usages. Reasons of service usages are not well captured nor proxied in the data. With that said, there are many useful findings in this exercise that could help the assessment of service impacts in the later stages of the research project.

About 51% of newcomers used IRCC-funded settlement service within four years after arrival. Most newcomer service users started their services in the first six months after their arrival.

Many observable characteristics, such as demographics and immigration classes, are related to usage of any IRCC-funded settlement services. However, these observable characteristics are associated with only a small proportion of the variation in usages, and we cannot conclude that we found statistically strong predictors of newcomers' needs for services.

- Because almost half of the newcomers did not use any IRCC-funded settlement services, this suggests that non-participants to IRCC-funded services might not be as aware of the service availability, or they might be accessing non-IRCC-funded services and found they did not need IRCC-funded services. Unfortunately, the data do not allow researchers to fully control for the needs, service awareness, or alternative service availability.
- Information and Orientation services were used by a majority of newcomers who accessed any IRCC-funded settlement services. Also, a non-trivial portion of service users used only Information and Orientation services and nothing else.
- Service pathways are complex, and most combinations of services are rather unique to the users' situations.
- Among service users, usages of specific settlement services vary by participants' characteristics. For example, women were more likely to use information and orientation services, language assessment and training or community connections services, but they were less likely to use most typical combination of specific services.

The Stage 1 exploration suggests that using non-participants of IRCC-funded settlement services as a counterfactual comparison sample of service users may bias the estimated impacts because of the inadequate control of the needs and awareness. Instead, a plausible impact analysis

strategy would compare high intensity service users to low intensity service users to estimate the incremental impacts if their needs are partially overlapped. Information and Orientation service, with a non-trivial number of users using it as the only service, may serve as the low intensity service reference.

The Stage 2 of this project will try to create a valid propensity score for employment-related services (ERS) as the high intensity service to help match ERS users to that of non-users of ERS. It will also attempt to create a valid propensity score for the language training services as the high intensity service. These two services were identified in the research framework that may have direct impacts on employment outcomes and economic integration, which are observable from the IMDB data. Given the uniqueness of service combinations, it is likely that the sample of any specific service combination involving ERS or language training is too small for reliable assessment for its impacts. We propose to conduct exploratory analysis of the roles of other services on the impacts of ERS or language training when participants were using any of the other services during the same service engagement.

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APPENDIX: ADDITIONAL TABLES

Table 3 Summary of characteristics in the analysis file

Characteristics	Definition	Data source
Gender	Identifies the immigrant's gender	IMDB
Age now	Current year minus year of birth	IMDB
Age in 2014	Landing year (2014) minus year of birth	IMDB
Family status roll-up	Family status of individuals	IMDB
Marital status	Marital status at the time of admission	IMDB
Married or common law		
Never married		
Ever married	Separated, divorced, or widowed	
Class of immigration	Derived based on immigration categories using the first three digits of each immigration category census	IMDB
Economic work program	Federal Skilled Workers, Quebec skilled workers, Skilled trades, Canadian experience, Live-in caregivers, and other caregivers	
Economic business program	Federal entrepreneurs, Startup business, Quebec entrepreneurs, Federal investors, Quebec investors, Federal self-employed and Quebec self-employed	
Provincial nominee	Provincial nominees	
Sponsored class (or family class)	Spouses and partners, Parents and grandparents, Children, Adopted, Family-Humanitarian and Compassionate (HC) and Family class	
refugees	Protected persons, Dependent protected persons, Government Assisted Refugees, Privately Sponsored Refugees and Blended visa refugees	
Other immigrants	HC, public policy, D.R.O.C. and retirees	

Characteristics	Definition	Data source
Top five countries	Based on the Standard Classification of Countries and Areas of Interest (SCCAI) 2016	IMDB
Continent of birth	Based on the Standard Classification of Countries and Areas of Interest (SCCAI) 2016	IMDB
Most current province of residence	Based on province of residence in the most recent tax record file	TIFF
Skill level	Based on the National occupation classification, skill levels are determined based on the intended occupation	IMDB
0 and A: Professional and managerial	0 or 1 (University degree at the bachelor's, master's, or doctorate level)	
B: Skilled and technical	2 or 3 (Two to three years of postsecondary education at a community college, institute of technology, or CEGEP or Two to five years of apprenticeship training or Three to four years of secondary school and more than two years of on-the-job training, specialized training courses, or specific work experience. Occupations with supervisory responsibilities and occupations with significant health and safety responsibilities, such as firefighters, police officers, and registered nursing assistants are all assigned skill level B.)	
C and D: Intermediate and clerical, elemental, and labourers	4 or 5, 6 or 7 (Some secondary school education, with up to two years of on-the-job training, training courses, or specific work experience or short work demonstration or on-the-job training)	
New worker	New workers	
Other non-workers	Homemakers and other non-workers	
Retired	Retired	
Students	Students	

Characteristics	Definition	Data source
Education qualification	<p>“What is your highest level of completed education?”</p> <p>Derived based on education qualifications determined by IRCC for permanent residents based on certificate, diploma or degree obtained at the time of admission. We separate those who had imputed education using the imputation identifier</p>	IMDB
Knowledge of official language	Self-declared indicators of an immigrant's knowledge of an official language at admission	IMDB
Ever non-permanent resident	An identifier for an immigrant who had information in the non-permanent residence file	IMDB
Pre-landing tax filer indicator	An indicator of the availability of any tax record prior to admission	IMDB
Family size (more than two in 2014)	Family size in 2014	TIFF

Table 4 Demographic characteristics of participants and non-participants of IRCC-funded services for newcomers

	Male (participants) (%)	Female (participants) (%)	Principal applicant (participants) (%)	Spouse and dependents (Participants) (%)	Economic class (Participants) (%)	Sponsored class (Participants) (%)	Refugees and other immigrants (%)
Gender							
Male			46.5	32.7	43.1	34.5	49.1
Female			53.5	67.3	56.9	65.5	50.9
Age							
18 to 34	46	53.1	49	52.4	44.1	62.7	52.7
35 to 44	33.3	29.9	31.9	30.1	39	16.3	26.6
45 to 54	14.9	11.6	13.5	12	15.3	7.3	13.9
55 to 65	5.8	5.4	5.6	5.5	1.7	13.8	6.9
Marital status							
Married or common law	67	69.2	64.7	75.3	71.5	71.3	50.2
Never married	31.7	26	30.3	24.6	26.4	24.7	42.3
Ever married	1.3	4.8	5.1	0.1	2.1	4	7.5
Family status roll-up							
Principal Applicant	73.3	60.5			56.4	84.6	71.4
Spouse and dependents	26.7	39.5			43.6	15.4	28.6
Class of immigration							
Economic work program	34.6	35.4	32.1	40.8			
Economic business program	4.1	3.7	2.3	6.9			
Provincial nominee	22.6	19	16.5	28.2			
Sponsored class	21.3	29	33.1	11.7			
Refugees	16.5	11.9	15	11.5			
Other immigrants	1	1.1	1.1	0.9			

	Male (participants) (%)	Female (participants) (%)	Principal applicant (participants) (%)	Spouse and dependents (Participants) (%)	Economic class (Participants) (%)	Sponsored class (Participants) (%)	Refugees and other immigrants (%)
Country of birth (top five)							
Iran	10	8.2	7.9	11	11.4	3.8	8.4
China	11.7	12.8	11.5	13.9	13.5	14.5	3.8
Philippines	12.7	17.9	17.4	12.5	23.7	6.3	0.2
India	17.6	16.1	14.7	20.6	19.4	18.9	2.5
Pakistan	4.7	3.8	3.7	5.1	4.3	3.7	4.4
Region of birth							
North America	5.1	4.9	5.9	3.2	2.2	9.2	8.7
South America	2.5	2.9	3	2.4	1.7	5	3
Europe	6.2	6.3	6.4	6.1	6.1	8	3.9
Africa	11.6	9.4	11.5	8.1	5.5	9.1	31.8
Asia	74.4	76.4	73.2	80.1	84.4	68.5	52.5
Australia and other international	0.1	0.1	0.1				
Most recent province of residence							
Atlantic provinces	2.2	1.9	1.8	2.6	2.6	1.1	1.7
Ontario	50.5	50.6	51.9	47.8	44.2	58.3	62.2
Manitoba	9.1	7.8	7.9	9	11.4	3.9	3.7
Saskatchewan	3.8	3.6	3.2	4.5	4.7	1.9	2.6
Alberta	18.5	18.7	18.4	19.1	19.4	16.2	20
British Columbia	15.6	17.3	16.5	16.8	17.5	18.4	9.6
Northern territories	0.2	0.2	0.2	0.2	0.2	0.2	0.1

	Male (participants) (%)	Female (participants) (%)	Principal applicant (participants) (%)	Spouse and dependents (Participants) (%)	Economic class (Participants) (%)	Sponsored class (Participants) (%)	Refugees and other immigrants (%)
Skill level (2011) — intended occupation				0.8			
0 and A: Professional and managerial	22	11.2	22.3	0.5	26.1	0.6	0.5
B: Skilled and Technical	12.3	4.9	11.8	0.1	13.1	0.6	0.5
C and D: Intermediate and clerical, elemental, and labourer	3.8	3.7	5.4	42.9	5.9	0.7	0.6
New worker	45.7	51.2	52	25.9	34.3	69	72.5
Other non-workers	1.5	16.6	2.2	4.2	12.8	2.8	12.9
Retired	3	3.7	3	22.5	0	13	0.2
Students	11.6	8.7	3.4	100	7.9	13.1	12.7
Education qualification							
Secondary or less	23.2	20.3	19.5	99.9	12.2	23.9	54.6
Formal trade or apprenticeship	5.7	3.6	4.7	0.1	4.7	4.5	3.5
Non-university diploma	7.5	9.1	8.9	100	10	6.6	5.4
Some university — no degree	5.4	5.8	5.2		5.4	6.6	4.7
Bachelors and some postgrad-no degree	27.4	32.5	30.8	99.9	40.5	19.2	9.4
Master's and doctorate	14.8	12.3	13.8	0.1	19	6.9	1.9
Don't know or imputed	16	16.4	17.1	100	8.1	32.3	20.3
Knowledge of official language							
English only	67.5	66.4	66.8	35.1	79.1	51.9	43.7
French only	1	1.3	1.3	4.4	0.7	1.3	2.7
English and French	5	4.1	4.9	8.2	5.9	2.3	2.5
Neither English nor French	26.5	28.2	27	7.2	14.2	44.4	51.1

	Male (participants) (%)	Female (participants) (%)	Principal applicant (participants) (%)	Spouse and dependents (Participants) (%)	Economic class (Participants) (%)	Sponsored class (Participants) (%)	Refugees and other immigrants (%)
Non-permanent residency status before landing	24.7	29.1	32.4	0.6	31.7	12.8	34.4
Pre-landing tax filer indicator	25.7	36.3	37	22.5	35.6	20.3	37
Family size (more than two in 2014)	54.6	48.2	43.5	17.2	57.5	36.1	50.2
Total number of observations	32,780	45,680	51,690	26,770	46,565	20,205	11,690

Table 5 **Characteristics of users of various services (among service participants)**

	Information and orientation (%)	Needs assessment and referral services (%)	Language assessment (%)	Language training (%)	Employment- related services (%)	Community connections (%)
Gender						
Male	41.84	42.36	38.71	35.46	43.27	37.37
Female	58.16	57.64	61.29	64.54	56.73	62.63
Age in 2014						
18 to 34	48.39	47.73	50.52	48.76	50.64	43.08
35 to 44	32.46	32.94	31.19	31.72	34.52	36.09
45 to 54	13.59	13.6	13.02	14.12	12.13	14.76
55 to 65	5.56	5.73	5.27	5.4	2.71	5.49
Marital status						
Married or common law	69.1	69.26	71.69	74.12	70.54	72.46
Never married	27.43	27.2	25.16	22.56	26.96	23.94
Ever married	3.47	3.55	3.15	3.32	2.51	3.61
Family status						
Principal Applicant	65.5	65.38	63.97	62.4	65.58	61.56
Spouse/dependent	34.5	34.62	36.03	37.6	34.42	38.44
Class of immigration						
Economic work program	35.95	37.85	30.07	23.05	47.37	31.21
Economic business program	4.02	4.21	4.56	5.06	1.7	5.42
Provincial nominee	20.29	17.61	18.53	21.3	15.8	20.74
Sponsored class	23.23	23.23	29.56	29.81	20.35	19.98
Refugees	15.55	16.16	16.39	19.98	14.27	22.11
Other immigrants	0.95	0.94	0.9	0.8	0.51	0.55

	Information and orientation (%)	Needs assessment and referral services (%)	Language assessment (%)	Language training (%)	Employment- related services (%)	Community connections (%)
Country of birth (top five)						
Iran	9.46	10.91	12.37	12.27	15.53	13.58
China	12.41	13.21	14.4	16.83	6.39	15.97
Philippines	15.73	13.28	7.99	5.4	8.53	10.12
India	16.53	15.82	13.62	10.66	18.47	10.79
Pakistan	4.22	4.37	4.27	3.42	5.1	3.15
Continent of birth						
North America	4.71	4.56	4.35	4.48	4.03	3.56
South America	2.6	2.64	3.14	3.33	3.45	2.88
Europe	5.62	5.71	7.14	7.56	5.91	5.89
Africa	11.08	11.15	10.94	12.04	15.7	12.51
Asia	75.9	75.86	74.39	72.56	70.85	75.12
Australia and other international	0.09	0.07	0.04	0.03	0.06	0.05
Most current province of residence						
Atlantic provinces	1.83	2.04	2.34	2.94	2.41	2.97
Ontario	50.29	53.5	52.63	44.78	48.45	39.47
Manitoba	9.32	6.06	7.5	8.97	6.65	10.57
Saskatchewan	2.55	1.96	4.25	5.47	1.68	3.59
Alberta	18.67	18.94	17.21	18.33	26.31	15.65
British Columbia	17.14	17.43	16.03	19.34	14.23	27.43
Northern territories	0.21	0.07	0.04	0.17	0.26	0.3

	Information and orientation (%)	Needs assessment and referral services (%)	Language assessment (%)	Language training (%)	Employment- related services (%)	Community connections (%)
Skill level (2011) — intended occupation						
0 and A: Professional and managerial	16.62	17.08	15.03	13.12	24.48	17.91
B: Skilled and Technical	7.83	7.63	6.15	5.57	7.62	6.05
C and D: Intermediate and clerical, elemental, and labourers	3.81	3.35	2.37	2.34	2.25	3.06
New worker	48.44	48.45	51.46	53.3	46.23	47.49
Other non-workers	10.5	10.61	12.52	14.27	10.38	13.25
Retired	3.24	3.34	3.3	3.18	1.04	3.18
Students	9.56	9.55	9.17	8.21	8	9.06
Education qualification						
Secondary or less	30.88	31.17	33.44	36.97	22.51	34.97
Formal trade or apprenticeship	4.91	4.77	5.22	5.63	3.19	4.5
Non-university diploma	9.34	9.3	9.4	9.86	6.54	8.46
Some university — no degree	6.2	5.99	6.5	6.4	4.69	5.06
Bachelors and some postgrad-no degree	33.51	32.86	30.84	28.88	38.48	30.07
Master's and doctorate	15.16	15.91	14.61	12.27	24.59	16.94
Knowledge of official language						
English only	66.34	64.91	59.51	55.22	68.2	57.37
French only	1.27	1.3	1.59	2.04	1.73	1.8
English and French	4.54	5.01	5.2	4.82	8.1	5.31
Neither English nor French	27.86	28.77	33.7	37.92	21.97	35.52

	Information and orientation (%)	Needs assessment and referral services (%)	Language assessment (%)	Language training (%)	Employment- related services (%)	Community connections (%)
Non-permanent residency status before landing	25.56	25.2	18.48	16.17	17.04	16.6
Pre-landing tax filer indicator	30.45	30.04	24.07	22.71	22.82	22.26
Family size (more than two in 2014)	52.76	52.59	51.07	52.39	52.3	55.94
Total number of observations	64,555	55,850	46,795	29,385	17,440	14,530

Table 6 Regression results: participation in services, and choice of individual services

	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment- related services	Community connections
Gender							
Male (reference category)							
Female	0.083***	0.022***	0.005	0.068***	0.091***	0.005	0.050***
	(0.002)	(0.003)	(0.003)	(0.004)	(0.003)	(0.003)	(0.003)
Age in 2014							
18 to 34							
	-0.106***	-0.048***	-0.054***	-0.010*	-0.031***	-0.004	-0.053***
	(0.003)	(0.003)	(0.004)	(0.004)	(0.004)	(0.004)	(0.003)
35 to 44 (reference category)							
45 to 54							
	-0.023***	0.004	-0.008	-0.016**	0.007	-0.012*	-0.013**
	(0.004)	(0.004)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
55 to 65							
	-0.124***	0.008	-0.000	-0.112***	-0.073***	-0.050***	-0.006
	(0.007)	(0.008)	(0.009)	(0.010)	(0.010)	(0.008)	(0.008)
Family status roll-up							
Principal applicant (reference category)							
Spouse and/or dependents							
	0.003	-0.000	0.019***	0.045***	0.053***	0.024***	0.024***
	(0.004)	(0.004)	(0.005)	(0.005)	(0.005)	(0.004)	(0.004)
Class of immigration							

	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
Economic work program (reference category)							
Economic business program	0.016*	-0.027***	-0.041***	0.100***	0.113***	-0.162***	0.006
	(0.007)	(0.007)	(0.009)	(0.009)	(0.010)	(0.007)	(0.008)
Provincial nominee	0.028***	-0.026***	-0.037***	0.049***	0.094***	-0.091***	-0.013**
	(0.003)	(0.005)	(0.005)	(0.006)	(0.005)	(0.005)	(0.005)
Sponsorship	-0.061***	-0.108***	-0.105***	0.153***	0.162***	-0.067***	-0.025***
	(0.004)	(0.005)	(0.006)	(0.006)	(0.006)	(0.005)	(0.005)
Refugees	0.286***	0.086***	0.090***	0.183***	0.263***	0.006	0.151***
	(0.005)	(0.005)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Other immigrants	0.132***	-0.053***	-0.055**	0.140***	0.123***	-0.047***	0.016
	(0.012)	(0.016)	(0.018)	(0.018)	(0.016)	(0.012)	(0.011)
Continent of birth							
North America	-0.134***	0.003	-0.018*	-0.056***	-0.014	0.042***	-0.002
	(0.005)	(0.007)	(0.008)	(0.009)	(0.008)	(0.007)	(0.006)
South America	0.035***	-0.014	-0.013	0.093***	0.108***	0.103***	0.052***
	(0.007)	(0.009)	(0.010)	(0.010)	(0.010)	(0.009)	(0.009)
Europe	-0.114***	-0.055***	-0.031***	0.102***	0.097***	0.027***	0.019***

	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
	(0.004)	(0.006)	(0.007)	(0.007)	(0.007)	(0.006)	(0.006)
Africa	-0.008*	0.025***	0.029***	-0.042***	-0.031***	0.098***	0.001
	(0.004)	(0.004)	(0.006)	(0.006)	(0.006)	(0.006)	(0.005)
Asia (reference category)							
Australia and other international	-0.278***	0.035	-0.084	-0.254***	-0.240***	-0.011	-0.048
	(0.007)	(0.049)	(0.061)	(0.052)	(0.037)	(0.044)	(0.036)
Most current province of residence							
Atlantic provinces	-0.048***	-0.097***	-0.056***	0.045***	0.176***	0.057***	0.122***
	(0.008)	(0.011)	(0.012)	(0.011)	(0.012)	(0.011)	(0.011)
Ontario (reference category)							
Manitoba	0.061***	0.093***	-0.242***	-0.086***	0.059***	-0.033***	0.103***
	(0.005)	(0.005)	(0.007)	(0.007)	(0.007)	(0.006)	(0.006)
Saskatchewan	-0.113***	-0.248***	-0.371***	0.072***	0.208***	-0.072***	0.050***
	(0.006)	(0.009)	(0.010)	(0.009)	(0.010)	(0.007)	(0.008)
Alberta	-0.062***	0.005	-0.029***	-0.037***	0.062***	0.100***	0.024***
	(0.003)	(0.004)	(0.004)	(0.005)	(0.004)	(0.004)	(0.004)
British Columbia							
	-0.052***	0.041***	0.006	-0.040***	0.107***	0.017***	0.175***

	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
	(0.003)	(0.004)	(0.004)	(0.005)	(0.005)	(0.004)	(0.004)
Northern territories	-0.040	0.102***	-0.457***	-0.377***	0.079*	0.174***	0.208***
	(0.025)	(0.027)	(0.036)	(0.030)	(0.037)	(0.038)	(0.037)
Education							
Secondary school or less (reference category)							
Formal trade or apprenticeship	0.023***	-0.008	-0.005	0.026**	0.021*	0.009	0.007
	(0.006)	(0.007)	(0.009)	(0.009)	(0.009)	(0.006)	(0.007)
Non-university diploma	0.025***	-0.001	0.008	0.029***	0.018*	0.025***	-0.002
	(0.005)	(0.006)	(0.007)	(0.007)	(0.007)	(0.005)	(0.005)
Some university — no degree	-0.022***	-0.024***	-0.017*	0.019*	-0.002	0.023***	-0.012
	(0.005)	(0.007)	(0.008)	(0.008)	(0.008)	(0.006)	(0.006)
Bachelors and some postgrad-no degree	-0.000	-0.003	-0.000	-0.016**	-0.036***	0.094***	0.007
	(0.004)	(0.004)	(0.005)	(0.005)	(0.005)	(0.004)	(0.004)
Master's and doctorate	0.003	0.003	0.025***	0.004	-0.043***	0.168***	0.050***
	(0.005)	(0.005)	(0.006)	(0.007)	(0.007)	(0.006)	(0.005)
Knowledge of official language							

	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
English only	-0.074*** (0.004)	0.002 (0.004)	-0.018*** (0.005)	-0.103*** (0.005)	-0.120*** (0.005)	0.038*** (0.004)	-0.040*** (0.004)
French only	0.166*** (0.011)	0.036** (0.011)	0.024 (0.014)	0.116*** (0.014)	0.164*** (0.016)	0.071*** (0.016)	0.059*** (0.015)
French and English	-0.000 (0.006)	-0.013 (0.007)	0.013 (0.008)	0.023** (0.009)	-0.017 (0.010)	0.099*** (0.009)	-0.003 (0.008)
Neither French nor English (reference category)							
Skill level — intended occupation							
0 and A: Managerial and professional	-0.032*** (0.006)	0.033*** (0.007)	0.057*** (0.008)	-0.052*** (0.008)	-0.055*** (0.009)	0.085*** (0.008)	0.020** (0.007)
B: Skilled and technical	-0.043*** (0.006)	0.023** (0.008)	0.045*** (0.009)	-0.066*** (0.009)	-0.061*** (0.009)	0.037*** (0.008)	0.007 (0.008)
C and D: Intermediate and clerical	0.001 (0.008)	0.050*** (0.009)	0.057*** (0.011)	-0.139*** (0.011)	-0.121*** (0.010)	0.010 (0.009)	0.010 (0.009)
New worker	-0.012* (0.005)	0.014** (0.005)	0.011 (0.006)	-0.068*** (0.006)	-0.069*** (0.007)	0.011 (0.006)	-0.015** (0.005)
Other non-workers (reference category)							

	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
Retired	-0.195*** (0.010)	0.002 (0.011)	-0.004 (0.013)	-0.208*** (0.014)	-0.224*** (0.014)	-0.071*** (0.010)	-0.051*** (0.011)
Students	-0.034*** (0.006)	0.001 (0.006)	-0.010 (0.008)	-0.210*** (0.008)	-0.210*** (0.008)	-0.025*** (0.007)	-0.021** (0.007)
Non-permanent residency status before landing	-0.320*** (0.005)	-0.086*** (0.005)	-0.094*** (0.006)	-0.179*** (0.007)	-0.163*** (0.006)	-0.108*** (0.006)	-0.079*** (0.005)
Pre-landing tax filer indicator	-0.046*** (0.004)	-0.003 (0.005)	-0.009 (0.006)	-0.061*** (0.006)	-0.017** (0.006)	-0.038*** (0.005)	-0.016** (0.005)
Constant	0.820*** (0.007)	0.862*** (0.008)	0.812*** (0.009)	0.705*** (0.010)	0.399*** (0.010)	0.150*** (0.008)	0.163*** (0.008)
Total number of observations	153,050	78,455	78,455	78,455	78,455	78,455	78,455

Notes: Linear probability models were estimated with standard errors in parentheses. ***, **, * is significance at 1%, 5% and 10% respectively.

Table 7 Subgroup analysis — regression results by subgroups: participation in services, and choice of individual services

Subgroup: Males	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
Age in 2014							
18 to 34	-0.117***	-0.043***	-0.041***	-0.030***	-0.039***	-0.003	-0.046***
	(0.004)	(0.005)	(0.006)	(0.006)	(0.006)	(0.006)	(0.005)
35 to 44 (reference category)							
45 to 54	-0.009	0.006	-0.001	-0.004	0.022**	-0.008	-0.007
	(0.006)	(0.006)	(0.007)	(0.008)	(0.008)	(0.007)	(0.007)
55 to 65	-0.099***	0.017	0.015	-0.092***	-0.026	-0.043***	0.022
	(0.010)	(0.011)	(0.013)	(0.015)	(0.014)	(0.012)	(0.012)
Family status roll-up							
Principal applicant (reference category)							
Spouse and/or dependents	0.046***	0.004	0.010	0.036***	0.046***	0.024***	0.014*
	(0.006)	(0.006)	(0.007)	(0.008)	(0.008)	(0.007)	(0.007)
Class of immigration							
Economic work program (reference category)							
Economic business program	0.019	-0.032**	-0.054***	0.073***	0.072***	-0.193***	-0.035**
	(0.011)	(0.011)	(0.013)	(0.015)	(0.014)	(0.010)	(0.012)
Provincial nominee	0.041***	-0.038***	-0.050***	0.069***	0.103***	-0.108***	-0.021**

Subgroup: Males	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
	(0.005)	(0.007)	(0.008)	(0.009)	(0.008)	(0.008)	(0.007)
Sponsorship	-0.036***	-0.122***	-0.139***	0.163***	0.139***	-0.062***	-0.051***
	(0.007)	(0.009)	(0.010)	(0.010)	(0.009)	(0.009)	(0.007)
Refugees	0.358***	0.084***	0.063***	0.244***	0.302***	0.008	0.138***
	(0.007)	(0.008)	(0.009)	(0.010)	(0.010)	(0.009)	(0.009)
Other immigrants	0.158***	-0.088**	-0.133***	0.187***	0.146***	-0.030	0.008
	(0.018)	(0.027)	(0.029)	(0.030)	(0.025)	(0.019)	(0.015)
Continent of birth							
North America	-0.111***	-0.021	-0.021	-0.027*	0.005	0.036***	-0.004
	(0.007)	(0.012)	(0.013)	(0.013)	(0.012)	(0.010)	(0.008)
South America	0.029**	-0.025	-0.015	0.093***	0.098***	0.117***	0.054***
	(0.011)	(0.015)	(0.016)	(0.017)	(0.017)	(0.015)	(0.013)
Europe	-0.121***	-0.067***	-0.046***	0.103***	0.073***	0.014	0.010
	(0.005)	(0.010)	(0.011)	(0.011)	(0.011)	(0.009)	(0.008)
Africa	-0.010	0.018**	0.021**	-0.048***	-0.045***	0.103***	-0.020**
	(0.006)	(0.007)	(0.008)	(0.009)	(0.008)	(0.009)	(0.007)
Asia (reference category)							
Australia and other international	-0.229***	0.071	-0.084	-0.230**	-0.173***	-0.015	-0.023

Subgroup: Males	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
	(0.009)	(0.072)	(0.093)	(0.072)	(0.047)	(0.059)	(0.047)
Most current province of residence							
Atlantic provinces	-0.026*	-0.104***	-0.023	0.035*	0.193***	0.065***	0.116***
	(0.010)	(0.017)	(0.017)	(0.017)	(0.018)	(0.017)	(0.015)
Ontario (reference category)							
Manitoba	0.057***	0.109***	-0.222***	-0.112***	0.061***	-0.040***	0.084***
	(0.008)	(0.008)	(0.011)	(0.011)	(0.011)	(0.009)	(0.009)
Saskatchewan	-0.106***	-0.226***	-0.359***	0.092***	0.250***	-0.049***	0.062***
	(0.009)	(0.014)	(0.015)	(0.014)	(0.015)	(0.011)	(0.012)
Alberta	-0.056***	0.014*	-0.017*	-0.038***	0.078***	0.092***	0.027***
	(0.004)	(0.006)	(0.007)	(0.007)	(0.007)	(0.007)	(0.005)
British Columbia	-0.060***	0.042***	-0.004	-0.037***	0.134***	0.017**	0.140***
	(0.005)	(0.006)	(0.007)	(0.008)	(0.007)	(0.006)	(0.007)
Northern territories	-0.038	0.097*	-0.454***	-0.291***	0.072	0.133*	0.077
	(0.034)	(0.043)	(0.056)	(0.039)	(0.051)	(0.055)	(0.047)
Education							
Secondary school or less (reference category)							
Formal trade or apprenticeship	0.007	-0.010	-0.012	0.006	0.001	-0.001	-0.000

Subgroup: Males	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
	(0.008)	(0.011)	(0.012)	(0.013)	(0.012)	(0.009)	(0.009)
Non-university diploma	0.004	-0.005	0.002	0.025*	0.018	0.019*	-0.013
	(0.007)	(0.009)	(0.011)	(0.011)	(0.011)	(0.008)	(0.008)
Some university — no degree	-0.033***	-0.032**	-0.034**	0.015	-0.001	0.019*	-0.017*
	(0.008)	(0.011)	(0.012)	(0.012)	(0.012)	(0.009)	(0.009)
Bachelors and some postgrad-no degree	0.007	0.002	0.001	-0.011	-0.019*	0.099***	0.011
	(0.006)	(0.007)	(0.008)	(0.008)	(0.008)	(0.007)	(0.006)
Master's and Doctorate	0.017**	0.013	0.031***	-0.000	-0.020*	0.150***	0.053***
	(0.006)	(0.008)	(0.009)	(0.010)	(0.010)	(0.009)	(0.008)
Knowledge of official language							
English only	-0.062***	0.009	-0.021**	-0.115***	-0.127***	0.037***	-0.044***
	(0.006)	(0.006)	(0.007)	(0.007)	(0.008)	(0.006)	(0.006)
French only	0.153***	0.049**	0.040	0.121***	0.159***	0.096***	0.065**
	(0.019)	(0.018)	(0.023)	(0.024)	(0.027)	(0.027)	(0.024)
French and English	0.020*	-0.001	0.013	0.026	-0.016	0.078***	-0.005
	(0.009)	(0.011)	(0.012)	(0.014)	(0.014)	(0.013)	(0.012)
Neither French nor English (reference category)							

Subgroup: Males	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
Skill level — intended occupation							
0 and A: Managerial and professional	0.020	0.028	0.041	0.030	0.037	0.039	0.032
	(0.017)	(0.018)	(0.022)	(0.024)	(0.024)	(0.021)	(0.019)
B: Skilled and technical	0.044**	0.021	0.027	0.020	0.030	-0.003	0.015
	(0.017)	(0.019)	(0.022)	(0.025)	(0.024)	(0.022)	(0.019)
C and D: Intermediate and clerical	0.069***	0.068***	0.076**	-0.073**	-0.023	0.008	0.040
	(0.018)	(0.020)	(0.025)	(0.027)	(0.026)	(0.023)	(0.021)
New worker	-0.005	0.005	0.015	-0.002	0.007	-0.032	-0.008
	(0.016)	(0.017)	(0.020)	(0.022)	(0.022)	(0.020)	(0.017)
Other non-workers (reference category)							
Retired	-0.127***	0.021	0.011	-0.109***	-0.115***	-0.106***	-0.035
	(0.021)	(0.024)	(0.028)	(0.031)	(0.030)	(0.024)	(0.023)
Students	-0.014	-0.007	-0.010	-0.117***	-0.091***	-0.080***	0.004
	(0.016)	(0.018)	(0.021)	(0.024)	(0.023)	(0.021)	(0.018)
Non-permanent residency status before landing	-0.300***	-0.079***	-0.073***	-0.186***	-0.137***	-0.116***	-0.068***
	(0.008)	(0.010)	(0.012)	(0.013)	(0.012)	(0.010)	(0.009)
Pre-landing tax filer indicator	-0.083***	0.004	-0.004	-0.077***	-0.045***	-0.046***	-0.023*

Subgroup: Males	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
	(0.008)	(0.010)	(0.011)	(0.013)	(0.011)	(0.010)	(0.009)
Constant	0.753***	0.855***	0.819***	0.635***	0.300***	0.202***	0.171***
	(0.018)	(0.019)	(0.023)	(0.025)	(0.025)	(0.022)	(0.020)
Total number of observations	70,430	32,780	32,780	32,780	32,780	32,780	32,780

Notes: Linear probability models were estimated with standard errors in parentheses. ***, **, * is significance at 1%, 5% and 10% respectively.

Subgroup: Females	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
Age in 2014							
18 to 34	-0.094***	-0.051***	-0.064***	0.002	-0.028***	-0.004	-0.058***
	(0.004)	(0.004)	(0.005)	(0.005)	(0.005)	(0.005)	(0.004)
35 to 44 (reference category)							
45 to 54	-0.036***	0.002	-0.013	-0.025***	-0.006	-0.014*	-0.016*
	(0.006)	(0.006)	(0.007)	(0.007)	(0.007)	(0.006)	(0.007)
55 to 65	-0.151***	-0.000	-0.012	-0.128***	-0.112***	-0.056***	-0.026*
	(0.010)	(0.011)	(0.013)	(0.014)	(0.014)	(0.010)	(0.012)
Family status roll-up							
Principal applicant (reference category)							
Spouse and/or dependents	-0.007	-0.004	0.021***	0.065***	0.066***	0.026***	0.029***
	(0.005)	(0.005)	(0.006)	(0.007)	(0.007)	(0.006)	(0.006)
Class of immigration							
Economic work program (reference category)							
Economic business program	0.016	-0.026**	-0.036**	0.118***	0.134***	-0.135***	0.032**
	(0.009)	(0.009)	(0.011)	(0.011)	(0.013)	(0.009)	(0.012)
Provincial nominee	0.016**	-0.021***	-0.034***	0.037***	0.082***	-0.078***	-0.010

Subgroup: Females	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
	(0.005)	(0.006)	(0.007)	(0.008)	(0.008)	(0.007)	(0.006)
Sponsorship	-0.063***	-0.103***	-0.092***	0.160***	0.177***	-0.061***	-0.013*
	(0.006)	(0.007)	(0.008)	(0.008)	(0.008)	(0.007)	(0.006)
Refugees	0.250***	0.086***	0.099***	0.141***	0.234***	0.008	0.160***
	(0.006)	(0.006)	(0.008)	(0.008)	(0.009)	(0.008)	(0.008)
Other immigrants	0.136***	-0.035	-0.017	0.120***	0.109***	-0.054***	0.018
	(0.017)	(0.019)	(0.022)	(0.023)	(0.021)	(0.015)	(0.015)
Continent of birth							
North America	-0.147***	0.022*	-0.015	-0.071***	-0.021	0.044***	0.000
	(0.007)	(0.009)	(0.011)	(0.011)	(0.011)	(0.009)	(0.008)
South America	0.042***	-0.007	-0.012	0.094***	0.116***	0.094***	0.052***
	(0.010)	(0.011)	(0.013)	(0.013)	(0.014)	(0.012)	(0.011)
Europe	-0.100***	-0.047***	-0.020*	0.102***	0.114***	0.036***	0.024**
	(0.006)	(0.008)	(0.009)	(0.009)	(0.010)	(0.008)	(0.008)
Africa	-0.006	0.029***	0.036***	-0.038***	-0.022**	0.094***	0.019**
	(0.006)	(0.006)	(0.008)	(0.008)	(0.008)	(0.008)	(0.007)
Asia (reference category)							
Australia and other international	-0.325***	0.007	-0.089	-0.257***	-0.270***	-0.012	-0.068

Subgroup: Females	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
	(0.012)	(0.067)	(0.081)	(0.073)	(0.053)	(0.063)	(0.051)
Most current province of residence							
Atlantic provinces	-0.070***	-0.091***	-0.083***	0.049**	0.159***	0.053***	0.126***
	(0.011)	(0.015)	(0.017)	(0.015)	(0.016)	(0.015)	(0.015)
Ontario (reference category)							
Manitoba	0.065***	0.083***	-0.257***	-0.062***	0.066***	-0.028***	0.122***
	(0.007)	(0.007)	(0.010)	(0.010)	(0.010)	(0.008)	(0.009)
Saskatchewan	-0.125***	-0.264***	-0.378***	0.055***	0.174***	-0.090***	0.041***
	(0.009)	(0.013)	(0.013)	(0.012)	(0.013)	(0.008)	(0.010)
Alberta	-0.068***	-0.002	-0.038***	-0.039***	0.048***	0.104***	0.022***
	(0.004)	(0.005)	(0.006)	(0.006)	(0.006)	(0.006)	(0.005)
British Columbia	-0.046***	0.040***	0.013*	-0.044***	0.089***	0.016**	0.198***
	(0.004)	(0.005)	(0.006)	(0.006)	(0.006)	(0.005)	(0.006)
Northern territories	-0.040	0.103**	-0.463***	-0.439***	0.082	0.205***	0.306***
	(0.037)	(0.034)	(0.047)	(0.042)	(0.051)	(0.052)	(0.052)
Education							
Secondary school or less (reference category)							
Formal trade or apprenticeship	0.040***	-0.007	0.002	0.048***	0.045***	0.020*	0.014

Subgroup: Females	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
	(0.009)	(0.010)	(0.012)	(0.012)	(0.013)	(0.010)	(0.011)
Non-university diploma	0.040***	0.003	0.016	0.029***	0.018*	0.027***	0.005
	(0.007)	(0.007)	(0.009)	(0.009)	(0.009)	(0.007)	(0.007)
Some university — no degree	-0.014	-0.019*	-0.004	0.020	-0.005	0.026**	-0.008
	(0.007)	(0.009)	(0.010)	(0.010)	(0.010)	(0.008)	(0.008)
Bachelors and some postgrad — no degree	-0.007	-0.004	0.003	-0.025***	-0.050***	0.089***	0.006
	(0.005)	(0.006)	(0.007)	(0.007)	(0.007)	(0.006)	(0.006)
Master's and doctorate	-0.008	-0.004	0.022**	0.002	-0.064***	0.183***	0.046***
	(0.006)	(0.007)	(0.008)	(0.009)	(0.009)	(0.008)	(0.007)
Knowledge of official language							
English only	-0.082***	-0.003	-0.017**	-0.094***	-0.113***	0.038***	-0.037***
	(0.005)	(0.005)	(0.006)	(0.006)	(0.006)	(0.005)	(0.005)
French only	0.168***	0.026	0.013	0.115***	0.166***	0.055**	0.054**
	(0.013)	(0.015)	(0.018)	(0.017)	(0.020)	(0.019)	(0.019)
French and English	-0.019*	-0.021*	0.010	0.021	-0.015	0.112***	0.001
	(0.009)	(0.010)	(0.011)	(0.012)	(0.013)	(0.012)	(0.011)
Neither French nor English (reference category)							

Subgroup: Females	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
Skill level — intended occupation							
0 and A: Managerial and professional	-0.042***	0.026**	0.063***	-0.045***	-0.064***	0.102***	0.012
	(0.007)	(0.008)	(0.010)	(0.011)	(0.011)	(0.010)	(0.009)
B: Skilled and technical	-0.102***	0.008	0.048***	-0.057***	-0.067***	0.051***	0.001
	(0.008)	(0.010)	(0.012)	(0.013)	(0.012)	(0.011)	(0.010)
C and D: Intermediate and clerical	-0.025*	0.031**	0.035*	-0.125***	-0.130***	-0.011	-0.006
	(0.010)	(0.011)	(0.014)	(0.014)	(0.013)	(0.011)	(0.011)
New worker	-0.014**	0.016**	0.010	-0.070***	-0.070***	0.011	-0.011
	(0.005)	(0.005)	(0.006)	(0.007)	(0.007)	(0.006)	(0.006)
Other non-workers (reference category)							
Retired	-0.217***	-0.010	-0.012	-0.230***	-0.240***	-0.074***	-0.051***
	(0.013)	(0.014)	(0.016)	(0.018)	(0.018)	(0.011)	(0.014)
Students	-0.052***	0.004	-0.004	-0.229***	-0.240***	-0.014	-0.029***
	(0.007)	(0.008)	(0.009)	(0.010)	(0.010)	(0.008)	(0.008)
Non-permanent residency status before landing	-0.326***	-0.092***	-0.105***	-0.166***	-0.168***	-0.097***	-0.082***
	(0.006)	(0.007)	(0.008)	(0.008)	(0.008)	(0.007)	(0.007)
Pre-landing tax filer indicator	-0.029***	-0.006	-0.013	-0.056***	-0.010	-0.033***	-0.014*

Subgroup: Females	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
	(0.005)	(0.006)	(0.007)	(0.007)	(0.007)	(0.006)	(0.006)
Constant	0.923***	0.895***	0.820***	0.761***	0.501***	0.140***	0.202***
	(0.009)	(0.009)	(0.011)	(0.011)	(0.012)	(0.009)	(0.010)
Total number of observations	82,620	45,680	45,680	45,680	45,680	45,680	45,680

Notes: Linear probability models were estimated with standard errors in parentheses. ***, **, * is significance at 1%, 5% and 10% respectively.

Subgroup: Principal applicants	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
Gender							
Male (reference category)							
Female	0.096***	0.020***	0.003	0.071***	0.097***	0.007	0.045***
	(0.003)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.003)
Age in 2014							
18 to 34							
	-0.089***	-0.041***	-0.050***	-0.010*	-0.024***	-0.015***	-0.052***
	(0.003)	(0.004)	(0.005)	(0.005)	(0.005)	(0.004)	(0.004)
35 to 44 (reference category)							
45 to 54	-0.020***	0.014**	-0.004	-0.015*	0.006	-0.007	-0.010
	(0.005)	(0.005)	(0.006)	(0.007)	(0.006)	(0.006)	(0.006)
55 to 65	-0.118***	0.012	-0.001	-0.123***	-0.074***	-0.044***	0.003
	(0.008)	(0.009)	(0.011)	(0.012)	(0.012)	(0.009)	(0.010)
Class of immigration							
Economic work program (reference category)							
Economic business program	0.016	-0.056***	-0.073***	0.121***	0.119***	-0.222***	-0.023
	(0.012)	(0.011)	(0.013)	(0.015)	(0.015)	(0.010)	(0.013)
Provincial nominee	0.044***	-0.027***	-0.041***	0.077***	0.120***	-0.096***	-0.011

Subgroup: Principal applicants							
	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
	(0.004)	(0.006)	(0.007)	(0.008)	(0.007)	(0.007)	(0.006)
Sponsorship	-0.080***	-0.109***	-0.092***	0.166***	0.178***	-0.050***	-0.031***
	(0.005)	(0.007)	(0.007)	(0.008)	(0.007)	(0.007)	(0.006)
Refugees	0.287***	0.082***	0.099***	0.206***	0.291***	0.022**	0.128***
	(0.006)	(0.007)	(0.008)	(0.009)	(0.008)	(0.007)	(0.007)
Other immigrants	0.106***	-0.047*	-0.045*	0.191***	0.167***	-0.014	0.015
	(0.015)	(0.019)	(0.021)	(0.022)	(0.019)	(0.014)	(0.013)
Marital status							
Married or common law (reference category)							
Never married	-0.079***	-0.032***	-0.022***	0.010	-0.011*	0.030***	-0.009*
	(0.003)	(0.004)	(0.005)	(0.005)	(0.005)	(0.005)	(0.004)
Ever married	-0.010	0.000	0.016	-0.017	-0.020*	0.008	-0.007
	(0.007)	(0.008)	(0.009)	(0.010)	(0.009)	(0.008)	(0.008)
Continent of birth							
North America	-0.147***	0.006	-0.013	-0.079***	-0.038***	0.036***	-0.006
	(0.005)	(0.008)	(0.009)	(0.010)	(0.009)	(0.008)	(0.007)
South America	0.025**	-0.012	-0.013	0.083***	0.097***	0.100***	0.058***
	(0.009)	(0.011)	(0.012)	(0.012)	(0.012)	(0.011)	(0.010)

Subgroup: Principal applicants							
	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
Europe	-0.123***	-0.058***	-0.021*	0.077***	0.061***	0.029***	0.014*
	(0.004)	(0.008)	(0.009)	(0.009)	(0.009)	(0.007)	(0.007)
Africa	-0.002	0.033***	0.034***	-0.053***	-0.037***	0.084***	0.002
	(0.005)	(0.005)	(0.007)	(0.007)	(0.007)	(0.007)	(0.006)
Asia (reference category)							
Australia and other international	-0.263***	0.095	-0.079	-0.274***	-0.244***	0.013	-0.027
	(0.007)	(0.051)	(0.070)	(0.060)	(0.043)	(0.055)	(0.042)
Most current province of residence							
Atlantic provinces	-0.061***	-0.076***	-0.062***	0.041**	0.171***	0.071***	0.126***
	(0.009)	(0.014)	(0.016)	(0.015)	(0.016)	(0.015)	(0.014)
Ontario (reference category)							
Manitoba	0.085***	0.097***	-0.231***	-0.092***	0.059***	-0.039***	0.088***
	(0.007)	(0.006)	(0.009)	(0.009)	(0.009)	(0.008)	(0.008)
Saskatchewan	-0.109***	-0.245***	-0.357***	0.102***	0.233***	-0.073***	0.059***
	(0.007)	(0.012)	(0.013)	(0.011)	(0.012)	(0.009)	(0.010)
Alberta	-0.054***	0.006	-0.024***	-0.025***	0.083***	0.098***	0.029***
	(0.004)	(0.005)	(0.005)	(0.006)	(0.005)	(0.005)	(0.004)
British Columbia	-0.046***	0.048***	0.012*	-0.038***	0.114***	0.019***	0.169***

Subgroup: Principal applicants	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
	(0.004)	(0.005)	(0.006)	(0.006)	(0.006)	(0.005)	(0.005)
Northern territories	0.004	0.097**	-0.434***	-0.311***	0.069	0.202***	0.188***
	(0.029)	(0.033)	(0.043)	(0.036)	(0.041)	(0.046)	(0.043)
Education							
Secondary school or less (reference category)							
Formal trade or apprenticeship	0.002	-0.007	-0.016	-0.004	0.004	0.015	0.002
	(0.007)	(0.009)	(0.011)	(0.011)	(0.010)	(0.008)	(0.008)
Non-university diploma	0.000	0.000	-0.000	-0.003	-0.004	0.020**	-0.013*
	(0.006)	(0.007)	(0.008)	(0.009)	(0.008)	(0.006)	(0.006)
Some university — no degree	-0.036***	-0.017	-0.012	0.002	-0.011	0.022**	-0.007
	(0.007)	(0.009)	(0.010)	(0.010)	(0.010)	(0.008)	(0.007)
Bachelors and some postgrad-no degree	-0.029***	0.002	-0.009	-0.050***	-0.054***	0.083***	0.005
	(0.005)	(0.006)	(0.007)	(0.007)	(0.007)	(0.005)	(0.005)
Master's and doctorate	-0.030***	0.009	0.019*	-0.031***	-0.065***	0.155***	0.056***
	(0.006)	(0.007)	(0.008)	(0.009)	(0.008)	(0.008)	(0.007)
Knowledge of official language							
English only	-0.065***	0.000	-0.010	-0.092***	-0.114***	0.040***	-0.038***

Subgroup: Principal applicants							
	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
	(0.005)	(0.005)	(0.006)	(0.006)	(0.006)	(0.005)	(0.005)
French only	0.164***	0.048***	0.024	0.119***	0.158***	0.091***	0.058***
	(0.013)	(0.013)	(0.017)	(0.016)	(0.019)	(0.018)	(0.017)
French and English	0.021**	-0.009	0.021*	0.027*	-0.013	0.107***	0.000
	(0.008)	(0.009)	(0.010)	(0.011)	(0.011)	(0.011)	(0.010)
Neither French nor English (reference category)							
Skill level — intended occupation							
0 and A: Managerial and professional	0.026*	0.037**	0.053***	-0.020	-0.023	0.118***	-0.013
	(0.012)	(0.012)	(0.015)	(0.014)	(0.016)	(0.014)	(0.015)
B: Skilled and technical	0.017	0.024	0.032*	-0.030*	-0.029	0.070***	-0.026
	(0.012)	(0.013)	(0.015)	(0.015)	(0.017)	(0.014)	(0.015)
C and D: Intermediate and clerical	0.049***	0.052***	0.040*	-0.111***	-0.095***	0.044**	-0.021
	(0.013)	(0.014)	(0.017)	(0.016)	(0.017)	(0.014)	(0.016)
New worker	0.054***	0.018	-0.013	-0.040***	-0.048***	0.023	-0.042**
	(0.011)	(0.011)	(0.013)	(0.012)	(0.015)	(0.012)	(0.013)
Other non-workers (reference category)							

Subgroup: Principal applicants	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
Retired	-0.103*** (0.015)	0.005 (0.017)	-0.023 (0.019)	-0.118*** (0.020)	-0.141*** (0.021)	-0.063*** (0.015)	-0.079*** (0.018)
Students	0.087*** (0.014)	0.007 (0.015)	-0.015 (0.017)	-0.157*** (0.016)	-0.138*** (0.018)	-0.049** (0.015)	-0.031 (0.016)
Non-permanent residency status before landing	-0.287*** (0.006)	-0.072*** (0.007)	-0.078*** (0.008)	-0.177*** (0.009)	-0.161*** (0.008)	-0.141*** (0.007)	-0.083*** (0.007)
Pre-landing tax filer indicator	-0.058*** (0.006)	0.000 (0.006)	-0.004 (0.007)	-0.096*** (0.008)	-0.043*** (0.008)	-0.033*** (0.007)	-0.012 (0.006)
Constant	0.776*** (0.013)	0.855*** (0.013)	0.817*** (0.015)	0.687*** (0.015)	0.370*** (0.017)	0.134*** (0.014)	0.201*** (0.015)
Total number of observations	108,185	51,690	51,690	51,690	51,690	51,690	51,690

Notes: Linear probability models were estimated with standard errors in parentheses. ***, **, * is significance at 1%, 5% and 10% respectively.

Subgroup: Spouse and dependents	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
Gender							
Male (reference category)							
Female	0.052***	0.021***	0.009	0.077***	0.089***	0.000	0.056***

Subgroup: Spouse and dependents	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
	(0.005)	(0.005)	(0.006)	(0.007)	(0.007)	(0.006)	(0.006)
Age in 2014							
18 to 34	-0.063***	-0.044***	-0.047***	-0.009	-0.035***	0.000	-0.048***
	(0.006)	(0.006)	(0.007)	(0.007)	(0.008)	(0.007)	(0.006)
35 to 44 (reference category)							
45 to 54	-0.059***	-0.024***	-0.022*	-0.012	0.011	-0.009	-0.018*
	(0.007)	(0.007)	(0.009)	(0.010)	(0.010)	(0.008)	(0.009)
55 to 65	-0.173***	-0.010	-0.009	-0.086***	-0.072***	-0.050***	-0.020
	(0.013)	(0.014)	(0.016)	(0.019)	(0.019)	(0.013)	(0.016)
Class of immigration							
Economic work program (reference category)							
Economic business program	0.027**	-0.007	-0.030**	0.074***	0.093***	-0.132***	0.020
	(0.010)	(0.010)	(0.012)	(0.012)	(0.013)	(0.010)	(0.011)
Provincial nominee	0.020***	-0.022**	-0.034***	0.010	0.053***	-0.098***	-0.016*
	(0.006)	(0.007)	(0.008)	(0.009)	(0.009)	(0.008)	(0.007)
Sponsorship	-0.028**	-0.123***	-0.135***	0.159***	0.149***	-0.090***	-0.044***
	(0.010)	(0.012)	(0.013)	(0.014)	(0.013)	(0.011)	(0.010)
Refugees	0.287***	0.105***	0.087***	0.140***	0.233***	-0.012	0.194***

Subgroup: Spouse and dependents	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
	(0.007)	(0.007)	(0.009)	(0.010)	(0.011)	(0.010)	(0.010)
Other immigrants	0.146***	-0.075*	-0.066*	0.020	0.024	-0.106***	-0.003
	(0.022)	(0.031)	(0.033)	(0.032)	(0.031)	(0.023)	(0.021)
Marital status							
Married or common law							
Never married	-0.086***	0.003	-0.016	-0.125***	-0.143***	-0.011	-0.014
	(0.008)	(0.011)	(0.013)	(0.014)	(0.013)	(0.012)	(0.011)
Ever married	-0.037	0.065	-0.124	-0.029	-0.112	0.032	0.074
	(0.055)	(0.071)	(0.089)	(0.087)	(0.086)	(0.084)	(0.082)
Continent of birth							
North America	-0.079***	0.008	-0.032	-0.007	0.043*	0.039**	0.010
	(0.011)	(0.015)	(0.017)	(0.018)	(0.017)	(0.015)	(0.014)
South America	0.065***	-0.004	-0.004	0.091***	0.110***	0.091***	0.037*
	(0.014)	(0.016)	(0.018)	(0.019)	(0.020)	(0.018)	(0.016)
Europe	-0.081***	-0.046***	-0.050***	0.136***	0.150***	0.012	0.024*
	(0.008)	(0.011)	(0.012)	(0.012)	(0.013)	(0.010)	(0.011)
Africa	-0.021**	0.011	0.018	-0.044***	-0.044***	0.117***	-0.001
	(0.008)	(0.008)	(0.010)	(0.011)	(0.011)	(0.011)	(0.010)

Subgroup: Spouse and dependents	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
Asia (reference category)							
Australia and other international	-0.292***	-0.099	-0.088	-0.231*	-0.247***	-0.079	-0.096
	(0.022)	(0.109)	(0.125)	(0.099)	(0.069)	(0.067)	(0.068)
Most current province of residence							
Atlantic provinces	-0.027*	-0.131***	-0.053**	0.052**	0.178***	0.040*	0.115***
	(0.014)	(0.018)	(0.018)	(0.018)	(0.019)	(0.017)	(0.017)
Ontario (reference category)							
Manitoba	0.012	0.086***	-0.259***	-0.080***	0.052***	-0.025*	0.128***
	(0.009)	(0.008)	(0.012)	(0.012)	(0.012)	(0.010)	(0.011)
Saskatchewan	-0.130***	-0.256***	-0.392***	0.028	0.164***	-0.067***	0.036**
	(0.011)	(0.015)	(0.015)	(0.015)	(0.015)	(0.011)	(0.012)
Alberta	-0.091***	0.003	-0.037***	-0.066***	0.013	0.102***	0.013*
	(0.006)	(0.006)	(0.007)	(0.008)	(0.008)	(0.008)	(0.006)
British Columbia	-0.061***	0.028***	-0.002	-0.043***	0.096***	0.015*	0.186***
	(0.006)	(0.006)	(0.007)	(0.008)	(0.008)	(0.007)	(0.008)
Northern territories	-0.150**	0.108**	-0.513***	-0.488***	0.149*	0.124	0.258***
	(0.048)	(0.041)	(0.065)	(0.047)	(0.075)	(0.069)	(0.072)
Education							

Subgroup: Spouse and dependents	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
Secondary school or less (reference category)							
Formal trade or apprenticeship	0.039***	-0.010	0.013	0.060***	0.036*	-0.004	0.017
	(0.011)	(0.012)	(0.015)	(0.015)	(0.016)	(0.011)	(0.013)
Non-university diploma	0.058***	-0.002	0.023*	0.081***	0.055***	0.037***	0.024*
	(0.009)	(0.010)	(0.011)	(0.012)	(0.012)	(0.009)	(0.010)
Some university — no degree	0.002	-0.032**	-0.023	0.045***	0.015	0.028**	-0.017
	(0.009)	(0.011)	(0.013)	(0.013)	(0.013)	(0.010)	(0.010)
Bachelors and some postgrad — no degree	0.041***	-0.009	0.016	0.021*	-0.024**	0.111***	0.012
	(0.006)	(0.007)	(0.008)	(0.009)	(0.009)	(0.007)	(0.007)
Master's and doctorate	0.044***	-0.007	0.031**	0.027*	-0.038***	0.177***	0.034***
	(0.008)	(0.009)	(0.010)	(0.011)	(0.011)	(0.010)	(0.009)
Knowledge of official language							
English only	-0.087***	0.006	-0.035***	-0.122***	-0.130***	0.030***	-0.038***
	(0.006)	(0.006)	(0.008)	(0.008)	(0.008)	(0.007)	(0.007)
French only	0.160***	0.004	0.038	0.103***	0.165***	0.025	0.070*
	(0.018)	(0.023)	(0.026)	(0.025)	(0.031)	(0.030)	(0.030)
French and English	-0.040***	-0.011	0.008	0.014	-0.029	0.069***	-0.002

Subgroup: Spouse and dependents	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
	(0.012)	(0.013)	(0.015)	(0.016)	(0.018)	(0.017)	(0.015)
Neither French nor English (reference category)							
Skill level — intended occupation							
0 and A: Managerial and professional	0.041**	0.022	0.034*	-0.012	-0.029	0.052**	0.018
	(0.013)	(0.013)	(0.015)	(0.017)	(0.018)	(0.018)	(0.016)
B: Skilled and technical	-0.022	-0.001	-0.017	-0.023	0.011	0.001	0.000
	(0.024)	(0.027)	(0.029)	(0.032)	(0.034)	(0.032)	(0.028)
C and D: Intermediate and clerical	-0.024	0.005	0.028	-0.063	-0.061	0.016	0.049
	(0.026)	(0.029)	(0.031)	(0.036)	(0.038)	(0.036)	(0.035)
New worker	-0.026***	0.014*	0.021**	-0.052***	-0.052***	0.015*	-0.005
	(0.006)	(0.006)	(0.007)	(0.007)	(0.008)	(0.007)	(0.006)
Other non-workers (reference category)							
Retired	-0.216***	0.026	0.021	-0.314***	-0.298***	-0.057***	-0.018
	(0.017)	(0.020)	(0.022)	(0.025)	(0.024)	(0.015)	(0.019)
Students	-0.013	-0.006	0.011	-0.089***	-0.083***	0.001	-0.006
	(0.009)	(0.012)	(0.014)	(0.015)	(0.014)	(0.012)	(0.012)

Subgroup: Spouse and dependents	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
Non-permanent residency status before landing	-0.320*** (0.008)	-0.105*** (0.009)	-0.111*** (0.011)	-0.138*** (0.011)	-0.112*** (0.011)	-0.051*** (0.009)	-0.063*** (0.009)
Pre-landing tax filer indicator	-0.039*** (0.007)	-0.017* (0.008)	-0.026** (0.009)	0.008 (0.010)	0.035*** (0.010)	-0.030*** (0.009)	-0.024** (0.008)
Constant	0.840*** (0.010)	0.874*** (0.010)	0.844*** (0.012)	0.733*** (0.013)	0.464*** (0.013)	0.163*** (0.011)	0.170*** (0.011)
Total number of observations	44,870	26,770	26,770	26,770	26,770	26,770	26,770

Notes: Linear probability models were estimated with standard errors in parentheses. ***, **, * is significance at 1%, 5% and 10% respectively.

Subgroup: Immigration category – Economic class							
	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment- related services	Community connections
Gender							
Male (reference category)							
Female	0.081***	0.013***	-0.003	0.089***	0.085***	0.018***	0.043***
	(0.003)	(0.004)	(0.004)	(0.005)	(0.004)	(0.004)	(0.004)
Age in 2014							
18 to 34	-0.117***	-0.051***	-0.056***	-0.023***	-0.048***	0.001	-0.049***
	(0.003)	(0.004)	(0.005)	(0.005)	(0.005)	(0.004)	(0.004)
35 to 44 (reference category)							
45 to 54	-0.015**	-0.004	-0.014*	0.012	0.033***	-0.023***	-0.009
	(0.005)	(0.005)	(0.006)	(0.007)	(0.006)	(0.006)	(0.006)
55 to 65	-0.129***	-0.024	-0.013	-0.034	-0.011	-0.053***	-0.003
	(0.011)	(0.013)	(0.016)	(0.017)	(0.016)	(0.014)	(0.014)
Family status roll-up							
Principal applicant (reference category)							
Spouse and/or dependents	0.002	-0.014*	0.023***	0.111***	0.142***	0.016**	0.033***
	(0.005)	(0.005)	(0.006)	(0.007)	(0.006)	(0.006)	(0.006)

Subgroup: Immigration category – Economic class							
	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment- related services	Community connections
Continent of birth							
North America	-0.121***	-0.028*	-0.042**	0.053**	0.059***	0.063***	0.011
	(0.007)	(0.013)	(0.016)	(0.016)	(0.015)	(0.013)	(0.011)
South America	0.029**	-0.031*	-0.009	0.199***	0.157***	0.139***	0.087***
	(0.011)	(0.014)	(0.016)	(0.016)	(0.017)	(0.016)	(0.015)
Europe	-0.115***	-0.047***	-0.025**	0.140***	0.150***	0.035***	0.029***
	(0.004)	(0.008)	(0.009)	(0.009)	(0.010)	(0.008)	(0.008)
Africa	-0.046***	0.008	0.020*	-0.067***	-0.099***	0.101***	0.003
	(0.006)	(0.007)	(0.009)	(0.010)	(0.009)	(0.010)	(0.008)
Asia (reference category)							
Australia and other international	-0.244***	-0.118	-0.231*	-0.199**	-0.208***	-0.083	-0.062
	(0.008)	(0.089)	(0.098)	(0.072)	(0.041)	(0.048)	(0.058)
Most current province of residence							
Atlantic provinces	-0.013	-0.136***	-0.058***	0.044**	0.174***	-0.028*	0.071***
	(0.009)	(0.013)	(0.013)	(0.014)	(0.014)	(0.012)	(0.012)
Ontario (reference category)							

Subgroup: Immigration category – Economic class							
	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment- related services	Community connections
Manitoba	0.080*** (0.006)	0.066*** (0.005)	-0.289*** (0.008)	-0.073*** (0.008)	0.091*** (0.007)	-0.108*** (0.006)	0.068*** (0.006)
Saskatchewan	-0.096*** (0.007)	-0.284*** (0.011)	-0.400*** (0.011)	0.074*** (0.011)	0.214*** (0.011)	-0.129*** (0.007)	0.002 (0.008)
Alberta	-0.047*** (0.004)	0.019*** (0.005)	-0.014* (0.005)	-0.097*** (0.006)	-0.021*** (0.005)	0.090*** (0.006)	0.014** (0.004)
British Columbia	-0.025*** (0.004)	0.045*** (0.005)	-0.010 (0.006)	-0.046*** (0.006)	0.084*** (0.006)	-0.014** (0.005)	0.153*** (0.006)
Northern territories	-0.009 (0.031)	0.117*** (0.026)	-0.509*** (0.040)	-0.351*** (0.032)	0.089* (0.042)	0.119** (0.044)	0.189*** (0.043)
Education							
Secondary school or less (reference category)							
Formal trade or apprenticeship	0.024** (0.008)	-0.015 (0.010)	-0.007 (0.012)	0.029* (0.012)	0.016 (0.012)	0.021* (0.009)	0.020* (0.009)
Non-university diploma	0.026*** (0.007)	-0.004 (0.008)	0.015 (0.009)	0.025* (0.010)	0.005 (0.009)	0.049*** (0.007)	0.013 (0.007)

Subgroup: Immigration category – Economic class							
	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment- related services	Community connections
Some university — no degree	-0.027*** (0.007)	-0.026** (0.009)	-0.020 (0.011)	0.019 (0.011)	-0.012 (0.010)	0.035*** (0.008)	-0.002 (0.008)
Bachelors and some postgrad-no degree	0.004 (0.005)	-0.001 (0.006)	0.015* (0.007)	-0.025** (0.008)	-0.055*** (0.007)	0.125*** (0.006)	0.017** (0.006)
Master's and doctorate	0.017** (0.006)	0.004 (0.007)	0.046*** (0.008)	0.002 (0.009)	-0.063*** (0.009)	0.209*** (0.007)	0.060*** (0.007)
Knowledge of official language							
English only	-0.078*** (0.006)	0.015** (0.006)	-0.018** (0.007)	-0.132*** (0.007)	-0.133*** (0.007)	0.057*** (0.006)	-0.037*** (0.006)
French only	0.198*** (0.015)	0.041* (0.019)	0.064** (0.022)	0.160*** (0.021)	0.221*** (0.028)	0.122*** (0.028)	0.085** (0.026)
French and English	-0.002 (0.008)	-0.002 (0.009)	0.025** (0.010)	0.016 (0.011)	-0.021 (0.012)	0.134*** (0.011)	-0.003 (0.010)
Neither French nor English (reference category)							

Subgroup: Immigration category – Economic class							
	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment- related services	Community connections
Skill level — intended occupation							
0 and A: Managerial and professional	-0.057***	0.019*	0.064***	0.003	0.018	0.073***	0.044***
	(0.007)	(0.008)	(0.009)	(0.010)	(0.010)	(0.009)	(0.009)
B: Skilled and technical	-0.046***	0.016	0.058***	-0.011	0.006	0.038***	0.025**
	(0.008)	(0.009)	(0.010)	(0.011)	(0.011)	(0.010)	(0.009)
C and D: Intermediate and clerical	0.006	0.050***	0.077***	-0.092***	-0.060***	-0.002	0.026**
	(0.009)	(0.010)	(0.012)	(0.013)	(0.012)	(0.010)	(0.010)
New worker	-0.035***	0.014*	0.024***	-0.067***	-0.065***	0.009	0.011
	(0.006)	(0.006)	(0.007)	(0.008)	(0.008)	(0.007)	(0.006)
Other non-workers (reference category)							
Retired	0.070	-0.143	-0.194	0.126	0.210	-0.226***	-0.119
	(0.136)	(0.135)	(0.145)	(0.115)	(0.144)	(0.035)	(0.120)
Students	-0.092***	-0.002	0.004	-0.207***	-0.192***	-0.028**	-0.004
	(0.008)	(0.009)	(0.010)	(0.011)	(0.010)	(0.009)	(0.008)
Non-permanent residency status before landing	-0.354***	-0.109***	-0.108***	-0.153***	-0.105***	-0.123***	-0.058***
	(0.006)	(0.007)	(0.008)	(0.009)	(0.009)	(0.008)	(0.007)

Subgroup: Immigration category – Economic class							
	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment- related services	Community connections
Pre-landing tax filer indicator	-0.062*** (0.006)	-0.004 (0.006)	-0.002 (0.008)	-0.042*** (0.009)	-0.012 (0.008)	-0.027*** (0.008)	-0.021** (0.007)
Constant	0.870*** (0.010)	0.869*** (0.011)	0.786*** (0.012)	0.680*** (0.014)	0.391*** (0.013)	0.077*** (0.011)	0.132*** (0.011)
Total number of observations	97,210	46,565	46,565	46,565	46,565	46,565	46,565

Notes: Linear probability models were estimated with standard errors in parentheses. ***, **, * is significance at 1%, 5% and 10% respectively.

Subgroup: Immigration category – Sponsorship class	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
Gender							
Male (reference category)							
Female	0.114***	0.047***	0.033***	0.071***	0.129***	-0.008	0.070***
	(0.005)	(0.007)	(0.007)	(0.007)	(0.007)	(0.006)	(0.005)
Age in 2014							
18 to 34	-0.061***	-0.040***	-0.059***	-0.004	-0.017	-0.012	-0.056***
	(0.007)	(0.009)	(0.009)	(0.009)	(0.010)	(0.008)	(0.007)
35 to 44 (reference category)							
45 to 54	-0.059***	0.045***	0.009	-0.085***	-0.058***	-0.017	-0.020
	(0.011)	(0.013)	(0.015)	(0.015)	(0.016)	(0.012)	(0.012)
55 to 65	-0.116***	0.068***	0.028	-0.141***	-0.093***	-0.047***	0.007
	(0.012)	(0.016)	(0.018)	(0.019)	(0.018)	(0.013)	(0.014)
Family status roll-up							
Principal applicant (reference category)							
Spouse and/or dependents	-0.063***	-0.017	-0.013	-0.056***	-0.071***	0.001	-0.019
	(0.009)	(0.011)	(0.012)	(0.013)	(0.013)	(0.008)	(0.010)
Continent of birth							

Subgroup: Immigration category – Sponsorship class	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
North America	-0.179*** (0.007)	0.022* (0.011)	0.009 (0.012)	-0.104*** (0.012)	-0.033** (0.012)	0.031** (0.010)	0.012 (0.009)
South America	0.024* (0.012)	0.012 (0.014)	0.002 (0.016)	-0.003 (0.015)	0.068*** (0.016)	0.064*** (0.013)	0.036** (0.012)
Europe	-0.122*** (0.008)	-0.066*** (0.012)	-0.040** (0.013)	0.055*** (0.011)	0.059*** (0.013)	-0.001 (0.010)	0.021* (0.009)
Africa	0.085*** (0.010)	0.091*** (0.011)	0.087*** (0.013)	-0.033** (0.012)	0.028* (0.013)	0.105*** (0.012)	0.028** (0.009)
Asia (reference category)							
Australia and other international	-0.333*** (0.011)	0.165** (0.054)	0.037 (0.078)	-0.317*** (0.080)	-0.311*** (0.054)	0.044 (0.063)	-0.053 (0.045)
Most current province of residence							
Atlantic provinces	-0.115*** (0.018)	-0.050 (0.032)	0.040 (0.032)	-0.001 (0.031)	0.134*** (0.034)	0.112*** (0.031)	0.031 (0.024)
Ontario (reference category)							
Manitoba	0.038** (0.013)	0.166*** (0.011)	-0.208*** (0.018)	-0.080*** (0.017)	0.095*** (0.018)	-0.042** (0.013)	0.107*** (0.015)

Subgroup: Immigration category – Sponsorship class	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
Saskatchewan	-0.129*** (0.016)	-0.284*** (0.025)	-0.365*** (0.024)	0.106*** (0.019)	0.247*** (0.024)	-0.099*** (0.015)	0.008 (0.017)
Alberta	-0.086*** (0.006)	-0.030*** (0.009)	-0.065*** (0.010)	0.011 (0.009)	0.138*** (0.010)	0.072*** (0.008)	0.028*** (0.007)
British Columbia	-0.095*** (0.006)	0.027*** (0.008)	0.011 (0.009)	-0.065*** (0.009)	0.125*** (0.009)	-0.012 (0.007)	0.146*** (0.008)
Northern territories	-0.100* (0.042)	0.147** (0.049)	-0.351*** (0.081)	-0.508*** (0.072)	0.104 (0.085)	0.156 (0.082)	0.298*** (0.086)
Education							
Secondary school or less (reference category)							
Formal trade or apprenticeship	0.027* (0.011)	0.007 (0.016)	0.009 (0.017)	0.052*** (0.016)	0.052** (0.017)	0.020 (0.012)	0.021 (0.013)
Non-university diploma	0.029** (0.010)	0.027* (0.013)	0.040** (0.015)	0.052*** (0.014)	0.064*** (0.015)	0.023* (0.011)	-0.002 (0.010)
Some university — no degree	-0.011 (0.010)	-0.010 (0.014)	0.011 (0.015)	0.023 (0.014)	0.030* (0.015)	0.049*** (0.011)	-0.004 (0.010)

Subgroup: Immigration category – Sponsorship class	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
Bachelors and some postgrad-no degree	-0.010	0.009	0.015	-0.003	-0.017	0.110***	0.007
	(0.007)	(0.010)	(0.011)	(0.010)	(0.011)	(0.008)	(0.008)
Master's and doctorate	-0.048***	0.024	0.016	-0.037*	-0.077***	0.190***	0.042***
	(0.010)	(0.014)	(0.015)	(0.014)	(0.015)	(0.013)	(0.011)
Knowledge of official language							
English only	-0.092***	-0.005	-0.007	-0.058***	-0.088***	0.061***	0.003
	(0.006)	(0.007)	(0.008)	(0.008)	(0.008)	(0.006)	(0.006)
French only	0.139***	0.039	0.008	0.130***	0.178***	0.058*	0.082**
	(0.022)	(0.025)	(0.030)	(0.023)	(0.028)	(0.029)	(0.026)
French and English	-0.081***	-0.030	-0.025	-0.081***	-0.109***	0.092***	0.020
	(0.016)	(0.022)	(0.024)	(0.024)	(0.024)	(0.022)	(0.018)
Neither French nor English (reference category)							
Skill level — intended occupation							
0 and A: Managerial and professional	-0.007	0.017	0.032	-0.004	-0.072	0.083*	0.050
	(0.028)	(0.041)	(0.046)	(0.043)	(0.046)	(0.038)	(0.036)

Subgroup: Immigration category – Sponsorship class	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment-related services	Community connections
B: Skilled and technical	-0.024 (0.029)	-0.030 (0.043)	0.022 (0.046)	-0.050 (0.044)	-0.082 (0.047)	-0.030 (0.025)	-0.050 (0.026)
C and D: Intermediate and clerical	0.042 (0.031)	-0.024 (0.041)	0.013 (0.043)	-0.034 (0.040)	0.015 (0.043)	0.035 (0.030)	0.032 (0.033)
New worker	0.048** (0.016)	0.011 (0.019)	0.025 (0.021)	-0.021 (0.018)	-0.017 (0.021)	0.065*** (0.013)	0.013 (0.015)
Other non-workers (reference category)							
Retired	-0.052** (0.018)	-0.018 (0.022)	0.022 (0.025)	-0.061* (0.024)	-0.068** (0.025)	0.004 (0.015)	0.009 (0.018)
Students	0.150*** (0.018)	0.031 (0.021)	0.051* (0.024)	-0.051* (0.021)	-0.051* (0.024)	0.040** (0.015)	0.050** (0.017)
Non-permanent residency status before landing	-0.208*** (0.008)	-0.026* (0.012)	-0.024 (0.013)	-0.086*** (0.013)	-0.145*** (0.013)	-0.037*** (0.010)	-0.033*** (0.009)
Pre-landing tax filer indicator	-0.018* (0.007)	0.009 (0.010)	0.002 (0.011)	-0.079*** (0.010)	-0.028** (0.011)	-0.028** (0.009)	-0.005 (0.008)
Constant	0.648*** (0.018)	0.707*** (0.021)	0.644*** (0.024)	0.788*** (0.021)	0.439*** (0.024)	0.033* (0.015)	0.065*** (0.017)

Subgroup: Immigration category – Sponsorship class	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment- related services	Community connections
Total number of observations	41,275	20,205	20,205	20,205	20,205	20,205	20,205

Notes: Linear probability models were estimated with standard errors in parentheses. ***, **, * is significance at 1%, 5% and 10% respectively.

Subgroup: Immigration category – Refugees and other immigration classes	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment- related services	Community connections
Gender							
Male (reference category)							
Female	0.051***	0.028***	0.014	0.024**	0.069***	0.004	0.046***
	(0.007)	(0.006)	(0.008)	(0.008)	(0.009)	(0.008)	(0.008)
Age in 2014							
18 to 34	-0.044***	-0.011	-0.012	-0.027**	-0.061***	0.016	-0.069***
	(0.007)	(0.006)	(0.009)	(0.009)	(0.010)	(0.009)	(0.009)
35 to 44 (reference category)							
45 to 54	-0.005	0.004	0.002	-0.028*	0.003	0.016	-0.013
	(0.010)	(0.009)	(0.011)	(0.013)	(0.014)	(0.012)	(0.013)
55 to 65	-0.018	-0.001	-0.003	-0.146***	-0.103***	-0.035*	-0.024
	(0.013)	(0.011)	(0.015)	(0.017)	(0.018)	(0.015)	(0.017)
Family status roll-up							
Principal applicant (reference category)							
Spouse and/or dependents	0.001	0.010	-0.005	-0.000	0.011	-0.001	0.030**
	(0.007)	(0.007)	(0.009)	(0.009)	(0.010)	(0.009)	(0.010)
Continent of birth							

Subgroup: Immigration category – Refugees and other immigration classes	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment- related services	Community connections
North America	-0.072*** (0.014)	-0.040** (0.013)	-0.072*** (0.017)	-0.068*** (0.017)	-0.020 (0.016)	-0.004 (0.012)	-0.032* (0.013)
South America	-0.004 (0.021)	-0.073*** (0.022)	-0.087*** (0.026)	0.065* (0.026)	0.067** (0.025)	0.082*** (0.023)	0.013 (0.021)
Europe	-0.082*** (0.019)	-0.096*** (0.021)	-0.089*** (0.024)	0.048 (0.024)	-0.033 (0.022)	-0.025 (0.014)	-0.042** (0.016)
Africa	-0.017* (0.008)	-0.002 (0.007)	-0.002 (0.009)	-0.098*** (0.010)	-0.087*** (0.011)	0.067*** (0.010)	-0.036*** (0.010)
Asia (reference category)							
Australia and other international	-0.415*** (0.113)	0.094** (0.034)	-0.039 (0.247)	-0.475** (0.175)	-0.132 (0.263)	-0.044 (0.251)	0.038 (0.170)
Most current province of residence							
Atlantic provinces	-0.012 (0.014)	0.009 (0.015)	-0.276*** (0.035)	0.109*** (0.021)	0.317*** (0.024)	0.254*** (0.036)	0.398*** (0.033)
Ontario (reference category)							
Manitoba	0.015 (0.010)	0.028** (0.009)	-0.060** (0.019)	0.064*** (0.019)	0.207*** (0.022)	0.154*** (0.024)	0.289*** (0.024)

Subgroup: Immigration category – Refugees and other immigration classes	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment- related services	Community connections
Saskatchewan	0.006	-0.054**	-0.329***	0.057**	0.262***	0.022	0.313***
	(0.011)	(0.018)	(0.029)	(0.021)	(0.023)	(0.025)	(0.029)
Alberta	-0.023**	-0.008	-0.055***	0.082***	0.223***	0.157***	0.020
	(0.008)	(0.008)	(0.010)	(0.010)	(0.011)	(0.011)	(0.011)
British Columbia	-0.024*	0.020**	0.032**	0.022	0.191***	0.102***	0.332***
	(0.009)	(0.008)	(0.010)	(0.012)	(0.014)	(0.014)	(0.015)
Northern territories	0.051	-0.439**	-0.475**	-0.082	0.065	0.368*	-0.086*
	(0.120)	(0.169)	(0.167)	(0.093)	(0.110)	(0.169)	(0.037)
Education							
Secondary school or less (reference category)							
Formal trade or apprenticeship	-0.060***	-0.008	0.020	-0.024	-0.017	0.036	-0.035*
	(0.018)	(0.017)	(0.021)	(0.023)	(0.023)	(0.019)	(0.017)
Non-university diploma	-0.031*	-0.024	-0.017	0.003	-0.044*	0.024	-0.042**
	(0.014)	(0.013)	(0.017)	(0.018)	(0.019)	(0.016)	(0.015)
Some university — no degree	-0.030	-0.034*	-0.013	0.013	-0.052**	0.040*	-0.025
	(0.016)	(0.015)	(0.019)	(0.019)	(0.020)	(0.018)	(0.017)
Bachelors and some postgrad-no degree	-0.023*	-0.018	-0.016	-0.002	-0.059***	0.111***	-0.025*

Subgroup: Immigration category – Refugees and other immigration classes	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment- related services	Community connections
	(0.012)	(0.011)	(0.013)	(0.015)	(0.015)	(0.014)	(0.013)
Master's and doctorate	-0.006	-0.002	0.021	-0.030	-0.068*	0.212***	-0.017
	(0.025)	(0.022)	(0.027)	(0.032)	(0.032)	(0.032)	(0.026)
Knowledge of official language							
English only	-0.059***	-0.017**	-0.017*	-0.083***	-0.121***	0.031**	-0.072***
	(0.007)	(0.006)	(0.009)	(0.010)	(0.011)	(0.009)	(0.010)
French only	0.091***	0.022	-0.003	0.060*	0.072**	0.069**	0.035
	(0.018)	(0.016)	(0.024)	(0.025)	(0.027)	(0.025)	(0.027)
French and English	-0.002	0.008	-0.009	-0.087**	-0.126***	0.056*	0.003
	(0.022)	(0.018)	(0.025)	(0.028)	(0.027)	(0.026)	(0.026)
Neither French nor English (reference category)							
Skill level — intended occupation							
0 and A: Managerial and professional	0.038	0.010	-0.082	-0.015	-0.019	0.103	-0.010
	(0.033)	(0.036)	(0.051)	(0.054)	(0.065)	(0.065)	(0.064)
B: Skilled and technical	-0.040	0.003	-0.025	-0.061	-0.037	0.108	-0.028

Subgroup: Immigration category – Refugees and other immigration classes	Participants	Information and orientation	Needs assessment and referrals	Language assessment	Language training	Employment- related services	Community connections
	(0.034)	(0.031)	(0.041)	(0.052)	(0.057)	(0.060)	(0.053)
C and D: Intermediate and clerical	0.005	-0.004	-0.083	-0.036	0.043	0.040	0.056
	(0.027)	(0.029)	(0.045)	(0.045)	(0.052)	(0.050)	(0.057)
New worker	0.036***	0.022**	-0.015	0.001	-0.030*	0.020	-0.050***
	(0.007)	(0.008)	(0.011)	(0.011)	(0.014)	(0.013)	(0.015)
Other non-workers (reference category)							
Retired	-0.055	0.060***	-0.000	-0.102	-0.335***	-0.065	-0.044
	(0.060)	(0.013)	(0.058)	(0.081)	(0.085)	(0.058)	(0.081)
Students	0.007	-0.019	-0.064***	-0.187***	-0.211***	0.014	-0.052**
	(0.010)	(0.011)	(0.014)	(0.016)	(0.018)	(0.016)	(0.018)
Non-permanent residency status before landing	-0.355***	-0.086***	-0.135***	-0.372***	-0.344***	-0.130***	-0.182***
	(0.014)	(0.013)	(0.017)	(0.018)	(0.019)	(0.017)	(0.018)
Pre-landing tax filer indicator	0.035**	0.007	-0.007	-0.028	0.030	-0.026	0.015
	(0.012)	(0.011)	(0.015)	(0.016)	(0.017)	(0.016)	(0.017)
Constant	0.986***	0.934***	0.936***	0.919***	0.699***	0.132***	0.377***
	(0.010)	(0.010)	(0.013)	(0.014)	(0.017)	(0.015)	(0.017)
Total number of observations	14,570	11,690	11,690	11,690	11,690	11,690	11,690

Notes: Linear probability models were estimated with standard errors in parentheses. ***, **, * is significance at 1%, 5% and 10% respectively.

Table 8 Regression results: choice of top five common pathways among service participants

	IO-NARS	LA	IO	IO-NARS-IO-IO	LA LT LT
Gender					
Male (reference category)					
Female	-0.024***	-0.008***	-0.011***	0.001	0.007***
	(0.002)	(0.002)	(0.002)	(0.001)	(0.001)
Age in 2014					
18 to 34	0.005*	0.018***	0.005*	-0.005***	0.005***
	(0.002)	(0.002)	(0.002)	(0.001)	(0.001)
35 to 44 (reference category)					
45 to 54	0.003	0.001	0.004	-0.000	0.005**
	(0.003)	(0.002)	(0.003)	(0.002)	(0.002)
55 to 65	0.021***	-0.008	0.004	0.015***	-0.001
	(0.006)	(0.004)	(0.004)	(0.004)	(0.003)
Family status roll-up					
Principal applicant (reference category)					
Spouse and/or dependents	-0.010***	-0.006**	-0.014***	-0.008***	0.004*
	(0.003)	(0.002)	(0.002)	(0.002)	(0.002)
Class of immigration					
Economic work program (reference category)					
Economic business program	0.001	0.020***	-0.008*	-0.003	0.005
	(0.005)	(0.004)	(0.004)	(0.003)	(0.003)
Provincial nominee	-0.013***	-0.000	0.004	-0.004*	0.011***
	(0.003)	(0.003)	(0.003)	(0.002)	(0.002)

	IO-NARS	LA	IO	IO-NARS-IO-IO	LA LT LT
Sponsorship	-0.023*** (0.004)	0.036*** (0.003)	-0.029*** (0.003)	-0.008*** (0.002)	0.037*** (0.002)
Refugees	-0.063*** (0.003)	-0.028*** (0.003)	-0.045*** (0.003)	0.011*** (0.003)	-0.007*** (0.002)
Other immigrants	-0.045*** (0.010)	0.047*** (0.012)	-0.032*** (0.008)	0.018* (0.009)	0.027*** (0.008)
Continent of birth					
North America	0.000 (0.005)	-0.005 (0.004)	0.004 (0.004)	0.003 (0.003)	0.008* (0.003)
South America	-0.036*** (0.005)	0.001 (0.006)	-0.022*** (0.004)	-0.007* (0.004)	0.020*** (0.005)
Europe	-0.026*** (0.004)	0.028*** (0.004)	-0.026*** (0.003)	-0.001 (0.003)	0.017*** (0.003)
Africa	-0.001 (0.003)	-0.014*** (0.002)	-0.004 (0.003)	-0.002 (0.002)	-0.002 (0.002)
Asia (reference category)					
Australia and other international	0.159** (0.052)	0.015 (0.034)	0.072 (0.040)	0.013 (0.024)	-0.013 (0.019)
Most current province of residence					
Atlantic provinces	-0.042*** (0.004)	-0.033*** (0.004)	-0.014** (0.004)	-0.023*** (0.003)	-0.000 (0.003)
Ontario (reference category)					
Manitoba	-0.030*** (0.003)	-0.040*** (0.002)	0.082*** (0.004)	-0.006* (0.002)	-0.008*** (0.002)

	IO-NARS	LA	IO	IO-NARS-IO-IO	LA LT LT
Saskatchewan	-0.028***	0.035***	0.020***	-0.009**	0.094***
	(0.004)	(0.006)	(0.005)	(0.003)	(0.006)
Alberta	0.019***	-0.010***	0.008***	-0.017***	0.040***
	(0.003)	(0.002)	(0.002)	(0.001)	(0.002)
British Columbia	0.010***	-0.019***	-0.003	-0.010***	0.011***
	(0.003)	(0.002)	(0.002)	(0.002)	(0.002)
Northern territories	-0.076***	-0.061***	0.109***	-0.029**	-0.013***
	(0.013)	(0.008)	(0.031)	(0.010)	(0.002)
Education					
Secondary school or less (reference category)					
Formal trade or apprenticeship	-0.007	-0.002	-0.003	-0.006	0.010*
	(0.005)	(0.004)	(0.004)	(0.003)	(0.004)
Non-university diploma	-0.010**	0.001	0.001	-0.004	0.005
	(0.004)	(0.004)	(0.003)	(0.003)	(0.003)
Some university — no degree	-0.006	0.010*	0.005	-0.007*	-0.002
	(0.005)	(0.004)	(0.004)	(0.003)	(0.003)
Bachelors and some postgrad-no degree	-0.007*	0.002	0.005*	-0.010***	-0.009***
	(0.003)	(0.003)	(0.002)	(0.002)	(0.002)
Master's and doctorate	-0.015***	-0.006	-0.007*	-0.013***	-0.012***
	(0.004)	(0.003)	(0.003)	(0.002)	(0.002)
Knowledge of official language					
English only	0.017***	0.001	0.013***	0.005**	-0.013***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
French only	-0.024***	-0.011	-0.011*	0.005	-0.001
	(0.006)	(0.006)	(0.005)	(0.006)	(0.006)

	IO-NARS	LA	IO	IO-NARS-IO-IO	LA LT LT
French and English	-0.014**	-0.003	-0.007*	0.003	-0.012***
	(0.004)	(0.004)	(0.003)	(0.003)	(0.003)
Neither French nor English (reference category)					
Skill level — intended occupation					
0 and A: Managerial and professional	-0.000	-0.017***	-0.011**	0.000	-0.006*
	(0.005)	(0.004)	(0.004)	(0.003)	(0.003)
B: Skilled and technical	0.007	-0.014**	0.005	-0.003	-0.011***
	(0.005)	(0.005)	(0.005)	(0.003)	(0.003)
C and D: Intermediate and clerical	0.021**	-0.027***	0.015*	0.020***	-0.024***
	(0.007)	(0.005)	(0.006)	(0.005)	(0.003)
New worker	0.003	-0.005	0.009***	0.005*	-0.008***
	(0.003)	(0.003)	(0.003)	(0.002)	(0.002)
Other non-workers (reference category)					
Retired	0.057***	0.011	0.044***	0.006	-0.023***
	(0.009)	(0.007)	(0.006)	(0.005)	(0.005)
Students	0.030***	-0.001	0.030***	0.013***	-0.018***
	(0.004)	(0.004)	(0.004)	(0.003)	(0.003)
Non-permanent residency status before landing	0.055***	0.034***	0.028***	0.009***	0.002
	(0.004)	(0.003)	(0.003)	(0.002)	(0.002)
Pre-landing tax filer indicator	0.012***	0.005	0.004	0.012***	-0.001
	(0.003)	(0.003)	(0.003)	(0.002)	(0.002)
Constant	0.076***	0.049***	0.041***	0.033***	0.017***
	(0.005)	(0.005)	(0.004)	(0.004)	(0.004)
Total number of observations	78,455	78,455	78,455	78,455	78,455

Notes: Linear probability models were estimated with standard errors in parentheses. ***, **, * is significance at 1%, 5% and 10% respectively.

Table 9 Subgroup characteristics of service participants

	Male (%)	Female (%)	Principal applicant (%)	Spouse and dependents (%)	Economic class (%)	Sponsored class (%)	Refugees and other immigrants (%)
Gender							
Male			46.5	32.7	43.1	34.5	49.1
Female			53.5	67.3	56.9	65.5	50.9
Age							
18 to 34	46	53.1	49	52.4	44.1	62.7	52.7
35 to 44	33.3	29.9	31.9	30.1	39	16.3	26.6
45 to 54	14.9	11.6	13.5	12	15.3	7.3	13.9
55 to 65	5.8	5.4	5.6	5.5	1.7	13.8	6.9
Marital status							
Married or common law	67	69.2	64.7	75.3	71.5	71.3	50.2
Never married	31.7	26	30.3	24.6	26.4	24.7	42.3
Ever married	1.3	4.8	5.1	0.1	2.1	4	7.5
Family status roll-up							
Principal Applicant	73.3	60.5			56.4	84.6	71.4
Spouse and dependents	26.7	39.5			43.6	15.4	28.6
Class of immigration							
Economic work program	34.6	35.4	32.1	40.8			
Economic business program	4.1	3.7	2.3	6.9			
Provincial nominee	22.6	19	16.5	28.2			
Sponsored class	21.3	29	33.1	11.7			
Refugees	16.5	11.9	15	11.5			
Other immigrants	1	1.1	1.1	0.9			

	Male (%)	Female (%)	Principal applicant (%)	Spouse and dependents (%)	Economic class (%)	Sponsored class (%)	Refugees and other immigrants (%)
Country of birth (top five)							
Iran	10	8.2	7.9	11	11.4	3.8	8.4
China	11.7	12.8	11.5	13.9	13.5	14.5	3.8
Philippines	12.7	17.9	17.4	12.5	23.7	6.3	0.2
India	17.6	16.1	14.7	20.6	19.4	18.9	2.5
Pakistan	4.7	3.8	3.7	5.1	4.3	3.7	4.4
Region of birth							
North America	5.1	4.9	5.9	3.2	2.2	9.2	8.7
South America	2.5	2.9	3	2.4	1.7	5	3
Europe	6.2	6.3	6.4	6.1	6.1	8	3.9
Africa	11.6	9.4	11.5	8.1	5.5	9.1	31.8
Asia	74.4	76.4	73.2	80.1	84.4	68.5	52.5
Australia and other international	0.1	0.1	0.1				
Most recent province of residence							
Atlantic provinces	2.2	1.9	1.8	2.6	2.6	1.1	1.7
Ontario	50.5	50.6	51.9	47.8	44.2	58.3	62.2
Manitoba	9.1	7.8	7.9	9	11.4	3.9	3.7
Saskatchewan	3.8	3.6	3.2	4.5	4.7	1.9	2.6
Alberta	18.5	18.7	18.4	19.1	19.4	16.2	20
British Columbia	15.6	17.3	16.5	16.8	17.5	18.4	9.6
Northern territories	0.2	0.2	0.2	0.2	0.2	0.2	0.1

	Male (%)	Female (%)	Principal applicant (%)	Spouse and dependents (%)	Economic class (%)	Sponsored class (%)	Refugees and other immigrants (%)
Skill level (2011) — intended occupation				0.8			
0 and A: Professional and managerial	22	11.2	22.3	0.5	26.1	0.6	0.5
B: Skilled and Technical	12.3	4.9	11.8	0.1	13.1	0.6	0.5
C and D: Intermediate and clerical, elemental, and labourer	3.8	3.7	5.4	42.9	5.9	0.7	0.6
New worker	45.7	51.2	52	25.9	34.3	69	72.5
Other non-workers	1.5	16.6	2.2	4.2	12.8	2.8	12.9
Retired	3	3.7	3	22.5	0	13	0.2
Students	11.6	8.7	3.4	100	7.9	13.1	12.7
Education qualification							
Secondary or less	23.2	20.3	19.5	99.9	12.2	23.9	54.6
Formal trade or apprenticeship	5.7	3.6	4.7	0.1	4.7	4.5	3.5
Non-university diploma	7.5	9.1	8.9	100	10	6.6	5.4
Some university — no degree	5.4	5.8	5.2		5.4	6.6	4.7
Bachelors and some postgrad-no degree	27.4	32.5	30.8	99.9	40.5	19.2	9.4
Master's and doctorate	14.8	12.3	13.8	0.1	19	6.9	1.9
Don't know or imputed	16	16.4	17.1	100	8.1	32.3	20.3
Knowledge of official language							
English only	67.5	66.4	66.8	35.1	79.1	51.9	43.7
French only	1	1.3	1.3	4.4	0.7	1.3	2.7
English and French	5	4.1	4.9	8.2	5.9	2.3	2.5
Neither English nor French	26.5	28.2	27	7.2	14.2	44.4	51.1

	Male (%)	Female (%)	Principal applicant (%)	Spouse and dependents (%)	Economic class (%)	Sponsored class (%)	Refugees and other immigrants (%)
Non-permanent residency status before landing	24.7	29.1	32.4	0.6	31.7	12.8	34.4
Pre-landing tax filer indicator	25.7	36.3	37	22.5	35.6	20.3	37
Family size (more than two in 2014)	54.6	48.2	43.5	17.2	57.5	36.1	50.2
Total number of observations	32,780	45,680	51,690	26,770	46,565	20,205	11,690

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