# Language Instruction for Newcomers to Canada

Client profile and performance indicators

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# Executive Summary

- The Language Instruction for Newcomers to Canada (LINC) program provides basic language training to adult permanent residents in one of Canada's official languages. For this report, special tabulations from the Immigration Contribution Accountability Measurement System (iCAMS) and the History of Assessments, Referrals and Training system (HARTs) provided the basis for a demographic profile and performance indicators for the LINC program.

- Since the implementation of the LINC program, an average of 36,800 clients per year were assessed for LINC training, 52,500 clients per year had received training and roughly 19,900 clients completed at least one training course per year.

- The demographic characteristics outlined below are specific to LINC clients who have completed LINC courses and the descriptions and trends detailed below are largely in line with those of the populations of assessed clients and clients in training.

    - Skilled workers (principal applicants and spouses and dependants) account for the largest number of LINC clients each year, followed by family class immigrants, refugees, and other economic immigrants.
    - The LINC client population is dominated by females, who account for close to three-quarters of the population.
    - Ontario clearly accounts for the majority (85 percent during the 2003 to 2008 period) of the LINC clients. However, the share in Ontario has declined by 6 percent since 2003 as a result of both a decrease in the number of Ontario clients and an increase in the number of clients in Alberta and Nova Scotia.
    - Roughly equal shares of LINC clients are university educated immigrants (including those with graduate degrees) or have secondary education or less.
    - The majority (59 percent) of clients who complete LINC courses do so within the first two years following landing.
    - China is the top country of birth for LINC clients in all provinces. Depending on the year, clients who were born in China account for 25-30 percent of clients. The trends observed by provinces are generally consistent with landings of permanent residents.
    - Consistent with the trends observed for country of birth, individuals with Mandarin as a mother tongue make up between 20-25 percent of LINC clients at the national level on an annual basis. Spanish and Arabic account for roughly 10 percent of clients.

- In order to measure the performance of clients that have enrolled in the LINC program, a composite measure of language ability based on CLB (Canadian Language Benchmark) entry and exit scores is used. The composite measure is derived using CLB scores upon entry and exit of a completed LINC course. The difference between these composite measures is then used to measure client performance.

- Given the methodology used above, roughly 19 out of 20 (94.3 percent) clients who complete a LINC course either meet or exceed the language competencies associated with the LINC level they completed. In contrast, 1 out of 20 (5.6 percent) clients who complete a LINC course do not meet the language competencies associated with the LINC level they completed.

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## Introduction

The Language Instruction for Newcomers to Canada (LINC) program provides basic language training to adult permanent residents in one of Canada's official languages to facilitate their social, cultural and economic integration into Canada.[1] By developing linguistic communication skills through LINC, immigrants and refugees are better able to function in Canadian society and contribute to the economy.

The importance of official language knowledge in the Canadian immigration context is well documented and, on average, official language literacy levels of immigrants are below that of Canadian-born individuals with similar characteristics. According to the 2003 International Adult Literacy and Skills Survey (IALSS), about 60% of immigrants were below Level 3 in prose literacy -- the desired threshold for coping with the increasing skill demands of a knowledge society. This compares to 37% of the Canadian-born population. Research has shown that official language knowledge is a key component in terms of immigrant integration in Canadian society and is particularly important in areas such as labour market integration.[2]

For this report, special tabulations from two administrative data sources were combined in order to get consistent time series data that is used to develop a demographic profile and performance indicators for LINC. The two administrative data sources are 1) the Immigration Contribution Accountability Measurement System (iCAMS) and 2) the History of Assessments, Referrals and Training system (HARTs).

The iCAMS data includes information from Service Provider Organizations (SPOs) from Newfoundland and Labrador, Prince Edward Island, Nova Scotia, New Brunswick, Saskatchewan, Alberta and the Territories. The HARTs data includes information from SPOs in Ontario. Due to alternative funding arrangements with CIC, Quebec, Manitoba and British Columbia do not report data through the Immigration Contribution Accountability Measurement System (iCAMS) and are therefore excluded from all calculations in this analysis.[3] In addition, the number of clients in training and competing courses is consistent with data runs complete through February 2009. There exists a possibility that the most recent LINC training and completions data from all SPOs has not been captured in the current cut of iCAMS and HARTS data and therefore client counts in the most recent years may be understated.

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[1] In order to access LINC training, clients must be of legal school-leaving age within their applicable province or territory. Also note that once permanent residents become Canadian citizens, they are no longer eligible for LINC training.

[2] A number of studies have found that English language knowledge is a key factor affecting economic outcomes of immigrants. These include: Baker and Benjamin (1994), Frenette and Morissette (2003), Picot and Hou (2003), Aydemir and Skuterud (2004, 2005), Picot and Sweetman (2006), Ferrer, Green and Riddell (2006), Hawthorne (2006).

[3] Note that data used in this analysis corresponds to all reporting SPOs in the iCAMS and HARTs data systems. There may instances where SPOs have not reported LINC training in iCAMS and HARTs for various reasons and information from these SPOs are therefore excluded from the analysis.

# Section 1: LINC Populations – Assessed Clients, Clients in Training, Clients with Completed Training

For this demographic profile, clients were broken down into three populations that correspond to a logical flow through the LINC program – client assessment, client training, and course completion by the client. A demographic profile of each of these populations provides beneficial information regarding who is taking advantage of the LINC program and groups that are underrepresented or are not benefiting from the program.

Prior to LINC training, all clients must undergo an assessment to determine what level of LINC training they should be enrolled in. For most cases, these assessments are valid for up to six months. [4] If a client wishes to enroll in LINC training and has not been assessed within the last six months, the client will require a re-assessment prior to training. Each assessment is recorded and counted in its respective year. Therefore, it is possible for a single client to be counted more than once under "Assessed Clients".

Following the assessment, clients may enroll in LINC training at the level identified by the assessment.[5] These clients are counted as "Clients in training" in the year that they enroll. Additionally, there are clients continuing their training. These clients are also counted as "Clients in training". Each client is counted only once per year at time of first training for that year.

Finally, clients who complete at least one LINC course are counted as "Clients with completed training". Each client with completed training is counted only once per year at time of first completion for that year.

As illustrated by Table 1 the largest of the three abovementioned populations is the "Clients in training" as it includes both newly enrolled clients and clients continuing training.

**Table 1:  Size of three LINC Populations, 2003-2008[6]**

|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|---|
| Assessed Clients | 38,394 | 37,897 | 37,346 | 35,820 | 34,509 | 36,814 |
| Clients in training | 51,182 | 52,534 | 51,914 | 50,936 | 53,348 | 55,286 |
| Clients with completed training | 21,102 | 20,992 | 19,941 | 18,740 | 19,489 | 19,162 |

*Source: iCAMS and HARTS, CIC*

- From 2003 through 2008, an average of 36,800 clients per year were assessed for LINC training. Over the same period, 52,500 clients per year had received training and roughly 19,900 clients completed at least one training course per year.

- On an annual basis, roughly 110,000 new permanent residents are eligible to take LINC training.[7]

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[4] Clients enrolled in LINC training who are evaluated at the end of each course and do not require a new formal assessment unless there is a break in training. For Ontario, if the break in training is longer than six months, the client will require a re-assessment. Other provinces/territories may adhere to different timeframes before re-assessments are required.

[5] In some cases a client may be enrolled in a LINC level different from that identified during the assessment. This may occur during informal interaction with LINC clients during enrollment and the SPO determines that the level identified during the assessment is inaccurate. In Ontario, an instructor may determine that a client should be placed at a different LINC level after several days of LINC training; a new LINC level placement is done in conjunction with the assessor.

[6] Counts do not include clients from the Territories.

[7] The calculated figure is an approximation of the annual number of new permanent residents eligible for LINC training based on an age restriction (legal school-leaving age) and intended province of residence.

**Table 2:   Total LINC Completions per Unique Client by Province, 2005-2008[8]**

|  | NL | PE | NS | NB | ON | SK | AB | Canada |
|---|---|---|---|---|---|---|---|---|
| Unique clients with completed training | 355 | 935 | 160 | 371 | 64,365 | 926 | 10,220 | 77,332 |
| Total completed LINC courses | 529 | 1,048 | 231 | 386 | 161,266 | 1,068 | 12,031 | 176,562 |
| **Completions per unique client** | **1.5** | **1.1** | **1.4** | **1.0** | **2.5** | **1.2** | **1.2** | **2.3** |

*Source: iCAMS and HARTS, CIC*

- From 2005 through 2008, 77,332 unique clients completed training in Canada and these clients completed a total of 176,562 LINC courses at various levels. For the Canadian average, this corresponds to 2.3 completed LINC courses per unique client.

- There are significant differences by province, from a low of slightly more than 1 completion per client in New Brunswick to 2.5 completions per client in Ontario. Note that due to the significant numbers recorded in Ontario (both for clients and completions), it has a dominant influence on the average that is seen at the national level.

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[8]Note that counts of completions per unique clients are limited to 2005-2008 due to incomplete completions information during 2003 and 2004. In addition, data from the Territories has been excluded due to small number of clients and completions.

# Section 2: Demographic Profile of LINC Clients with Completed Training[9]

- It should be noted that the number of "clients with completed training" referred to in the demographic profile differs from that used in the LINC Performance Indicator analysis which follows. The demographic profile counts unique clients in each year – clients are counted only once per year at time of first completion for that year. [10] For the analysis of performance indicators, all course completed by a client are counted (a client may have more than 1 completed LINC course in a given year). This allows for maximum coverage of the performance scores by including all completed LINC courses.

- Due to Alternative Funding Arrangements with CIC, Quebec, Manitoba and British Columbia do not report data through the Immigration Contribution Accountability Measurement System (iCAMS) and are therefore excluded from all calculations reported in this analysis. In addition, the client populations for the Territories are excluded due to extremely low counts.

**Table 3:    Number of LINC Clients by Province, 2003-2008[11]**

|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|---|
| Atlantic Region | 357 | 410 | 363 | 453 | 496 | 509 |
| *Newfoundland* | *72* | *85* | *72* | *111* | *83* | *89* |
| *Nova Scotia* | *174* | *192* | *159* | *228* | *236* | *312* |
| *Prince Edward Island* | *34* | *40* | *44* | *38* | *66* | *12* |
| *New Brunswick* | *77* | *93* | *88* | *76* | *111* | *96* |
| Ontario | 18,651 | 18,150 | 16,853 | 15,663 | 16,058 | 15,791 |
| Saskatchewan | 156 | 262 | 251 | 230 | 261 | 184 |
| Alberta | 1,938 | 2,170 | 2,474 | 2,394 | 2,674 | 2,678 |
| **Total** | **21,102** | **20,992** | **19,941** | **18,740** | **19,489** | **19,162** |

*Source: iCAMS and HARTS, CIC*

- Ontario clearly accounts for the lion's share of the LINC client population. However, its share has declined by 6 percent since 2003 as a result of both a decrease in the number of Ontario clients and an increase in the number of clients in Alberta and Nova Scotia.

- These shares reflect the distribution of landings across these provinces. Over the same period an annual average of 242,484 immigrants landed in Canada and 122,241 were destined to Ontario. The other provinces recorded significantly smaller numbers as 19,579, 4,596 and 2,802 and were destined to the Alberta, Saskatchewan and the Atlantic region, respectively.

- Halifax had the highest share of clients in the Atlantic region, with roughly 40 percent in 2003 and 50 percent in 2008. St. John's accounted for 20 percent and Fredericton and Charlottetown each accounted for 10 percent of the clients in the Atlantic region.

- In Alberta the majority of the clients trained in Calgary. Calgary accounted for 53 percent of the clients in 2003 and this increased to roughly 60 percent in 2008. Edmonton, on the other hand, saw a decline in its share of clients from 42 percent in 2003 to 35 percent in 2008.

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[9] Henceforth, clients will refer to clients with completed LINC training unless otherwise noted.

[10] Although this profile describes the population of clients with completed training, the descriptions and trends detailed below are largely in line with those of the populations of assessed clients and clients in training. Any significant discrepancies that may exist between the populations will be noted.

[11] Table 20 in Appendix A provides the share of LINC clients by province.

- Saskatoon accounted for the majority of the clients who trained in Saskatchewan, with 53 percent in 2003 increasing to almost 70 percent in 2008. In contrast, Regina had 42 percent of the clients in 2003 and only 24 percent in 2008.

- Although the share declined over the six year period, Toronto had the highest share of clients trained in Ontario, with roughly 40 percent in 2003 and 34 percent in 2008. Scarborough and Mississauga had the second and third highest share of clients in Ontario, accounting for about 20 and 10 percent, respectively.

**Table 4:   Number of LINC Clients by Immigrant Category, 2003-2008**

|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|---|
| Family Class | 6,256 | 6,635 | 6,184 | 6,038 | 6,489 | 6,571 |
| Skilled Workers | 10,017 | 9,064 | 8,636 | 7,705 | 7,360 | 6,757 |
| Other Economic | 826 | 801 | 843 | 910 | 1,132 | 1,237 |
| Refugees | 3,855 | 4,238 | 4,023 | 3,733 | 3,960 | 4,052 |
| Other / Unknown | 148 | 254 | 255 | 354 | 548 | 545 |
| **Total** | **21,102** | **20,992** | **19,941** | **18,740** | **19,489** | **19,162** |

*Source: iCAMS and HARTS, CIC*

- Skilled workers (principal applicants and spouses and dependants) account for the largest number of LINC clients each year, followed by family class immigrants, refugees, and other economic immigrants (Table 4).

- However, the number of clients from the skilled worker category has been declining notably since 2003. Just over 10,000 clients were skilled workers in 2003 (47.5 percent of all LINC clients) and by 2008 this number had decreased to 6,757 (35.3 percent).

- In contrast, the number of clients from the family class and refugee class has remained relatively stable over the six year period, accounting for an average of roughly 6,350 and 4,000 clients per year, respectively. While the number of clients from the other economic class has increased by approximately 50 percent (from 826 to 1237 clients).

- In 2008, clients from the family class and skilled worker category each accounted for just over a third of all clients.

- Compared to the share of all landed immigrants by immigrant category during 2003-2008 (Table 5),[12] family class immigrants and refugees are over represented in the LINC client population while skilled workers and other economic immigrants are under represented.

**Table 5:   Share (%) of Landed Immigrants by Immigrant Category, 2003-2008**

|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|---|
| Family Class | 29.4 | 26.4 | 24.2 | 28.0 | 28.0 | 26.5 |
| Skilled Workers | 47.5 | 48.1 | 49.7 | 42.1 | 41.3 | 42.0 |
| Other Economic | 7.1 | 8.6 | 9.9 | 12.8 | 14.1 | 18.3 |
| Refugees | 11.7 | 13.9 | 13.6 | 12.9 | 11.8 | 8.8 |
| Other / Unknown | 4.2 | 3.0 | 2.6 | 4.1 | 4.8 | 4.3 |
| **Total** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** |

*Source: RDM, CIC*

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[12] The LINC client population in a specific year may not reflect the population of landed immigrants in that same year, as there is no exact rule on years since landing for LINC participation.

**Figure 1: Share (%) of LINC Clients by Immigrant Category, 2003-2008**[13]
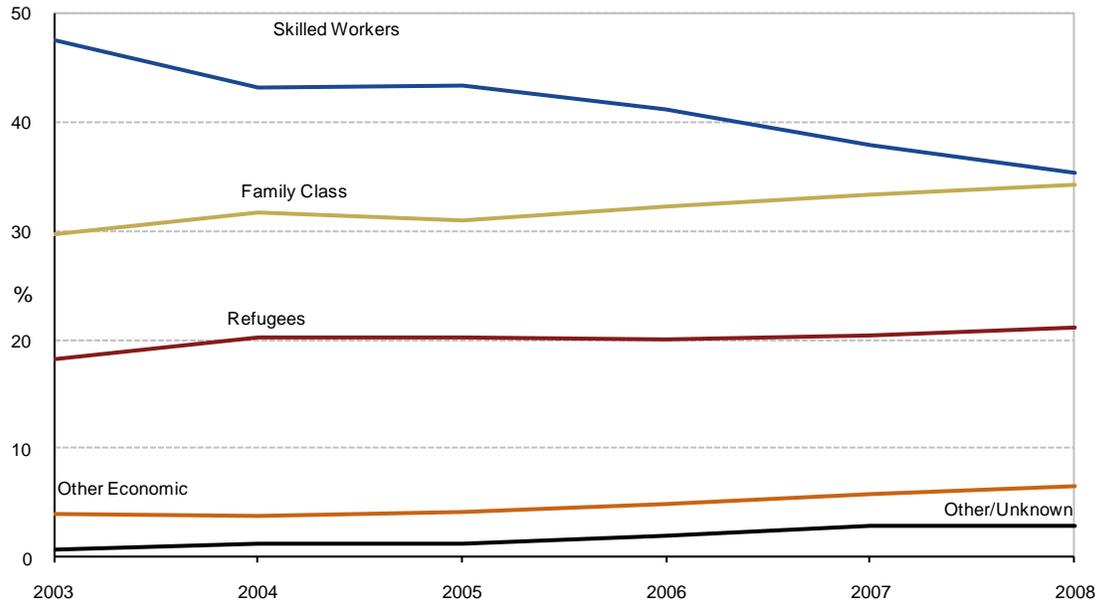


Source: iCAMS and HARTs, CIC

- The national trends primarily reflect the changes occurring in Ontario, the province that accounts for over 85 percent of all LINC clients. Some of the trends observed at the provincial level differ.

- In Alberta, the trends are similar to those at the national level, with skilled workers accounting for the largest share but family class immigrants narrowing the gap over the six year period. However, unlike the national trend by 2008, 30 percent of the clients in Alberta are refugees, on par with the share of skilled workers and family class immigrants.

- For Saskatchewan, the share of refugees is higher still averaging almost 50 percent per year over the six year period and making it the largest category of LINC clients in the province in each year. This is reflective of the over-representation of refugee landings in the province. Skilled workers and family class each account for on average roughly 20 percent of the clients.

- In the Atlantic region, the share of refugees is also high, averaging nearly 50 percent until 2007 when clients in the other economic category increase to top share. By 2008, clients in the other economic category account for roughly 45 percent, refugees for just over 30 percent, and skilled workers and family class for approximately 10 percent each.

- In 2008, clients from the family class and skilled worker category each accounted for just over a third of all clients.

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[13] This information is presented in table format in Table 21 in Appendix A.

**Table 6:    Number of LINC Clients by Years Since Landing, 2003-2008**

|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|---|
| Pre-landing | 48 | 36 | 30 | 29 | 23 | 17 |
| Less than 1 year | 6,309 | 6,613 | 5,778 | 4,962 | 4,681 | 4,396 |
| 1-2 years | 7,057 | 6,817 | 6,522 | 6,295 | 5,946 | 5,505 |
| 2-3 years | 3,493 | 3,090 | 2,963 | 2,844 | 3,481 | 3,294 |
| 3 years or more | 4,195 | 4,436 | 4,648 | 4,610 | 5,358 | 5,950 |
| Other/Unknown | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total** | **21,102** | **20,992** | **19,941** | **18,740** | **19,489** | **19,162** |

*Source: iCAMS and HARTS, CIC*

**Figure 2:  Average Annual Share (%) of LINC Clients by Years Since Landing, 2003-2008**[14]
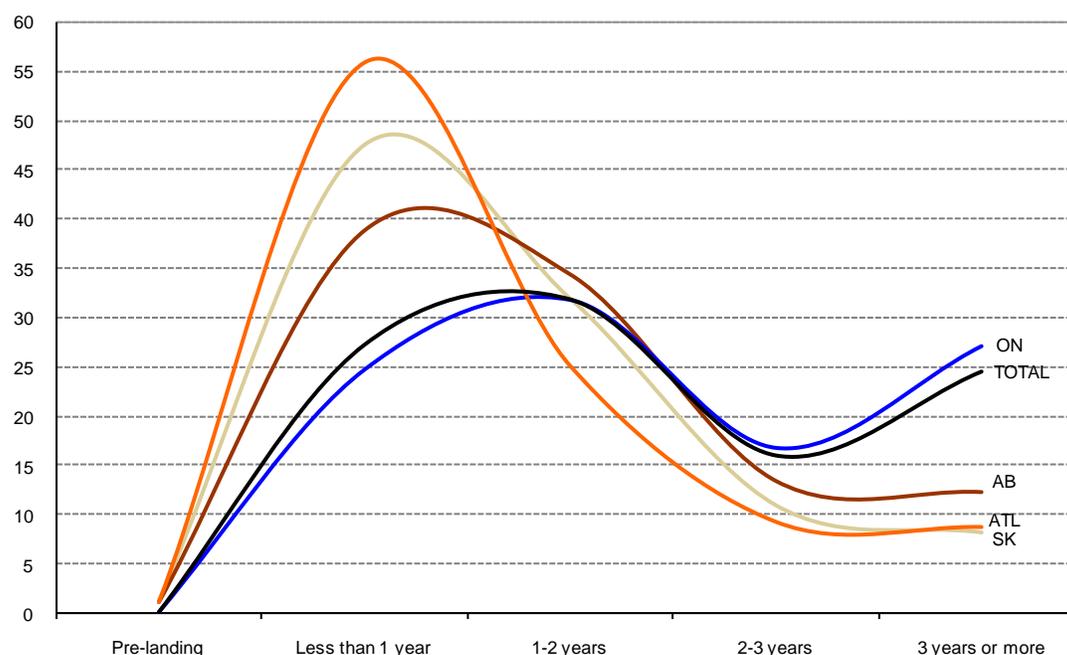


*Source: iCAMS and HARTS. CIC*

- Table 6 and Figure 2 show that, on average, the majority (59 percent) of clients who complete LINC courses do so within the first two years following landing. The average is again being driven by trends in Ontario. The trend for completion of LINC course early after landing is even more apparent in the other province.

- For the Atlantic region and Saskatchewan, an average of 80 percent of clients who complete LINC courses do so within the first two years following landing. For Alberta the average annual share is 73 percent.

- Also noteworthy is the higher average annual share (27 percent) of clients in Ontario who complete LINC courses three or more years after landing. For the rest of Canada the comparable share is closer to 10 percent.

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[14] This information is presented for all of Canada in table format in Table 22 in Appendix A.

**Table 7:  Number of LINC Clients by Gender, 2003-2008[15]**

|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|---|
| Male | 6,160 | 5,980 | 5,666 | 5,244 | 5,569 | 5,484 |
| Female | 14,932 | 15,006 | 14,268 | 13,489 | 13,915 | 13,666 |
| Unknown | 10 | 6 | 7 | 7 | 5 | 12 |
| **Total** | **21,102** | **20,992** | **19,941** | **18,740** | **19,489** | **19,162** |

*Source: iCAMS and HARTS, CIC*

**Figure 3:  Average Annual Share (%) of LINC Clients by Gender, 2003-2008**



Male 28%
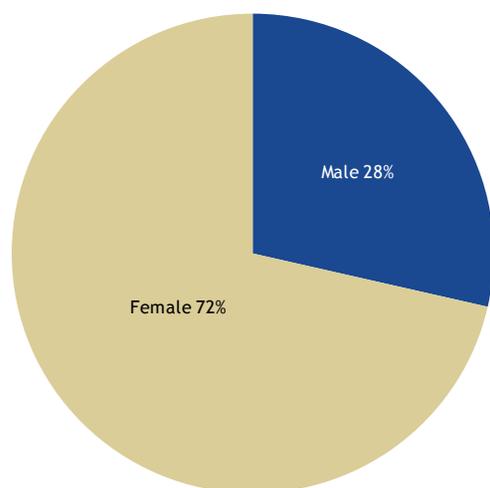
Female 72%

*Source: iCAMS and HARTS, CIC*

- As is evident in Table 7 and Figure 3, the LINC client population is dominated by females, who account for close to three-quarters of the population.

- The average shares presented in Figure 3 are largely influenced by the gender split in Ontario (72-28, female-male).

- Female language learners out number males in all provinces but to a lesser extent in provinces other than Ontario. For the Atlantic region, Saskatchewan, and Alberta the average annual share of males is 38, 35, and 33 percent, respectively.

**Table 8:  Number of LINC Clients by Age (at time of service), 2003-2008[16]**

|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|---|
| 15-24yrs | 2,241 | 2,539 | 2,346 | 2,321 | 1,896 | 2,343 |
| 25-44 yrs | 14,969 | 14,715 | 14,017 | 12,822 | 10,767 | 12,570 |
| 45-64 yrs | 3,362 | 3,224 | 3,172 | 3,188 | 3,478 | 3,770 |
| 65/+ yrs | 464 | 487 | 395 | 400 | 444 | 465 |
| Unknown/Other | 66 | 27 | 11 | 9 | 9 | 14 |
| **Total** | **21,102** | **20,992** | **19,941** | **18,740** | **16,594** | **19,162** |

*Source: iCAMS and HARTS, CIC*

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[15] This information is presented in shares (%) in table format in Table 23 in Appendix A.
[16] This information is presented in shares (%) in table format in Table 24 in Appendix A.

**Figure 4: Average Annual Share (%) of LINC Clients by Age (at time of service), 2003-2008**
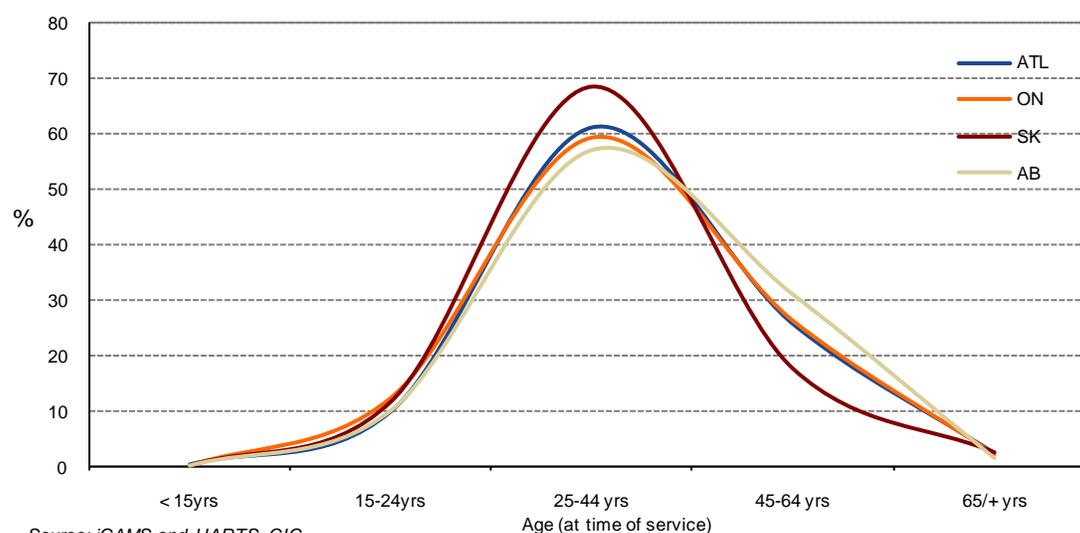
- As illustrated in Figure 4, the age distribution of clients is normal for all provinces; however, there exist some observable differences highlighted by the right tale.

- Saskatchewan has the highest average annual share of clients aged 25-44 years, followed by the Atlantic region, Ontario, and Saskatchewan.

- In contrast, Alberta has the highest average annual share of clients aged 45-64 years, followed by Ontario, the Atlantic region, and Saskatchewan.

**Table 9: Number of LINC Clients by Level of Education, 2003-2008**

|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|---|
| Secondary or less | 8,224 | 8,286 | 7,372 | 6,843 | 7,036 | 6,981 |
| Non-university certificate | 4,315 | 4,054 | 4,537 | 4,664 | 4,644 | 4,622 |
| University degree | 6,086 | 6,691 | 6,388 | 5,613 | 6,011 | 5,774 |
| Graduate degree | 1,303 | 1,398 | 1,324 | 1,283 | 1,490 | 1,474 |
| Unknown / Other | 1,174 | 562 | 320 | 337 | 308 | 311 |
| **Total** | **21,102** | **20,991** | **19,941** | **18,740** | **19,489** | **19,162** |

- Table 9 and Figure 5 illustrate that university educated immigrants (including those with graduate degrees) make up the highest average share, accounting for 7,473 (37.6 percent) of LINC clients with completed courses over the entire period. Since 2005 this group has accounted for the largest share of clients per year by education category.

- Those with secondary education or less have the second largest share of clients in each year, with a share slightly below the university educated clients. This group accounts for an annual average of 7,457 (37.4 percent) of the client population over the six year period. This group's share has been declining since 2003.

- Those with a non-university certificate[17] account for an average of 4,500 (23 percent) of the client population. This group's share has increased slightly since 2003.

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[17] This also includes trade certificates and individuals who have completed some university education but are without a degree.

**Figure 5: Share (%) of LINC Clients by Level of Education, 2003-2008**[18]
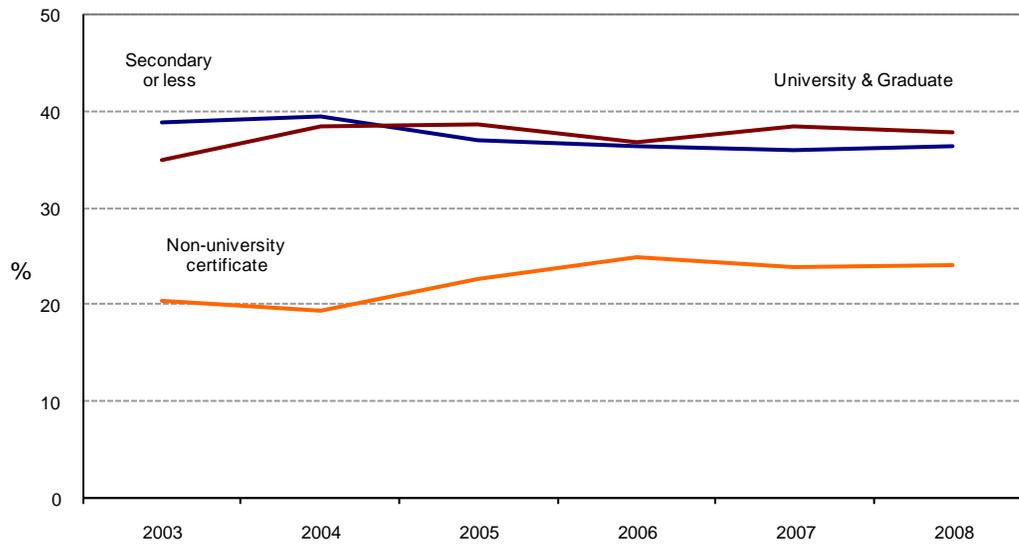


Source: iCAMS and HARTS, CIC

- China is the top country of birth for LINC clients in all provinces. Depending on the year, clients who were born in China account for 25-30 percent of clients in Ontario, 20-30 percent of those in Alberta, 20 percent in Saskatchewan, and 10-15 percent in the Atlantic region.

- In Ontario, clients who were born in India account for, on average, another 7 percent of those who have completed LINC courses. Additionally, Iran, Pakistan, Afghanistan, and Sri Lanka each account for approximately 5 percent of the clients each year.

- In the rest of Canada, the breakdown by country of birth of LINC clients is a bit different. Colombia accounts for roughly 9 percent of the clients outside of Ontario. Sudan and Afghanistan account for approximately 10 percent each in 2003 but decline over the period to near 5 percent in 2008.

- Consistent with the trends observed for country of birth, individuals with Mandarin as a mother tongue make up between 20-25 percent of LINC clients at the national level on an annual basis. This is fairly stable across all provinces with the exception of the Atlantic region which averages in the 10 percent range.

- Ontario drives the figures that are seen at the national level and therefore the composition of LINC clients for Ontario mirrors the national numbers. For Ontario, Mandarin is the dominant mother tongue (20-25 percent), followed roughly equally by Spanish and Arabic (6-10 percent) and Farsi and Russian at 7 percent each.

- Other trends that stand out by province include Alberta having higher shares with Spanish (9-14 percent), Saskatchewan with a higher share of Dari (14 percent) and Atlantic Canada with relatively higher shares of Arabic (10-20 percent) and Spanish (averaging over 10 percent).

- Note that the cross-province LINC trends observed for country of birth and mother tongue are consistent with provincial landings of permanent residents.

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[18] This information is presented in table format in Table 25 in Appendix A.

# Section 3: LINC Performance Indicators[19]

To measure the performance of clients that have enrolled in the LINC program, a composite measure of language ability based on CLB (Canadian Language Benchmark) entry and exit scores is used. The composite measure is derived using CLB scores upon entry and exit of a completed LINC course.[20] The difference between these composite measures is then used to measure client performance.

It should be noted, again, that the number of observations in the performance indicator analysis is greater than what is observed in demographic section 1 which describes the demographics of the LINC population (number of clients who have completed a LINC course). The demographic analysis looks at unique clients who have completed a LINC course as compared to the performance indicators' analysis which examines all completed courses (a unique client may therefore have more than 1 completed LINC course). This was done to in order to maximize coverage of completed LINC courses.

The entry-level composite measure is calculated as the sum of the assessment tests (CLB scores) of the four language competencies prior to beginning LINC training. The four competencies included in the assessment are:

- Speaking,
- Reading,
- Listening, and
- Writing.

The exit-level composite measure is calculated as the sum of the exit-level scores (CLB scores) for the four language competencies after the completion of a LINC course. The four competencies included in exit scores are:

- Speaking,
- Reading,
- Listening, and
- Writing.

## Performance Score – Difference of Composite Measures

For this analysis, LINC performance scores are calculated by subtracting the exit-level composite measure from the entry-level composite measure. The performance scores are put into ranges that correspond to 3 different performance groupings as outlined below:

1. Meeting LINC level requirements
2. Not meeting LINC level requirements
3. Exceeding LINC level requirements

**Data exclusion** – Some data has been excluded from the LINC performance score analysis. Data prior to 2005 is not used due to a large number of missing exit scores during 2003 and 2004. Since 2005, the requirement to fill exit scores has been mandatory. As a result, the LINC performance score analysis will look at data from completed LINC courses during 2005, 2006, 2007, and 2008. Also note that a small number of completions (497 or 0.3 percent) were excluded from the 2005-

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[19] See Appendix B for greater detail regarding the methodology of the LINC performance indicators used in this analysis.

[20] A composite measure is calculated for every completed LINC course. Therefore it is possible for a unique client to have more than 1 completion with associated entry-level and exit-level scores.

2008 analysis due to either incomplete entry or exit level scores for at least one of the four language competencies.

## Average Hours Taken to Complete a LINC Course

This analysis also examines an adjusted average (mean) number of hours taken to complete a LINC course. Note that adjustments have been made to exclude records that are inconsistent with "normal" durations associated with LINC language training. As a result, records with negative, zero, very small or extremely high numbers of hours taken to complete a course have been excluded.[21]

To be consistent with the analysis of performance scores, the average hours taken to complete a LINC course in this analysis are for completed LINC courses during 2005-2008 and for LINC clients who have measured performance scores for a LINC level.

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[21] For this analysis, it is assumed that the average hours taken to complete a LINC level reflects a normal distribution that clusters around the mean. However, due to the nature of administrative data and the possibility of data-entry errors, outliers were removed and the mean scores represent the mean of the centre 99.7% of the distribution.

# Section 4: LINC Performance Results

- From 2005 to 2008, 177,059 LINC courses were completed in Canada.[22] The calculated performance scores indicate that 84.3 percent of clients meet LINC level requirements, 10 percent exceed LINC level requirements and 5.6 percent do not meet LINC level requirements (Table 10).

Table 10:  Completed LINC Courses and Average Hours by Performance Score – Canada, 2005-2008

|  | Number | Share (%) | Average Hours |
|---|---|---|---|
| Not meeting LINC level | 9,956 | 5.6 | 186 |
| Meeting LINC level | 148,866 | 84.3 | 267 |
| Exceeding LINC level | 17,740 | 10.0 | 470 |
| **Canada - Total** | **176,562** | **100.0** | **283** |

*Source: iCAMS and HARTS, CIC*

- Put another way, roughly 19 out of 20 (94.3 percent) clients who complete a LINC course either meet or exceed the language competencies associated with the LINC level they completed. In contrast, 1 out of 20 (5.6 percent) clients who complete a LINC course do not meet the language competencies associated with the LINC level they completed.

- LINC clients during 2005-2008 spend an average of 283 hours in class to complete a LINC course.

- The number of hours in class varies significantly across language performance scores and increases with performance scores. LINC clients who meet the level requirements spend an average of 267 hours in class, 44 percent more time than those who do not meet the LINC level requirements (186 hours). Clients exceeding the level requirements study 470 hours in class on average, 76 percent more time compared to the average time spent for meeting course requirements.

- Many factors can influence language performance scores and average hours spent in class. Differences in grading techniques and LINC level expectations for different SPOs are an important consideration and ideally grading should be consistent in order to improve the reliability of performance scores.[23]

- Our analysis, however, will concentrate on human capital and other socio-demographic characteristics that are available in the Immigration Contribution Accountability Measurement System (iCAMS) and HARTs administrative data systems to assess language performance scores. Performance indicators are presented for the following characteristics:

  - Province of residence
  - Gender
  - Age
  - Category of immigration
  - Length of residence in Canada
  - Educational attainment
  - Place of birth
  - Mother tongue

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[22] Due to Alternative Funding Arrangements with CIC, Quebec, Manitoba and British Columbia do not report data through iCAMS and are therefore excluded from all calculations reported in this analysis.

[23] Additional information regarding grading techniques is provided in Appendix B.

## Province of residence

- The data in Table 11 indicate that the vast majority of completed LINC courses during 2005-2008 were in Ontario (91.3 percent or 161,266). The rest of Canada (ROC) [24] accounted for only 8.7 percent (15,296) of all completions, with Alberta recording the highest number of completions for ROC.

**Table 11: Share (%) of Completed LINC Courses by Performance Score and Province, 2005-2008**

|  | NL | PE | NS | NB | ON | SK | AB | Canada |
|---|---|---|---|---|---|---|---|---|
| Not meeting LINC level | 2.5 | 8.4 | 3.9 | 2.8 | 5.7 | 11.0 | 4.7 | 5.6 |
| Meeting LINC level | 94.0 | 82.1 | 95.2 | 70.5 | 85.4 | 77.9 | 71.0 | 84.3 |
| Exceeding LINC level | 3.6 | 9.5 | 0.9 | 26.7 | 9.0 | 11.1 | 24.4 | 10.0 |
| **Total** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** |

*Source: iCAMS and HARTS, CIC*

- There is some variance of performance scores by province. New Brunswick (26.7 percent) and Alberta (24.4 percent) have relatively higher shares of course completions exceeding LINC level requirements as compared to overall completions in Canada (10 percent). Saskatchewan has relatively higher shares not meeting LINC level requirements (11 percent).

**Table 12: Average Hours Taken to Complete a LINC Course by Performance Score and Province, 2005-2008**

|  | NL | PE | NS | NB | ON | SK | AB | Canada |
|---|---|---|---|---|---|---|---|---|
| Not meeting LINC level | 167 | 217 | 246 | 263 | 172 | 256 | 374 | 184 |
| Meeting LINC level | 310 | 352 | 286 | 338 | 262 | 389 | 334 | 267 |
| Exceeding LINC level | 369 | 208 | 310 | 442 | 484 | 549 | 400 | 470 |
| **Total** | **309** | **348** | **285** | **360** | **277** | **393** | **351** | **283** |

*Source: iCAMS and HARTS, CIC*

- On average, LINC clients in Ontario tend to spend much less time in class to complete a course than those in ROC[25]; however, those exceeding the level requirements in Ontario spend 20 percent more class time than their counterparts in other provinces.

- Clients taking LINC training in Saskatchewan seem to spend the longest time in class to complete a level among all provinces. This may reflect the over representation of refugees among LINC clients in Saskatchewan (45 percent for Saskatchewan compared to 33 percent for Canada).

## Gender and age

- As Figure 6 indicates, females account for the majority of completions during 2005-2008 with roughly 70 percent (123,000) of the total. The gender composition also indicates that the performance of females is relatively better as compared to males. Females are over represented in the exceeding LINC level requirements category (75 percent) and are under represented in the not meeting LINC level requirements (66 percent) group.

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[24] Actually ROC in this paper refers to only part of the rest of Canada – Atlantic, Saskatchewan and Alberta.
[25] Note that Alberta reports hours in a LINC class in a 300-per-unit scale. This may result in a slight upward bias in the average number of hours for clients in this province. See Footnote 24 for details.

**Figure 6: Share (%) of Completed LINC Courses by Performance Score and Gender, 2005-2008**



Source: iCAMS and HARTs, CIC
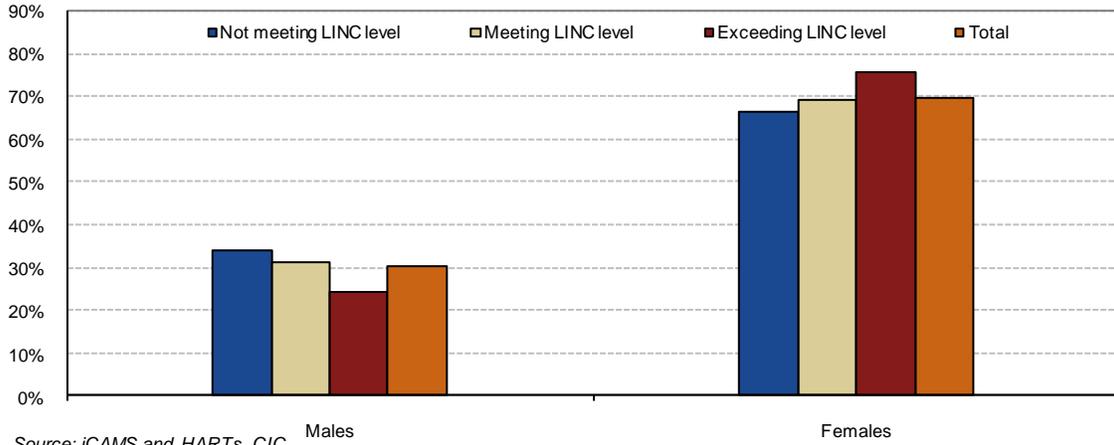
- In contrast, males account for 30 percent (54,000) of completions, with an under representation of those who exceed LINC level requirements (25 percent) and an over representation for those who do not meet LINC level requirements (34 percent).

**Figure 7: Number of Completed LINC Courses by Performance Score and Age, 2005-2008**



Source: iCAMS and HARTs, CIC
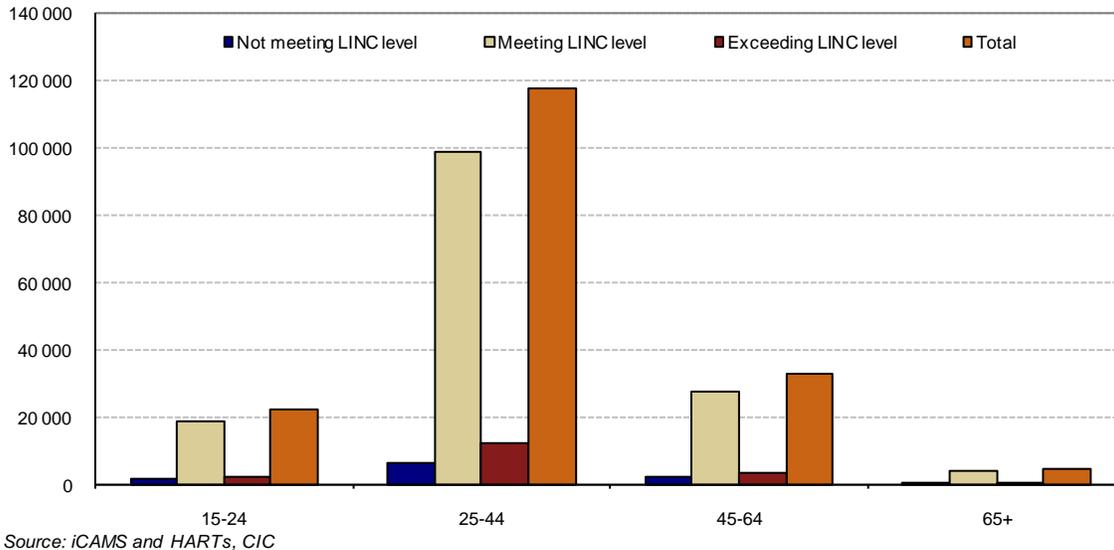
- Immigrants aged 25-44 are most likely to complete a LINC course and account for 66 percent (117,000) of all completions. Not surprisingly youth aged 15-24 and elders 65+ are least likely to complete a LINC course, 13 percent (22,000) and 3 percent (4,600), respectively. Other types of formal educational training are most likely limiting the number of youth taking LINC training and fewer numbers of new older immigrants arriving in Canada are influencing the composition.

**Table 13: Average Hours Taken to Complete a LINC Course by Gender and Age Group, 2005–2008**

| Gender | Average hours | Age | Average hours |
|---|---|---|---|
| Male | 240 | 15-24 yrs | 226 |
| Female | 302 | 25-44 yrs | 266 |
| | | 45-64 yrs | 360 |
| | | 65/+ yrs | 448 |

Source: iCAMS and HARTS, CIC

- Female immigrants appear to have spent more time in class to complete a LINC course than their male counterparts. As shown in Table 13, the average time in class for males is 240 hours while for females it is 302 hours, 26 percent more time.

- The average number of hours spent in class increases with the age of clients.

  - For young immigrants between 15 and 24 years of age, the average time spent in class is 226 hours.
  - Clients aged 25-44 spend 40 more hours in class to complete a course.
  - For those aged 45-64, it takes them much longer to finish a LINC course, compared to younger clients (360 hours).
  - Clients 65 years and older have to spend almost double the amount of time (448 hours) to complete a course compared to the youngest group.

## Immigration category

- Skilled worker (38 percent or 67,000) and family class (35 percent or 62,000) immigrants make up the majority of LINC course completions. Refugees also make up a significant share at 19 percent (34,000). Other economic immigrants account for 5 percent (9,000) and the share for other immigrants is 2 percent (4,000).

**Table 14: Share (%) of Completed LINC Courses by Performance Score and Category, 2005-2008**

|  | Family Class | Skilled Workers | Other Economic | Refugees | Other | Total |
|---|---|---|---|---|---|---|
| Not meeting LINC level | 6.6 | 4.9 | 5.4 | 5.5 | 4.7 | 5.6 |
| Meeting LINC level | 84.0 | 84.4 | 85.9 | 83.9 | 87.7 | 84.3 |
| Exceeding LINC level | 9.4 | 10.7 | 8.7 | 10.6 | 7.6 | 10.0 |
| **Total** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** |

*Source: iCAMS and HARTS, CIC*

- Table 14 shows the relative performance by category of immigration. A striking feature is the relative balance across the scores of each major immigrant category. Skilled workers, family class and refugees all report 84 percent of completions meeting LINC level requirements and similar rates for completions exceeding LINC level requirements. One point of note is that family class immigrants have a slightly higher rate (6.6 percent) of completions not meeting LINC level requirements.

- As shown in Table 15, a LINC client during 2005-2008 spends an average of 283 hours in class to complete a LINC course, ranging from a low of 238 hours for skilled workers to a high of 381 hours for refugees.

**Table 15: Average Hours Taken to Complete a LINC Course by Immigration Category, 2005-2008**

|  | NL | PE | NS | NB | ON | SK | AB | Canada |
|---|---|---|---|---|---|---|---|---|
| Family Class | 246 | 227 | 253 | 420 | 272 | 357 | 331 | 275 |
| Skilled Workers | 180 | 312 | 274 | 370 | 231 | 386 | 337 | 238 |
| Other Economic | 339 | 258 | 267 | 395 | 283 | 319 | 321 | 286 |
| Refugees | 320 | 424 | 334 | 305 | 381 | 443 | 392 | 381 |
| Other | 243 | 0 | 279 | 326 | 309 | 238 | 305 | 309 |
| **Total** | **309** | **348** | **285** | **360** | **277** | **394** | **351** | **283** |

*Source: iCAMS and HARTS, CIC*

- Among all immigration categories, refugees spend nearly 100 more hours, or 35 percent more time in class to complete a course than the average for all immigrants (283 hours). Family class immigrants and other economic immigrants spend comparable hours to complete a course (275 and 286 hours, respectively).

- While skilled workers in Ontario and Newfoundland and Labrador have the smallest numbers of hours in class to finish a LINC course, this is not the case for LINC clients in other provinces during 2005-2008.

- Skilled workers participating in a LINC course in Saskatchewan spend an average of 386 hours per client per level to complete a course, the second longest attendance duration following the 443 hours for refugees.

- Skilled worker clients in Alberta have spent more hours in class (337 hours) compared to immigrants other than refugees. The longer durations for skilled workers in Alberta may also reflect the 300-per-unit scale for hours in Alberta.[26]

**Figure 8: Average Hours Taken to Complete a LINC Course by Performance Score and Immigration Category, 2005-2008**
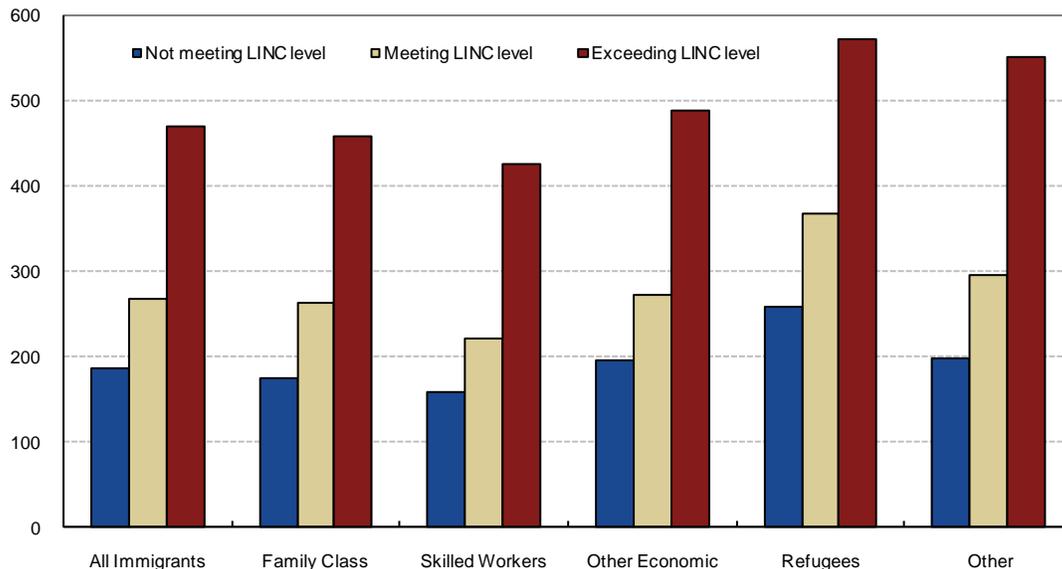


*Source: iCAMS and HARTS, CIC*

- Figure 8 shows similar patterns of average hours taken to complete a LINC course across the LINC performance score levels. At all levels, skilled workers spend the least hours in class while refugees spend the most hours to complete a LINC course.

- Figure 8 also indicates that time spent in class increases with the performance scores across all immigration categories. This result confirms the positive relationship between study durations and the performance scores.

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[26]For Alberta, a significant number of LINC completions have a common denominator of 300 hours. It appears some SPOs are entering the completed number of hours in segments of 300 (300, 600, 900, etc.). It also may indicate variations in LINC course guidelines for different SPOs. Further investigation of the data and SPO guidelines is required to get a better understanding of these occurrences.

## Length of residence

- There is an even distribution of immigrants completing LINC training during their first three years in Canada. Roughly 23 percent of LINC completions occur during the immigrants' first year in Canada, 31 percent occur between year 1 and 2, and the share declines to 16 percent between year 2 and 3. The balance of LINC completions (30 percent) happen after immigrants have been residing in Canada for 3 years or more.[27]

- Note that once permanent residents become Canadian citizens

- In general, the results indicate a positive correlation between length of residence in Canada and success in LINC courses.

  - As illustrated in Figure 9, the share of completions not meeting LINC level requirements decreases steadily during the first three years in Canada from 7.3 percent to 5.3 percent to 4.5 percent.
  - Conversely, completions exceeding LINC level requirement rose from 7.0 percent to 10.7 percent to 12.1 percent for each of the first three years, respectively.
  - Meeting LINC level requirements declined slightly from the initial period but remained steady in subsequent years.

- There is, however, a higher rate of completions not meeting LINC levels and a lower rate of completions exceeding LINC levels for immigrants who have been in Canada for 3 years or more. This contradicts the trends evident during the initial years in Canada and may be a result of individuals moving to higher levels of LINC training. However, further research is required in order to make a proper assessment of the trends the data is showing.

**Figure 9: Performance Scores and Average Hours by Length of Residence, 2005-2008**



*Source: iCAMS and HARTS, CIC*
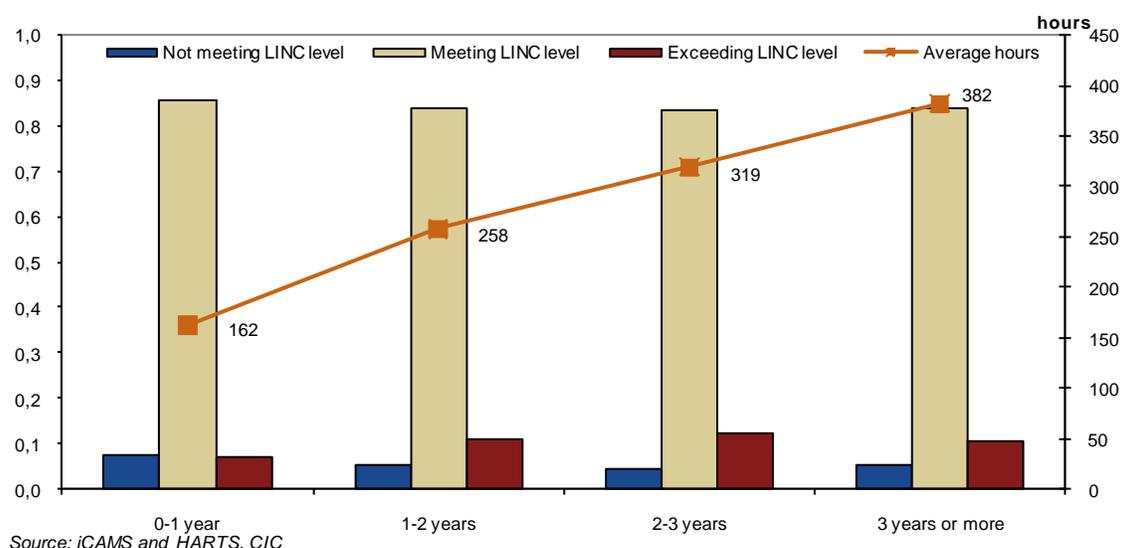
- As shown in Figure 9, average attended hours in class increase with the length of residence in Canada – average study duration is highest for immigrants who have been in Canada for three years or more (382 hours), and lowest for those newly arrived immigrants who landed less than one year ago (162 hours).

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[27] Once permanent residents become Canadian citizens, they are no longer eligible for LINC training. Given the minimum residency requirements (3 years) for Canadian citizenship, it is not surprising to see the majority of LINC training occurring during the first three years after landing.

## Education

- Higher levels of educational attainment appear to have little impact on performance scores for LINC completions. Similar to what is seen for immigrant categories, there appears to be very little variance in performance scores by educational attainment.

**Table 16: Share (%) of Completed LINC Courses by Performance Score and Education, and Average Hours by Education, 2005-2008**

|  | Secondary or less | Non-university Certificate | University degree | Graduate degree | BA, MA, PhD | Total |
|---|---|---|---|---|---|---|
| Not meeting LINC level | 5.8% | 5.6% | 5.5% | 6.5% | 5.7% | 5.6% |
| Meeting LINC level | 85.0% | 83.5% | 83.9% | 84.6% | 84.1% | 84.3% |
| Exceeding LINC level | 9.2% | 10.9% | 10.5% | 9.0% | 10.2% | 10.0% |
| **Total** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** |
| Average hours | 342 | 263 | 241 | 205 | 234 | 283 |

*Source: iCAMS and HARTS, CIC*

- In fact, the data presented in Table 16 indicate that clients with a graduate degree have lower shares of individuals meeting or exceeding LINC level requirements as compared to clients who have secondary or less levels of education. Again, this is an issue that requires further investigation and may be result of variations in the LINC completion levels for the different groups identified.

- Clients with higher education require considerably less time in class to complete a LINC course. For example, clients with secondary or less education require 342 hours, on average, to finish a course. In contrast, those with a university degree require 241 hours, nearly 100 hours less, to complete a course. Those with a master's or doctoral degree have 205 hours in class to complete a LINC course.

## Country of birth and mother tongue

- Performance scores by country of birth can vary significantly and this is displayed in Table 17. Scores for major source countries show Russia as having the best performance in terms of the highest share of clients either meeting of exceeding LINC level requirements at 96.7 percent - Russia also has the largest share exceeding LINC level requirements (14.4 percent). China accounts for the largest number of LINC course completions and also does quite well in relation to most other countries with 96.3 percent of clients either meeting of exceeding LINC level requirements.

- The poorest performance by major country of birth is India with 88.5 percent of clients either meeting or exceeding LINC level requirements – India also has the lowest percentage exceeding LINC level requirements at 5.4 percent. It is believed that there is a significant variance in the performance by category and further investigation of the results (especially for India) is warranted.

**Table 17: Share (%) of Completed LINC Courses by Performance Score and Country of Birth, 2005-2008**

| | China | India | Iran | Pakis-tan | Colom-bia | Afghan-istan | Sri Lanka | Russia | Korea | Other | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Not meeting LINC level | 3.7 | 11.5 | 4.7 | 7.3 | 4.7 | 4.1 | 5.2 | 3.3 | 4.6 | 6.2 | 5.6 |
| Meeting LINC level | 86.8 | 83.1 | 85.1 | 85.3 | 82.6 | 84.0 | 86.5 | 82.3 | 84.5 | 82.8 | 84.3 |
| Exceeding LINC | 9.5 | 5.4 | 10.1 | 7.4 | 12.7 | 11.8 | 8.3 | 14.4 | 10.9 | 11.0 | 10.0 |
| **Total** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** |

*Source: iCAMS and HARTS, CIC*

- The results for clients who have Punjabi as a mother tongue are significantly poorer as compared to the overall average of all immigrants. Clients who complete a LINC course and who have Punjabi as a mother tongue are 3 times as likely not to meet LINC level requirements and only half as likely to exceed LINC level requirements.

- Russian and Mandarin have the highest share of completions either meeting or exceeding LINC level requirements, with Russian having a greater share exceeding LINC levels and Mandarin having higher shares meeting LINC levels. This is an especially important result given that Mandarin speaking clients account for the largest share of LINC clients (20 percent or more depending on the province).

**Table 18: Share (%) of Completed LINC Courses by Performance Score and Mother Tongue, 2005-2008**

| | Mandarin | Spanish | Arabic | Persian/Farsi | Russian | Urdu | Punjabi | Other | Total |
|---|---|---|---|---|---|---|---|---|---|
| Not meeting LINC level | 3.6 | 5.7 | 7.3 | 4.6 | 3.5 | 7.2 | 16.6 | 5.8 | 5.6 |
| Meeting LINC level | 87.0 | 83.0 | 81.5 | 85.2 | 83.1 | 85.6 | 78.5 | 84.0 | 84.3 |
| Exceeding LINC level | 9.5 | 11.3 | 11.2 | 10.2 | 13.4 | 7.2 | 4.9 | 10.2 | 10.0 |
| **Total** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** |

*Source: iCAMS and HARTS, CIC*

**Table 19: Average Hours Taken to Complete a LINC Course by Country of Birth and Mother Tongue, 2005-2008**

| Country of Birth | Average hours | Mother Tongue | Average hours |
|---|---|---|---|
| China | 263 | Mandarin | 262 |
| India | 177 | Spanish | 302 |
| Iran | 257 | Arabic | 278 |
| Afghanistan | 490 | Russian | 278 |
| Colombia | 333 | Persian/Farsi | 305 |
| Russia | 280 | Punjabi | 181 |
| Korea | 314 | Other / Unknown | 297 |
| Other / Unknown | 333 | | |

*Source: iCAMS and HARTS, CIC*

- Average hours taken to complete a LINC course also differ significantly by country of birth and mother tongue, as shown in Table 19.

- For immigrants from China (263 hours), Iran (257 hours) and Russia (280 hours), the average time spent in class to complete a LINC course is in line with the overall average (283 hours). This result is not surprising, given the large shares of these groups in the population of LINC clients.

- Immigrants from Afghanistan and Colombia require more time to finish a course, while those from India have the shortest duration for completion of a LINC course. These results may reflect the impacts of immigration category and official language ability on study durations to

complete a LINC course. A substantial proportion of immigrants from Afghanistan and Colombia landed in Canada as refugees, and most Indian immigrants had some knowledge of English at landing.

- Consistent with the results for country of birth, immigrants whose mother tongue is Mandarin, Arabic or Russian have comparable average attendance hours (262, 278 and 278 hours, respectively). Immigrants with Punjabi as a mother tongue have the lowest number of hours in class to complete a course, which partly confirms the result that immigrants from India tend to spend less time in class than other immigrants.

- Although they usually had acquired some knowledge of English at landing, immigrants from India or those with Punjabi as a mother tongue have much poorer performance scores when exiting a LINC course, with considerably less time in a LINC class. The language performance scores seem to be largely determined by the duration of study.

- However, this may be the result of Indian immigrants participating in higher levels of LINC training with higher expectations and requiring more time commitment. It points to differences among LINC levels and the real meaning of success in completing a LINC course.

# Appendix A

### Table 20: Share (%) of LINC Clients by Province

|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|---|
| Atlantic Region | 1.7 | 2.0 | 1.8 | 2.4 | 2.5 | 2.7 |
| *Newfoundland* | *0.3* | *0.4* | *0.4* | *0.6* | *0.4* | *0.5* |
| *Nova Scotia* | *0.8* | *0.9* | *0.8* | *1.2* | *1.2* | *1.6* |
| *Prince Edward Island* | *0.2* | *0.2* | *0.2* | *0.2* | *0.3* | *0.1* |
| *New Brunswick* | *0.4* | *0.4* | *0.4* | *0.4* | *0.6* | *0.5* |
| Ontario | 88.4 | 86.5 | 84.5 | 83.6 | 82.4 | 82.4 |
| Saskatchewan | 0.7 | 1.2 | 1.3 | 1.2 | 1.3 | 1.0 |
| Alberta | 9.2 | 10.3 | 12.4 | 12.8 | 13.7 | 14.0 |
| **Total** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** |

*Source: iCAMS and HARTS, CIC*

### Table 21: Share (%) of LINC Clients by Immigrant Category

|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|---|
| Family Class | 29.6 | 31.6 | 31.0 | 32.2 | 33.3 | 34.3 |
| Skilled Workers | 47.5 | 43.2 | 43.3 | 41.1 | 37.8 | 35.3 |
| Other Economic | 3.9 | 3.8 | 4.2 | 4.9 | 5.8 | 6.5 |
| Refugees | 18.3 | 20.2 | 20.2 | 19.9 | 20.3 | 21.1 |
| Other / Unknown | 0.7 | 1.2 | 1.3 | 1.9 | 2.8 | 2.8 |
| **Total** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** |

*Source: iCAMS and HARTS, CIC*

### Table 22: Share (%) of LINC Clients by Years Since Landing

|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|---|
| Pre-landing | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 |
| Less than 1 year | 29.9 | 31.1 | 29.0 | 26.5 | 24.0 | 22.9 |
| 1-2 years | 33.4 | 33.1 | 32.7 | 33.6 | 30.5 | 28.7 |
| 2-3 years | 16.6 | 14.7 | 14.9 | 15.2 | 17.9 | 17.2 |
| 3 years or more | 19.9 | 20.9 | 23.3 | 24.6 | 27.5 | 31.1 |
| Unknown/Other | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Total** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** |

*Source: iCAMS and HARTS, CIC*

### Table 23: Share (%) of LINC Clients by Gender

|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|---|
| Male | 29.2 | 28.5 | 28.4 | 28.0 | 28.6 | 28.6 |
| Female | 70.8 | 71.5 | 71.6 | 72.0 | 71.4 | 71.3 |
| Unknown | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| **Total** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** |

*Source: iCAMS and HARTS, CIC*

**Table 24: Share (%) of LINC Clients by Age (at time of service)**

|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|---|
| 15-24yrs | 10.6 | 12.1 | 11.8 | 12.4 | 11.4 | 12.2 |
| 25-44 yrs | 70.9 | 70.1 | 70.3 | 68.4 | 64.9 | 65.6 |
| 45-64 yrs | 15.9 | 15.4 | 15.9 | 17.0 | 21.0 | 19.7 |
| 65/+ yrs | 2.2 | 2.3 | 2.0 | 2.1 | 2.7 | 2.4 |
| Unknown/Other | 0.3 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 |
| **Total** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** |

*Source: iCAMS and HARTS, CIC*

**Table 25: Share (%) of LINC Clients by Level of Education**

|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|---|
| Secondary or less | 39.0 | 39.5 | 37.0 | 36.5 | 36.1 | 36.4 |
| Non-university certificate | 20.4 | 19.3 | 22.8 | 24.9 | 23.8 | 24.1 |
| University degree | 28.8 | 31.9 | 32.0 | 30.0 | 30.8 | 30.1 |
| Graduate degree | 6.2 | 6.7 | 6.6 | 6.8 | 7.6 | 7.7 |
| Unknown / Other | 5.6 | 2.7 | 1.6 | 1.8 | 1.6 | 1.6 |
| **Total** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** |

*Source: iCAMS and HARTS, CIC*

# Appendix B

## LINC Performance Indicators

In order to measure the performance of clients that have enrolled in the LINC program, a composite measure of language ability based on CLB (Canadian Language Benchmark) entry and exit scores is used. The composite measure is derived using CLB scores upon entry and exit of a completed LINC course.[28]

**Entry-level composite measure** – This is calculated as the sum of the assessment tests (CLB scores) of the four language competencies before LINC training has started. The four competencies included in the assessment tests are:

- Speaking
- Reading,
- Listening, and
- Writing.

Therefore, a client who is assessed with CLB scores of 3, 4, 3, 3, (for speaking, reading, listening and writing) would have an entry-level composite measure of 13.

**Exit-level composite measure** – This is calculated as the sum of the exit-level scores (CLB scores) for the four language competencies after the completion of a LINC course. The four competencies included in exit scores are:

- Speaking
- Reading,
- Listening, and
- Writing.

Therefore a client who completed a LINC level and has exit scores of 4, 4, 4, 4 (for speaking, reading, listening and writing) would have an exit-level composite measure of 16.

The benefit of this type of performance indicator is that it allows for one overall performance measure/indicator for a completed LINC course. It also provides a consistent framework, both in terms of CLB scores for the identical competencies identified at entry and exit of completed LINC courses. However, a drawback to this method/measure is that scores at completion of LINC courses are not necessarily done in the same way as upon entry into LINC training.

First-time entry scores for clients who enter LINC training are usually formally assessed on the four competencies identified above while exit scores are determined through both formal and informal tests performed within the classroom. Therefore, differences in grading (from entry and exit of completed LINC course) may occur. Despite this caveat, it is felt that the composite measure based on CLB entry and exit scores is the best available option at this point.

Clients who do not have a CLB score for each one of the identified competencies at entry and exit from a completed LINC course are excluded from the entry and exit composite measures.

## Composite Measure – Performance Score

For this analysis, LINC performance scores are calculated by subtracting the exit-level composite measure from the entry-level composite measure. For example, a client with an entry-level composite measure of 12 and an exit-level composite measure of 16 would have a performance score of +4.

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[28] A composite measure is calculated for every completed LINC course. Therefore it is possible for a unique client to have more than 1 completion with associated entry-level and exit level scores.

The performance scores are put into ranges that correspond to 3 different performance groupings as outlined below:

**Meeting LINC level requirements** – A client is defined as meeting LINC level requirements if the calculated performance score of the client is 0,1,2,3 or 4. This range was chosen to account for possible differences in exit-level grading of the different service providing organizations (SPOs). For instance, a client that successfully meets LINC level requirements, some SPOs give identical entry and exit CLB scores for each of the 4 competencies (speaking, reading, listening and writing. In contrast, other SPOs give exit-level CLB scores that are 1 higher than entry for each of the 4 competencies upon meeting the LINC level requirements. [29] Therefore it is possible for clients who have completed a LINC course, and have met the LINC level requirements, to have performance scores that range from 0 to 4.[30]

**Not meeting LINC level requirements** – A client is defined as not meeting LINC level requirements if the calculated performance score is negative. That is, the exit-level composite measure is less than the entry-level composite measure. This would indicate clients are not meeting the LINC level requirements of the course in which they were enrolled.

**Exceeding LINC level requirements** – A client is defined as exceeding LINC level requirements if the calculated performance score is 5 or greater. That is, the exit-level composite measure is at least 5 greater than the entry-level composite measure.  This would indicate clients are exceeding the LINC level requirements of the course in which they were enrolled.

## Average hours taken to complete a LINC course

The average hour calculation used in this analysis represents an adjusted average (mean) number of hours taken to complete a LINC course. Note that adjustments have been made to exclude records that are inconsistent with "normal" durations associated with LINC language training. As a result, records with negative, zero, very small or extremely high numbers of hours taken to complete a course have been excluded.

For this analysis, it is assumed that the average hours taken to complete a LINC level reflects a normal distribution that clusters around the mean. However, due to the nature of administrative data and the possibility of data-entry errors, outliers were removed and the mean scores represent the mean of the centre 99.7% of the distribution.

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[29] Anecdotal evidence suggests that either 1 of the following 2 general "rules of thumb" are used by a majority of the SPOs when grading exit CLB scores for each of the 4 competencies. The first method gives clients an exit score equal to the entry score for the 4 competencies once they have met all the requirements of a LINC level. The second method gives clients an exit score that is 1 greater than the entry CLB score for each of the 4 competencies once they have meet all the requirements of a LINC level.

[30] The calculated performance score used in the ranges are open to interpretation and warrant further analysis.