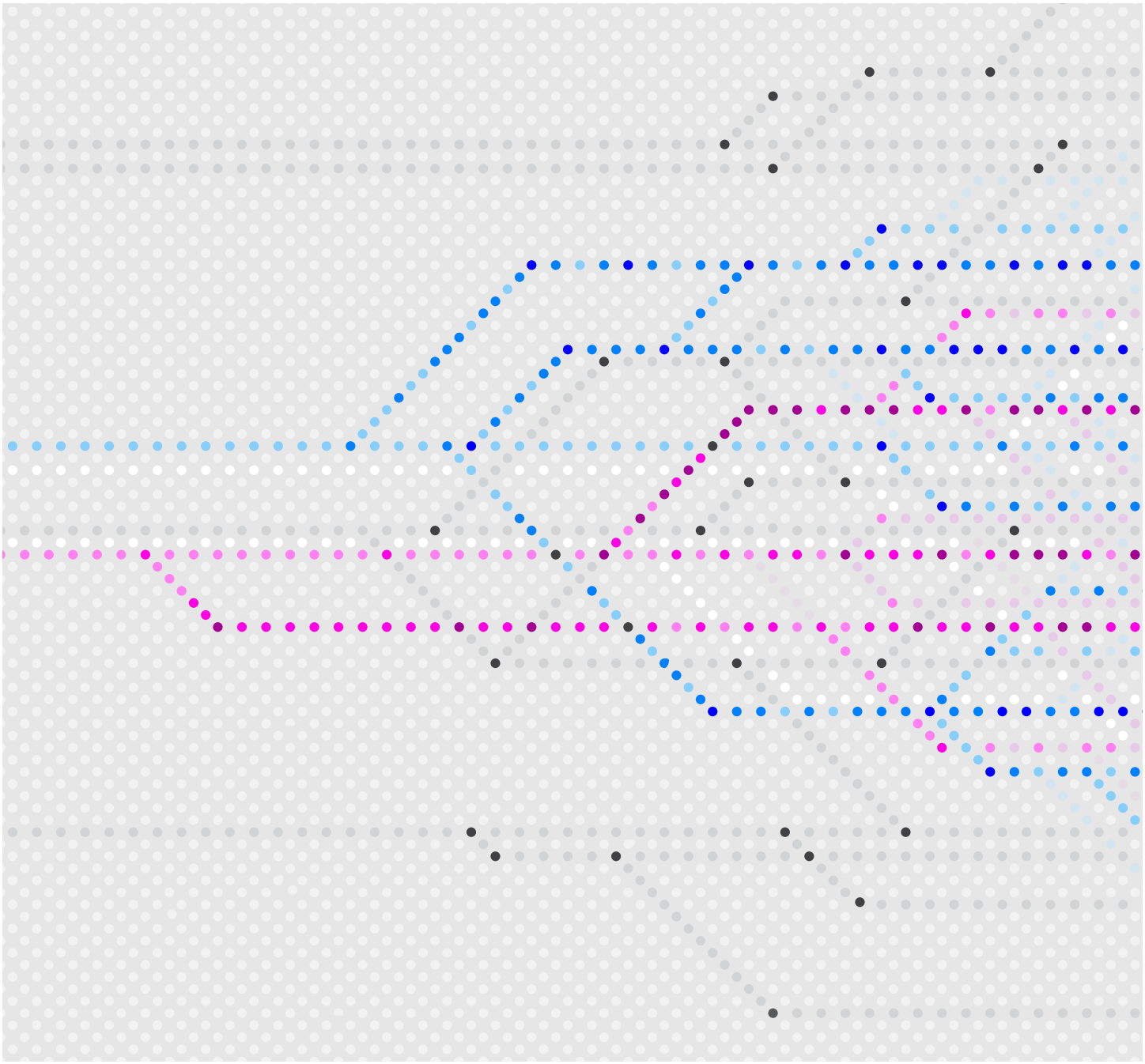

Advanced Digital and Professional Training (ADaPT)

Interim Update

March 2025

Blueprint

This report was produced as part of a project funded by the Future Skills Centre (FSC), with financial support from the Government of Canada's Future Skills Program.

FSC is a forward-thinking centre for research and collaboration dedicated to preparing Canadians for employment success. We believe Canadians should feel confident about the skills they have to succeed in a changing workforce. As a pan-Canadian community, we are collaborating to rigorously identify, test, measure, and share innovative approaches to assessing and developing the skills Canadians need to thrive in the days and years ahead. The Future Skills Centre was founded by a consortium whose members are Toronto Metropolitan University, Blueprint ADE, and The Conference Board of Canada

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About the Future Skills Centre

The Future Skills Centre (FSC) is a forward-thinking centre for research and collaboration dedicated to driving innovation in skills development so that everyone in Canada can be prepared for the future of work. We partner with policymakers, researchers, practitioners, employers and labour, and post-secondary institutions to solve pressing labour market challenges and ensure that everyone can benefit from relevant lifelong learning opportunities. We are founded by a consortium whose members are Toronto Metropolitan University, Blueprint, and The Conference Board of Canada, and are funded by the Government of Canada's Future Skills Program.

Le Centre des Compétences futures (CCF) est un centre de recherche et de collaboration avant-gardiste qui se consacre à l'innovation dans le domaine du développement des compétences afin que toutes les personnes au Canada soient prêtes pour l'avenir du travail. Nous travaillons en partenariat avec des personnes chargées de l'élaboration des politiques, des personnes chargées de la recherche, des spécialistes, des employeurs et des travailleuses et travailleurs, ainsi qu'avec des établissements d'enseignement postsecondaire, afin de résoudre les problèmes urgents du marché du travail et de veiller à ce que chacun puisse bénéficier de possibilités pertinentes d'apprentissage tout au long de la vie. Nous sommes fondés par un consortium dont les membres sont l'Université métropolitaine de Toronto, Blueprint et le Conference Board of Canada, et nous sommes financés par le Programme du Centre des compétences du gouvernement du Canada.

About Blueprint

Blueprint was founded on the simple idea that evidence is a powerful tool for change. We work with policymakers and practitioners to create and use evidence to solve complex policy and program challenges. Our vision is a social policy ecosystem where evidence is used to improve lives, build better systems and policies and drive social change.

Our team brings together a multidisciplinary group of professionals with diverse capabilities in policy research, data analysis, design, evaluation, implementation and knowledge mobilization.

As a consortium partner of the Future Skills Centre, Blueprint works with partners and stakeholders to collaboratively generate and use evidence to help solve pressing future skills challenges.

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About this report

This *Interim Update* presents findings from Advanced Digital and Professional Training (ADaPT), a sector-based training model developed by the Diversity Institute (DI) of Toronto Metropolitan University (TMU) and TECHNATION. ADaPT helps post-secondary graduates from diverse backgrounds enter the IT sector. It responds to a disconnect between the skills the sector needs and the skills of post-secondary graduates—as assessed by both employers and graduates themselves.

For more information about ADaPT and its journey as part of the Scaling Up Skills Development Portfolio, please see our *Interim Report* (March 2024).

The following update is based on data collected by Blueprint from September 2022 to October 2024. A subsequent report will incorporate long-term data and provide further analysis of participant experiences and outcomes.

This update contains five sections:

1. **Executive summary** (pp. 2–4) reviews our findings.
2. **Implementation updates** (pp. 5–6) provides an update on cohort delivery and research participation status.
3. **Learning agenda and methodology** (pp. 7–11) shares our evidence generation approach: our learning agenda, data sources, and limitations.
4. **Interim findings** (pp. 12–30) presents findings on program reach, experience, impact, and implementation, updated from our previous report.
5. **What's next?** (p. 31) summarizes the next phases of evidence generation and reporting.

1. Executive summary

This report provides updated findings from Blueprint's ongoing evaluation of **Advanced Digital and Professional Training (ADaPT)**, a sector-based training model developed by the **Diversity Institute (DI) of Toronto Metropolitan University (TMU)** and **TECHNATION**.

For over a decade, Canada's labour market has increasingly relied on digital skills.[1] Yet in 2013, Canadians aged 16–34 displayed the lowest proficiency in problem-solving in tech-rich settings among OECD nations—with equity-deserving groups (Indigenous Peoples, women, linguistic minorities, and immigrants) disproportionately affected.[2] The federal government responded by calling for better alignment between post-secondary programs and employer needs, and greater enrolment from equity-deserving groups in tech-related fields.[3] A 2019 survey of leading Canadian businesses further spotlighted shortages in cybersecurity, AI, machine learning, and risk management.[4] COVID-19 intensified these gaps, driving demand for workers with both advanced digital skills (e.g., coding, app development, data visualization) and essential skills (or 'soft' skills)—stressing the importance of skill development across multiple disciplines.[5]

The evolving landscape of in-demand IT roles, which require a blend of digital and professional skills, also presents significant opportunities for individuals without STEM backgrounds. Today, there are more digital jobs outside the Information and Communications Technology (ICT) sector than within it.[6] Sector-based training programs can serve as entry points for such individuals, equipping them with skills they may not have gained in their education. These models tailor their curriculums in partnership with industry to align with employers' needs. By adopting a dual-client approach, they serve both job seekers and employers, and often include career coaching, social services, and job placements to ensure integration into the workforce.[7]

1 Martinovic, D., & Freiman, V. (2018). *The future of the Canadian workforce in the digital society.* CERIC. https://ceric.ca/fr/2018/02/the-future-of-the-canadian-workforce-in-the-digital-society/

2 Statistics Canada. (2013). *Skills in Canada: First results from the programme for the international assessment of adult competencies* [Catalogue no. 89-555-X]. https://www150.statcan.gc.ca/n1/en/pub/89-555-x/89-555-x2013001-eng.pdf?st=TAXd9CyX

3 Government of Canada. (2015). *Digital Canada 150 2.0.* https://publications.gc.ca/collections/collection_2017/isde-ised/lu64-48-2015-eng.pdf

4 Business Council of Canada. (2020). *Investing in a resilient Canadian workforce: 2020 Business Council of Canada skills survey.* https://www.thebusinesscouncil.ca/wp-content/uploads/2020/08/2020-BCC-Skills-Survey-Report_Final.pdf

5 The Conference Board of Canada. (2022, September 27). *Digital skills for today and tomorrow: Perspectives from Canadian employers and industry leaders.* https://www.conferenceboard.ca/wp-content/uploads/2022/10/11807_issue-briefing_digital-skills-for-today-and-tomorrow_2022_EN.pdf

6 National Skills Coalition. (2023). *New report: 92% of jobs require digital skills, one-third of workers have low or no digital skills due to historic underinvestment, structural inequities.* https://nationalskillscoalition.org/news/press-releases/new-report-92-of-jobs-require-digital-skills-one-third-of-workers-have-low-or-no-digital-skills-due-to-historic-underinvestment-structural-inequities/

7 Holzer, H. (2022). *Do sectoral training programs work? What the evidence on Project Quest and Year Up really shows.* The Brookings Institute. https://www.brookings.edu/articles/do-sectoral-training-programs-work-what-the-evidence-on-project-quest-and-year-up-really-shows/

Based on extensive research and consultation with industry, DI launched the ADaPT program in 2014. ADaPT was designed to help equip non-STEM graduates and final-semester students with digital and professional skills, opening alternative career paths and bridging the employment gap through meaningful job opportunities. New iterations were developed based on employer needs (focusing on data analytics, Salesforce, and PEGA systems). The program was offered in a range of formats, including boot camps, online and part-time models, and in consultations with industry partners, such as RBC and Cognizant.

In 2019, the Future Skills Centre (FSC) provided a grant to DI and TECHNATION to consult with employers, update the competency framework to develop curriculums, and test approaches to scaling to new sites across Canada. The program equipped graduates and students with the skills employers need and engaged with employers to support inclusive hiring practices and work environments. TECHNATION provided employers with wage subsidies for eligible participants through its Student Work Placement Program (SWPP), funded by Employment and Social Development Canada (ESDC). In 2021, as part of the **Scaling Up Skills Development Portfolio**, DI and TECHNATION received another FSC grant to implement a randomized controlled trial (RCT) with Blueprint to assess the impact of different features and their impact on participant outcomes. To undergo an RCT—while the program is being implemented by multiple partners and scaled to various regions—is a significant undertaking for a social program in Canada.

A key focus of this research is testing how different training modalities (including face-to-face, online, asynchronous, and synchronous elements) and customized coaching impacted employment placement rates. Since the pandemic's disruption of face-to-face delivery, ADaPT has been offered as a virtual classroom (synchronous) and an online (asynchronous) stream. The virtual stream provides one-on-one job coaching support not found in the online stream. The RCT compares participant outcomes in these two streams to a comparison group, which receives free access to LinkedIn Learning digital content but without access to wraparound supports. In making these comparisons, we can assess the effectiveness of the virtual classroom and online stream individually. While the two ADaPT streams are not compared directly in this report, the *Final Report* will examine whether synchronous delivery and customized coaching offered in the virtual stream result in better participant outcomes compared to the online stream.

As Blueprint conducts the RCT, we continue to assess ADaPT's expansion beyond Toronto, Halifax, and Calgary to include Vancouver/Lower Mainland; ADaPT is now delivered in collaboration with four universities in three provinces. We also explore a version tailored to newcomers to help them navigate the Canadian IT job market.

Findings show ADaPT is reaching its target demographic, achieving high rates of satisfaction, and generating positive delivery experiences as it scales.

- **Program reach.** ADaPT continues to reach its target demographic of equity-deserving groups. Nearly all (**97%**) RCT participants belonged to one of its target demographics, including Indigenous Peoples, racialized people, people with disabilities, and those identifying as LGBTQ+ and women.
- **Participant satisfaction.** Most RCT participants in both streams (**78%–79%**)[8] were satisfied with the program and likely to recommend it (**79%–84%**). In interviews, participants noted that ADaPT was helpful for improving their professional and digital skills and for advancing their careers. They appreciated ADaPT's flexibility and accessibility, which fit with their work and personal commitments. Virtual stream participants especially valued the responsiveness of program instructors and career coaches.
- **Delivery experiences.** Staff and partners had positive experiences delivering ADaPT across Canada's west and Atlantic regions. They noted this was due to strong collaboration and consistent implementation. They also observed some noteworthy challenges: finding placements for international students (as they were not eligible for wage subsidies) and a slight decline in participant engagement in the virtual stream.

Findings from the RCT show ADaPT is contributing to positive effects on digital and professional skill gains and labour market outcomes:

- **Positive impact on digital and professional skills.** ADaPT virtual and online streams are having a positive impact on participants' self-assessments of skills, including career planning skills, office, business, and financial skills, written communications, and digital design skills (see pp. 16–18).
- **Increases in employment rates.** Participants in both ADaPT streams have higher rates of employment and employment in a digital role than participants in the comparison group (see pp. 18–20).
- **Positive impact on perceptions of job quality.** ADaPT is having positive impacts on job satisfaction, job-education matching, and opportunities for advancement for the virtual stream and a positive impact on job-education matches for the online stream (see pp. 23–25)

A *Final Report* will provide a more complete analysis using additional data from three- and nine-month follow-up surveys and long-term employment data from Statistics Canada. It will also examine how different subgroups of participants experience the program, providing us with a deeper understanding of ADaPT's effects and who may benefit most from participating.

8 According to the final survey administered by DI, the overall average satisfaction rate across RCT cohorts was 88%.

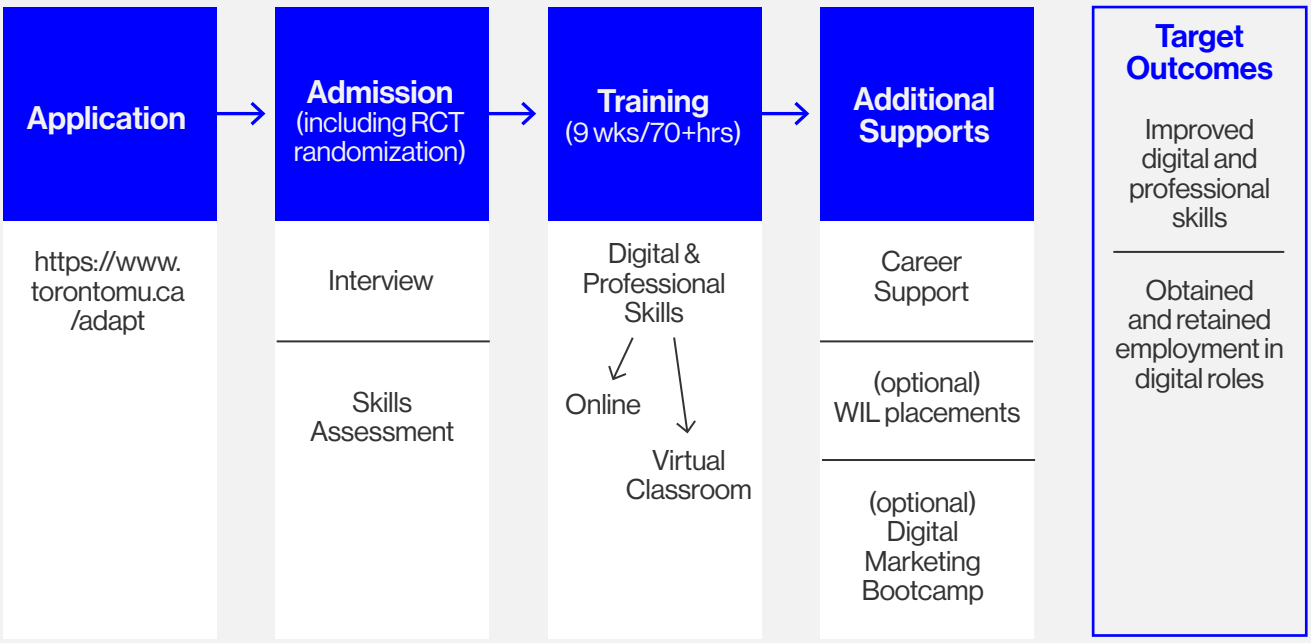
2. Implementation updates

2.1. ADaPT model summary

There have been no changes to the program model since the *Interim Report* (March 2024). Below, we summarize the ADaPT model; **Figure 1** details steps in the participant journey.

- ADaPT provides nine weeks (70+ hours) of training in digital literacy, communications, and research and business financials to post-secondary graduates and final-semester students.
- It includes optional paid work-integrated learning placements, digital marketing boot camps, and job search/career support to help participants obtain entry-level digital roles. ADaPT also engages employers to understand their hiring needs and strategies for creating inclusive work environments for equity-deserving groups.
- The RCT version of ADaPT is offered online only: as a synchronous virtual classroom and an asynchronous online stream. Its 'core' version covers a range of digital and professional skills; other versions have curriculums tailored to populations, skills, and roles.
- Delivery locations scaled beyond Toronto, Halifax, and Calgary to include Vancouver and Lower Mainland, BC.

Figure 1 | ADaPT participant journey



2.2. Cohort delivery

As of September 30, 2024, all **25** FSC-funded cohorts were delivered, including:

- **two pre-RCT 'core' cohorts** delivered at the beginning of the FSC funding timeframe (before the RCT);
- **twenty-two RCT cohorts** delivered as part of the experimental design (see details on the RCT in **sections 3.2** and **3.3**); and
- **one newcomer cohort** delivered to newcomers using an adjusted curriculum.

From October to December 2024, the program continued to engage employers to help participants receive job placements.

This *Interim Update* focuses on the **22** RCT cohorts. We discuss the pre-RCT 'core' and newcomer cohorts in case studies in this document due to their relatively small samples and differential treatment. We note whenever the two sets of analyses or populations are combined.

2.3. Data collection

As of August 2024, we interviewed **37** ADaPT participants from selected cohorts and held **seven** focus groups with partners and staff from **four** organizations (DI, TECHNATION, St. Mary's University, and Mount Royal University).

As of October 28, 2024, Blueprint collected research consent and baseline and exit surveys from all **25** FSC-funded cohorts. We also collected three-month follow-up surveys from **20 of 22** RCT cohorts and nine-month follow-up surveys from **18 of 22** RCT cohorts. Survey data collection concludes in June 2025. By the end of 2025, we will have access to Statistics Canada linkage data to track participants' long-term outcomes.

3. Learning agenda and methodology

3.1. Learning agenda

We provide updated data on the following questions:

- **Program reach.** Is the program reaching its target population?
- **Program experiences.** Do participants complete the program? Are they satisfied with it? What do they see as its strengths and areas for improvement?
- **Program impact.** Do program group participants have better outcomes than comparison group participants? How does this impact vary across participants and program streams?
- **Program implementation.** What challenges and successes occurred during program delivery? What resources are required for successful implementation?

3.2. Evaluating impact with an RCT

It is difficult to understand an intervention's effectiveness by examining its outcomes only—outcomes can be driven by non-program-related factors, including individual disposition, population-specific factors, and broader societal trends. In this RCT, however, individuals were randomly assigned to a 'program group' (where they received the intervention) or a 'comparison group' (where they proceeded with 'business-as-usual' services).[9] Participants were drawn from the same population, so random assignment should lead to groups with similar demographic characteristics. This similarity means that differences observed in outcomes should be attributable to participation in the program (the sole element that distinguishes each group). Comparing the difference between program and comparison groups via an RCT is widely considered the most credible way to assess a program's causal impact.

9 Note that this was not a 'control group' in the traditional sense that did not receive any training whatsoever. Our control group received access to LinkedIn Learning (free, self-paced digital skills training) along with all who enrolled in ADaPT, no matter the stream, consistent with best practices with dealing with diverse and vulnerable communities. The control group did not receive human guidance or wraparound support.

3.3. RCT design and participant sample

We used an RCT to test whether synchronous or asynchronous participation in ADaPT causes positive outcomes. These include self-assessed skill development, positive labour market experiences (such as employment in a digital role), and favourable employment-related experiences (such as higher earnings and perceptions of job quality). Below, we outline our consent and randomization process.

- Among the **22** RCT cohorts, **1,500** applicants were selected for the program. Of those **1,500**, **971** (**65%**) consented to participate in the research.[10]
- The **971** consenting applicants were then randomized[11] into one of three cohorts tied to specific programming groups (as shown in **Figure 2**, on the following page):

  1. Program Group #1: the synchronous (or "virtual classroom") stream;

  2. Program Group #2: the asynchronous (or "online") stream; and

  3. Comparison Group, in which participants did not take ADaPT but had six months of free access to self-paced digital skills training via LinkedIn Learning.

- We used a simple random assignment approach, where each group received **33%** of eligible applicants: **332** were assigned to program group #1 (**66%** consent rate); **333** were assigned to program group #2 (**66%** consent rate); and **306** were assigned to the comparison group (**61%** consent rate).
- This met our goal of **200** participants per group (or **600** total).

10 We included those who consented *pre-randomization* in our analysis regardless of whether they enrolled in or completed the program. When analyzing program completion and satisfaction, we looked only at enrolled participants.

11 ADaPT applicants to the RCT cohorts were initially allowed to consent after they had been randomized into the groups to maximize the number of participants. However, we saw a higher number of consenting applicants in the virtual and online program groups than the comparison group following randomization. This was problematic; having more late consenters in the program groups could skew findings as there could be unaccounted differences about late consenters compared to early consenters (e.g., they could be working and have less free time, and those working may be more likely to gain better employment after the program).

Figure 2 | ADaPT RCT Randomization Process

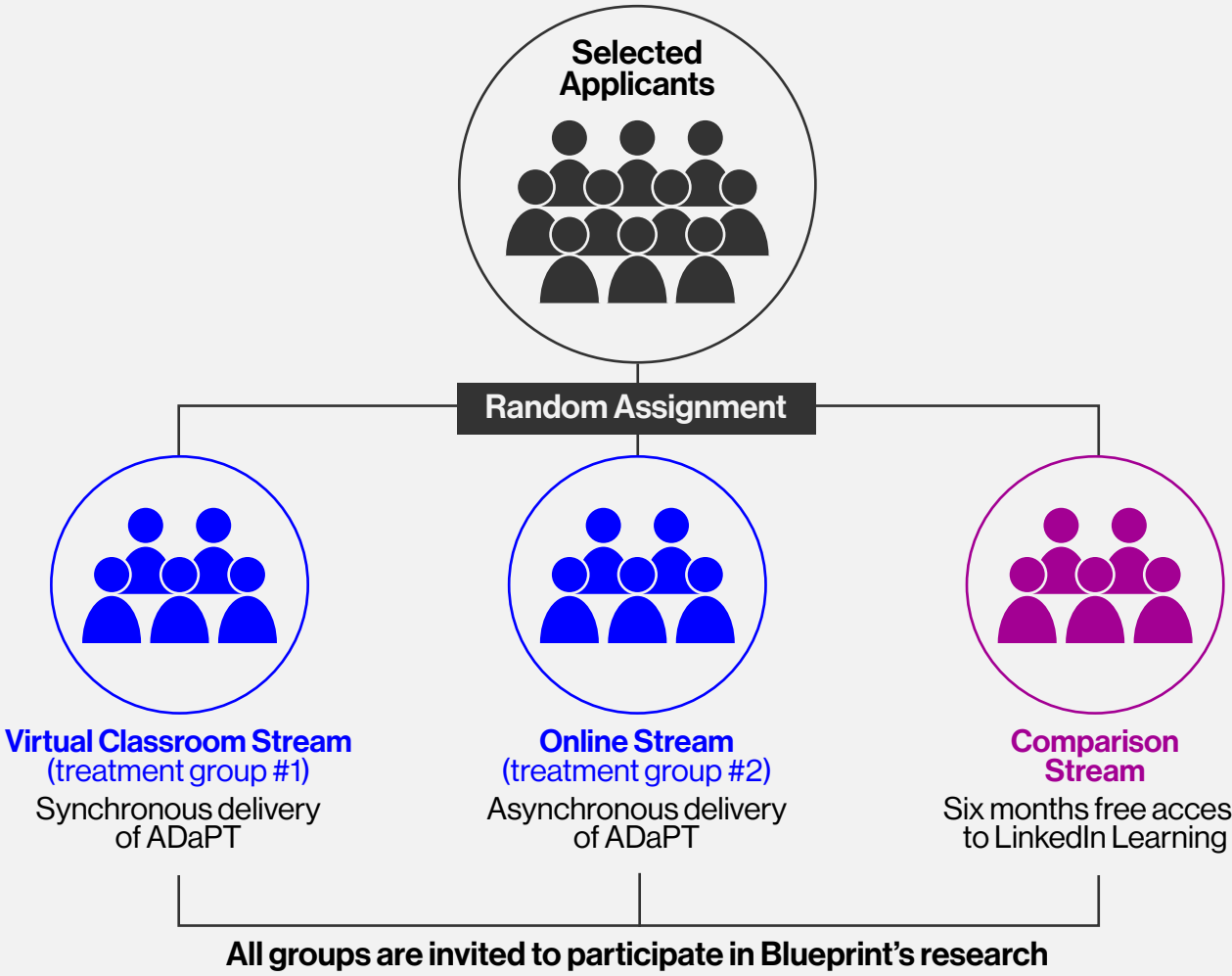


Table 1, on the following page, illustrates how random assignment is achieving balance across key socio-demographic characteristics. To address minor demographic differences between groups, baseline values were included as covariates in our analysis of key outcomes. These include baseline skill scores and baseline employment status. This means that any pre-existing differences between the groups on the key variables of interest are statistically accounted for in our analyses.

| Table 1 | Key socio-demographic characteristics of RCT cohort participants

Category	Characteristic	Comparison (n=306)	Online (n=333)	Virtual (n=332)
Equity -deserving groups[12]	LGBTQ+*	**14%** (43)	**15%** (50)	**15%** (49)
	Indigenous Peoples	**1%** (3)	**2%** (5)	**1%** (3)
	Racialized people	**85%** (259)	**85%** (283)	**82%** (273)
	Disability	**12%** (37)	**16%** (54)	**12%** (41)
	Woman+**	**61%** (188)	**62%** (206)	**64%** (212)
	Any of the above	**96%** (295)	**98%** (327)	**97%** (321)
Age	20–24	**32%** (98)	**38%** (127)	**41%** (136)
	25–29	**35%** (106)	**28%** (93)	**29%** (96)
	30–34	**15%** (47)	**14%** (47)	**13%** (42)
	35–39	**9%** (28)	**6%** (21)	**8%** (27)
	40+	**8%** (26)	**13%** (44)	**9%** (31)
Migration	Born in Canada	**30%** (93)	**35%** (117)	**31%** (102)
	Immigrant (>=5 years in Canada)	**35%** (108)	**28%** (92)	**33%** (108)
	Newcomer (<5 years in Canada)	**34%** (105)	**37%** (124)	**37%** (122)
Education (highest level completed)	College, CEGEP, or other non-university certificate or diploma	**5%** (16)	**4%** (13)	**7%** (24)
	High school diploma or equivalency certificate	**7%** (21)	**5%** (15)	**7%** (23)
	No certificate, diploma, or degree	**0%** (1)	**0%** (0)	**0%** (1)
	Registered apprenticeship or other trades certificate or diploma	**0%** (1)	**0%** (0)	**0%** (0)
	University bachelor's degree (e.g., B.A., B.A. (Hons.), B.SC., B.Ed., LL.B.)	**54%** (164)	**56%** (188)	**53%** (176)
	University certificate, diploma, or degree above bachelor level	**27%** (83)	**29%** (98)	**27%** (91)
	University certificate, diploma, or degree below bachelor level	**7%** (20)	**6%** (19)	**5%** (17)
Employment	Employed	**49%** (150)	**50%** (167)	**49%** (162)
	Unemployed (employed previously)	**49%** (149)	**46%** (154)	**47%** (156)
	Not previously employed	**2%** (7)	**4%** (12)	**4%** (14)
Financial assistance	Receiving EI	**7%** (21)	**4%** (14)	**6%** (20)
	Receiving other Social Assistance	**4%** (12)	**7%** (22)	**5%** (15)
	None of the Above	**89%** (273)	**89%** (297)	**89%** (297)

Source. Baseline survey.

* Includes anyone who said they were gay or lesbian, bisexual or pansexual, transgender, or gave an alternative sexuality.

** Includes respondents who identified as having a gender that is not male, including female, non-binary, and agender. As an analytical category, it intends to represent individuals who may experience systemic barriers due to their gender without compromising respondent privacy.

12 Participants may be part of more than one equity-deserving group. The "any of the above" category counts participants who identified as being in any of the listed equity-deserving groups.

3.4. Data sources and sample sizes

DI collected administrative data (on program enrolment and program completion); all other data were administered by Blueprint. **Table 2** shows our data sources and sample sizes for the RCT cohorts. See **sections 4.5** and **4.6** for sources and sample sizes for the pre-RCT 'core' and newcomer cohorts.

Because the baseline survey contained the research consent form, only baseline surveys that were submitted by consenting participants were counted in the data and used in the analysis. We also considered submitted surveys only for the later three surveys for consistency and data quality.

| Table 2 | Data sources and sample sizes for RCT cohorts (as of Oct 28, 2024)

Data sources and sample sizes	Comparison	Online	Virtual	Total	Description
Administrative data: Enrolment (number of selected applicants; those qualified and randomized into a group)	501	502	497	1,500	Collected program enrolment and completion rates.
Submitted baseline survey*	**61%** (306/501)	**66%** (333/502)	**66%** (332/497)	**65%** (971/1,500)	Captured participant characteristics and skills with the program interview invite.
Submitted exit survey (out of selected applicants who consented to evaluation)	**64%** (197/306)	**78%** (259/333)	**73%** (243/332)	**72%** (699/971)	Captured participant satisfaction and outcomes at the end of training.
Submitted three-month follow-up survey** (out of selected applicants who consented to evaluation)	**77%** (199/259)	**79%** (222/280)	**78%** (218/278)	**78%** (639/817)	Administered three months post-training to capture participant outcomes.
Submitted nine-month follow-up survey** (out of selected applicants who consented to evaluation)	**67%** (137/206)	**73%** (166/227)	**62%** (138/222)	**67%** (441/655)	Administered nine months post-training to capture participant outcomes.
Participant interviews	N/A	12	13	25	Semi-structured interviews with selected participants of selected cohorts through purposive sampling at the end of training; gathered program experiences and outcomes.
Partner/staff focus groups				7	Conducted at the midpoint and end of the project to collect implementation and delivery experiences. Data collected from focus groups apply to all types of cohorts.

* The baseline survey was preceded by a research consent form, meaning all participants who completed the baseline survey were invited to complete later surveys.
** Denominators for three- and nine-month surveys are lower than denominators for the exit survey because, at the time of data collection, certain cohorts had not yet reached the three- or nine-month mark. Our analysis excludes three-month survey data from the May 2024 and July 2024 cohorts and nine-month survey data from all four 2024 cohorts. All RCT analyses in this report use this sample for clarity and consistency.

Survey data were the primary means of assessing outcomes (as described in **Appendix A**). The surveys included questions about participants' demographic information, such as age, gender, racialized/Indigenous status, immigration status, disability and LGBTQ+ status (baseline), program satisfaction (exit), self-perceived skills (baseline and exit), employment and education/training status (all surveys), and employment characteristics (all surveys). Survey questions were developed as key outcome indicators, unique to this analysis and drawn from our common outcomes framework. See **Appendix B** for categories, indicators, and descriptions.

3.5. Data limitations

Findings in this report should be interpreted within the context of certain limitations.

- **Survey attrition:** Response rates declined over time, which may obscure participant outcomes across survey periods. However, an attrition-by-demographic analysis showed that attrition rates were relatively similar across demographic groups. This limitation may be mitigated by examining outcomes for all consenting participants via StatCan data linkage, which does not rely on participants' active engagement. Linkage data available before October 2025 will be included in our *Final Report*, while full-sample data linkage will be accessible to researchers in the StatCan virtual lab in 2026.
- **Different response rates between program and comparison groups:** Program group members were more likely to respond to surveys than comparison group members. Our analysis thus provides a more accurate picture of outcomes for the program group. This limitation can be further addressed through StatCan data linkage, as described above, since this method does not rely on active participation from comparison group members.
- **Self-perception data:** Our assessment of participant skills in the baseline and exit surveys was based on self-report data and did not involve observation of participant skills or the use of validated scales. It is therefore possible that participants did not perceive their skills accurately at one or both timepoints, and this should be kept in mind when interpreting results.

4. Updated insights

Our findings are divided into the following sections:

- Survey data for RCT cohorts: **sections 4.1, 4.2**, and **4.3**.
- Survey data for the pre-RCT 'core' cohort and newcomer cohort: **sections 4.5** and **4.6**.
- Findings on program experiences for the RCT and pre-RCT 'core' cohorts: **section 4.2**.
- Findings on program experiences for the newcomer cohort: **section 4.6**.
- Findings on program implementation for all cohorts: **section 4.4**.

4.1. Program reach

Is the program reaching its target population?

The RCT cohorts reached their enrolment targets. The total RCT enrolment was **1,500** participants, surpassing our **800**-person target by **87.5%**.

The RCT cohorts reached their target population of individuals from equity-deserving groups, including Indigenous Peoples, racialized people, members of the LGBTQ+ community, persons with disabilities, and women. As shown in **Table 3**, on the following page, **97%** (**943/971**) of baseline survey respondents belonged to at least one of these groups, surpassing our target of **75%.** To be eligible for ADaPT, applicants must have graduated from a post-secondary program or be enrolled in their final semester. Unsurprisingly, a high proportion of participants had a post-secondary degree (**94%**). Most (**82%**) had a bachelor's degree or higher.

Among equity-deserving groups, Indigenous Peoples were the most under-represented; whereas Indigenous Peoples make up **5%** of the Canadian population, recruitment totaled **1%**.

| Table 3 | Participant characteristics[13]

Categories		Percentage and proportion of respondents (n=971)
Age	Youth (≤29)	**68%** (656)
Equity-deserving groups	Racialized people	**84%**(815)
	Indigenous Peoples	**1%** (11)
	LGBTQ+*	**15%** (142)
	Persons with disabilities	**14%** (132)
	Women	**62%** (606)
Immigration status	Newcomers**	**36%** (351)
Education	Bachelor's degree and above	**82%** (800)
	Any post-secondary education	**94%** (910)

Source. Baseline survey.
* Includes anyone who said they were gay or lesbian, bisexual or pansexual, transgender, or gave an alternative sexuality.
** Includes anyone who arrived in Canada in the past five years of data collection.

4.2. Program experiences

Do participants complete the programming?

Among RCT participants, **80%** completed ADaPT. Participants in the virtual (synchronous) stream were slightly more likely to complete (**82%**) than those in the online (asynchronous) stream (**77%**), as shown in **Table 4**.

| Table 4 | Rates of program completion[14]: RCT cohorts

Stream	Percent and number completed
Online	**77%** (250/323)
Virtual	**82%** (260/317)
All	**80% (510/640)**

Source. Administrative data.

13 Including RCT participants who consented to the research after randomization in the analyses does not substantially change the characteristics of the sample.

14 Examining administrative data of all enrolled participants (including those who did not consent to the research) shows that program completion rates for our research sample were similar to those of all enrolled participants.

Are participants satisfied with the program? What do they see as its strengths and areas for improvement?

Respondents in the RCT program cohorts were largely satisfied with ADaPT. For all questions, virtual stream respondents were more positive than online stream respondents. As shown in **Table 5** and **Figure 3** (below):

- **76%** of online and **78%** of virtual participants were 'somewhat' or 'very' satisfied.
- **79%** of online and **84%** of virtual participants said they were 'likely to,' 'very likely to,' or 'had already' recommended ADaPT to others.
- **73%** of online and **78%** of virtual participants felt it was 'fairly' or 'very' useful for improving professional skills.
- **67%** of online and **75%** of virtual participants felt it was useful for career coaching and support.
- **74%** of online and **79%** of virtual participants felt it was useful for improving digital skills.

| Table 5 | Participant satisfaction and perceptions of utility in the RCT cohorts[15]

Component		Negative*	Neutral**	Positive***
Overall satisfaction	Online	16%	9%	76%
	Virtual	13%	9%	78%
Likelihood of recommending	Online	8%	13%	79%
	Virtual	6%	10%	84%
Professional utility	Online	3%	24%	73%
	Virtual	3%	19%	78%
Career coaching utility[16]	Online	8%	25%	67%
	Virtual	4%	20%	75%
Digital skills utility	Online	3%	23%	74%
	Virtual	2%	19%	79%

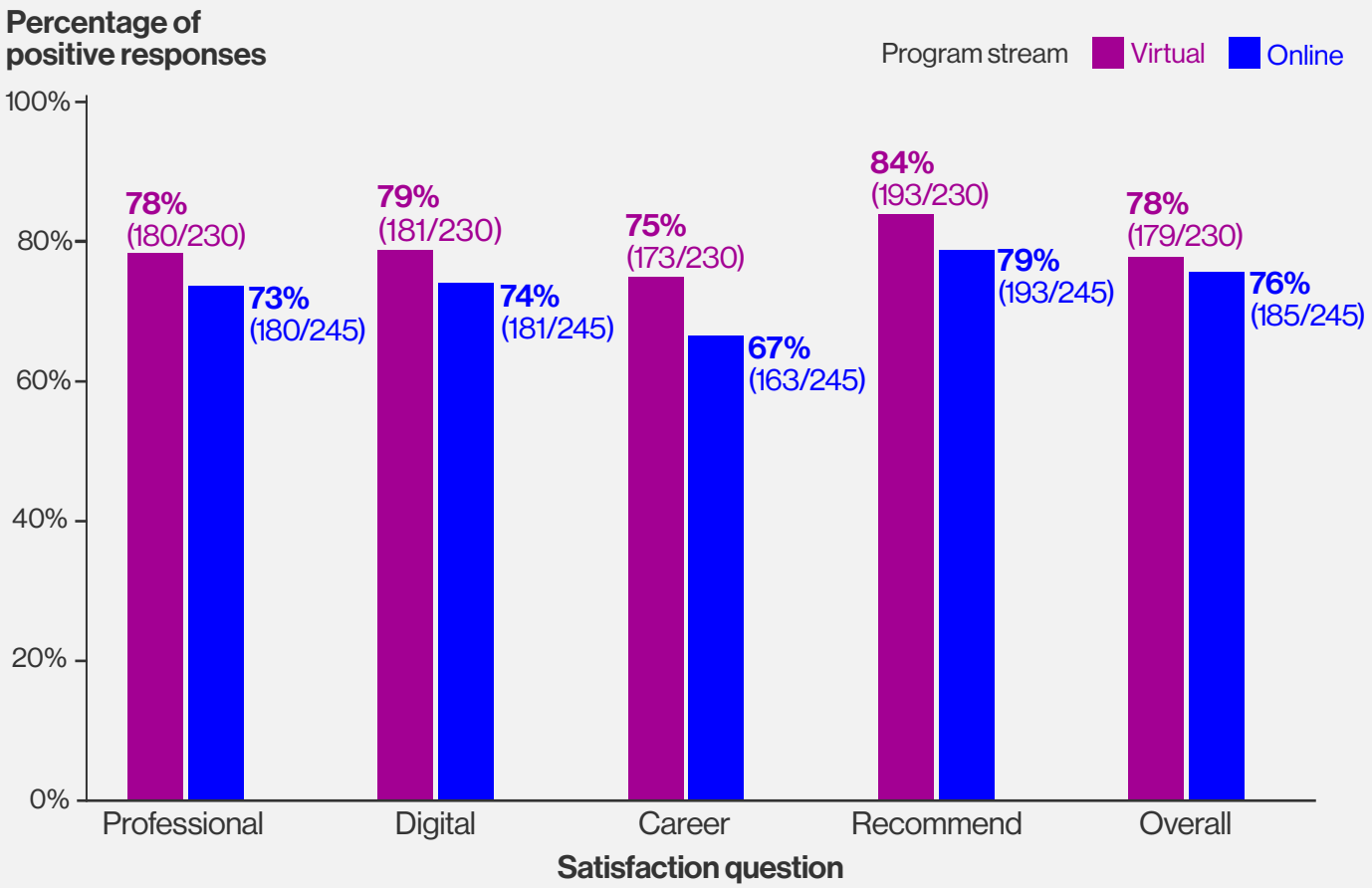
Source. Exit survey.

* Includes "Very dissatisfied" and "Somewhat dissatisfied" (for overall satisfaction); "Very unlikely to recommend" and "Unlikely to recommend" (for likelihood of recommending) and "Not useful" (for utility-related questions).
** Includes "Neither satisfied nor dissatisfied"; "Neither likely nor unlikely"; and "a little useful."
*** Includes "Somewhat satisfied" and "Very satisfied"; "Likely to recommend," "Very likely to recommend," and "I've already recommended ADaPT"; and "Fairly useful" and "Very useful."

15 Program satisfaction rates for our sample were similar to those of all participants who enrolled and consented to be part of the study.

16 Notably, the amount of career coaching varied based on stream: virtual stream participants received an unlimited amount, whereas online stream participants received weekly one-hour sessions in which all participants came together as a group.

| Figure 3 | Participant satisfaction and perceptions of utility in the RCT cohorts



Source. Exit survey.

In interviews, participants described ADaPT as flexible and accessible. They saw it as useful for developing digital and professional skills and knowledge and for supports in service of their career goals. We conducted semi-structured interviews with **33** participants to collect their feedback on program experience, including strengths and areas for improvement. We interviewed **25** from the RCT cohorts and **eight** from pre-RCT core cohorts (**17** virtual stream participants and **16** online stream participants).

Participants noted the following strengths:

- **Dual focus on technical and soft skills.** ADaPT puts equal emphasis on training for essential ('soft') and in-demand technical ('hard') skills. This was done to help participants develop well-rounded skillsets to effectively navigate their career paths. Participants felt that this dual focus would help them grow their own businesses, navigate their current workplaces, pursue career advancement, and transition into the IT sector.
- **Highly knowledgeable, experienced, and approachable instructors.** Virtual stream participants shared that their instructors were knowledgeable and passionate and presented topics clearly. Instructors were highly approachable and responsive to participant needs. They were open to one-on-one calls and personal guidance to support learning difficulties and career uncertainties and to share additional resources.

- **One-on-one, customized support from career coaches.** Virtual stream participants felt that one of ADaPT's greatest strengths was the one-on-one supports from career coaches. Participants shared that their career coaches understood their career needs and aspirations. They offered tailored feedback and strategies to apply to their job search. In some cases, career coaches connected participants with employers and recruiters for jobs or informational interviews. Some participants attributed their success in securing employment to their career coach.
- **Accessible and flexible learning opportunities.** Participants in both online and virtual learning streams appreciated the free access to training and flexible learning (self-paced for online, remote classrooms for virtual). Many noted this allowed them to pursue training while balancing work and personal life commitments (e.g., childcare).
- **Valuable job search supports.** Participants in both learning streams expressed that ADaPT equipped them with valuable job search skills, including for networking, personal branding, and resume building. These skills helped participants articulate their strengths and tailor resumes based on job descriptions. Participants also shared that they learned how to navigate the "hidden job market" by optimizing LinkedIn and social media platforms to network with employers.
- **Employer sessions offered valuable connections.** Participants in both learning streams shared that the employer sessions gave them valuable insights into the labour market. This included information about available jobs, recruitment processes, and employer skills needs. Some participants were able to make further connections with employers and recruiters on LinkedIn, engage in mock and informational interviews, and receive feedback on their resumes.
- **The virtual stream was preferred by some participants.** Virtual stream participants enjoyed the interactivity of the virtual classroom sessions. They could engage with each other and instructors through tools such as Miro (a web-based planning and visualization board) and group-based activities that enabled hands-on learning. Participants shared learnings and experiences and provided feedback during in-class activities.
  - RCT cohort participants were randomly assigned to a stream and did not indicate their preference. After assignment, most online stream participants we interviewed expressed a desire to be in the virtual stream due to the interactive teaching style, in-class peer interaction, and immediate feedback from facilitators and classmates.

Participants also noted the following opportunities for improvement:

- **Clearer program communications.** Participants mentioned that communications from staff could sometimes lack clarity about purpose, level of commitment, and intended audience. Participants expected more administrative details about the depth of the content (the extent of advanced training), delivery dates, difficulty levels, and time commitment, especially in the online stream. Some participants from STEM backgrounds did not realize the program was intended for those in non-STEM fields and found the digital courses too basic. They recommended that courses should be optional, enabling them to select training suited to their needs and interests.
- **Increase peer interaction.** Participants in the virtual stream found peer interaction valuable (for sharing life and career experiences and receiving feedback). DI's 'accountability buddy system' paired

participants with others in their geographic region and encouraged in-person meetings and drop-in study sessions. However, they noted that interactions were confined to the live training sessions, with limited opportunities to engage outside the program. Those in the online stream appreciated that career coaches encouraged them to connect with others through LinkedIn and social media, but noted the absence of peer interaction in the stream itself made it difficult to build relationships.

- **Facilitate clearer instructions and progress checks online.** Online stream participants we interviewed appreciated the quality and thoroughness of the resources. Most noted, however, that self-directed learning could create challenges due to the absence of instructors to guide them through complex technical topics. Participants also mentioned it was difficult to measure progress due to a lack of feedback and/or performance reviews on assignments and activities. Though ADaPT offered quizzes, knowledge checks, and interactive activities, participants recommended integrating additional exercises to help them remain engaged in their learning journeys.
- **Reduce curriculum intensity.** Some participants, especially those from non-STEM fields, felt that some digital skills courses were too dense (in contrast to the experiences of those from STEM fields, noted above). Despite ADaPT being designed for those from non-STEM fields, some participants found it difficult to retain lesson content. Participants in the virtual stream found the three-hour training sessions tiring, especially after work. Those in the online stream expressed that the self-directed courses could be intensive and had tight deadlines for assignments. Participants in both streams suggested dividing the sessions and modules into smaller parts to make learning easier.
- **Expand and refine the ADaPT job board.** Most interviewees from the ADaPT core and ADaPT for newcomer cohort who accessed the job board shared that the platform contained diverse job opportunities. However, they also felt that job postings were too entry-level (i.e., low-paying, part-time, or contract positions). These opportunities were not aligned with their interests, qualifications, or work experience. Some had citizenship/permanent residence requirements. Participants requested access to other job search websites and platforms.

4.3. Program impact

Do program group participants have better outcomes than comparison group participants? How does this impact vary across program streams?

This section estimates the causal effects of ADaPT. We estimate its effects on participants in the program groups (virtual and online) compared to the comparison group over time. Whenever possible, we account for participants' baseline outcomes to provide a clearer picture of changes linked to the program.

Each regression table includes the following details, which help us interpret results clearly and understand the program's effects.

The effect estimate	**Standard error**	**P-value**	**Confidence intervals**
shows how much the outcome changes based on group membership (program [online/virtual streams] vs. comparison).	shows how much the results vary. Larger standard errors mean the effect must be larger for us to trust the result.	tells us how likely the result is due to chance. Smaller values mean more confidence that the result is real.	show the range where the true result likely falls. Narrow ranges indicate more certainty; wide ranges suggest caution.

4.3.1. Digital and professional skills

ADaPT appears to have positive effects on participants' self-assessed skills, as shown in **Table 6**. Respondents completed a questionnaire before and after participation. Questions were grouped into career planning skills (eight questions), digital office skills (three questions), digital design skills (seven questions), business financial skills (three questions), verbal communication (seven questions), and written communication (four questions). All used a 5-point Likert scale; response options ranged from 'strongly disagree' to 'strongly agree.' As mentioned in **section 3.5**, it is possible that there was bias present in participants' self-perception at one or both timepoints. This should be kept in mind when interpreting the results.

Table 6 shows the average scores at intake and exit and the difference between them, grouped by stream. While participants' self-assessed skills improved in most skill categories, they generally improved more for those in ADaPT program groups.

| Table 6 | Changes in reported skills between baseline and exit survey

Analysis stream	Career planning			Digital skills office			Digital skills design			Business financial			Verbal communication			Written communication		
	Intake	exit	change	Intake	exit	change	Intake	exit	change	Intake	exit	change	Intake	exit	change	Intake	exit	change
RCT comparison (n=191)	3.6	3.7	0	3.9	4.0	0.1	3.0	3.3	0.2	3.5	3.6	0.1	4.2	4.1	0	4.2	4.1	-0.1
RCT online (N=255)	3.6	4.0	0.4	3.9	4.1	0.2	3.0	3.7	0.8	3.6	3.8	0.2	4.2	4.1	-0.1	4.1	4.2	0
RCT virtual (N=238)	3.7	4.0	0.3	4.0	4.2	0.2	3.1	3.7	0.6	3.5	3.7	0.2	4.2	4.2	-0.1	4.2	4.1	0

Source. Baseline and exit surveys (consented to research pre-randomization)

Regression results (**Table 7**, below) show ADaPT had a medium effect on digital design skills for participants in online and virtual streams. For other skills—career planning, digital office skills, business and financial skills, and written communication—ADaPT had a small or very small positive effect for both groups. We observe low p-values for most skills, indicating a high level of confidence in the findings. We observe no substantial differences between groups in verbal communication skills.

Regression analysis accounts for participants' baseline scores for each outcome. The effect estimate column shows the average difference in scores linked to each program group.

| Table 7 | Differences in reported skills between baseline and exit survey

Skills outcomes	Stream	Effect estimate (for coefficient of T)	Standard Error	P-value	Confidence interval (95% CI)
Career planning	Online	0.317	0.057	<.001***	(0.205, 0.430)
	Virtual	0.337	0.058	<.001***	(0.223, 0.451)
Digital skills: Office	Online	0.101	0.059	0.085	(−0.014,0.216)
	Virtual	0.125	0.059	0.036*	(0.008, 0.242)
Digital skills: Design	Online	0.510	0.061	<.001***	(0.390, 0.630)
	Virtual	0.433	0.062	<.001***	(0.312, 0.555)
Business skills: Financial	Online	0.146	0.073	0.045*	(0.003, 0.289)
	Virtual	0.160	0.074	0.030*	(0.015, 0.305)
Communication skills: Verbal	Online	-0.020	0.047	0.673	(-0.113, 0.073)
	Virtual	-0.008	0.048	0.873	(-0.102, 0.086)
Communication skills: Written	Online	0.104	0.056	0.061	(-0.005, 0.213)
	Virtual	0.123	0.056	0.030*	(0.012, 0.233)

Source. Baseline and exit surveys (consented to research pre-randomization); $p > 0.05$,* $p \leq 0.05$,** $p \leq 0.01$, *** $p \leq 0.001$.

4.3.2. Labour market outcomes

We consider labour market outcomes for the three groups at each survey timepoint. We estimate the effect of programming using a regression model at nine months.

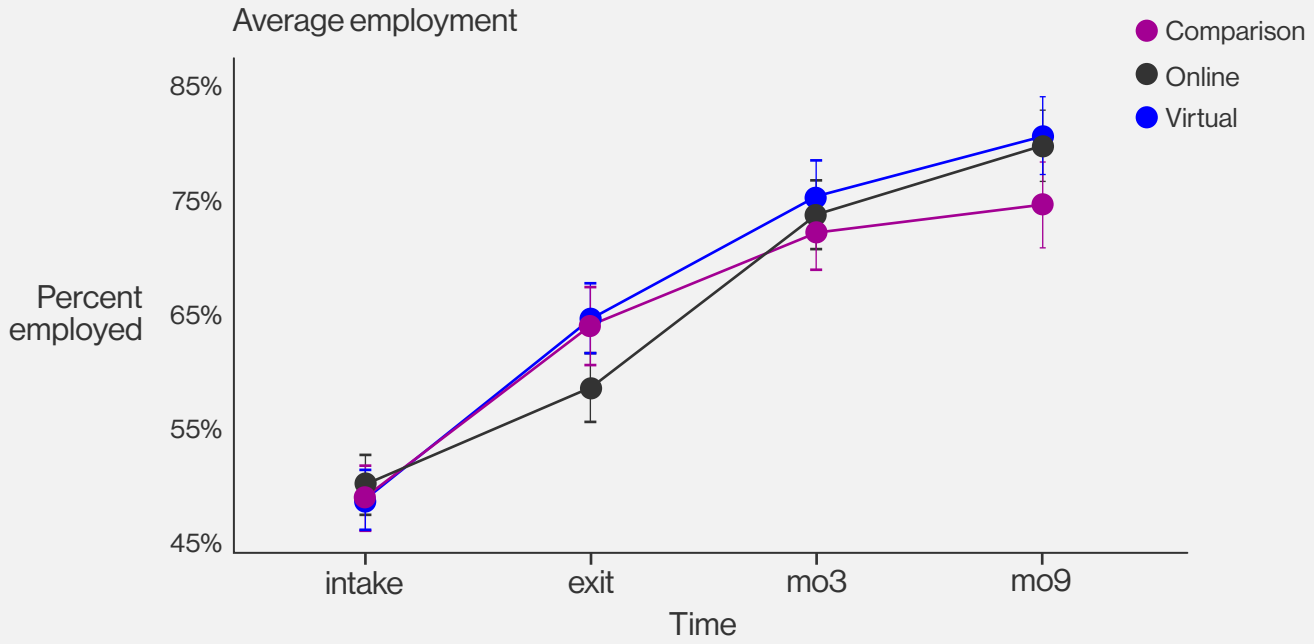
Employment

Employment increased over time for all three groups but more so for the program groups. ADaPT appears to have positive effects on employment rates nine months post-program (as shown in **Figure 4**, below), though there is still uncertainty around this effect.

Participants were asked about their employment status at each timepoint. We defined employment as participants answering "yes" to earning income from a job or business (as an employee or self-employed) in the past week in their survey responses. In program groups, employment rose from **50%** at the start to **80%**[17] nine months post-program (**30–31 percentage point** increases). In the comparison group, it increased from **49%** to **74%** (a **25-percentage point** increase). At nine months, **80%** of respondents from the program groups were employed compared to **74%** in the comparison group—a **6 percentage point** difference.[18]

Figure 4 shows the percentage of participants employed in the program and comparison groups at each timepoint.

| Figure 4 | Average employment rates



Source. Baseline, exit, three-month, and nine-month surveys (consented to research pre-randomization)

17 According to the participant data DI collected through several touchpoints, RCT participants' employment rate was 84.9%.

18 Placement rates may be higher based on survey completion drop-offs.

Our regression model (**Table 8**) estimates that ADaPT improves participants' chances of being employed nine months post-program. However, p-values and confidence intervals indicate uncertainty around this effect; additional data will improve confidence. Participating in online or virtual streams increases the likelihood of being employed by approximately **6.4** or **6.9 percentage points** (respectively) at the nine-month mark. Both streams are approximately evenly effective.

| Table 8 | Regression coefficients for employment nine-months post-program

Labour outcome	Stream	Estimate (for coefficient of T)	Standard error	P-value	Confidence interval (95% CI)
Employment	Online	0.064	0.046	0.166	(-0.027, 0.154)
	Virtual	0.069	0.048	0.153	(-0.026, 0.163)

Source. Baseline, exit, three-month, and nine-month surveys (consented to research pre-randomization); $p > 0.05$,* $p \leq 0.05$,** $p \leq 0.01$, *** $p \leq 0.001$.

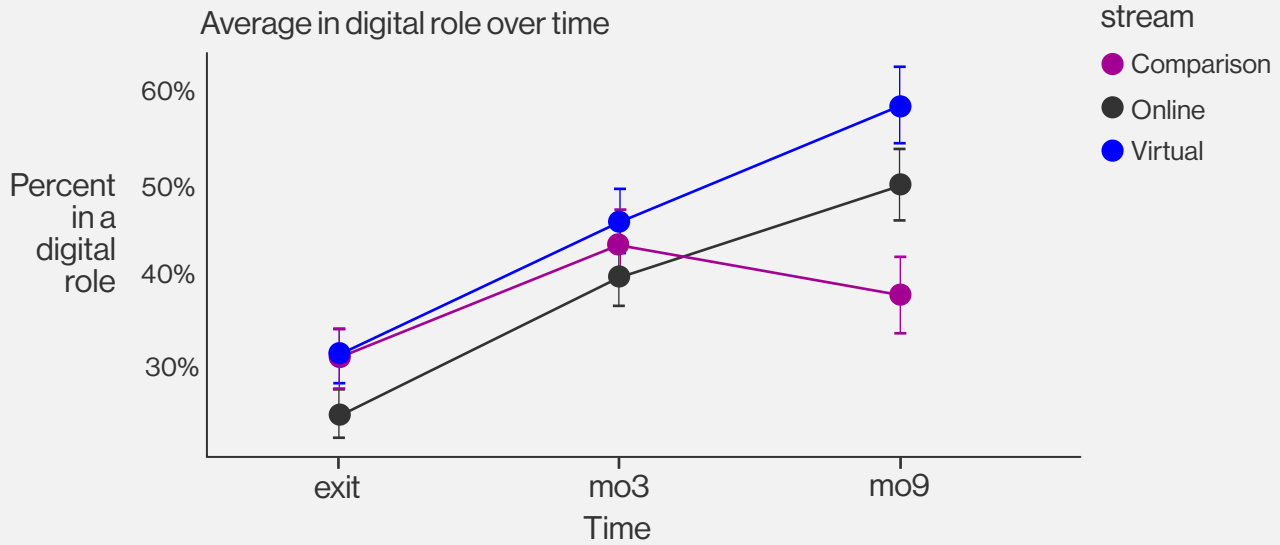
Employment in a digital role

ADaPT has positive effects on employment in digital roles nine months post-program. While the proportion of participants in digital roles increased universally, program participants were much more likely to have digital jobs. One of ADaPT's goals is to prepare participants for digital roles—jobs that require digital skills and contribute to designing or delivering digital services. At nine months post-program:

- The virtual stream increased from **31%** to **59%** (**+28 percentage points**).
- The online stream increased from **25%** to **50%** (**+25 percentage points**).
- The comparison group increased from **31%** to **38%** (**+7 percentage points**).
- At nine months, **38%** of employed participants in the comparison group had digital jobs compared to **50%** in the online stream (**12 percentage points** higher) and **59%** in the virtual stream (**21 percentage points** higher).

Figure 5 shows the percentage of participants in digital roles at each timepoint.

| Figure 5 | Employed in digital roles



Source. Exit, three-month, and nine-month surveys (consented to research pre-randomization)

Regression results (**Table 9**) estimate that program participants are more likely to be in digital roles nine months post-program compared to those in the comparison group. Those in the online stream were **12.3 percentage points** more likely and those in the virtual stream were **21.6 percentage points** more likely.

| Table 9 | Regression coefficients for employment in a digital role at 9-months post-program

Labour outcome	Stream	Estimate (for coefficient of T)	Standard error	P-value	Confidence interval (95% CI)
Digital role	Online	0.123	0.063	0.052	(-0.001, 0.248)
	Virtual	0.216	0.066	0.001***	(0.087, 0.346)

Source. Exit, three-month, and nine-month surveys (consented to research pre-randomization); $p > 0.05$,* $p \leq 0.05$,** $p \leq 0.01$, *** $p \leq 0.001$.

Earnings

While earnings for all three groups increased over time, ADaPT itself does not appear to affect earnings (effects may emerge over longer timeframes). For each survey, participants were asked to report earnings for all jobs worked (we excluded participants who reported earning less than $2,000 or more than $250,000 per year). As shown in **Table 10**:

- Median earnings in the comparison group grew from **$24,960** to **$48,152** nine months after (a **$23,192** increase).
- In the online stream, median earnings increased from **$21,840** to **$48,000** nine months after the program (a **$26,160** increase).
- In the virtual stream, median earnings rose from **$23,754** to **$49,200** nine months after the program (a **$25,446** increase).

Table 10 shows the median earnings for participants in the program and comparison groups at each time point.

| Table 10 | Participant earnings at all timepoints

Time	Comparison (C) (median)	Online (O) (median)	Virtual (V) (median)	Difference for online vs. comparison (O-C) (and % increase/decrease)	Difference for virtual vs. comparison (V-C) (and % increase/decrease)
Baseline	$24,960	$21,840	$23,754	-$3,120 (-12%)	-$1,206 (-5%)
Exit	$41,600	$29,700	$36,400	-$11,900 (-29%)	-$5,200 (-12%)
Three-month	$44,200	$43,680	$41,600	-$520 (-1%)	-$2,600 (-6%)
Nine-month	$48,152	$48,000	$49,200	-$152 (0%)	$1,048 (-2%)

Source. Baseline, exit, three-month, and nine-month surveys (consented to research pre-randomization)

Regression results (**Table 11**) predict that ADaPT participants (online and virtual) have approximately the same annual income nine months later as those who do not participate. While program streams saw larger earnings increases than the comparison group, all groups showed high variability in earnings. This makes it unclear whether these differences are due to the program or chance.

High rates of employment in digital roles suggest there may be future increases in earnings that are not yet visible in the current data. Our *Final Report* will explore this further using the full set of nine-month survey results. Additionally, linking to tax data from StatCan may provide a clearer picture of long-term earnings beyond the nine-month timeframe.

| Table 11 | Regression coefficients for earnings at nine-months post-program

Labour outcome	Stream	Coefficient estimate	Standard error	P-value	Confidence interval (95% CI)
Earnings	Online	−$179.431	$3,364.75	0.958	(-6799.109, 6440.248)
	Virtual	$1,090.83	$3,495.07	0.755	(-5785.229, 7966.895)

Source. Baseline, exit, three-month, and nine-month surveys (consented to research pre-randomization); $p > 0.05$,* $p \leq 0.05$,** $p \leq 0.01$, *** $p \leq 0.001$.

Permanent, full-time employment

While permanent, full-time employment (FTE) grew for all groups, ADaPT does not appear to affect FTE. In each survey, employed participants were asked if their jobs were temporary, seasonal, or casual. Those who answered 'no' to all three and worked at least 30 hours per week were classified as having FTE. As shown in **Table 12**, nine months post-program:

- in the comparison group, FTE increased from **9%** to **42%** (**+33 percentage points**);
- in the online stream, FTE grew from **7%** to **39%** (**+32 percentage points**); and
- in the virtual stream, FTE rose from **9%** to **41%** (**+32 percentage points**).
- At nine months, **42%** of employed participants in the comparison group had FTE compared to **39%** in the online stream (**3 percentage points** lower) and **41%** in the virtual stream (**1 percentage point** lower).

Table 12 shows the percentage of participants in permanent FTE at each survey point.

| Table 12 | Permanent FTE at all timepoints

Timepoint	Comparison (C) (%)	Online (O) (%)	Virtual (V) (%)	% point difference: Online (O-C)	% point difference: Virtual (V-C)	% increase/ decrease in the likelihood of outcome (employment): Online	% increase/ decrease in the likelihood of outcome (employment): Virtual
Baseline	9%	7%	9%	-2%	0%	-18%	2%
Exit	18%	16%	18%	-2%	0%	-13%	2%
Three-month	28%	33%	27%	5%	-2%	16%	-6%
Nine-month	42%	39%	41%	-3%	-1%	-8%	-2%

Source. Baseline, exit, three-month and nine-month surveys (consented to research pre-randomization)

Regression results (**Table 13**) estimate the effect of ADaPT streams on permanent FTE compared to the comparison group. Very small effect estimates and high p-values indicate the program is not affecting this outcome at nine months.

| Table 13 | Regression coefficients for permanent FTE status at nine-months post-program

Labour outcome	Stream	Estimate (for coefficient of T)	Standard error	P-value	Confidence interval (95% CI)
Full-time permanent employment	Online	−0.014	0.056	0.804	(-0.124, 0.096)
	Virtual	−0.006	0.058	0.924	(-0.12, 0.109)

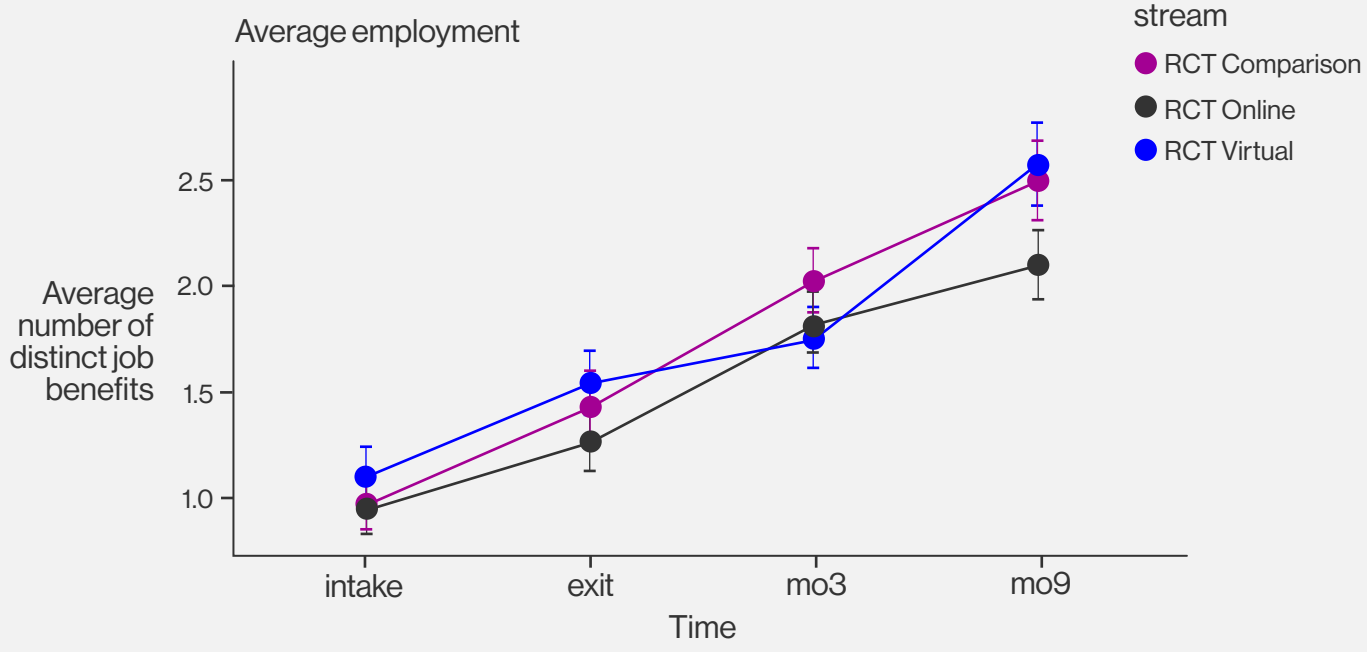
Source. Baseline, exit, three-month, and nine-month surveys (consented to research pre-randomization); $p > 0.05$, * $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$.

Job quality: Benefits

Although participants in all three groups reported more benefits over time, ADaPT does not appear to affect this outcome. In each survey, employed participants were asked about their job benefits, selecting from a list including health insurance, dental insurance, life/disability insurance, a pension plan, and at least two weeks of paid vacation. As shown in **Figure 6**, employed participants in all groups had an average of **one** benefit at intake. Nine months post-program, those in the virtual stream and comparison group had approximately **2.5** benefits; those in the online stream averaged slightly over **two** benefits.

Figure 6 shows the average number of benefits for each group over time among participants who were employed at that timepoint.

| Figure 6 | Job benefits



Source. Baseline, exit, three-month, and nine-month surveys (consented to research pre-randomization)

The regression model (**Table 14**) estimates that participants in the online stream had, on average, **0.4** fewer benefits than those in the comparison group nine months post-program. We predict no meaningful difference in job benefits between non-participants and those in the virtual stream.

| Table 14 | Regression coefficients for distinct job benefits at nine-months post-program

Labour outcome	Stream	Estimate (for coefficient of T)	Standard error	P-value	Confidence interval (95% CI)
Number of distinct benefits	Online	−0.402	0.259	0.123	(-0.912, 0.109)
	Virtual	0.077	0.27	0.777	(-0.454, 0.607)

Source. Baseline, exit, three-month, and nine-month surveys (consented to research pre-randomization); $p > 0.05$, * $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$.

Many benefit plans begin after a three-month probationary period. We expect to see an increased number of participants reporting benefit plans over time. This will be further explored in the *Final Report*.

Job quality: Perceptions of employment

Virtual stream participation had positive effects across three measures: overall job satisfaction, perceptions of appropriateness of role for educational credentials, and opportunities for advancement. In each survey, employed participants were asked how they felt about their job stability (precarity), overall satisfaction, opportunities for advancement, and how well their job matched their educational background. They rated their agreement with statements about these topics on a 5-point scale, from 'strongly disagree' to 'strongly agree.'

Table 15 shows the average scores for perception variables at each survey point among employed participants. Those employed in the virtual stream generally perceived their jobs more positively across variables than those in the online stream and comparison group. Perceptions of precarity were similar between the virtual and online streams.

| Table 15 | Participant employment perception scores at all time points

Employment perception variable	Timepoint	Comparison (C) (Average)	Online (O) (Average)	Virtual (V) (Average)	Difference: Online (O-C)	Difference: Virtual (V-C)	% increase/ decrease: Online	% increase/ decrease: Virtual
Appropriateness of job for education	Baseline	2.4	2.32	2.43	-0.07	0.04	-3%	2%
	Exit	2.96	2.77	2.79	-0.19	-0.17	-6%	-6%
	Three-month	2.88	2.89	3.09	0	0.2	0%	7%
	Nine-month	3.01	3.21	3.33	0.2	0.32	7%	11%
Overall satisfaction	Baseline	3.34	3.2	3.28	-0.14	-0.06	-4%	-2%
	Exit	3.49	3.44	3.46	-0.05	-0.03	-1%	-1%
	Three-month	3.47	3.51	3.62	0.04	0.15	1%	4%
	Nine-month	3.63	3.5	3.79	-0.13	0.16	-4%	5%
Opportunity for advancement	Baseline	2.42	2.41	2.39	-0.01	-0.02	0%	-1%
	Exit	3.08	2.83	2.89	-0.25	-0.2	-8%	-6%
	Three-month	3.24	3.13	3.31	-0.11	0.07	-3%	2%
	Nine-month	3.31	3.28	3.5	-0.04	0.19	-1%	6%
Precarity	Baseline	2.69	2.67	2.78	-0.01	0.09	0%	3%
	Exit	2.8	2.84	2.73	0.03	-0.08	1%	-3%
	Three-month	2.77	2.78	2.88	0.01	0.12	0%	4%
	Nine-month	2.77	2.84	2.89	0.06	0.12	2%	4%

Source. Baseline, exit, three-month, and nine-month surveys (consented to research pre-randomization)

Regression results (**Table 16**) estimate that ADaPT is having:

- a small positive effect on how virtual stream participants felt about their job matching their education, as well as very small positive effects on job satisfaction and opportunities for advancement; and
- a very small positive effect on job-education matches for the online stream.[19]

P-values and confidence intervals indicate uncertainty around these effects; additional data may improve our estimates. Our model provided no confident, meaningful effects on advancement opportunities or overall satisfaction for the online stream nor for either stream's perceived job instability.

| Table 16 | Participant perceptions regression coefficients nine-months post-program

Labour outcome	Stream	Estimate (for coefficient of T)	Standard error	P-value	Confidence interval (95% CI)
Appropriateness of job for education	Online	0.204	0.166	0.222	(-0.124, 0.531)
	Virtual	0.321	0.172	0.063	(-0.018, 0.661)
Overall satisfaction	Online	−0.132	0.134	0.327	(-0.395, 0.132)
	Virtual	0.164	0.139	0.24	(-0.11, 0.437)
Opportunity for advancement	Online	−0.036	0.16	0.822	(-0.35, 0.278)
	Virtual	0.186	0.166	0.263	(-0.14, 0.512)
Precarity	Online	0.065	0.153	0.673	(-0.236, 0.365)
	Virtual	0.12	0.159	0.45	(-0.192, 0.432)

Source. Baseline, exit, three-month, and nine-month surveys (consented to research pre-randomization); $p > 0.05$,* $p \leq 0.05$,** $p \leq 0.01$, *** $p \leq 0.001$.

4.4. Program implementation

What challenges and successes occurred during program delivery? What resources are required for successful implementation?

We held **seven** focus groups with representatives from the lead and partner organizations involved in implementing and delivering ADaPT. We held **two** in fall 2022 and **five** in summer 2024. We gathered their feedback on how the program was implemented across all participant groups (i.e., the RCT, pre-RCT core, and newcomer cohorts), noting challenges, successes, and recommendations for future delivery. **Table 17**, on the following page, provides a summary of roles, responsibilities, and focus group assignment for organizations (if applicable).

19 ADaPT was designed to open alternative career paths. Unlike virtual and online streams, the comparison group did not receive additional training for new career paths, which likely impacted perceptions of appropriateness of job for education.

| Table 17 | Lead and partner organizations

Organizations	Roles	Responsibilities	Focus group (FG) participation
DI of TMU[20]	Lead	• Led needs assessment and competency framework development. • Designed and delivered ADaPT programming. • Coordinated participant recruitment and employer engagement. • Provided wraparound supports (career counselling, resume support, mock interviews, mentoring, and coaching). • Secured paid work placements for participants.	Fall 2022: FGs 1 and 2 Summer 2024: FGs 3 and 4
TECHNATION[21]	Co-lead	• Collaborated on research into employer needs. • Facilitated access to wage subsidies for eligible employers and participants. • Assisted with employer engagement. • Hired ADaPT instructors.	Summer 2024: FG 5
Saint Mary's University (SMU)	Regional delivery partner (Atlantic)	• Assisted DI with ADaPT delivery outside Ontario.	Fall 2022: FG 1 Summer 2024: FG 6
Southern Alberta Institute of Technology (SAIT)	Regional delivery partner (Alberta)	• Helped source local instructors, facilitate recruitment, and engage employers.	**Not involved** in FGs (SAIT participation ended in summer 2022)
Mount Royal University (MRU)	Regional delivery partner (Alberta)		Summer 2024: FG 7 (MRU participation began in summer 2022)
Simon Fraser University (SFU)	Regional delivery partner (British Columbia)		**Not involved** in FGs (SFU participation started in fall 2022)

20 DI conducts and coordinates multi-disciplinary, multi-stakeholder research to address the needs of diverse Canadians, the changing nature of skills and competencies, and the policies, processes, and tools that advance economic inclusion and success. DI leads and executes the design and delivery of ADaPT programming for job seekers and employers and wraparound supports.

21 Uniting Canada's technology sector, governments, and communities, TECHNATION champions Canada's technological future by helping to facilitate and enable the tech industry and government to work together to grow and evolve with new technology. TECHNATION contributes to ADaPT participant recruitment, employer engagement, and management and oversight of its instructors.

Partners noted the following successes.

- **Partner collaboration.** Regional delivery partners shared that their overall experience of working with TECHNATION and DI was positive and that the program was the "gold standard for partnership." All focus group partners emphasized that consistent collaboration among DI, FSC, Blueprint, TECHNATION, and regional delivery partners led to effective implementation and expansion. Partners noted that collaboration helped them determine program objectives and share and apply learnings throughout.
- **Recruitment and outreach.** While DI conducted the bulk of participant outreach and employer engagement, TECHNATION noted that their outreach activities—a social media campaign, in-person networking, and webinars—also generated significant interest among employers and participants. The social media campaign garnered over 450 responses from both groups.
- **Curriculum design.** Partners noted that ADaPT's curriculum was well-aligned with IT employer needs and LMI to ensure participants gained relevant skills. While developing the curriculum, DI organized employer focus groups to learn their perspectives on skill needs to help participants find jobs or careers in the IT sector. Staff noted that the curriculum helped participants from non-STEM backgrounds navigate alternative career paths in the tech sector, exposing them to a wide range of in-demand digital skills required in the job market.
- **Program expansion.** Partners successfully scaled ADaPT across western and Atlantic Canada by leveraging established relationships with PSE institutions and regional employers. Consistent delivery drove expansion, ensuring standardized program design and centralized tasks for recruitment, marketing, and curriculums. Regional flexibility also helped local partners focus on recruiting instructors, administering programs, and facilitating virtual classes, complementing centralized efforts. This collaborative approach allowed seamless integration of regional networks and assisted scalability.
- **Employer engagement for job placements.** DI staff supported employers in connecting with potential hires from the ADaPT program. This support included participant shortlisting, resume vetting, support and connection through the wage subsidy process, post-placement support, and DEI (diversity, equity, and inclusion) resources and training. TECHNATION encouraged employers to offer job placements through ADaPT and expedited their wage subsidy applications to enable timely roll-out of placements. TECHNATION's wage subsidy program, Career Ready,[22] also provided an opportunity to employers to return to the program to refill positions or offer new placements. The Career Ready subsidy supported a total of 68 placements (of a total of 1,020 participants placed through the FSC-funded ADaPT, of which 613 participants were placed under the RCT) for the ADaPT 'core' program.

22 As part of EDSC's Student Work Placement Program, Career Ready helps businesses hire students for job placements. The program provides employers with 50% (to a maximum of $5,000) of a student's pay in wage subsidies and 70% (to a maximum of $7,000) for students from under-represented groups.

Partners and staff also noted some challenges.

- **Declining public engagement.** TECHNATION noted a decline in social media engagement over time, which they attributed to repetitive messaging and imagery. TECHNATION navigated this challenge in subsequent iterations by breaking up campaigns and adjusting messaging, which saw renewed audience responsiveness.
- **Difficulty with international student job placements.** TECHNATION observed that employers were unwilling to hire international students for job placements. They believed this was due to the Student Work Placement Program (SWPP) and Career Ready not applying to international students. Some employers were also reluctant to hire international students due to uncertainty about cultural fit and integration and their preference for local knowledge and language use.
- **Decrease in participant engagement.** Regional delivery partners SMU and MRU noted a slight drop in participant engagement, especially in the virtual stream, due to high levels of commitment needed at the end of the program. This may have been caused by the RCT not accounting for different learning styles (pre-RCT participants were able to indicate their preferred stream placement), inconvenient course schedules (owing to time difference between non-regional instructors and participants), and learning fatigue from information-heavy courses. Partners mentioned that a few participants became unresponsive, affecting staff ability to provide post-program follow-ups about their progress and careers.

Partners recommended the following resources and strategies for future implementation:

- **Introduce hybrid learning.** Staff and partners believed a mix of synchronous and asynchronous learning would better suit various learning preferences and make learning more flexible and interactive for participants.
- **Leverage the alumni network.** ADaPT alumni participate in a dedicated LinkedIn group to enable continued connections. In addition, in each cohort, DI asks a participant to begin a networking group via LinkedIn, Discord, WhatsApp, and other platforms. Program staff recommended that this network should be further leveraged and integrated into ADaPT to enable employer sessions and job search supports. Former participants, who now have jobs or their own businesses, could offer help with job search supports or interview practice.
- **Further use of AI as part of the curriculum and as tools for job search.** In the newcomer cohort, staff used InStage, an AI assistant for career programs, to assist with mock interviews. Rolling out this software for further interview practice and feedback may continue to assist with comfort in interviews and placements and help provide customized, one-on-one career support and coaching to participants based on their needs.
- **Introduce wraparound supports.** Regional delivery partners recommended introducing wraparound supports, such as childcare support, headsets, writing materials, and other resources to better accommodate people with special needs or disabilities.
- **Continuous program iteration.** Partners needed to maintain delivery consistency while implementing the RCT (i.e., staff could not make substantial changes to ADaPT). However, program staff highlighted the need to engage in continuous program iteration in the future to update the curriculum with relevant and up-to-date information, offer appropriate wraparound supports, and adapt the program to regional needs.

- **Customize programming for new target populations.** DI staff recommended customizing the program to recognize and address the needs of equity-groups facing socio-economic barriers. Such groups include Black youth, single mothers, older women looking to re-enter the workforce, and Indigenous Peoples. They suggested introducing in-person delivery for groups that may not have reliable Internet access or technological skills.

4.5. Case study #1: Pre-RCT 'core' cohorts

Two ADaPT 'core' cohorts were delivered to **90** participants in October and November 2021, before the launch of the RCT. Applicants could indicate a preference for either the online or virtual stream; **46** enrolled in the online stream and **44** in the virtual. **Table 18** indicates data sources and sample sizes.

| Table 18 | Data sources and sample sizes: Pre-RCT 'core' cohorts

Data sources and sample sizes	Online	Virtual	Total
Administrative data	46	44	**90**
Consent/ Baseline survey	**74%** (34/46)	**75%** (33/44)	**74% (67/90)**
Exit survey	**71%** (24/34)	**85%** (28/33)	**78% (52/67)**
Three-month follow-up survey	**56%** (19/34)	**70%** (23/33)	**63% (42/67)**
Nine-month follow-up survey	**50%** (17/34)	**42%** (14/33)	**46% (31/67)**
Participant interviews	4	4	**8**

Summary of findings

Refer to **Appendix D** for more detailed tables for all findings.

- **Reach.** The program successfully reached its target demographic. Most participants (**82%**) had at least a bachelor's degree, and many came from equity-seeking groups (e.g., **60%** identified as women and **66%** identified as racialized people).
- **Completion.** Most participants (**79%**) finished the program, with higher completion rates in the virtual stream (**93%**) compared to the online stream (**65%**).
- **Satisfaction.** Participants were generally satisfied with the program. Overall satisfaction rates were higher in the virtual stream (**89%**) than the online stream (**62%**) as well as various other aspects, including perception of digital skills utility and professional utility. Most participants would recommend the program (**100%** for virtual and **88%** for online). Satisfaction with various program aspects ranged from **68%** to **93%**.
- **Perceived skills.** Participants in both streams reported similar improvements in professional and digital skills from the start to the end of the program. The largest reported increase was for digital skills for the virtual stream (**0.9-point** increase).
- **Employment rates.** Employment rates increased over time (from intake to program exit, and at three- and nine-months post-training) for both streams. It increased from **65%** to **94%** for the online stream and **47%** to **79%** for the virtual stream. Online participants had higher employment rates than virtual participants at all timepoints.
- **Earnings.** Participants' earnings increased over time for both streams from program intake to nine-months post-training. Mean wages increased from **$38,256** to **$46,258** for the online stream and **$27,640** to **$40,355** for the virtual stream.

4.6. Case study #2: Newcomer cohort

This cohort aimed to help newcomers to Canada secure high-quality, meaningful employment in the digital economy. While maintaining the core courses on professional and digital skills, the curriculum included tailored content designed to address newcomers' skills needs and gaps, provide relevant knowledge and skills for a Canadian context, and remove barriers to entering their local workforces. According to partner and staff interviews, the newcomer cohort had other exclusive components, including:

- **An employer networking and mock interview event.** These were designed for participants to receive feedback on their interview skills, ask questions about workplaces or job openings, and learn about some newcomer employers' career journeys.
- **Optional specialized training** in cybersecurity, digital marketing, and software development chosen after completing the mandatory courses.
- **Additional career and wraparound supports** through external partnerships with MURMR, Levyl, and InStage.

One cohort of the newcomer program was delivered from April to June 2022. **Table 19** indicates data sources and sample sizes.

| Table 19 | Data sources and sample sizes: Newcomer cohort

Data sources and sample sizes	Online	Virtual	Total
Administrative data	13	10	**23**
Consent/ Baseline survey	8/13 (62%)	6/10 (60%)	**14/23 (61%)**
Exit survey	5/8 (63%)	3/6 (50%)	**8/14 (57%)**
Three-month follow-up survey	5/8 (63%)	4/6 (67%)	**9/14 (64%)**
Nine-month follow-up survey	2/8 (25%)	4/6 (67%)	**6/14 (43%)**
Participant interviews	2	2	**4**

Cohort experience

Because survey data was limited to one cohort, most of our insights about the newcomer program came from participant interviews. Overall, newcomers had a positive experience and felt better prepared to navigate the Canadian workplace and job market.

- **Overcoming employment barriers.** Newcomers said the program helped them address challenges around lacking Canadian work and educational experience and lacking knowledge of Canadian workplace culture and labour markets.
- **Building communication skills.** One of the most valuable skills newcomers gained was professional communication. The program's communication and presentation modules taught specific phrases and techniques for speaking professionally. This was especially helpful for participants who spoke English as a second language and were unfamiliar with workplace communications in Canada.
- **Job search support.** Newcomers appreciated the job search assistance ADaPT offered, which helped them gain a foothold in the Canadian job market. They benefited from resume building, employer networking, and practice interviews with employers.

5. What's next?

Data collection for the RCT will be completed in June 2025. Our *Final Report* is scheduled for publication in fall 2025 and will provide a more complete analysis, using additional data from three- and nine-month follow-up surveys and long-term employment and earnings data from Statistics Canada. It will also examine how different subgroups of participants experienced the program, including racialized participants and newcomers. This will provide us with a deeper understanding of the program's effects and who may benefit most from participating.

Appendix A

| Table A1 | Key outcome indicators

Category	Indicator	Description
Digital and professional skills	Self-assessment of the following skills on a 5-point Likert scale (Strongly disagree–Strongly agree): • Career planning (eight questions) • Digital skills-Office (two questions) • Business skills-Financial (seven questions) • Communication skills-Verbal (six questions) • Communication skills-Written (four questions)	To what extent participants perceive they are good at the target skills.
Select indicators from the Common Outcomes Framework (see Appendix B)	Employment attainment (Yes/No)	Whether participants indicate they are employed in the past week.
	Enrolment in education or training (Yes/No)	Whether participants indicate enrolment in any training or education program other than ADaPT.
	Social assistance (incl. EI) receiving status (Yes/No)	Whether participants indicate receiving income from social assistance in the past month.
	Employment earnings (numeric)	How much earning participants report from their jobs.
	Having an IT job (Yes/No)	Whether participants indicate being employed in a digital role.
	Job quality on a 5-point Likert scale (Strongly disagree–Strongly agree), including: • Job satisfaction • Job stability • Advancement opportunities	To what extent participants are satisfied with the job, feel the job is stable, or has advancement opportunities.
	Job quality on a 5-point Likert scale (Strongly disagree–Strongly agree), including: • Job satisfaction • Job stability • Advancement opportunities	Whether participants indicate having a casual, seasonal, or temporary job.
	Job benefits (select all that apply)	How many job benefits participants report having from employers.

Appendix B

Common Outcomes Framework

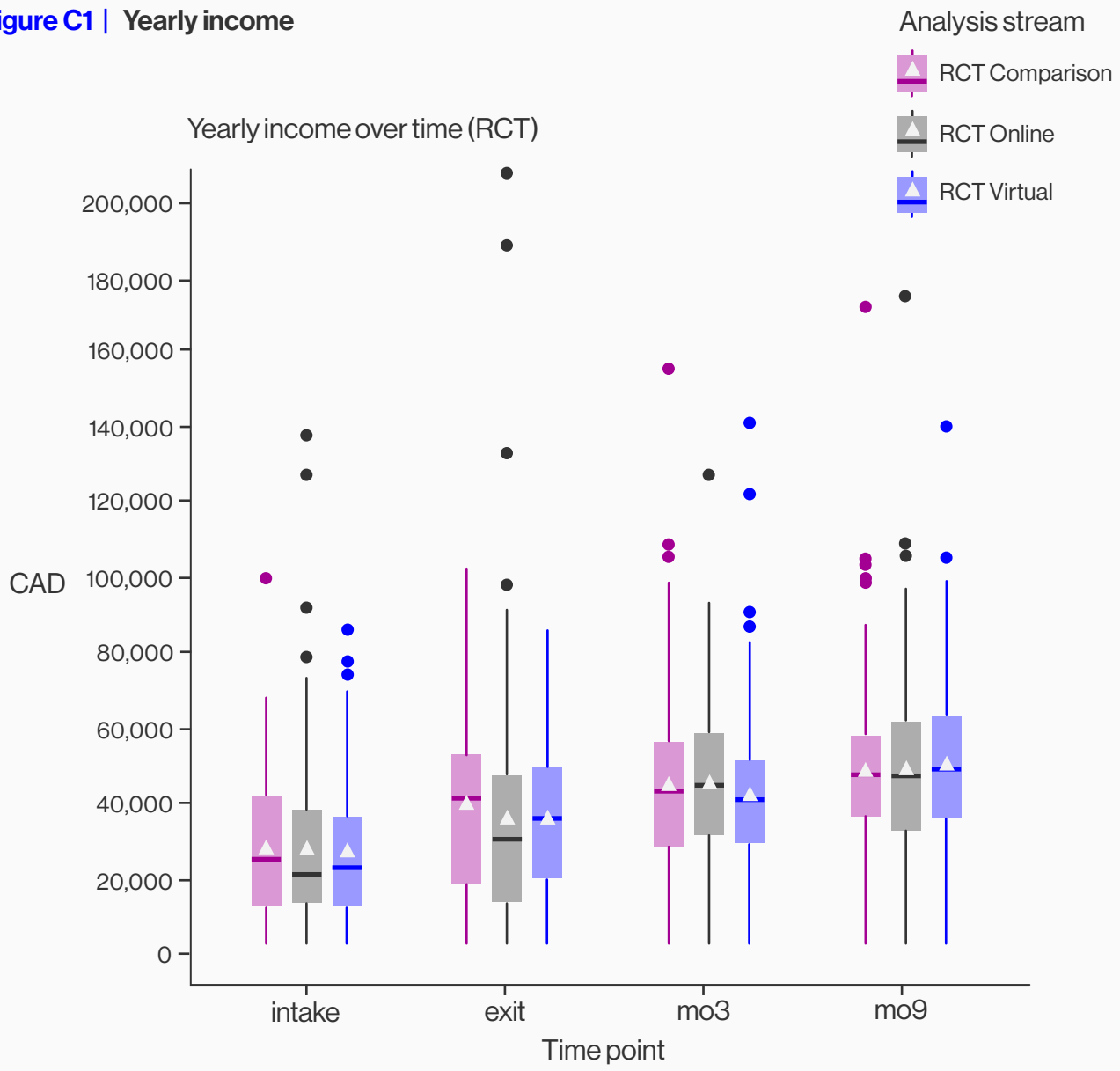
	Outcome	Indicators
Socio-demographics	Sex & Gender	Sex at birth
		Self-identified gender
	Age	Age
	Location	Province
		Region & Municipality
	Marital status	Marital status
	Children & Dependents	Children Dependents Household size
	Household Income	Household income
	Education	Highest credential obtained
		Location of highest credential attainment
	Indigenous Identity	Self-identified Indigenous identity
	Francophone status & languages spoken	First language spoken
		Official languages
		Language spoken at home
		Other languages spoken (At home)
	Citizenship Status	Place of birth
		Year of arrival
		Citizenship status
	Racial identity	Self-identification as member of racialized group
	Disability	Self-identified disability
Employment status and history	Employment	Employment status
		Nature of employment (permanent, temporary, full/ part-time)
	Earnings	Hours worked / week
		Wages
		Annual earnings
	Industry and occupation of employment	NAICS code of job
		NOC code of job
	Work history	Time since last employed
		NOC code of job
		NAICS code of job
	Income source	Income sources

	Outcome	Indicators
Intermediate outcomes	Program completion	Successful completion of planned activities
	Participant satisfaction	Satisfaction with program
		Perceived Utility of Program
		Likelihood to recommend
Customized intermediate outcomes	Skills gains	Measured gains in specific skills
	Program-specific credential attainment	Attainment of program-specific credentials
Long-term outcomes	Employment and retention	Employment status
		Nature of employment (permanent, temporary, full/ part-time)
		Retention
	Earnings	Hours worked / week
		Wages
		Annual earnings
	Benefits	Presence of benefits including: Paid leave, Health and dental coverage, Pension plan
	Industry and occupation of employment	NAICS code of job
		NOC code of job
	Job Satisfaction	Satisfaction with job
		Perceived opportunity for career advancement
		Perceived job security
	Enrolment in further education	Enrolment in further education
		Type of training
		Field of study
	Credential attainment	Attainment of high school or PSE credentials
		Field of study credentials

Appendix C

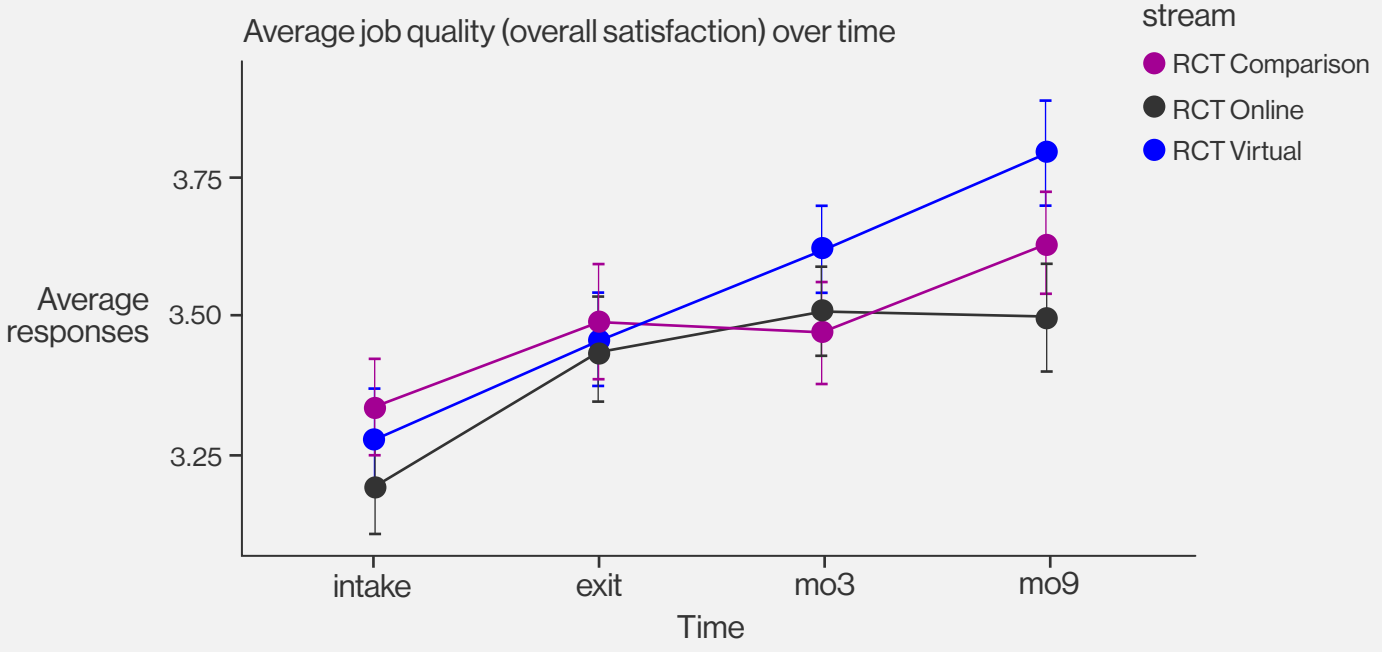
Graphs for RCT outcomes with small differences

| Figure C1 | Yearly income

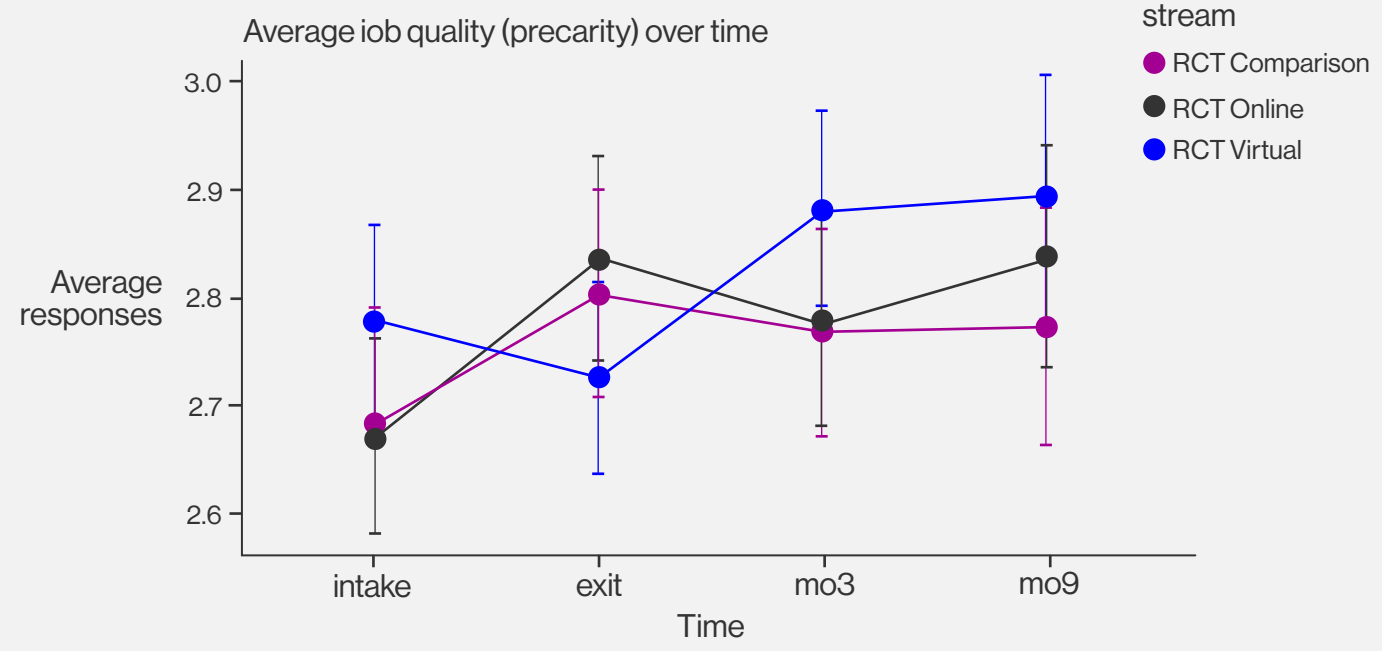


Note. Triangles are means and rectangles contain the 25th to 75th percentiles, split by thick horizontal lines representing the medians; dots represent outliers. Before analysis was conducted, extreme values (those making less than $2,000 or more than $250,000 CAD/year) were removed.

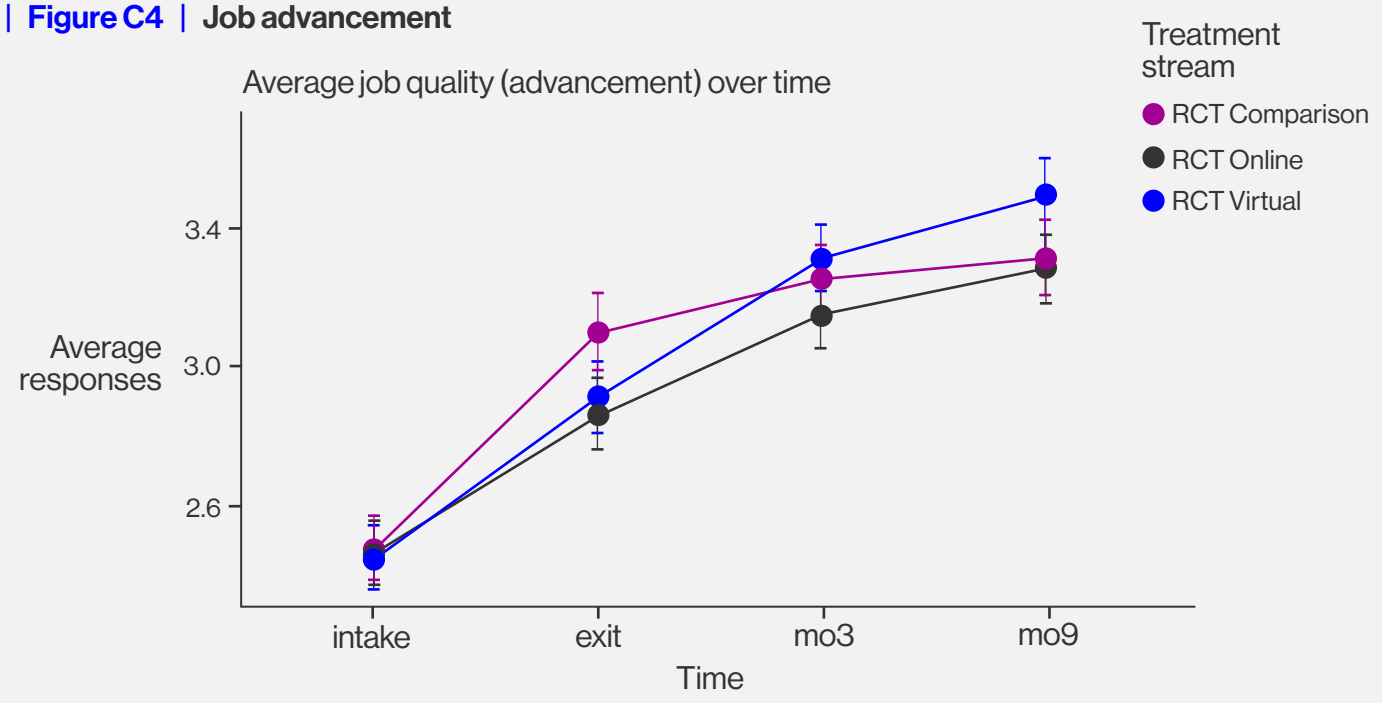
| Figure C2 | Job quality



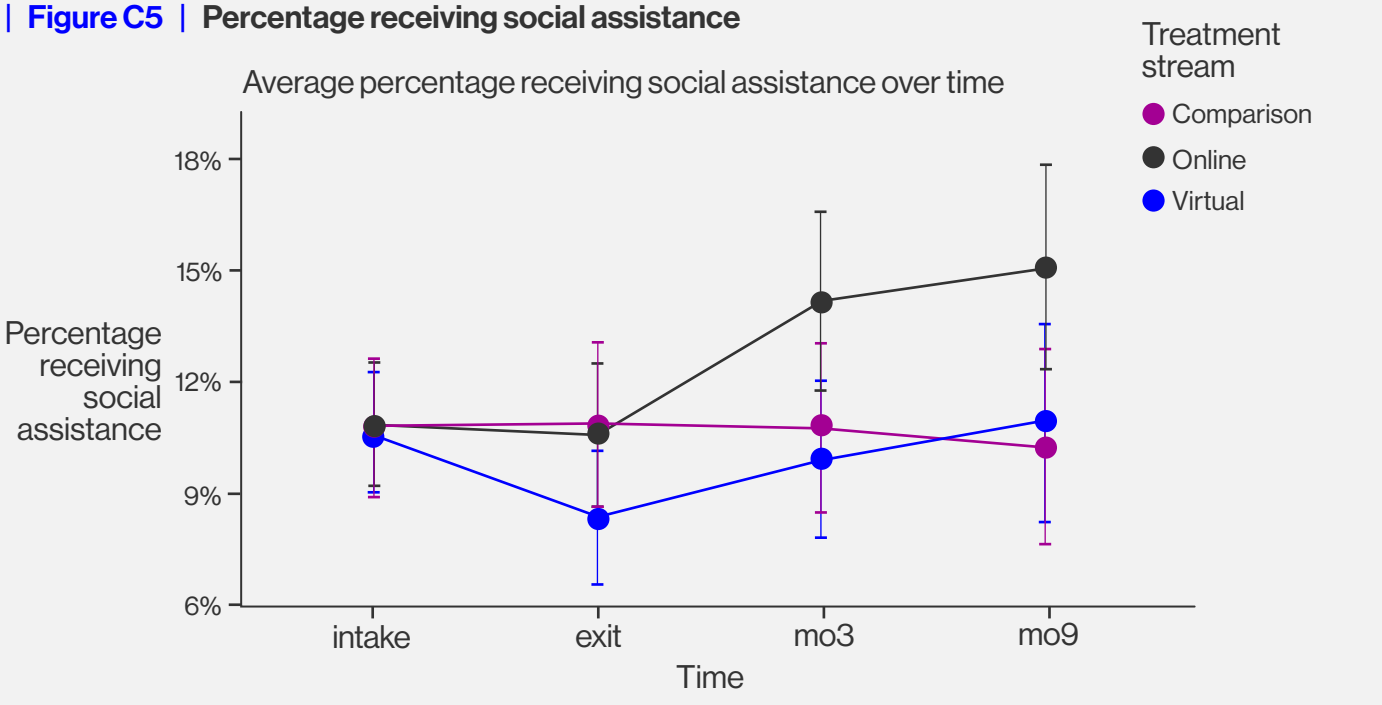
| Figure C3 | Job precarity



| Figure C4 | Job advancement



| Figure C5 | Percentage receiving social assistance



Appendix D

Analysis of pre-RCT 'core' cohorts

| Table D1 | Participant characteristics

Categories		Percentage and proportion of cohorts
Age	Average age	27
Equity-seeking groups	Racialized people	**66%** (44/67)
	Indigenous Peoples	**12%** (8/67)
	LGBTQ+*	**15%** (142/971)
	Persons with disabilities	**8%** (5/67)
	Women	**60%** (40/67)
Immigration status	Newcomers**	**27%** (18/67)
Education	Bachelor's degree and above	**82%** (55/67)
	Any post-secondary education	**97%** (65/67)

Source. Baseline survey
* Includes anyone who said they were gay or lesbian, bisexual or pansexual, transgender, or gave an alternative sexuality.
** Includes anyone who arrived in Canada in the past five years of data collection.

| Table D2 | Rates of program completion

Stream	% Completed
Online	**65%** (30/46)
Virtual	**93%** (41/44)
All	**79% (71/90)**

Source. Administrative data

| Table D3 | Rates of participant satisfaction and perception of utility

Program Satisfaction		Negative*	Neutral**	Positive***
Overall satisfaction	Online	17%	21%	62%
	Virtual	4%	7%	89%
Likelihood of recommending	Online	4%	8%	88%
	Virtual	0%	0%	100%
Professional utility	Online	0%	12%	88%
	Virtual	0%	7%	93%
Career utility	Online	4%	21%	75%
	Virtual	0%	32%	68%
Digital skills utility	Online	0%	12%	88%
	Virtual	4%	4%	93%

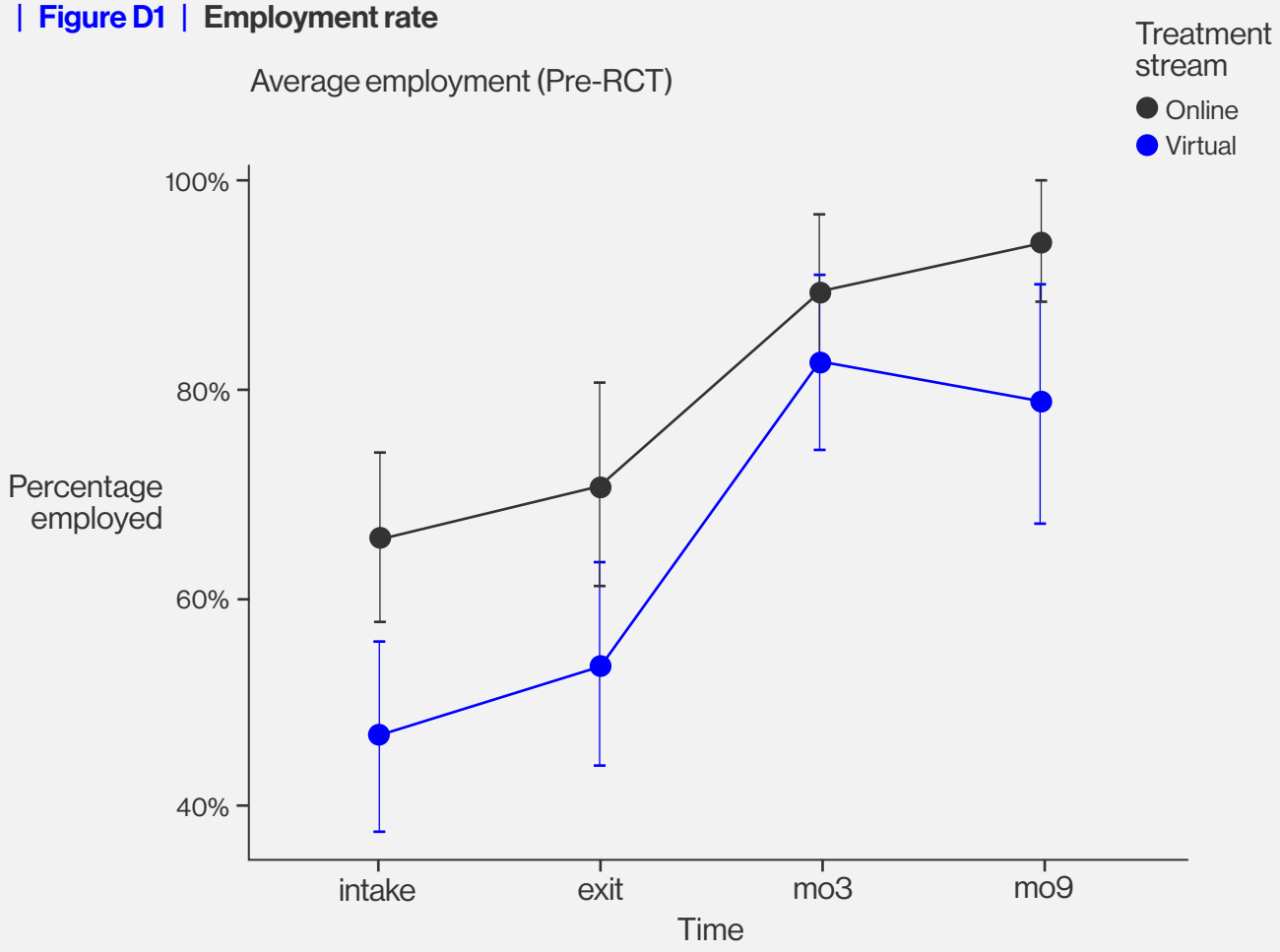
Source. Exit survey
* Includes "Very dissatisfied", "Somewhat dissatisfied", "Very unlikely to recommend", "Unlikely to recommend", and "Not useful"
** Includes "Neither satisfied nor dissatisfied", "Neither likely nor unlikely", and "a little useful"
*** Includes "Somewhat satisfied", "Very satisfied", "Likely to recommend", "Very likely to recommend", "I've already recommended ADaPT", "Fairly useful", and "Very useful"

| Table D4 | Changes in reported skills between baseline and exit survey

Analysis stream	Career planning			Digital skills office			Digital skills design			Business financial			Verbal communication			Written communication		
	Intake	exit	change	Intake	exit	change	Intake	exit	change	Intake	exit	change	Intake	exit	change	Intake	exit	change
Online (n=24)	3.6	4.1	0.5	3.7	4.3	0.5	2.8	3.8	1	3.7	4	0.3	4	4.1	0.1	4	4.2	0.2
Virtual (n=28)	3.4	4.1	0.7	3.8	4.3	0.5	2.8	3.8	0.9	3.7	4.1	0.3	4	4.1	0.1	3.9	4.2	0.3

Source. Baseline and exit surveys

| Figure D1 | Employment rate



| Table D5 | Changes in reported skills between baseline and exit survey

Treatment stream	Timepoint	n	Average	Variance
Online	Intake	35	66%	23%
	Exit	24	71%	22%
	Month three	19	89%	10%
	Month nine	17	94%	6%
Virtual	Intake	32	47%	26%
	Exit	28	54%	26%
	Month three	23	83%	15%
	Month nine	14	79%	18%

| Figure D2 | Employment rate

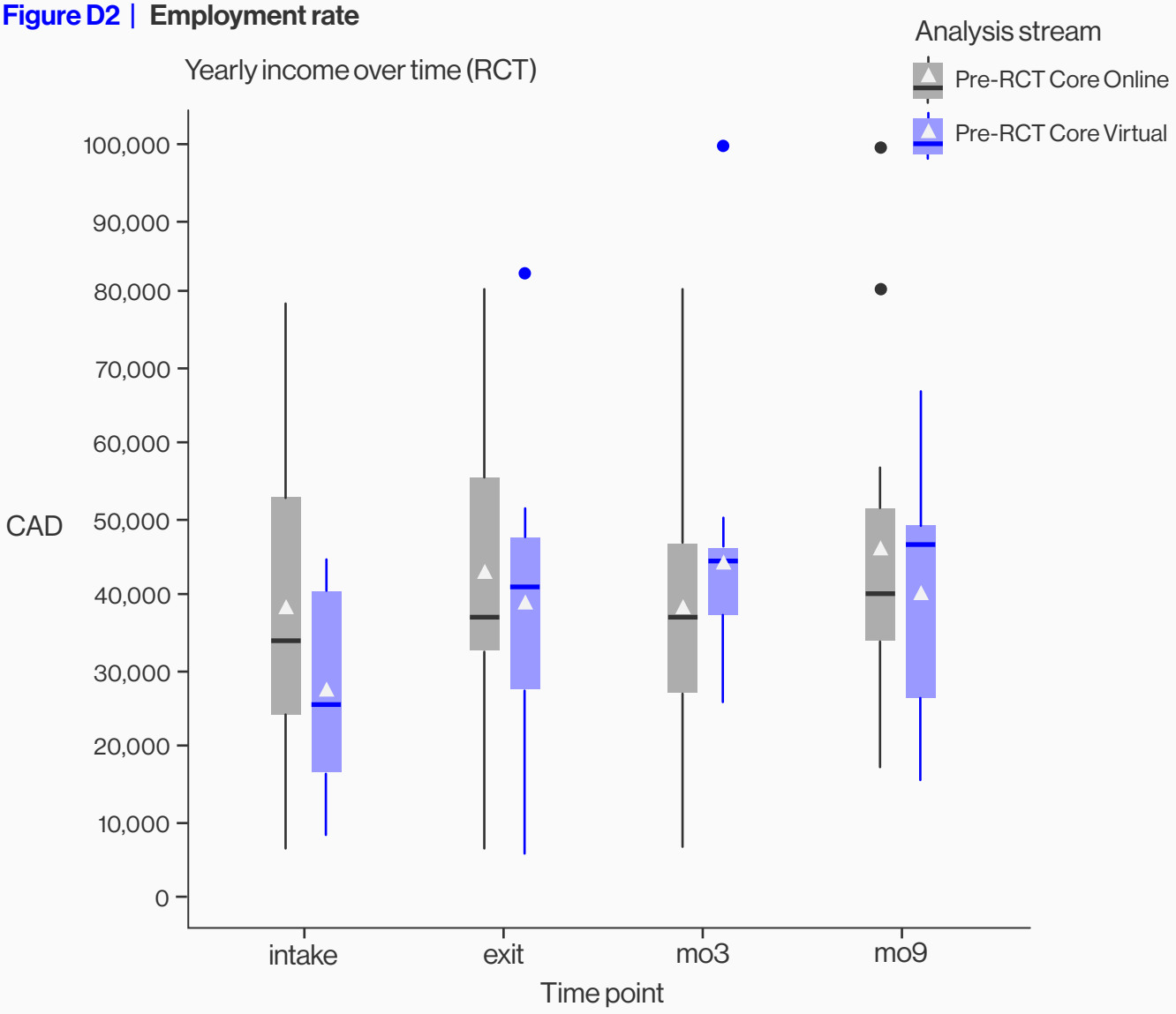


Table D6 | Average yearly wage over time

Treatment stream	Timepoint	n	Median	Mean	Median absolute deviation
Online	Intake	20	34190	38256	18568
	Exit	16	36998	40323	20358
	Month three	17	37440	38623	18621
	Month nine	16	40736	46258	13735
Virtual	Intake	15	25935	27640	15323
	Exit	15	41600	39257	15419
	Month three	19	45000	44645	7413
	Month nine	10	47250	40355	14678

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