

Comprehensive Financial Inclusion Program for Newcomer Families;  
A Machine-Learning-Informed Province-Specific Pan-Canadian Solution

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Ecosystem Priority: Enhance access to trustworthy and affordable financial help

Target Outcome: More Canadians accessing relevant and unbiased financial advice for positive outcomes

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## 1. Introduction and Rationale

Canada's immigrants represent 23% of the nation's population, and with annual immigration numbers approaching 500,000, they face a unique set of challenges (Statistics Canada, 2022; Statista 2024). The Financial Consumer Agency of Canada (FCAC) recognizes newcomers<sup>1</sup> as a group at risk for experiencing financial vulnerabilities, citing several contributing factors: immigrants may face mental scarcity<sup>2</sup>, lack of product and service experience in Canada, low income and risk of discrimination (FCAC, 2021). Additionally, systemic barriers such as cultural and linguistic challenges, as well as difficulties in accessing financial information, contribute to their financial exclusion (Prosper Canada Centre for Financial Literacy, 2015). Further, the FCAC reports these groups underutilize available financial services, indicating a significant gap in the accessibility and adoption of these services (FCAC, 2021). Addressing this, the paper proposes the Comprehensive Financial Inclusion Program for Newcomer Families (CFIP), which leverages existing networks where families are engaged, such as community centers and libraries. This setup is designed to respond to the psychological and physical barriers immigrants may encounter as they adapt to a new country. This initiative aligns with Ecosystem Priority 4: Enhancing access to trustworthy and affordable financial help and is aimed at achieving Target Outcome 2: More Canadians accessing relevant and unbiased financial advice for positive outcomes from the National Financial Literacy Strategy 2021-2026 (FCAC, 2021). The program leverages insights from Partition Around Medoid clustering on data collected from the FCAC's 2019 Canadian Financial Capability Survey (FCAC 2019a), complemented by a literature review. This paper defines financial well-being as the capability to meet ongoing financial obligations, secure a financial future, and make life-enriching choices (Consumer Financial Protection Bureau, n.d.), and financial knowledge refers to "an understanding of personal and broader financial matters" (FCAC, 2011).

## 2. Challenges Faced by Immigrants

Canada's long history of immigration is essential for offsetting an aging population and stimulating economic growth. In 2022 alone, over 468,000 immigrants, more than 1% of the total population, settled in Canada, which demonstrates the ongoing significance of immigration (Statista, 2024). A 2010 report to

<sup>1</sup> For the purposes of this paper, "newcomer" and "immigrant" are used interchangeably.

<sup>2</sup> Cognitive and brain tax, where resource limitations and competing needs make it difficult to focus on and complete challenging, unfamiliar, or multiple tasks (Zhao and Tomm, 2018).

the Minister of Finance emphasized the need to integrate financial literacy into the immigration process, a recommendation that remains relevant as immigrants continue to face economic uncertainty exacerbated by the pandemic (Canadian Task Force on Financial Literacy, 2010; Atkinson & Messy, 2015; FCAC, 2021).

Research highlights a distinct gap in financial knowledge between immigrants and Canadian-born individuals, which diminishes as immigrants acclimate (Khan, Ferrer, Lee & Rothwell, 2021; Prosper Canada Centre for Financial Literacy, 2015). Specifically, data from the Survey Series on People and their Communities in April 2024 showed that a larger proportion of recent immigrants (43%) reported finding it difficult or very difficult to meet their financial needs over the past 12 months, compared with more established immigrants (29%) and non-immigrants (29%) (Statistics Canada, 2024).

There are many factors contributing to newcomers' low financial well-being. For this paper, three will be explored in depth: lack of trust in institutions, misinformation from media and social networks, and the lack of accessible and personalized financial literacy tools. These factors compound the financial integration challenges faced by immigrants, highlighting the need for targeted intervention.

### **2.1 Lack of trust in financial institutions**

Immigrants may bring with them a distrust of financial institutions based on experiences in their countries of origin. One study found that after controlling for income, education, race, and marital status, most of the gap between immigrants and native-born use of mainstream banking can be explained by the quality of banking in an immigrant's home country (Osili and Paulson, 2008). Other sources of lack of trust are perceived discrimination within the host country's financial system, or cultural differences in financial management practices (Guiso, Sapienza, & Zingales, 2004). In the US, many immigrants express frustration with retail banks, particularly when unaware or misunderstanding the full range of potential fees, or feeling that these fees were inadequately explained (Consumer Financial Protection Bureau, 2016; Lutheran Immigration and Refugee Services, 2006). This erosion of trust can lead to financial exclusion, pushing immigrants towards informal, and sometimes riskier, financial practices (Paulson and Singer, 2004).

## **2.2 Misinformation through media and social networks**

Seeking financial knowledge, immigrants often turn to ethnic media, including newspapers, radio, and social media, that provide culturally relevant information and foster trust (Bleich, Bloemraad & de Graauw, 2017). However, misinformation can be prevalent across various media channels, particularly on digital platforms, which necessitates strong critical evaluation skills for all individuals (Luo, Cai & Cui, 2021). Studies show that immigrants in ethnically dense neighborhoods sometimes avoid mainstream financial services, relying instead on local advice and familiar informal practices such as ROSCAs, notaries, and money transfer services, due to their unfamiliarity with U.S. financial systems (Osili and Paulson, 2009).

Although friends and family offer trusted, culturally resonant advice, its reliability varies, necessitating formal financial education to fill knowledge gaps and reduce misinformation risks (Prosper Canada Centre for Financial Literacy, 2015). Financial education complements these personal networks by providing consistent, accurate information. This highlights the need for an integrated approach that combines the trust and relevance of community-based advice with the structured and evidence-based guidance typically offered by financial education programs.

## **2.3 Lack of accessible, effective, and personalized financial literacy tools**

The National Financial Literacy Strategy noted that merely having knowledge is insufficient for success (FCAC, 2021). This is especially true for immigrants, who are already at risk of encountering financial vulnerabilities, including brain and cognitive tax. The plethora of information vying for consumers' limited attention can be overwhelming, and consumers cannot be reasonably expected to correctly identify the key information they need among the millions of messages they are bombarded with through education, marketing, advertising, and so on (FCAC, 2021).

Despite a range of services from community networks, nonprofits, and banks, challenges remain in making these services accessible and personalized to meet immigrants' specific needs, including the psychological and physical barriers they face. Notably, even when financial help is available, it is not well-utilized due to a lack of awareness among those who need it most. Current programs available for newcomers can face three typical shortcomings: they are often transient one-time interventions, they can be unengaging and inaccessible resources, and offer insufficient regional customization. Firstly, benefits from one-time

educational interventions often fade within six months, highlighting their limited long-term impact (Barcellos, Carvalho, Smith & Yoong, 2019). Secondly, educational resources that lack interactive engagement via a two-way dialogue result in passive learning. Moreover, when such resources are not readily accessible within community hubs, the onus falls on immigrants to seek out this information, adding to their already considerable burden. Finally, national guides also fail to address specific needs and policy differences of provinces. Provincial-specific programs were more effective and these localized resources could benefit from further customization and enhanced interactivity, through digital solutions like mobile applications.

### **3. Primary Research**

Acknowledging newcomers' financial challenges and the gaps in current programs, our research builds upon the work of Avneet Bhabra, who previously analyzed the same dataset but did not focus on spatial dimensions or family-specific solutions (Bhabra, 2023). Our primary data analysis of the 2019 Canadian Financial Capability Survey (FCAC, 2019a) employed Partitioning Around Medoids (PAM) clustering, a machine-learning technique superior to K-means due to its binary distance measures for categorical data. This approach allowed for a more precise identification of financial behavior patterns across different provinces of Canada (Anderlucci and Hennig, 2014), leading to targeted policy interventions designed to enhance existing programs.

#### **3.1 Methodology**

The analysis categorized 1501 individuals as immigrants, based on their response to the question, "Were you born in Canada?". The sample distribution by province, illustrated in Appendix 1, is generally representative of the immigrant population across Canada, except for Nunavut and Northwest Territories, where no immigrant respondents were captured in the survey data. This limitation should be considered when extrapolating findings to the national immigrant demographic. Partitioning Around Medoids (PAM) clustering<sup>3</sup> <sup>1</sup>was selected for this analysis due to its binary distance measures for categorical data, making it more appropriate than K-means clustering for this dataset (Anderlucci & Hennig, 2014)

Ten variables were used in the clustering process, including province, financial commitment level, sex, age

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<sup>1</sup> Clustering was conducted using RStudio, version 2023.09.1, Build 494.

range, marital status, immigration year, education level, work situation, having children, and household income (Appendix 2). These variables were chosen to capture diverse financial behaviors and demographic characteristics that influence financial decision-making.

### **Rationale for Cluster Selection**

The optimal number of clusters was determined using the average silhouette width, which evaluates the quality of clustering by measuring how well each individual fits within its cluster. The analysis tested cluster solutions ranging from 2 to 10 clusters. The average silhouette width peaked at 3 clusters, indicating the best-defined and most distinct grouping of the data. As a result, three clusters were selected to represent distinct financial profiles and needs among the immigrant subpopulations. Additional analyses such as those illustrated in Appendix 3 evaluated differences in budgeting behavior, preferred financial education channels, and sources of financial advice. These validated the characteristics of each cluster and confirmed the appropriateness of the three-cluster solution.

### **3.2 Findings and Interpretation**

Our analysis distinguished between established immigrants and newcomers, categorizing them into distinct groups associated with specific personas. "Retired Rosie" (Cluster 1) and "Calm Cam" (Cluster 3) represent the more established immigrants, while "**Settling Saurabh**" (Cluster 2) corresponds to the newcomers.

**Retired Rosie** includes older female immigrants who majorly arrived between 1960 and 1979, now over 65 and retired, generally facing few financial challenges, often making decisions with partner support and based on institutional advice. **Settling Saurabh** comprises predominantly male newcomers who have arrived in the last decade (2010-2019) and are within the 25-54 age bracket, grappling with the pressures of full-time employment and dependent children, often struggling to maintain financial commitments despite having the highest incomes among the clusters. They use a combination of institutional and informal financial advice. **Calm Cam** represents the oldest male immigrants, who largely arrived between 1950 and 1959, now also over 65 and retired, managing their financial obligations smoothly, though less inclined to use a budget.

These personas depict the immigrant journey in Canada. Established immigrants like Retired Rosie and Calm Cam, who have lived in Canada for several decades, benefit from lived experiences and interactions with Canada's financial system. This knowledge, paired with their greater stability and financial well-being

contrasts with Settling Saurabh, a recent newcomer, who reports facing more significant financial challenges despite having the highest income and financial knowledge among the clusters. This disparity highlights that Rosie and Cam's lived experiences can be leveraged to support Saurabh.

Although Settling Saurabh reports the highest levels of financial knowledge and income, Figure 7 indicates that they are at a significantly higher risk of falling behind on their financial commitments, with many struggling to keep up (Appendix 3). This risk, combined with the pressures of recent immigration, dependents, and full-time employment, emphasizes the urgent need for targeted interventions for this group. Further a Statistics Canada study highlighted that 43% of recent immigrants (those admitted in 2005 or later) reported difficulties meeting their financial needs, compared to 29% of established immigrants (Statistics Canada, 2024). Thus, the paper prioritizes Cluster 2, Settling Saurabh, as the focal point for intervention.

#### **4. Recommendation**

The Comprehensive Financial Inclusion Program (CFIP) for Newcomer Families has three components: reaching, helping, and ultimately connecting the families. This program is tailored to operate within the

specific provincial contexts of Canada, acknowledging that federal and provincial governments share immigration and settlement responsibilities (Belon et. al, 2024). To address the localized needs effectively and ensure the program's implementation is finely tuned to the unique demographic characteristics of each region, the CFIP includes pilot programs in Quebec, Ontario, and British Columbia—provinces identified as having the largest concentrations of Cluster 2 (Appendix 3).

#### **4.1 Reaching the Families**

Reaching newcomer families where they are, by responding to their psychological and physical needs is the foundation of the CFIP. By utilizing community centers and libraries, which are already established as family-friendly and trusted environments, the CFIP establishes crucial initial touchpoints. These venues are not just chosen for their existing infrastructure but also for their role in providing family-oriented services and resources, directly attracting and serving the demographic targeted by the CFIP.

The established trust within community centers and libraries significantly reduces psychological barriers such as mistrust and fear fostering a sense of security and openness to learning. This approach leverages psychological principles that trust in the source of new information is crucial for its acceptance and integration into daily routines. Supporting this, the Pew Research Center highlights that 8 out of 10 U.S. adults feel that public libraries help them find trustworthy and reliable information (Geiger, 2017; Nicodemus, 2023) and the partnership between the US Consumer Financial Protection Bureau and public libraries has demonstrated how integrating financial literacy into existing community infrastructure can bring meaningful engagement and learning (Cordray, 2014).

Furthermore, by positioning the CFIP within well-frequented settings, the program taps into the group affinity hypothesis (Haan, 2008), which suggests that immigrants are drawn to and retained within areas populated by pre-existing ethnic communities with shared cultural ties (Haan, 2008; Lieberman and Waters 1987; Kritz and Nogel 1994). This natural inclination for immigrants to cluster according to ethnic lines strengthens the program's relevance and appeal and harnesses the power of social proof and community solidarity to ensure that the CFIP's initiatives are well-received and integrated within these cohesive groups.



Moreover, the placement of the program in strategic locations proactively reduces barriers to access, by addressing common challenges (such as transportation issues and the stress of new experiences) head-on, while maximizing the use of existing, trusted infrastructures. Embedding CFIP in familiar environments ultimately enhances access to trustworthy information for newcomer communities.

#### **4.2 Helping the Families**

The program's second component involves a practical, tailored approach that caters to managing a household budget, often on a single income or while balancing work and family responsibilities. Inspired by the success of the FinLit U program, which is specifically designed for Black mothers and led by Black financial experts, our program adapts this model to suit the needs of newcomer families. FinLit U, an 8-week course recognized by the FCAC for its effectiveness in enhancing financial behavior, demonstrates the potential of personalized financial education (FCAC, 2024).

To address the unique needs of newcomer families, the CFIP includes six detailed modules, as outlined in Appendix 4. These modules are specifically crafted to resonate with the experiences of newcomer families, focusing on essential topics such as remittance, education savings plans (RESP), and retirement planning (RRSP). These areas have been identified as particularly relevant to Cluster 2, as indicated by our data analysis in Appendix 3. Furthermore, the program will complement its in-person modules with a comprehensive digital offering to accommodate the preference for online learning, as indicated by Cluster 2's inclination towards acquiring financial education through digital courses, as seen in Appendix 3. This digital component addresses newcomers' challenge of mental scarcity by offering convenience to individuals with limited time and resources. This dual approach of in-person and online learning modules ensures that the CFIP not only meets the immediate educational needs of newcomer families but also provides flexible learning options that can adapt to their varying schedules and life demands. This design aims to enhance financial literacy and empowerment among newcomers, facilitating smoother integration into their new community and financial environment.

### **4.3 Connecting the Families**

The third aspect of the program is to connect families through a mentorship pairing program, leveraging the rich cultural diversity and lived experiences of more established immigrants, represented by personas like Retired Rosie and Calm Cam (Prosper Canada Centre for Financial Literacy, 2015). These individuals are paired with newer arrivals, such as Settling Saurabh, forming mentorship connections that draw on strong cultural ties and shared experiences to provide robust, enduring support.

Given the demographic trends, with a significant influx from culturally similar regions—Asia, the Middle East, and the Americas—this program leverages these commonalities to enhance the effectiveness of financial advice (Prosper Canada Centre for Financial Literacy, 2015). By pairing immigrants from similar cultural backgrounds, the program facilitates the exchange of culturally resonant financial knowledge, which is more likely to be relevant and impactful. Additionally considering that 26% of new immigrants have existing family connections in Canada, the CFIP taps into these family networks to organically spread financial literacy (Prosper Canada Centre for Financial Literacy, 2015). This approach not only capitalizes on built-in community structures to enhance the program's reach and efficacy but also minimizes the need for external funding. While the mentorship will be primarily conducted in-person to maximize engagement and learning outcomes, an online component ensures inclusivity and continued support, making the program adaptable and more accessible. This blend of personal interaction and digital access makes the CFIP's mentorship initiative a powerful tool for building long-term financial resilience among Canada's immigrant families.

### **5. Province-Specific Implementation**

Given that most newcomers tend to settle in Canada's largest urban centers, it is essential to place the CFIP's touchpoints within this area to ensure accessibility and engagement (Fremont, A., & Varatharasan, 2020). In Quebec, the CFIP will integrate the existing robust resources, such as 'L'essentiel des finances personnelles,' through public library networks, with a particular focus on home ownership education, aligning with the linguistic and cultural needs of the province (Autorité des marchés financiers, 2019). In Ontario, the focus will be on leveraging the established

networks in urban centers such as Mississauga and Peel, and the widespread reach of the Toronto Public Library system (Toronto Public Library, n.d.). Further, Prosper Canada's previous newcomer coaching program can be leveraged by tapping into its network of community partners, such as North York Community House, AXIS Career Services, Access Alliance, and WoodGreen Community Services (Fremont, A., & Varatharasan, 2020). British Columbia's pilot will witness collaboration with the BC Financial Services Authority, focusing on a digital platform that resonates with the community's tech-savvy orientation (Danyluk, 2022; Government of British Columbia, 2023).

### **5.1 Three Step Implementation**

The pilot's implementation is designed to leverage existing infrastructure and direct community networks, ensuring a quick to market rollout and that immediate impacts are felt by the newcomer communities. The implementation has three phases. The initial phase focuses on the creation and design of the program. Utilizing a design thinking approach, the program is co-created with immigrant financial experts, those who embody both lived experience and formal financial background to ensure the program is co-created through the lens of its intended beneficiaries, enabling an iterative development process grounded in community feedback. Working closely with these leaders ensures the CFIP benefits from direct and timely feedback, easing implementation, and enhancing the program's cultural fit. This collaborative process helps in crafting content that directly addresses the specific needs and challenges of the immigrant families. The second phase involves the beta testing of the program and conducting focus groups to gather comprehensive feedback. This phase is crucial for refining the program elements based on real user experiences and insights, thereby enhancing the relevance and effectiveness of the CFIP. The first two phases will be conducted independently in each of the three provinces.

In the final phase, a concurrent pilot will be delivered through the afore-mentioned libraries and community hubs in the three provinces (Quebec, Ontario, British Columbia). These pilots are critical for assessing the program's cultural and demographic relevance and provide data on its resonance within the immigrant community.

### **5.2 Tracking Success**

Success monitoring of the CFIP will be continuous and dynamic, with various indicators used to assess its impact. For example, engagement rates in educational modules provide initial insights into participation

levels, while changes in financial behaviors, such as savings rates and bill payments, indicate shifts in financial practices among participants. Financial health indicators like credit scores and debt levels will also be monitored to gauge the program's long-term benefits. Feedback mechanisms will be integrated throughout the program, with regular surveys and feedback forms collected during and after each module to understand user satisfaction and identify areas for improvement. Additionally, data from FCAC's recurring surveys will be utilized to track the enduring impact of the CFIP on participants' financial literacy and inclusion. To further enhance future iterations of the CFIP and other similar initiatives, it is recommended that the FCAC incorporate questions regarding the ethnic origins of survey respondents. This added layer of demographic data would enable the development of more targeted and effective programs by better understanding the specific needs and challenges of diverse immigrant groups within Canada.

## **6. Conclusion**

Insights from our literature review and data analysis emphasize the urgent need for trust, accurate information, and tailored support to advance financial inclusion among newcomers. By addressing these areas, the CFIP actively advances Ecosystem Priority 4: delivering trustworthy and affordable financial assistance. The CFIP's innovative design meets immigrants in trusted community spaces, cuts through the noise of misinformation and equips newcomers with personalized tools, enhancing their ability to navigate financial complexities with confidence. Looking forward, we are confident that the CFIP will exceed Target Outcome 2, facilitating access to relevant and unbiased financial advice with positive, tangible outcomes. By embedding essential financial tools within community hubs, the CFIP targets immediate, substantial improvements. This strategy is designed to close financial literacy gaps and foster enduring benefits for today's families and future generations. Ultimately, the CFIP aims to significantly boost the resilience and inclusivity of Canada's economy, empowering every newcomer to achieve their financial potential faster - effectively making change that counts.

### References

- Anderlucci, L., & Hennig, C. (2014). The Clustering of Categorical Data: A Comparison of a Model-Based and a Distance-Based Approach. *Communications in Statistics - Theory and Methods*, 43, 704–721. <https://doi.org/10.1080/03610926.2013.806665>. Accessed 5 Jan. 2023.
- Atkinson, A. and F. Messy (2015). Financial Education for Migrants and their Families. *OECD Working Papers on Finance, Insurance and Private Pensions*, No. 38, OECD Publishing, Paris, <https://doi.org/10.1787/5js4h5rw17vh-en>.
- Autorité des marchés financiers (2019). *Quebec Financial Education Strategy: 2019-2022 Orientations and Action Plan*. [https://lautorite.qc.ca/fileadmin/lautorite/education-financiere/SQEF2019-plan-action\\_an.pdf](https://lautorite.qc.ca/fileadmin/lautorite/education-financiere/SQEF2019-plan-action_an.pdf)
- Barcellos, S.H., Carvalho, L.S., Smith, J.P., Yoong, J. (2019). Financial Education Interventions Targeting Immigrants and Children of Immigrants: Results from a Randomized Control Trial. *Journal of Consumer Affairs*, 50, 263–285, <https://doi.org/10.1111/joca.12097>.
- Belon, A.P., Yashadhana, A., Kongats, K., Atkey, K., Glenn, N.M., Jaques, K., Nieuwendyk, L., Harris, P., de Leeuw, E., & Nykiforuk, C.I.J. (2024). Australian and Canadian Financial Wellbeing Policy Landscape during COVID- 19: An Equity-Informed Policy Scan. *Health Policy OPEN*, 6, 1-11. <https://doi.org/10.1016/j.hpopen.2023.100114>.
- Bhabra, A. (2023) “23% and Counting, but Not “One Size Fits All”: Helping Canada’s Immigrants Strengthen Their Financial Knowledge.” [www.caanda.ca/en/financial-consumer-agency/programs/research-2022-building-better-financial-futures-challenge/helping-canada-immigrants-strengthen-financial-knowledge.html](http://www.caanda.ca/en/financial-consumer-agency/programs/research-2022-building-better-financial-futures-challenge/helping-canada-immigrants-strengthen-financial-knowledge.html). Accessed 20 Mar. 2024.
- Bleich, E., Bloemraad, I., & de Graauw, E. (2017). Migrants, Minorities and the Media: Information, Representations and Participation in the Public Sphere. *Journal of Ethnic and Migration Studies*, 41, 857– 873. <https://doi.org/10.1080/1369183x.2014.1002197>.

Canadian Task Force on Financial Literacy (2010). *Canadians and their money - Building a brighter financial future*, Report of recommendation on Financial Literacy

Consumer Financial Protection Bureau (2016). *Financial Education Programs Serving Immigrant Populations Issue Brief*.

[https://files.consumerfinance.gov/f/documents/20160714\\_cfpb\\_report\\_fined\\_immigrant\\_May\\_20\\_2016\\_FINAL.pdf](https://files.consumerfinance.gov/f/documents/20160714_cfpb_report_fined_immigrant_May_20_2016_FINAL.pdf)

Consumer Financial Protection Bureau. (n.d.). *Explore financial well-being findings*. Consumer Financial Protection Bureau. <https://www.consumerfinance.gov/consumer-tools/educator-tools/financial-well-being-resources/explore-findings/>

Cordray , R. (2014). Prepared Remarks of CFPB Director Richard Cordray at the Federal Reserve Bank of Chicago on “Making Libraries Community Hubs for Financial Education.” *Consumer Financial Protection Bureau*, 7 Apr. 2014, [www.consumerfinance.gov/about-us/newsroom/prepared-remarks-of-cfpb-director-richard-cordray-at-the-federal-reserve-bank-of-chicago-on-making-libraries-community-hubs-for-financial-education/](http://www.consumerfinance.gov/about-us/newsroom/prepared-remarks-of-cfpb-director-richard-cordray-at-the-federal-reserve-bank-of-chicago-on-making-libraries-community-hubs-for-financial-education/). Accessed 16 Apr. 2024.

Danyluk, A. (2022). Vancouver has been ranked one of the top tech cities in the world. Curiosity. <https://curiosity.com/vancouver-top-tech-cities-world-2022/>

Fremont, A., & Varatharasan, N. (2020). *Providing one-on-one financial coaching to newcomers: Insights for frontline service providers*. Prosper Canada.

<https://learninghub.prospercanada.org/knowledge/providing-one-on-one-financial-coaching-to-newcomers-insights-for-frontline-service-providers/>

Financial Consumer Agency of Canada (2011). *Financial Literacy Background - Canada.ca*.

[www.canada.ca/en/financial-consumer-agency/programs/financial-literacy/financial-literacy-history.html](http://www.canada.ca/en/financial-consumer-agency/programs/financial-literacy/financial-literacy-history.html).

Financial Consumer Agency of Canada (2019a). *Canadians and Their Money: Key Findings from the 2019 Canadian Financial Capability Survey*. [www.canada.ca/en/financial-consumer-agency/programs/research/canadian-financial-capability-survey-2019.html](http://www.canada.ca/en/financial-consumer-agency/programs/research/canadian-financial-capability-survey-2019.html).

Financial Consumer Agency of Canada (2021). *Make Change That Counts: National Financial Literacy Strategy 2021-2026*. [www.canada.ca/en/financial-consumer-agency/programs/financial-literacy/financial-literacy-strategy-2021-2026.html](http://www.canada.ca/en/financial-consumer-agency/programs/financial-literacy/financial-literacy-strategy-2021-2026.html). Accessed 12 Apr. 2024.

Financial Consumer Agency of Canada (2024a). Counting Change: A Measurement Plan for the National Financial Literacy Strategy 2021-2026. [Www.canada.ca. https://www.canada.ca/en/financial-consumer-agency/programs/financial-literacy/measurement-plan.html](https://www.canada.ca/en/financial-consumer-agency/programs/financial-literacy/measurement-plan.html)

Geiger, A. W. (2017). Most Americans – Especially Millennials – Say Libraries Can Help Them Find Reliable, Trustworthy Information.” *Pew Research Center*. [www.pewresearch.org/short-reads/2017/08/30/most-americans-especially-millennials-say-libraries-can-help-them-find-reliable-trustworthy-information/](http://www.pewresearch.org/short-reads/2017/08/30/most-americans-especially-millennials-say-libraries-can-help-them-find-reliable-trustworthy-information/). Accessed 12 Apr. 2024.

Government of British Columbia. (2023). *BC Financial Services Authority - Province of British Columbia*. [Www2.Gov.bc.ca. https://www2.gov.bc.ca/gov/content/governments/organizational-structure/ministries-organizations/crown-corporations/bc-financial-services-authority](https://www2.gov.bc.ca/gov/content/governments/organizational-structure/ministries-organizations/crown-corporations/bc-financial-services-authority)

Guiso, L., Sapienza, P., & Zingales, L. (2004). The role of social capital in financial markets. *The American Economic Review*, 94, 856-881.

Haan, M. (2008). The Place of Place: Location and Immigrant Economic Well-Being in Canada. *Population Research and Policy Review*, 27, 751–771. [www.jstor.org/stable/41217981](http://www.jstor.org/stable/41217981). Accessed 13 Apr. 2024.

Khan, M. N., Ferrer, I., Lee, Y., & Rothwell, D. W. (2022). Examining the financial knowledge of immigrants in Canada: a new dimension of economic inequality. *Journal of Ethnic and Migration Studies*, 48, 3184-320.

- Kritz, M. M., & Nogel, J. M. (1994). Nativity concentration and internal migration among the foreignborn. *Demography*, 31, 509–554.
- Lieberson, S., & Waters, M. C. (1987). The location of ethnic and racial groups in the United States. *Sociological Forum*, 2, 780–810.
- Luo, H., Cai, M., Cui, Y. (2021). “Spread of Misinformation in Social Networks: Analysis Based on Weibo Tweets. *Security and Communication Networks*, 2021, 1-23.  
[www.hindawi.com/journals/scn/2021/7999760/#abstract](http://www.hindawi.com/journals/scn/2021/7999760/#abstract), <https://doi.org/10.1155/2021/7999760>.  
Accessed 14 Apr. 2024.
- Lutheran Immigration and Refugee Service (2006). *Financial Literacy for Newcomers: Weaving Immigrant Needs Into Financial Education*.  
<https://floridaliteracy.org/Financial/Immigrants/Refugee%20Works%20Financial%20literacy.pdf>  
Accessed 19 Apr. 2024.
- Nicodemus, B. (2023). *Beyond Books, Libraries Are Vital Community Hubs*. Gensler,  
[www.gensler.com/blog/beyond-books-libraries-are-vital-community-hubs](http://www.gensler.com/blog/beyond-books-libraries-are-vital-community-hubs). Accessed 14 Apr. 2024.
- Osili, U.O. and Paulson, A.L. (2008). What Can We Learn About Financial Access From U.S. Immigrants? The Role of Country of Origin Institutions and Immigrant Beliefs. *World Bank Economic Review* 22.3, 431-455.
- Osili, U.O., & Paulson, A.L. (2009). Immigrants’ Access to Financial Services and Asset Accumulation.” In R.M. Blank & M.S. Barr (Eds.), *Insufficient Funds: Savings, Assets, Credit, and Banking among Low-Income Households* (pp. 285-318). Russell Sage Foundation.  
<http://www.jstor.org/stable/10.7758/9781610445887.13>
- Paulson, A. & Singer, A. (2004). *Financial Access for Immigrants: Learning from Diverse Perspectives*. Brookings, [www.brookings.edu/articles/financial-access-for-immigrants-learning-from-diverse-perspectives/](http://www.brookings.edu/articles/financial-access-for-immigrants-learning-from-diverse-perspectives/). Accessed 10 Apr. 2024.
- Prosper Canada Centre for Financial Literacy (2015). *Financial Literacy and Newcomers to Canada..*



<https://prospercanada.org/getattachment/3ff26769-c2d4-4d9e-82e9-f56467e4eb31/Financial-Literacy-and-Newcomers-to-Canada.aspx>

Statista (2024). *Number of Immigrants in Canada from 2000 to 2023*.

<https://www.statista.com/statistics/443063/number-of-immigrants-in-canada/>.

Statistics Canada (2022). Immigrants Make up the Largest Share of the Population in over 150

Years and Continue to Shape Who We Are as Canadians. *Government of Canada*,

[www150.statcan.gc.ca/n1/daily-quotidien/221026/dq221026a-eng.htm](http://www150.statcan.gc.ca/n1/daily-quotidien/221026/dq221026a-eng.htm).

Statistics Canada (2024). *The Daily — Recent Immigrants Report Greater*

*Difficulty Making Ends Meet and Are Less Satisfied with Their Amount of Free Time*.

[www150.statcan.gc.ca/n1/daily-quotidien/240618/dq240618b-eng.htm](http://www150.statcan.gc.ca/n1/daily-quotidien/240618/dq240618b-eng.htm).

Toronto Public Library. (n.d.). *Hours & Locations*. Toronto Public Library.

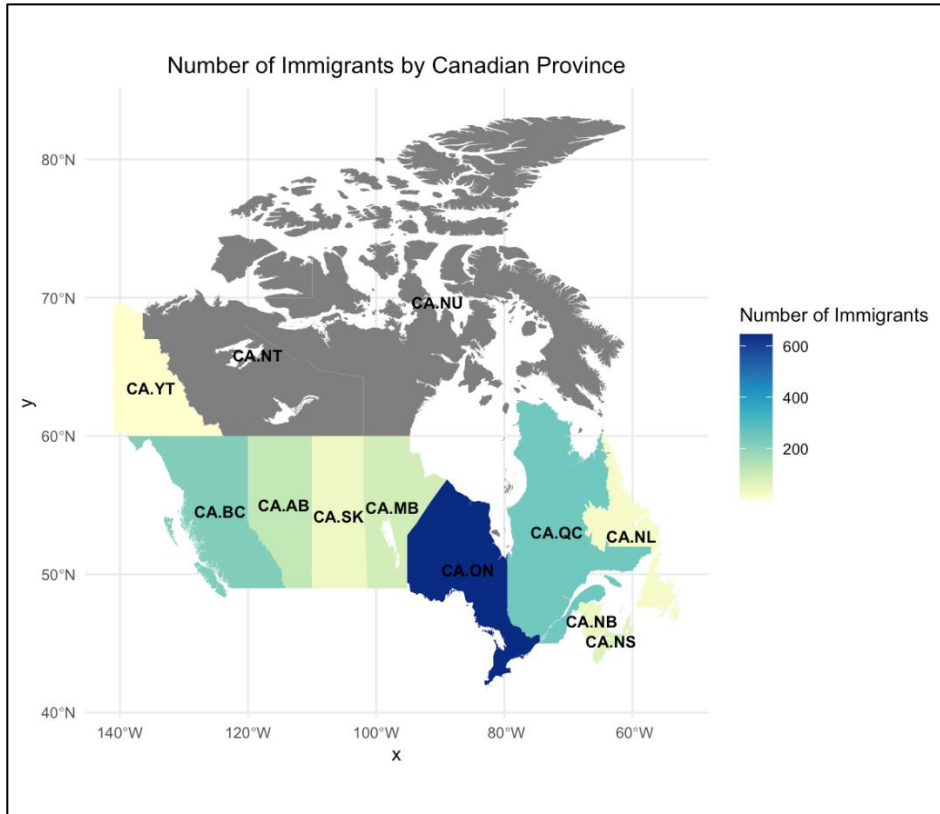
<https://www.torontopubliclibrary.ca/hours-locations/>

Zhao, J. & Tumm, B.M. (2018). *Oxford Research Encyclopedia of Psychology*. Oxford University

Press. [https://zhaolab.psych.ubc.ca/pdfs/Zhao\\_Tomm\\_2018.pdf](https://zhaolab.psych.ubc.ca/pdfs/Zhao_Tomm_2018.pdf)

Appendix

**Appendix 1: Provincial Distribution of Immigrants**



*Source: Data analysis on FCAC's 2019 Financial Capability Survey*

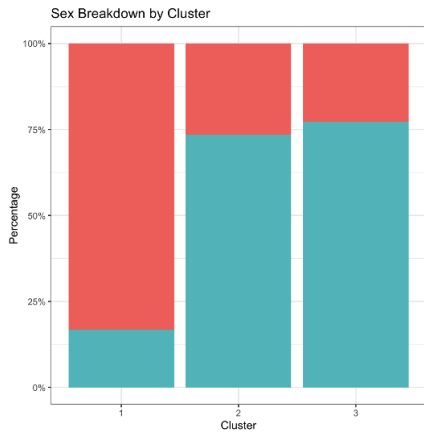
*Note: Gray areas represent regions with zero immigrant respondents in the survey data, specifically Nunavut and Northwest Territories*

**Appendix 2: Function and Variables used for Clustering in R Studio, version 2023.09.1**

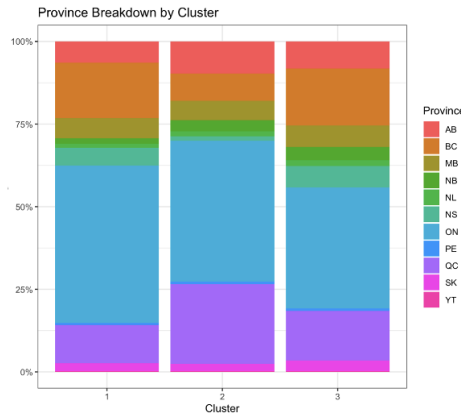
- (1) sex, (2) age range, (3) province, (4) marital status, (5) children, (6) immigration year, (7) work status
- (8) education level, (9) household income, (10) financial commitment level

**Function:** `pam_result = pam(binary_dist, 3, diss = TRUE, keep.diss=TRUE)`

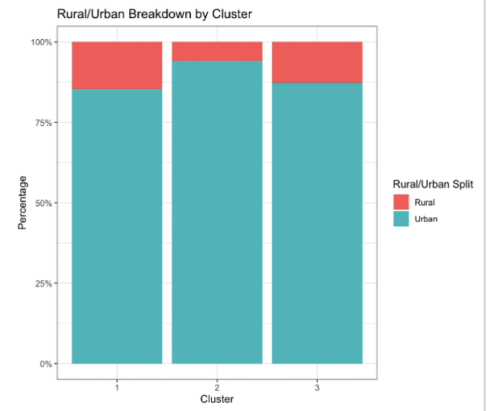
**Appendix 3: Selected Visualizations and Insights by Cluster**



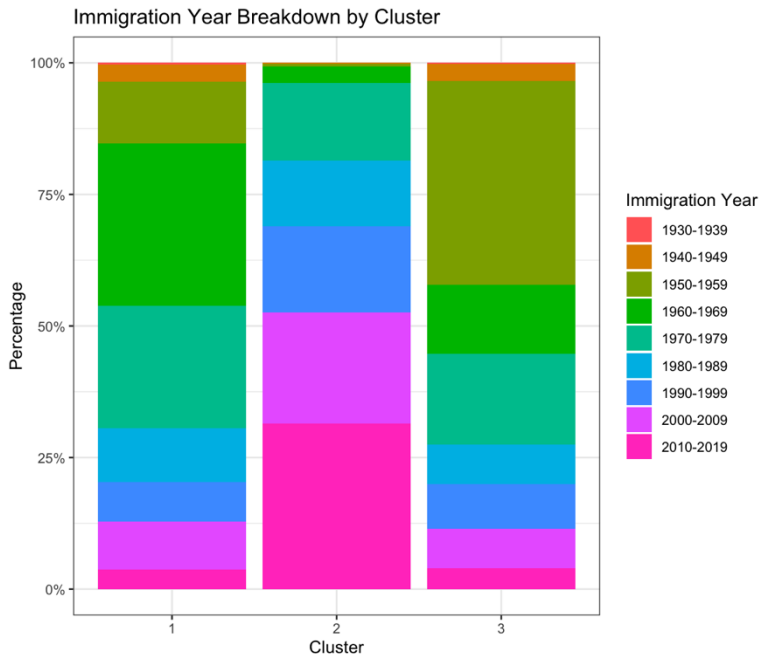
Cluster 1 has a largely female-identifying population



QC is more prominent in Cluster 2, while BC is relatively less prominent



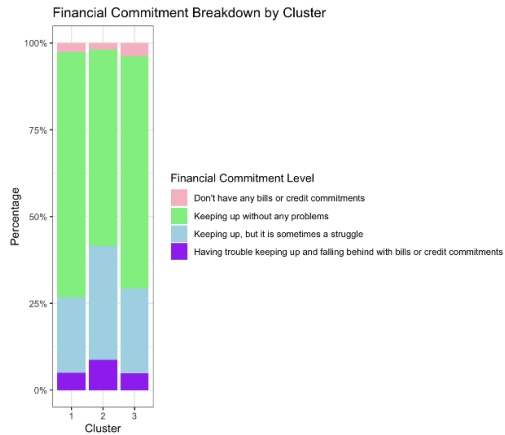
Majority of each cluster resides in Urban areas, with Cluster 2 especially more prominent



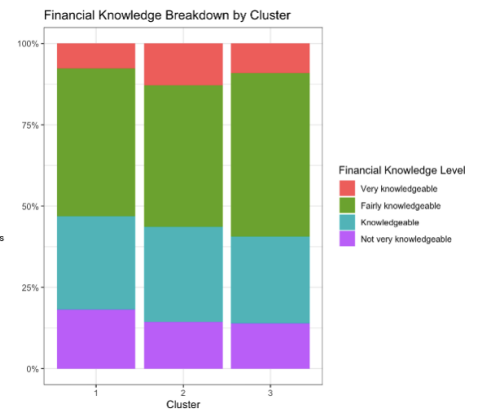
Cluster 2 majorly comprises of individuals who arrived more recently compared to Cluster 1 and 3



Cluster 2 has higher incomes

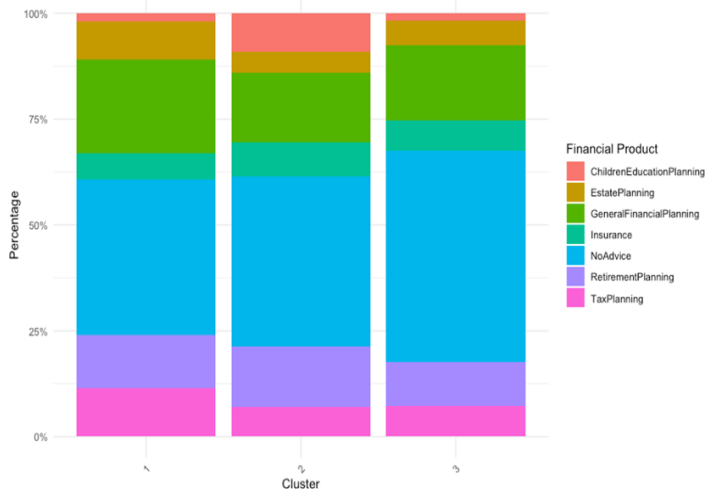


Cluster 2 struggles and has trouble keeping with financial commitments



Cluster 2 self-reports as very knowledgeable, and cluster 1 has the highest incidence of not very knowledgeable

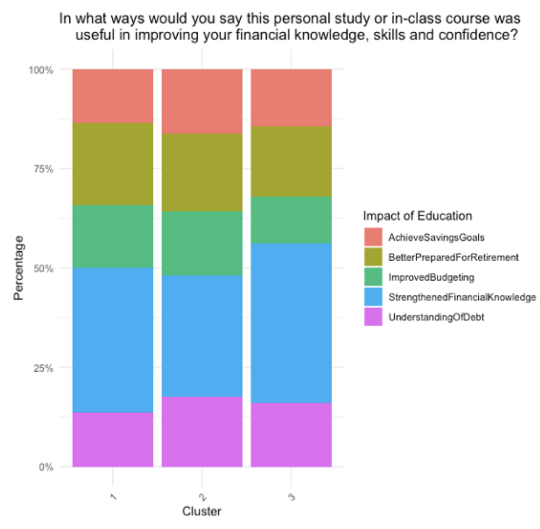
In the past 12 months, did you make use of FREE or PAID advice on any financial products? If so, did this include advice on:



Cluster 2 is especially interested in Children Education Planning and Retirement



Cluster 2 is more likely to use online courses or self study, and rely on employer's financial training. They are less likely to increase knowledge by meeting with a financial planner



Cluster 2's experience with independent learning helped them increase their understanding debt, budgeting, and retirement

### Appendix 4: Digital Interface and Modules for CFIP for Immigrant Families

The screenshot displays the CFIP digital interface. At the top, there is a navigation bar with 'Home', 'Modules', 'Resources', and 'Support'. On the right, there are icons for settings and a 'Log in' button, along with a 'Select Your Province' button. The main content area is titled 'Welcome to the Comprehensive Financial Inclusion Program for Newcomer families'. It features a 'Hi Saurabh!' greeting and a 'Start Learning' button. A 'Get Started' section shows a 'UP NEXT' card for 'I Welcome 1min'. A 'Connect with Families Nearby' section displays the CFIP logo and a notification for '1 new message from your mentor'. A sidebar on the left lists course modules: 'I. Welcome' (1min), 'Module 1: Remittance' (34min), 'Module 2: Household Expenses' (43min), 'Module 3: Taxes in Canada' (1.5hr), 'Module 4: Credit Scores, Mortgage rules and insurance policies' (1.2hr), 'Module 5: Retirement Planning' (1.7hr), and 'Module 6: Education Savings Plan' (60min).