



Evidence for Community Employment Services: A Collaborative Regional Approach

What We Learned From 10 Years of ARMS Data

Phase 1 Data Dive

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Newfoundland & Labrador Workforce Innovation Centre

The NL Workforce Innovation Centre, established in 2017 by the Provincial Government, provides a coordinated, central point of access to engage government, career and employment service providers, and skills development stakeholders in the business, community and government sectors throughout the province. The Centre's goal is to support the research, testing and sharing of ideas and best practices around innovation in models and approaches to workforce development that will positively impact employability, employment, entrepreneurship and individuals' attachment to the workforce. The Centre is administered by the College of the North Atlantic and is one of two Division's in the college's Office of Industry and Community Engagement. Funding is provided by the Department of Advanced Education, Skills and Labour under the Canada-Newfoundland and Labrador Labour Market Development Agreement.



Ideas. Innovation. Impact.



Data Dive

What we've learned from 10 Years of ARMS Data

The following community report acts as a summary of our finding from Phase 1 of a 3-year community-based research project that will run from June of 2018 to November 2020.

Six community partners: **AXIS Career Services, Community Centre Alliance, John Howard Society NL, New Hope Community Centre, Single Parents Association NL** and **Women In Resource Development Corporation** have committed to a 3-year community based research project that will:

- ✓ Bring researchers, data analysts, community managers and front line career practitioners as a Community-based Research Team
- ✓ Connect and support six community partners to better understand and get the most from the data they are collecting
- ✓ Create better understanding of data across the community employment sector
- ✓ Provide a new data feedback system to frontline career practitioners that will directly impact the participants they serve
- ✓ Provide support through a collaborative approaches to learning

This project will demonstrate the impact of PRIME in supporting evidence-based employment services and engendering a culture of evaluation and accountability in which both policy and practice are actively informed and strengthened by data.



Our Aim

We expect the research to have meaningful impact on the six community research partners, as it will feed the broader employment sector with the data and interpretation it needs to drive innovation, strategically deliver those services that are most needed. Currently, community partners are collecting activity data. This project will introduce, implement and test a data collection system that will measure the impact of career and employment services. We expect that the partners will be able to demonstrate significant positive outcomes being achieved and show the progress and journey to employment for the people they serve. This project will assist employment services to identify and address key gaps in resources, training and professional development.

Context

Employment services provide a range of vital supports to persons seeking assistance in managing their learning, work and transitions. As we look at the world around us – and at our community locally – we see:

- Increasingly complex and unpredictable labour markets;
- A rise in precarious work;
- More and more people seeking employment services who need assistance with multiple and complex issues.

In this context, there has perhaps never been a time when efficient, innovative, impactful and accountable employment services were more needed. The Canadian Career Development Foundation has taken on a series of targeted research studies between 2009 and 2018. Their goal has been to increase the evidence-base for career development services and to support the capacity of employment services to meet the challenges of a growing field of practice.

Key studies that have informed this project

1. Demonstrating the Impact of LMI 2009 to 2011

Although millions of dollars are spent on the creation and dissemination of labour market information (LMI), there has been limited examination of its impact on users. It has been unclear how people actually use LMI, how it influences their decisions and, ultimately, how it affects their transitions into and across the labour market. This study was conducted on the frontlines of employment services in Saskatchewan and New Brunswick. Service providers were trained to conduct a rigorous assessment of the employability needs of those seeking services and then clients were given LMI that was tailored specifically to their needs. After three weeks of making use of the material either independently or with the assistance of a career development practitioner, clients demonstrated both clinically and statistically significant positive changes in a wide range of outcome indicators, including:

- General ability to use LMI
- Knowledge of resource and self-awareness with respect to career goals
- Skill and strategies to stay motivated and achieve career plans
- Optimism and confidence to manage future career transitions

2. The Impact of Career Interventions across the Employability Dimensions 2011 to 2013

Conducted in partnership with frontline employment services in Alberta and Manitoba, this study went beyond the provision of LMI to examine the impact of offering career development resources, tools, activities and exercises tailored to the needs of those seeking employment services. Clients made use of these resources for four weeks, either independently or with the support of a career development practitioner. Again, clients demonstrated clinically and statistically significant positive changes in knowledge, skill, personal attributes and their labour market outcomes.

3. Common Indicators/PRIME 2011 to 2017

Canadian and international research was increasingly demonstrating clear and compelling evidence of the positive impact of the provision of needs-based services. Although the evidence-based was growing, there was no solid mechanism for collecting data widely, pooling results or using findings to inform policy and practice. This third study set out to determine whether employment services working with different kinds of clients across different regions result in a common set of positive changes for clients and, if so, whether we could effectively measure those changes within the context of regular day-to-day service delivery. Over the course of several years, frontline employment services in New Brunswick, Quebec and Saskatchewan worked with the Canadian Career Development Foundation and ARMS to develop and refine an online case management system (called PRIME) to support quality employment services, shaped by clients' needs and informed by evidence.

These three research projects: *Demonstrating the Impact of LMI*, *The Impact of Career Interventions across the Employability Dimensions* and *Common Indicators/PRIME* together provide a proven logic model and methodology, evidence-based resources and tools and an accountability and reporting framework that ensures funders, front-line services and their clientele are informed by rich, real-time data.

Ultimately, it will enable employment services to provide tailored and timely services that result in the best employment outcomes for participants, communities and governments.

The Research Project Summary

Phase 1 | June to November 2018

Data analysts Tim Dugas and Ken Organ of Goss Gilroy have mined and analyzed data collected by community partners from the years 2008 through to June of 2018. This data collects employment supports and services information and outcomes.

Phase 2 | Dec. 2018 to Nov. 2019

Our six community research partners are trained in and implement the use of PRIME. They will ensure consistent and rigorous assessment of strengths and needs of the participants they serve. This needs-based service delivery focus will begin providing comprehensive data on participant's progress and outcomes. As part of the research process, the data team will collect and analyze the data, share it the community researchers as they interpret what they are learning. This will inform how career practitioners practice.

Phase 3 | Dec. 2019 to Nov. 2020

The research working group will share the 3 years of results with their community partners, government and labour market stakeholders. The key learning will be shared along with an action plan to promote continued improvement as well as opportunities for community sector innovation. Ongoing data management, training/professional development, evaluation and continuous improvement will frame the steps to integrate what the research working group has learned.

Phase 1 Progress | June to November 2018

The six community research partners signed tailored data sharing agreements between ARMS Inc. in order to begin participating in this research. The aggregate data was anonymized¹ and included what community partners imputed between 2008 and through to June of 2018.

The purpose of this phase was to:

1. Thoroughly understand what data has been collected
2. Document the challenges and gaps inherent in that data
3. Extract any findings with respect to client profiles, interventions and outcomes

Why analyze this data set?

The main objectives of the Data Dive is to thoroughly understand what data is available, to document the challenges and gaps with the data currently available and to understand why different groups of clients participate in various service offerings and why they achieve similar and different results.

What data did we examine?

Data was extracted from the Accountability Resource Management System (ARMS) for all clients who had at least one community service intervention between April 1, 2008 and March 31, 2018.

- 6 community agencies (also included were client interventions that were shared with these agencies)
- 10 fiscal years of data
- 107 offices
- 8,933 clients
- 100,442 interventions

*Excludes LMDA data from June, 2013 onwards

¹ **Data anonymization** is a way to protection the privacy of participants/client. Personal identifies were removed from the dataset so that the data described remains anonymous.

A comprehensive database

The raw data was organized into 3 data files.

1. Individual Intervention Database
2. Client Level Database
3. Case File Database (this was the focus of most of the analysis because outcomes are attached to case files)

Theming Intervention Codes

There were more than 300 intervention codes in the data set that needed to be themed. In consultation with the research partners the following headings were agreed on.

1. INTAKE and Intakes/Assessments
2. EMPLOYMENT SERVICES - (for example counselling, job search skills, resume preparation, etc.)
3. GROUP INTERVENTIONS - (for example short workshops and group sessions)
4. EMPLOYMENT INTERVENTIONS - Graduate Employment Program, Federal Public Sector Youth Internships, Community Coordinator – TWS, Canada Summer Jobs, etc)
5. TRAINING INTERVENTIONS – (for example apprenticeship, certification, English or French as a second language, essential skills, generic training, specific training, Skills Link programs)
6. OUTREACH INTERVENTIONS
7. REFERRALS

The screenshot displays the ARMS (Accountability & Reporting Management System) web interface. The page title is "ARMS Accountability & Reporting Management System". The main content area shows a client profile form for a client named "John Doe". The form includes fields for Client ID (123456), Name (John Doe), Phone, Client Status (Active), Outcome Date (Not Determined), and Pathway Date (Not Applicable). The form also includes sections for Client Profile (Age, First Name, Last Name, Birthdate, Gender, Aboriginal, Aboriginal Type, Languages, Preferred Language, Highest Level of Education Attained, Post-Secondary, Additional Information), Disability Group (Unspecified/Unknown), Visible Minority (Yes), Marital Status (Married), No. Dependents (0), Reserve Status (On reserve), Secondary (No Response), and Specify (if Other). The form is displayed in a browser window with the URL "https://arms.employment.ca/clients/client.asp".

Participant Profile Findings

As a way to discuss the client profiles, we choose to compare two groups of client profiles. Group 1 included clients from 2013 to 2018 and Group 2 from 2007 to 2012.

Group 1 (2013-2018)

Group 2 (2007-2012)

- ⊕ Female clients outnumber male clients – 54.4% versus 45.6%.
- ⊕ Overall the clients are relatively young, the average age was 33.4, 45.5% under 30
 - 1 in 4 clients were under the age of 25 – 24.1%.
- ⊕ More than half of the participants were single – 52.9%, 17.5% were single parents.
- ⊕ Indigenous clients accounted for 5.5% of the clients
- ⊕ 22.8% did not have a high school diploma
- ⊕ The percentage of clients identifying themselves as a person with a disability more than doubled from the early fiscal years to more recent fiscal years – 15.2% versus 30.5%.
- ⊕ The largest increase was for the psychiatric category – 4.2% to 10.4%.
- ⊕ 1 in 3 clients were receiving Income Assistance – 33.4%, 19.3% were EI recipients
 - Includes overlap between IA and EI
- ⊕ Profiles can vary substantially between service providers

Case File Outcomes

Outcomes by Early and Current Fiscal Years – Unspecified and Missing Excluded		
	2008/2009 -2012/2013	2013/2014 - 2017/2018
Employed	80.1%	72.7%
Self-employed	1.7%	.7%
Unemployed	10.5%	12.1%
Return to School	7.2%	14.3%
No longer in the labour force	.5%	.2%
Total	100.0%	100.0%
Total Case Files	3,955	2,451

- ⊕ The percentage for the employed/self-employed outcome declined from 81.8% to 73.4% – an 8.4 percentage point drop in the most recent 5 years. This appears to be the result of a greater focus on programming to encourage return to school outcomes as this percentage rose from 7.2% to 14.3% – a 7 percentage point increase.
- ⊕ There was a small increase in the percentage unemployed at the close of the case files from 10.5% to 12.1%

Gaps in Data

- ⊕ Case files with missing or indeterminate outcome results were eliminated from this table to avoid artificially decreasing the percentage employed and other outcomes.
- ⊕ For the more current fiscal years more than half of the case files had missing or unspecified outcomes limiting the usefulness of this data
- ⊕ For the most recent five years 31.6% of the case files were coded as unspecified and 29.2% were missing.

Reasons for these gaps would include, not able to reach/no follow-up with clients, and longer case files still in-progress do not have recorded outcomes.

Outcomes by Client Profile

- ⊕ Single parents had outcomes similar to individuals who self-identified as a person with a disability.
 - For single parents 57.2% were employed/self-employed, 24.3% were unemployed/out of the labour market and 18.5% returned to school
 - For persons with a disability 59.5% were unemployed/self-employed, 25.8% were unemployed/out of the labour market and 14.7% returned to school.
 - Note for both groups the percentage out of the labour market was below 2% and did not contribute substantially to the unemployed/out of the labour market percentages
- ⊕ Married or equivalent had the second lowest unemployment/out of the labour market percentage of all the profile variable categories, 3.4% (second only the clients with a university degree), high employment/self-employment 82.5% and 14.1% return to school.
- ⊕ Individuals who self-identified as a member of an Indigenous group had a similar percentage employed/self-employed, 72.1%, as individuals who did not, 74.4%. But clients self-identifying as a member of an Indigenous group had lower return to school (8.1% compared to 14.8%) and higher unemployed/not in the labour force (19.8% compared to 10.8%).
- ⊕ Clients with a university degree had higher employment/self-employment, 84.9% compared to other educational groups and the lowest unemployment/out of the labour market percentage of all client profile categories – 3.1%
- ⊕ Clients without a high school diploma had low employment/self-employment, 57.9%, high return to school, 18.7% and high unemployment/not in the labour force, 23.4%.
- ⊕ Clients on IA had low employment/self-employment, 58.5%, high return to school, 16.7% and high unemployment/not in the labour force, 24.7%.

- ⊕ The 15 to 24 age group had the lowest employment/self-employment percentage, 69.1%, compared to older age groups and highest return to school, 19.7%.
- ⊕ The 25 to 29 and 30 to 39 age groups had similar return to school percentages – 15.6% and 13.4% respectively. Even 7.7% of the 40 plus age group were coded as a return to school outcome.
- ⊕ Males had a higher employment/self-employment percentage than females, 76.3% versus 70.6%.
- ⊕ Females had a higher percentage return to school, 16.3% versus 12.2%.
- ⊕ Clients on EI had higher employment/self-employment, 79.7%, slightly lower return to school, 11.2% and unemployment/not in the labour force, 9.1%.

Combinations of Interventions

Types of Interventions in Each Case File

Percentage of Case Files with at Least One Intervention Type by Early and Current Fiscal Years		
	2008/2009 -2012/2013	2013/2014 - 2017/2018
Employment Services	89.3%	87.7%
Group Interventions	11.7%	24.5%
Employment Interventions	14.8%	14.2%
Training Interventions	25.2%	19.0%
Outreach Interventions	1.0%	2.2%
Referrals	15.9%	17.4%

Combinations of Interventions

Percentage of Intervention Combinations for Casefiles by Early and Recent Fiscal Years

	2008/2009 -2012/2013	2013/2014 - 2017/2018
Employment Services excludes all other interventions except Intakes	48.7%	42.6%
All Training Interventions no exclusions	25.2%	19.0%
Employment Interventions excludes only Training Interventions	10.5%	12.4%
Group Interventions excluding Employment and Training interventions	4.7%	11.8%
Referrals excluding Group, Employment and Training interventions	7.1%	9.0%
Only Intake/Assessment Interventions	3.7%	5.1%
Total	100.0%	100.0%

Training Interventions

Case files with Training Interventions were the second largest segment consisting of 19.0% of the case files in recent fiscal years

- ⊕ 91.9% Employment Services
- ⊕ 48.3% included Group Interventions, 20.0% Referrals
- ⊕ 9.6% Employment Interventions
- ⊕ Longest duration – 42.0% greater than 1 year

Prominent client profile features

- ⊕ Highest percentage females – 64.5%
- ⊕ Second highest percentage with dependents – 41.4%, slightly higher single parents – 23.9%
- ⊕ Highest percentage member of an Indigenous group – 10.4%
- ⊕ Highest percentage HS grad – 40.5%, second lowest percentage with university degree – 9.3%
- ⊕ Higher percent IA recipient – 43.6%

Outcomes

- ⊕ Employed/self-employed similar to overall percentage – 71.8%
- ⊕ Slightly lower unemployed/not in LF – 9.7%, slightly higher return to school – 18.0%

Employment Interventions

Third largest segment – 12.4% in 2013/2014 to 2017/2018. This excludes Training Interventions but can overlap with all other interventions.

- ⊕ 67.7% Employment Services (substantially lower other interventions)
- ⊕ 28.2% included Group Interventions (substantially lower than Training Interventions), 28.9% Referrals

Prominent Client Profile Features

- ⊕ Second highest percentage person with a disability – 46.7%
- ⊕ Highest percentage dependents – 42.5%, highest percentage single parents – 32.3%
- ⊕ Second highest percentage females – 58.9%
- ⊕ Highest percentage Income Assistance recipient – 54.2%

Outcomes

- ⊕ Employed/self-employed similar to overall percentage – 73.3%
- ⊕ Second highest unemployed/out of LF – 17.2%, Lowest return to school – 9.5%
- ⊕ Relatively strong employment results considering nearly half of the clients reported a disability

Group Interventions

- ⊕ Similar in size to Employment Interventions – 11.8%
- ⊕ Excludes case files with Employment Interventions and Training Interventions. Overlaps with:
 - 94.3% Employment Services, 8.7% Referrals
- ⊕ Highest percentage case file duration over 1 year to 2 years – 30.5%

Prominent Client Profile Features

- ⊕ Highest educational attainment – 56.6% have a university degree
- ⊕ Highest percentage married – 43.4%, lowest percentage single parents – 5.8%
- ⊕ Highest percentage without a disability – 85.6%
- ⊕ Highest percentage not on IA – 82.7%

Outcomes

- ⊕ Employed/self-employed similar to overall percentage – 73.6%
- ⊕ Lowest unemployed/not in LF – 8.0%, second highest return to school – 18.4%

Referrals

- ⊕ Slightly smaller than the previous two groups – 9.0%
- ⊕ Overlaps only with Employment Services
- ⊕ 89.2% Employment Services

Prominent Client Profile Features

- ⊕ Highest percentage person with a disability – 66.5%
- ⊕ Highest percentage single – 67.1%
- ⊕ Lowest levels of educational attainment – 40.4% Non-HS grad
- ⊕ Second highest percentage Income Assistance recipient – 44.8%

Outcomes

- ⊕ Substantially lower employed/self-employed – 56.8%
- ⊕ Highest unemployed/not in LF – 21.1%
- ⊕ Highest return to school – 22.0%

What did we learn?

This was a massive amount of data and we conducted quite an extensive analysis of it. Based on this analysis, there is one overall conclusion: With the data as it has been collected to date, **we can describe but we cannot explain**. While the data enabled us to describe the profile of clients served, the kinds of interventions received and, to some extent, the blunt outcomes achieved (whether a client was employed or not) it did not enable us to explain why a client sought services or the impact of those services on their lives.

It was impossible to extract trends or patterns with respect to client needs; we could not see what kinds of services worked or did not work well in addressing those needs and, in the end, we could not paint a picture of the real journey clients travel from the point of seeking services to moving into employment.

After some fairly extensive analysis of the existing data there is one overall conclusion.

“We can describe a lot and explain a little.”

The Phase 1 analysis highlights the need for software - PRIME to:

1. Understand how clients are matched to services and who may best benefit from different types of programming;
2. To improve service delivery and the client experiences; and
3. Provide up-to-date information on results in order to meet client needs and adjust the services provided.

PRIME is Next

The community research partners have trained 22 of their front line career practitioners in PRIME software and best practices in client assessment. This 2 1/2 day training prepared staff to begin using the software and beginning implementing it into their business practice.



Performing Recording Instrument for Meaningful Evaluation

PRIME is an online case management system that:

- ⊕ Collects and analyzes a much richer, wider range of client progress indicators and outcomes;
- ⊕ Supports quality service by coaching service providers to conduct a consistent and high quality assessment of clients' employability strengths and needs;
- ⊕ Engages the client in the assessment process, promoting self-awareness, engagement and ownership;
- ⊕ Provides access to evidence-based resources and tools tailored to specific client needs;
- ⊕ Promotes efficiencies as data collection is integrated directly into day-to-day service delivery; and
- ⊕ Informs both policy and practice with rich, real-time data that can go beyond describing to demonstrating impact

Next Steps

In Phase 2 of this research (December 2018 – November 2019), staff will be integrating PRIME into their day-to-day service delivery. We will be analyzing the richer pool of data being collected and will be sharing findings in real-time with agencies and the front line staff who deliver services. We will be tracking not only the impact of services on clients, but also the impact of using PRIME on services.



If you are interested in this Community-based Research approach, contact elayne@employmentcollaboration.ca to learn about the **CEC Community-based Research Working Group** and other collaborative working groups of the Community Employment Collaboration www.employmentcollaboration.ca.