Heterogeneous returns to active labour market programs for Indigenous populations*

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Abstract

Active labour market programs for Indigenous Peoples are common, yet there exists little assessment of their effects. We study the largest active labour market program for Indigenous populations in Canada using rich administrative data on the universe of participants in the program. Two years after participation, average earnings were 6% higher among individuals who participated in high-intensity programs compared to those who only received job counselling or search assistance. However, we find substantial heterogeneity in these effects across legally distinct Indigenous populations. We suggest that understanding the different institutional environments facing Indigenous groups is essential for understanding this heterogeneity.

Keywords: active labour market programs, Indigenous Peoples, labour market institutions, on-reserve employment, program evaluation, administrative data
JEL Codes: J15, I38, M53

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Disclosure Statements

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Support: I receive an annual salary from the University of Victoria, where I am a full-time tenured faculty member. In the last 3 years, I shared a research account with Maggie Jones funded by the Social Research and Demonstration Corporation to cover expenses related to engaging in this research. The total amount of the research grant totalled $36,000 CAD. I also hold research grants from the Social Sciences and Humanities Research Council of Canada and the Washington Center for Equitable Growth on unrelated projects.

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Review of the Work: Employment and Social Development, Canada (ESDC), a federal department in the Canadian Government, have requested to review the results of this study prior to their publication.

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Globally, there are over 476 million Indigenous people, many of whom face severe economic marginalization (The World Bank Group, 2023). There is growing evidence that both historical and modern policies have contributed to that marginalization (Dell, 2010; Dippel, 2014; Doremus, 2019; Leonard et al., 2020; Carlos et al., 2022; Doyle et al., 2022; Cobb-Clark et al., 2023; Jones, 2023; Feir et al., 2024). In many countries with colonial histories, the policies that might address economic disadvantage operate through different institutions for non-Indigenous and Indigenous people; those arrangements might facilitate self-governance and culturally appropriate services but could also lead to under-funding and further marginalization. Additionally, some Indigenous Peoples reside on lands that are jurisdictionally distinct from surrounding areas, in the sense that they do not face the same regulatory or legal environments. Federal governments often hold these lands in trust and require different legislation and approvals for land and resource use, including business formation. Yet, despite these unique and complex circumstances, the effectiveness of programs that are designed to alleviate the economic marginalization of Indigenous people receives very little attention from economists.

In this paper, we study the labour market effects, along the intensive margin, of a large federal program in Canada that funded active labour market programs for Indigenous populations, called the Aboriginal Skills and Employment Training Strategy (ASETS).[1] ASETS, which operated between 2010 and 2018 and was superseded by a similar program, directed funding to Indigenous partner organizations, called "Agreement Holders", who were tasked with providing culturally appropriate labour market programming that was responsive to local labour demand (Wood, 2016). Such decentralized structures are common among active labour market programs for Indigenous Peoples in other countries, including the United States (U.S. Department of Labor, 2020), Australia (National Indigenous Australians Agency, 2024), and New Zealand (New Zealand Ministry of Social Develop-

[1]Canadian legislation uses the words *Indian* and *Aboriginal* rather than First Nations and Indigenous. We use the terms Indigenous as equivalent to "Aboriginal" and First Nations as equivalent to "Indian" because of their degree of social acceptance in Canada.

ment, 2024). In all of these countries, Indigenous people make up non-trivial percentages of the population.[2] Moreover, spending on active labour market programs for Indigenous populations represents a large share of total federal spending on Indigenous programs and services.[3]

Previous literature suggests that whether active labour market programs have their desired effect depends on the program's content, participants, and institutional context (Crépon and Van Den Berg, 2016; Card et al., 2018). Yet, even though such programs for Indigenous populations operate in unique institutional contexts, there is limited quantitative evidence of the effectiveness of active labour market programs that directly target Indigenous Peoples. We help fill that knowledge gap by leveraging a new and rich administrative dataset, which links the universe of ASETS participants to their longitudinal tax records.

We compare post-participation earnings and employment between two groups of ASETS participants defined by the type of services received. Following Andersson, Holzer, Lane, Rosenblum, and Smith (2022), we define a "low-intensity" group who received only light-touch services, such as resume-writing workshops or access to computers. In contrast, individuals in the "high-intensity" group participated in one or more of a range of services, including skills training, wage subsidies or job creation partnerships. We study how the effects of high-intensity participation differ across three legally distinct Indigenous population groups in Canada: Status First Nations, non-Status First Nations, and Métis Peoples.

[2]As of 2020, 5% of the Canadian population identifies as Indigenous (Indigenous Services Canada, 2023), 2.9% of the population in the United States (United States Census Bureau, 2022), 3.2% in Australia (Australian Bureau of Statistics, 2022) and 16.7% in New Zealand (Statistics New Zealand, New Zealand Government, 2020).

[3]For example, average annual spending on ASETS was approximately 300 million (Office of the Auditor General of Canada, 2018), which compares to the total estimated expenditure of the federal Indigenous affairs department of slightly under $8.2 billion in 2015-2016 (Indigenous and Northern Affairs Canada, 2016a). In 2023, spending by the American Department of Labor on Native American active labour market programs was over 15% of the total funding provided to Tribal governments for their operations (Bureau of Indian Affairs, 2023; U.S. Department of Labor, 2023). In Australia and New Zealand, similar labour market programs made up 2.25% and 6% of all federal Indigenous spending, respectively. Details on these calculations can be found in Section A.2 of the Online Appendix.

"Status First Nation" is a legal category in Canada that is roughly comparable to enrolled Tribal citizens in the United States, non-Status First Nations peoples are similar to non-enrolled Native Americans. The Métis are descendants of communities formed through intermarriages between European fur traders and Indigenous Peoples in the 17th and 18th centuries.[4]

We estimate the difference in post-participation outcomes between the high- and low-intensity groups using an augmented inverse-probability weighting procedure, which relies on the assumption of strong ignorability. One key aspect of that assumption is that after controlling for observed covariates, selection into the high-intensity group is not correlated with unobserved determinants of the outcomes. Our data allows us to control for ten years—which for many individuals is their entire work history—of earnings, employment and prior participation in other active labour market programs. Our long list of controls also includes demographic characteristics and occupation in prior job separations. Using these controls, we demonstrate that there is substantially more overlap between the predicted probability of high-intensity participation (i.e. the propensity score) across our two comparison groups than in foundational studies in this literature, such as Heckman et al. (1998) and Dehejia and Wahba (1999, 2002). We also show excellent balance across the comparison groups in the mean covariates, weighted by the predicted probabilities of group membership.

There are at least two possible reasons why our data performs so well in these exercises that are commonly used to support the plausibility of strong ignorability. First, our comparison groups are defined conditional on participation in ASETS; as such, all individuals in our sample sought out some form of labour market programming. Second, one possible source of exogenous variation in high-intensity participation is the ASETS funding formula, which allocated funds to Agreement Holders using a needs-based assessment that defined need using demographics from 1996 rather than contemporaneous need. Despite

[4]For more details about Indigenous populations in Canada, see Online Appendix Section A.1.

these arguments, concerns may remain about whether conditional independence holds in our setting. Therefore, we also present a supplementary analysis suggesting that our key results would not be reversed under reasonable assumptions about the nature of selection into high-intensity participation (Cinelli and Hazlett, 2020).[5]

We find that, relative to low-intensity, high-intensity participation is associated with 6% higher earnings two years after entering ASETS. In a sample with fewer cohorts, we show that this increase persists through the third and fourth post-participation years. The probability of being employed, defined as having any earnings, is only slightly larger for high-intensity participants. The effect of high- relative to low-intensity participation in the full sample masks considerable heterogeneity across Indigenous groups: earnings returns to high-intensity participation are the largest for Métis and non-Status First Nations men and women. In contrast, in the Status First Nations group, the estimated difference in mean earnings between high- and low-intensity participants is small (less than $200) and statistically insignificant.

Using additional quantitative analysis and background research on ASETS and the context in which it operated, we describe how institutional differences across the population groups coincide with variation in the effects of high- relative to low-intensity participation. Specially, for Status First Nations men and women, we show how the returns to high-intensity participation vary depending on whether participants were employed on reserves, which are lands held in trust by the federal government for First Nations Peoples and generally fall under different jurisdiction than off-reserve lands, in the year before entering ASETS. We find that for those who worked off reserve in the year before starting ASETS programming, year-two earnings in the high-intensity group are 4 to 5% larger than the average for their counterparts in the low-intensity group, even when they lived in urban areas. We provide further descriptive evidence on relative earnings growth when

[5]This method is similar in spirit to the Oster (2019) correction, but draws on knowledge of the specific context to inform the bounds.

participants transition from prior on-reserve to post off-reserve employment that also points toward lower returns to high-intensity participation when working on a reserve. We go on to suggest that, because the institutions that govern labour markets on and off reserve are vastly different, barriers to private investment and economic activity that limit opportunities for wage growth and occupational progression on reserve may constrain the effectiveness of active labour market programs. We round out the discussion of institutional context by explaining how differences in federal and provincial or territorial jurisdiction over services provided to Indigenous groups affect the mix of programs that are alternatives to, or may be taken in combination with, ASETS. In turn, this could affect the size of the earnings differences between our comparison groups.

Because there is so little evidence about the effectiveness of active labour market programs for Indigenous populations and because these programs represent sizable shares of spending on population groups that are severely economically disadvantaged, the evidence that we bring to bear on the role of institutional differences in generating heterogeneous earnings returns is an important contribution, even if it does not establish a causal link. The institutional complexity within Indigenous Peoples and between Indigenous and non-Indigenous populations is not unique to Canada. Our analysis is relevant for other countries, where Indigenous Peoples also share a history of colonization, and where their contemporary legal circumstances may impact both labour market opportunities and the effectiveness of active labour market programs. In both Canada and the United States, not all federal legislation applies to all Indigenous groups. As a result, non-Status First Nation and Métis individuals within Canada, and non-enrolled Tribal citizens within the U.S. often face different funding streams than Status First Nations people or enrolled Tribal members. Additionally, in Canada, many Status First Nations people live on reserves, which generates another layer of institutional complexity analogous to the situation faced by enrolled Tribal citizens in the United States who often live on reservations. In contrast, non-Status First Nations and Métis in Canada and non-enrolled Tribal citizens in the United States generally do not have

legally distinct land bases.

Our work also contributes new evidence to the wider literature on active labour market programs.[6] In general, labour market programs are more effective during temporary periods of high unemployment (Card et al., 2010) and such programs can have positive impacts on average but little effect for the most disadvantaged participants (Bitler et al., 2006; Crépon and Van Den Berg, 2016). We show that even within relatively disadvantaged groups, there is considerable heterogeneity in the effectiveness of more intensive participation in active labour market programs. Moreover, the heterogeneity in effectiveness we find is across legally distinct groups who work in labour markets and whose access to alternative or complementary services are governed by very different institutions, even though they live in similar geographic regions. To our knowledge, this is the first evidence to establish heterogeneity along that dimension, which has broad implications for how the effectiveness of programs that serve Indigenous populations are understood and studied.

2 Background on ASETS

The ASETS Program: ASETS started in 2010, was initially funded until 2015, and was then extended to the end of the fiscal year 2018 when it was replaced by a new, yet similar, program.[7] ASETS programming is delivered through Indigenous Agreement Holders, some of whom contract with local sub-Agreement Holders. Delivery through Indigenous service organizations was intended to ensure that ASETS programming was locally and culturally responsive to the needs of the people they served (Wood, 2016). As of March 2015, 85 active Agreement Holders received ASETS funds, with 347 active sub-Agreement or sub-Project Holders. Of the 85 Agreement Holders, there were 57 First Nations Agreement Holders, 13 urban Agreement Holders, 8 Inuit and 7 Métis (Wood, 2016). The program had over 600

[6] See LaLonde (1995), Greenberg et al. (2003), Card et al. (2010), and Card et al. (2018) for meta-analyses.

[7] The programs that preceded and replaced ASETS are discussed in more detail in Online Appendix A.3.

service delivery sites across Canada (Employment and Social Development Canada, 2019).

To our knowledge, there is no centralized, publicly available repository of the precise program details and eligibility requirements implemented by the Agreement Holders. To gain a better understanding of how the programs operated, we conducted five case studies using the Wayback Machine to examine Agreement Holders' online presence in the period we study, with the particular goal of learning about their intake processes and the population groups they served. The case studies were chosen to ensure representation regionally across Canada and across population groups. A table summarizing these case studies can be found in Online Appendix Table A.1. In 2021 and 2022, we also held several virtual engagement workshops with Agreement Holders to confirm our interpretation of the publicly available sources and to share our findings.[8]

All publicly available information suggests that Agreement Holders varied substantially in their funding levels, their scale, the clients they served, the programs they offered, and the ways they delivered programming. For example, Métis-serving organizations were, on average, much larger, with only seven such organizations across Canada (Wood, 2016). The Congress of Aboriginal People was another large-scale organization serving off-reserve Indigenous people outside Canada's north. One strength of such centralization and scale is the capacity to offer diverse programs and wrap-around services. Smaller regional Agreement Holders and those serving on-reserve communities seemed to have fewer programs, which were much more focused on the specific types of training they could offer or that were locally available. Thus, high-intensity programs varied from complete post-secondary programs at accredited institutions to more narrow occupational training (such as safety, sawmill or fishing work) or skills development (such as basic computer skills).

Participants are matched to programs in several ways, but the process begins with a potential participant contacting the Agreement Holder. This could be by walking into an office, emailing a staff member, or submitting an online application for some organizations.

[8]Any errors in representing how Agreement Holders operate are our own.

They may have heard about the services offered by word of mouth, web searching, or flyers. After the point of initial contact, the staff would follow up with the potential participant to arrange an intake and counselling appointment to develop an "action plan" based on what they could offer given their total funding, the applicant's goals, and the local opportunities.

This discussion makes it clear that sorting into high-intensity participation is not random within a specific ASETS Agreement Holder. However, conditional on a participant's work history, there is significant variation in whether a participant's action plan included a high-intensity program. First, variation in Agreement Holder staff judgement likely mattered for what programs the individual participated in. Second, variation in Agreement Holder funding very likely influenced what programs they could offer.

The value of funds transferred under each agreement varied substantially across Agreement Holders. The total value of the agreements that were established in 2010 typically ranged from one or two million to more than 25 million (Authors' calculation from Treasury Board of Canada Secretariat (2021)). While some of that variation is because Agreement Holders serve different numbers of people, the Auditor General—the federal agency responsible for providing independent information on the stewardship of public funds—concluded that the allocation of funds "did not reflect the current needs of the populations served" (paragraph 6.17, Office of the Auditor General of Canada 2018). This was because the funding formula allocated funds based on 1996 provincial demographic characteristics that were substantially out of date by 2018.

Because funding allocations were not based on contemporaneous need, this raises the possibility that some of the variation in high-intensity participation is uncorrelated with the returns to that participation. In Online Appendix C, we discuss this variation in funding and provide evidence that it is a statistically significant predictor of high-intensity participation, conditional on the characteristics of ASETS participants and local labour market characteristics. Online Appendix Figures C.1, C.2, and C.3 display the geographic distribution of this residual high-intensity participation for each population group, where significant

geographic variation is evident.

Alternatives to ASETS: The landscape of options for training and employment support in Canada was, and remains, complex (Jansen et al., 2019), with federal and provincial or territorial governments sharing jurisdiction. Outside of ASETS, there were two main ways to access government support for training or employment assistance: as a recipient of Employment Insurance (EI, which is analogous to unemployment benefits in the U.S.) or as a recipient of Income Assistance (IA, which is commonly called "welfare"). The only other large program, besides ASETS, that was not restricted to IA or EI recipients was the federally-funded and administered Youth Employment Strategy, which offered employers funding to support employment or training opportunities for individuals aged 15 to 30. The types of interventions delivered through EI and IA programs were similar to the mix provided through ASETS, except that EI and IA do not generally fund post-secondary programs, which ASETS did.

The active labour market programs available to EI recipients were funded by the federal government but were administered by provinces and territories, usually through partner service organizations. Individuals could qualify for EI if they were laid off and had sufficient qualifying work in the year prior to their claim.[9] While Indigenous people could receive EI benefits when qualified, only 12% of our sample were active EI claimants and more than half had never claimed EI in the period covered by the data platform.

Income Assistance falls within the jurisdiction of provinces and territories, except for Status First Nations people living on reserves, for whom IA falls under federal jurisdiction.[10] The federal on-reserve IA program was harmonized with the provincial and territorial programs within which the reserves were located. IA was a program of last resort for individuals who had no other source of income or wealth. All provinces and territories offered some types of employment support and training to IA recipients. Labour market programs for

[9]To qualify for regular EI benefits, individuals needed to work from 420 to 700 hours, depending on the unemployment rate in their region, in the year prior to their claim.

[10]Any Status First Nation people living in the Yukon fall under the federal IA program.

recipients of on-reserve IA were federally funded and administered by local organizations.

In some cases, ASETS funding was also used to support enrollment in post-secondary education. In general, government-funded post-secondary student financial aid was a mix of grants and loans that depended on a needs assessment, with 60% of aid coming from federal programs and 40% from federal or territorial programs. Status First Nations people could also qualify for aid through a federal program that allocated funds to individual First Nations. Unlike the general student aid programs, the amount of funding allocated to a particular First Nations reserve did not depend on the number of qualified applicants. There is evidence that this restriction had a negative effect on PSE completion rates among Status First Nations people (Jones, 2023).

In Section 6.2, we discuss how these jurisdictional issues, which affected the types of programs Status First Nations people could access, might contribute to how our estimates differ across population groups.

3 Data and Sample Selection

This section describes our data, the definition of our sample and comparison groups, and our outcome and control variables. Additional details about variable construction are provided in Online Appendix B.

3.1 Data Sources

Our primary data source is the Labour Market Program Data Platform, which combines data from five administrative sources: tax data filed by individuals and employers, Employment Insurance records, job separation records, and the complete database of federal labour market program participants. The Platform gathers information about active labour market interventions' type, duration, and timing from all federally funded programs. We can follow individuals over time and across all the data sources. Except for a random sample of Employment Insurance recipients, all the individuals included in the data platform have

participated in some type of active labour market programming. This motivates our choice of comparison groups, which we discuss in more detail shortly.

Specifically, the data combines the Integrated Labour Market Program database with Employment Insurance Administrative Data, Records of Employment, T4 Supplementary Records, and T1 Tax Return Records. To compare to the American context, the T1 files are analogous to the 1040 files, and the T4 files are similar to the W2 forms. Records of Employment are like job separation reports. Unlike in the US, in Canada, these records are standardized at the federal level.

While our data includes the universe of ASETS interventions recorded by Agreement Holders in the centralized reporting system; many ASETS Agreement Holders offer a range of services that would not be recorded in the data we use (for example, supporting someone using email or printing a document for someone). As such, it is worth emphasizing that we are comparing high-intensity participation to low-intensity interventions significant enough to be recorded in the system (for example, a consultation appointment). Thus, we are not evaluating the overall services that Agreement Holders may offer or the effectiveness of Agreement Holders.

This dataset was created by Employment and Social Development, Canada (ESDC), a department in the Canadian federal government responsible for labour-market and social programs, similar to the US Department of Labor. We were provided access to these data to study the effect of ASETS.

3.2 Sample Definition

We restricted our analysis to ASETS participants aged 18 to 64, leading to a sample of over 110,000 participants. This represents roughly 10% of the total Indigenous population in this age range, which further emphasizes the scope and importance of this program.[11]

[11]This was calculated as taking the number of participants in the ASETS program in our sample (2010-2014) divided by the number of Indigenous people over the age of 15 and under the age of 65 (Statistics Canada, 2017). The population count that exactly matches

Our sample period includes interventions that start between 2010 and 2014. We begin in 2010 because that is the year when ASETS was introduced to replace an existing program, which at least rhetorically placed less emphasis on demand-driven skills development (Wood, 2016). Although the ASETS program continued through to March 2018, our sample ends with new participants in 2014 because the last year of available employer-filed tax data is 2016, and we examine outcomes two years after the program started.[12] All the administrative files begin before 2000, so we are able to construct pre-ASETS labour market and program participation histories over a full decade.

3.3 Defining Our Comparison Groups

The labour market programming database contains a separate record for each time an individual participates in an intervention, and each record contains information about the type of intervention, as well as the start and end date. For most individuals, there are multiple intervention records, including records of the same intervention type or of differing types. We link together interventions that occur without a 90-day break separating them. Specifically, we identify the first occurrence of participation in an ASETS intervention. Then, we link to that spell all concurrent and subsequent ASETS interventions, as long as there is not a spell of non-participation lasting longer than 90 days.[13]

Following an approach taken by Andersson et al. (2016), we separate the sample into two groups based on whether the collection of interventions in which an individual participated are classified as "high" or "low" intensity. In the language of the program-evaluation literature, the high-intensity group would be considered the "treatment" group, while the low-intensity group is the "control" group. In our case, participation in only an employment

the age range in our sample is not publicly available.

[12]For example, if a person enters an ASETS program in 2011, the first post-program year is 2012, and the second is 2013. We define our post-program period based on the program start because the amount of time spent in the program, or the likelihood of completing the program, can be thought of as an outcome of program participation.

[13]In the appendices of Feir et al. (2022), we show that our results are robust to other definitions of a spell. Those appendices can be accessed at https://bit.ly/3R3fhPn.

assistance service or a job counselling program is classified as low intensity. These types of interventions can be thought of as "light-touch" interventions. The high-intensity group includes individuals who participated in skills development, apprenticeships, wage subsidies, job creation partnerships, or essential skills programs.[14] Individuals in the high-intensity group may have participated in these programs in combination with employment assistance services or job counselling. [15] While considerable heterogeneity exists in the types of programs within the high-intensity group, there is a sharp distinction between the nature of ASETS participation between the high- and low-intensity groups. These comparison groups help us learn generally about whether high-intensity participation improves outcomes within the subgroup of ASETS participants. Some high-intensity programs might be more effective than others, and by grouping the interventions, we estimate a weighted average of the effects across the different types and combinations of high-intensity interventions relative to employment assistance services or job counselling alone. We also include details about shares of participants in each specific intervention types in Online Appendix F.1 in Figures F.1 through F.5.

Our definition of comparison groups is an important departure from the internal evaluation produced by Employment and Social Development Canada (2020). That report restricts its attention to the 2011-2012 cohorts and separates the sample into three groups: former EI claimants, active EI claimants, and non-claimants. For active and former claimants, Em-

[14]More information about the interventions can be found in Online Appendix A.4. We exclude the small share of ASETS participants whose longest intervention was either school-work-experience or self-employment programs because we expect that these interventions have different intended outcomes. Specifically, the benefits from school-work-experience programs may take much longer to accrue and our measure of employment earnings does not fully capture the returns to self-employment. The participants that were excluded because their longest interventions were school-work-experience or self-employment interventions represent 4.19% and 0.5% of all ASETS participants, respectively.

[15]Participants in either group may have received services under other programs. In the appendices of Feir et al. (2022), we show that our results are robust to a new definition of high-intensity participation that includes participating in any high-intensity intervention across any federally funded program in our data.

ployment and Social Development Canada (2020) compare participants' outcomes in specific categories of interventions and those without any program participation. For example, the report compares outcomes among active EI claimants in skills development interventions to active EI claimants without participation. They also compare outcomes for participants in all intervention types to non-participants. For the 69% of ASETS participants in Employment and Social Development Canada's (2020) sample who are not EI beneficiaries, participants in low-intensity interventions form their comparison group.[16] We prefer to pool participants in high-intensity interventions because separating participants into particular intervention types would add an additional level of self-selection. Nonetheless, we also show in the appendices of Feir et al. (2022) that the results are similar when we compare participants in skills development interventions and low-intensity participants.

In Table 1, we report the percentage in the high-intensity group in the full sample, and in the three population groups for which we separately estimate the relative effect of high-intensity participation. We do not estimate the effects separately for Inuit participants or those whose population group was not identified, although these participants are included in the full sample. For Inuit, the fraction in the high-intensity group is too large for our methodology; however, we provide detailed descriptive outcomes for Inuit in the appendices of Feir et al. (2022). In the full sample, 64% of individuals are high-intensity participants. The high-intensity share varies across population groups; notably, the high-intensity share is more than ten percentage points lower for non-Status First Nations men and women.

Our comparison groups are defined by the types of interventions recorded in the data, as opposed to measuring the intensive margin using the duration in a program as Aizer et al. (2020) do. Nonetheless, there is a striking difference in the median participation duration between the groups, suggesting that our definition of high-intensity participation is meaningful. Table 1 shows that the median duration is much shorter than in the low-

[16] SRDC (2022) further discuss the difficulty of identifying a suitable comparison group for ASETS participants.

intensity group. For the full sample, the high-intensity group median is 82 days, which is 75 days longer than the low-intensity group median.[17] The difference in the median duration between the two comparison groups is substantial in each population group. The median durations within the high-intensity group also vary across population groups. We return to this issue later when we discuss possible reasons for heterogeneous returns to high-intensity participation.

3.4 Outcome Variables

We evaluate the impact of high-intensity participation on the intensive and extensive margins of earnings in the first and second years after first participating in ASETS. Specifically, annual earnings are computed by aggregating gross earnings across all employer-filed tax records observed for a given individual in a given year. Because employer filing is mandatory, we record earnings as zero if no such records exist in a given year. We also consider an indicator for whether the individual is employed based on whether they have any employer-related earnings in a given year. Unfortunately, we only observe hours for those who have job separations; as such, we can not study the intensive margin of employment.

3.5 Control Variables

As we discuss in the next section, we use augmented inverse-probability weighting estimators. We are guided by Lechner and Wunsch (2013) in our choice of control variables. Specifically, for the ten years prior to ASETS participation, we include measures of annual earnings and employment from employer-filed tax records. For individual tax filers, we also observe ten years of previous income assistance (welfare) receipt and total income from all sources. Other labour market characteristics we use are indicators for prior unionized employment, employment with an Indigenous government, occupation in the most recent previous employment separation, and the reason for that separation. Our demographic

[17] We report duration histograms for each population group and comparison group in Online Appendix F.1, in Figures F.6 through F.8.

controls include age and indicators for whether a participant has a disability, has children, and their marital status. These demographic characteristics are defined relative to the year prior to first participation, or in the case of the disability indicator when the participant first started ASETS. We also control for prior participation in training, including measures for length of participation, type of program, and completion of previous programs.

We also use participants in all federally-funded labour market programs to construct measures of the local labour market in the year before ASETS participation.[18] We define a local area using the first three digits of their home postal code on their individual tax file. We construct two variables by pre-participation year: the share of participants without earnings and average earnings among all participants in any labour market program (including non-ASETS participants) in our database.[19]

For each variable, we also include indicators for missing values, such that we retain all participants in our estimates. For specifications that use the full sample, we include indicators for population group and sex. The full list of controls is reported in Table 2, and the details of each variable's construction are included in Online Appendix B, Section B.3.

Table 3, shows sample means and standard deviations in the high- and low-intensity groups for the full sample for a selection of control variables. This table also reports difference-in-means tests and raw and weighted normalized differences. The same statistics are reported for all groups and all variables in Online Appendix F.2, except for the weighted normalized differences, which are shown graphically in Online Appendix D.3. We discuss the normalized differences in Section 5. Status First Nations men and women form the largest population group in our sample, making up roughly 70% of both comparison

[18] In Table E.3 of Online Appendix E, we perform an exercise, using data aggregated at the local labour market, to show that our results are robust to controlling for population-based labour market measures.

[19] We do not control for local labour market fixed effects because, based on our understanding of the funding allocations, we believe that variation between similar local labour markets is more likely to be exogenous than within-local variation: see the Online Appendix Section C.

groups. Our sample is also fairly young and far more likely to live in a rural area than the overall Canadian population, of whom less than 20% live in rural areas (Statistics Canada, 2016).

4 Empirical Methodology

We use the potential outcomes framework as a conceptual basis for our estimation choices (Rubin, 1974). Let Y_i^1 denote the outcome, for example earnings, that a person, i, would have experienced had they been a high-intensity participant and Y_i^0 the outcome of that person if they had been a low-intensity participant. The effect of high- relative to low-intensity participation for each individual would then be defined as $Y_i^0 - Y_i^1$. However, both potential outcomes are never observed for any individual. Under certain restrictions on the data-generating process, it is possible to consistently estimate an average treatment effect (ATE). In our case, because we are always conditioning on ASETS participation, even under ideal circumstances, this would not be a population average. Throughout, when we refer to an ATE, we mean the average treatment effect conditional on participation,

$$\text{ATE} \equiv \mathbb{E}\left[Y_i^0 - Y_i^1 | \text{ASETS Participation}\right] \tag{1}$$

Estimating the average treatment effect, conditional on ASETS participation, requires that Y_i^1 and Y_i^0 are not related to others' treatment status, which is referred to as the stable unit treatment value assumption (Angrist et al., 1996). Further, the estimation methods we employ are consistent estimators of the average treatment effect in equation (1) under the assumptions, known collectively as *strong ignorability* (Rosenbaum and Rubin, 1983):

$$(Y_i^0, Y_i^1) \perp D_i | X_i \qquad \text{(unconfoundedness)} \tag{2}$$

$$0 < p(x) < 1 \qquad \text{(overlapping support)}, \tag{3}$$

We use $D_i = 1$ to indicate observed high-intensity participation and $D_i = 0$ for low-intensity participation. Each individual is also associated with a vector of covariates X_i, which

are unaffected by participation, and $p(x) \equiv \mathbb{E}\left[D_i | X_i = x\right] = Pr(D_i = 1 | X_i = x)$ is the propensity score.[20]

4.1 Estimating the Average Treatment Effect, Conditional on ASETS Participation

Under these assumptions, there are several practical ways to estimate the ATE. Our primary estimation strategy uses a doubly robust estimator known as the augmented inverse-probability weighting (henceforth, A-IPW) estimator (Robins et al., 1994; Robins and Rotnitzky, 1995; Scharfstein et al., 1999). This strategy requires an estimate for the propensity score, the probability of being in the high-intensity group, $\hat{p}\left(X_i\right)$, as well as estimates for the conditional expectation of the outcome for each counterfactual. The latter components can be obtained by regressing the observed outcome, Y_i, on a set of covariates, X_i, separately for the high- and low-intensity groups, which accounts for heterogeneity in the effects of covariates on average outcomes across the high- and low-intensity groups. Then, fitted values for the full sample are computed for each counterfactual outcome, $\hat{\mu}_1(X_i)$ and $\hat{\mu}_0(X_i)$. The A-IPW estimator combines these elements in the following way to compute an ATE:

$$\hat{\alpha}_{ATE} = \frac{1}{N}\sum_{i=1}^{N}\left(\frac{D_i(Y_i - \hat{\mu}_1(X_i))}{\hat{p}(X_i)} + \hat{\mu}_1(X_i)\right) - \frac{1}{N}\sum_{i=1}^{N}\left(\frac{(1-D_i)(Y_i - \hat{\mu}_0(X_i))}{1-\hat{p}(X_i)} + \hat{\mu}_0(X_i)\right) \tag{4}$$

The benefit of this procedure is that only one of the two models—either the propensity score or the regression adjustment—needs to be correctly specified to obtain unbiased parameter estimates (Scharfstein et al., 1999). In addition to using the A-IPW estimator, we verify that our results hold using a number of other estimation strategies. We discuss these estimators briefly in Section 6.1.3 and in detail in Online Appendix E.4.

[20] An average treatment effect on the treated (ATET) can be estimated under less restrictive assumptions, but in our data, the ATE and ATET are very similar in all instances, and thus, we do not report them. Estimates of the ATET are reported in the working paper version of this paper (Feir et al., 2022).

We first estimate a separate propensity score for each population group using a logit estimator, with the same set of controls as the estimate of average treatment effects. Throughout, whenever we estimate an ATE for a particular group, we estimate new propensity scores for that specific sample. Following the advice of Imbens (2015), we drop observations with estimated propensity scores above 0.9 and below 0.1. In some cases, we still have a tiny amount of mass in the tails of one group, but not in the other group; thus, we also drop observations that are in the bottom and top one-tenth of a percentile of the propensity score distribution. In summary, our trimming procedure is to drop observations with a propensity score estimate greater than the level of 0.9 or greater than the propensity score associated with the top 0.999 percentile of the distribution. Similarly, we drop observations with a propensity score estimate of less than 0.1 or less than the propensity score associated with the bottom 0.001 percentile of the propensity score distribution. Then, we use the `teffects aipw` package in Stata to implement the A-IPW estimator in our trimmed sample.

4.2 Propensity Score Estimates

In this section, we describe our propensity score estimates. In Online Appendix D.1, we report all logit coefficient estimate in Table D.1, and marginal effects for a select set of covariates in Table D.2. Across all groups, older individuals are less likely to receive high-intensity programming, consistent with existing literature (Andersson et al., 2016). Living in a rural area is also associated with a greater likelihood of high-intensity participation for all population groups. The year in which the individual started their ASETS spell is also an important predictor of high-intensity group membership, with individuals beginning in later years less likely to receive high-intensity programming compared to earlier years.

The results of estimating the propensity score also highlight the heterogeneity in ASETS programming across population groups. For instance, for Status First Nations and non-Status First Nations population groups, individuals with a disability are more likely to re-

ceive high-intensity programming, whereas the opposite is true for Métis population groups. Marriage predicts high-intensity programming for Status First Nations men and women, but not for Métis men and women. In the full sample, having children is associated with a greater probability of high-intensity participation, but the coefficient is only statistically significant for Status First Nations men.

5 Plausibility of Underlying Assumptions

Next, we discuss analyses that investigate the plausibility of the strong ignorability assumptions. These analyses reveal that the distributions of predicted propensity scores have excellent overlap and, after re-weighting, the means of our covariates are well balanced across the comparison groups. One reason for this is that everyone in our sample has elected to participate in some form of training or employment supports.

A second reason, which is introduced in Section 2, is that some of the variation in ASETS funding that Agreement Holders received is potentially independent of current needs and conditions because the funding formula was based on local demographic characteristics from 1996 and not the contemporaneous cost of delivering services. Because the funding allocations were not based on current demand, it is possible that some of the variation in high-intensity participation is exogenous. We discuss this in further detail in Online Appendix C. The regulations governing use of the data do not permit us to merge the funding levels or any external data sources with the microdata. The data also does not contain information about Agreement Holders. Thus, we cannot explore this hypothesis further or leverage the variation in funding directly. Nonetheless, we believe that our data are well suited for the non-experimental methods we use, as evident in the analyses that follow.

5.1 Assessing Overlapping Support

To assess the plausibility of overlapping support, we produce histograms of the estimated propensity scores for the high- and low-intensity groups, which are found in Online Appendix D.2. As described in Section 4.1, we trim observations with propensity scores above 0.9 or below 0.1 (Crump et al., 2009); those cut points are indicated with red lines on the histograms. We also trim observations with propensity scores below the 0.001 percentile and above the 0.999 percentile, which are marked with blue lines.

In all population groups, there is substantial overlap between the propensity score distributions in the high- and low-intensity groups. In the full sample, we trim 3,656 observations, which represents roughly 3% of the untrimmed sample. We lose the largest fraction of observations in the low-intensity group of Métis women, where the size of the trimmed sample is 87% of the size of the untrimmed sample. The vast majority of the trimmed observations are from the top of the propensity score distribution. The extent of overlapping support we observe is likely due to the fact that both groups sought out some type of active labour market programming, making them more similar than comparison groups in many other settings.

The degree of overlap in our data, particularly at the bottom of the distribution, is strikingly better than the comparison groups and covariates studied in the foundational papers that assessed whether propensity score matching methods can be used to evaluate training programs (Heckman et al., 1998; Dehejia and Wahba, 1999, 2002). For example, Dehejia and Wahba (1999) used the Panel Study of Income Dynamics (PSID) and the Current Population Study (CPS) to identify comparison units for LaLonde's (1995) sample of randomly assigned participants in the National Supported Work Demonstration. Dehejia and Wahba (1999) found that for more than half of the PSID and CPS samples the estimated propensity score was below the minimum value in the treated group. For the remaining sample, the vast majority of the potential control group members had propensity scores

below 0.05. Thus, we are reassured by the extent of overlap that we observe in our setting.

5.2 Assessing Balance on Observed Covariates

After we estimate the propensity score and trim, we conduct a series of exercises to assess the plausibility of the unconfoundedness assumption, also known as conditional independence. First, we re-estimate a logit model with high-intensity participation as the dependent variable in the trimmed sample. We use the same set of controls as in the original propensity score estimation, but we add to that the previously estimated propensity score. We then perform a test for the hypothesis that conditional on the estimated propensity score, the covariates do not jointly predict high-intensity participation. The last two rows of Online Appendix Table D.1 include the χ^2 statistics and associated p-values for this test. For the full sample and all population groups, the p-values approaches 1, suggesting that, once we condition on the propensity score, the covariates do not predict high-intensity participation. This provides supporting evidence that the propensity score is correctly specified.

Next, we return to the normalized differences in Table 3. While this table shows summary statistics for a select set of covariates for the full sample, these patterns are reflective of those for all groups and other covariates, found in Online Appendix F.2. The normalized differences are differences in the mean value of covariates, normalized by a measure of the standard deviation of those covariates and present a scale and sample-size free way of assessing balance and overlap between the high- and low-intensity groups (Imbens, 2015).[21] Column (6) presents the normalized differences using the raw means and column (7) presents the normalized differences using the propensity-score-weighted means.

Among the differences reported in Table 3, most of the normalized differences in column (6) are small, and none are above the 0.25 threshold discussed in Imbens and Rubin (2015).

[21] Formally, the normalized difference for covariate $X_{i,k}$ is defined as: $\Delta_{X,k} = \frac{\bar{X}_{t,k} - \bar{X}_{c,k}}{\sqrt{(S^2_{X,t,k} + S^2_{X,c,k})/2}}$, where $\bar{X}_{t,k}$ and $\bar{X}_{c,t}$ are the means of $X_{i,k}$ for the high- and low-intensity groups, respectively, and $S^2_{X,t,k}$ and $S^2_{X,c,k}$ are the standard deviations for the high- and low-intensity groups, respectively.

Indeed, all but one are under 0.13, a value Imbens and Rubin (2015) suggests is a degree of balance comparable to random assignment. All differences are substantively small as well. Although the normalized differences do not directly provide information on unobservable characteristics, they provide some evidence that, even in the unweighted data, the high- and low-intensity groups are reasonably balanced.

The weighted normalized differences in column (7) are all close to 0, which suggests that the reweighting balances any remaining small differences across the comparison groups. This can be seen graphically in Figure 1, which displays the normalized differences for the raw and weighted data for *all* covariates in our analysis, not just those included in Table 3.[22] Here, even before weighting, the normalized differences are all small in magnitude. Further, after weighting, the normalized differences approach 0 for every covariate. Online Appendix Figures D.11-D.13 provide another way to visualize this through histograms of the raw and weighted normalized differences. In those figures, the weighted normalized differences are all tightly clustered around 0. In addition to the normalized differences, Online Appendix Figures D.14-D.16 display similar histograms for the ratio of high-intensity to low-intensity covariate variances. As in Figure 1, it shows raw and weighted variance ratios, where it is evident that, after reweighting, the variance ratios cluster around 1. Together, the mean and the variance comparisons allow us to obtain a more comprehensive characterization of the degree to which the distributions of covariates are similar after re-weighting (Austin, 2009).

Overall, our analysis suggests that the propensity score is correctly specified. In Online Appendix Section D.6, we provide additional evidence supporting the plausibility of unconfoundedness.

[22] Figures D.5-D.10 of the Online Appendix include analogous figures for each population group.

6 Results

6.1 Earnings and Any Employment

In this section, we report the estimated impact of high-intensity participation on earnings and the probability of any employment. Table 4 reports the main results, estimated using the augmented inverse-probability weighting procedure (AIPW). The table is structured such that each column presents the results for a different Indigenous and sex population group, with the first column displaying results for the full sample. Panel A presents the results for earnings, in $1,000s, and Panel B presents the results for employment. The first two rows of each panel display the estimated mean outcomes in the low-intensity group in the first and second years following participation. The next two rows display the ATEs in the first and second years following participation. Standard errors are clustered by the first three digits of the home postal code, or Forward Sortation Area (FSA). We also denote which estimates are statistically significant after Bonferroni correction for 28 total tests in Table 4.

6.1.1 Effects on Earnings

Beginning with earnings in Panel A, we find that, overall, any effects on average earnings were larger in the second year following participation, which is consistent with the existing literature suggesting that the earnings effects of job training are initially low while participants may still be participating in training activities (Card et al., 2010, 2018).[23] Among Status First Nations men and women, average earnings in the first year following program participation are statistically significantly lower in the high-intensity group compared to low-intensity participants. That comparison is positive in the other groups, though never

[23]Because our earnings variables come from tax files, earnings "one year" following participation refers to the calendar year following the year of first participation. The number of months between the first participation and each follow-up year would have varied depending on which month a participant entered ASETS. In the appendices of Feir et al. (2022), we investigate how the effects varied by which part of the year participants entered ASETS.

statistically significant at a 5% level. Comparing across groups, however, there is considerable overlap in the 95% confidence intervals for the year-one earnings differences.

In the second post-participation year, high-intensity participants earned an average of $941 more than low-intensity participants across the whole sample. This represents a difference of almost 6% over the estimated low-intensity group mean for the second year post-participation. However, the estimate for the full sample masks marked differences in the effect sizes when comparing the estimates for Status First Nations men and women with the other two population groups. For Métis men and women, the comparison-group difference in average year-two earnings is $2,939 and $3,370, respectively. The differences are also large for non-Status First Nations men ($1,904) and women ($2,510). Although there are no exactly analogous estimates from the internal ESDC (2020) evaluation of ASETS, the most comparable estimates are from the sample of ASETS participants who had not previously received Employment Insurance. For this group, earnings in the three post-participation years are, cumulatively, $2400 higher for participants in any high-intensity intervention relative to low-intensity (ESDC, 2020, p. 4).

The size of our estimates tend to be on the higher end of effects reported for training programs in other contexts. In Greenberg et al.'s (2003) meta-analysis, the mean estimate of the impact of training for men is $318, though the estimates ranged from -$2,511 to $4,703. For women, their mean estimate is larger, at $1,417, with a range from -$1,229 to $4,690. Given that one-third of ASETS participants were aged 18-24, and as Greenberg et al. (2003) point out, the range of effect sizes tends to be larger in younger samples, our estimates for Métis and non-Status men and women are plausible. Moreover, on average, the return to investing in human capital acquisition is high for Indigenous populations (Walters et al., 2004; Pendakur and Pendakur, 2011; Hu et al., 2019). For further context, in 2015, the average weekly wage rate for an Indigenous person in Canada between the ages of 15 and 64 was $857.30 (Statistics Canada, 2024). Given the range of our estimates, participants would only have to increase their work hours by between a few weeks or work a bit over one

month per year to see these increases.

The large earnings differences between high- and low-intensity participants that we find for Métis and non-Status First Nations populations are in stark contrast to Status First Nations men and women, for whom average earnings two years after entering ASETS were very similar for high- and low-intensity participants. These effects are precisely estimated, so the point estimates for Status First Nations men and women fall outside the 95% confidence intervals of the other population groups. We explore this finding in more depth in the next section.

Although the gender differences are dwarfed by the differences across Indigenous population groups, in the Métis and non-Status population groups, the effects are slightly larger for women in levels, though not larger than one standard error. Nonetheless, because women earn less than men, on average, similar-sized effects represent a larger proportionate improvement in earnings. Among men, the intensity-group earnings differences are roughly 11-12% above the estimated low-intensity group means in the second year post-participation for Métis and non-Status First Nations populations. In comparison, for women, the analogous percentage difference is 20 for both Métis and non-Status First Nations populations. In the context of the existing literature, the meta-analyses in LaLonde (1995) and Greenberg et al. (2003) report larger training impacts among women relative to men, a finding that has been echoed by more recent work (e.g., Andersson et al. (2016)).

The two-year post-participation period that we use is a fairly narrow observation window. In Online Appendix E.5, using a sample restricted to the 2010-2012 entering cohorts, we show that these earnings effects are similar in the third and fourth post-participation years.

6.1.2 Effects on Employment

The second panel of Table 4 reports the effects of high- relative to low-intensity participation on any employment in a year. Again, we estimate larger effects in the second post-program year, though for men the effects are generally small and only marginally significant in the

Métis population. Among women, the group differences in employment ranged from 1.4 percentage points in the Status and non-Status First Nations population groups and 2.36 percentage points among Métis. These employment effects lie in the middle of estimated effects for the non-Indigenous population studied in Andersson et al. (2016).

Compared to the size of the earnings differences, the employment effects are relatively small, suggesting that high-intensity participation likely has an effect on either wages, or hours and weeks of work. We do not observe those outcomes in our data so we cannot investigate this possibility directly. Nonetheless, the ability to study the intensive margin of labour supply is particularly relevant for Indigenous populations, as previous research suggests that the earnings differential between Indigenous and non-Indigenous populations is directly attributable to weeks worked (Feir, 2013) and the over-representation of Indigenous workers in non-standard forms of employment (Lamb, 2013). Understanding how adjustments are made along this dimension has important implications for inequality and policy. While we are not able to address that deficit with our data, we highlight the need for richer data and more research on this topic.

6.1.3 Robustness of Main Results

This section describes three exercises we undertake to demonstrate the robustness of our key results.

Sensitivity analysis: We begin with an approach developed by Cinelli and Hazlett (2020) that computes bounds on omitted-variable bias in Ordinary Least Squares (OLS) estimates. In the first row of Table 5, we repeat the A-IPW estimates for year-two earnings from Table 4 and then, in the second row, we show the OLS estimates from a regression of year-two earnings on high-intensity participation, and all of our other controls (which are not reported). Under the same set of circumstances where the A-IPW consistently estimates an average treatment effect, OLS estimates a variance-weighted treatment effect (Angrist

and Pischke, 2009). Our OLS estimates are always within one standard error of the A-IPW estimates; as such, we believe computing bounds on the omitted variable bias of our OLS estimates is an informative exercise.[24]

Cinelli and Hazlett (2020) argue that when there are context-specific reasons to expect that an observed variable plays a particularly important role in determining "assignment to treatment", informative bounds on the omitted-variable bias can be computed, under the assumption that the explanatory power of the confounding variables is no greater than that of the benchmark variable. Assignment to treatment, in our context, means selecting into high- rather than low-intensity participation, among ASETS participants. In Panels B and C of Table 5, we report estimates that are adjusted for omitted variable bias from confounders that have as much explanatory power as two different observed benchmark covariates.[25] In both of these panels, we also report the partial R^2 for the benchmark in a regression of earnings on high-intensity participation and all other covariates ($R^2_{Y\sim X_j|X_{-j}}$) and an analogous regression of high-intensity participation on all the covariates ($R^2_{D\sim X_j|X_{-j}}$). All partial R^2 values in the table are reported as percentages (0-100).

The first benchmark variable we use is the mean earnings among all labour market program participants in the local area defined by the first three digits of a postal code.[26] This measure, computed in the year prior to first ASETS participation, should capture some aspects of local labour market conditions related to hours and wages, including the opportunity costs of high-intensity participation. Empirically, this variable also has considerable predictive power in the residual variation in high-intensity participation among Métis men and women, 1.8% and 3%, respectively. The explanatory power is much weaker in the other groups, yet another reflection of the program heterogeneity across population groups.

[24] In Online Appendix E.1 we report the robustness values and other sensitivity measures recommended by Cinelli and Hazlett (2020).

[25] We select these benchmark covariates based on economic arguments; however in Online Appendix E.1, we show additional adjusted estimates that are constructed by choosing the benchmark with the largest product of partial R^2 values for each individual population group.

[26] The variable is defined in full in Section 3.

Under the assumption that any confounders explain no more of the residual variation in high-intensity participation and the outcome than the mean earnings in the local area, the OLS estimate in the full sample falls from $889 to $794. The small difference is unsurprising since the partial R^2 values are so small. The bias adjustment is larger in the Métis groups, where the partial R^2 for the regression of high-intensity participation on the covariates is the largest. After adjusting for bias from confounders that are as predictive as the local labour market benchmark, the OLS estimates fall by $395 (13%) and $482 (17%) for Métis men and women, respectively. Even after this adjustment, the participation-group difference in average earnings remains statistically significant and substantively large.

In panel C, we use individual earnings in the year prior to the individual's first ASETS participation as the benchmark covariate. There are two related reasons to expect that this variable would make a good benchmark. First, prior research has found that controlling for pre-participation outcomes is important for removing bias (Lechner and Wunsch, 2013). Second, controlling for pre-participation earnings, in either the high-intensity participation or earnings regression, can be thought of as controlling for any permanent characteristics that determine earnings. For example, we do not observe the education level of participants; however, to the extent that educational attainment affects earnings, we can control for those factors up to the year before ASETS participation. Instead, we need to be concerned about whether the contemporaneous unobserved factors that determine earnings also determine high-intensity participation.

Although the literature on active labour market programs suggests that prior earnings is a good choice for a benchmark variable, the partial R^2 values in the high-intensity participation regressions are in fact very small, as shown in the last row of Panel C. Consequently, the adjusted estimates are very similar to the OLS estimates.

Naturally, we can never rule out the possibility that our estimates are biased by unobserved confounders. However, this analysis demonstrates that should such unobserved variables exist, they would be unlikely to reverse our results unless they are more strongly

predictive of both high-intensity participation and post-participation earnings than pre-participation individual earnings or mean earnings in the local area. Additionally, in Online Appendix E.1, we show that there is a only weak correlation between the predictive power of our covariates in the earnings and in the high-intensity regressions. Since omitted variable bias is the product of correlations between confounders in the outcome and participation equations, omitted variables, which could reverse our results, would need to behave quite differently than our observed covariates, which include 10 years of prior employment and earnings.

Outcomes in differences: In Online Appendix E.2, we present results for our main outcomes of interest, earnings and employment, where we specify the regressors in terms of differences relative to the year prior to program participation. That is, for one year post-participation, $\Delta Y_i = Y_{i,1} - Y_{i,-1}$ and for 2-years post participation, $\Delta Y_i = Y_{i,2} - Y_{i,-1}$. As before, we use the A-IPW estimator. Table E.2 shows these results, which are identical to the estimates in Table 4.[27] Differencing the outcomes in this manner allows us to account for time-invariant individual-level heterogeneity. That the estimates remain unchanged is likely because our main specifications already control for labour market outcomes in the year prior to participating in ASETS.

Alternative estimators: Section E.4 of the Online Appendix presents a set of figures that show estimates of the ATE computed using different estimators. First, we consider a version of the A-IPW estimator, where the controls used to estimate the propensity score and those used in the outcome equation are chosen independently via Lasso procedure (LASSO). This process happens separately for each outcome and population group. We view this as a statistical exercise. Whereas, our original choice of controls was motivated by economic intuition, as well as the norms in the existing literature, the Lasso procedure allows us to

[27]The estimates begin to differ at the 9th decimal point, which is too many to display in the table.

remain agnostic regarding the exact controls and interactions that should be included in the model.

Next, we consider separately the two individual components of the doubly robust A-IPW estimator. We first estimate a model using only inverse-probability weighting (IPW) and then using only the regression adjustment (RA) piece. We also consider another doubly robust estimator, which uses inverse-probability weighting with regression adjustment (IPW-RA). Unlike the A-IPW, which uses an augmentation term to correct the estimator when the treatment model is misspecified, the IPW-RA model uses estimated inverse probability weights to perform this correction.

Finally, for population groups with smaller sample sizes, we report estimates obtained using a nearest neighbor matching approach (NN). It proved too computationally intensive to compute these estimates for the largest population groups—the full sample and the Status First Nations groups. The NN approach is more flexible than our other approaches, in that it is a non-parametric model.

More details on each of these specifications, including formulas for the parameters being estimated and, in the case of NN estimator, the number of neighbors can be found in Online Appendix E.4. All approaches yield very similar estimates of the ATE, which can be seen in Figures E.1 through E.7.

6.2 Institutional and Contextual Factors That Contribute to Earnings Differences

Comparing the earnings of high- and low-intensity participants, after conditioning on a wide range of individual characteristics, yields strikingly different estimates between Status First Nations relative to non-Status First Nations and Métis populations. We identify three possible explanations for the heterogeneous effects across population groups: (1) Status First Nations men and women are more likely to work on reserves where institutional differences could constrain the return to high-intensity participation; (2) population groups may have

deferentially accessed alternative programs to ASETS and finally, (3) The capacity of Agreement Holders to deliver high-intensity programs may differ across population groups. In this section, we discuss these explanations in detail.

The discussions in this section were informed by our reading of related literature, the case studies conducted, and descriptive evidence from our data. Our analyses reveal the potential importance of contextual factors in shaping participants' outcomes and in how estimates like ours should be interpreted.

6.2.1 The Institutional Context Governing Work on Reserves

Status First Nations people are much more likely to live and work on reserves, than other Indigenous population groups. Previous research has suggested that the returns to education may differ for those living on reserves (Drost, 1994; George and Kuhn, 1994; Feir, 2013) and those living on reserves are not always impacted by skill-acquisition policies in the same way as other Indigenous groups (Kuhn and Sweetman, 2002; Jones, 2023). From the employer's side, opening and operating a business in a reserve jurisdiction is potentially quite different than doing so outside of one. For example, in both Canada and the United States, in reserve or reservation jurisdictions, there are significant institutional barriers to entry for private sector firms that limit the types of jobs and quantities of jobs available. These barriers include federal restrictions on approvals for land use, a lack of zoning or other land regulations, and access to services such as reliable internet (Richard et al., 2008; DeWeaver, 2010; Canadian Council for Aboriginal Business, 2016; Akee et al., 2018; Feir, 2022; Feir and Scoones, 2022). A consequence of these barriers to entry is that there are fewer businesses per resident than in similarly sized non-Indigenous communities (Jafri and Alasia, 2019), which may limit employment opportunities or career advancement even if community members upgrade their skills. Thus, policies that directly target human capital accumulation intending to increase earnings and employment could have limited efficacy along these dimensions if labour demand is constrained.

We explore whether the empirical evidence is consistent with the institutional differences associated with working on a reserve. While we do not observe precisely where participants lived, for Status First Nations participants, we can construct an indicator for working on reserve using employer-filed tax records. Employment income that is earned on a reserve by a person who is registered under the Indian Act and thus has "Status" is not subject to income tax but is included on employer-filed tax records. From this information, we create an indicator that equals one if a person had any tax-exempt earnings in a given year, and zero otherwise. We then separate the sample of Status First Nations participants based on their earnings in the year before ASETS participation: those with tax-exempt earnings, those without tax-exempt earnings but some other non-exempt earnings, and those without earnings. Individuals in the tax-exempt-earnings group may have also had non-exempt earnings, implying they also worked off reserve.

In each pre-participation earnings group, we report the estimated relative effect of high-intensity participation on post-participation earnings in Table 6. In the group of Status First Nations men who had worked on reserve before entering ASETS, the difference in earnings between the comparison groups is negative and statistically significant in the first year, and statistically insignificant in the second year. For Status First Nations women who had worked on reserve before entering ASETS, the difference in earnings is negative and statistically significant in both years.[28] The differences are similar for those who had no earnings in the year prior to their ASETS participation. In contrast, by the second year, among men who had worked off reserve, average earnings in the high-intensity group are higher than those in the low-intensity group by an economically and statistically significant margin. There is also no overlap in the 95% confidence interval for the year-two earnings estimates for men in the non-exempt group and the confidence intervals for the estimates

[28]Wages on reserve might be lower than off reserve in compensation for the fact that on-reserve earnings are tax exempt. In Online Appendix E.6, we calculate after-tax earnings using Milligan's (2016) tax calculator and show that this does not affect the overall pattern of our results.

in the other groups of men. For women with non-exempt pre-participation earnings, the earnings difference between high- and low-intensity participants is smaller ($571) and only marginally significant. While these effect sizes are smaller than what we find in the Métis and non-Status First Nations groups, these earnings differences represent 5% and 4% larger earnings compared to the estimated earnings in the second year following participation for the low-intensity group of men and women, respectively. This suggests that place of work may matter for the returns to high-intensity participation.

The similarity of year-two earnings between the high- and low-intensity groups who had prior on-reserve employment could be because reserves are located in rural or remote places where there are few job opportunities or lower returns to skills development. We verify that post-participation earnings are similar in both comparison groups for those with pre-participation on-reserve employment by whether they lived in a remote, rural but not remote, or urban but not remote area in Table 7. We do not find an earnings return to high- relative to low-intensity participation in any of these three groups suggesting that it is not the fact that reserves tend to be in rural locations that drives the lower estimates among those with pre-participation on-reserve employment.[29]

Differences in the characteristics of individuals who work on reserve before their ASETS participation is another possible reason for the heterogeneity in returns. For example, compared to those with off-reserve or no employment, Status First Nations participants with prior on-reserve employment are more likely to have had a job in the Indigenous public service, less likely to have held a unionized job, and less likely to have filed an individual tax form. To further explore whether the pattern of earnings returns are driven by the nature of individual sorting into on- and off-reserve employment, we compare differential earnings growth among individuals who transition from on- to off-reserve employment in Table 8.

Specifically, Table 8 shows the growth in earnings among Status First Nations people

[29]Table E.5 of the Online Appendix shows that the urban, rural, remote results hold generally, and not just for Status First Nations people who work on reserves.

for combinations of pre- and post-participation places of work within both the high- and low-intensity groups. As an example, the first row reports earnings growth for individuals who had some on-reserve employment in the pre-participation period and who continued to have on-reserve employment in the post-participation period. Within these transition types, mean earnings growth for the high- and low-intensity groups are reported in columns (1) and (3), respectively. The shares within the high- and low-intensity groups who made each employment transition are reported in columns (2) and (4), respectively.[30] Finally, the differences between the high- and low-intensity groups in average earnings growth and the share in each employment transition type are shown in columns (5) and (6). Earnings growth and the shares are weighted by the inverse propensity score estimated in separate samples based on sex and pre-participation employment.

In effect, Table 8 decomposes the average difference between the comparison groups into the portions that are attributable to differences in shares and those attributable to differences in relative-earnings growth across each employment-transition category. As is evident from the last column of Table 8, high- and low-intensity participants are essentially equally likely to make each of the different employment transitions. In contrast, the relative earnings growth does vary across transition types. The first two rows compare individuals who worked on reserve prior to their ASETS participation. For those who transitioned to off-reserve employment, mean earnings growth for high-intensity participants is roughly $1,000 higher than for low-intensity participants making the same transition.[31] In contrast, earnings growth among the high-intensity participants who remain in on-reserve employment is $809 lower relative to their low-intensity counterparts. The difference in earnings losses between high- and low-intensity participants who transitioned from on-reserve employment

[30] We do not report earnings growth for the group that had no employment before and after participation, which means the shares do not sum to 1.

[31] Individuals may live on reserve and work off reserve. Thus, the positive differential earnings growth for high-intensity participants who leave on-reserve employment does not necessarily mean that individuals needed to leave their communities to find employment or to experience an earnings return to high-intensity programming.

to no employment is $730. Because the share of individuals who transition to off-reserve employment is relatively small, the negative differences dominate in the overall comparison between high- and low-intensity participants who worked on reserve before ASETS.

If the heterogeneity in returns was entirely driven by the fact that individuals with lower propensities to benefit from high-intensity participation are most likely to work on-reserve prior to their ASETS participation, one would expect to see that differential earnings growth is the same whether or not a person works off reserve in the post-participation period. The descriptive evidence in Table 8 shows that that is not the case. While the fact that high-intensity participants experience higher relative earnings growth if they transition from on- to off-reserve employment is not sufficient to conclude that working on reserve causes lower returns, it does suggest that on-reserve labour markets may not offer the same returns to high-intensity participation as work off reserve.

6.2.2 Other Programs Available Across Population Groups

One important institutional difference across population groups is the range of other programs that participants might have accessed outside the Indigenous-serving ASETS program. Here, we explore differential access to programs from Employment Insurance, the possible role of the First Nations Job Fund, and institutional differences in access to federal post-secondary funding.

Differential Use of Employment Insurance Training Programs: A participant might have received employment assistance services from ASETS but attended a skills development program through the Employment Insurance program all qualified Canadians can access. In our data, we can observe when ASETS participants engaged in any federally funded active labour market program. In the appendices of Feir et al. (2022), we report estimates for an alternative measure of high-intensity participation, including participation in any intervention that we classify as high intensity under any program at any time in the follow-up period. Using this definition, the fraction of the full sample in the high-intensity group

increases from 64% to 71%, but the estimated effects change very little if we re-define high-intensity participation as anyone who received high-intensity interventions through any federally-funded program. In particular, the estimated participation-group earnings differences remain large for Métis and non-Status men and women, and small among the Status First Nations participants. Thus, we take this as evidence that participation in other programs does not drive differences across groups.

The First Nations Job Fund: As mentioned in Section 2, ASETS participants may also have received similar services through provincial, territorial, and federal income assistance programs. One relevant distinction in federal programming across population groups stems from a reform announced in 2013 that included enhanced case management and $108.6 million over four years for the First Nations Job Fund, which provided services and supports similar to ASETS to youth living on reserve, who would be disproportionately Status First Nations (Indigenous and Northern Affairs Canada, 2016b). This fund supported the same types of projects and "training-to-employment" activities as those under ASETS but with a focus on those between the ages of 18 to 24 (McColeman, 2014, p 52). Online Appendix Figure E.8 shows that our estimates for Status First-Nations participants are similar when we exclude the 2013 and 2014 cohorts when the First Nations Job Fund was introduced.

Access to Federal Post-Secondary Funding: It could also be that non-Status and Métis groups were more likely to use ASETS funding for post-secondary training because these groups did not have access to the same federal education funding available to Status peoples.[32] We examine the duration of interventions to shed light on whether the forms of interventions vary across population groups in a way consistent with this hypothesis.[33] The distribution of lengths for each type of high-intensity category are found in Table 9. This table groups low-intensity interventions into a separate category. In cases where participants

[32]The federal government provides a large amount of funding Status First Nations people who are enrolled in recognized post-secondary institutions (Jones, 2023). This funding is not available to other Indigenous groups.

[33]In the appendices of Feir et al. (2022), we show that the contrast in earnings between high- and low-intensity participants increases with the duration of the participation.

in the high-intensity group had more than one intervention type we use the first high-intensity intervention. We separated participation duration into four categories of 90 days in length, with the final category including programs that lasted more than 270 days. Each row in a panel reports the fraction of the population group in each duration category.

The largest differences in participation durations across population groups occurred in the skills development and job creation partnership (JCP) categories. In our data, less than 4% of the overall sample participated in JCP interventions and less than 1% of Métis were JCP participants. As such, the differences in JCP durations are unlikely to drive the differences in the relative effect of high-intensity participation across population groups.[34]

Skills development was the most common intervention type and is how we would expect post-secondary education funded by ASETS to be coded. The participation duration was less than 90 days for more than half of both Status and non-Status First Nations skills-development participants. In contrast, among Métis, only 29% of the skills-development participation lasted less than 90 days. Indeed, just over a quarter of Métis skills-development participants engaged in ASETS interventions for more than 270 days. In comparison, the share of Status and Non-Status participants with skills-development interventions lasting for more than 270 days were 13% and 17.5%, respectively.

We are unable to confirm why Métis skills-development participants spent more time in ASETS interventions. If it was because they were more likely to be attending post-secondary programs, then the large return to high-intensity participation could be attributed to high returns to post-secondary education among Métis, as more general studies sponsored by Métis ASETS Agreement Holders have argued in the past (Howe, 2011, 2013).

Previous studies have also shown that active labour market programs that focus on skills acquisition tend to produce better labour market outcomes (Card et al., 2018), and the fact that Métis skills-development participants spent longer in ASETS interventions may have

[34]We also show, in the appendices of Feir et al. (2022), that the estimates are similar if we include only skills development interventions in the high-intensity group, and if we exclude Apprenticeship participants.

contributed to the larger effect of high- relative to low-intensity participation. However, this is unlikely to explain why effects on earnings were much smaller among Status First Nations than non-Status First Nations participants since these population groups attended programs of similar length.

6.2.3 The Capacity of Agreement Holder to Deliver High-Intensity Programs

Another factor that may contribute to the differential effect sizes observed across population groups could be the scale and program delivery capacity of Métis Agreement Holders, which are, on average, much larger and more centralized than Agreement Holders focused on servicing their local First Nation communities. Our case studies suggest that many of the Métis Agreement Holders are larger and offer opportunities for a larger number of high-intensity programs and, at times, wrap-around service delivery. However, this is not consistently true for Agreement Holders serving other population groups. Because we do not observe which Agreement Holder funded each intervention in the database, we are not able to investigate this further here. This is a worthwhile area of future research.

7 Conclusion

We evaluate the Aboriginal Skills and Employment Training Strategy (ASETS), a suite of active labour market programs for Indigenous groups in Canada. We use a new data source that contains information on the universe of ASETS participants that has also been linked to tax files and other sources of administrative data. We compare labour market outcomes of individuals whose participation is characterized as high-intensity to those with low-intensity participation. Our empirical comparison effectively evaluates the intensive margin of ASETS participation.

We find that the earnings returns to high- relative to low-intensity participation differed strikingly across legally distinct Indigenous groups in Canada. For non-Status First Nations and Métis men and women, relative to those in low-intensity programs, average earnings among high-intensity participants were substantially higher just two years following par-

ticipation, and there is evidence that those earnings differences were stable for up to two additional years. In contrast, among Status First Nations men and women, starting in the second post-participation year, average earnings among high- and low-intensity participants were statistically indistinguishable from each other. For all groups, gains in employment were very small.

We suggest that the heterogeneity in earnings returns between Métis and Status First Nations participants is plausibly explained by the different institutional environments facing these groups. In particular, the lower relative earnings returns to high-intensity participation for the Status group is concentrated among participants who worked on reserve before participating in ASETS, regardless of whether the reserve was in an urban, rural, or remote area. This pattern is consistent with the institutional differences that exist between the structure of labour markets on and off reserve. In line with this institutional explanation, we show that Status First Nations participants who transitioned to working off reserve in the post-participation period experienced earnings returns to high-intensity participation, whereas those who remained working on reserve saw lower earnings growth with high-intensity participation. We find that high- and low-intensity participants were equally likely to make each type of work transition, thus, in aggregate, we do not find a return to high-intensity participation for the Status First Nations group. Given that existing research suggests there are regulations creating barriers to firm entry and investment in reserve areas that do not exist off reserve, our results highlight a potential role for labour demand constraints in influencing the effectiveness of active labour market programs.

The large return to high-intensity participation among the Métis population group may also be related to institutional features. Specifically, there were no federal student financial aid programs specifically serving Métis people and therefore they may have been more likely to access ASETS funding for post-secondary education than Status peoples. The fact that Métis high-intensity group members tended to participate in ASETS for much longer durations is consistent with this explanation. Métis service delivery organizations were also

substantially more centralized than many of those serving Status First Nations men and women, which may have led to more comprehensive programming among this demographic.

There are limitations to our evaluation that are important to note. We are unable to speak to any potential non-pecuniary returns to ASETS participation. Even if Status First Nations people who continued to work on reserve following ASETS participation did not experience an increase in their individual earnings, they may still have experienced improvements in confidence or higher job satisfaction, and there may have been broader gains to the community. In addition, because our estimates are conditional on participation, they are not informative of effects outside the population of participants. This would be important if there were reforms to similar programs that substantially changed the nature of participation. Finally, we are unable to evaluate the degree to which individualized racism or labour market discrimination explains heterogeneity in outcomes, though this may play an important role (for a discussion, see Button and Walker (2020)).

Overall, the diverse experiences of Indigenous groups who participated in ASETS underscores the potential importance of context in predicting the relative impacts of active labour market programs. Our results are consistent with programs that emphasize skills development being less effective at improving the labour market outcomes of groups traditionally excluded from opportunities for economic mobility when there are other institutional forces that limit the investment of firms in a particular region. In these circumstances, active labour market programs may be ineffective until those barriers are dismantled.

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8 Figures and Tables

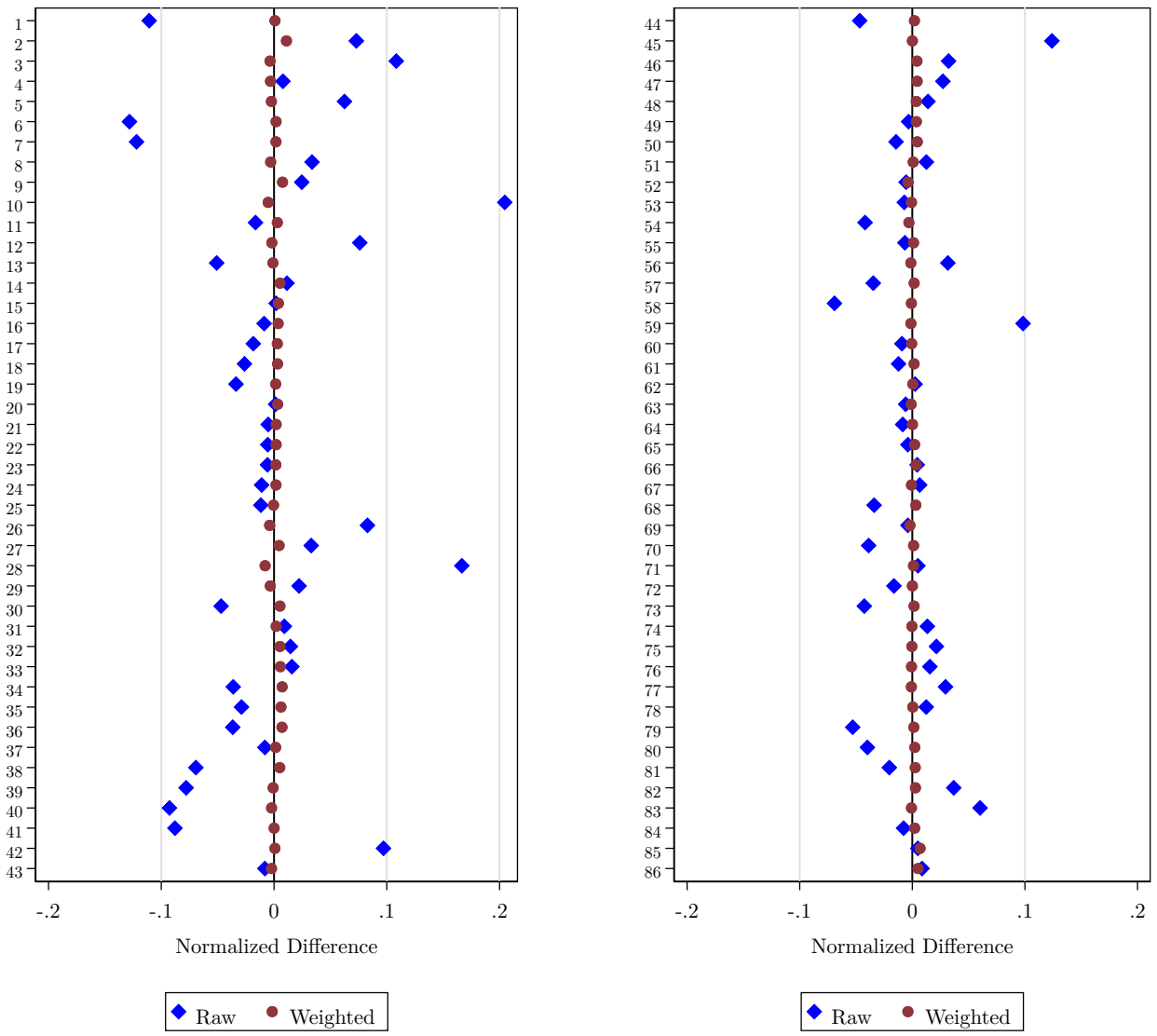

Figure 1: Normalized Differences in Means for the Full Sample

Notes: This plot displays normalized differences in the means of covariates between high- and low-intensity comparison groups. Maroon circles and blue diamonds represent raw and weighted normalized differences, respectively. Variable labels are found in Table 2.

Table 1: Percentage of High- and Low-Intensity Participation and Median Participation Duration

	Full Sample			
	Low-Intensity	**High-Intensity**		
Percentage	36.32	63.68		
Mean Duration	29.75	126.85		
Median Duration	7	82		
Sample Size	42,821	75,024		
	Men		**Women**	
	Low-Intensity	**High-Intensity**	**Low-Intensity**	**High-Intensity**
Status First Nations				
Percentage	38.13	61.87	35.29	64.71
Mean Duration	26.85	99.18	31.39	132.45
Median Duration	4	54	9	87
Sample Size	17,286	28,043	13,113	24,029
non-Status First Nations				
Percentage	49.03	50.97	47.28	52.72
Mean Duration	35.84	120.30	37.44	147.67
Median Duration	29	77	32	92
Sample Size	1,637	1,702	1,276	1,423
Métis				
Percentage	35.67	64.33	32.61	67.39
Mean Duration	32.65	151.91	30.59	216.22
Median Duration	18	103	6	223
Sample Size	2,562	4,621	2,579	5,329

The duration of ASETS participation is the number of days recorded in all ASETS interventions during the first ASETS spell. The days when there was a break in participation are not included in the count.

Table 2: List of Control Variables and Index for Figure 1

Population Group: Base, Status FN
1. Non-Status First Nations
2. Métis
3. Inuit
4. Unspecified, Indigenous

Demographic Variables
5. Female
6. Age
7. Age squared
8. Has children
9. Disability at ASETS start
10. Lives in a rural area

Prior Marital Status: Base, Unreported
11. Single never married
12. Married or Common Law
13. Separated, Divorced or Widowed

Earnings ($1,000's) by Prior Year
14. 1 year prior
15. 2 years prior
16. 3 years prior
17. 4 years prior
18. 5 years prior
19. Total 6–10 years prior

Earnings Squared by Prior Year
20. 1 year prior
21. 2 years prior
22. 3 years prior
23. 4 years prior
24. 5 years prior
25. Total 6–10 years prior

On-Reserve Tax-Exempt Earnings ($1,000's)
26. Total 1–3 years prior
27. Total 1–3 years prior squared

Other Employment Measures
28. Worked in Indig. Pub Admin. past 5 years
29. No prior employer in past ten years
30. Last employment included union dues
31. Had any employer in last five years
32. Years with any employer in past 5
33. Years with any employer in past 5 squared
34. Years with union dues in past 5
35. Years with union dues in past 5 squared

Income ($1,000's)
36. 1 year prior
37. 1 year prior squared
38. Total 2-10 years prior

Income Assistance Receipt
39. Amount 1 year prior ($1,000's)
40. No IA income in year prior
41. Total amount 2-5 years prior ($1,000's)
42. No IA income in 2–5 years prior

Prior Local Labour Market
43. Local geography code missing
44. Prior ratio of not working to population
45. Mean prior earnings in local area

Employment (Earnings > 0 by Prior Year
46. 1 year prior
47. 2 years prior
48. 3 years prior
49. 4 years prior
50. 5 years prior

Entry Year: Base, 2010
51. 2011
52. 2012
53. 2013
54. 2014

Job Separation Reason: Base, No Prior Job
55. Working when starting ASETS
56. Layoff
57. Quit
58. Dismissal
59. Schooling or apprenticeship
60. Illness, injury or leave
61. Other reasons

Occ. of Prior Job: Base, No Prior Job
62. Management
63. Business, finance, admin
64. Natural/applied science and health
65. Educ, law and social, gov't and cmty services
66. Art, culture, rec., sport
67. Sales and service
68. Trades, transport, equip. operators
69. Nat. resources, agri. and related.
70. Manufacturing and utilities

Employment Insurance Reciept
71. Active EI claimant
72. Former EI claimant (within 3 years)
73. Former EI claimant (> 3 years ago)
74. Benefits in 5 prior years ($1,000's)
75. Benefits in 5 prior years squared
76. Weeks in 5 prior years
77. Weeks in 5 prior years squared
78. Wks earnings b/w EI-ASETS start
79. EI insured hours at ASETS start
80. Months b/w start of EI and ASETS

Prior Program Participation
81. Any previous high-intensity ALMP
82. Months of last prior program
83. Months of last prior progam squared
84. Last prior program was completed
85. Total months of all prior programs
86. Total months of all prior programs squared

The numbers to the left of the variable description correspond to the index of normalized differences in Figure 1. Variables are briefly described in section 3.5 and fully explained in Appendix B, Section B.3. The occupation of the prior job are taken from the Employment Insurance records; thus, individuals who never recieved EI are in the "no prior job" category.

Table 3: High- and Low-Intensity Group Means for the Full Sample, Differences in Means, and Normalized Differences in Means

	High-Intensity		**Low-Intensity**			**Normalized**	**Weighted Norm.**
	Mean	**S.D.**	**Mean**	**S.D.**	**Difference**	**Difference**	**Difference**
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**
Status First Nations	0.694	0.461	0.711	0.453	-0.016***	-0.036	0.000
					(0.003)		
Non-Status First Nations	0.042	0.200	0.067	0.250	-0.025***	-0.111	0.001
					(0.001)		
Métis	0.147	0.354	0.122	0.327	0.025***	0.073	0.011
					(0.002)		
Inuit	0.024	0.154	0.010	0.101	0.014***	0.108	-0.004
					(0.001)		
Unspecified, Indigenous	0.093	0.290	0.091	0.287	0.002	0.008	-0.003
					(0.002)		
Female	0.472	0.499	0.441	0.497	0.031***	0.063	-0.002
					(0.003)		
Age	31.502	10.810	32.905	11.069	-1.403***	-0.128	0.002
					(0.066)		
Lives in a rural area	0.542	0.498	0.440	0.496	0.102***	0.205	-0.005
					(0.003)		
Earnings 1 yr prior ($1,000)	11.425	17.053	11.229	17.121	0.196*	0.011	0.005
					(0.104)		
Employment 1 yr prior	0.708	0.455	0.693	0.461	0.015***	0.032	0.004
					(0.003)		
No prior employers	0.044	0.205	0.039	0.194	0.004***	0.022	-0.003
					(0.001)		
Sample Size	75,076		42,821				

Table 4: The Effect of High- Relative to Low-Intensity Participation on Earnings and Employment

	Full Sample	**Men**			**Women**		
		Status FN	**Non-Status FN**	**Métis**	**Status FN**	**Non-Status FN**	**Métis**
Panel A: Earnings ($1,000s)							
Estimated Control Group Means							
1 Year Post	14.0876	14.5061	16.0532	21.2503	10.8330	11.9454	14.4078
	(0.5753)	(0.7423)	(1.0944)	(0.9344)	(0.4276)	(0.6048)	(0.4251)
2 Years Post	15.1359	15.2472	16.6928	23.8731	11.5592	12.7034	17.7044
	(0.5775)	(0.7323)	(0.9585)	(1.0482)	(0.4323)	(0.6210)	(0.5451)
Average Treatment Effect							
1 Year Post	-0.0230	-0.4444**	0.1670	0.8285*	-0.5320***	0.5567	0.1041
	(0.1467)	(0.1831)	(0.6222)	(0.4784)	(0.1903)	(0.5041)	(0.3426)
2 Years Post	0.9410***+	0.0375	1.9037***+	2.9388***+	0.1396	2.5085***+	3.3695***+
	(0.1499)	(0.2020)	(0.6395)	(0.5798)	(0.1628)	(0.5624)	(0.5090)
Panel B: Employment							
Estimated Control Group Means							
1 Year Post	0.7541	0.7664	0.7781	0.8463	0.6950	0.7475	0.8226
	(0.0094)	(0.0121)	(0.0161)	(0.0103)	(0.0099)	(0.0158)	(0.0113)
2 Years Post	0.7327	0.7433	0.7525	0.8282	0.6750	0.7148	0.8027
	(0.0093)	(0.0114)	(0.0139)	(0.0100)	(0.0113)	(0.0143)	(0.0105)
Average Treatment Effect							
1 Year Post	0.0013	-0.0045	-0.0010	0.0092	-0.0041	-0.0023	0.0022
	(0.0030)	(0.0045)	(0.0137)	(0.0069)	(0.0048)	(0.0158)	(0.0088)
2 Years Post	0.0124***+	0.0045	-0.0032	0.0151*	0.0144***	0.0140	0.0236***+
	(0.0029)	(0.0045)	(0.0131)	(0.0084)	(0.0052)	(0.0159)	(0.0089)
Sample Size	117,897	45,329	3,339	7,183	37,142	2,699	7,908

Notes: Standard errors in parentheses clustered by Forward Sortation Area. Effects are estimated using an augmented inverse-probability weighting estimator. All specifications include the full set of controls. All dollars are real 2010 Canadian dollars. Significance stars reported for the null that the ATE is 0: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$; Plus symbol indicates significant after Bonferroni correction: + $p < 0.05/m$, where $m = 14$ tests.

Table 5: Sensitivity Analysis: Earnings 2 Years Post

	Full Sample	Men			Women		
		Status FN	Non-Status FN	Métis	Status FN	Non-Status FN	Métis
Panel A: Estimates							
A-IPW ($1000's)	0.9410 ***	0.0375	1.9037 ***	2.9388 ***	0.1396	2.5085 ***	3.3695 ***
	(0.1499)	(0.2020)	(0.6395)	(0.5798)	(0.1628)	(0.5624)	(0.5090)
OLS estimates ($1000's)	0.8891 ***	0.0637	1.9846 ***	3.0759 ***	0.1172	2.2930 ***	2.9696 ***
	(0.0951)	(0.1513)	(0.6407)	(0.5587)	(0.1219)	(0.5447)	(0.4248)
Panel B: Benchmark Estimates with Confounder as Strong as Mean Earnings in Local Labour Market 1 Year Prior							
Adjusted estimate ($1000's)	0.7943 ***	0.0286	1.9298 ***	2.6814 ***	0.0941	2.2257 ***	2.4780 ***
	(0.0949)	(0.1508)	(0.6389)	(0.5629)	(0.1217)	(0.5417)	(0.4306)
$R^2_{Y\sim X_j\|X_{-j}}$ (%)	0.5558	0.6299	0.6344	0.3606	0.4590	1.1797	0.4914
$R^2_{D\sim X_j\|X_{-j}}$ (%)	0.1500	0.0187	0.0352	1.8033	0.0210	0.0488	3.0556
Panel C: Benchmark Estimates with Confounder as Strong as Earnings 1 Year Prior							
Adjusted estimate ($1000's)	0.8774 ***	0.0429	1.9701 ***	3.0580 ***	0.1024	2.2928 ***	2.9192 ***
	(0.0949)	(0.1506)	(0.6411)	(0.5578)	(0.1218)	(0.5447)	(0.4245)
$R^2_{Y\sim X_j\|X_{-j}}$ (%)	0.3949	0.9136	0.0129	0.3386	0.1684	0.0384	0.2259
$R^2_{D\sim X_j\|X_{-j}}$ (%)	0.0032	0.0045	0.1219	0.0043	0.0234	0.0000	0.0791
OLS Sample Size	117,897	45,329	3,339	7,183	37,142	2,699	7,908

All partial R^2 values are expressed as percentages (0-100). $R^2_{D\sim X_j|X_{-j}}$ and $R^2_{Y\sim X_j|X_{-j}}$ are the partial R^2 values for the benchmark variable in the high-intensity participation and outcome regressions, respectively. The adjusted estimate assumes that an omitted confounder explains as much of the variance in the outcome and high-intensity participation as the benchmark variable. Statistical signficance is indicated with $* = p < 0.1$ $** = p < 0.05$ $*** = p < 0.01$

Table 6: The Effect of High- Relative to Low-Intensity Participation on Earnings for the Status First Nations Participant Group, Estimated Separately For Participants with Pre-Program On-Reserve Tax-Exempt Earnings, Non-Exempt Earnings, or No Earnings

	On-Reserve Tax-Exempt		**Off-Reserve Non-Exempt**		**No Earnings**	
	Men	**Women**	**Men**	**Women**	**Men**	**Women**
Earnings ($1,000s)						
Control Group Means						
1 Year Post	17.4162	14.9497	18.3748	13.9609	6.3618	4.3371
	(0.7113)	(0.4475)	(0.6575)	(0.5280)	(0.2528)	(0.2090)
2 Years Post	18.0174	15.8227	19.2073	14.7864	7.1644	4.8551
	(0.6695)	(0.4438)	(0.6685)	(0.5364)	(0.2574)	(0.1840)
Average Treatment Effect						
1 Year Post	-0.8922***	-0.7772***	0.1499	-0.3783	-0.7278***	-0.4399***
	(0.2454)	(0.2400)	(0.3001)	(0.3345)	(0.1719)	(0.1642)
2 Years Post	-0.4005	-0.3919*	0.8770***	0.5713*	-0.5316***	0.2305
	(0.3105)	(0.2247)	(0.3162)	(0.3241)	(0.2026)	(0.1437)
Sample Size	15,265	11,985	16,564	11,641	13,416	13,448

Notes: Standard errors in parentheses clustered by Forward Sortation Area. Effects are estimated using an augmented inverse-probability weighting estimator. All specifications include the full set of controls. All dollars are real 2010 Canadian dollars. Significance stars reported for the null that the ATE is 0: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 7: The Effect of High- Relative to Low-Intensity Participation on Earnings for the Status First Nations Participant Group who had Tax-Exempt Earnings in the Year Prior to Participation, Estimated Separately For Participants Living in Remote, Rural but not Remote, and Urban but not Remote Areas

	Remote		**Rural Not Remote**		**Neither Rural nor Remote**	
	Men	**Women**	**Men**	**Women**	**Men**	**Women**
Earnings ($1,000s)						
Control Group Means						
1 Year Post	18.3271	14.7645	17.7437	15.3839	18.2103	15.1598
	(1.8305)	(0.9462)	(1.0237)	(0.6411)	(0.6001)	(0.5993)
2 Years Post	15.1652	18.3271	18.1146	16.2577	19.4190	16.2955
	(1.8959)	(1.3172)	(0.8844)	(0.6190)	(0.5984)	(0.5549)
Average Treatment Effect						
1 Year Post	-1.4847**	-0.8943	-0.7024*	-0.5436	-0.9328**	-0.8945**
	(0.6467)	(0.7370)	(0.3989)	(0.3379)	(0.4229)	(0.3982)
2 Years Post	-0.5093	0.0835	-0.2801	-0.0741	-0.2507	-1.0345***
	(0.7239)	(0.5124)	(0.4262)	(0.3314)	(0.5894)	(0.3814)
Sample Size	2,309	2,309	7,109	5,181	4,206	4,383

Notes: Standard errors in parentheses clustered by Forward Sortation Area. Effects are estimated using an augmented inverse-probability weighting estimator. All specifications include the full set of controls. All dollars are real 2010 Canadian dollars. Significance stars reported for the null that the ATE is 0: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 8: Earnings Growth From One Year Prior to Two Years Post-Participation by Employment Transitions for Status First Nations

	High-Intensity Group		**Low-Intensity Group**		**Differences**	
	Earnings Growth ($1,000s, 2010 CAD)	**Share**	**Earnings Growth ($1,000s, 2010 CAD)**	**Share**	**Earnings Growth ($1,000s, 2010 CAD)**	**Share**
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
On Reserve-On Reserve	3.3239	0.2006	4.1333	0.2057	-0.8093	-0.0051
	(0.1426)		(0.239)			
On Reserve-Off Reserve	6.4247	0.0719	5.3879	0.0724	1.0368	-0.0005
	(0.3696)		(0.4629)			
On Reserve-No Earnings	-9.7454	0.0587	-9.0124	0.0563	-0.7330	0.0024
	(0.277)		(0.2766)			
Off Reserve-On Reserve	5.3476	0.0570	5.5431	0.0610	-0.1955	-0.0040
	(0.3758)		(0.4603)			
Off Reserve-Off Reserve	5.5885	0.2194	4.9654	0.2293	0.6230	-0.0099
	(0.1929)		(0.228)			
Off Reserve-No Earnings	-7.7166	0.0663	-8.3311	0.0641	0.6145	0.0022
	(0.2231)		(0.2583)			
No Earnings-On Reserve	11.4051	0.0714	12.9263	0.0727	-1.5213	-0.0013
	(0.1871)		(0.3116)			
No Earnings-Off Reserve	11.5838	0.0923	11.5355	0.0914	0.0483	0.0009
	(0.2187)		(0.2666)			

On-reserve employment means the participant had tax-exempt earnings, where tax-exempt earnings refers to employment income that is earned on a reserve and is not subject to federal income tax under the *Indian Act* (box 71 on a T4). Both the average earnings growth and the shares are weighted by the inverse propensity score. The propensity scores were estimated in separate samples defined by their pre-participation employment. Participants who had no earnings in both time periods are not included in the table because their earnings growth is zero. The shares in this table do not sum to 1 because we exclude those who had no earnings in both the pre- and post-participation periods. All dollars are real 2010 Canadian dollars.

Table 9: Duration of ASETS Participation by First Intervention Type

	Skills Development (in %)				**Apprenticeships (in %)**			
Duration (days)	**1-90**	**91-180**	**181-270**	**> 270**	**1-90**	**91-180**	**181-270**	**> 270**
Status FN	57.47	18.91	10.51	13.12	39.81	30.78	13.85	15.56
non-Status FN	52.46	20.03	10.00	17.51	35.29	32.35	16.47	15.88
Métis	28.65	18.67	26.92	25.76	47.16	24.96	13.78	14.10
	Essential Skills (in %)				**Wage Subsidy (in %)**			
Duration (days)	**1-90**	**91-180**	**181-270**	**> 270**	**1-90**	**91-180**	**181-270**	**> 270**
Status FN	70.10	13.15	7.09	9.66	32.45	38.06	16.00	13.48
non-Status FN	62.75	19.22	9.41	8.63	36.99	30.89	16.26	15.85
Métis	68.73	15.34	4.72	11.21	31.29	39.77	12.57	16.37
	Job Creation Partnerships (in %)				**Low-Intensity (in %)**			
Duration (days)	**1-90**	**91-180**	**181-270**	**> 270**	**1-90**	**91-180**	**181-270**	**> 270**
Status FN	57.35	31.36	7.00	4.28	91.94	6.68	1.01	0.37
non-Status FN	43.84	33.56	8.90	13.70	88.82	8.92	1.71	0.55
Métis	32.95	38.64	20.45	7.95	90.83	7.74	1.00	0.44

This table reports the distribution of intervention lengths for each type of high-intensity category. Low-intensity interventions are a separate category. Each row in a panel reports the fraction of the population group in each duration category. The duration of ASETS participation is the number of days recorded in all ASETS interventions during the first ASETS spell. The days when there was a break in participation are not included in the count. If the first ASETS intervention was either job counselling or employment assistance training, but there was a subsequent high-intensity intervention, we use the first high-intensity intervention.

Heterogeneous returns to active labour market programs for Indigenous populations

Online Appendix

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Contents

A Additional Details on Indigenous Population Groups, Expenditures, and ASETS

A.1 Indigenous Populations in Canada

Figure A.1 provides a simple way of understanding the different broad Indigenous groups in Canada.[1] Among Indigenous peoples, there are three constitutionally recognized groups: Inuit, Métis, and First Nations. Inuit, are those who live in the northernmost regions of the country and share a cultural and historical background. Métis peoples developed a unique culture and identity borne out of intermarriages between European fur traders and Indigenous peoples in the 16th and 17th centuries.[2] First Nations peoples are neither Inuit nor Métis. Some First Nations peoples are registered under the *Indian Act* and in this legal context are referred to as Status Indians, while other First Nations peoples are non-Status. Each of these groups has a distinct relationship with the federal government, and, as such, federal programs available to each group differ across groups, as do many legal considerations. This discussion is a simplification, insofar as it omits other important considerations, like treaty relations.

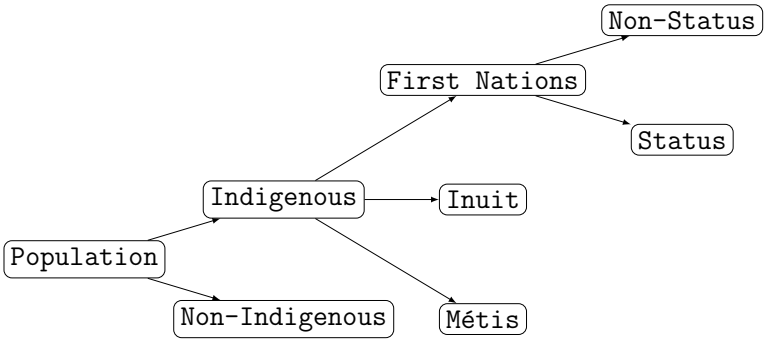

Figure A.1: A simplified description of the main Indigenous population groups in Canada.

[1] For a more detailed discussion, see https://indigenousfoundations.arts.ubc.ca/terminology/
[2] See Vowel (2016) for a more comprehensive discussion of what it means to identify as Métis.

There is a large literature on Indigenous economic outcomes and political circumstances in Canada. For literature reviews in economics, see Feir (2024) and for more on the institutional environment, see Feir and Scoones (2022). Indigenous peoples in Canada have lower earnings and employment rates than the average Canadian; as of 2015, the median individual income for an Indigenous person in Canada was 74% of a non-Indigenous person (NIEDB, 2019). Generally speaking, those living on reserves experience the largest income disparities (as low as less than 45% of the income of a non-Indigenous person). In contrast, non-Status First Nations people and Métis peoples experience smaller differences in earnings (Feir, 2024). While differences in earnings and employment are not totally explained by differences in measured skills (Hu et al., 2019) or western educational credentials (Barber and Jones, 2021), they are correlated (Feir, 2024). While direct comparisons between Indigenous and non-Indigenous funding in primary and secondary school are fraught, there is clear evidence of under-funding, at very least in some contexts and periods (Drummond and Rosenbluth, 2013). For Indigenous peoples who attended provincially run schools, this comes with its own potential challenges, including discrimination. Thus, the need for active labour market programs is potentially a consequence of less investment in Indigenous education earlier.[3]

A.2 Expenditures on Active Labour Market Policies for Indigenous Peoples in Selected Countries

In Canada, the United States, Australia and New Zealand, the federal funding for active labour market programs is non-trivial. For example, between the fiscal years 2010-2011 and 2017-2018, the estimated program funding for ASETS was $2.4 billion (Office of the Auditor General of Canada, 2018). For reference, in 2015-2016 the total estimated expenditure of the federal Indigenous affairs department was slightly under $8.2 billion (Indigenous and Northern Affairs Canada, 2016). Similarly, in 2023, spending by the American Department

[3]Educational disparities also exist in the United States (Fischer and Stoddard, 2013), Australia (Bradley et al., 2007), and New Zealand (Lock and Gibson, 2008).

of Labor on Native American active labour market programs was over 15% of the total funding provided to tribal governments for their operations (Bureau of Indian Affairs, 2023; U.S. Department of Labor, 2023). This 15% is arrived at by taking the 2023 Department of the Interior budget of $394 million for programs supporting Tribal government activity (Bureau of Indian Affairs, 2023) and dividing it by 60 million, which was the funding allotment for Native Americans under the Workforce Innovation and Opportunity Act (U.S. Department of Labor, 2023). In Australia and New Zealand, similar labour market programs made up 2.25% and 6% of all federal Indigenous spending, respectively. For Australia, this takes the 2023 budget for the Indigenous Skills and Employment Program ($42.8 million) divided by the $1.9 billion 2023 budgeted in federal initiatives for Aboriginal and Torres Strait Islander peoples (National Indigenous Australians Agency, 2023; Australian Government, 2023). For New Zealand, the estimated expenditure of the Maori Trades and Training Fund for 2022-23 ($21.7 million) (New Zealand Ministry of Social Development, 2022) and divides that by the Indigenous-focused component of the federal budget in 2023 ($347.2 million) (New Zealand Government, 2023). All numbers are in home country dollars.

A.3 Background on ASETS

Canada's federal and provincial governments generally share jurisdiction over providing active labour market programs. However, under Canadian law, as in other former British colonies like the United States, the Federal government has primary jurisdiction over Indigenous services, relations, and reserves. This has implications for how Indigenous people access labour market programming in Canada. Specifically, while Indigenous people are not excluded from the general labour market programming offered by the provincial governments, the federal government has the authority to provide an independent set of active labour market programs for Indigenous people.

Since 1996 under part II of the *Employment Insurance (EI) Act*, Employment Benefits and Support Measures (EBSM), the provinces have administered active labour market pro-

gramming for EI participants through Labour Market Development Agreements (LMDAs) with the federal government. The provinces have also administered active labour market programs for those ineligible for EI, like new or precariously employed workers, that are funded through six-year bilateral Labour Market Agreements (LMAs) with the federal government (Barnetson, 2018). While Indigenous people are not excluded from the general programming available through LMDAs or LMAs, unique programs to meet their needs fall under the jurisdiction of the federal government, given they have constitutional authority for and fiduciary obligation to Indigenous peoples in Canada.

The first federal program explicitly designed to deliver active labour market programming similar to those under the EBSM, but independently from EI and delivered through local Indigenous organizations was the Aboriginal Human Resources Development Strategy (AHRDS), which began in 1999 (Office of the Auditor General of Canada, 2018; Human Resources and Skills Development Canada, 2009). Programs under AHRDS included skills development, targeted wage subsidies, self-employment support, participation in job creation partnerships, and employment assistance services and were operated through Agreement Holders, who delivered the services through sub-agreement holders or sub-project holders.[4] The department responsible for delivering AHRDS assessed it in 2009 using a matching procedure and found that it had a positive impact on the income and employment of participants (Human Resources and Skills Development Canada, 2009). The evaluation did not distinguish between Indigenous populations, rather it focused on the types of labour force interventions that had the largest marginal impacts. That program ended in 2009 and was replaced by the Aboriginal Skills and Employment Training Strategy (ASETS), which is the focus of our analysis. Both AHRDS and ASETS programs were delivered through Indigenous organizations to ensure that they were more locally and culturally responsive to

[4]AHRDS also included explicit funding to advance the availability of child care through the First Nations and Inuit Child Care Initiative which supported the creation of 6,000 child care spaces in First Nations and Inuit Communities from the late 1990s through 2010 (Human Resources and Skills Development Canada, 2012).

the needs of the people they served (Wood, 2016).

ASETS differentiated itself from AHRDS by emphasizing "demand-driven skills development, partnerships with the private sector and other governments, and accountability" (Human Resources and Skills Development Canada, 2009, p 20). Largely, the focuses of ASETS were operationalized through different reporting practices, and required strategic planning processes on the part of the Agreement Holders. Despite the original intention of the local, Indigenous-operated service delivery system of ASETS, there has been a concern about the administrative burden faced by Agreement Holders and their autonomy over the use of their funding (Wood, 2016). Thus the extent to which these programs are able to be responsive may be limited by federal constraints or oversight.

For more information on the case studies conducted for the material in the main text, see Table A.1.

In 2019, ASETS was replaced by the Indigenous Skills and Employment Training (ISET) program. The new program is largely a continuation of the main features of the ASETS program. It distinguishes itself by offering more flexibility in funding use and takes "a distinctions-based approach" to recognize the needs of First Nations, Métis, Inuit, and urban/non-affiliated Indigenous people (Employment and Social Development Canada, 2019). Therefore, understanding how population groups had different experiences with ASETS remains relevant to the successful future of ISET programming.

Table A.1: Summary of Agreement Holder Web-based Case Studies

Agreement holder	**Groups Served**	**Adult Programs Listed**	**Applications and Eligibility**
Mi'kmaq Confederacy of Prince Edward Island (MCPEI)	All Indigenous people of PEI	Specific programs listed, including health-related trades at a local college, training in the fishing industry with credentials, and GED Programs. They also offer funding for other post-secondary programs not covered through other sources.	No forms available online. Direct contact with staff at three regional offices (Lennox Island office, Abegweit office, and Charlottetown office).
Bigstone Cree Nation	First Nations in Wabasca/Desmarais, Sandy Lake, Calling Lake, Chipewyan Lake, Peerless Lake and Trout Lake	Long list of programs including employment counselling, job search and funding of short-term training programs including trades, computer technicians, dental hygienist, and teaching assistant.	Before 2013, must contact staff directly. Since 2013, there have been online applications for either longer or shorter-term training.
Cariboo-Chilcotin Aboriginal Training Employment Centre Society	Fifteen First Nations of the Chilcotin Cariboo region	In 2010, a long list of training which reduces after to employment skills and personal growth, food safety training, sawmill training, administrative office assistant training, bridging to the trades, first aid, home care or health care assistant training, and basic computer skills. There is an explicit program for those with disabilities.	To apply, one needs to contact a staff person (not all bands have a dedicated one). In some cases, only those selected for training will be contacted. Forms were also available online for registration, intake and evaluation but likely required staff assistance to navigate what to fill out.
Congress of Aboriginal Peoples	Off-reserve Status and non-Status First Nations, Métis and southern Inuit peoples living outside of reserves across Canada	Lists a full suite of ASETS interventions and explicitly offered post-secondary funding for programs there was a market demand for. The programs on their website included a health care professions program for licensed practice nurses, lab technicians, registered nursing assistants and skilled trades for women (including carpenters, electricians, welders, boilermakers, pipe fitters etc.). Also offered programs in bookkeeping and finance, a correctional officer program, an essential skills and GED program, and self-employment assistance.	A clear application form to be mailed to their staff. Explicit about the process clients can expect, including intake appointments and follow-up. An extremely explicit checklist for student applications for post-secondary funding requires funding first to be sought elsewhere with confirmation of efforts.
Manitoba Métis Federation Inc.	Métis, Non-Status and Inuit residents of Manitoba	Lists a full suite of ASETS interventions and explicitly offered post-secondary funding for programs there was a market demand for. They provided examples of training programs that included an early childhood educator, an educational assistant, a family support worker, a heavy equipment operator, an oil field safety, and a licensed practical nurse program.	A clear application form to be mailed to their staff. Explicit about the process clients can expect, including intake appointments and follow-up, but not complete eligibility details.

A.4 ASETS Intervention Types

In this section, we provide additional information about the ASETS intervention types. This information is taken from a internal process evaluation of ASETS undertaken by ESDC (2015).

High-Intensity Interventions

- **Skills Development**: These interventions provide funding to individuals to cover the costs of participation in training opportunities, which participants select and arrange. The type of training can vary widely from essential skills, industry-recognized occupational skills training, and post-secondary diploma or degrees courses.
- **Target Wage Subsidy**: The target wage subsidies provide temporary subsidies to individuals' wages. The wages subsidies are intended to encourage employers to hire workers they might not otherwise hire and should provide individuals with work experience.
- **Job Creation Partnerships**: These partnerships target employers and organizations to encourage them to create "meaningful" work opportunities though which participants can gain work experience.

Low-Intensity Interventions

- **Employment Assistance Services**: This is funding that supports organizations that provide services, such as "individualized counselling, job finding clubs, job search workshops, access to labour market information; resume writing support; interview skills training; and developing self-employment options." (Employment and Social Development Canada, 2015, p. 23)

B Variable Definitions

B.1 Definition of high- and low-intensity participation

We use the "Integrated Labour Market Program" entity (ILMP) available from the *Labour Market Program Data Platform* to define our sample and comparison groups. The ILMP combines program records from a number of administrative sources, including data from the National Employment Services System, the Common System for Grants and Contributions, the Human Resources Development Fund, the Standard Data File, and the Employment Benefits and Support Measures data files. We use the ILMP to define our sample and comparison groups. Inclusion in our sample is based on the first occurrence of participation in an ASETS intervention. We exclude all participants in any school-work-experience and self-employment interventions because we expect those interventions to have different intended outcomes.[5] The ILMP includes a database with a separate record for each time an individual participates in an intervention. Each record contains information about the type of intervention, as well as the start and end date. For most individuals there are multiple intervention records. Many of these records are of the same intervention type, while others indicate participation in different types of intervention. In practice, these interventions might be combined as a part of an "Action Plan"; however, we do not observe any such plans in the data. Instead, we define the first ASETS program participation by combining all interventions that occur without any gaps of non-participation lasting more than 90 days. Non-participation means not participating in any type of intervention, whether it is ASETS or an intervention offered under a different program.

We start by identifying the first occurrence of participation in an ASETS intervention.

[5]Specifically, school-work-experience programs may take much longer to realize and our measure of employment earnings does not fully capture the returns to self-employment. The participants that were excluded because their longest interventions were school-work-experience or self-employment interventions represent 4.19% and 0.5% of all ASETS participants, respectively.

The start date of that intervention marks the start of the ASETS program participation that we study. Then, we identify every ASETS intervention that occurs at the same time as, or any time, up to two years, after the first ASETS intervention. We order these interventions based on their start date. If an intervention begins less than 90 days before the most recent prior intervention has ended, that intervention is included as a part of the first ASETS program participation. If there is a period of more than 90 days during which the individual has not participated in ASETS labor market programming, then we code that individual has having ended their first ASETS program participation.

Once the first ASETS program participation has been identified, we separate our sample into two comparison groups following the approach taken by Andersson et al. (2022). Essentially, this separates the sample into two groups based on whether the individuals had participated in "high"- or "low"- intensity interventions. In our case, participation is classified as low intensity, if the individual had participated in only employment assistance services (EAS) or job counselling interventions. The high-intensity group includes individuals who participated in skills development, including apprenticeships, wage subsidies, job creation partnerships, or essential skills programs. Individuals in the high-intensity group may have participated in these programs in combination with EAS or job counselling.

These comparison groups help us learn generally about whether high-intensity interventions improve measurable, economic outcomes among ASETS participants. Some programs might be more effective than others, and by grouping the interventions together, we estimate a weighted average of the effects across the different types and combinations of high-intensity interventions relative to EAS or job counselling.[6,7]

[6]This may be relevant, for instance, if individuals who participate in apprenticeships move between employment and ASETS participation more frequently than with other types of interventions.

[7]When there are multiple unordered alternatives, evaluating the effectiveness of a specific intervention relative to another—for example, essential skills development compared to wage subsidies—requires either very restrictive assumptions on selection into different interventions or information on individuals' rankings of the various interventions (Kirkeboen et al., 2016).

B.2 Outcome Variables

We study the effects of high- relative to low-intensity participation on two key outcomes. The first is annual earnings in the first and second years following first entry into an ASETS intervention. For example, if an individual's first ASETS participation was in 2011, earnings in the second post-participation year are measured in 2013. We create a measure of annual earnings using T4 records. The T4 form is completed and filed with the Canada Revenue Agency by employers for any employment where pension contributions, Employment Insurance (EI) premiums or income tax have been deducted, or when no deductions have been made, if the earnings were more than $500. When individuals work for more than one employer in a given year, there are multiple T4 records. We aggregate gross earnings from all T4 records in a given year. Gross earnings include earnings recorded in Box 14, and tax-exempt earnings in Box 71. Earnings from employment on a reserve are tax-exempt for First Nations people who have Status under the *Indian Act*, however, those earnings are recorded on T4 forms because they are EI insurable. Because the T4 records provide comprehensive coverage of employment income, we set earnings equal to zero for those without any T4 records in a given year. The second outcome is any employment. This is an indicator variable that takes on the value one if the ASETS participant had positive earnings, and zero otherwise.

B.3 Control Variables

We use a comprehensive set of control variables to estimate the propensity score which predicts participation in high-intensity interventions. We describe those variables in the following subsections.

Demographics: The demographic variables we observe in our data include age, marital status, presence of children, Indigenous population group, and disability status. Age is measured at the time the program begins, using the participants' dates of birth.

To create the variables for marital status and presence of children, we use data from the T1 in the year prior to starting the ASETS program. We create an indicator that equals one if an individual filed taxes in the year prior and their tax file indicated that they had dependent children. We also include an indicator for living in a married or common law relationship. We observe an individual's Indigenous population group on a demographic database that is constant across time. The population groups included in the data are Status First Nations, non-Status First Nations, Métis, Inuit, and a group who is identified as Indigenous, but whose population group is not recorded in the data. Finally, we construct a disability indicator that equals to one if, when individuals started their first ASETS spell, they are recorded on the program participation records as having any type of disability, including developmental, learning, psychiatric, physical, or unspecified disabilities.

Income from T1 Files: From the T1 tax records, we include a control for total income in the year preceding the first year of participation in ASETS. Because individuals can enter ASETS at any time during a calendar year and the T1 and T4 forms record total earnings and income across a calendar year, we do not include any variable from the same year that the participants enter ASETS. Total income is gross of taxes and includes income from employment, self-employment, pensions, taxable government transfers, social assistance payments, support payments, dividends, rental income, investment income and taxable capital gains. For individuals with no T1 information these values are set to zero, and indicator for not having a T1 record is included. We also include a variable that is the sum of income in the previous two through ten years. Similarly, we include social assistance income in the year prior and the cumulative social assistance income in the previous two through ten years. These values are also set to zero if there are no records, and a dummy variable indicating no social assistance income is included

Variables from the T4 Files: We create measures of gross annual earnings in the same

way we construct the outcome variable. We include annual earnings in the years one to five preceeding the first ASETS participation, as well as a measure of cumulative earnings in the five to ten prior years. We create employment indicators for each of the five prior years that equal one if earnings are greater than zero. We also separately include cumulative tax-exempt earnings in the three years prior to ASETS participation, and a variable indicating if there are no tax-exempt earnings. We include only three prior years because the Box 71 data begins in 2007.

We also use the T4 records to create another set of variables, and we set each of these variables equal to zero when the individual had no T4 records prior to the ASETS intervention. Accompanying these variables is a dummy variable that equals one if a person has no prior T4 records. We generate variables for whether the individual had at least one T4 in the past five years, as well as, the number of years, out the past five years, in which the individual had at least one T4. There is a variable that indicates whether the last T4 job included union dues, and the number of years, out the past five years, in which there was a T4 where union dues were recorded. Finally, we include a variable that equals one if an individual had ever worked in this industry in the past five years.

Previous EI use and Occupations from the EI Status Vector: Using the data from the EI status vector, we construct variables measuring previous receipt of EI. We include controls for the total number of weeks of EI receipt, and the total value of EI Benefits in the 5 years preceding the ASETS start date. We include any type of benefits in these measures. These variables are set to zero if there is no prior EI receipt. We also include a set of dummies representing the occupations recorded on the most recent prior EI claim. One of the categories represents individuals who have never had an EI claim. We create a set of four variable that indicate the participants' EI eligibility status at the time they enter ASETS: 1) an EI claim was active at the start of program participation or a claim was establish with 28 days, 2) the most recent claim ended within three years of starting ASETS, 3) the most

recent claim ended more than three after starting ASETS, and 4) the participant has had no prior claim. For those with an active EI claim, we include measures of the number of days between when the EI claim was initiated and when they started an ASETS intervention, the number of weeks in which the participant had earnings in the period between the start of the EI claim and the start of ASETS, and the number of insured hours of work the participant had when establishing the claim that was active when ASETS participation began.

Variables from ROE Files: We use data from the Record of Employment (ROE) files to characterize the last spell of employment that terminated prior to the individual's ASETS spell. There is a set of dummy variables indicating why the job was terminated: layoff, quit, dismissal, return to school or apprentice training, illness, injury or leave, and other reasons. This set also includes an indicator for not having a prior ROE. We also create a variable that equals one if there is a ROE that indicates the person was working when they began their ASETS participation. It is worth noting that this latter variable only partially measures employment at the program start, because we do not observe ongoing employment in the ROEs, only employment that terminated before 2017.

Prior active labour market program participation: We use the ILMP database to generate variables that characterize active labour market program participation prior to the first ASETS spell. We include an indicator for whether the prior program was completed. We also include the duration of the prior intervention, and the total amount of time spent in any interventions prior to starting the first ASETS spell. There is also an indicator for whether the last program was a "high-intensity" intervention, as opposed to counselling or employment assistance services, and a variable that measures the total time spent in high-intensity participation prior to the ASETS spell.

Local labour market measures: Using all of the T4 records on the data platfrom, we

construct two variables that measure local labour market conditions at the level of Forward Sortation Area (FSA), which is the first three digits of a postal code. We compute mean earnings the share without any earnings in the population of participants in any federally funded active labour market program.earnings and unemployment. These variables are generated from the full sample of clients in the LMPDP. The data contains the first three digits of postal codes for each year in which participants filed a T1. If an individual is missing a postal code in a given year, we use their most recent postal code up to a maximum of three years prior to the missing year. So for instance, if an individual is missing a postal code in 2013, we use their 2012 postal code if it is available. Given that individuals may move and that the probability of this increases with time, we do not look for postal codes farther back than three years. We only use individuals aged 18-60 in each year to generate aggregates. We then compute the average earnings and non-employment (=1 if an individual has no T4 records in a given year) by FSA-year. These variables are used to control for potential labor market conditions in the FSA in which individuals reside; however, they come with the caveat that they are constructed using the sample of individuals in the LMPDP and may not be representative of the broader labor market conditions of a given region.

C What Determines High-Intensity Participation Conditional on Observed Characteristics?

Because our identification strategy relies on conditional independence, this section describes the variation in high-intensity participation that exists after conditioning on a rich set of characteristics. We argue that our identifying variation is related to an idiosyncratic feature of the ASETS funding formula, wherein funding was allocated based on the provincial demographic characteristics from 1996 rather than contemporaneous conditions.

To show how variation in high-intensity participation is related to plausibly exogenous variation in funding, we construct measures of average high-intensity participation within geographic regions called Forward Sortation Areas (FSA). The FSA in which an individual lives when starting their ASETS participation is the only level of geography smaller than the province that we observe. We are required to use aggregate-level data for this section because of the privacy and security regulations governing our data access that do not permit us to merge external sources of data to the microdata; however, we are able to match aggregate data to other sources of aggregate data.

We begin by regressing, by OLS, an indicator for high-intensity participation on all of our control variables except the rural indicator and the FSA-level aggregated controls. We construct residuals from that regression for the full sample, and calculate the average high-intensity participation residual in each FSA for Status First Nations, non-Status First Nations, and Métis men and women. We then match those FSA-level average residuals, which are conditional on individual characteristics, to measures of contemporaneous labour market conditions. Conditional on contemporaneous labour market conditions, the remaining variation in high-intensity participation represents our identifying variation. The contemporaneous labour market conditions for which we control include the fraction of people who are not in the labour force, unemployed, have less than a high school degree, have employment income, are a lone parent, and who speak an Indigenous language. We obtain

these FSA-level characteristics from 2011 National Household Survey.

To visualize the geographic variation in our data that is plausibly exogenous, we plot the FSA-level residual high-intensity participation after controlling for both individual characteristics and contemporaneous labour market conditions. These residuals represent the identifying variation that partly stems from idiosyncrasies in the funding formula that is plausibly exogenous. Figures C.1-C.3 display the geographic distribution of this residual high-intensity participation, for each population group. We exclude population group-FSA cells with fewer than 5 participants. Because these are residuals, the overall sample mean is zero, and positive numbers on the map are interpreted as FSAs that have above-average high-intensity participation (even after controlling for individual characteristics and contemporaneous aggregate labour market characteristics), and negative numbers are below average. There is considerable geographic variation in participation, and notably variation across provincial borders, holding latitude constant, where the local labour markets straddling the border would be similar.

There are two reasons to expect high-intensity participation to vary geographically. First, ASETS funding allocations varied across provinces and territories, and, second, the costs of delivering funding tend to increase with the remoteness of the community. The allocation of funding to each province and territory was determined by a mechanism called the National Aboriginal Resources Allocation Model (NARAM), which was first established for the Aboriginal Human Resources Development Strategy (Office of the Auditor General of Canada, 2018). The NARAM was intended to allocate funding to communities most in need of training and used an index of characteristics to determine need. That index varied by provinces and territories and included the size of the working age population, and the shares of the populations not in the labour force, unemployed, with less than high school, lone parent households, speaking an Indigenous language and living in either the 'near' or 'far' remote zones.[8] A key feature of the NARAM, which was applied to ASETS allocations,

[8]The exact formula used to compute the NARAM index was provided to us directly from

is that it was based on demographics from the 1996 Census, even though there had been considerable demographic change between 1996 and 2010. Indeed, the Auditor General, in its report on ASETS, specifically notes that funding was not allocated on the basis of current needs (Office of the Auditor General of Canada, 2018).

Because funding was determined by past demographic characteristics, the funding allocation is a source of variation in high-intensity participation that, conditional on contemporaneous labour market conditions, is plausibly independent of post-participation outcomes.

To investigate whether funding is correlated with high-intensity participation as we speculate, we calculated the total funding by province and territory from the contribution agreements that were established in 2010 and covered our sample period, 2010-2014.[9] Unfortunately, we cannot observe how funding was allocated within provinces and territories, so to take into account local variation in the costs of delivering high-intensity interventions, we interact funding with the distance from the center of the FSA to the nearest university.[10] This distance can be viewed as a proxy for remoteness because universities tend to be located in the urban south. While, generally, goods and services are more expensive in remote communities, delivering skills development, essential skills, or apprenticeship interventions would be particularly more expensive if instructional personnel have to be brought into communities, or if participants need to leave their communities and their transportation and housing costs need to be covered.

To test whether funding predicts the residual variation in high-intensity participation, we could estimate the following model:

$$\text{hip}_{ip} = \beta_0 + \beta_1 \ln(\text{fund})_p + \beta_2 \text{DistUni}_i + \beta_3 \ln(\text{fund})_p \times \text{DistUni}_i + x_i' \beta_x + \epsilon_i, \qquad \text{(C.1)}$$

ESDC.

[9]The funding levels were obtained from the Canada Open Government Portal: https://search.open.canada.ca/en/gc/.

[10]We calculate the geodetic distance between each of the two points. This is a form of "as-the-crow-flies" distance calculation that takes into account the curvature of the earth. We thank Marc Frenette for providing a list of university postal codes.

where hip_{ip} is the residualized share in FSA-population-sex group i who are high-intensity participants, $\ln(\text{fund})_p$ is the natural log of funding in province or territory p, DistUni_i is the distance to the nearest university and x_i is a vector of other FSA characteristics. One challenge with estimating (C.1) is that any unobserved propensity for high-intensity participation that varies by province/territory and which is correlated with the funding allocation will bias the estimates. For this reason, we include province-territory fixed effects to control for unobserved characteristics that are common within provinces and territories. Funding only varies by the province or territory, so the inclusion of fixed effects absorbs the $\beta_1 \text{lnfund}_p$ term. Since β_1 represents the marginal effect of funding in FSAs that are zero kilometers from a university, we cannot separately identify the effect of funding from the fixed effect at a distance of zero, but the funding effect is identified at distances greater than zero. If θ_p is the provincial-territorial fixed effect, then the model we estimate is,

$$\text{hip}_{ip} = \beta_0 + \beta_2 \text{DistUni}_i + \beta_3 \ln(\text{fund})_p * \text{DistUni}_i + x_i' \beta_x + \theta_p + \upsilon_i \tag{C.2}$$

We report the estimates from four different specifications of (C.2) in Table C.1. To allow for more flexibility, we enter distance to a university as a quadratic, and interact the quadratic with funding. In columns (1) and (2), we use the high-intensity residuals averaged over FSA, population group and gender, while in columns (3) and (4) we averaged over FSA and population group. The cell sizes will tend to be larger in the specifications where gender is pooled, and we can include more FSAs as a result. We control for gender (in the unpooled specifications) and population group, and cluster standard errors by the FSA. In columns (2) and (4), we include a set of controls that are chosen to reflect, as closely as possible, the NARAM components measured in 2010 using the 2011 Census and National Household Survey FSA profiles. In the first panel of Table C.1, we report the marginal effects of funding evaluated at a range of distances from a university. The full set of coefficients are reported in Table C.2.

These results suggest that higher levels of funding are associated with higher shares

of high-intensity participation. The importance of funding in determining high-intensity participation increases with distance from a university. For example, using the estimates from column (2), for communities that are 50 kilometers from a university, a one% difference in funding predicts a 2 percentage point difference in high-intensity participation, while that difference is 8 percentage points in a community that is 200 kilometers from a university.

What Table C.1 establishes is that the residual variation in high-intensity participation is correlated with funding interacted with distance from a university. After controlling for individual characteristics, and the contemporaneous labour market conditions, variation in funding should be driven by socio-demographic characteristics from 1996, which are arguably uncorrelated with post-participation outcomes.[11]

[11] Although funding interacted with distance to a university is strongly correlated with the high-intensity share, there was not enough variation in the FSA aggregates to use these variables as instruments in an IV estimator. The IV estimates are very imprecise. We do however show in Section E.3 of this Online Appendix that in FSA-level regressions the relative-intensity participation effects are robust to inclusion of funding and other FSA characteristics.

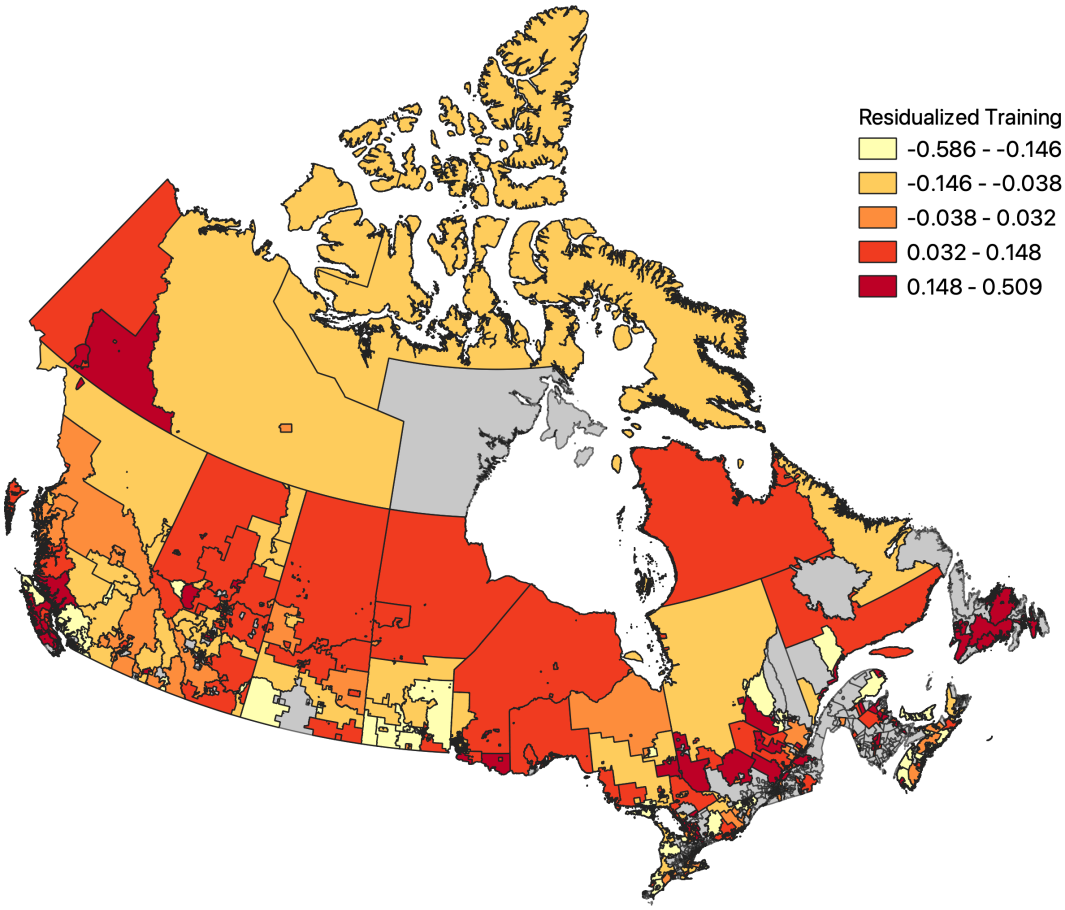

Figure C.1: Identifying Variation: Geographic Distribution of Residualized High-Intensity Participation for Status First Nations Participants

Notes: The figure shows average residualized high-intensity participation at the FSA-level within each population group where there are at least 5 individuals. We obtain residuals from a two-step procedure. First, we regress high-intensity participation on our full set of controls using the individual-level micro data. From here, we construct means of these residuals at the FSA level by population group. In the second step, we regress the FSA-level aggregated residuals on contemporaneous FSA-level labour market variables. The remaining residual variation is displayed in the maps.

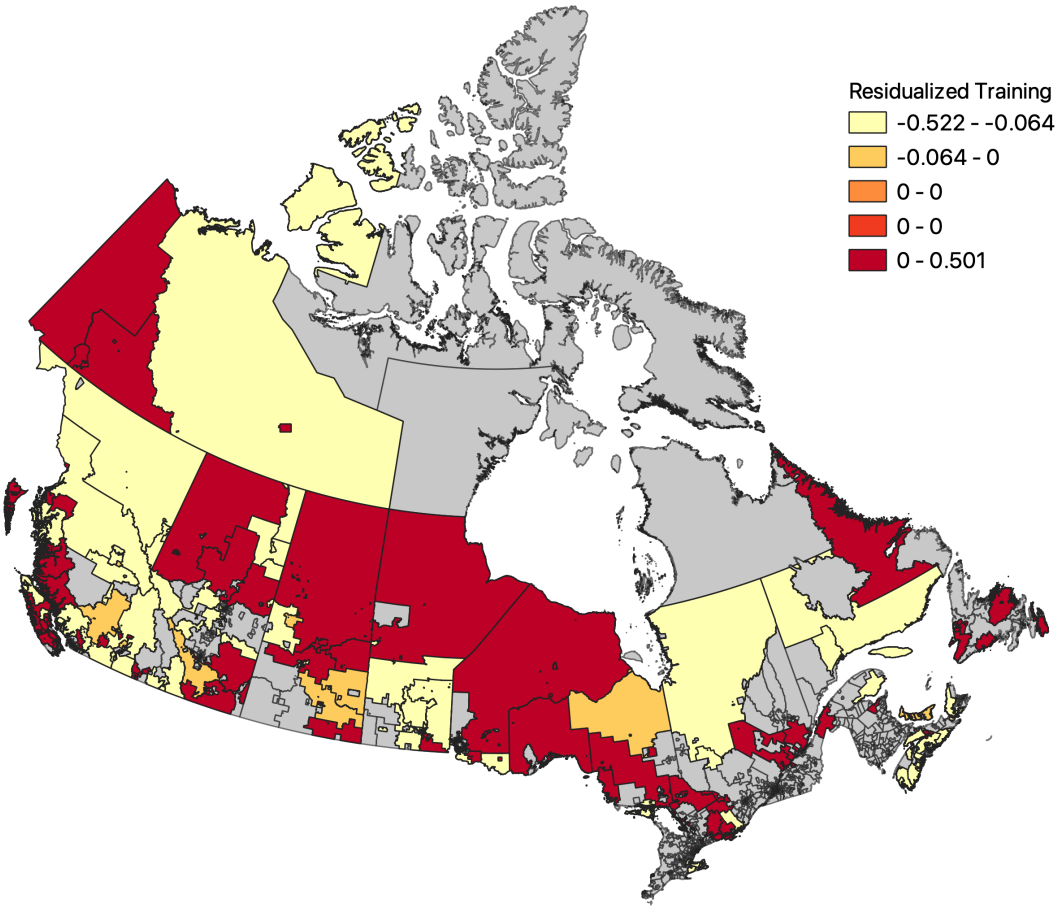

Figure C.2: Identifying Variation: Geographic Distribution of Residualized High-Intensity Participation for Non-Status First Nations Participants

Notes: The figure shows average residualized high-intensity participation at the FSA-level within each population group where there are at least 5 individuals. We obtain residuals from a two-step procedure. First, we regress high-intensity participation on our full set of controls using the individual-level micro data. From here, we construct means of these residuals at the FSA level by population group. In the second step, we regress the FSA-level aggregated residuals on contemporaneous FSA-level labour market variables. The remaining residual variation is displayed in the maps.

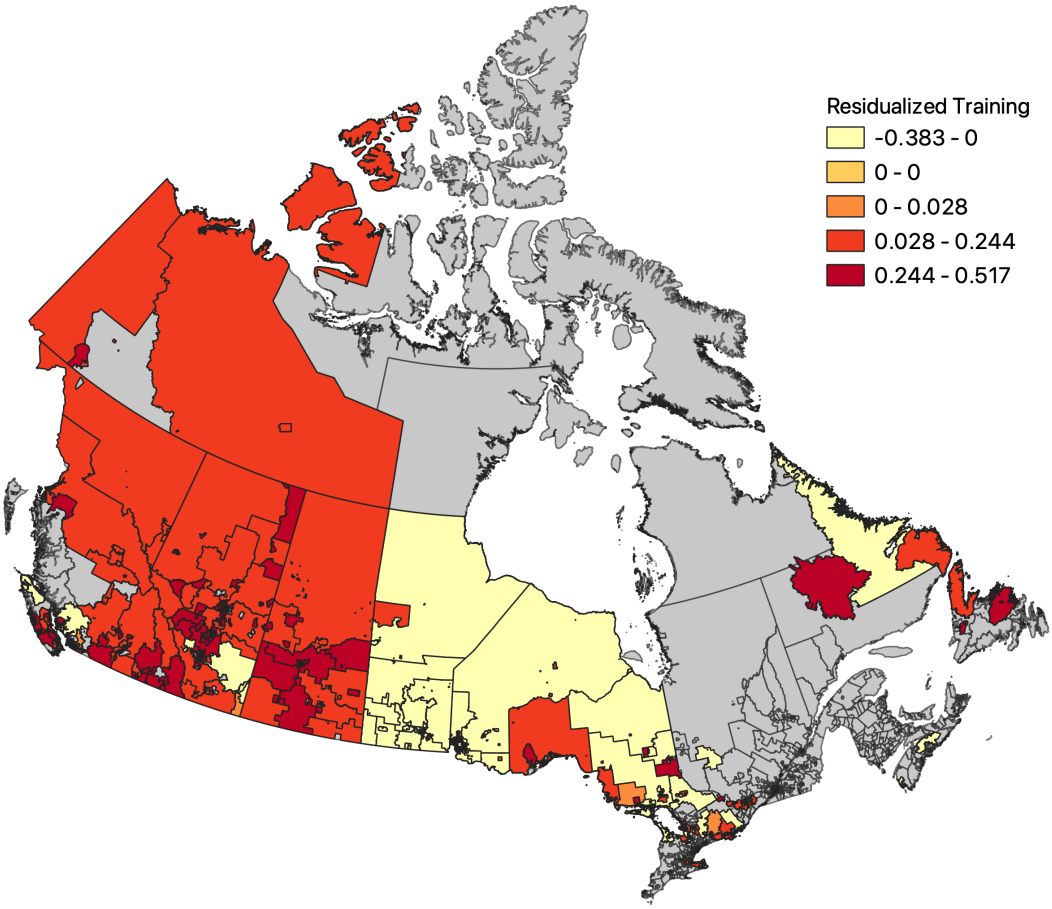

Figure C.3: Identifying Variation: Geographic Distribution of Residualized High-Intensity Participation for Métis Participants

Notes: The figure shows average residualized high-intensity participation at the FSA-level within each population group where there are at least 5 individuals. We obtain residuals from a two-step procedure. First, we regress high-intensity participation on our full set of controls using the individual-level micro data. From here, we construct means of these residuals at the FSA level by population group. In the second step, we regress the FSA-level aggregated residuals on contemporaneous FSA-level labour market variables. The remaining residual variation is displayed in the maps.

Table C.1: Correlation between Residual High-Intensity Participation and Funding Interacted with Distance

	(1)	(2)	(3)	(4)
Marginal Effect of Natural Log of Funding, by Distance from a University				
50 km	0.0178***	0.0195***	0.0177***	0.0192***
	(0.0040)	(0.0050)	(0.0038)	(0.0046)
100 km	0.0355***	0.0391***	0.0352***	0.0386***
	(0.0079)	(0.0098)	(0.0074)	(0.0090)
200 km	0.0703***	0.0783***	0.0699***	0.0774***
	(0.0153)	(0.0191)	(0.0143)	(0.0175)
400 km	0.1379***	0.1568***	0.1378***	0.1561***
	(0.0286)	(0.0364)	(0.0268)	(0.0333)
Coefficients				
Female	0.0281***	0.0295***		
	(0.0067)	(0.0066)		
Métis	0.0954***	0.1024***	0.0987***	0.1057***
	(0.0167)	(0.0157)	(0.0150)	(0.0141)
non-Status First Nations	-0.0589***	-0.0534***	-0.0546***	-0.0490***
	(0.0159)	(0.0151)	(0.0126)	(0.0120)
Female x Métis	-0.0004	-0.0009		
	(0.0099)	(0.0098)		
Female x non-Status First Nations	0.0055	0.0030		
	(0.0184)	(0.0183)		
Natural Log of Working Age Population		0.0196		0.0181
		(0.0134)		(0.0128)
% Not in the Labour Force		-0.8616***		-0.8257***
		(0.3182)		(0.3073)
% Unemployed		-0.2906		-0.2777
		(0.7600)		(0.7324)
% Less than High School		0.0206		-0.0081
		(0.1953)		(0.1889)
% With Employment Income		-0.0107***		-0.0104***
		(0.0031)		(0.0030)
% Lone Parent		0.2219		0.2154
		(0.2113)		(0.2038)
% Speaking Indigenous Language		0.0853		0.0856
		(0.0594)		(0.0582)
Sample Size	2,134	2,130	1,570	1,562

The dependent variable is the average residual from a regression of high-intensity participation on our full set of controls. In columns (1) and (2), the average is taken across FSA, sex and population groups. In columns (3) and (4), the average is taken across FSA and population groups. Funding is the total funding for ASETS in each province in the years 2010 - 2014. Distance to the nearest university is calculated As the crow flies". The distance is entered as a quadratic and is interacted with ln funding. All regressions include province fixed effects. FSA characteristics are taken from the 2011 Census and National Household Survey FSA profiles. All regressions are weighted by the cell size used to estimate the average residualized high-intensity participation. Standard errors clustered at the FSA level are reported in parentheses.

Table C.2: Coefficients in Estimated Correlation between Residual High-Intensity Participation and Funding Interacted with Distance

Female	0.0281***	0.0295***		
	(0.0067)	(0.0066)		
Métis	0.0954***	0.1024***	0.0987***	0.1057***
	(0.0167)	(0.0157)	(0.0150)	(0.0141)
non-Status First Nations	-0.0589***	-0.0534***	-0.0546***	-0.0490***
	(0.0159)	(0.0151)	(0.0126)	(0.0120)
Female x Métis	-0.0004	-0.0009		
	(0.0099)	(0.0098)		
Female x non-Status First Nations	0.0055	0.0030		
	(0.0184)	(0.0183)		
Ln Funding x Distance to University	0.0358***	0.0391***	0.0355***	0.0384***
	(0.0082)	(0.0102)	(0.0077)	(0.0093)
Ln Funding x Distance Squared	-0.0003	0.0000	-0.0003	0.0002
	(0.0005)	(0.0006)	(0.0005)	(0.0006)
Distance to University	-0.6499***	-0.7201***	-0.6453***	-0.7092***
	(0.1557)	(0.1921)	(0.1461)	(0.1757)
Distance to Uni. Squared	0.0076	0.0021	0.0063	0.0001
	(0.0090)	(0.0103)	(0.0088)	(0.0099)
Natural Log of Working Age Population		0.0196		0.0181
		(0.0134)		(0.0128)
% Not in the Labour Force		-0.8616***		-0.8257***
		(0.3182)		(0.3073)
% Unemployed		-0.2906		-0.2777
		(0.7600)		(0.7324)
% Less than High School		0.0206		-0.0081
		(0.1953)		(0.1889)
% With Employment Income		-0.0107***		-0.0104***
		(0.0031)		(0.0030)
% Lone Parent		0.2219		0.2154
		(0.2113)		(0.2038)
% Speaking Indigenous Language		0.0853		0.0856
		(0.0594)		(0.0582)
Sample Size	2,134	2,130	1,570	1,562

The dependent variable is the average residual from a regression of high-intensity participation on our full set of controls. In columns (1) and (2), the average is taken across FSA, sex and population groups. In columns (3) and (4), the average is taken across FSA and population groups. Funding is the total funding for ASETS in each province in the years 2010 - 2014. Distance to the nearest university is calculated As the crow flies. The distance is entered as a quadratic and is interacted with ln funding. All regressions include province fixed effects. FSA characteristics are taken from the 2011 Census and National Household Survey FSA profiles. All regressions are weighted by the cell size used to estimate the average residualized high-intensity participation. Standard errors clustered at the FSA level are reported in parentheses.

D Details on Empirical Methodology

D.1 Estimates From the Logistic Regression Used to Estimate the Propensity Score

Table D.1: Coefficient estimates from the logistic regression used to estimate the propensity score

	Full Sample	**Men**			**Women**		
		Status FN	**Non-Status FN**	**Métis**	**Status FN**	**Non-Status FN**	**Métis**
Population Group: Base, Status FN							
Non-Status First Nations	-0.2768***						
	(0.0278)						
Métis	0.4222***						
	(0.0206)						
Inuit	1.1900***						
	(0.0474)						
Unspecified, Indigenous	0.1648***						
	(0.0223)						
Demographic Variables							
Female	0.1389***						
	(0.0145)						
Age	-0.0404***	-0.0470***	-0.0679**	-0.0735***	-0.0113	-0.0177	-0.0169
	(0.0047)	(0.0075)	(0.0270)	(0.0207)	(0.0084)	(0.0328)	(0.0229)
Age squared	0.0003***	0.0004***	0.0006*	0.0007***	-0.0000	-0.0000	-0.0001
	(0.0001)	(0.0001)	(0.0004)	(0.0003)	(0.0001)	(0.0004)	(0.0003)
Has children	0.0839***	0.1341***	0.2962*	0.1314	0.0512*	-0.0268	0.0625
	(0.0178)	(0.0388)	(0.1580)	(0.1061)	(0.0263)	(0.1072)	(0.0719)
Disability	0.1844***	0.4155***	0.0718	-0.3099***	0.1973***	0.1339	-0.2451**
	(0.0283)	(0.0468)	(0.1438)	(0.1044)	(0.0537)	(0.1641)	(0.1048)
Lives in a rural area	0.2892***	0.2618***	0.2763***	0.3374***	0.2983***	0.3502***	0.2782***
	(0.0152)	(0.0242)	(0.0946)	(0.0676)	(0.0270)	(0.1095)	(0.0654)
Prior Marital Status: Base, Unreported							

Continued on next page

Table D.1: Coefficient estimates from the logistic regression used to estimate the propensity score

	Full Sample	**Men**			**Women**		
		Status FN	**Non-Status FN**	**Métis**	**Status FN**	**Non-Status FN**	**Métis**
Single never married	0.1148***	0.1015**	0.1978	0.0996	0.0608	0.4434*	-0.1013
	(0.0289)	(0.0400)	(0.1651)	(0.1365)	(0.0622)	(0.2404)	(0.1827)
Married or Common Law	0.2785***	0.2984***	0.2830	0.2146	0.2253***	0.5831**	-0.1828
	(0.0312)	(0.0456)	(0.1912)	(0.1520)	(0.0648)	(0.2531)	(0.1889)
Sep./Div./Widowed	0.0710*	0.1125*	0.1053	-0.1547	0.0172	0.2750	-0.1523
	(0.0381)	(0.0624)	(0.2321)	(0.1826)	(0.0737)	(0.2826)	(0.2013)
Earnings ($1,000's) by Prior Year							
1 year prior	0.0017*	-0.0019	0.0212**	0.0038	0.0074***	-0.0011	-0.0168**
	(0.0010)	(0.0016)	(0.0103)	(0.0063)	(0.0027)	(0.0147)	(0.0072)
2 years prior	0.0014	0.0017	-0.0058	-0.0026	0.0025	0.0244*	0.0155**
	(0.0010)	(0.0016)	(0.0085)	(0.0047)	(0.0024)	(0.0126)	(0.0062)
3 years prior	-0.0006	0.0024	0.0116	0.0088*	-0.0024	-0.0190	-0.0074
	(0.0011)	(0.0016)	(0.0085)	(0.0050)	(0.0025)	(0.0133)	(0.0072)
4 years prior	-0.0001	-0.0021	0.0003	-0.0072	-0.0002	-0.0030	-0.0056
	(0.0010)	(0.0018)	(0.0083)	(0.0055)	(0.0024)	(0.0141)	(0.0074)
5 years prior	-0.0010	-0.0020	0.0065	-0.0025	-0.0064**	-0.0073	-0.0028
	(0.0010)	(0.0013)	(0.0063)	(0.0049)	(0.0030)	(0.0135)	(0.0068)
Total 6–10 years prior	0.0004	0.0008*	0.0009	-0.0024*	0.0006	0.0033	-0.0020
	(0.0003)	(0.0005)	(0.0015)	(0.0012)	(0.0007)	(0.0029)	(0.0018)
Earnings Squared by Prior Year							
1 year prior	-0.0000	0.0000	-0.0003**	-0.0001	-0.0000	-0.0001	0.0002*
	(0.0000)	(0.0000)	(0.0002)	(0.0001)	(0.0000)	(0.0003)	(0.0001)
2 years prior	-0.0000	-0.0000	0.0000	0.0000	-0.0000	-0.0005**	-0.0002**
	(0.0000)	(0.0000)	(0.0001)	(0.0000)	(0.0000)	(0.0002)	(0.0001)
3 years prior	0.0000	-0.0000	-0.0001	-0.0001*	0.0000	0.0004*	0.0000

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Table D.1: Coefficient estimates from the logistic regression used to estimate the propensity score

	Full Sample	**Men**			**Women**		
		Status FN	**Non-Status FN**	**Métis**	**Status FN**	**Non-Status FN**	**Métis**
	(0.0000)	(0.0000)	(0.0001)	(0.0001)	(0.0000)	(0.0003)	(0.0001)
4 years prior	-0.0000	0.0000	0.0000	0.0001	-0.0000	0.0001	0.0001
	(0.0000)	(0.0000)	(0.0001)	(0.0001)	(0.0000)	(0.0003)	(0.0001)
5 years prior	0.0000	0.0000	-0.0000	0.0000	0.0001**	-0.0002	0.0001
	(0.0000)	(0.0000)	(0.0001)	(0.0001)	(0.0000)	(0.0003)	(0.0001)
Total 6–10 years prior	0.0000	0.0000	-0.0000	0.0000	0.0000	-0.0000	-0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
On-Reserve Tax-Exempt Earnings ($1,000's)							
Total 1–3 years prior	0.0024***	0.0029***	0.0208***	0.0052	0.0033***	0.0071	-0.0079
	(0.0004)	(0.0005)	(0.0048)	(0.0058)	(0.0008)	(0.0057)	(0.0075)
Total squared	-0.0000***	-0.0000**	-0.0001***	-0.0000	-0.0000***	-0.0000	0.0001
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0001)
Other Employment Measures							
Prior work for Indig. Gov't	0.3266***	0.3405***	0.4586***	0.0021	0.3068***	0.6326***	0.0541
	(0.0152)	(0.0227)	(0.1043)	(0.1203)	(0.0263)	(0.1214)	(0.1253)
No prior emp in > 10 yrs	0.3020***	0.3598***	-0.0936	-0.1590	0.3069***	-0.1583	0.2659
	(0.0406)	(0.0651)	(0.2327)	(0.2207)	(0.0634)	(0.2511)	(0.2293)
Prior job w/ union dues	-0.1221***	-0.1725***	-0.2404**	-0.1005	-0.1777***	0.0516	-0.0541
	(0.0212)	(0.0369)	(0.1187)	(0.0732)	(0.0399)	(0.1228)	(0.0691)
Had any emp prior 5yrs	-0.2571***	-0.3433***	-0.4660	-0.0572	-0.2372***	0.1757	-0.4884**
	(0.0466)	(0.0811)	(0.2889)	(0.2516)	(0.0741)	(0.2792)	(0.2113)
Yrs w/ any emp. in past 5	0.0280	-0.1901	0.8551	0.8103	0.1337	-1.1377	0.9375*
	(0.0977)	(0.1457)	(0.5829)	(0.7559)	(0.2023)	(0.7913)	(0.5280)
Yrs w/ any emp. squared	-0.0017	-0.0060	-0.0470**	0.0246	-0.0045	0.0212	-0.0376**
	(0.0034)	(0.0053)	(0.0198)	(0.0157)	(0.0060)	(0.0227)	(0.0165)

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Table D.1: Coefficient estimates from the logistic regression used to estimate the propensity score

	Full Sample	**Men**			**Women**		
		Status FN	**Non-Status FN**	**Métis**	**Status FN**	**Non-Status FN**	**Métis**
Yrs w/ union dues in past 5	-0.0280	-0.0939***	0.0918	0.0472	-0.0737*	-0.1741	0.0730
	(0.0200)	(0.0350)	(0.1180)	(0.0688)	(0.0378)	(0.1225)	(0.0647)
Yrs w/ union dues squared	0.0069	0.0188**	0.0078	-0.0128	0.0163*	0.0230	-0.0238
	(0.0049)	(0.0089)	(0.0309)	(0.0162)	(0.0093)	(0.0303)	(0.0147)
Income ($1,000's)							
1 year prior	-0.0023**	-0.0038**	-0.0175*	-0.0051	-0.0032	-0.0052	0.0022
	(0.0010)	(0.0016)	(0.0095)	(0.0057)	(0.0021)	(0.0132)	(0.0051)
1 year prior squared	0.0000*	0.0000*	0.0002	0.0000	0.0000	0.0003	-0.0000
	(0.0000)	(0.0000)	(0.0001)	(0.0001)	(0.0000)	(0.0002)	(0.0000)
Total 2-10 yrs prior	-0.0003**	-0.0005**	-0.0002	0.0012*	-0.0000	0.0016	0.0015*
	(0.0001)	(0.0002)	(0.0007)	(0.0006)	(0.0003)	(0.0012)	(0.0009)
Amount 1 yr prior	0.0063*	0.0001	-0.0072	-0.0260	0.0111**	0.0540**	-0.0151
	(0.0037)	(0.0074)	(0.0249)	(0.0224)	(0.0056)	(0.0213)	(0.0147)
Income Assistance Receipt							
No IA income in yr prior	-0.0966***	-0.0628	-0.0741	0.3167**	-0.0967**	-0.6299***	0.1751
	(0.0265)	(0.0456)	(0.1577)	(0.1315)	(0.0442)	(0.1688)	(0.1243)
Amount 2-5 yrs prior	-0.0010	-0.0011	0.0078	-0.0035	-0.0034**	-0.0014	-0.0008
	(0.0010)	(0.0022)	(0.0069)	(0.0060)	(0.0015)	(0.0053)	(0.0038)
No IA income in 2–5 yrs prior	0.0460**	0.0387	0.2077*	-0.0553	-0.0045	0.0792	0.1297
	(0.0193)	(0.0319)	(0.1165)	(0.0913)	(0.0334)	(0.1310)	(0.0945)
Prior Local Labour Market							
Local area code missing	-0.9564***	-1.1045***	0.1969	2.6279***	-1.2945***	-0.5413	1.5476**
	(0.1509)	(0.2388)	(1.0127)	(0.7407)	(0.2771)	(1.1520)	(0.7760)
Ratio not working to pop.	-1.3280***	-1.4581***	0.3029	1.9214**	-1.5238***	-0.4334	0.3758

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Table D.1: Coefficient estimates from the logistic regression used to estimate the propensity score

	Full Sample	**Men**			**Women**		
		Status FN	**Non-Status FN**	**Métis**	**Status FN**	**Non-Status FN**	**Métis**
	(0.1676)	(0.2658)	(1.1195)	(0.8523)	(0.3050)	(1.2812)	(0.8881)
Mean earnings in local area	0.0000***	0.0000**	0.0000	0.0002***	0.0000***	0.0000	0.0002***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Employment (Earnings > 0 by Prior Year)							
1 year prior	-0.0191	0.2230	-0.6908	-0.8334	-0.1357	0.8630	-0.6755
	(0.0973)	(0.1453)	(0.5803)	(0.7554)	(0.2015)	(0.7906)	(0.5276)
2 years prior	-0.0325	0.2509*	-0.7921	-0.9676	-0.1254	0.8439	-0.7772
	(0.0975)	(0.1456)	(0.5791)	(0.7553)	(0.2023)	(0.7864)	(0.5253)
3 years prior	-0.0082	0.2309	-0.5265	-1.0100	-0.1024	1.2354	-0.7111
	(0.0977)	(0.1458)	(0.5821)	(0.7549)	(0.2020)	(0.7897)	(0.5274)
4 years prior	-0.0336	0.2846**	-0.7915	-1.0557	-0.1833	0.9527	-0.6409
	(0.0972)	(0.1451)	(0.5821)	(0.7540)	(0.2016)	(0.7903)	(0.5274)
5 years prior	0.0100	0.2297	-0.4401	-0.9353	-0.0807	1.0285	-0.5857
	(0.0970)	(0.1447)	(0.5761)	(0.7549)	(0.2016)	(0.7828)	(0.5264)
Entry Year: Base, 2010							
2011	-0.3429***	-0.0861	-0.7617***	-0.3275***	-0.1945***	-0.5728***	-0.7088***
	(0.0321)	(0.0544)	(0.1918)	(0.1220)	(0.0571)	(0.2070)	(0.1164)
2012	-0.3762***	-0.0433	-0.7369***	-0.4946***	-0.1986***	-0.5157**	-0.9631***
	(0.0323)	(0.0547)	(0.1930)	(0.1231)	(0.0576)	(0.2107)	(0.1187)
2013	-0.3906***	-0.0582	-0.7002***	-0.7485***	-0.1449**	-0.4629**	-1.2287***
	(0.0329)	(0.0557)	(0.1963)	(0.1228)	(0.0588)	(0.2135)	(0.1179)
2014	-0.4661***	-0.0581	-0.8051***	-1.1044***	-0.1613***	-0.6923***	-1.6956***
	(0.0332)	(0.0565)	(0.1993)	(0.1225)	(0.0596)	(0.2140)	(0.1178)
Job Separation Reason: Base, No Prior Job							

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Table D.1: Coefficient estimates from the logistic regression used to estimate the propensity score

	Full Sample	**Men**			**Women**		
		Status FN	**Non-Status FN**	**Métis**	**Status FN**	**Non-Status FN**	**Métis**
Working at ASETS start	-0.1267***	-0.2189***	-0.2427	-0.0037	-0.0108	0.0695	-0.2896*
	(0.0309)	(0.0477)	(0.1894)	(0.1532)	(0.0501)	(0.2052)	(0.1557)
Layoff	-0.0159	-0.1023**	-0.1439	0.3031*	0.0321	0.1427	0.2310
	(0.0319)	(0.0480)	(0.1930)	(0.1554)	(0.0538)	(0.2250)	(0.1658)
Quit	-0.0718**	-0.1986***	-0.2552	0.3156**	0.0087	0.0419	0.1057
	(0.0317)	(0.0490)	(0.1937)	(0.1536)	(0.0524)	(0.2098)	(0.1572)
Dismissal	-0.1740***	-0.2916***	-0.5790***	0.1216	-0.0409	-0.0310	0.0227
	(0.0357)	(0.0550)	(0.2114)	(0.1656)	(0.0608)	(0.2316)	(0.1762)
Schooling or apprenticeship	0.4374***	0.3222***	0.5784*	1.3221***	0.1636**	0.7200**	0.6870***
	(0.0500)	(0.0844)	(0.3440)	(0.2074)	(0.0832)	(0.3370)	(0.2003)
Illness, injury or leave	-0.1001**	-0.1557	-0.1863	-0.1679	0.0142	0.2680	-0.0252
	(0.0493)	(0.1077)	(0.3542)	(0.2408)	(0.0752)	(0.2843)	(0.1961)
Other reasons	-0.0558	-0.1720***	-0.2229	0.1654	0.0088	0.2450	0.0011
	(0.0365)	(0.0572)	(0.2236)	(0.1730)	(0.0611)	(0.2437)	(0.1759)
Occ. of Prior Job: Base, No Prior Job							
Management	0.1594	0.1218	1.5823**	0.5049	-0.2257	0.4605	0.3506
	(0.1058)	(0.1872)	(0.7223)	(0.3509)	(0.2050)	(0.6021)	(0.3198)
Business/finance/admin	0.0850	-0.0006	1.2945*	0.5015	-0.1176	-0.0392	0.3189
	(0.0988)	(0.1809)	(0.6932)	(0.3174)	(0.1940)	(0.5595)	(0.2848)
Science/health	0.0992	0.0493	1.5686**	0.5163	-0.1963	-0.2428	0.3836
	(0.1033)	(0.1805)	(0.6924)	(0.3231)	(0.2031)	(0.5994)	(0.3052)
Educ, pub. services	0.0601	-0.1153	1.2610*	0.4579	-0.1564	0.2418	0.2499
	(0.1001)	(0.1802)	(0.7273)	(0.3619)	(0.1951)	(0.5734)	(0.2976)
Art, culture, rec., sport	0.1981	-0.2664	1.2999*	0.4543	0.1013	0.8721	0.8125*
	(0.1229)	(0.2178)	(0.7812)	(0.4028)	(0.2302)	(0.8853)	(0.4457)
Sales and service	0.1892*	0.0840	1.4624**	0.5002*	-0.0488	0.0462	0.5529**

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Table D.1: Coefficient estimates from the logistic regression used to estimate the propensity score

	Full Sample	**Men**			**Women**		
		Status FN	**Non-Status FN**	**Métis**	**Status FN**	**Non-Status FN**	**Métis**
	(0.0970)	(0.1700)	(0.6622)	(0.2917)	(0.1923)	(0.5579)	(0.2813)
Trades/transp./equip. ops	0.1060	-0.0293	0.9346	0.4663	-0.1030	-0.5260	0.4498
	(0.0972)	(0.1682)	(0.6579)	(0.2844)	(0.2010)	(0.5871)	(0.3123)
Nat.Resource/Agri	0.1276	0.0289	1.0626	0.4452	-0.0289	-0.2474	0.4644
	(0.1003)	(0.1711)	(0.6728)	(0.3015)	(0.2181)	(0.7523)	(0.3849)
Manufacturing/utilities	0.1018	0.0058	0.8042	0.5314*	0.0234	-0.2899	0.4996
	(0.1019)	(0.1739)	(0.6725)	(0.3022)	(0.2149)	(0.6047)	(0.3313)
Employment Insurance Reciept							
Active EI claimant	-0.0588	-0.0349	-0.8323	0.2933	-0.0843	-0.0805	0.1940
	(0.1003)	(0.1736)	(0.6790)	(0.3077)	(0.1991)	(0.5833)	(0.3061)
Former claim (< 3 yrs)	-0.0849	-0.1076	-1.1438*	0.0093	0.1010	0.0633	-0.1908
	(0.1015)	(0.1751)	(0.6837)	(0.3129)	(0.2016)	(0.5917)	(0.3147)
Former claim (> 3 yrs)	-0.0883	-0.0943	-1.2566*	0.0282	0.1739	0.3192	-0.3106
	(0.1063)	(0.1822)	(0.7139)	(0.3453)	(0.2102)	(0.6321)	(0.3438)
Benefits in 5 prior yrs	0.0062	-0.0075	0.0311	0.0437**	0.0047	-0.0523	0.0347
	(0.0050)	(0.0082)	(0.0303)	(0.0211)	(0.0096)	(0.0365)	(0.0219)
Benefits squared	-0.0002**	0.0000	-0.0006	-0.0003	-0.0002	0.0009	-0.0007
	(0.0001)	(0.0001)	(0.0005)	(0.0003)	(0.0002)	(0.0007)	(0.0004)
Weeks of EI in 5 prior yrs	-0.0027	0.0039	-0.0076	-0.0234***	-0.0003	0.0113	-0.0224***
	(0.0019)	(0.0032)	(0.0121)	(0.0085)	(0.0035)	(0.0133)	(0.0079)
Weeks squared	0.0000***	-0.0000	0.0001	0.0001**	0.0000	-0.0001	0.0002***
	(0.0000)	(0.0000)	(0.0001)	(0.0000)	(0.0000)	(0.0001)	(0.0001)
Emp Wks b/w EI and ASETS	0.0041***	0.0037**	0.0002	0.0006	0.0084***	0.0136**	-0.0000
	(0.0009)	(0.0015)	(0.0052)	(0.0032)	(0.0018)	(0.0056)	(0.0033)
EI insured hours at start	-0.0837***	-0.0038	-0.1687	-0.1781**	-0.1104***	-0.1509	-0.1173
	(0.0216)	(0.0352)	(0.1273)	(0.0902)	(0.0407)	(0.1533)	(0.0939)

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Table D.1: Coefficient estimates from the logistic regression used to estimate the propensity score

	Full Sample	**Men**			**Women**		
		Status FN	**Non-Status FN**	**Métis**	**Status FN**	**Non-Status FN**	**Métis**
Mnths b/w EI and ASETS	0.0004	0.0006	0.0029	-0.0006	0.0007	-0.0024	-0.0002
	(0.0003)	(0.0005)	(0.0018)	(0.0013)	(0.0005)	(0.0021)	(0.0013)
Prior Program Participation							
Any previous high-intensity	-0.0688***	-0.0438	0.1407	-0.0089	-0.0964***	0.0701	-0.3516***
	(0.0174)	(0.0279)	(0.1005)	(0.0793)	(0.0311)	(0.1168)	(0.0822)
Months of last prior program	-0.0138**	-0.0172*	-0.0671*	-0.0618**	-0.0034	-0.0820**	0.0031
	(0.0058)	(0.0097)	(0.0348)	(0.0264)	(0.0099)	(0.0365)	(0.0226)
Months squared	0.0038***	0.0032***	0.0057	0.0069**	0.0032***	0.0110***	0.0030
	(0.0006)	(0.0010)	(0.0036)	(0.0028)	(0.0009)	(0.0035)	(0.0021)
Last program completed	0.0304**	0.0645***	-0.0019	0.0559	-0.0768***	-0.0497	0.1358**
	(0.0135)	(0.0216)	(0.0809)	(0.0599)	(0.0242)	(0.0901)	(0.0613)
Months of all prior programs	0.0029*	0.0024	0.0011	-0.0086	0.0039	0.0038	0.0108
	(0.0015)	(0.0025)	(0.0108)	(0.0080)	(0.0026)	(0.0114)	(0.0070)
Months squared	-0.0000	-0.0000	-0.0000	0.0002	-0.0000	-0.0001	-0.0002*
	(0.0000)	(0.0000)	(0.0002)	(0.0002)	(0.0000)	(0.0002)	(0.0001)
Sample Size	121,580	45,420	3,360	7,544	37,217	2,726	8,737
Chi-Square Stat	42.2928	19.3683	0.9024	24.4372	2.5939	2.7218	44.9618
Chi-Square P-value	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9996

Notes: The Chi-Square statistics reported in the bottom of the table are associated with the following test: First, for the full sample and each population group, the predicted propensity score was constructed using the estimates reported in the table. Then, identical logistic regressions were run except they also included the predicted propensity score. The Chi-Square statistics are associated with the null hypothesis that all the other coefficients (other than coefficient on the propensity score) are jointly zero. The p-values are reported below the test statistics.

Table D.2: Selected marginal effects from the logistic regression used to estimate the propensity score

	Full Sample	**Men**			**Women**		
		Status FN	**Non-Status FN**	**Métis**	**Status FN**	**Non-Status FN**	**Métis**
Population Group: Base, Status FN							
Métis	0.0891***						
	(0.0041)						
Inuit	0.2150***						
	(0.0064)						
Non-Status First Nations	-0.0637***						
	(0.0065)						
Unknown, Indigenous	0.0362***						
	(0.0048)						
Demographic Variables							
Female	0.0300***						
	(0.0031)						
Age	-0.0040***	-0.0045***	-0.0071***	-0.0059***	-0.0028***	-0.0046***	-0.0041***
	(0.0002)	(0.0004)	(0.0014)	(0.0010)	(0.0004)	(0.0018)	(0.0011)
Has Children	0.0180***	0.0299***	0.0667*	0.0262	0.0112*	-0.0061	0.0105
	(0.0038)	(0.0085)	(0.0352)	(0.0209)	(0.0058)	(0.0243)	(0.0131)
Disability	0.0389***	0.0894***	0.0162	-0.0649***	0.0423***	0.0302	-0.0448**
	(0.0058)	(0.0095)	(0.0325)	(0.0225)	(0.0112)	(0.0369)	(0.0204)
Lives in a Rural Area	0.0630***	0.0599***	0.0630***	0.0678***	0.0661***	0.0794***	0.0530***
	(0.0033)	(0.0056)	(0.0216)	(0.0134)	(0.0060)	(0.0247)	(0.0115)
Prior Marital Status: Base, Unreported							
Single Never Married	0.0253***	0.0233**	0.0447	0.0205	0.0136	0.1008*	-0.0172
	(0.0064)	(0.0092)	(0.0372)	(0.0283)	(0.0140)	(0.0539)	(0.0324)
Married or Common Law	0.0601***	0.0671***	0.0640	0.0435	0.0493***	0.1324**	-0.0330
	(0.0068)	(0.0103)	(0.0431)	(0.0311)	(0.0144)	(0.0568)	(0.0337)
Sep./Div./Widowed	0.0157*	0.0258*	0.0238	-0.0327	0.0039	0.0624	-0.0279
	(0.0084)	(0.0143)	(0.0524)	(0.0385)	(0.0166)	(0.0637)	(0.0360)

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Table D.2: Selected marginal effects from the logistic regression used to estimate the propensity score

	Full Sample	**Men**			**Women**		
		Status FN	**Non-Status FN**	**Métis**	**Status FN**	**Non-Status FN**	**Métis**
Entry Year: Base, 2010							
2011	-0.0699***	-0.0194	-0.1675***	-0.0574***	-0.0419***	-0.1269***	-0.1024***
	(0.0063)	(0.0122)	(0.0398)	(0.0205)	(0.0120)	(0.0441)	(0.0142)
2012	-0.0771***	-0.0097	-0.1618***	-0.0897***	-0.0428***	-0.1139**	-0.1486***
	(0.0063)	(0.0122)	(0.0401)	(0.0210)	(0.0121)	(0.0450)	(0.0152)
2013	-0.0802***	-0.0131	-0.1534***	-0.1418***	-0.0310**	-0.1019**	-0.1986***
	(0.0064)	(0.0124)	(0.0409)	(0.0213)	(0.0124)	(0.0456)	(0.0154)
2014	-0.0968***	-0.0130	-0.1773***	-0.2196***	-0.0346***	-0.1542***	-0.2965***
	(0.0065)	(0.0126)	(0.0417)	(0.0215)	(0.0126)	(0.0458)	(0.0158)
Earnings 1-Yr Prior ($1,000's)	0.0003*	-0.0004	0.0031*	0.0004	0.0014***	-0.0008	-0.0021**
	(0.0002)	(0.0003)	(0.0017)	(0.0009)	(0.0005)	(0.0024)	(0.0010)
Tot Inc 1-Yr Prior ($1,000's)	-0.0004**	-0.0007**	-0.0028*	-0.0009	-0.0007	0.0005	0.0005
	(0.0002)	(0.0003)	(0.0015)	(0.0008)	(0.0004)	(0.0020)	(0.0008)
Prior work for Indig. Gov't	0.0706***	0.0778***	0.1046***	0.0004	0.0680***	0.1428***	0.0233
	(0.0033)	(0.0052)	(0.0236)	(0.0244)	(0.0058)	(0.0265)	(0.0218)
Employed 1-Yr prior	-0.0041	0.0508	-0.1505	-0.1508	-0.0297	0.1890	-0.1184
	(0.0210)	(0.0332)	(0.1180)	(0.1171)	(0.0438)	(0.1596)	(0.0813)
No prior employment	0.0627***	0.0779***	-0.0212	-0.0328	0.0648***	-0.0359	0.0819**
	(0.0080)	(0.0134)	(0.0526)	(0.0463)	(0.0128)	(0.0570)	(0.0328)
Most recent prior intervention completed	0.0066**	0.0146***	-0.0004	0.0113	-0.0169***	-0.0112	0.0239**
	(0.0029)	(0.0049)	(0.0183)	(0.0121)	(0.0053)	(0.0204)	(0.0110)
Participated in training previously	-0.0149***	-0.0099	0.0319	-0.0018	-0.0212***	0.0159	-0.0646***
	(0.0037)	(0.0063)	(0.0228)	(0.0161)	(0.0068)	(0.0265)	(0.0154)
Sample Size	121,580	45,420	3,360	7,544	37,217	2,726	8,737

Notes: Marginal effects, for a selection of variables in the the logistic regression used to estimate the propensity score, are reported with standard errors are below in parentheses.

D.2 Overlapping Support

Overall, the propensity scores seem to be reasonably balanced between the high- and low-intensity groups for both the full sample and each of our population groups. This is not surprising, given the degree of balance present in the normalized differences in Table F.1. We trim the propensity scores above 0.9 or below 0.1. These bounds were suggested by Crump et al. (2009) to provide a good approximation to the bounds selected under an optimal rule. The bounds are depicted by solid red lines in the overlapping support figures. In some cases, we have a small amount of mass in the left tail of one group, but not in the other group, thus we also drop observations that are in the bottom and top one-tenth of a percentile of the propensity score distribution. Our trimming procedure is therefore to drop observations greater than the minimum of 0.9 or the propensity score associated with the top 0.999 percentile of the propensity score distribution and observations less than the maximum of 0.1 and the propensity score associated with the bottom 0.001 percentile of the propensity score distribution.

Table D.3 reports the sample sizes for each of our subgroups before and after trimming. In all groups, we trim a greater fraction of the control group than the high-intensity group; however, none of the trimmed samples is substantially smaller than their corresponding untrimmed samples.

Table D.3: Sample Sizes Before and After Trimming

	Full Sample	**Men**			**Women**		
		Status FN	**Non-Status FN**	**Métis**	**Status FN**	**Non-Status FN**	**Métis**
High-Intensity Group							
Pre-Trimming Sample Size	78,495	28,107	1,716	4,953	24,083	1,445	6,107
Fraction Retained	0.956	0.998	0.992	0.933	0.998	0.985	0.873
Post-Trimming Sample Size	75,076	28,047	1,702	4,621	24,036	1,423	5,329
Low-Intensity Group							
Pre-Trimming Sample Size	43,085	17,313	1,644	2,591	13,134	1,281	2,630
Fraction Retained	0.994	0.757	0.996	0.989	0.998	0.996	0.981
Post-Trimming Sample Size	42,821	13,106	1,637	2,562	13,106	1,276	2,579

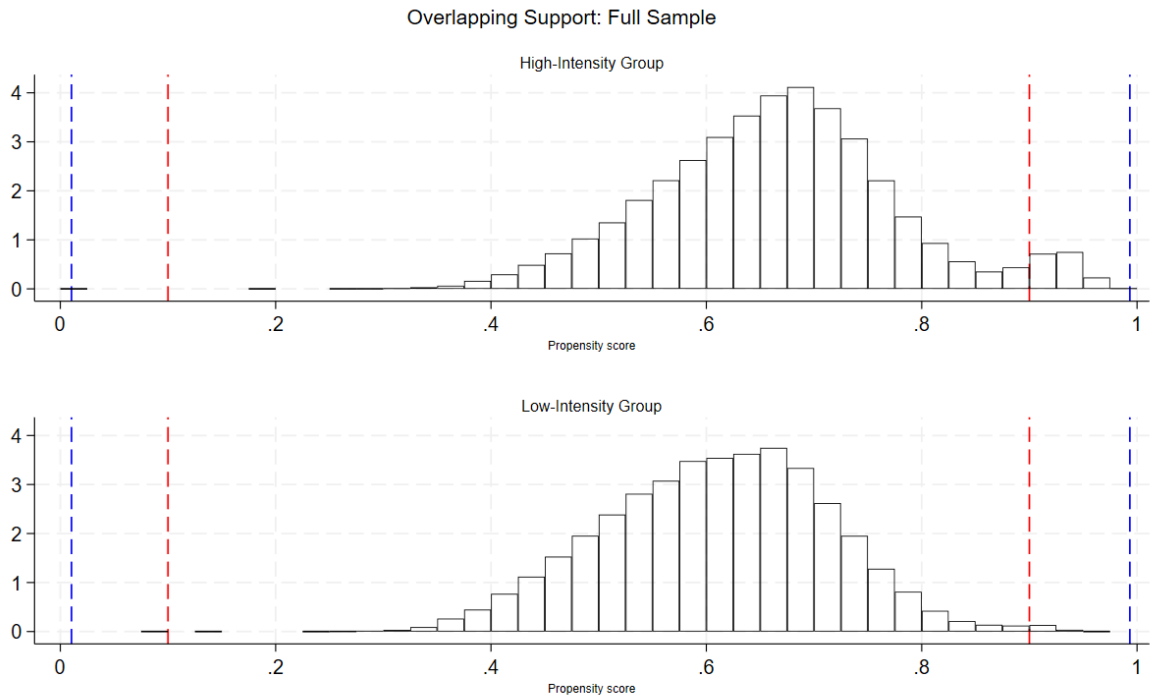


Figure D.1: Histogram of Estimated Propensity Scores: Full Sample

Notes: The propensity score is the estimated probability of high-intensity participation, estimated using a Logit model. The red vertical lines mark the levels of 0.1 and 0.9. The dashed blue lines indicate the top and bottom one-tenth of a percentile in the propensity score distribution. The sample is trimmed at the minimum of these two lines in the upper tail, and the maximum in the lower tail.

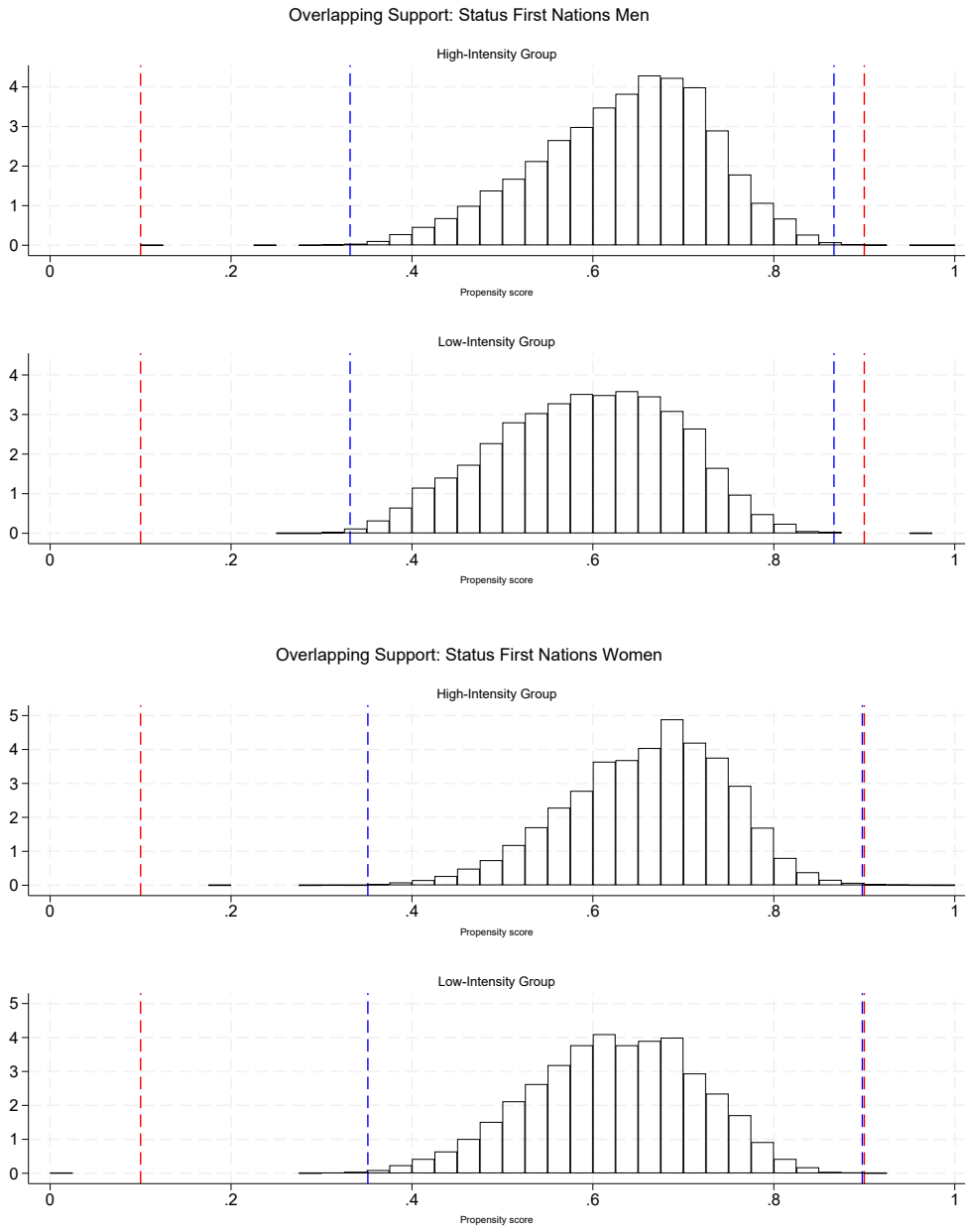


Figure D.2: Histogram of Estimated Propensity Scores: Status First Nations Participants

Notes: The propensity score is the estimated probability of high-intensity participation, estimated using a Logit model. The red vertical lines mark the levels of 0.1 and 0.9. The dashed blue lines indicate the top and bottom one-tenth of a percentile in the propensity score distribution. The sample is trimmed at the minimum of these two lines in the upper tail, and the maximum in the lower tail.

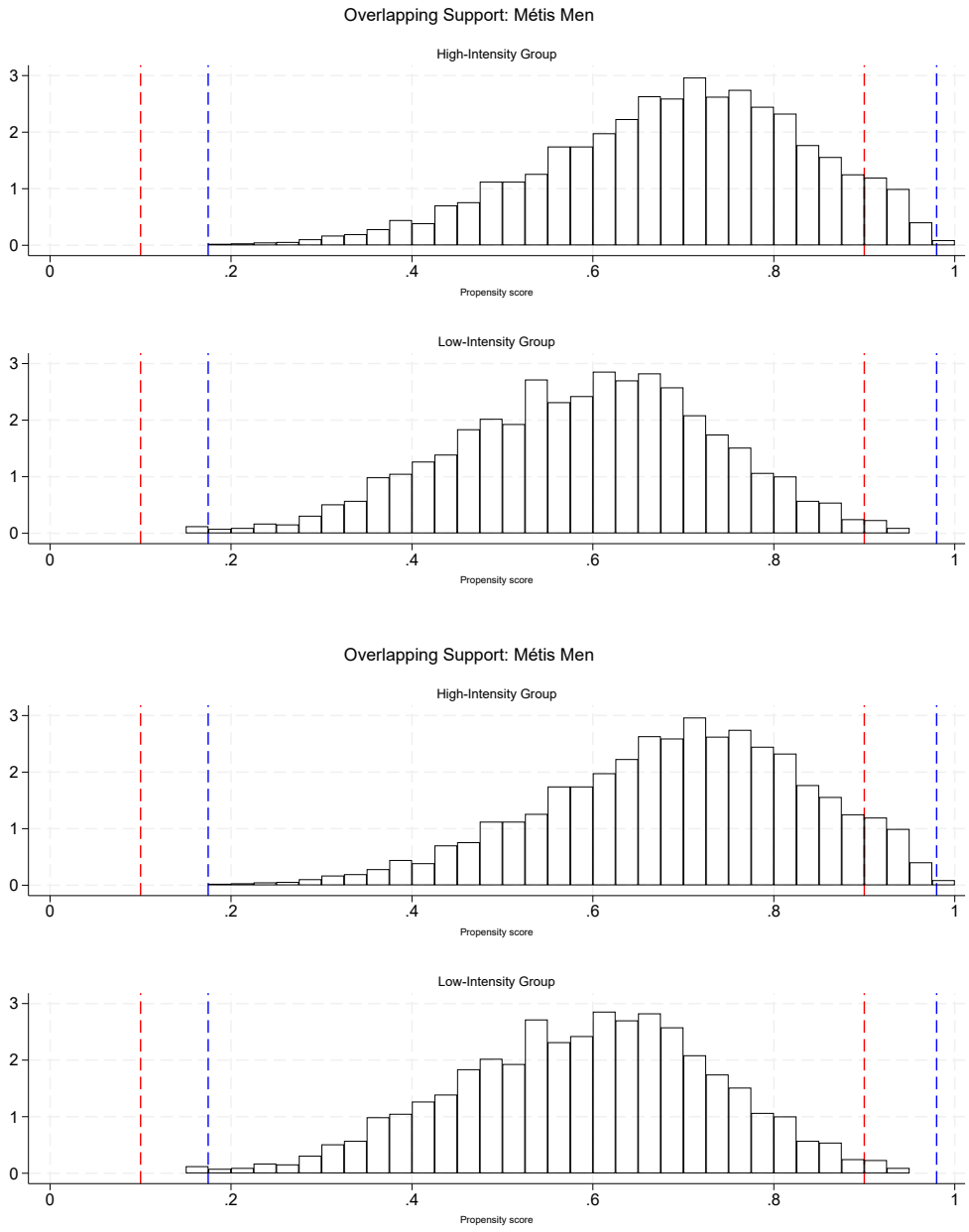


Figure D.3: Histogram of Estimated Propensity Scores: Métis Participants

Notes: The propensity score is the estimated probability of high-intensity participation, estimated using a Logit model. The red vertical lines mark the levels of 0.1 and 0.9. The dashed blue lines indicate the top and bottom one-tenth of a percentile in the propensity score distribution. The sample is trimmed at the minimum of these two lines in the upper tail, and the maximum in the lower tail.

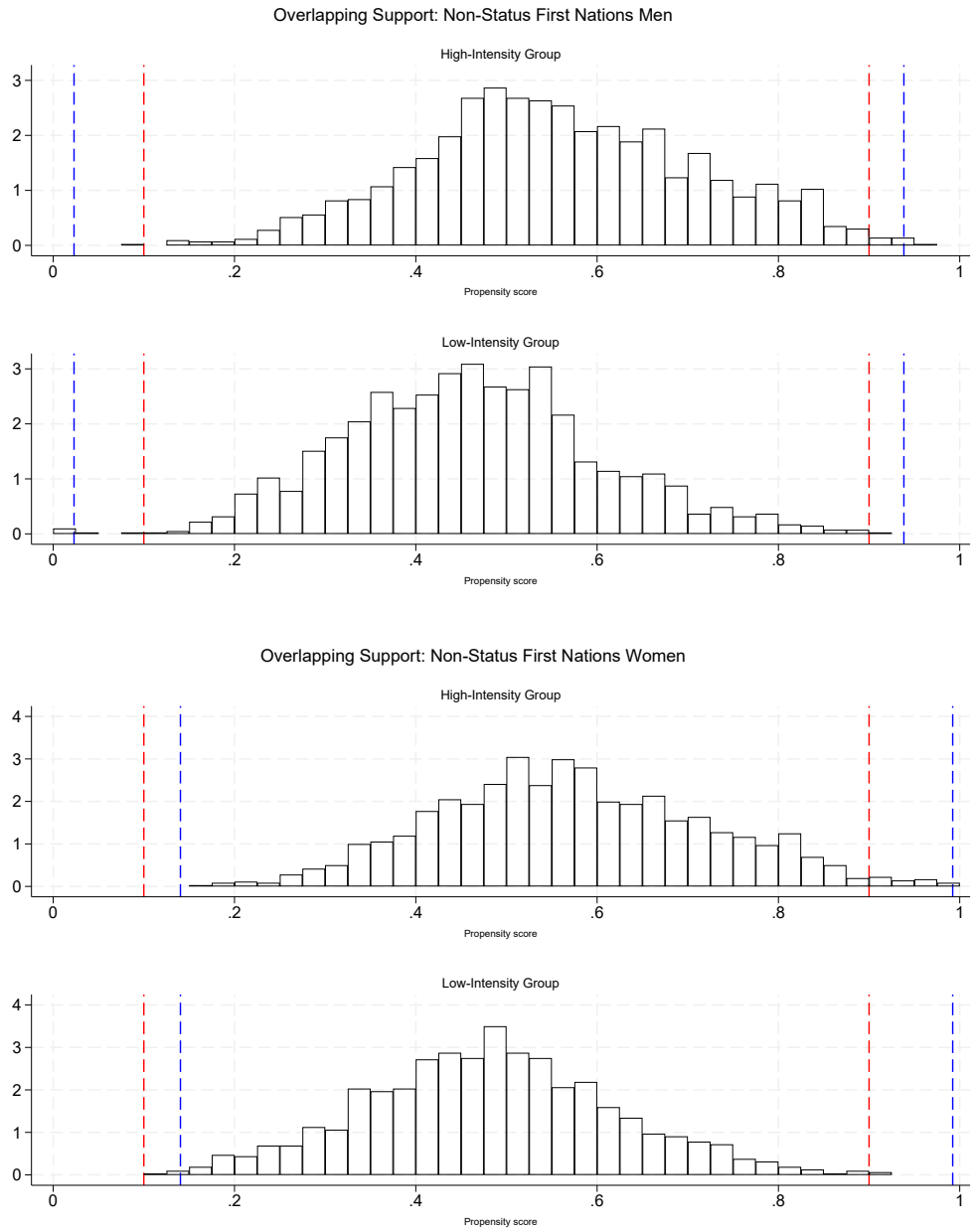


Figure D.4: Histogram of Estimated Propensity Scores: Non-Status First Nations Participants

Notes: The propensity score is the estimated probability of high-intensity participation, estimated using a Logit model. The red vertical lines mark the levels of 0.1 and 0.9. The dashed blue lines indicate the top and bottom one-tenth of a percentile in the propensity score distribution. The sample is trimmed at the minimum of these two lines in the upper tail, and the maximum in the lower tail.

D.3 Balance by Population Group

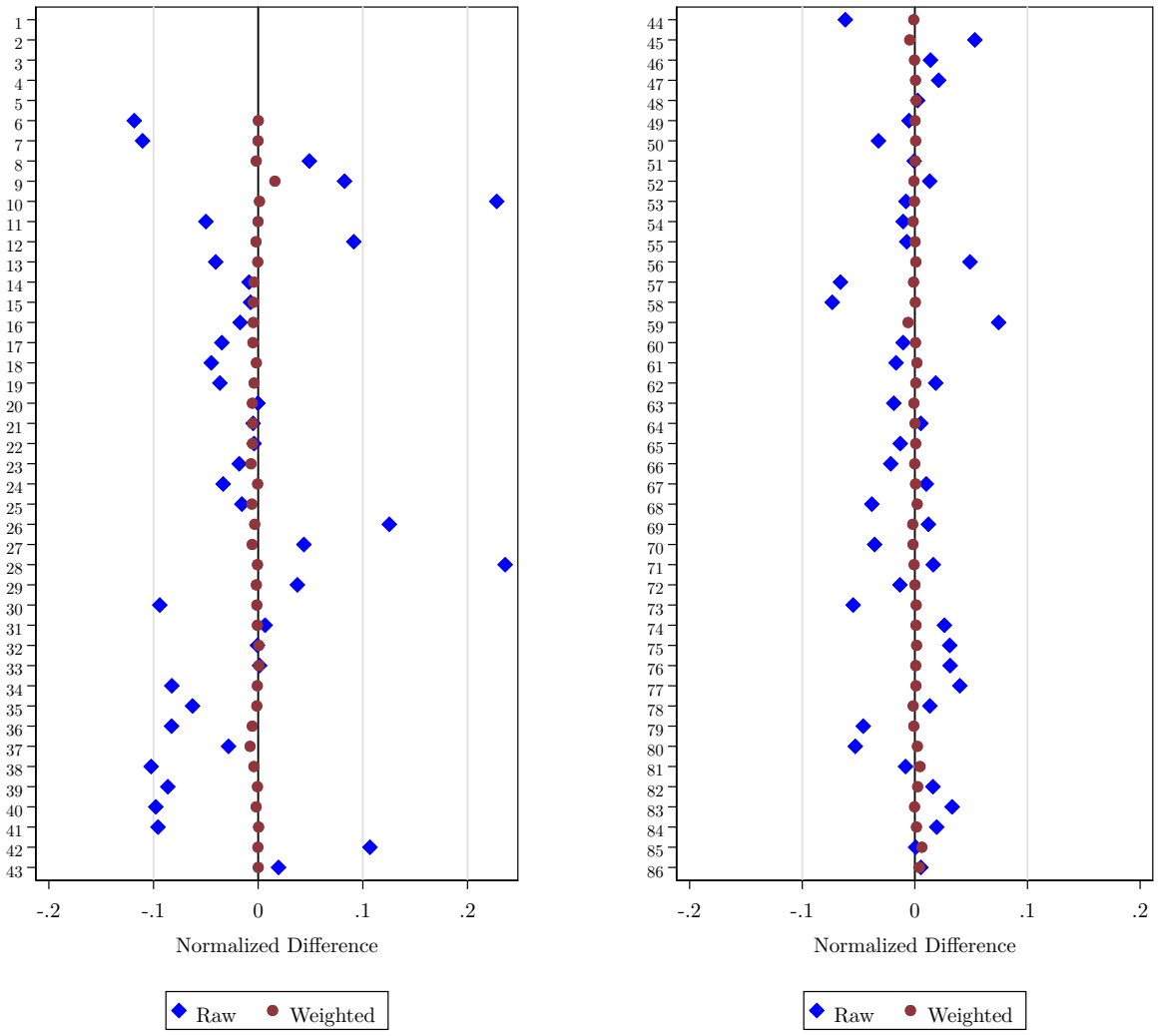


Figure D.5: Normalized Differences in Means for Status First Nations Men

Notes: This plot displays normalized differences in the means of covariates between high- and low-intensity comparison groups. Maroon circles and blue diamonds represent raw and weighted normalized differences, respectively. Variable labels are found in Table **??**. Variables 1-5 are missing for the population group analysis because these are the Indigenous group and sex identifiers.

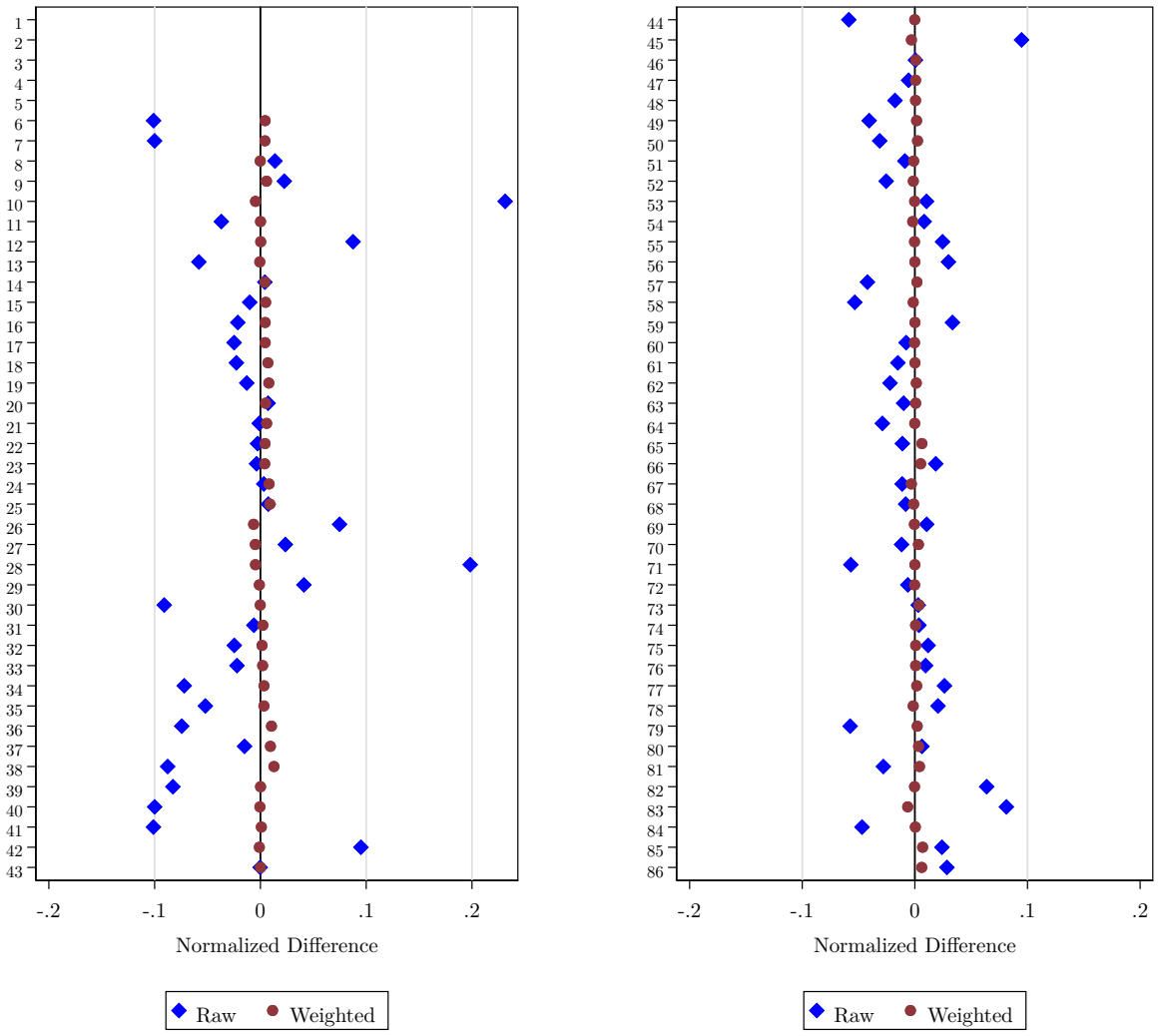


Figure D.6: Normalized Differences in Means for Status First Nations Women

Notes: This plot displays normalized differences in the means of covariates between high- and low-intensity comparison groups. Maroon circles and blue diamonds represent raw and weighted normalized differences, respectively. Variable labels are found in Table **??**. Variables 1-5 are missing for the population group analysis because these are the Indigenous group and sex identifiers.

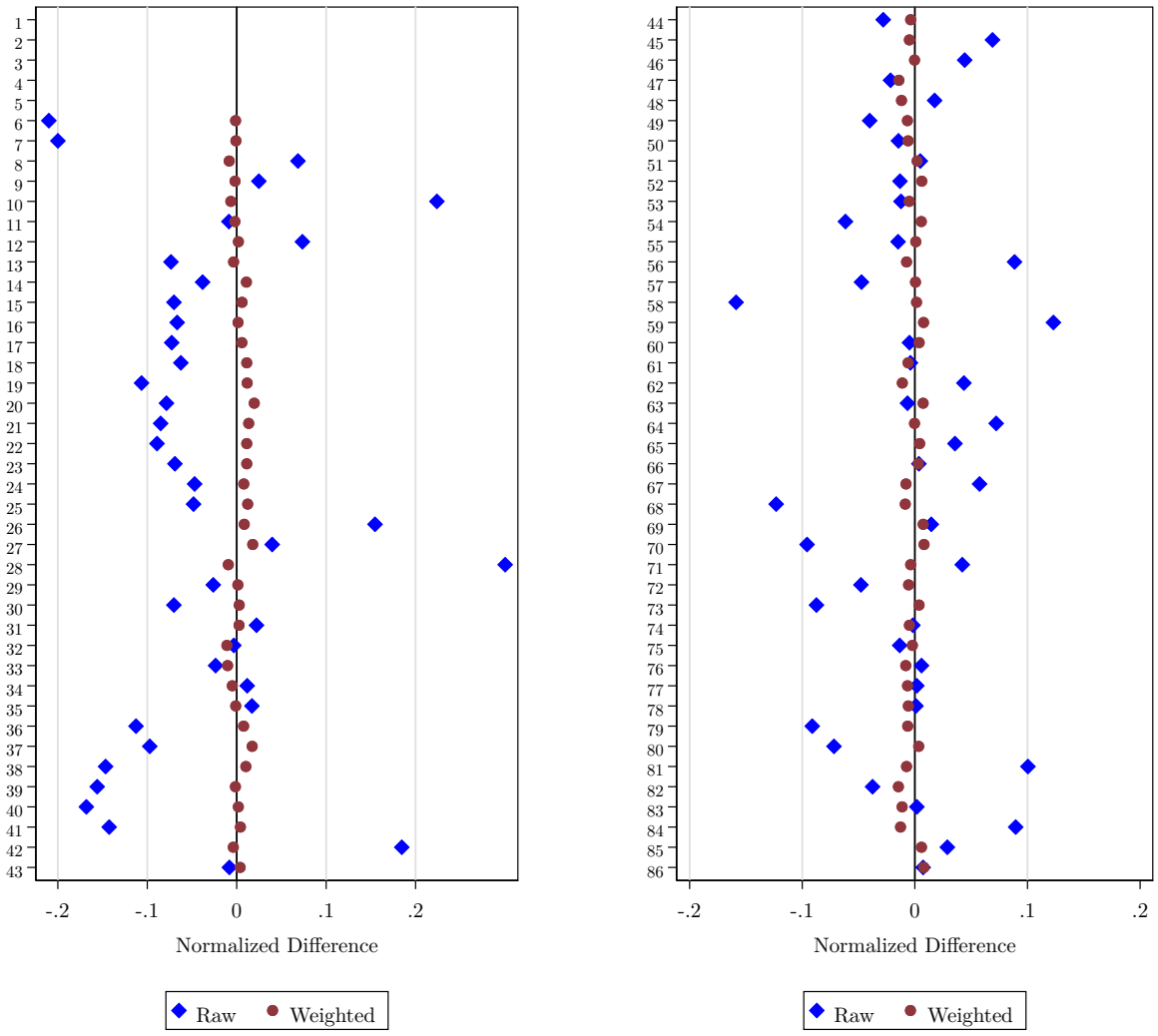


Figure D.7: Normalized Differences in Means for Non-Status First Nations Men

Notes: This plot displays normalized differences in the means of covariates between high- and low-intensity comparison groups. Maroon circles and blue diamonds represent raw and weighted normalized differences, respectively. Variable labels are found in Table **??**. Variables 1-5 are missing for the population group analysis because these are the Indigenous group and sex identifiers.

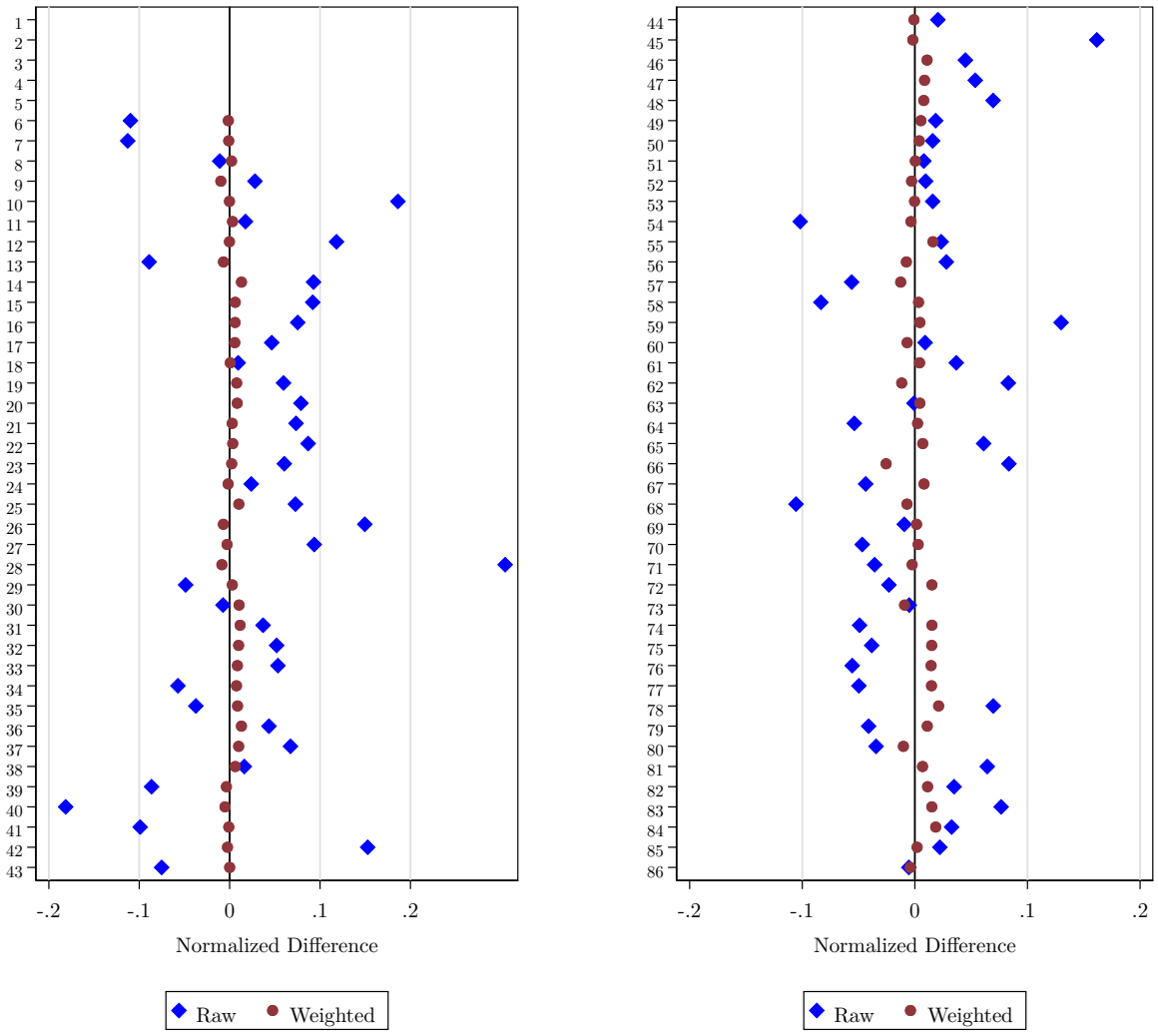


Figure D.8: Normalized Differences in Means for Non-Status First Nations Women

Notes: This plot displays normalized differences in the means of covariates between high- and low-intensity comparison groups. Maroon circles and blue diamonds represent raw and weighted normalized differences, respectively. Variable labels are found in Table **??**. Variables 1-5 are missing for the population group analysis because these are the Indigenous group and sex identifiers.

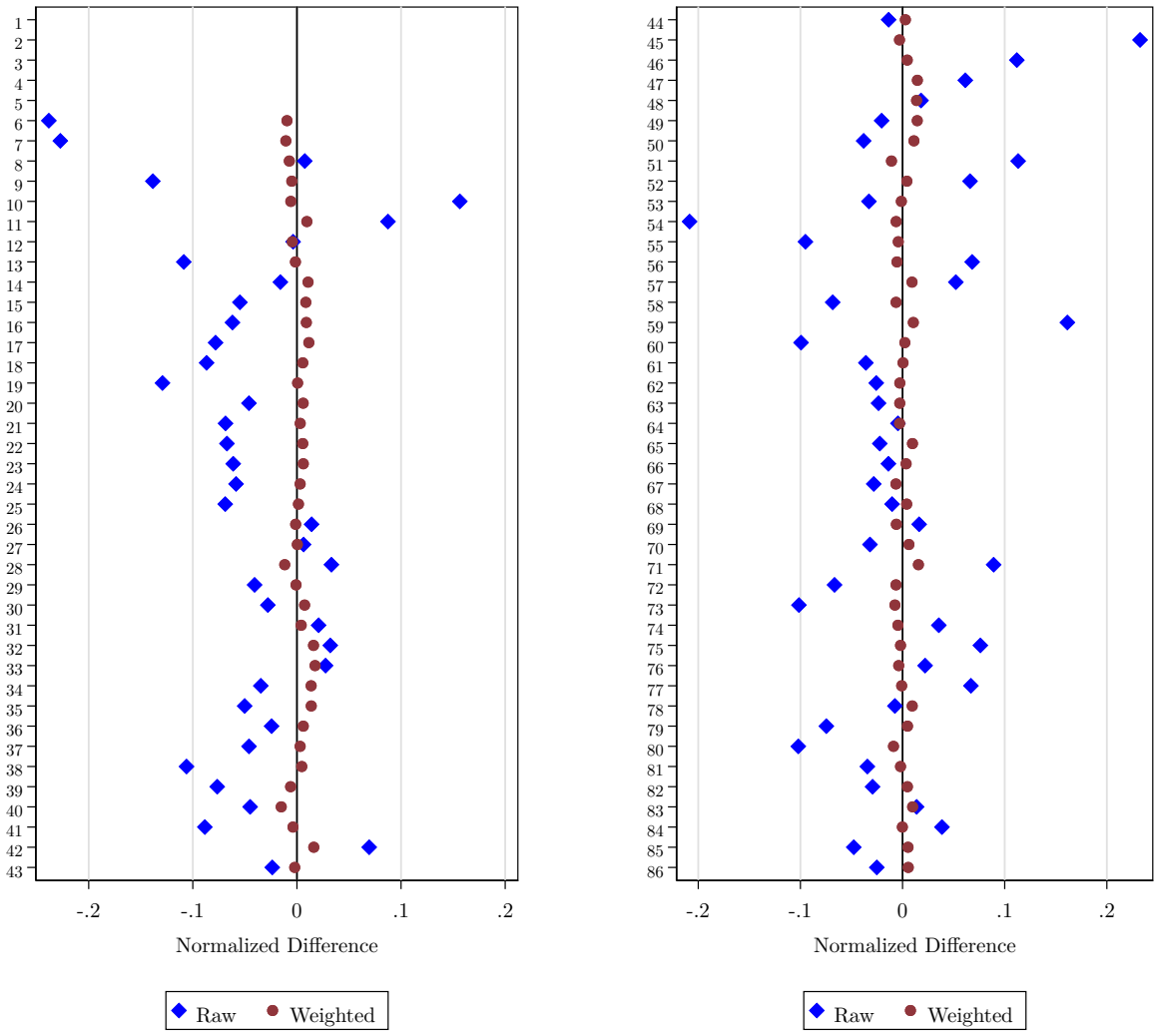


Figure D.9: Normalized Differences in Means for Métis Men

Notes: This plot displays normalized differences in the means of covariates between high- and low-intensity comparison groups. Maroon circles and blue diamonds represent raw and weighted normalized differences, respectively. Variable labels are found in Table **??**. Variables 1-5 are missing for the population group analysis because these are the Indigenous group and sex identifiers.

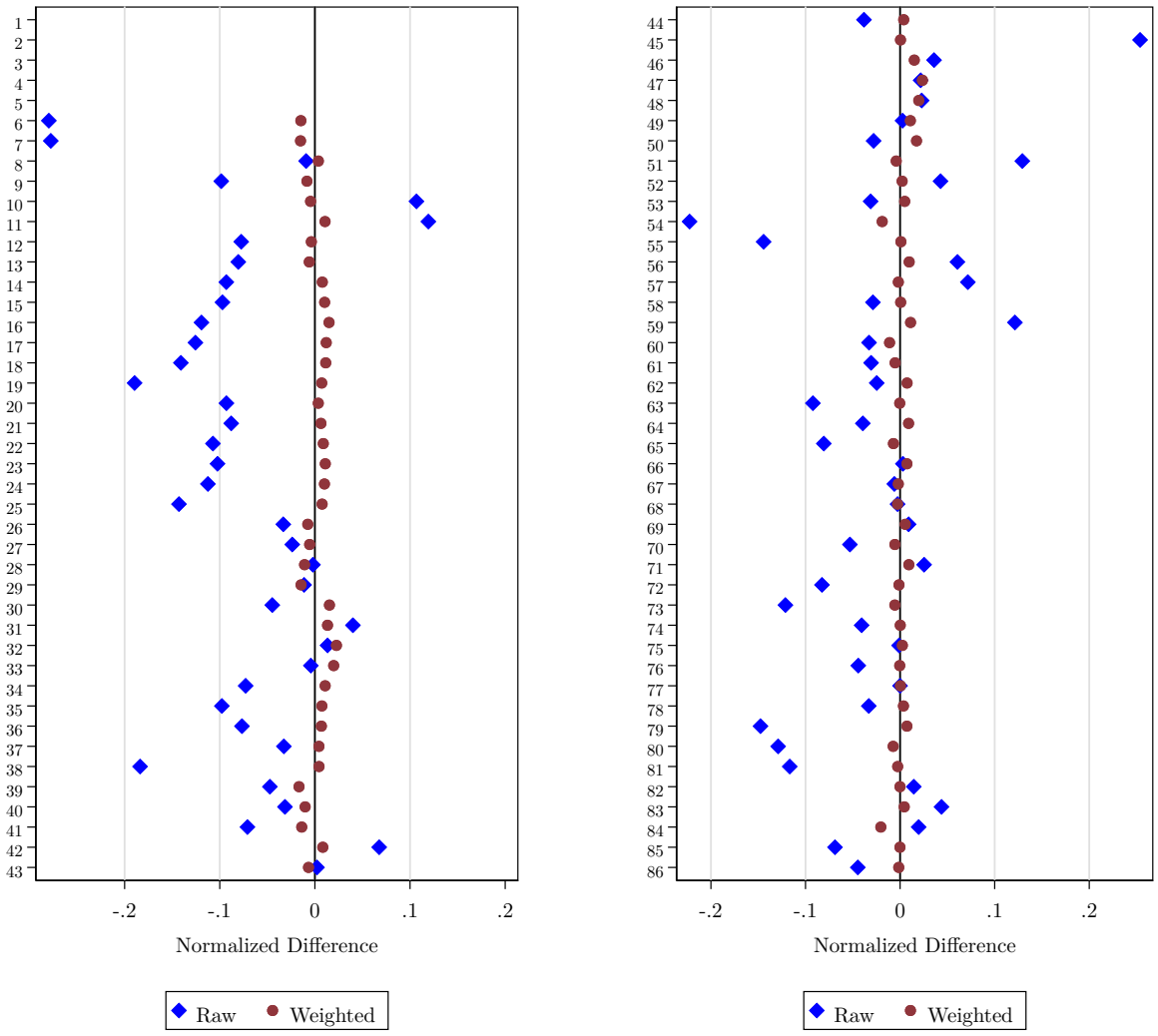


Figure D.10: Normalized Differences in Means for Métis Women

Notes: This plot displays normalized differences in the means of covariates between high- and low-intensity comparison groups. Maroon circles and blue diamonds represent raw and weighted normalized differences, respectively. Variable labels are found in Table **??**. Variables 1-5 are missing for the population group analysis because these are the Indigenous group and sex identifiers.

D.4 Normalized Differences

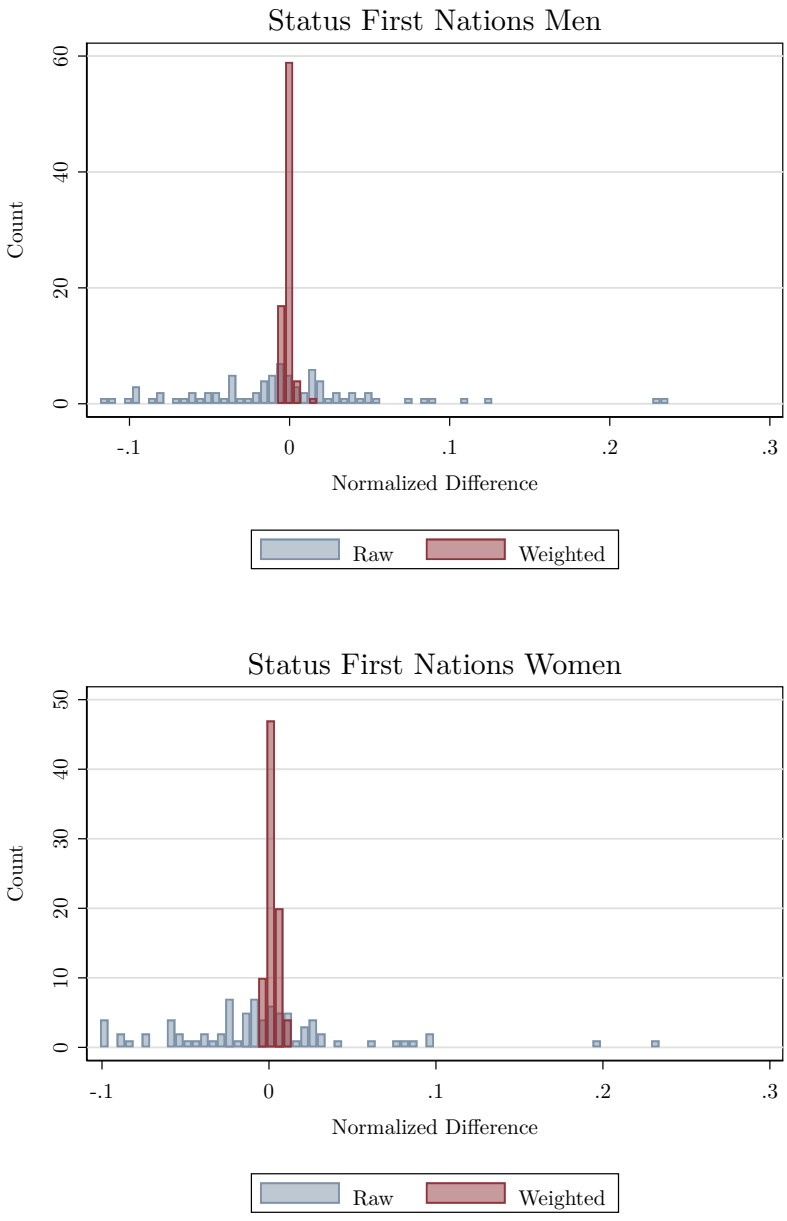
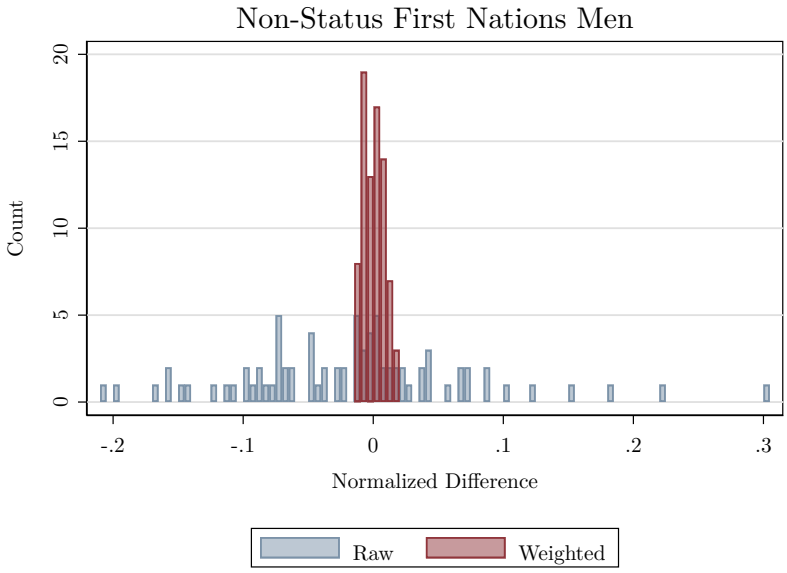
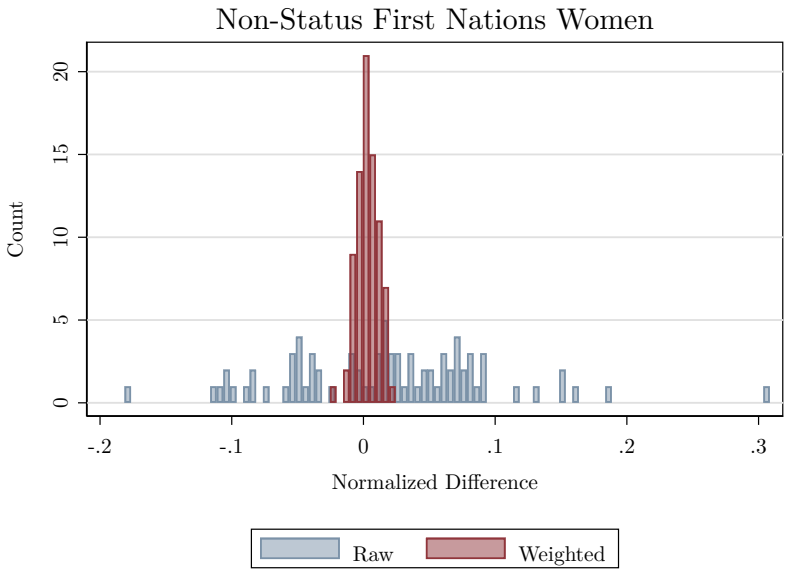


Figure D.11: Histograms of the Distribution of the Normalized Difference in Covariate Means Between High- and Low-Intensity Comparison Groups for Status First Nations

Notes: The figure shows histograms of the normalized difference in covariate means between high- and low-intensity comparison groups. Each plot displays histograms for a separate population group. The plots contain the normalized raw differences, as well as the normalized weighted differences. The latter is weighted by the propensity score.



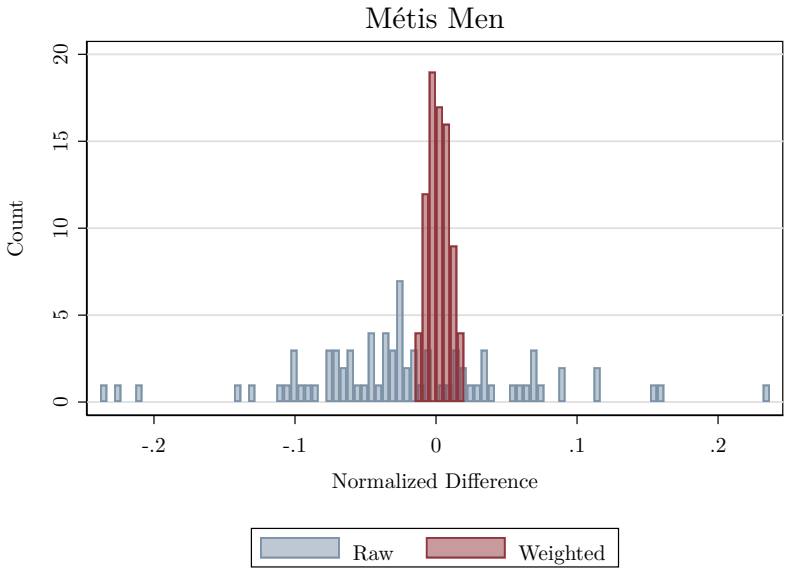
(a) Non-Status First Nations Men



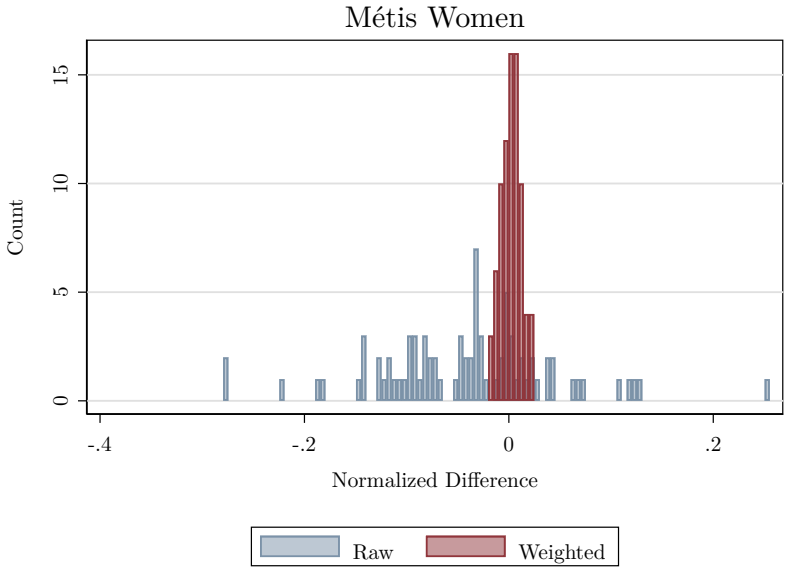
(b) Non-Status First Nations Women

Figure D.12: Histograms of the Distribution of the Normalized Difference in Covariate Means Between High- and Low-Intensity Comparison Groups for Non-Status First Nations

Notes: The figure shows histograms of the normalized difference in covariate means between high- and low-intensity comparison groups. Each plot displays histograms for a separate population group. The plots contain the normalized raw differences, as well as the normalized weighted differences. The latter is weighted by the propensity score.



(a) Métis Men



(b) Métis Women

Figure D.13: Histograms of the Distribution of the Normalized Difference in Covariate Means Between High- and Low-Intensity Comparison Groups for Métis

Notes: The figure shows histograms of the normalized difference in covariate means between high- and low-intensity comparison groups. Each plot displays histograms for a separate population group. The plots contain the normalized raw differences, as well as the normalized weighted differences. The latter is weighted by the propensity score.

D.5 Variance Ratios

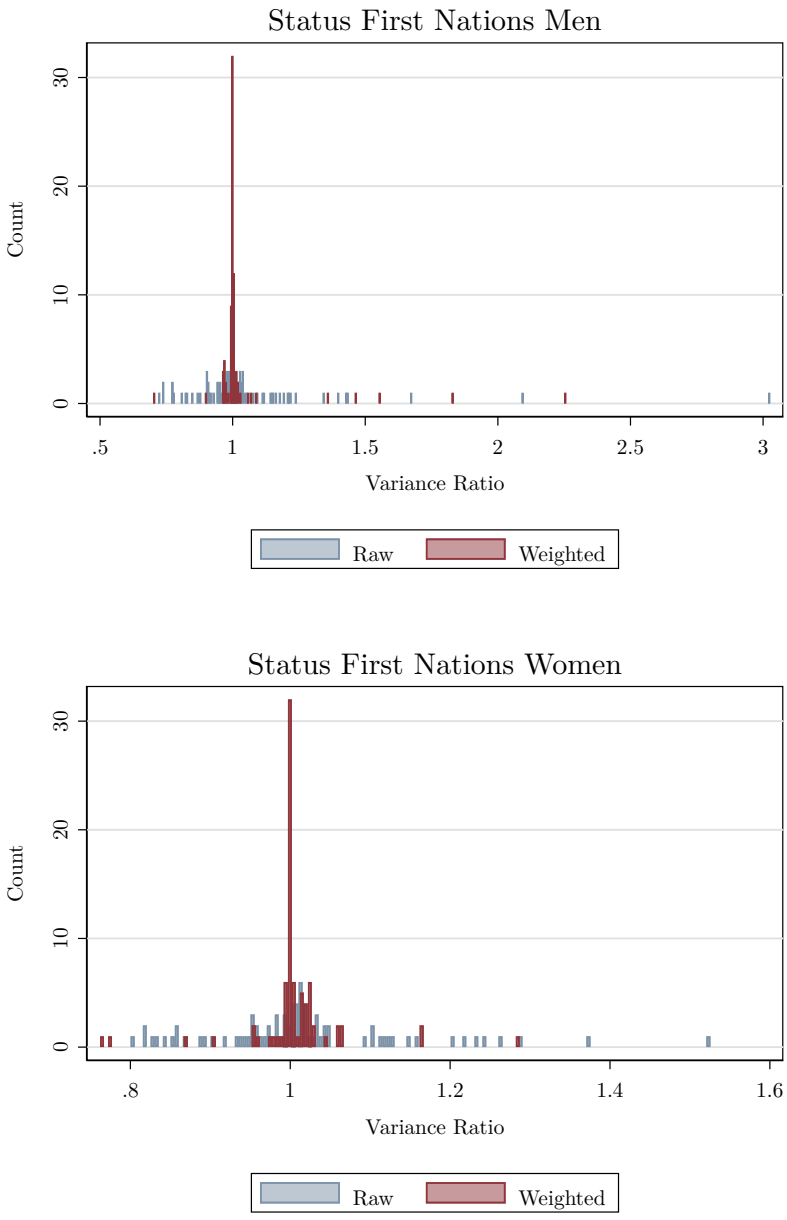


Figure D.14: Histograms of the Distribution of the Covariate Variance Ratio Between High- and Low-Intensity Comparison Groups for Status First Nations

Notes: The figure shows histograms of the variance ratios of covariates between high- and low-intensity comparison groups. Each plot displays histograms for a separate population group. The plots contain the raw variance ratios, as well as the weighted variance ratios. The latter is weighted by the propensity score.

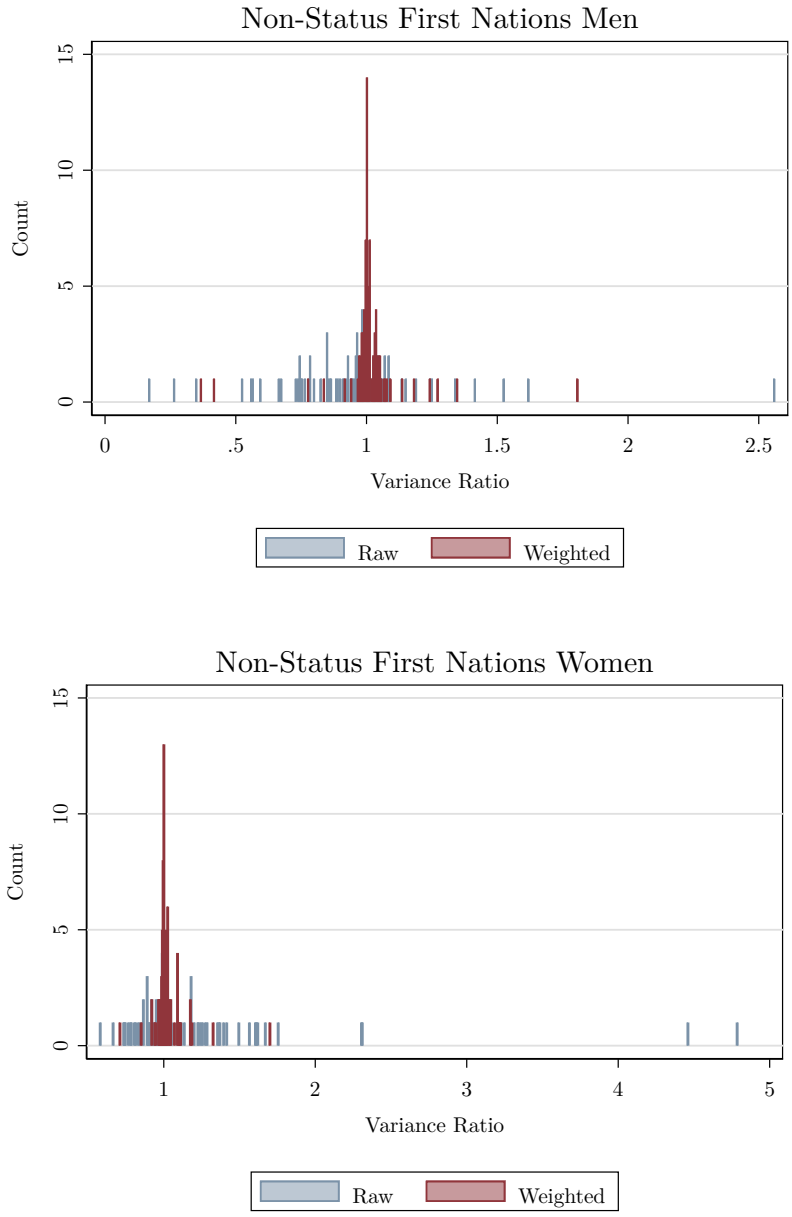


Figure D.15: Histograms of the Distribution of the Covariate Variance Ratio Between High- and Low-Intensity Comparison Groups for Non-Status First Nations

Notes: The figure shows histograms of the variance ratios of covariates between high- and low-intensity comparison groups. Each plot displays histograms for a separate population group. The plots contain the raw variance ratios, as well as the weighted variance ratios. The latter is weighted by the propensity score.

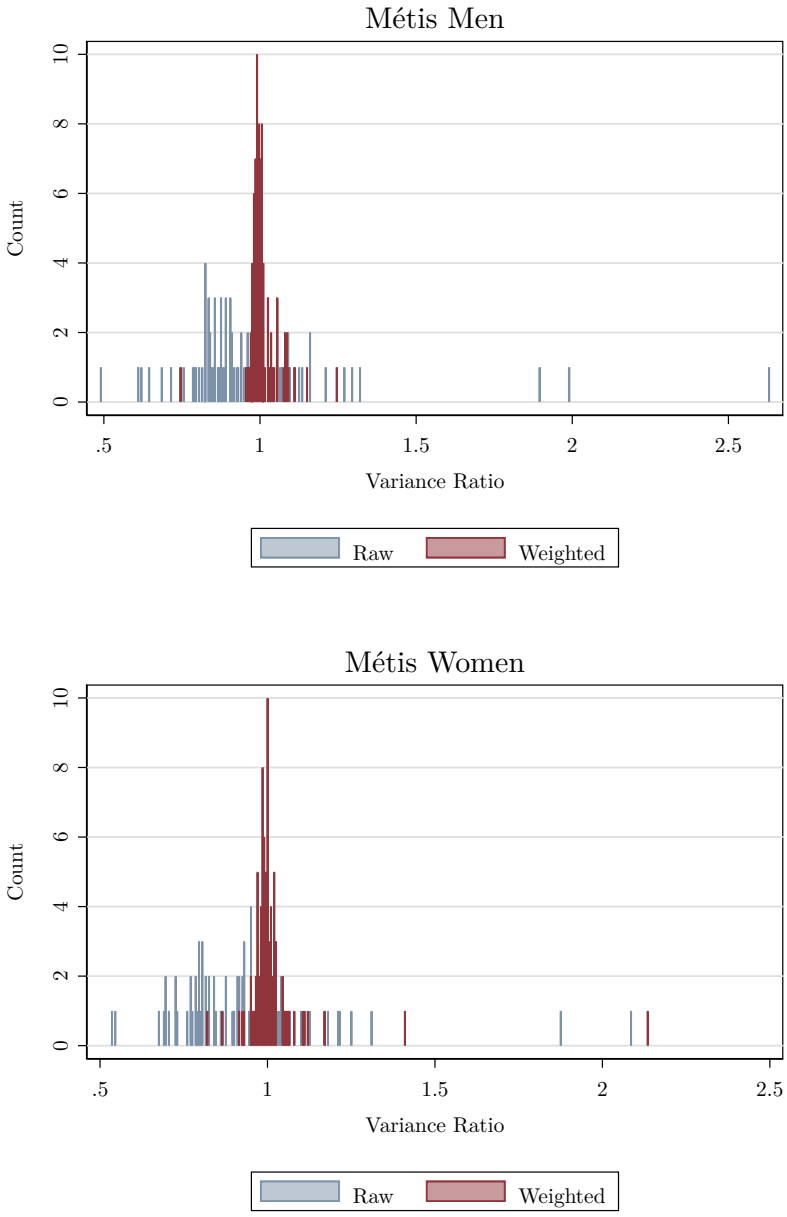


Figure D.16: Histograms of the Distribution of the Covariate Variance Ratio Between High- and Low-Intensity Comparison Groups for Métis

Notes: The figure shows histograms of the variance ratios of covariates between high- and low-intensity comparison groups. Each plot displays histograms for a separate population group. The plots contain the raw variance ratios, as well as the weighted variance ratios. The latter is weighted by the propensity score.

D.6 Unconfoundedness

Following Imbens (2015), we assess unconfoundedness through a falsification exercise in which our dependent variable is the outcome one period before the program start year. Since the outcomes in period $t-1$ precede participation in ASETS, and therefore should not be affected by high-intensity participation, the pre-program effects should all be zero. Table D.4 presents these falsification exercises for our main outcomes, earnings and employment, for the full sample and each Indigenous group separately. The estimates are computed using inverse-probability weighting. We predict the propensity scores controlling for age, marital status, indicators for having children, disability status, and year of entry. We also control for ever having been employed in the prior nine years, and for the second year prior to ASETS participation earnings, employment, working on a reserve, amount of on-reserve earnings, weeks and amount of Employment Insurance.[12]

For earnings, five of the seven pre-participation estimates are statistically indistinguishable from 0. For the full sample, the pre-participation effect on earnings is statistically significant but economically small in magnitude. Among Métis men, the difference in earnings was \$632, which is 4% of average earnings in the low-intensity group. The pre-participation effects on the probability of being employed are again only statistically significant for the full sample and the male Métis group. To alleviate concerns that pre-existing differences in outcomes confound our post-participation effects, we show in Section E.4 of this Online Appendix that our results are robust when the dependent variables are defined as a difference between the pre- and post-participation outcomes.Taken as a whole, together with the overlap in the distributions of propensity scores, the evidence in this section is consistent with the strong ignorability assumption.

[12]We use a smaller set of controls than in the main estimation due to the fact that our controls must be time invariant from the $t-2$ perspective.

Table D.4: Pre-Participation Effects on Earnings and Employment

	Full Sample	Men			Women		
		Status FN	Non-Status FN	Métis	Status FN	Non-Status FN	Métis
Earnings ($1,000s, in 2010 CAD)							
Pre-Program Low-Intensity Mean	11.457	11.301	11.936	16.681	8.824	9.360	11.953
Average Treatment Effect	0.2347***	-0.0645	0.1622	0.6318**	0.1708	0.1458	-0.1287
	(0.0695)	(0.1086)	(0.3910)	(0.2940)	(0.1112)	(0.3259)	(0.1966)
Employment							
Pre-Program Low-Intensity Mean	0.705	0.704	0.722	0.818	0.638	0.680	0.804
Average Treatment Effect	0.0079***	0.0000	0.0125	0.0205***	0.0027	-0.0142	0.0096
	(0.0023)	(0.0037)	(0.0127)	(0.0079)	(0.0042)	(0.0145)	(0.0077)
Sample Size	119,211	45,329	3,353	7,529	37,142	2,721	8,617

Standard errors in parentheses clustered by Forward Sortation Area. Effects are estimated using a doubly-robust inverse propensity score weighted and regression adjusted estimator. All dollars are real 2010 Canadian dollars.

D.7 Pre-Participation Trends in Outcomes

In this section, we show how mean earnings and employment evolved in the five years before and two years following first ASETS participation. Figure D.17 shows these trends for the full sample, and the analogous figures for each Indigenous population group are reported in Tables D.18 to D.20.

These figures reveal that the mean outcomes in the high- and low-intensity groups are close in level and follow very similar paths in the pre-participation years. This suggests that the time-invariant determinants of earnings and employment are not correlated (or not strongly correlated) with assignment to high- and low-intensity participation.

We also do not see the presence of an 'Ashenfelter's Dip', wherein those in training experience a decline in earnings prior to entering training (Ashenfelter, 1975, 1978). If we were to observe this pattern in the data, it would bring into question the suitability of our comparison groups, suggesting instead that the high-intensity group is a selected sample of program participants. It is reassuring for our identification strategy that we do not see a similar pre-program dip in earnings (or employment) in either the high- or low-intensity groups.

There are two key reasons why we might not observe the decline in earnings prior to ASETS participation that is typically observed with other training programs. The first is that ASETS does not require that a person has experienced a job separation as a condition of eligibility. The second is that ASETS participants are relatively young; almost one-third of the sample were aged 25 or younger when first participating. One might expect the opportunity costs of training to be lower for younger individuals, and, as such, a job loss would be the motivating factor for voluntary training less often. To further investigate this possibility, we show average earnings by age groups in the three years prior to and two years following ASETS participation in Figure D.21.

The differences across age categories in the pre-participation average earnings shown in

Figure D.21 do suggest that the relative youth of our sample helps explain why we do not observe the Ashenfelter dip in the full sample. For participants less than age 30, average earnings in the high- and low-intensity comparison groups are very similar and are steadily increasing prior to ASETS participation. In contrast, for older participants, particularly those ages 40 and above, we observe a decline in average earnings prior to participation. However, the declines are quite similar in both the high- and low-intensity groups. To verify that participation-group differences in pre-participation earnings do not affect our results, we estimate all of our main results using the difference between post- and pre-participation outcomes in Section E.4 of this Online Appendix. The results are very similar when we difference off outcomes in the year prior to participation.

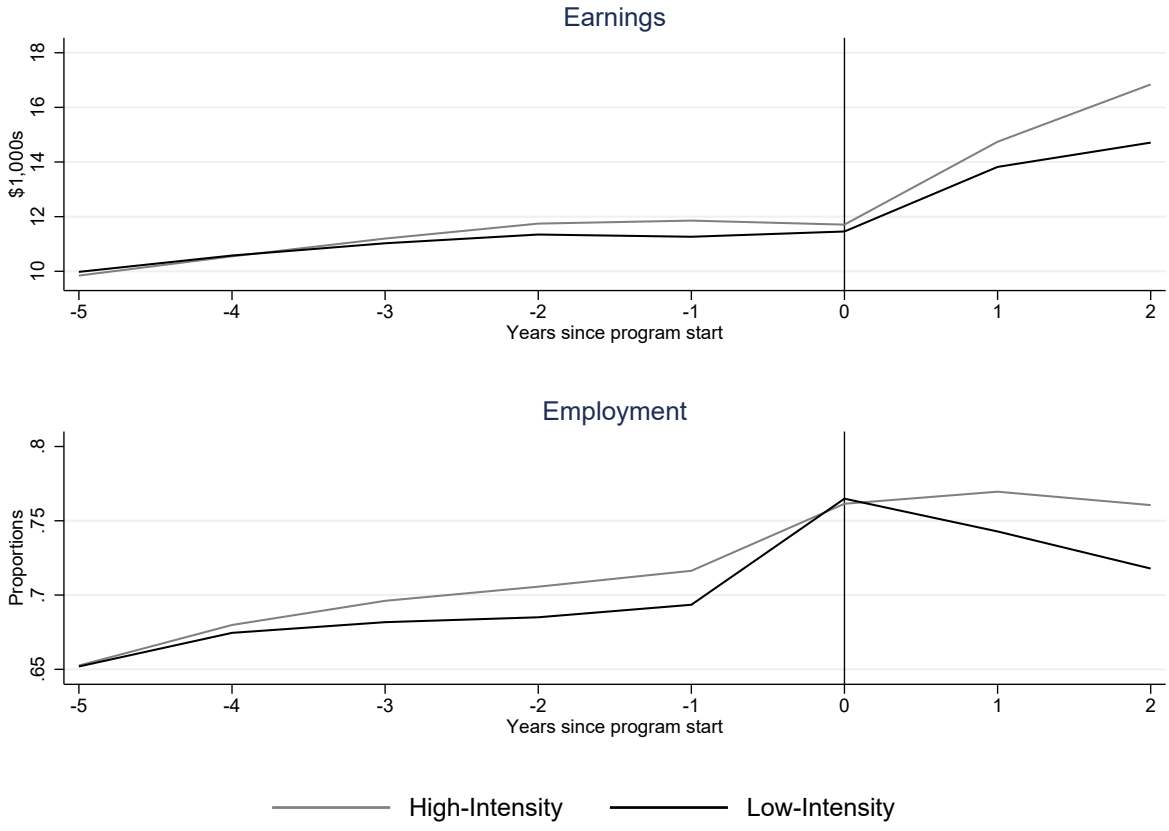


Figure D.17: Prior Trends in Earnings and Employment in the Full Sample. All dollars are real 2010 Canadian dollars.

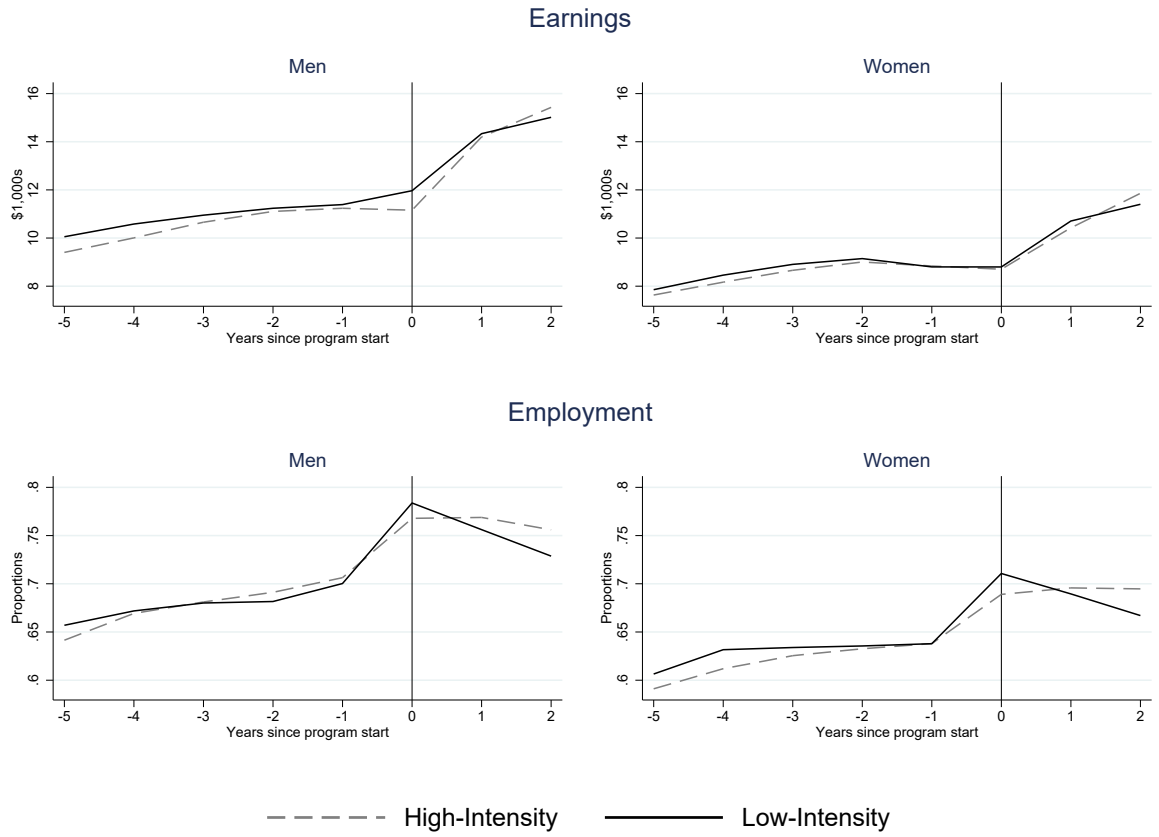


Figure D.18: Prior Trends in Earnings and Employment for Status First Nations Participants. All dollars are real 2010 Canadian dollars.

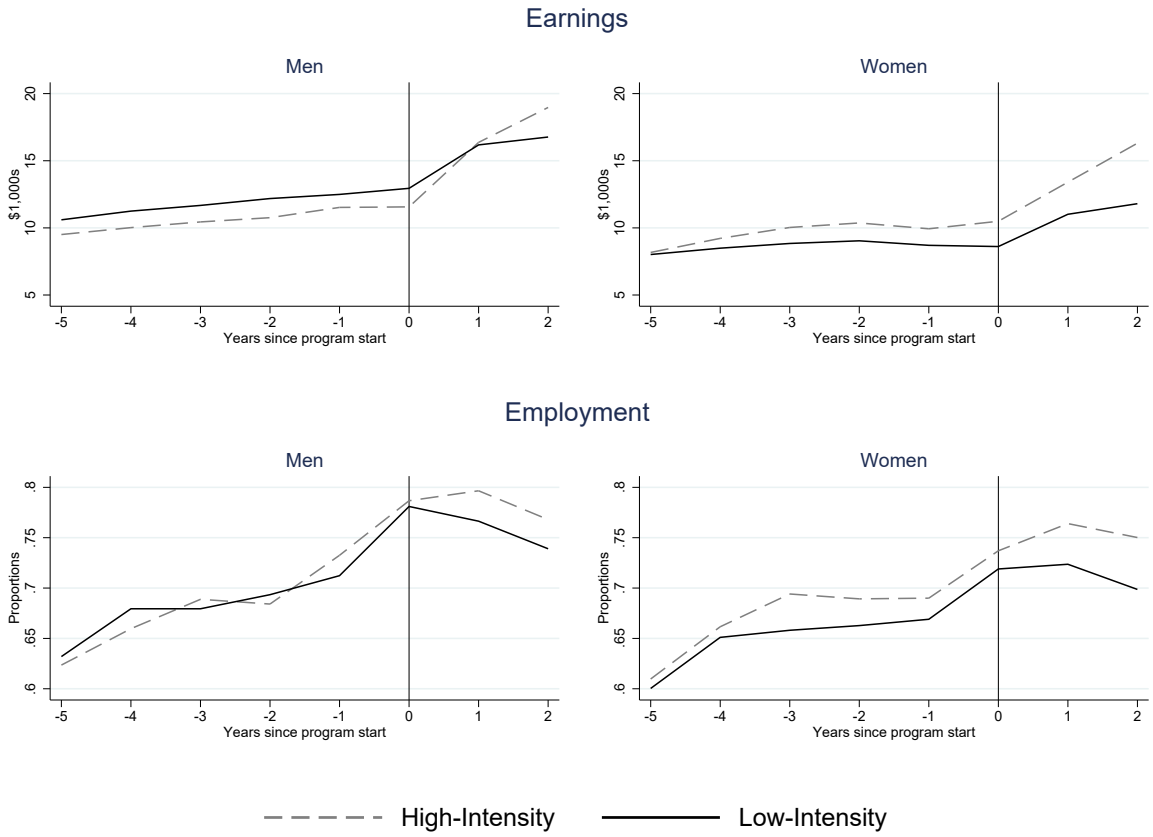


Figure D.19: Prior Trends in Earnings and Employment for Non-Status First Nations Participants. All dollars are real 2010 Canadian dollars.

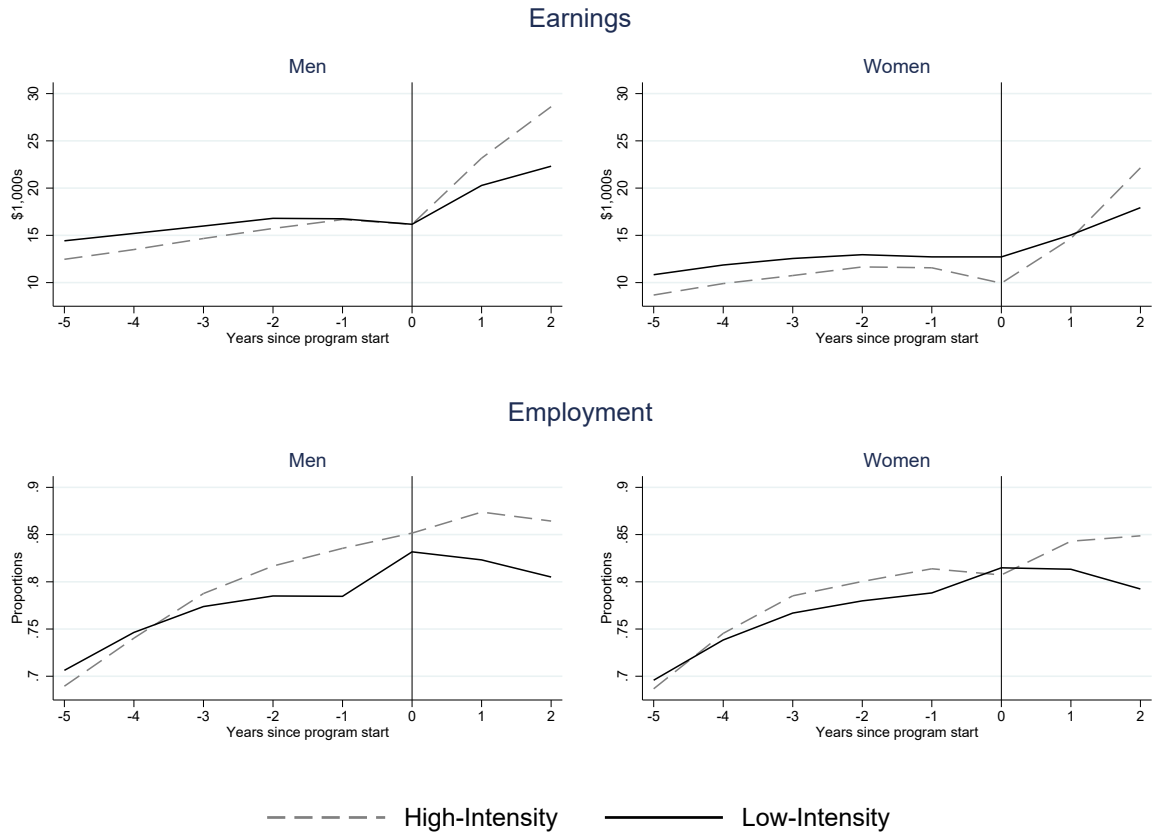


Figure D.20: Prior Trends in Earnings and Employment for Métis Participants. All dollars are real 2010 Canadian dollars.

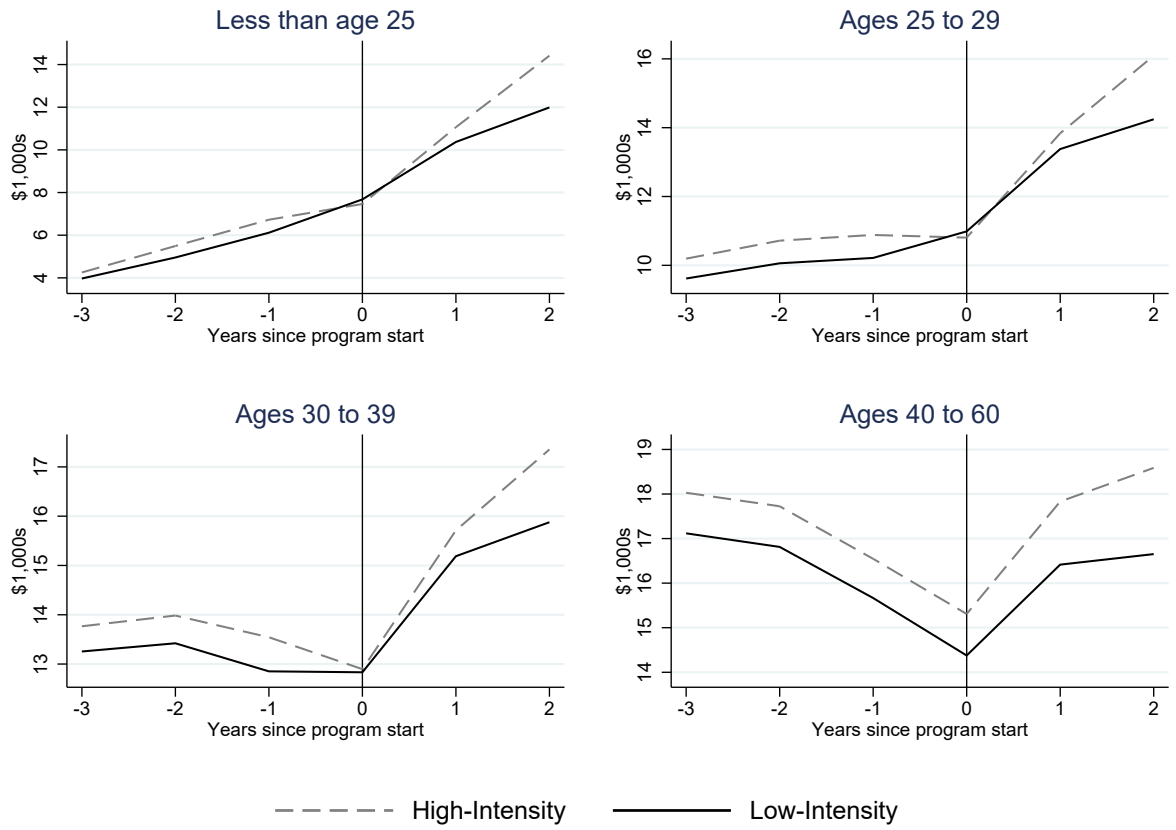


Figure D.21: Prior Trends in Earnings in the Full Sample by Age Groups. All dollars are real 2010 Canadian dollars.

E Additional Outcomes and Robustness of Results

E.1 Additional Sensitivity Analysis from Cinelli and Hazlett (2020)

In this Online Appendix, we report additional sensitivity analysis following Cinelli and Hazlett (2020). For reference, in Panel A of Table E.1, we repeat the A-IPW and OLS estimates of the comparison group differences in average earnings in the second year after ASETS participation. In Panel B, we adjust the OLS estimates for omitted-variable bias arising from confounders with as much predictive power in the treatment and outcome regressions as observed benchmark variables. In this exercise, we choose a benchmark for the full sample and each population group based on the largest product between the variable's partial R^2 values in the high-intensity participation and post-participation earnings regressions. We report those values under the adjusted estimates in Panel B. All the partial R^2 values are reported as percentages (0-100).

For the full sample, the most predictive variable is the cumulative sum of tax-exempt earnings in the three years prior to ASETS participation. This variable is most predictive in the full sample because it explains a relatively large share of post-ASETS earnings among Status First Nations participants who make up roughly 70% of the sample.[13]. Adjusting for bias from omitted confounders, which are as strong as pre-participation tax-exempt earnings, reduces the OLS estimate in the full sample from $889 to $769, an effect that remains statistically significant.

Tax-exempt earnings is also the most predictive variable for Status First Nations men, while for women, a variable that indicates that their most recent prior employment was unionized is most predictive. The adjusted estimates for both of these groups remain small and statistically insignificant. For non-Status First Nations men, having prior unionized employment is most predictive. For non-Status First Nations women, an indicator for en-

[13] As we explain in the main body of the paper, when Status First Nations people work on reserve their earnings are tax exempt

tering ASETS participation in 2014 is most predictive. This variable has a larger partial R^2 value in the treatment regression. ASETS was first authorized for the 2010-2014 fiscal years, and was subsequently granted annual extensions. This might have created incentives for Agreement Holders to spend down any existing funds in 2014 and therefore increase the number of participants in high-intensity programs. After adjusting for omitted variable bias using these variables to bound the amount of bias, the OLS estimates fall by $120 and $28 for non-Status men and women, respectively. For Métis men and women, the most predictive variable is average earnings among labor market participants in the local area. This is the same variable we report in Table **??**. The OLS estimates fall by 13% and 17% for Métis men and women, respectively, but remain statistically significant and substantively large.

In Panel C, we report the sensitivity statistics recommended by Cinelli and Hazlett (2020). These statistics can be used—under extreme assumptions about the strength of confounding omitted variables—to judge how sensitive the OLS results are to bias arising from those confounders. The first statistic ($R^2_{Y\sim D|x}$) is the partial R^2 for the treatment. That is, after controlling for all other covariates high-intensity participation predicts 0.07 of one% of the variation in year-2 earnings. For context, the total variation in earnings is 430.88, when earnings is measured in thousands of dollars. In the full sample, if omitted variables exist that explain all of the residual variation in earnings, then this statistic implies that those omitted variables would only need to explain 0.07% of selection into high-intensity participation to drive the earnings difference to zero. The second row in Panel C, reports what Cinelli and Hazlett (2020) refer to as the "Robustness Value". If an omitted variable explains the same amount of the residual variation in the outcome and the treatment, then RV is the percentage that would make the participation-group difference zero. For the full sample, omitted variable bias from an unobserved confounder that explains more than 2.7% of both high-intensity participation and post-ASETS earnings can account for the estimated effect of high-intensity participation. Similarly, $RV_{\alpha=0.5}$ indicates the explanatory strength of an observed confounder in both the outcome and high-intensity participation regressions

that would lead one to fail to reject a null hypothesis that high-intensity participation has no effect on the outcome, at a significance level of 0.5.

While the values of these extreme confounders sensitivity statistics are quite small in all population groups, there is no a-priori reason to expect that such extreme confounders exist. Omitted variable bias is generated by an imbalance between the comparison groups in characteristics that also predict earnings. Yet, among our 81 control variables, we find little correlation between the variables' predictive power in the high-intensity and earnings regressions. In the full sample, the correlation between the partial R^2 values in the treatment and outcome equations is 5.6%. For women, the correlations are negative in each population group. The largest correlation among men is 44.6% for M'etis men; however, that is driven by the strong predictive power of mean earnings in the local area. Excluding that variable, the correlation between the partial R^2 values is only 3.2% among M'etis men. We have already shown that adjusting for bias from a confounder with as much predictive power as mean local earnings reduces the estimated group differences by only 16%.

Table E.1: Additional Sensitivity Analysis: Earnings 2 Years Post

	Full Sample	Men			Women		
		Status FN	Non-Status FN	Métis	Status FN	Non-Status FN	Métis
Panel A: Estimates							
A-IPW ($1000's)	0.9410 ***	0.0375	1.9037 ***	2.9388 ***	0.1396	2.5085 ***	3.3695 ***
	(0.1499)	(0.2020)	(0.6395)	(0.5798)	(0.1628)	(0.5624)	(0.5090)
OLS estimates ($1000's)	0.8891 ***	0.0637	1.9846 ***	3.0759 ***	0.1172	2.2930 ***	2.9696 ***
	(0.0951)	(0.1513)	(0.6407)	(0.5587)	(0.1219)	(0.5447)	(0.4248)
Panel B: Benchmark Estimates with Confounders as Strong as Most Predictive Covariates							
	Tax Exempt Earnings	**Tax Exempt Earnings**	**Prior Emp. Unionized**	**Mean Local Earnings**	**Prior Emp. Unionized**	**First ASETS in 2014**	**Mean Local Earnings**
Adjusted estimate ($1000's)	0.7686 ***	-0.1518	1.8654 ***	2.6814 ***	0.0639	2.2655 ***	2.4780 ***
	(0.0934)	(0.1474)	(0.6383)	(0.5629)	(0.1214)	(0.5459)	(0.4306)
$R^2_{Y\sim X_j\|X_{-j}}$ (%)	3.4398	4.9452	0.8842	0.3606	0.9670	0.0235	0.4914
$R^2_{D\sim X_j\|X_{-j}}$ (%)	0.0382	0.0859	0.1187	1.8033	0.0526	0.4091	3.0556
Panel C: Extreme Confounder Sensitivity Statistics							
$R^2_{Y\sim D\|X}$ (%)	0.0742	0.0004	0.2938	0.4251	0.0025	0.6728	0.6206
RV (%)	2.6883	0.1976	5.2833	6.3236	0.4980	7.8982	7.5965
$RV_{\alpha=0.5}$ (%)	2.1310	0.7210	1.9722	4.1194	0.5176	4.2999	5.5270
OLS Sample Size	117,897	45,329	3,339	7,183	37,142	2,699	7,908

All partial R^2 values are expressed as percentages (0-100). $R^2_{D\sim X_j|X_{-j}}$ and $R^2_{Y\sim X_j|X_{-j}}$ are the partial R^2 values for the benchmark variable in the high-intensity participation and outcome regressions, respectively. The adjusted estimate assumes that an omitted confounder explains as much of the variance in the outcome and high-intensity participation as the benchmark variable. The selected benchmarks have the highest product between the partial R^2 values in the high-intensity participation and outcome regressions. *Tax-exempt earnings* is the sum of on-reserve earnings for Status First Nations participants in the three years prior to ASETS participation. *Prior Emp. Unionized* indicates whether a participant's most recent prior employment was unionized. *Mean Local Earnings* measures the average earnings among all labour market program participants in the local area in the year prior to sample members' ASETS participation. *First ASETS in 2014* indicates that a participant's first participation in ASETS began in 2014. $R^2_{Y\sim D|X}$ is the partial R^2 for high-intensity participation in the outcome regression. RV is the partial R^2 for an unobserved confounder in the outcome regression, under the assumption that the confounder explains the same percentage of residual variation in high-intensity participation. $RV_{\alpha=0.5}$ indicates the explanatory strength of an observed confounder in both the outcome and high-intensity participation regressions that would lead one to fail to reject a null hypothesis that high-intensity participation has no effect on the outcome, at a significance level of 0.5. Statistical signficance is indicated with $* = p < 0.1$ $** = p < 0.05$ $*** = p < 0.01$

E.2 Outcomes in Differences

Table E.2: The Effect of High- Relative to Low-Intensity Participation on Earnings and Employment - Outcomes in Differences

	Full Sample	**Men**			**Women**		
		Status FN	**Non-Status FN**	**Métis**	**Status FN**	**Non-Status FN**	**Métis**
Panel A: Differenced Earnings ($1,000s)							
Estimated Control Group Means							
1 Year Post	2.7342	3.2263	4.3014	4.7582	2.0723	2.7152	2.5020
	(0.1575)	(0.2107)	(0.4920)	(0.4416)	(0.1690)	(0.4050)	(0.2997)
2 Years Post	3.7825	3.9674	4.9411	7.3810	2.7985	3.4733	5.7986
	(0.1653)	(0.2226)	(0.4779)	(0.5747)	(0.1561)	(0.4325)	(0.4011)
Average Treatment Effect							
1 Year Post	-0.0230	-0.4444**	0.1670	0.8285*	-0.5320***	0.5567	0.1041
	(0.1467)	(0.1831)	(0.6222)	(0.4784)	(0.1903)	(0.5041)	(0.3426)
2 Years Post	0.9410***	0.0375	1.9037***	2.9388***	0.1396	2.5085***	3.3695***
	(0.1499)	(0.2020)	(0.6395)	(0.5798)	(0.1628)	(0.5624)	(0.5090)
Panel B: Differenced Employment							
Estimated Control Group Means							
1 Year Post	0.0518	0.0626	0.0569	0.0341	0.0575	0.0687	0.0245
	(0.0108)	(0.0143)	(0.0241)	(0.0147)	(0.0083)	(0.0178)	(0.0119)
2 Years Post	0.0304	0.0395	0.0314	0.0160	0.0375	0.0360	0.0047
	(0.0110)	(0.0154)	(0.0262)	(0.0174)	(0.0070)	(0.0175)	(0.0117)
Average Treatment Effect							
1 Year Post	0.0013	-0.0045	-0.0010	0.0092	-0.0041	-0.0023	0.0022
	(0.0030)	(0.0045)	(0.0137)	(0.0069)	(0.0048)	(0.0158)	(0.0088)
2 Years Post	0.0124***	0.0045	-0.0032	0.0151*	0.0144***	0.0140	0.0236***
	(0.0029)	(0.0045)	(0.0131)	(0.0084)	(0.0052)	(0.0159)	(0.0089)
Sample Size	117,897	45,329	3,339	7,183	37,142	2,699	7,908

Notes: Standard errors in parentheses clustered by Forward Sortation Area. Effects are estimated using an augmented inverse propensity weighting estimator. All specifications include the full set of controls. All dollars are real 2010 Canadian dollars. Significance stars reported for the null that the ATE is 0: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

E.3 Robustness of Main Results to FSA-Level Controls

We want to account for differences in local labour market conditions that may be simultaneously correlated with participation in high-intensity programs as well as labour market outcomes, like earnings. Our ability to do this using our individual-level micro data is limited by privacy concerns governing the use of the data, specifically, we were unable to receive permission to bring external data on local employment rates on to the data platform that housed the administrative data. However, we can combine FSA-level aggregates from our confidential administrative data with additional data sources outside of the platform to control for variation in these local characteristics.

Table E.3 presents results from replicating our individual level findings regarding earnings and high-intensity participation but at the FSA-aggregate level and controlling for additional labour market control variables we were not permitted to bring onto the platform. Each column displays the marginal effects from a regression of residualized earnings two years post-participation on residualized high-intensity participation, where we interact high-intensity participation with each Indigenous population group and sex combination.[14] In the first column, we only include province fixed effects to account for variation in program delivery and economic condit ions across provinces. The marginal effects in this column generally mirror the coefficients obtained using the doubly robust A-IPW methodology on the individual-level micro data. That is, Métis men and women have large effects of high-relative to low-intensity participation. Effects are also large for non-Status First Nations men and women, although the marginal effect is not statistically significant for non-Status First Nations men. As before, we find either negative or statistically insignificant effects for Status First Nations men and women.

The second column shows, as expected, that conditioning on the same source of variation that we use in the main analysis–funding and our proxy for remoteness–does not change

[14] We also include dummies for Indigenous group and sex and their interactions.

our estimated marginal effects. This is reassuring, since we assume that this variation predicts participation in high-intensity programming and is independent from labour market outcomes. Marginal effects are also unchanged in column (3) when we only condition on the proxy for remoteness without its interaction with provincial-level ASETS funding. Finally, the marginal effects are also robust to including a full set of controls that correspond to the components of the NARAM index in column (4).

Table E.3: Effect of High- Relative to Low-Intensity Participation on Earnings Two Years Post-Participation, Conditional on Correlates of High-Intensity Participation

	(1)	(2)	(3)	(4)
Marginal Effect of High-Intensity Participation				
Status FN Men	-1.9428*	-2.1706*	-2.2973*	-1.5164
	(1.1431)	(1.2002)	(1.2042)	(1.0033)
Métis Men	7.2334***	7.2015***	7.0385***	8.0306***
	(1.9955)	(1.9920)	(1.9963)	(1.8693)
Non-Status FN Men	1.6214	1.6704	1.4318	2.0350
	(1.7489)	(1.7945)	(1.7765)	(1.7453)
Status FN Women	-0.0372	-0.2243	-0.3050	0.4080
	(0.6498)	(0.6185)	(0.6146)	(0.5853)
Métis Women	4.5432***	4.4686***	4.3188***	5.0895***
	(1.4391)	(1.4670)	(1.4698)	(1.4611)
Non-Status FN Women	3.9404***	4.2499***	3.9308***	4.2028***
	(1.4413)	(1.4120)	(1.4289)	(1.4071)
Province F.E.	X	X	X	X
Funding		X		
Funding X Distance		X		
Distance		X	X	X
NARAM				X
Sample Size	2,134	2,132	2,132	2,130
R-squared	0.288	0.291	0.289	0.339

The dependent variable is the average residual from a regression of earnings in the second year post-participation on our full set of controls. The average is taken across FSA, sex and population groups. FSA characteristics are taken from the 2011 Census and National Household Survey FSA profiles. All regressions are weighted by the cell size used to estimate the average residualized high-intensity participation. Standard errors clustered at the FSA level are reported in parentheses.

E.4 Alternative Methods Considered

Our primary estimation strategy is the doubly robust A-IPW methodology described in Section **??** of the main paper. We also verify that our results are robust to several alternative estimation techniques. To better understand the link between strategies, consider the following switching equation:

$$Y_i = D_i \times (\mu_1(X_i) + \epsilon_{i1}) + (1 - D_i) \times (\mu_0(X_i) + \epsilon_{i0}),$$

where, as before, $D_i = 1$ if the individual is observed in the high-intensity group and equals 0 if they are observed in the low-intensity group. Here, $\mu_1(X_i) = X_i\boldsymbol{\beta_1}$, where X_i is a row-vector of covariates and $\boldsymbol{\beta_1}$ is a column-vector of parameters that determine how the covariates affect outcomes in the high-intensity counterfactual. The high-intensity counterfactual error is $\epsilon_{i1} = Y_i - \mu_1(X_i)$. The components, $\mu_0(X_i)$ and ϵ_{i0} can be defined analogously for the low-intensity counterfactual.

We use these definitions in the following sections when describing the additional estimation strategies. Except for the A-IPW with controls selected via Lasso, all other estimation strategies are implemented using the trimmed sample, as described in Section **??** of the main text and Section D.2 of this Online Appendix.

1. *A-IPW with controls selected via Lasso (LASSO):*

   We implement an A-IPW estimator with controls selected via "Least Absolute Shrinkage and Selection Operator" (LASSO). As in our preferred specification, ATE can be estimated according to the following formula:

$$\hat{\alpha}_{ATE,LASSO} = \frac{1}{N}\sum_{i=1}^{N}\left(\frac{D_i(Y_i - \hat{\mu}_1(X_i^{L,1}))}{\hat{p}(X_i^{L,D})} + \hat{\mu}_1(X_i^{L,1})\right) - \frac{1}{N}\sum_{i=1}^{N}\left(\frac{(1-D_i)(Y_i - \hat{\mu}_0(X_i^{L,0}))}{1-\hat{p}(X_i^{L,D})} + \hat{\mu}_0(X_i^{L,0})\right), \quad \text{(E.1)}$$

   where $X_i^{L,1}$ and $X_i^{L,0}$ are matrices of possibly different controls selected via LASSO.

The outcome is regressed on the LASSO-chosen controls separately in each of the high- and low-intensity groups to obtain the estimates $\hat{\boldsymbol{\beta}}_{\mathbf{1}}$ and $\hat{\boldsymbol{\beta}}_{\mathbf{0}}$. Those estimates are used to form fitted values across the whole sample. That is, $\hat{\mu}_1(X_i^{L,1})$ and $\hat{\mu}_0(X_i^{L,0})$ are constructed for the whole sample. As before, $\hat{p}(X_i^{L,D})$ is the estimated propensity score, where the controls, $X_i^{L,D}$, are also selected via LASSO, and may differ from both $X_i^{L,1}$ and $X_i^{L,0}$. The propensity score is estimated using a logit estiamtor.

We estimate $\hat{\alpha}_{ATE,LASSO}$ using Stata's `telasso` package (Liu, 2022). We do not trim the top and bottom of the predicted propensity score distribution so that the models can be fit on the entire sample. We always include dummies for gender and Indigenous identity in the full specification and we allow the LASSO procedure to select over all controls for the separate population group samples. In addition to the standard set of controls from our main specification, we also allow for possible interactions between quadratics in earnings from one year prior and age and no prior employment, presence of children, disability status, whether the individual ever worked for an Indigenous government, and whether they lived in a rural area. A complete list of the interactions is available upon request. We use the plugin selection method for choosing the lasso penalty parameter and allow for heterogeneity in the errors.

2. *Inverse-probability weighting (IPW):*

The IPW methodology reweights observations by the inverse of the propensity score and then averages across these reweighted units:

$$\hat{\alpha}_{ATE,IPW} = \frac{1}{N}\sum_{i=1}^{N}\frac{\Big(D_i - \hat{p}(X_i)\Big)Y_i}{\hat{p}(X_i)\Big(1-\hat{p}(X_i)\Big)}, \tag{E.2}$$

where, as before, $\hat{p}(X_i)$ denotes the propensity score, D_i is an indicator that $= 1$ if the individual is a high-intensity participant and 0 otherwise, and Y_i is the observed outcome. We use a logit model to estimate the propensity score and include the same set of controls as we do in the A-IPW models. We estimate $\hat{\alpha}_{ATE,IPW}$ using Stata's

`teffects ipw` package.

3. *Regression adjustment (RA):*

   The RA estimator predicts an outcome for each individual had they been in the high-intensity group and had they been in the low-intensity group and then averages over the differences in those predicted outcomes :

$$\hat{\alpha}_{ATE,RA} = \frac{1}{N}\sum_{i=1}^{N}\Big(\hat{\mu}_1(X_i) - \hat{\mu}_0(X_i)\Big), \tag{E.3}$$

   where $\hat{\mu}_1(X_i)$ and $\hat{\mu}_0(X_i)$ are the predicted outcomes. These are constructed using the estimates, $\hat{\boldsymbol{\beta}}_{\mathbf{1}}$ and $\hat{\boldsymbol{\beta}}_{\mathbf{0}}$, that are obtained from regressions of the outcome on the covariates separately in the high- and low-intensity groups, respectively. We estimate $\hat{\alpha}_{ATE,RA}$ using Stata's `teffects ra` package.

4. *Inverse-probability weighting with regression adjustment (IPW-RA):*

   The IPW-RA estimator also averages over the difference in predicted high- and low-intensity counterfactual outcomes:

$$\hat{\alpha}_{ATE,IPW-RA} = \frac{1}{N}\sum_{i=1}^{N}\Big(\tilde{\mu}_1(X_i) - \tilde{\mu}_0(X_i)\Big), \tag{E.4}$$

   however, unlike the RA estimator, these fitted values are constructed using estimates for $\boldsymbol{\beta}_{\mathbf{1}}$ and $\boldsymbol{\beta}_{\mathbf{0}}$ from an inverse-probability weighted regression. Specifically, $\tilde{\mu}_1(X_i)$ is constructed using estimates from the estimator that minimizes:

$$\min_{\tilde{\beta}_1}\sum_{i=1}^{N}\frac{D_i(Y_i - X_i\tilde{\beta}_1)^2}{\hat{p}(X_i)}.$$

   $\tilde{\mu}_0(X_i)$ is constructed analogously. We estimate $\hat{\alpha}_{ATE,IPW-RA}$ using Stata's `teffects ipwra` package.

5. *Nearest neighbour (NN):*

   This estimator imputes a counterfactual value for each Y_i^0 and Y_i^1. Let $\hat{Y}_i^1 = Y_i$ be

the imputed value when $D_i = 1$ and $\hat{Y}^0 = Y_i$ be the imputed value when $D_i = 0$, then the ATE is:

$$\hat{\alpha}_{ATE,NN} = \frac{1}{N}\sum_{i=1}^{N}(\hat{Y}_i^1 - \hat{Y}_i^0), \tag{E.5}$$

$$\hat{Y}_i^0 = \sum_{h \in \Phi_M(i)} Y_h \quad \text{if } D_i = 1$$

and

$$\hat{Y}_i^1 = \sum_{h \in \Omega_M(i)} Y_h \quad \text{if } D_i = 0,$$

where $h \in \Phi_M(i)$ are the M nearest elements (in our case, 4) to Y_i with $D_i = 0$ and $h \in \Omega_M(i)$ are the M nearest elements to Y_i with $D_i = 1$. We estimate $\hat{\alpha}_{ATE,NN}$ using Stata's `teffects nnmatch` package. The nearest elements are computed according to the Mahalanobis distance.[15]

The results for earnings and employment using A-IPW with LASSO, IPW, RA, IPW-RA, and NN are compared to A-IPW in Figures E.1 through E.7. In some figures we do not plot the nearest neighbour estimates because the procedure was too computationally intensive for larger sample sizes. For all Indigenous groups and outcomes we see that the estimators produce very similar treatment effects. In some cases, the estimate produced by nearest neighbour matching is slightly larger than the other estimates. Generally speaking, our preferred estimate is on the conservative side and tends to lie in the middle of the other estimates.

[15] Given observations h and i, the Mahalanobis distance is computed as $(X_h - X_i)'\hat{\sum}_X^{-1}(X_h - X_i)$, where $\sum_X$ is the sample variance-covariance matrix of the covariates. Since we match on many more than two covariates, we use the bias correction proposed by Abadie and Imbens (2006, 2011).

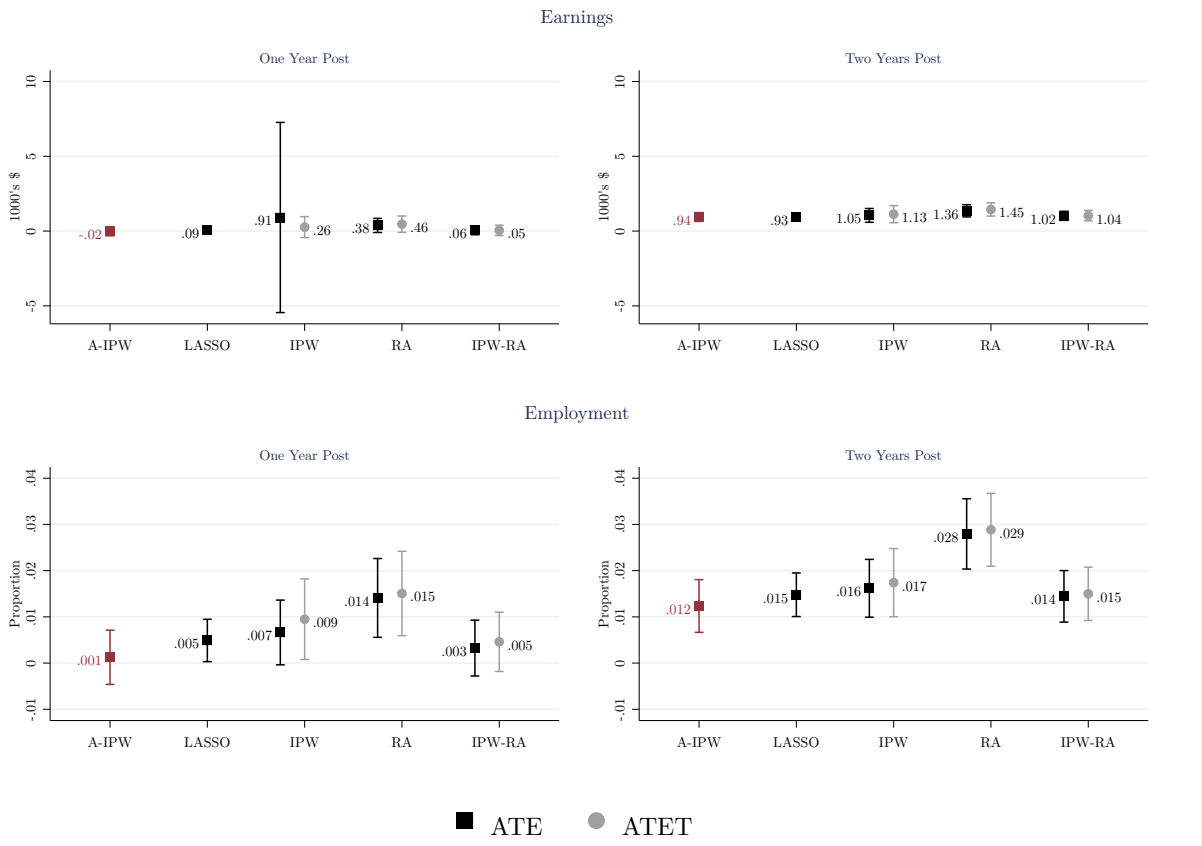


Figure E.1: Alternative Estimators for Earnings and Employment Effects in the Full Sample

Notes: A-IPW refers to the doubly robust augmented inverse-probability weighting estimator. LASSO is the A-IPW estimator with controls selected via LASSO. IPW is the inverse-probability weighting estimator, RA is the regression adjustment estimator. IPW-RA is the doubly robust inverse-probability weighting estimator with regression adjustment. Confidence intervals were constructed using standard errors clustered by Forward Sortation Area.

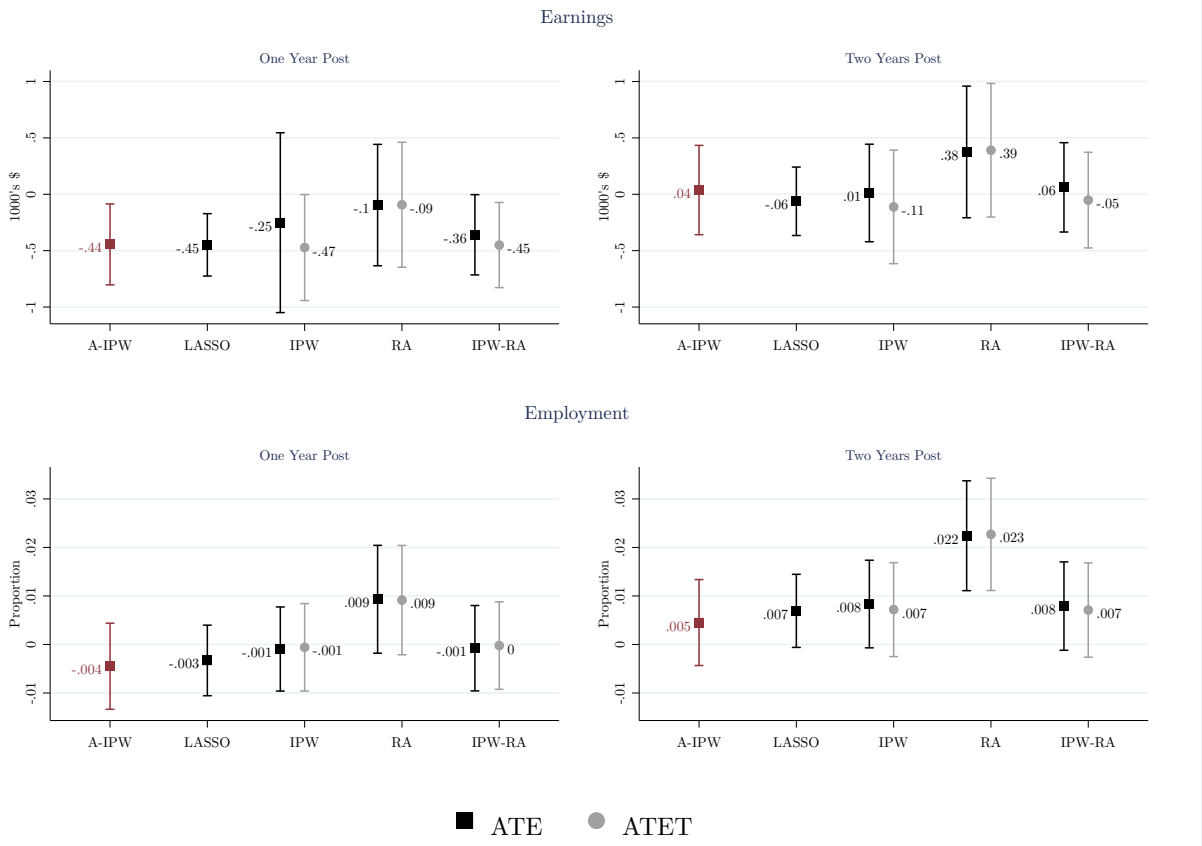


Figure E.2: Alternative Estimators for Earnings and Employment Effects, Status First Nations Men

Notes: A-IPW refers to the doubly robust augmented inverse-probability weighting estimator. LASSO is the A-IPW estimator with controls selected via LASSO. IPW is the inverse-probability weighting estimator, RA is the regression adjustment estimator. IPW-RA is the doubly robust inverse-probability weighting estimator with regression adjustment. Confidence intervals were constructed using standard errors clustered by Forward Sortation Area.

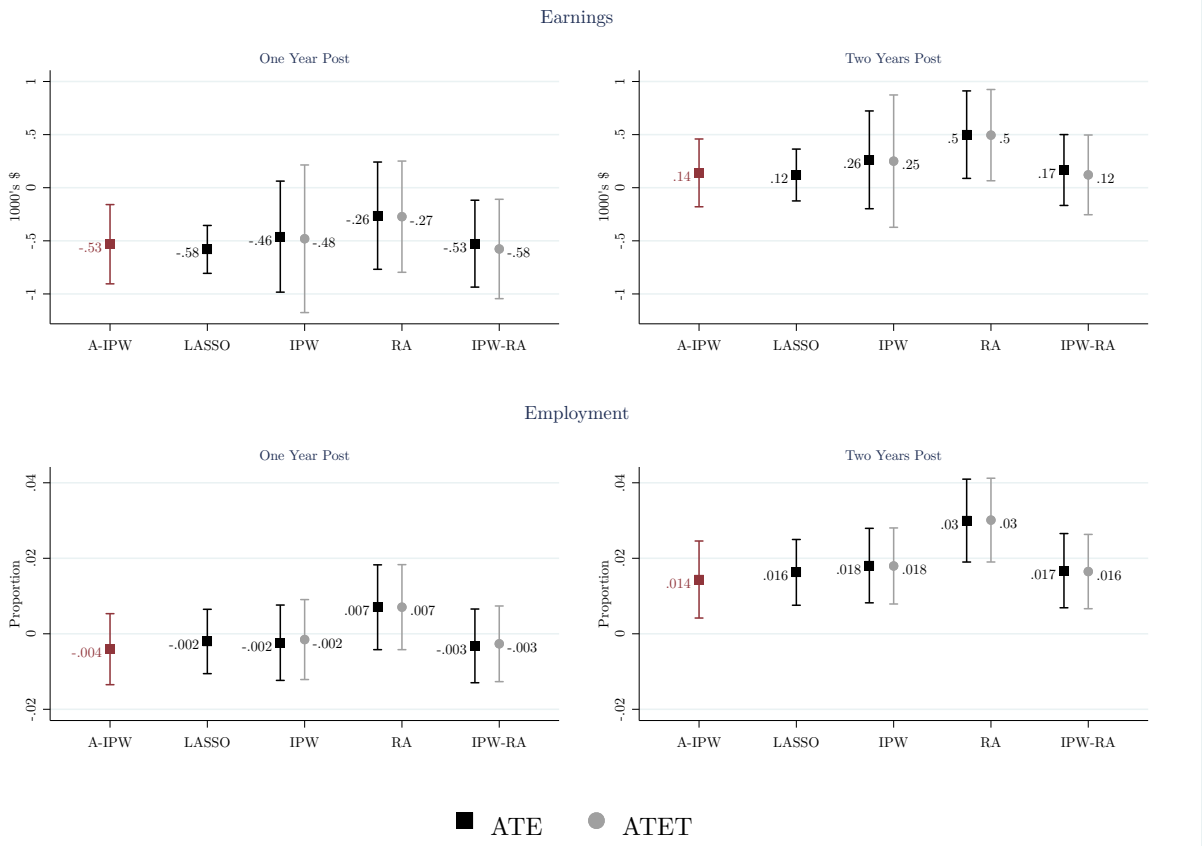


Figure E.3: Alternative Estimators for Earnings and Employment Effects, Status First Nations Women

Notes: A-IPW refers to the doubly robust augmented inverse-probability weighting estimator. LASSO is the A-IPW estimator with controls selected via LASSO. IPW is the inverse-probability weighting estimator, RA is the regression adjustment estimator. IPW-RA is the doubly robust inverse-probability weighting estimator with regression adjustment. Confidence intervals were constructed using standard errors clustered by Forward Sortation Area.

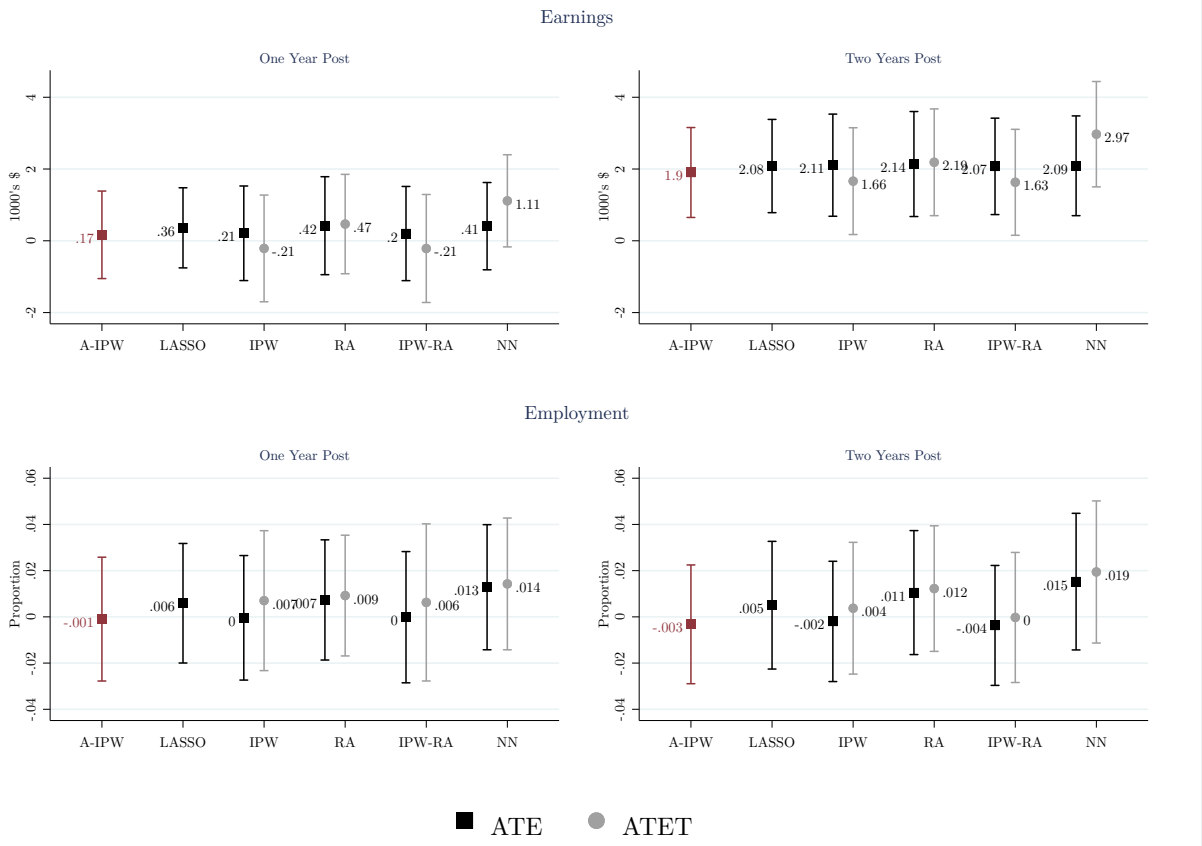


Figure E.4: Alternative Estimators for Earnings and Employment Effects, Non-Status First Nations Men

Notes: A-IPW refers to the doubly robust augmented inverse-probability weighting estimator. LASSO is the A-IPW estimator with controls selected via LASSO. IPW is the inverse-probability weighting estimator, RA is the regression adjustment estimator. IPW-RA is the doubly robust inverse-probability weighting estimator with regression adjustment. NN refers to nearest neighbour matching with bias adjustment. Confidence intervals were constructed using standard errors clustered by Forward Sortation Area, except for the nearest neighbour estimates.

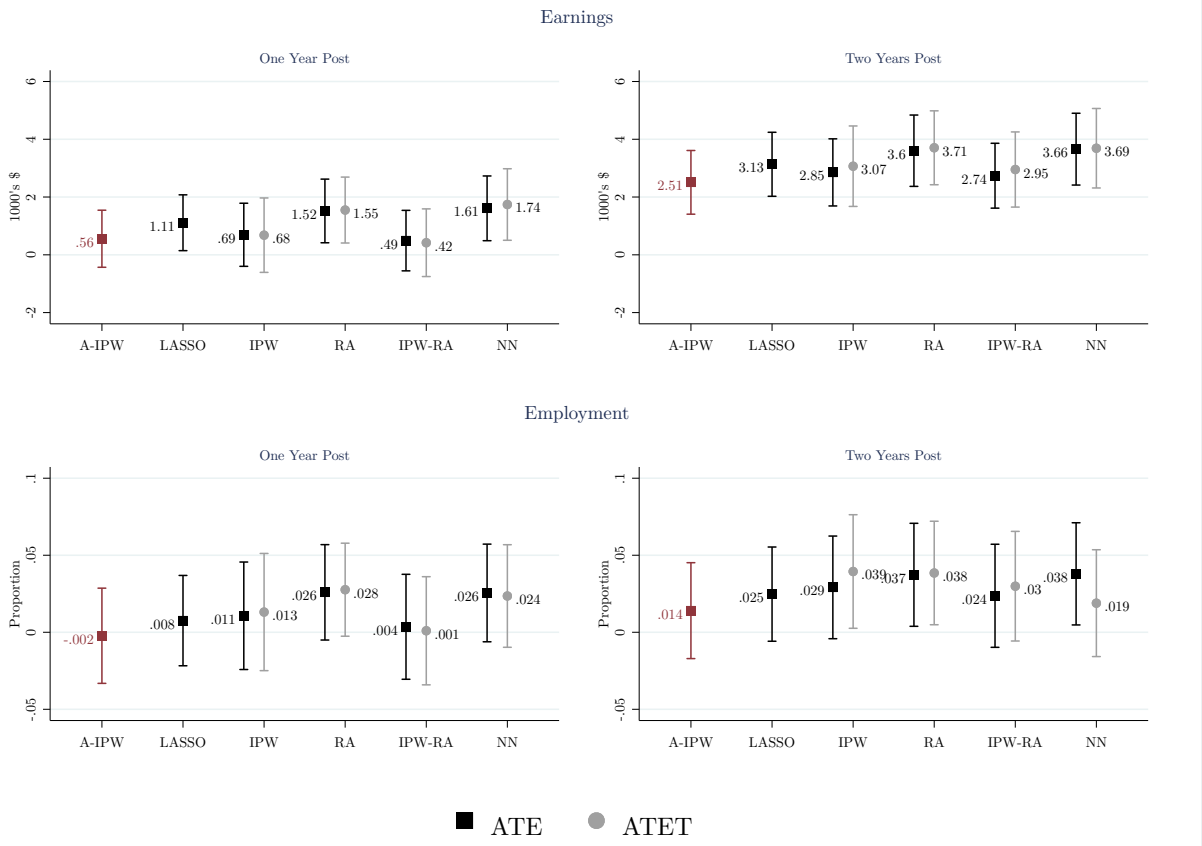


Figure E.5: Alternative Estimators for Earnings and Employment Effects, Non-Status First Nations Women

Notes: A-IPW refers to the doubly robust augmented inverse-probability weighting estimator. LASSO is the A-IPW estimator with controls selected via LASSO. IPW is the inverse-probability weighting estimator, RA is the regression adjustment estimator. IPW-RA is the doubly robust inverse-probability weighting estimator with regression adjustment. NN refers to nearest neighbour matching with bias adjustment. Confidence intervals were constructed using standard errors clustered by Forward Sortation Area, except for the nearest neighbour estimates.

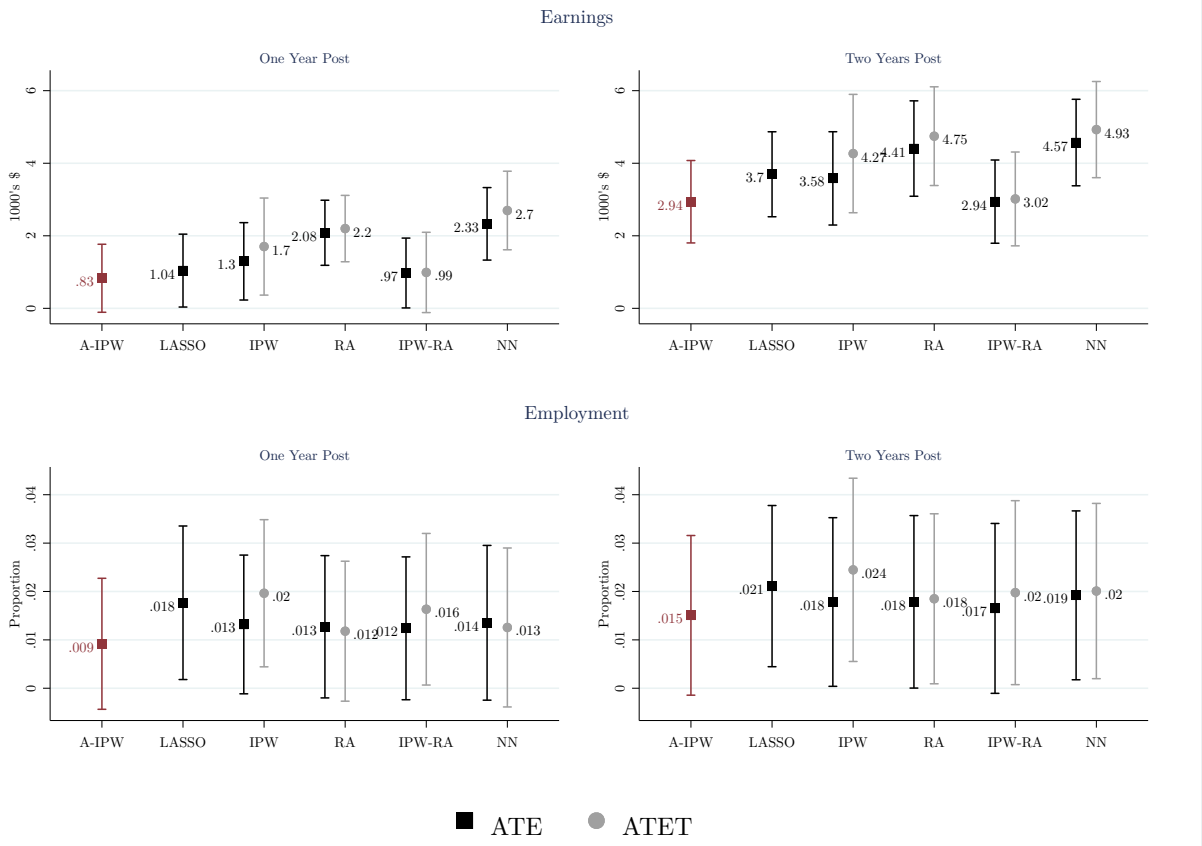


Figure E.6: Alternative Estimators for Earnings and Employment Effects, Métis Men

Notes: A-IPW refers to the doubly robust augmented inverse-probability weighting estimator. LASSO is the A-IPW estimator with controls selected via LASSO. IPW is the inverse-probability weighting estimator, RA is the regression adjustment estimator. IPW-RA is the doubly robust inverse-probability weighting estimator with regression adjustment. NN refers to nearest neighbour matching with bias adjustment. Confidence intervals were constructed using standard errors clustered by Forward Sortation Area, except for the nearest neighbour estimates.

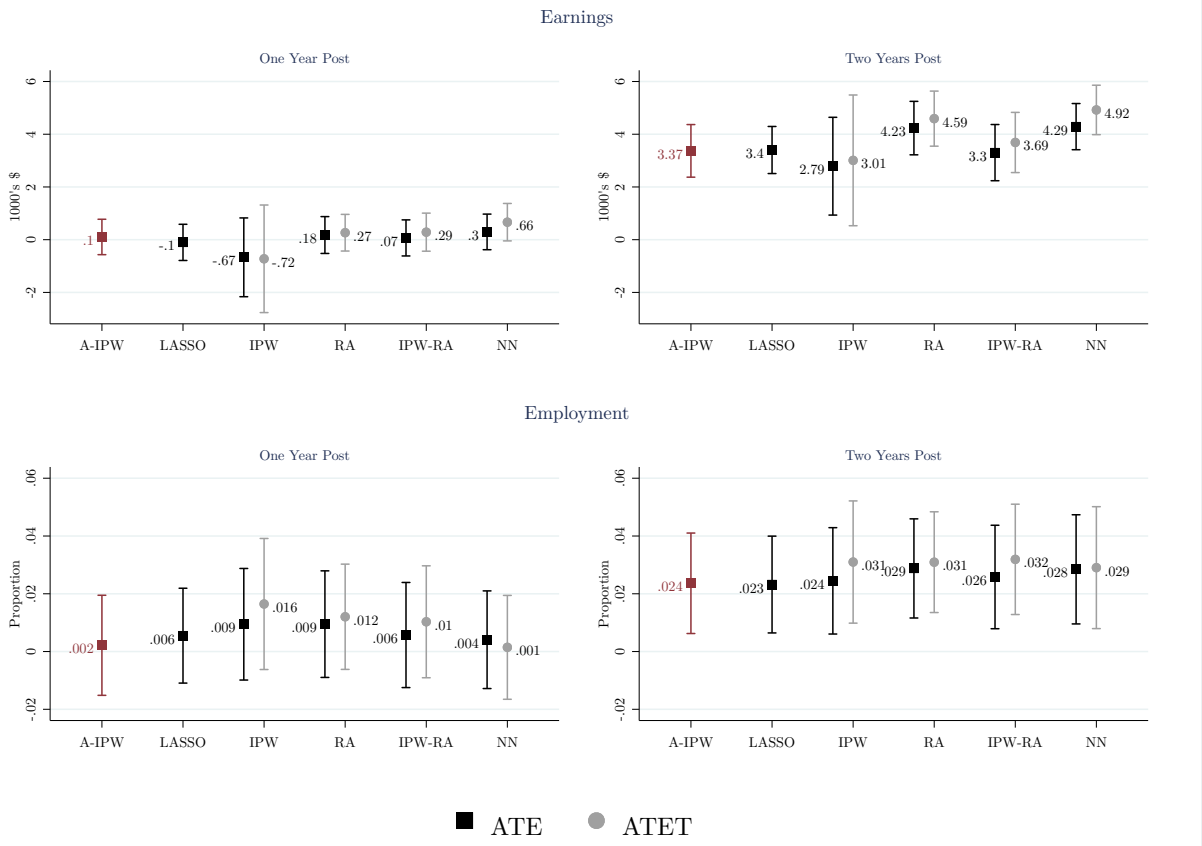


Figure E.7: Alternative Estimators for Earnings and Employment Effects, Métis Women

Notes: A-IPW refers to the doubly robust augmented inverse-probability weighting estimator. LASSO is the A-IPW estimator with controls selected via LASSO. IPW is the inverse-probability weighting estimator, RA is the regression adjustment estimator. IPW-RA is the doubly robust inverse-probability weighting estimator with regression adjustment. NN refers to nearest neighbour matching with bias adjustment. Confidence intervals were constructed using standard errors clustered by Forward Sortation Area, except for the nearest neighbour estimates.

E.5 Earnings Beyond the Second Post-Participation Year

The two-year post-participation period that we use is a fairly narrow observation window. We restrict the follow-up period to two years in part because other studies have found that effects on earnings stabilized after two years (Andersson et al. (2022); Card et al. (2018)). Additionally, our panel of earnings ends in 2016 and the two-year post-participation period allows us to estimate effects for four cohorts, 2010-2014. Although our preferred specification includes all four cohorts, we recognize that it may have taken longer than two years for ASETS participants to experience earnings and employment gains from high-intensity participation. It is also important to understand whether the earnings gains experienced by high-intensity participants were temporary. We explore these issues by restricting our sample to the participants whose first ASETS intervention occurred between 2010 and 2012. We report the effects on earnings in the restricted sample in Figure E.8, with results for men presented in the top panel and results for women in the bottom panel.

It is first useful to compare the estimates for one and two years post program in this more limited sample to our previous results to assess whether they are comparable, and thus representative of the overall sample. The estimates in the restricted sample tend to be larger than those in the full sample; however, the patterns are similar. For both men and women and each population group, the estimated participation-group differences in average earnings in the third and fourth years fall within the 95% confidence interval of the difference in the second year. By the fourth post-participation year, the difference in average earnings between high- and low-intensity participants was $640 dollars and $50 dollars for Status First Nations men and women, respectively. Among non-Status First Nations and Métis men and women, the relative effect of high-intensity participation remained large in the fourth year, at roughly $2,000-3,000 and $4,000-4,500 for non-Status First Nations and Métis people, respectively. On balance, the evidence in Figure E.8 suggests that the second-year earnings differences were reasonably stable in subsequent years.

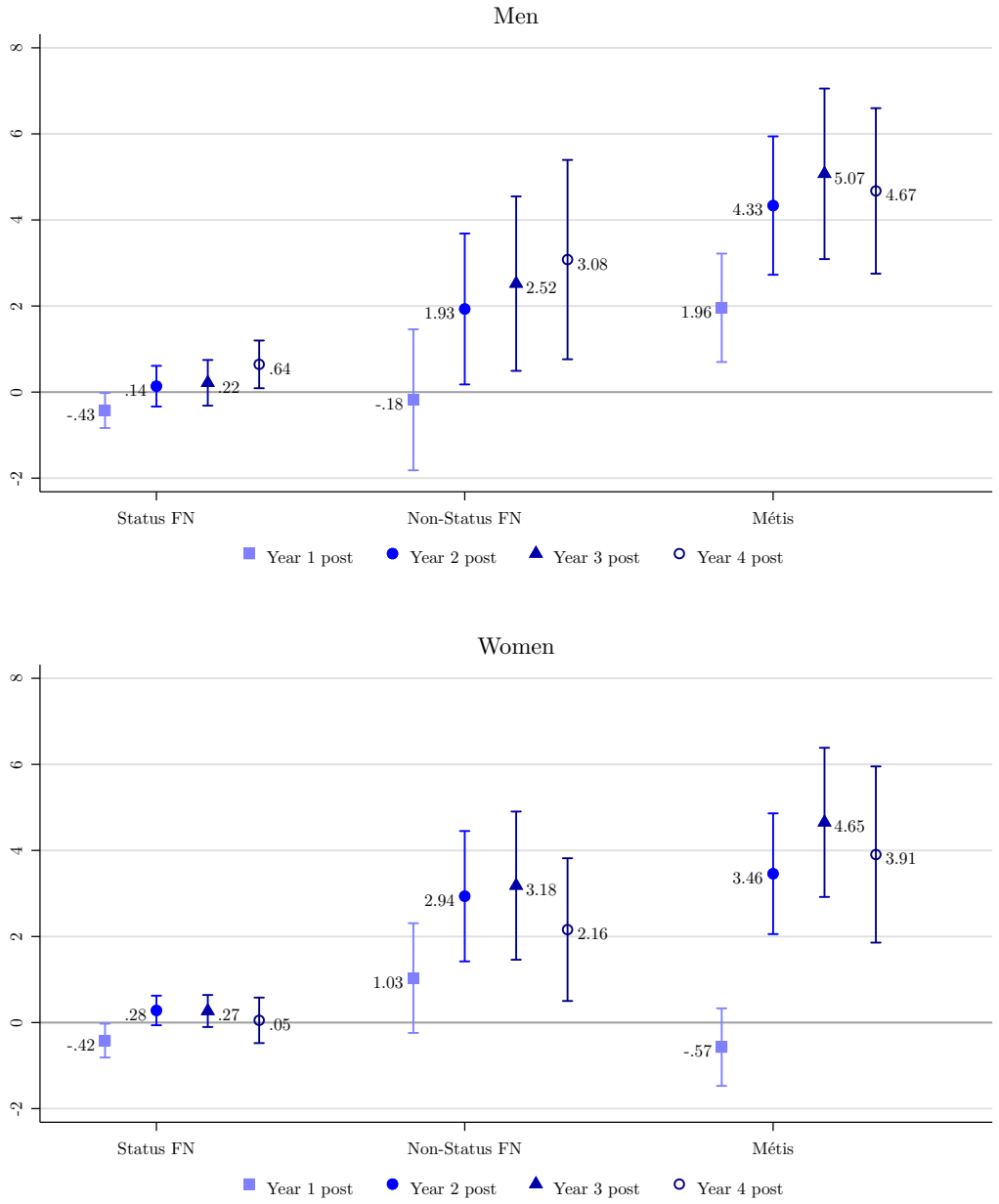


Figure E.8: ATE for Earnings (in $1,000s) in One to Four Years Post (2010-2012 Entering Cohorts)

Notes: So that we can follow participants up to four years after they entered ASETS, we restrict the sample to individuals who first participated in ASETS in 2010 to 2012. We use a doubly robust inverse-propensity score weighting and regression adjusted estimator. All dollars are real 2010 Canadian dollars. Confidence intervals were constructed using standard errors clustered by Forward Sortation Area.

E.6 Earnings Net of Federal and Provincial Taxes

Any income earned by Status First Nations people on reserve is exempt from income taxes, and because of that wages might be lower on reserves. To investigate whether this compensating difference affects our results, we estimate the effects of high- relative to low-intensity participation on a measure of earnings net of federal and provincial income tax. We use our measure of earnings from the sum of T4s as gross earnings, and estimate the amount of federal and provincial taxes participants paid using the Canadian Tax and Credit Simulator (CTaCS) developed by Milligan (2016). CTaCS simulates the parameters of federal, provincial, and territorial tax and transfer schedules. We do not apply any exemptions other than the basic personal amounts, which implies that, on average, we overestimate the amount of tax paid. We assume that no taxes are paid on any earnings recorded in box 71 of a T4. Box 71 is where tax-exempt and EI insurable earnings are recorded for Status First Nations people.[16] In Table E.4 (analogous to Table 3 in the main text), we report the estimated effects on net earnings for each of the different population groups. The effects on gross earnings are very similar to those on net earnings, and any differences fall well within the 95% confidence intervals.

[16] If a person has one T4 with box 71 earnings, and a different T4 without box 71 earnings we apply taxes to the earnings in the T4 without box 71 earnings.

Table E.4: The Effect of High- Relative to Low-Intensity Participation on Earnings Net of Federal and Provincial Tax

	Full Sample	**Men**			**Women**		
		Status FN	**Non-Status FN**	**Métis**	**Status FN**	**Non-Status FN**	**Métis**
Earnings ($1,000s)							
Estimated Control Group Means							
1 Year Post	12.9119	13.4854	14.3363	18.1907	10.3647	11.0254	12.9786
	(.5019)	(.6593)	(.9174)	(.7321)	(.3885)	(.5172)	(.3543)
2 Years Post	13.7052	14.0767	14.7151	20.0281	10.9982	11.5862	15.426
	(.4951)	(.6393)	(.783)	(.7994)	(.3891)	(.5251)	(.4314)
Average Treatment Effect							
1 Year Post	-.0836	-.4667***	.1257	.7952**	-.4961***	.3736	.2248
	(.1298)	(.1506)	(.5028)	(.3668)	(.1553)	(.4142)	(.2822)
2 Years Post	.7096***	-.0682	1.4841***	2.3645***	.1047	1.9825***	2.8341***
	(.1287)	(.1665)	(.4923)	(.4361)	(.1271)	(.4599)	(.3933)
Sample Size	117,897	45,329	3,339	7,183	37,142	2,699	7,908

Notes: Standard errors in parentheses clustered by Forward Sortation Area. Effects are estimated using an augmented inverse propensity weighting estimator. All specifications include the full set of controls. All dollars are real 2010 Canadian dollars. Significance stars reported for the null that the ATE is 0: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

E.7 Work in Rural Areas

Status First Nations people are more likely to live in rural and remote areas than other groups where few job opportunities exist, and the ones that do exist may not require the skills that participants obtained through high-intensity interventions. Consequently, average earnings would be similar to those in the low-intensity group. To verify that this does not drive our results, in Table E.5, we report the estimated earnings differences for Status First Nations participants estimated separately by their residence in the year before participation. We show estimates for those who lived in remote areas, as defined by living in an FSA that fell within a zone that would qualify one for a Northern tax deduction (see, Statistics Canada (2024)), those who lived in rural areas that are not remote, and those who lived in neither rural nor remote areas. The effects of high-intensity participation were remarkably similar across the residency groups and not statistically different by the second year after participation. This suggests remoteness or rurality is not the driving factor behind the lower return to high-intensity participation for Status people.

Table E.5: The Effect of High- Relative to Low-Intensity Participation on Earnings for the Status First Nations Participant Group Separately For Participants Living in Remote, Rural but not Remote, and Neither Rural Nor Remote Areas

	Remote		**Rural Not Remote**		**Neither Rural nor Remote**	
	Men	**Women**	**Men**	**Women**	**Men**	**Women**
Earnings ($1,000s)						
Control Group Means						
1 Year Post	16.7425	12.8897	15.1167	11.2340	14.7083	10.4927
	(1.4022)	(0.9687)	(0.8390)	(0.4347)	(0.4876)	(0.3198)
2 Years Post	17.1284	13.1780	15.4382	11.9908	16.0154	11.2193
	(1.4842)	(1.3697)	(0.7590)	(0.3938)	(0.5330)	(0.3146)
Average Treatment Effect						
1 Year Post	-0.5733	-1.3135*	-0.6467**	-0.3082	-0.0714	-0.7724***
	(0.6812)	(0.6955)	(0.2836)	(0.2790)	(0.2704)	(0.2021)
2 Years Post	-0.0703	0.1885	-0.1902	0.3013	0.2310	-0.1715
	(0.5094)	(0.5244)	(0.3343)	(0.2234)	(0.2995)	(0.2019)
Sample Size	6,327	4,545	15,836	11,365	18,162	18,494

Notes: Standard errors in parentheses clustered by Forward Sortation Area. Effects are estimated using an augmented inverse propensity weighting estimator. All specifications include the full set of controls. All dollars are real 2010 Canadian dollars. Significance stars reported for the null that the ATE is 0: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

F Extended Descriptive Statistics

F.1 Differences in Program Type and Duration

Figures F.1 through F.4 display the frequency of interventions by Indigenous population group. High-intensity interventions appear in grey bars for skills development, wage subsidies, essential skills training, or multiple interventions. The skills development, wage subsidies, and essential skills training categories include people who combined those interventions with EAS or job counselling. The multiple interventions category includes people who participated in more than one type of high-intensity intervention, whether in combination with low-intensity or not. The individuals who participated in job creation partnerships are also included with the multiple interventions because there are too few to represent separately. We show the distribution of intervention types to demonstrate the different mixes within population groups, but all the high-intensity categories are grouped together in the estimation. The proportions of people receiving a low-intensity ("control") intervention are depicted by black bars.

While a large fraction of people receive multiple interventions, the largest single intervention is skills development for all groups but the Inuit for whom it is essential skills training. Also, all subgroups participate more frequently in some type of high-intensity intervention than low-intensity interventions, but this difference is largest for the Inuit, where just over 90% of Inuit are high-intensity participants. Because of this, we do not present results for the Inuit separately; however, we do include them when computing results for the full sample. Likewise, the last figure in this series (F.4) shows the distribution of participation intensities in the group for whom their population group is not recorded in the data. We include this group in our results for the full sample, but like the Inuit, we do not present a separate analysis.

One important difference between the high- and low-intensity groups is the median duration of interventions. Figures F.6 through F.8 plot the duration of interventions in

days of participation for both the high- and low-intensity groups. For each of the population groups in our analysis the low-intensity group receives, on average, shorter interventions compared to the high-intensity group. Among Status First Nations participants, the median intervention length is 6 days in the low-intensity group, compared to 64 days in the high-intensity group; for Métis, the median control group duration is 11 days and the median high-intensity group intervention length is 159 days; for non-Status First Nations participants, the median control group intervention is 28 days long and the median high-intensity group intervention is 82 days long. Given the large differences among the population groups in the duration of high-intensity relative to low-intensity participation, we may expect to see heterogeneous returns to participation across groups. We discuss this possibility and its implications in the main text.

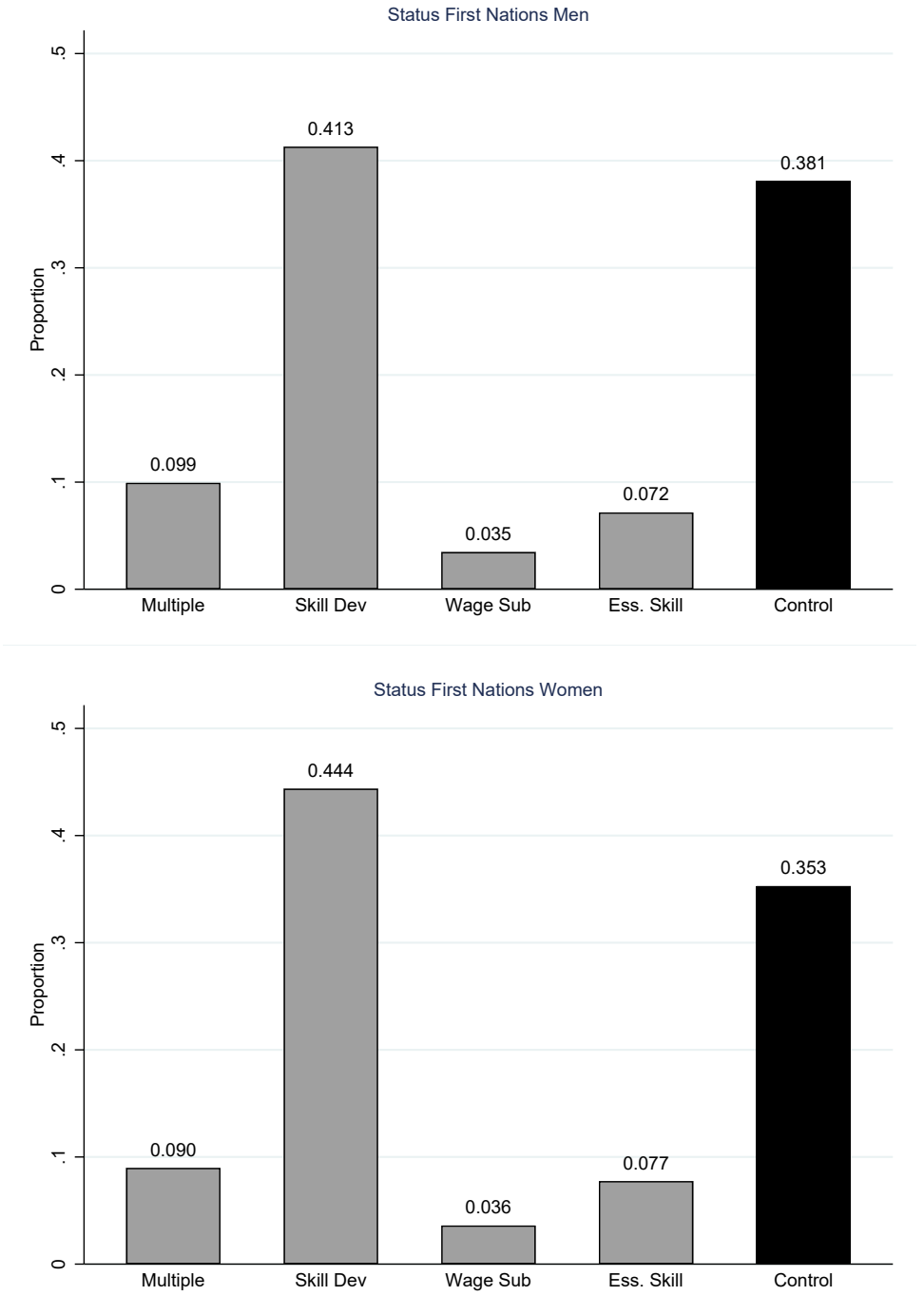


Figure F.1: Distribution of Intervention Type by Participant Group

Notes: Distribution of intervention types for Status First Nations men (top panel) and women (bottom panel). The category "multiple" represents individuals who took part in more than one high-intensity intervention and those who took part in job creation partnerships.

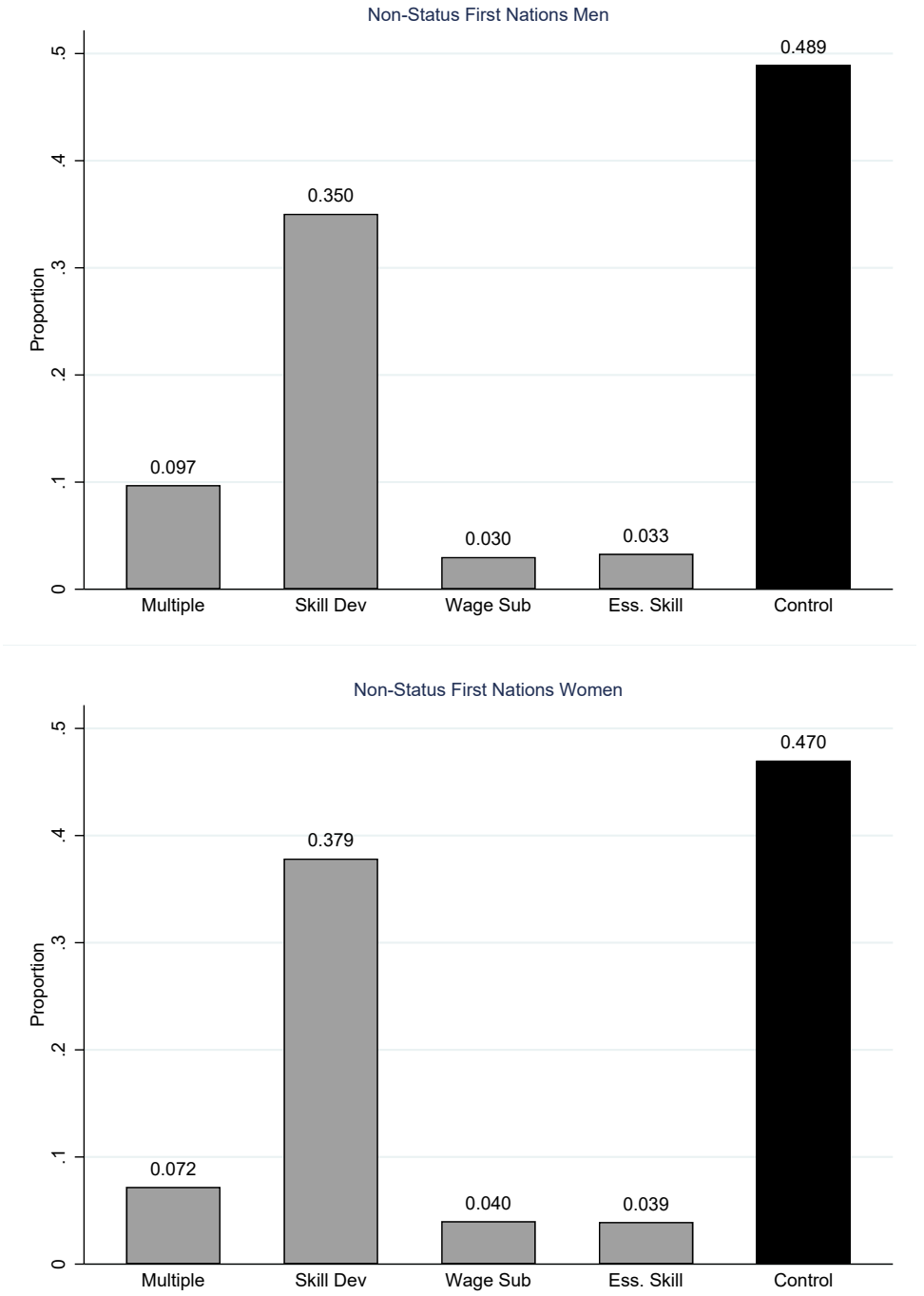


Figure F.2: Distribution of Intervention Type by Participant Group

Notes: Distribution of intervention types for non-Status First Nations men (top panel) and women (bottom panel). The category "multiple" represents individuals who took part in more than one high-intensity intervention and those who took part in job creation partnerships.

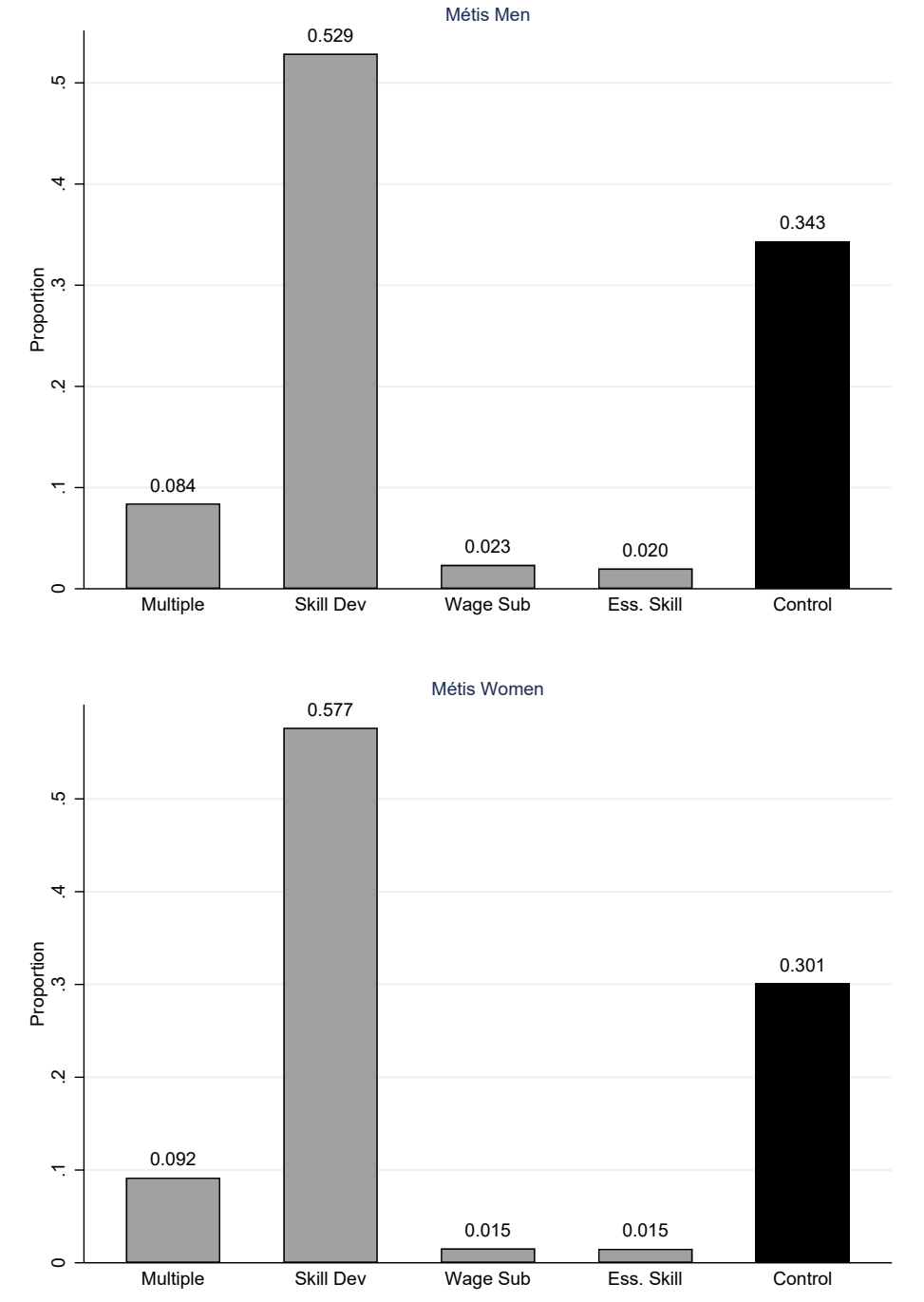


Figure F.3: Distribution of Intervention Type by Participant Group

Notes: Distribution of intervention types for Métis men (top panel) and women (bottom panel). The category "multiple" represents individuals who took part in more than one high-intensity intervention and those who took part in job creation partnerships.

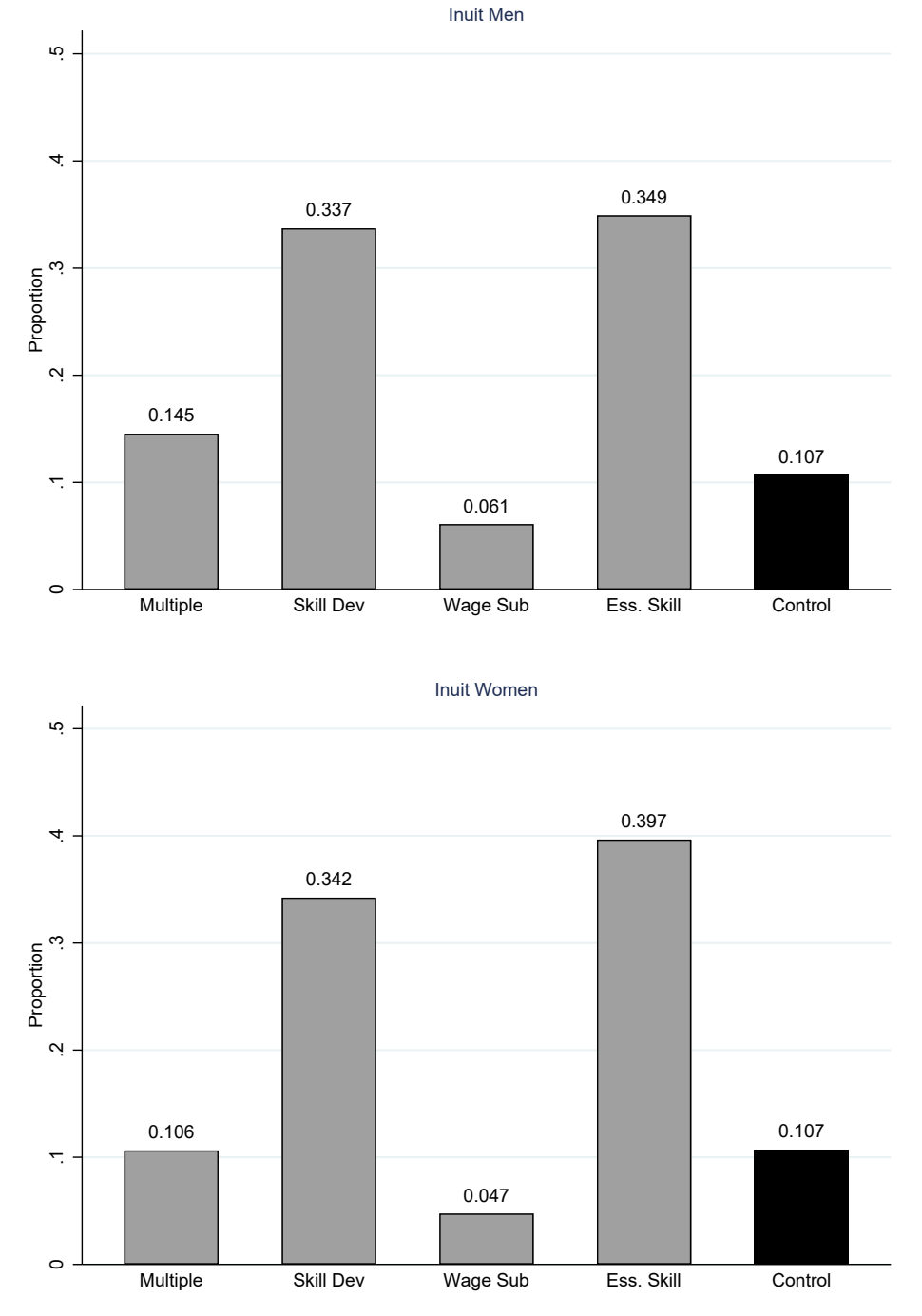


Figure F.4: Distribution of Intervention Type by Participant Group

Notes: Distribution of intervention types for Inuit men (top panel) and women (bottom panel). The category "multiple" represents individuals who took part in more than one high-intensity intervention and those who took part in job creation partnerships.

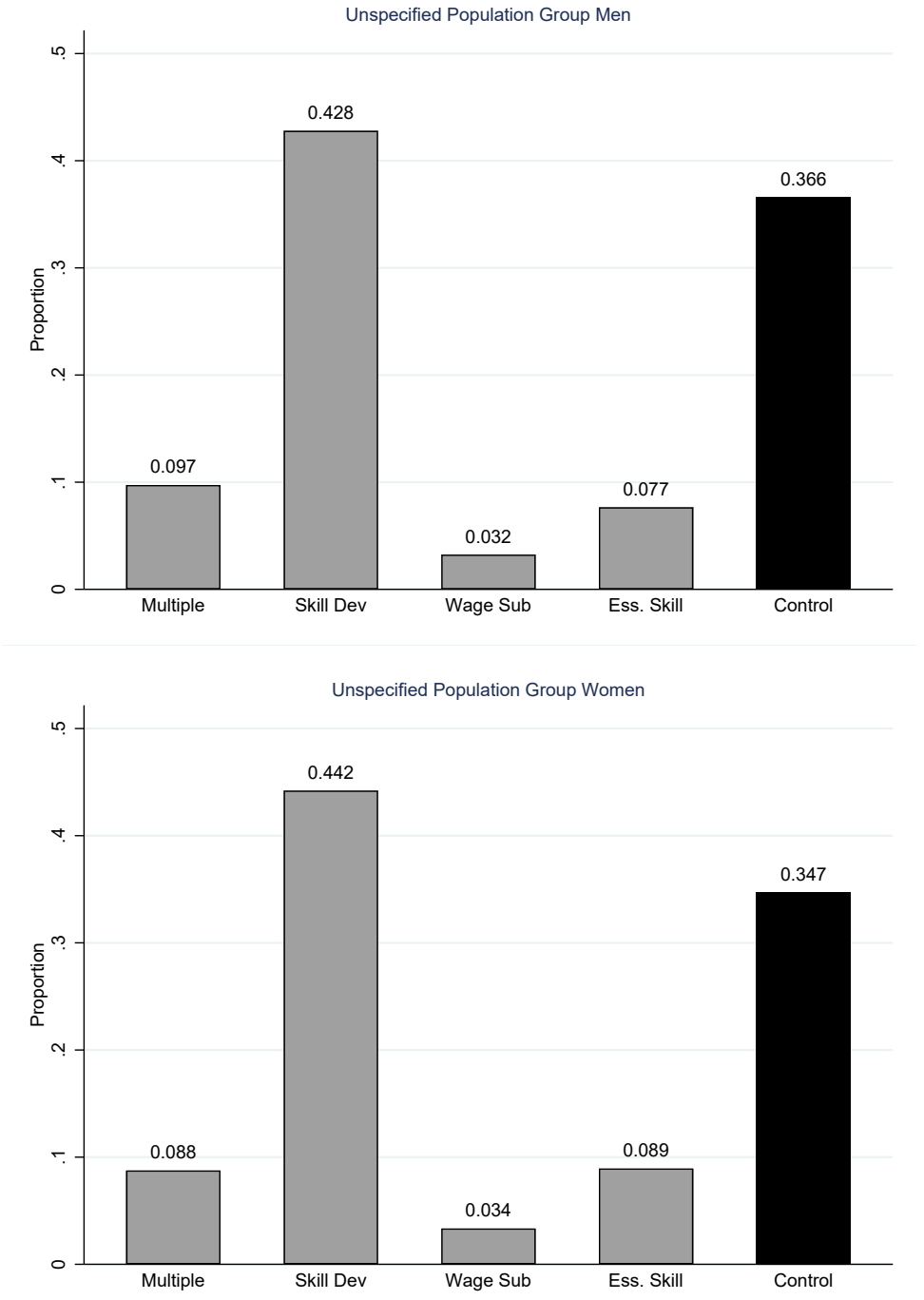


Figure F.5: Distribution of Intervention Type by Participant Group

Notes: Distribution of intervention types for men (top panel) and women (bottom panel) whose population group is unknown. The category "multiple" represents individuals who took part in more than one high-intensity intervention and those who took part in job creation partnerships.

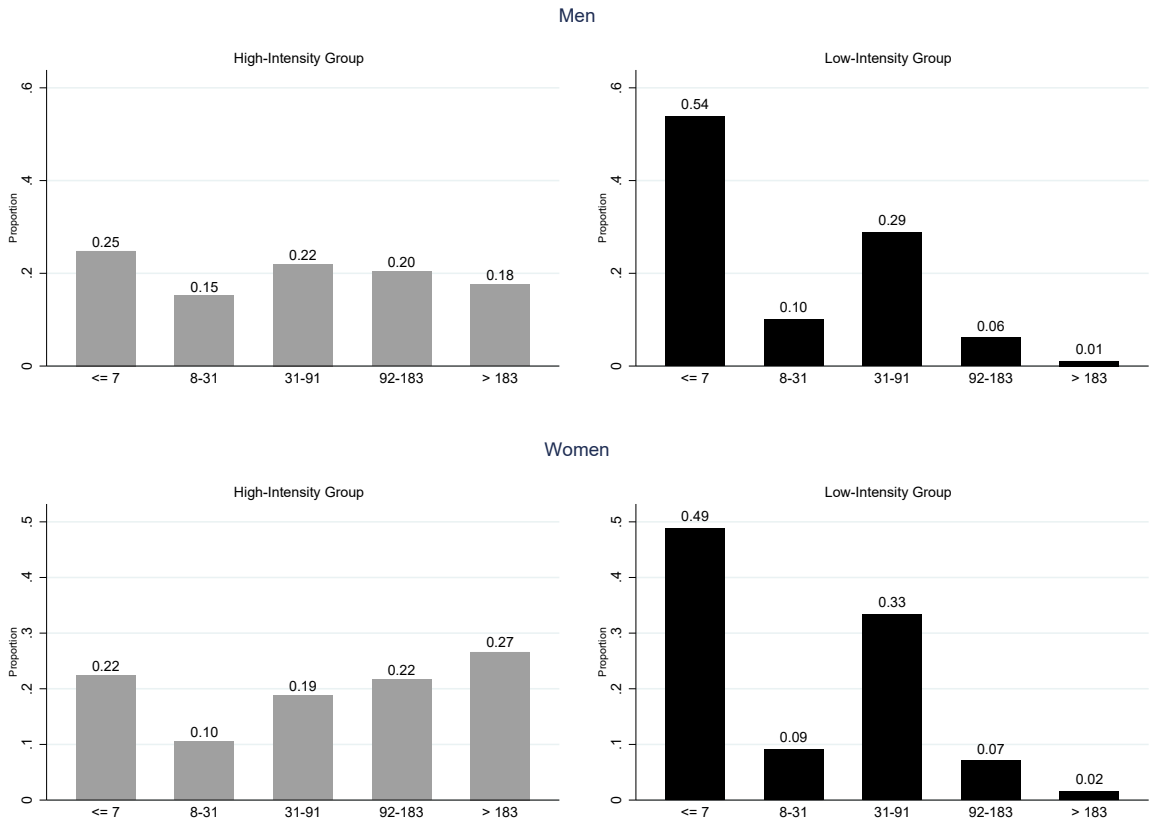


Figure F.6: Duration in Days of the First ASETS Participation for Status First Nations Participants

Notes: The duration is reported based on the start and end dates for all interventions in the first ASETS spell. The duration does not count gaps in participation.

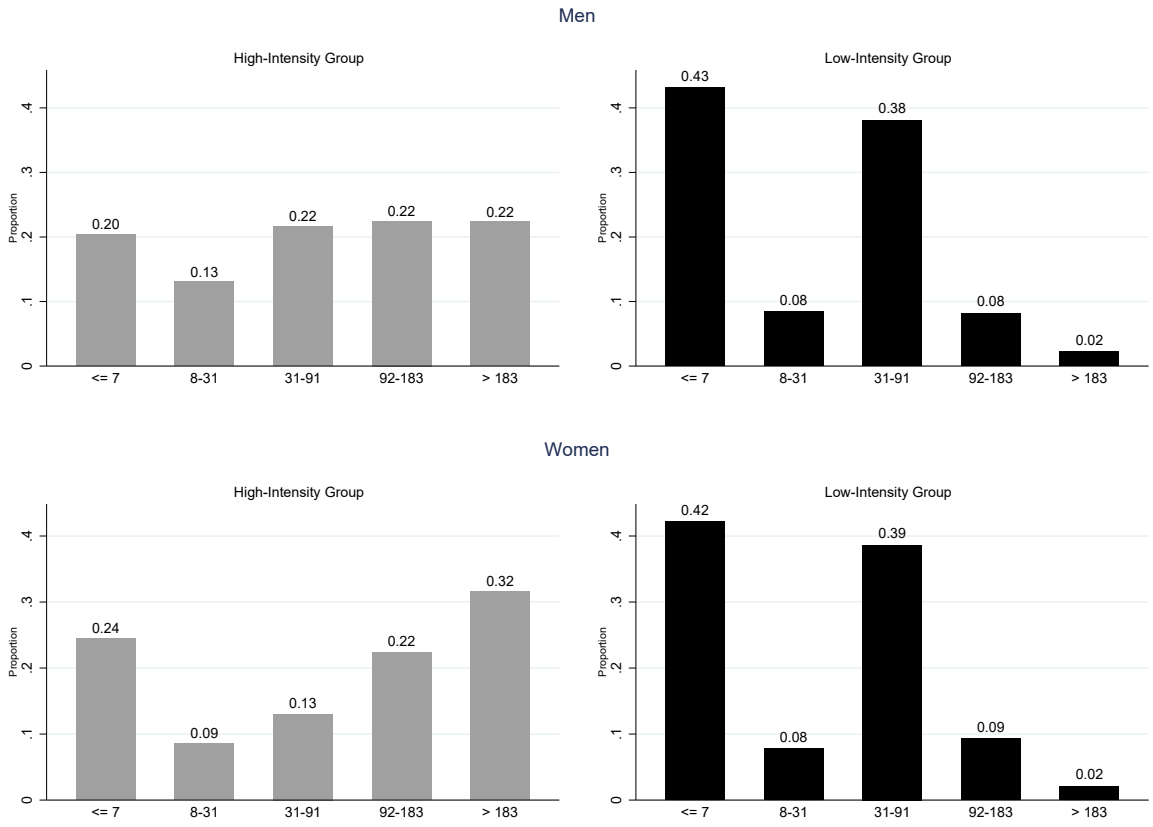


Figure F.7: Duration in Days of the First ASETS Participation for Non-Status First Nations Participants

Notes: The duration is reported based on the start and end dates for all interventions in the first ASETS spell. The duration does not count gaps in participation.

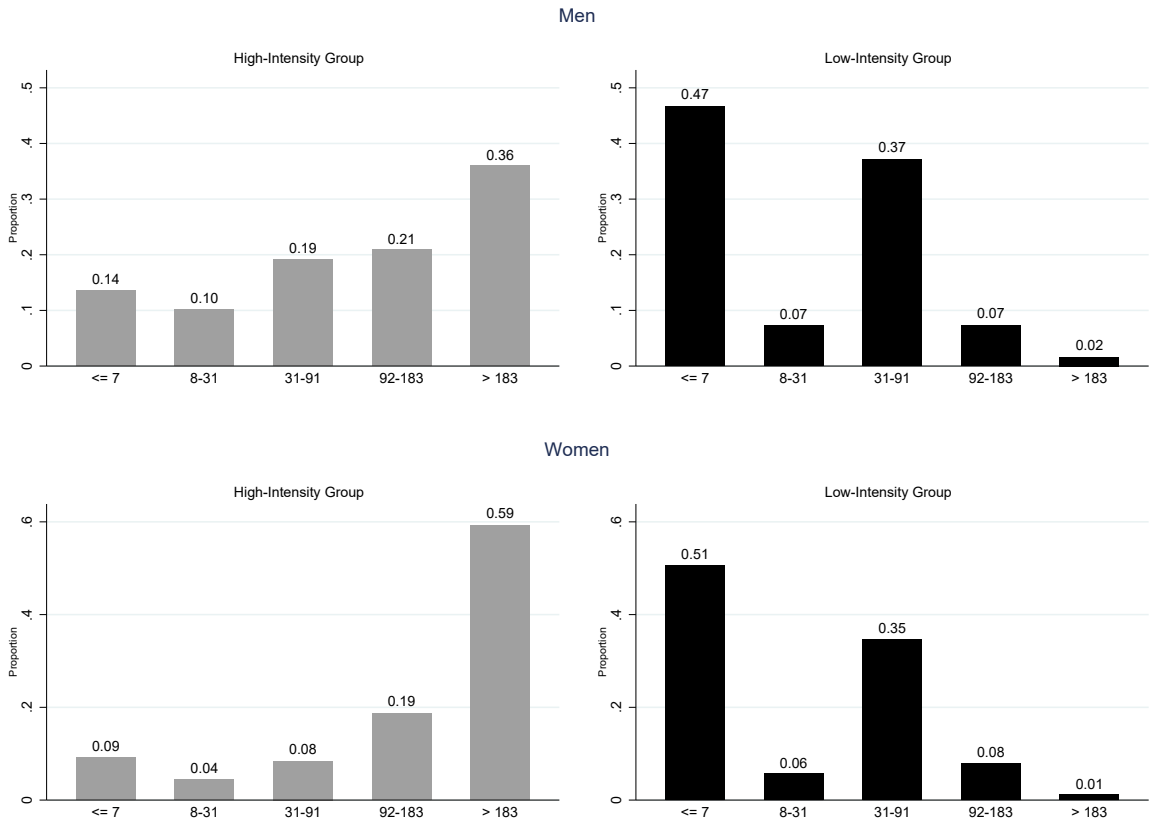


Figure F.8: Duration in Days of the First ASETS Participation for Métis Participants

Notes: The duration is reported based on the start and end dates for all interventions in the first ASETS spell. The duration does not count gaps in participation.

F.2 Descriptive statistics and normalized differences

Table F.1: High- and Low-Intensity Group Means for the Full Sample, Differences in Means, and Normalized Differences in Means

	High-Intensity		Low-Intensity			Normalized
	Mean	S.D.	Mean	S.D.	Diffference	Diffference
Indigenous population group						
Status First Nations	0.694	0.461	0.711	0.453	-0.016***	-0.036
					(0.003)	
Non-Status First Nations	0.042	0.200	0.067	0.250	-0.025***	-0.111
					(0.001)	
Métis	0.147	0.354	0.122	0.327	0.025***	0.073
					(0.002)	
Inuit	0.024	0.154	0.010	0.101	0.014***	0.108
					(0.001)	
Unspecified, Indigenous	0.093	0.290	0.091	0.287	0.002	0.008
					(0.002)	
Demographics						
Female	0.472	0.499	0.441	0.497	0.031***	0.063
					(0.003)	
Age	31.502	10.810	32.905	11.069	-1.403***	-0.128
					(0.066)	
Married	0.227	0.419	0.196	0.397	0.031***	0.076
					(0.002)	
Has children	0.184	0.388	0.172	0.377	0.013***	0.034
					(0.002)	
Disability at ASETS start	0.056	0.229	0.050	0.218	0.006***	0.025
					(0.001)	
Lives in a rural area	0.542	0.498	0.440	0.496	0.102***	0.205
					(0.003)	
Ratio not working to pop.	0.706	0.204	0.716	0.205	-0.010***	-0.047
					(0.001)	

Continued on next page

Table F.1: High- and Low-Intensity Group Means for the Full Sample, Differences in Means, and Normalized Differences in Means

	High-Intensity		Low-Intensity			Normalized
	Mean	**S.D.**	**Mean**	**S.D.**	**Diffference**	**Diffference**
Mean earnings in local area ($1,000)	7.149	3.432	6.748	3.027	0.401***	0.124
					(0.019)	
Local area code missing	0.069	0.254	0.071	0.257	-0.002	-0.008
					(0.002)	
Year of first ASETS participation						
2010	0.055	0.228	0.038	0.192	0.017***	0.079
					(0.001)	
2011	0.277	0.447	0.271	0.444	0.006**	0.013
					(0.003)	
2012	0.259	0.438	0.262	0.440	-0.002	-0.006
					(0.003)	
2013	0.216	0.412	0.219	0.414	-0.003	-0.007
					(0.003)	
2014	0.193	0.395	0.210	0.407	-0.017***	-0.042
					(0.002)	
Earnings prior to program entry ($1,000's)						
1 year prior	11.425	17.053	11.229	17.121	0.196*	0.011
					(0.104)	
2 years prior	11.352	17.100	11.320	17.342	0.033	0.002
					(0.104)	
3 years prior	10.860	16.818	11.008	16.958	-0.148	-0.009
					(0.102)	
4 years prior	10.248	16.287	10.548	16.330	-0.300***	-0.018
					(0.099)	
5 years prior	9.557	15.594	9.968	15.759	-0.411***	-0.026
					(0.095)	

Continued on next page

Table F.1: High- and Low-Intensity Group Means for the Full Sample, Differences in Means, and Normalized Differences in Means

	High-Intensity		Low-Intensity			Normalized
	Mean	S.D.	Mean	S.D.	Diffference	Diffference
Total 6-10 years prior	36.214	61.529	38.297	62.049	-2.082***	-0.034
					(0.375)	
Employment prior to program entry						
1 year prior	0.708	0.455	0.693	0.461	0.015***	0.032
					(0.003)	
2 years prior	0.697	0.460	0.684	0.465	0.013***	0.027
					(0.003)	
3 years prior	0.688	0.463	0.681	0.466	0.006**	0.014
					(0.003)	
4 years prior	0.672	0.469	0.674	0.469	-0.002	-0.003
					(0.003)	
5 years prior	0.645	0.479	0.652	0.476	-0.007**	-0.014
					(0.003)	
On-reserve tax-exempt earnings prior to program entry ($1,000's)						
Total 1-3 years prior	13.531	30.976	11.042	29.074	2.490***	0.083
					(0.180)	
Total Income ($1,000's)						
1 year prior	10.135	16.568	10.742	16.603	-0.607***	-0.037
					(0.100)	
Total 2-10 years prior	66.736	110.047	74.331	109.265	-7.596***	-0.069
					(0.663)	
Income Assistance Income ($1,000's)						
1 year prior	1.090	3.054	1.337	3.296	-0.248***	-0.078
					(0.019)	
Total 2-5 years prior	3.521	9.548	4.408	10.615	-0.887***	-0.088

Continued on next page

Table F.1: High- and Low-Intensity Group Means for the Full Sample, Differences in Means, and Normalized Differences in Means

	High-Intensity		Low-Intensity			Normalized
	Mean	S.D.	Mean	S.D.	Diffference	Diffference
					(0.062)	
No SA income in year prior	0.178	0.382	0.214	0.410	-0.037***	-0.093
					(0.002)	
No SA income in 2-5 years prior	0.735	0.441	0.692	0.462	0.044***	0.097
					(0.003)	
Other Employment Variables						
No prior employers	0.044	0.205	0.039	0.194	0.004***	0.022
					(0.001)	
Had a employment in last five years	0.973	0.161	0.972	0.165	0.001	0.009
					(0.001)	
Years with employment in past 5	3.413	1.750	3.387	1.754	0.025**	0.015
					(0.011)	
Worked in Indig. Pub Admin. past 5 years	0.465	0.499	0.383	0.486	0.082***	0.167
					(0.003)	
Last employment w/ union dues	0.120	0.325	0.135	0.342	-0.016***	-0.047
					(0.002)	
Years with union dues in past 5	0.325	0.908	0.359	0.953	-0.034***	-0.036
					(0.006)	
Months most recent prior intervention	1.649	2.620	1.557	2.381	0.092***	0.037
					(0.015)	
Total months of prior ALMP	5.412	9.985	5.363	9.788	0.049	0.005
					(0.060)	
Prior participation in labour market programing						
Most recent prior intervention	0.413	0.492	0.416	0.493	-0.004	-0.008
					(0.003)	
Previous ALMP	0.556	0.497	0.566	0.496	-0.010***	-0.020

Continued on next page

Table F.1: High- and Low-Intensity Group Means for the Full Sample, Differences in Means, and Normalized Differences in Means

	High-Intensity		Low-Intensity			Normalized
	Mean	S.D.	Mean	S.D.	Diffference	Diffference
					(0.003)	
Prior Job Separation Reason						
No previous separation	0.126	0.332	0.104	0.305	0.022***	0.070
					(0.002)	
Working when starting ASETS	0.187	0.390	0.189	0.392	-0.003	-0.007
					(0.002)	
Layoff	0.296	0.456	0.281	0.450	0.014***	0.032
					(0.003)	
Quit	0.234	0.424	0.249	0.433	-0.015***	-0.035
					(0.003)	
Dismissal	0.080	0.271	0.099	0.299	-0.020***	-0.069
					(0.002)	
Schooling or apprenticeship	0.034	0.182	0.018	0.135	0.016***	0.098
					(0.001)	
Illness, injury or leave	0.025	0.156	0.026	0.160	-0.001	-0.009
					(0.001)	
Other reasons	0.077	0.266	0.080	0.271	-0.003**	-0.012
					(0.002)	
Prior EI reciept (any type of benefits)						
Benefits in 5 prior years ($1,000's)	5.562	10.776	5.420	10.389	0.141**	0.013
					(0.064)	
Weeks in 5 prior years	15.986	29.244	15.540	27.925	0.446**	0.016
					(0.172)	
Occupation of Prior Job From EI Claims						
Management	0.020	0.138	0.019	0.137	0.000	0.002

Continued on next page

Table F.1: High- and Low-Intensity Group Means for the Full Sample, Differences in Means, and Normalized Differences in Means

	High-Intensity		Low-Intensity			Normalized
	Mean	S.D.	Mean	S.D.	Diffference	Diffference
					(0.001)	
Business, finance and admini	0.063	0.243	0.065	0.246	-0.001	-0.006
					(0.001)	
Health, sciences and related	0.025	0.156	0.026	0.160	-0.001	-0.009
					(0.001)	
Educ, law, gov't services	0.047	0.211	0.048	0.213	-0.001	-0.004
					(0.001)	
Art, culture, rec., sport	0.007	0.082	0.006	0.079	0.000	0.004
					(0.000)	
Sales and service	0.126	0.332	0.124	0.330	0.002	0.007
					(0.002)	
Trades, transport, equip. operators	0.148	0.355	0.160	0.366	-0.012***	-0.034
					(0.002)	
Nat. resources, agri. and related.	0.047	0.212	0.048	0.214	-0.001	-0.004
					(0.001)	
Manufacturing and utilities	0.028	0.165	0.035	0.183	-0.007***	-0.039
					(0.001)	
EI Eligibility at ASETS start						
No prior EI claim	0.491	0.500	0.470	0.499	0.022***	0.043
					(0.003)	
Former EI claimant (> 3 years ago)	0.177	0.382	0.194	0.395	-0.017***	-0.043
					(0.002)	
Former EI claimant (within 3 years)	0.206	0.405	0.213	0.409	-0.007***	-0.016
					(0.002)	
Active EI claimant	0.125	0.331	0.124	0.329	0.002	0.005
					(0.002)	
Wks earnings b/w EI-ASETS start	1.975	7.582	1.882	7.321	0.092**	0.012

Continued on next page

Table F.1: High- and Low-Intensity Group Means for the Full Sample, Differences in Means, and Normalized Differences in Means

	High-Intensity		**Low-Intensity**			**Normalized**
	Mean	**S.D.**	**Mean**	**S.D.**	**Diffference**	**Diffference**
					(0.045)	
EI insured hours at ASETS start	0.631	0.708	0.669	0.720	-0.038***	-0.053
					(0.004)	
Months b/w start of EI and ASETS	23.589	45.778	25.446	47.361	-1.857***	-0.040
					(0.283)	
Sample Size	75,076		42,821			

Table F.2: High- and Low-Intensity Group Means for the Status First Nations Population Group, Differences in Means, and Normalized Differences in Means

	Men				Women			
	High-Intensity Mean	**Low-Intensity Mean**	**Diff.**	**Norm. Diff.**	**Treatment Mean**	**Control Mean**	**Diff.**	**Norm. Diff.**
Age	31.241	32.519	-1.277***	-0.118	31.539	32.646	-1.107***	-0.101
			(0.105)				(0.120)	
Married	0.224	0.187	0.037***	0.091	0.234	0.198	0.036***	0.088
			(0.004)				(0.004)	
Has children	0.096	0.082	0.014***	0.049	0.301	0.294	0.006	0.014
			(0.003)				(0.005)	
Disability at ASETS start	0.061	0.043	0.018***	0.083	0.049	0.044	0.005**	0.023
			(0.002)				(0.002)	
Lives in a rural area	0.635	0.523	0.112***	0.228	0.533	0.418	0.115***	0.231
			(0.005)				(0.005)	
Ratio not working to pop.	0.681	0.695	-0.014***	-0.062	0.715	0.726	-0.011***	-0.059
			(0.002)				(0.002)	
Mean earnings in local area ($1,000)	6.748	6.572	0.177***	0.053	7.060	6.763	0.297***	0.095
			(0.032)				(0.033)	
Local area code missing	0.099	0.093	0.006**	0.019	0.058	0.058	-0.000	-0.000
			(0.003)				(0.003)	
Year of first ASETS participation								
2010	0.039	0.037	0.002	0.009	0.049	0.042	0.008***	0.037
			(0.002)				(0.002)	
2011	0.283	0.283	-0.000	-0.001	0.279	0.283	-0.004	-0.009
			(0.004)				(0.005)	
2012	0.276	0.270	0.006	0.013	0.258	0.270	-0.011**	-0.025
			(0.004)				(0.005)	
2013	0.216	0.219	-0.003	-0.008	0.217	0.213	0.004	0.010

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Table F.2: High- and Low-Intensity Group Means for the Status First Nations Population Group, Differences in Means, and Normalized Differences in Means

	Men				Women			
	High-Intensity Mean	**Low-Intensity Mean**	**Diff.**	**Norm. Diff.**	**Treatment Mean**	**Control Mean**	**Diff.**	**Norm. Diff.**
			(0.004)				(0.004)	
2014	0.187	0.191	-0.004	-0.010	0.196	0.192	0.003	0.008
			(0.004)				(0.004)	
Earnings prior to program entry ($1,000's)								
1 year prior	11.221	11.375	-0.153	-0.009	8.782	8.722	0.059	0.004
			(0.170)				(0.152)	
2 years prior	11.097	11.225	-0.128	-0.007	8.946	9.092	-0.146	-0.010
			(0.171)				(0.157)	
3 years prior	10.637	10.935	-0.298*	-0.017	8.580	8.886	-0.306*	-0.021
			(0.167)				(0.155)	
4 years prior	9.986	10.556	-0.570***	-0.035	8.089	8.434	-0.345**	-0.025
			(0.159)				(0.151)	
5 years prior	9.335	10.034	-0.699***	-0.045	7.531	7.827	-0.295**	-0.023
			(0.152)				(0.141)	
Total 6-10 years prior	35.273	37.481	-2.208***	-0.037	29.331	30.011	-0.681	-0.013
			(0.585)				(0.571)	
Employment prior to program entry								
1 year prior	0.706	0.700	0.006	0.014	0.638	0.637	0.000	0.001
			(0.004)				(0.005)	
2 years prior	0.691	0.681	0.010**	0.021	0.632	0.635	-0.003	-0.006
			(0.004)				(0.005)	
3 years prior	0.681	0.680	0.001	0.003	0.625	0.633	-0.009	-0.018
			(0.005)				(0.005)	

Continued on next page

Table F.2: High- and Low-Intensity Group Means for the Status First Nations Population Group, Differences in Means, and Normalized Differences in Means

	Men				Women			
	High-Intensity Mean	**Low-Intensity Mean**	**Diff.**	**Norm. Diff.**	**Treatment Mean**	**Control Mean**	**Diff.**	**Norm. Diff.**
4 years prior	0.669	0.672	-0.002	-0.005	0.611	0.631	-0.020***	-0.041
			(0.005)				(0.005)	
5 years prior	0.641	0.657	-0.015***	-0.032	0.591	0.606	-0.015***	-0.031
			(0.005)				(0.005)	
On-reserve tax-exempt earnings prior to program entry ($1,000's)								
Total 1-3 years prior	16.583	12.488	4.094***	0.125	15.634	13.353	2.281***	0.075
			(0.312)				(0.330)	
Total Income ($1,000's)								
1 year prior	8.048	9.389	-1.342***	-0.083	7.371	8.311	-0.940***	-0.074
			(0.157)				(0.137)	
Total 2-10 years prior	53.565	64.144	-10.579***	-0.102	49.513	56.790	-7.277***	-0.088
			(1.006)				(0.894)	
Income Assistance Income ($1,000's)								
1 year prior	0.628	0.830	-0.202***	-0.086	1.620	1.940	-0.320***	-0.083
			(0.023)				(0.042)	
Total 2-5 years prior	1.811	2.435	-0.624***	-0.096	5.254	6.519	-1.265***	-0.101
			(0.064)				(0.138)	
No SA income in year prior	0.128	0.163	-0.034***	-0.098	0.233	0.277	-0.044***	-0.100
			(0.003)				(0.005)	
No SA income in 2-5 years prior	0.794	0.749	0.045***	0.107	0.670	0.625	0.045***	0.095
			(0.004)				(0.005)	

Continued on next page

Table F.2: High- and Low-Intensity Group Means for the Status First Nations Population Group, Differences in Means, and Normalized Differences in Means

	Men				Women			
	High-Intensity Mean	**Low-Intensity Mean**	**Diff.**	**Norm. Diff.**	**Treatment Mean**	**Control Mean**	**Diff.**	**Norm. Diff.**
Other Employment Variables								
No prior employers	0.043	0.036	0.007***	0.038	0.068	0.058	0.010***	0.041
			(0.002)				(0.003)	
Had a employment in last five years	0.979	0.978	0.001	0.007	0.963	0.964	-0.001	-0.006
			(0.001)				(0.002)	
Years with employment in past 5	3.392	3.393	-0.001	-0.001	3.100	3.145	-0.045**	-0.025
			(0.017)				(0.020)	
Worked in Indig. Pub Admin. past 5 years	0.580	0.463	0.117***	0.236	0.548	0.449	0.099***	0.198
			(0.005)				(0.005)	
Last employment w/ union dues	0.083	0.111	-0.028***	-0.094	0.099	0.128	-0.029***	-0.091
			(0.003)				(0.003)	
Years with union dues in past 5	0.225	0.291	-0.065***	-0.083	0.270	0.334	-0.063***	-0.072
			(0.008)				(0.010)	
Months most recent prior intervention	1.549	1.511	0.038*	0.016	1.837	1.666	0.171***	0.064
			(0.023)				(0.029)	
Total months of prior ALMP	5.420	5.413	0.007	0.001	5.898	5.645	0.253**	0.024
			(0.092)				(0.113)	
Prior participation in labour market programing								
Most recent prior intervention	0.439	0.429	0.010**	0.019	0.389	0.412	-0.023***	-0.047
			(0.005)				(0.005)	
Previous ALMP	0.607	0.611	-0.004	-0.008	0.543	0.557	-0.014**	-0.028
			(0.005)				(0.005)	

Continued on next page

Table F.2: High- and Low-Intensity Group Means for the Status First Nations Population Group, Differences in Means, and Normalized Differences in Means

	Men				Women			
	High-Intensity Mean	**Low-Intensity Mean**	**Diff.**	**Norm. Diff.**	**Treatment Mean**	**Control Mean**	**Diff.**	**Norm. Diff.**
Prior Job Separation Reason								
No previous separation	0.138	0.105	0.033***	0.100	0.174	0.143	0.032***	0.088
			(0.003)				(0.004)	
Working when starting ASETS	0.160	0.163	-0.003	-0.007	0.229	0.219	0.010**	0.025
			(0.004)				(0.005)	
Layoff	0.376	0.353	0.024***	0.049	0.230	0.217	0.012***	0.030
			(0.005)				(0.005)	
Quit	0.195	0.222	-0.027***	-0.066	0.236	0.254	-0.018***	-0.042
			(0.004)				(0.005)	
Dismissal	0.078	0.099	-0.021***	-0.073	0.078	0.093	-0.015***	-0.053
			(0.003)				(0.003)	
Schooling or apprenticeship	0.026	0.015	0.011***	0.074	0.029	0.024	0.005***	0.033
			(0.001)				(0.002)	
Illness, injury or leave	0.010	0.011	-0.001	-0.010	0.038	0.040	-0.002	-0.008
			(0.001)				(0.002)	
Other reasons	0.071	0.075	-0.004*	-0.017	0.080	0.084	-0.004	-0.015
			(0.003)				(0.003)	
Prior EI reciept (any type of benefits)								
Benefits in 5 prior years ($1,000's)	6.525	6.213	0.312***	0.026	4.399	4.367	0.032	0.004
			(0.114)				(0.094)	
Weeks in 5 prior years	18.166	17.185	0.981***	0.031	13.662	13.419	0.243	0.010
			(0.301)				(0.275)	
Occupation of Prior Job From EI Claims								

Continued on next page

Table F.2: High- and Low-Intensity Group Means for the Status First Nations Population Group, Differences in Means, and Normalized Differences in Means

	Men				Women			
	High-Intensity Mean	**Low-Intensity Mean**	**Diff.**	**Norm. Diff.**	**Treatment Mean**	**Control Mean**	**Diff.**	**Norm. Diff.**
Management	0.015	0.013	0.002*	0.019	0.021	0.024	-0.003**	-0.022
			(0.001)				(0.002)	
Business, finance and admini	0.018	0.021	-0.003*	-0.019	0.106	0.109	-0.003	-0.010
			(0.001)				(0.003)	
Health, sciences and related	0.022	0.021	0.001	0.005	0.024	0.028	-0.005**	-0.029
			(0.001)				(0.002)	
Educ, law, gov't services	0.021	0.023	-0.002	-0.013	0.078	0.081	-0.003	-0.011
			(0.001)				(0.003)	
Art, culture, rec., sport	0.004	0.006	-0.001**	-0.021	0.009	0.007	0.002*	0.019
			(0.001)				(0.001)	
Sales and service	0.081	0.078	0.003	0.010	0.170	0.174	-0.004	-0.011
			(0.003)				(0.004)	
Trades, transport, equip. operators	0.228	0.244	-0.016***	-0.038	0.031	0.033	-0.001	-0.008
			(0.004)				(0.002)	
Nat. resources, agri. and related.	0.080	0.076	0.003	0.012	0.012	0.011	0.001	0.011
			(0.003)				(0.001)	
Manufacturing and utilities	0.038	0.045	-0.007***	-0.036	0.012	0.013	-0.001	-0.012
			(0.002)				(0.001)	
EI Eligibility at ASETS start								
No prior EI claim	0.495	0.474	0.021***	0.041	0.538	0.520	0.018***	0.037
			(0.005)				(0.005)	
Former EI claimant (> 3 years ago)	0.161	0.182	-0.021***	-0.055	0.174	0.173	0.001	0.003
			(0.004)				(0.004)	
Former EI claimant (within 3 years)	0.214	0.219	-0.005	-0.013	0.196	0.199	-0.002	-0.006

Continued on next page

Table F.2: High- and Low-Intensity Group Means for the Status First Nations Population Group, Differences in Means, and Normalized Differences in Means

	Men				**Women**			
	High-Intensity Mean	**Low-Intensity Mean**	**Diff.**	**Norm. Diff.**	**Treatment Mean**	**Control Mean**	**Diff.**	**Norm. Diff.**
			(0.004)				(0.004)	
Active EI claimant	0.130	0.125	0.005*	0.016	0.092	0.109	-0.017***	-0.057
			(0.003)				(0.003)	
Wks earnings b/w EI-ASETS start	1.798	1.704	0.093	0.013	1.747	1.603	0.144*	0.021
			(0.067)				(0.076)	
EI insured hours at ASETS start	0.609	0.641	-0.032***	-0.046	0.578	0.619	-0.041***	-0.057
			(0.007)				(0.008)	
Months b/w start of EI and ASETS	21.568	23.934	-2.366***	-0.053	22.729	22.451	0.278	0.006
			(0.435)				(0.484)	
Sample Size	28,047	17,282			24,036	13,106		

Table F.3: High- and Low-Intensity Group Means for the Non-Status First Nations Population Group, Differences in Means, and Normalized Differences in Means

	Men				Women			
	High-Intensity Mean	**Low-Intensity Mean**	**Diff.**	**Norm. Diff.**	**Treatment Mean**	**Control Mean**	**Diff.**	**Norm. Diff.**
Age	29.981	32.270	-2.289***	-0.210	30.402	31.588	-1.186***	-0.110
			(0.377)				(0.417)	
Married	0.189	0.161	0.028**	0.073	0.219	0.172	0.047***	0.118
			(0.013)				(0.015)	
Has children	0.084	0.066	0.018*	0.069	0.252	0.257	-0.005	-0.011
			(0.009)				(0.017)	
Disability at ASETS start	0.080	0.073	0.007	0.025	0.074	0.067	0.007	0.028
			(0.009)				(0.010)	
Lives in a rural area	0.462	0.352	0.109***	0.224	0.339	0.255	0.085***	0.186
			(0.017)				(0.018)	
Ratio not working to pop.	0.697	0.704	-0.006	-0.028	0.736	0.732	0.004	0.021
			(0.008)				(0.007)	
Mean earnings in local area ($1,000)	6.921	6.687	0.234**	0.069	7.379	6.862	0.516***	0.162
			(0.117)				(0.123)	
Local area code missing	0.090	0.092	-0.002	-0.008	0.046	0.063	-0.017*	-0.075
			(0.010)				(0.009)	
Year of first ASETS participation								
2010	0.064	0.031	0.033***	0.155	0.063	0.036	0.027***	0.125
			(0.007)				(0.008)	
2011	0.284	0.282	0.002	0.005	0.282	0.278	0.004	0.008
			(0.016)				(0.017)	
2012	0.253	0.258	-0.006	-0.013	0.243	0.239	0.004	0.010
			(0.015)				(0.016)	
2013	0.222	0.227	-0.005	-0.012	0.222	0.216	0.007	0.016

Continued on next page

Table F.3: High- and Low-Intensity Group Means for the Non-Status First Nations Population Group, Differences in Means, and Normalized Differences in Means

	Men				Women			
	High-Intensity Mean	**Low-Intensity Mean**	**Diff.**	**Norm. Diff.**	**Treatment Mean**	**Control Mean**	**Diff.**	**Norm. Diff.**
			(0.014)				(0.016)	
2014	0.178	0.202	-0.024*	-0.062	0.190	0.231	-0.041**	-0.102
			(0.014)				(0.016)	
Earnings prior to program entry ($1,000's)								
1 year prior	11.428	12.089	-0.661	-0.038	9.812	8.581	1.230**	0.093
			(0.601)				(0.510)	
2 years prior	10.677	11.851	-1.174**	-0.070	10.195	8.913	1.282**	0.092
			(0.580)				(0.536)	
3 years prior	10.356	11.443	-1.087*	-0.067	9.795	8.777	1.018*	0.075
			(0.566)				(0.520)	
4 years prior	9.921	11.116	-1.195**	-0.073	9.013	8.409	0.605	0.047
			(0.570)				(0.499)	
5 years prior	9.417	10.496	-1.079*	-0.062	8.044	7.923	0.121	0.009
			(0.599)				(0.492)	
Total 6-10 years prior	35.068	42.304	-7.236***	-0.106	32.593	29.419	3.173	0.060
			(2.358)				(2.045)	
Employment prior to program entry								
1 year prior	0.731	0.711	0.020	0.044	0.689	0.668	0.021	0.045
			(0.016)				(0.018)	
2 years prior	0.683	0.693	-0.010	-0.022	0.687	0.661	0.025	0.054
			(0.016)				(0.018)	
3 years prior	0.686	0.678	0.008	0.018	0.690	0.658	0.033*	0.069
			(0.016)				(0.018)	

Continued on next page

Table F.3: High- and Low-Intensity Group Means for the Non-Status First Nations Population Group, Differences in Means, and Normalized Differences in Means

	Men				Women			
	High-Intensity Mean	**Low-Intensity Mean**	**Diff.**	**Norm. Diff.**	**Treatment Mean**	**Control Mean**	**Diff.**	**Norm. Diff.**
4 years prior	0.660	0.679	-0.019	-0.040	0.658	0.650	0.009	0.018
			(0.016)				(0.018)	
5 years prior	0.623	0.630	-0.007	-0.015	0.606	0.599	0.008	0.016
			(0.017)				(0.019)	
On-reserve tax-exempt earnings prior to program entry ($1,000's)								
Total 1-3 years prior	6.837	3.725	3.112***	0.155	4.954	2.408	2.545***	0.150
			(0.696)				(0.649)	
Total Income ($1,000's)								
1 year prior	12.092	14.080	-1.988***	-0.113	12.686	12.105	0.581	0.044
			(0.612)				(0.513)	
Total 2-10 years prior	78.785	97.523	-18.739***	-0.147	86.148	84.529	1.619	0.016
			(4.426)				(3.820)	
Income Assistance Income ($1,000's)								
1 year prior	0.906	1.343	-0.438***	-0.156	1.996	2.358	-0.362**	-0.086
			(0.097)				(0.162)	
Total 2-5 years prior	2.804	3.992	-1.188***	-0.143	6.601	8.001	-1.400**	-0.099
			(0.289)				(0.546)	
No SA income in year prior	0.174	0.242	-0.068***	-0.168	0.250	0.332	-0.082***	-0.181
			(0.014)				(0.017)	
No SA income in 2-5 years prior	0.744	0.660	0.084***	0.185	0.668	0.595	0.073***	0.153
			(0.016)				(0.019)	

Continued on next page

Table F.3: High- and Low-Intensity Group Means for the Non-Status First Nations Population Group, Differences in Means, and Normalized Differences in Means

	Men				Women			
	High-Intensity Mean	**Low-Intensity Mean**	**Diff.**	**Norm. Diff.**	**Treatment Mean**	**Control Mean**	**Diff.**	**Norm. Diff.**
Other Employment Variables								
No prior employers	0.038	0.043	-0.005	-0.026	0.040	0.050	-0.010	-0.049
			(0.007)				(0.008)	
Had a employment in last five years	0.979	0.976	0.003	0.022	0.967	0.960	0.007	0.037
			(0.005)				(0.007)	
Years with employment in past 5	3.388	3.393	-0.006	-0.003	3.332	3.239	0.093	0.052
			(0.061)				(0.069)	
Worked in Indig. Pub Admin. past 5 years	0.280	0.157	0.123***	0.300	0.255	0.136	0.120***	0.305
			(0.014)				(0.015)	
Last employment w/ union dues	0.119	0.142	-0.024**	-0.070	0.167	0.169	-0.003	-0.007
			(0.012)				(0.014)	
Years with union dues in past 5	0.329	0.319	0.010	0.012	0.394	0.454	-0.060	-0.057
			(0.030)				(0.040)	
Months most recent prior intervention	1.392	1.476	-0.084	-0.038	1.636	1.548	0.089	0.035
			(0.078)				(0.098)	
Total months of prior ALMP	4.192	3.942	0.249	0.029	4.295	4.085	0.209	0.022
			(0.299)				(0.364)	
Prior participation in labour market programing								
Most recent prior intervention	0.491	0.446	0.045**	0.090	0.412	0.396	0.016	0.033
			(0.017)				(0.019)	
Previous ALMP	0.521	0.471	0.050***	0.100	0.451	0.419	0.032*	0.064
			(0.017)				(0.019)	

Continued on next page

Table F.3: High- and Low-Intensity Group Means for the Non-Status First Nations Population Group, Differences in Means, and Normalized Differences in Means

	Men				Women			
	High-Intensity Mean	**Low-Intensity Mean**	**Diff.**	**Norm. Diff.**	**Treatment Mean**	**Control Mean**	**Diff.**	**Norm. Diff.**
Prior Job Separation Reason								
No previous separation	0.108	0.091	0.017	0.057	0.115	0.107	0.009	0.028
			(0.010)				(0.012)	
Working when starting ASETS	0.150	0.156	-0.005	-0.015	0.204	0.195	0.009	0.023
			(0.012)				(0.015)	
Layoff	0.343	0.302	0.041**	0.089	0.169	0.158	0.010	0.028
			(0.016)				(0.014)	
Quit	0.240	0.261	-0.021	-0.047	0.301	0.327	-0.026	-0.056
			(0.015)				(0.018)	
Dismissal	0.083	0.133	-0.049***	-0.159	0.100	0.127	-0.026**	-0.083
			(0.011)				(0.012)	
Schooling or apprenticeship	0.027	0.010	0.017***	0.123	0.035	0.015	0.020***	0.130
			(0.005)				(0.006)	
Illness, injury or leave	0.015	0.015	-0.001	-0.005	0.045	0.043	0.002	0.009
			(0.004)				(0.008)	
Other reasons	0.072	0.073	-0.001	-0.004	0.089	0.078	0.010	0.037
			(0.009)				(0.011)	
Prior EI reciept (any type of benefits)								
Benefits in 5 prior years ($1,000's)	5.527	5.546	-0.019	-0.002	3.882	4.263	-0.381	-0.049
			(0.374)				(0.300)	
Weeks in 5 prior years	15.694	15.526	0.168	0.006	12.595	13.916	-1.321	-0.056
			(0.985)				(0.917)	
Occupation of Prior Job From EI Claims								

Continued on next page

Table F.3: High- and Low-Intensity Group Means for the Non-Status First Nations Population Group, Differences in Means, and Normalized Differences in Means

	Men				Women			
	High-Intensity Mean	**Low-Intensity Mean**	**Diff.**	**Norm. Diff.**	**Treatment Mean**	**Control Mean**	**Diff.**	**Norm. Diff.**
Management	0.018	0.013	0.005	0.044	0.036	0.022	0.014**	0.083
			(0.004)				(0.006)	
No prior EI claim	0.508	0.475	0.034*	0.067	0.526	0.508	0.019	0.037
			(0.017)				(0.019)	
Business, finance and admini	0.027	0.028	-0.001	-0.007	0.104	0.104	-0.000	-0.001
			(0.006)				(0.012)	
Health, sciences and related	0.027	0.016	0.011**	0.072	0.026	0.035	-0.009	-0.054
			(0.005)				(0.007)	
Educ, law, gov't services								
Educ, law, gov't, arts, rec.	0.024	0.020	0.005	0.031	0.084	0.063	0.021**	0.080
			(0.005)				(0.010)	
Art, culture, rec., sport								
Sales and service	0.092	0.076	0.016	0.057	0.174	0.190	-0.017	-0.044
			(0.010)				(0.015)	
Trades, transport, equip. operators	0.198	0.249	-0.051***	-0.123	0.025	0.045	-0.019***	-0.106
			(0.014)				(0.007)	
Nat. resources, agri. and related.	0.065	0.061	0.004	0.015	0.007	0.008	-0.001	-0.009
			(0.008)				(0.003)	
Manufacturing and utilities	0.041	0.062	-0.021***	-0.096	0.018	0.025	-0.007	-0.047
			(0.008)				(0.006)	
EI Eligibility at ASETS start								
No prior EI claim	0.511	0.475	0.036**	0.072	0.532	0.509	0.023	0.045

Continued on next page

Table F.3: High- and Low-Intensity Group Means for the Non-Status First Nations Population Group, Differences in Means, and Normalized Differences in Means

	Men				**Women**			
	High-Intensity Mean	**Low-Intensity Mean**	**Diff.**	**Norm. Diff.**	**Treatment Mean**	**Control Mean**	**Diff.**	**Norm. Diff.**
			(0.017)				(0.019)	
Former EI claimant (> 3 years ago)	0.143	0.175	-0.032**	-0.087	0.166	0.168	-0.002	-0.005
			(0.013)				(0.014)	
Former EI claimant (within 3 years)	0.187	0.206	-0.019	-0.048	0.188	0.197	-0.009	-0.023
			(0.014)				(0.015)	
Active EI claimant	0.159	0.144	0.015	0.042	0.115	0.126	-0.012	-0.036
			(0.012)				(0.013)	
Wks earnings b/w EI-ASETS start	2.384	2.376	0.008	0.001	2.812	2.207	0.605*	0.070
			(0.280)				(0.334)	
EI insured hours at ASETS start	0.598	0.663	-0.065**	-0.091	0.602	0.631	-0.030	-0.041
			(0.025)				(0.028)	
Months b/w start of EI and ASETS	20.391	23.660	-3.269**	-0.072	21.654	23.186	-1.533	-0.034
			(1.577)				(1.720)	
Sample Size	1,702	1,637			1,423	1,276		

Table F.4: High- and Low-Intensity Group Means for the Métis Population Group, Differences in Means, and Normalized Differences in Means

	Men				Women			
	High-Intensity Mean	**Low-Intensity Mean**	**Diff.**	**Norm. Diff.**	**Treatment Mean**	**Control Mean**	**Diff.**	**Norm. Diff.**
Age	29.473	32.128	-2.655***	-0.238	28.614	31.573	-2.959***	-0.280
			(0.277)				(0.259)	
Married	0.184	0.186	-0.001	-0.004	0.192	0.223	-0.031***	-0.077
			(0.010)				(0.010)	
Has children	0.081	0.078	0.002	0.008	0.214	0.218	-0.004	-0.009
			(0.007)				(0.010)	
Disability at ASETS start	0.052	0.087	-0.035***	-0.138	0.053	0.077	-0.024***	-0.098
			(0.006)				(0.006)	
Lives in a rural area	0.381	0.307	0.074***	0.156	0.304	0.256	0.048***	0.107
			(0.012)				(0.011)	
Ratio not working to pop.	0.732	0.735	-0.002	-0.014	0.752	0.758	-0.006	-0.038
			(0.005)				(0.003)	
Mean earnings in local area ($1,000)	7.229	6.611	0.618***	0.233	7.233	6.661	0.572***	0.254
			(0.065)				(0.053)	
Local area code missing	0.052	0.058	-0.005	-0.024	0.035	0.034	0.000	0.002
			(0.006)				(0.004)	
Year of first ASETS participation								
2010	0.076	0.046	0.029***	0.123	0.080	0.041	0.039***	0.165
			(0.006)				(0.005)	
2011	0.247	0.200	0.047***	0.113	0.259	0.204	0.054***	0.129
			(0.010)				(0.010)	
2012	0.243	0.215	0.028***	0.066	0.215	0.197	0.017*	0.043
			(0.010)				(0.010)	
2013	0.226	0.240	-0.014	-0.033	0.229	0.243	-0.013	-0.031

Continued on next page

Table F.4: High- and Low-Intensity Group Means for the Métis Population Group, Differences in Means, and Normalized Differences in Means

	Men				Women			
	High-Intensity Mean	**Low-Intensity Mean**	**Diff.**	**Norm. Diff.**	**Treatment Mean**	**Control Mean**	**Diff.**	**Norm. Diff.**
			(0.010)				(0.010)	
2014	0.208	0.299	-0.090***	-0.208	0.217	0.315	-0.098***	-0.223
			(0.011)				(0.011)	
Earnings prior to program entry ($1,000's)								
1 year prior	16.380	16.695	-0.315	-0.016	11.486	12.772	-1.286***	-0.093
			(0.494)				(0.337)	
2 years prior	15.641	16.744	-1.104**	-0.055	11.597	13.007	-1.409***	-0.097
			(0.503)				(0.355)	
3 years prior	14.688	15.919	-1.231**	-0.062	10.860	12.575	-1.715***	-0.119
			(0.496)				(0.352)	
4 years prior	13.604	15.122	-1.518***	-0.078	10.088	11.868	-1.779***	-0.126
			(0.483)				(0.346)	
5 years prior	12.702	14.381	-1.678***	-0.087	8.946	10.872	-1.926***	-0.141
			(0.481)				(0.335)	
Total 6-10 years prior	46.257	56.510	-10.253***	-0.129	30.010	40.410	-10.400***	-0.189
			(1.972)				(1.358)	
Employment prior to program entry								
1 year prior	0.828	0.784	0.044***	0.112	0.803	0.788	0.014	0.036
			(0.010)				(0.010)	
2 years prior	0.810	0.785	0.025**	0.061	0.788	0.779	0.009	0.022
			(0.010)				(0.010)	
3 years prior	0.782	0.775	0.008	0.018	0.774	0.764	0.010	0.023
			(0.010)				(0.010)	

Continued on next page

Table F.4: High- and Low-Intensity Group Means for the Métis Population Group, Differences in Means, and Normalized Differences in Means

	Men				Women			
	High-Intensity Mean	**Low-Intensity Mean**	**Diff.**	**Norm. Diff.**	**Treatment Mean**	**Control Mean**	**Diff.**	**Norm. Diff.**
4 years prior	0.738	0.747	-0.009	-0.020	0.737	0.736	0.001	0.003
			(0.011)				(0.011)	
5 years prior	0.689	0.706	-0.017	-0.038	0.683	0.696	-0.013	-0.028
			(0.011)				(0.011)	
On-reserve tax-exempt earnings prior to program entry ($1,000's)								
Total 1-3 years prior	1.458	1.294	0.164	0.014	0.685	0.956	-0.271	-0.033
			(0.285)				(0.202)	
Total Income ($1,000's)								
1 year prior	19.208	19.715	-0.506	-0.024	15.398	16.550	-1.152***	-0.077
			(0.518)				(0.364)	
Total 2-10 years prior	119.800	135.923	-16.123***	-0.106	92.521	112.163	-19.642***	-0.184
			(3.777)				(2.624)	
Income Assistance Income ($1,000's)								
1 year prior	0.592	0.761	-0.169***	-0.077	1.411	1.587	-0.176*	-0.047
			(0.056)				(0.090)	
Total 2-5 years prior	2.026	2.648	-0.622***	-0.088	4.830	5.742	-0.913***	-0.071
			(0.178)				(0.313)	
No SA income in year prior	0.126	0.142	-0.015*	-0.045	0.188	0.201	-0.012	-0.031
			(0.008)				(0.010)	
No SA income in 2-5 years prior	0.802	0.774	0.028***	0.069	0.754	0.724	0.030***	0.068
			(0.010)				(0.011)	

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Table F.4: High- and Low-Intensity Group Means for the Métis Population Group, Differences in Means, and Normalized Differences in Means

	Men				Women			
	High-Intensity Mean	**Low-Intensity Mean**	**Diff.**	**Norm. Diff.**	**Treatment Mean**	**Control Mean**	**Diff.**	**Norm. Diff.**
Other Employment Variables								
No prior employers	0.017	0.023	-0.006	-0.041	0.022	0.024	-0.002	-0.011
			(0.004)				(0.004)	
Had a employment in last five years	0.986	0.984	0.003	0.021	0.975	0.968	0.007	0.040
			(0.003)				(0.004)	
Years with employment in past 5	3.847	3.797	0.050	0.032	3.787	3.765	0.022	0.013
			(0.039)				(0.039)	
Worked in Indig. Pub Admin. past 5 years	0.060	0.052	0.008	0.033	0.048	0.049	-0.000	-0.002
			(0.006)				(0.005)	
Last employment w/ union dues	0.196	0.207	-0.011	-0.028	0.238	0.257	-0.019*	-0.045
			(0.010)				(0.010)	
Years with union dues in past 5	0.548	0.590	-0.041	-0.035	0.639	0.735	-0.096***	-0.073
			(0.030)				(0.032)	
Months most recent prior intervention	1.378	1.447	-0.069	-0.029	1.558	1.519	0.039	0.014
			(0.057)				(0.063)	
Total months of prior ALMP	4.143	4.565	-0.422*	-0.048	4.212	4.873	-0.661***	-0.069
			(0.219)				(0.234)	
Prior participation in labour market programing								
Most recent prior intervention	0.331	0.313	0.018	0.039	0.284	0.275	0.009	0.020
			(0.011)				(0.011)	
Previous ALMP	0.446	0.463	-0.017	-0.034	0.369	0.426	-0.057***	-0.117
			(0.012)				(0.012)	

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Table F.4: High- and Low-Intensity Group Means for the Métis Population Group, Differences in Means, and Normalized Differences in Means

	Men				Women			
	High-Intensity Mean	**Low-Intensity Mean**	**Diff.**	**Norm. Diff.**	**Treatment Mean**	**Control Mean**	**Diff.**	**Norm. Diff.**
Prior Job Separation Reason								
No previous separation	0.063	0.069	-0.006	-0.025	0.067	0.060	0.007	0.030
			(0.006)				(0.006)	
Working when starting ASETS	0.163	0.199	-0.037***	-0.095	0.219	0.281	-0.062***	-0.144
			(0.010)				(0.011)	
Layoff	0.287	0.256	0.030***	0.068	0.160	0.139	0.022**	0.061
			(0.011)				(0.008)	
Quit	0.287	0.264	0.023**	0.052	0.343	0.310	0.034***	0.072
			(0.011)				(0.011)	
Dismissal	0.096	0.117	-0.021***	-0.068	0.074	0.081	-0.008	-0.029
			(0.008)				(0.006)	
Schooling or apprenticeship	0.043	0.016	0.027***	0.161	0.047	0.024	0.022***	0.121
			(0.004)				(0.004)	
Illness, injury or leave	0.013	0.027	-0.014***	-0.099	0.042	0.048	-0.007	-0.033
			(0.004)				(0.005)	
Other reasons	0.071	0.080	-0.009	-0.036	0.077	0.085	-0.008	-0.031
			(0.007)				(0.007)	
Prior EI reciept (any type of benefits)								
Benefits in 5 prior years ($1,000's)	6.231	5.823	0.408	0.036	3.867	4.198	-0.330*	-0.041
			(0.277)				(0.195)	
Weeks in 5 prior years	16.467	15.817	0.650	0.022	12.144	13.184	-1.040*	-0.044
			(0.712)				(0.563)	
Occupation of Prior Job From EI Claims								

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Table F.4: High- and Low-Intensity Group Means for the Métis Population Group, Differences in Means, and Normalized Differences in Means

	Men				Women			
	High-Intensity Mean	**Low-Intensity Mean**	**Diff.**	**Norm. Diff.**	**Treatment Mean**	**Control Mean**	**Diff.**	**Norm. Diff.**
Management	0.014	0.017	-0.003	-0.026	0.023	0.027	-0.004	-0.025
			(0.003)				(0.004)	
Business, finance and admini	0.027	0.031	-0.004	-0.023	0.106	0.136	-0.030***	-0.092
			(0.004)				(0.008)	
Health, sciences and related	0.025	0.025	-0.001	-0.004	0.034	0.042	-0.008	-0.039
			(0.004)				(0.005)	
Educ, law, gov't services	0.012	0.014	-0.003	-0.022	0.046	0.064	-0.018***	-0.081
			(0.003)				(0.006)	
Art, culture, rec., sport	0.007	0.009	-0.001	-0.014	0.005	0.005	0.000	0.003
			(0.002)				(0.002)	
Sales and service	0.071	0.079	-0.007	-0.028	0.175	0.177	-0.002	-0.006
			(0.007)				(0.009)	
Trades, transport, equip. operators	0.270	0.274	-0.005	-0.010	0.032	0.032	-0.000	-0.003
			(0.011)				(0.004)	
Nat. resources, agri. and related.	0.058	0.054	0.004	0.016	0.009	0.009	0.001	0.009
			(0.006)				(0.002)	
Manufacturing and utilities	0.047	0.053	-0.007	-0.032	0.017	0.024	-0.008**	-0.053
			(0.005)				(0.004)	
EI Eligibility at ASETS start								
No prior EI claim	0.473	0.443	0.029**	0.059	0.552	0.484	0.069***	0.138
			(0.012)				(0.012)	
Former EI claimant (> 3 years ago)	0.138	0.175	-0.037***	-0.101	0.144	0.189	-0.045***	-0.121
			(0.009)				(0.009)	
Former EI claimant (within 3 years)	0.190	0.217	-0.027***	-0.067	0.172	0.205	-0.032***	-0.083

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Table F.4: High- and Low-Intensity Group Means for the Métis Population Group, Differences in Means, and Normalized Differences in Means

	Men				**Women**			
	High-Intensity Mean	**Low-Intensity Mean**	**Diff.**	**Norm. Diff.**	**Treatment Mean**	**Control Mean**	**Diff.**	**Norm. Diff.**
			(0.010)				(0.009)	
Active EI claimant	0.199	0.165	0.034***	0.089	0.131	0.123	0.008	0.025
			(0.009)				(0.008)	
Wks earnings b/w EI-ASETS start	2.787	2.854	-0.067	-0.007	2.405	2.693	-0.288	-0.033
			(0.220)				(0.211)	
EI insured hours at ASETS start	0.696	0.751	-0.056***	-0.075	0.584	0.693	-0.109***	-0.148
			(0.018)				(0.018)	
Months b/w start of EI and ASETS	19.129	23.618	-4.489***	-0.102	19.259	24.986	-5.727***	-0.129
			(1.098)				(1.086)	
Sample Size	4,621	2,562			5,329	2,579		

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