

# Connecting the Data Dots: from Service to Outcomes

P2P Conference  
Ottawa  
November 14-15, 2022



# Overview

Who is ISANS?

Hybrid Data Management

Planning Service Delivery - Including Reporting in Planning

What kind of data do we collect?

Connecting the dots: From Planning to Review

Using Data Beyond Reporting



## Who is ISANS?

- Comprehensive settlement service provider for Halifax and Nova Scotia
- Provides service to over 6500 clients annually including:
  - Settlement
  - Language
  - Employment
  - Business development

# Hybrid Data Management

## Why a hybrid model?

- IT outside our core service mandate
- Enhanced security with off-prem data storage
- Data held externally reduces organizational risk
- Facilitates data integrity
- In-house team understand both database and settlement sector
- Easier development of new features and functionality

# Planning Service Delivery - Including Reporting in Planning

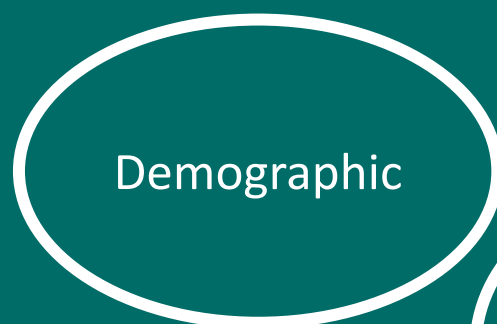
## New project data requirements

- What data needs to be measured?
- How is this to be recorded in our database or in other mediums?
- How is the pertinent information reported to funders?
- Who is responsible for this?
- What supports are needed?
- How are changes communicated to staff?
- What training will be required?
- Has the project been added to quality control measures?



# What data do we collect?

- Age
- Background
- Origin
- Residency



- Eligibility
- Referrals to requested services
- Waitlist information



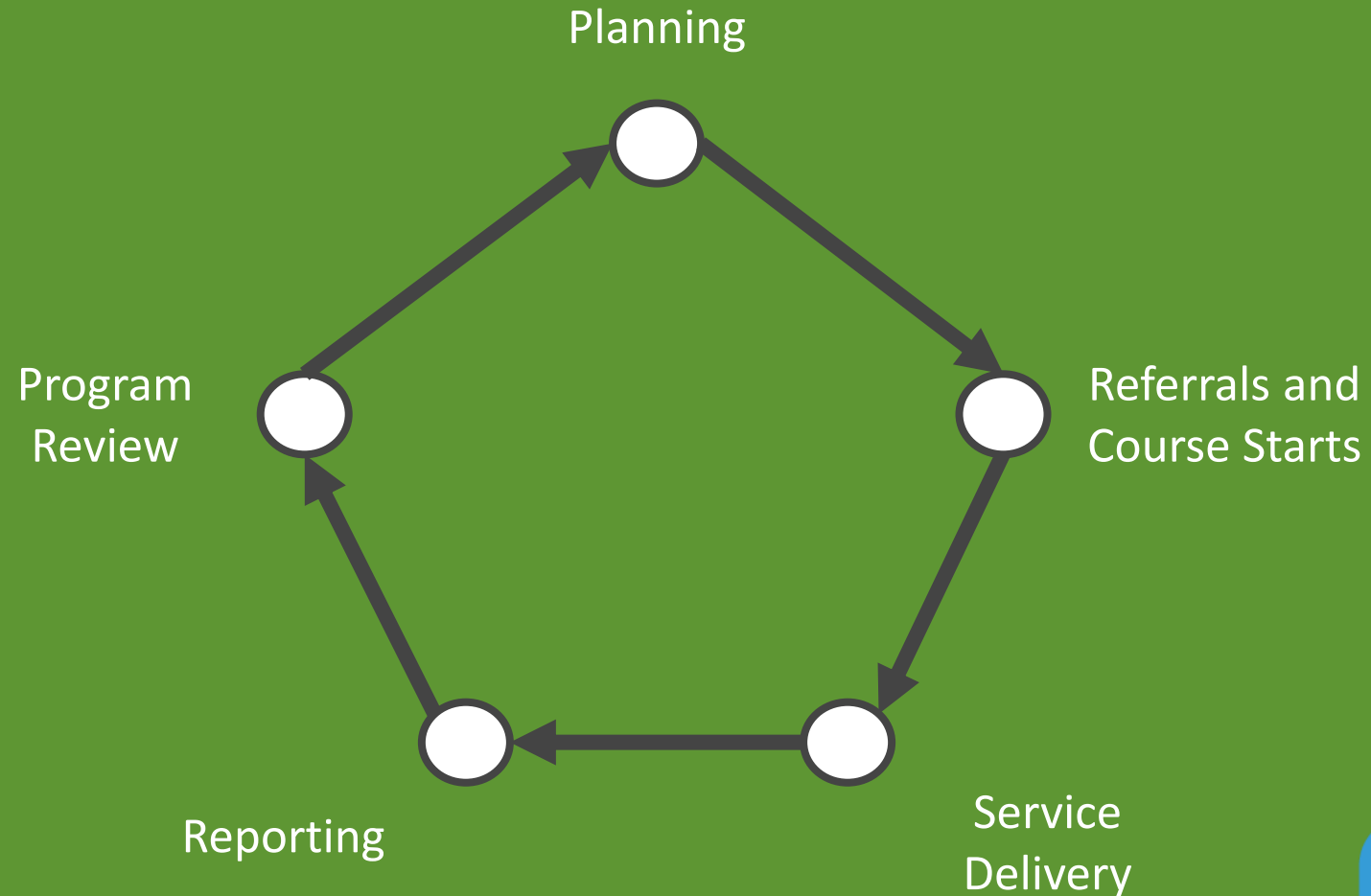
- Attendance
- Milestones
- Associated events



- Successful completion
- Partial completion
- Achievements
- Reasons for noncompletion



# Connecting the data dots: From Planning to Review



# Finding Efficiencies: Using Data Beyond Reporting

- Assessing program success
  - Meeting objectives
  - Having intended outcomes
- Informing other stakeholders about a program's success
- Using contact information for emergency messaging (opt in)
- Secure document sharing
- Research





# Thank You



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# Beyond Reporting: The Power of Settlement Data

Kathy Sherrell (PhD), Director – Settlement Services, ISSofBC

November 2022



# About ISSofBC

- Created in 1968 by volunteers and incorporated in 1972 in direct response to the Ismailis fleeing East Africa
- First immigrant serving agency in BC and one of the largest multicultural, immigrant and refugee serving agencies in Canada
- Serve 15,000+ clients per year In over 45 languages
- Over 12 primary locations; as well as secondary locations
- 450 staff and over 350 active volunteers
- Both Charity and not-for-profit organization
- Volunteer Board of Directors selected from broader community



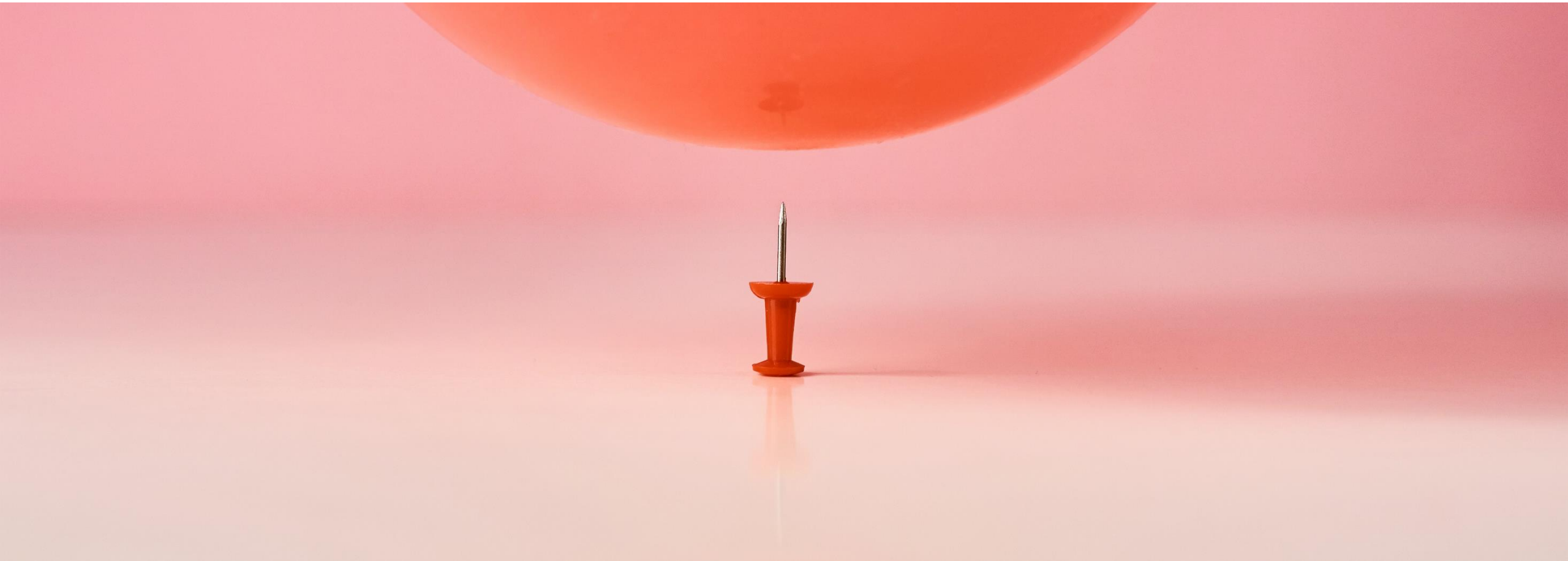


# Internal Service Planning



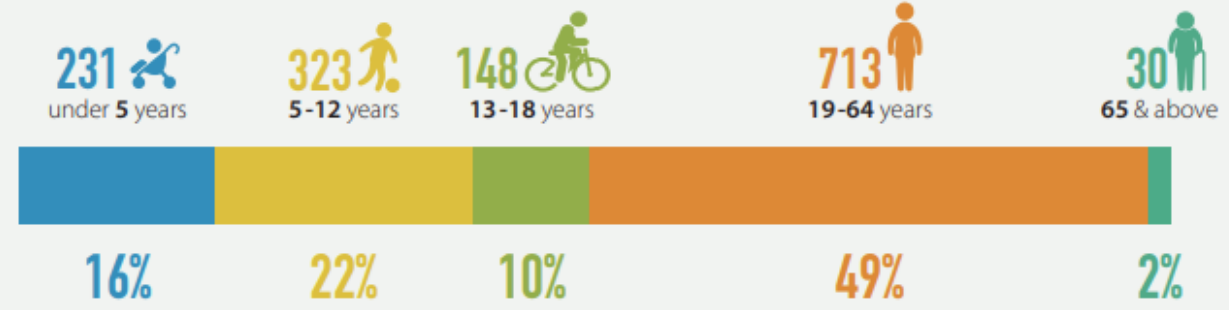


# Risk Management



# Afghan Arrivals to Metro Vancouver

Aug 23, 2021 - Aug 23, 2022



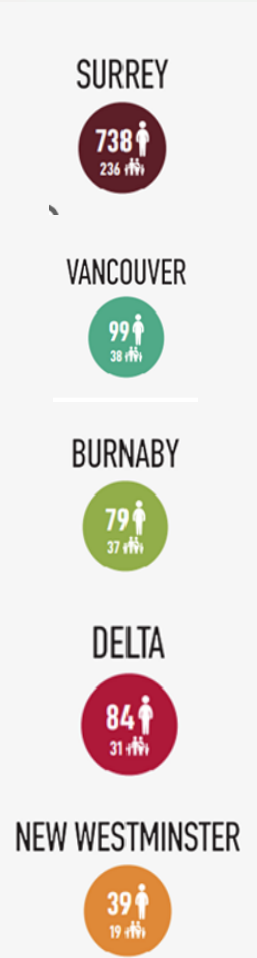
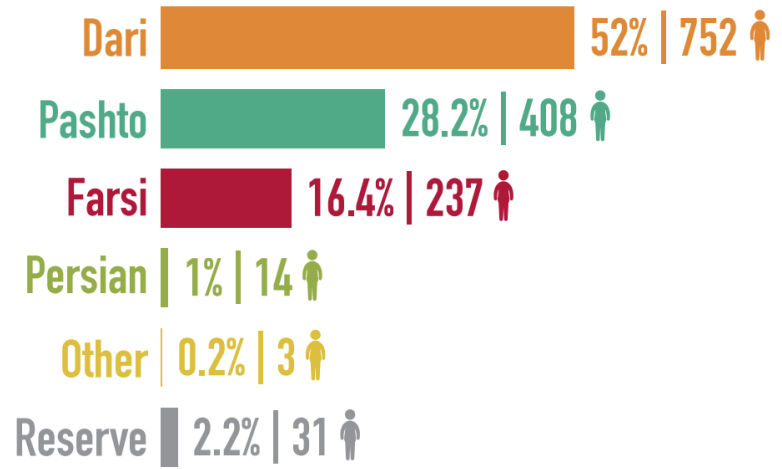
## Total Arrivals

1445  
531



**Permanent Housing:** 1238 GAR

**Temporary Accommodations:** 207 GAR





# GARs Settling in Delta (Jan 1 – Nov 9, 2022)

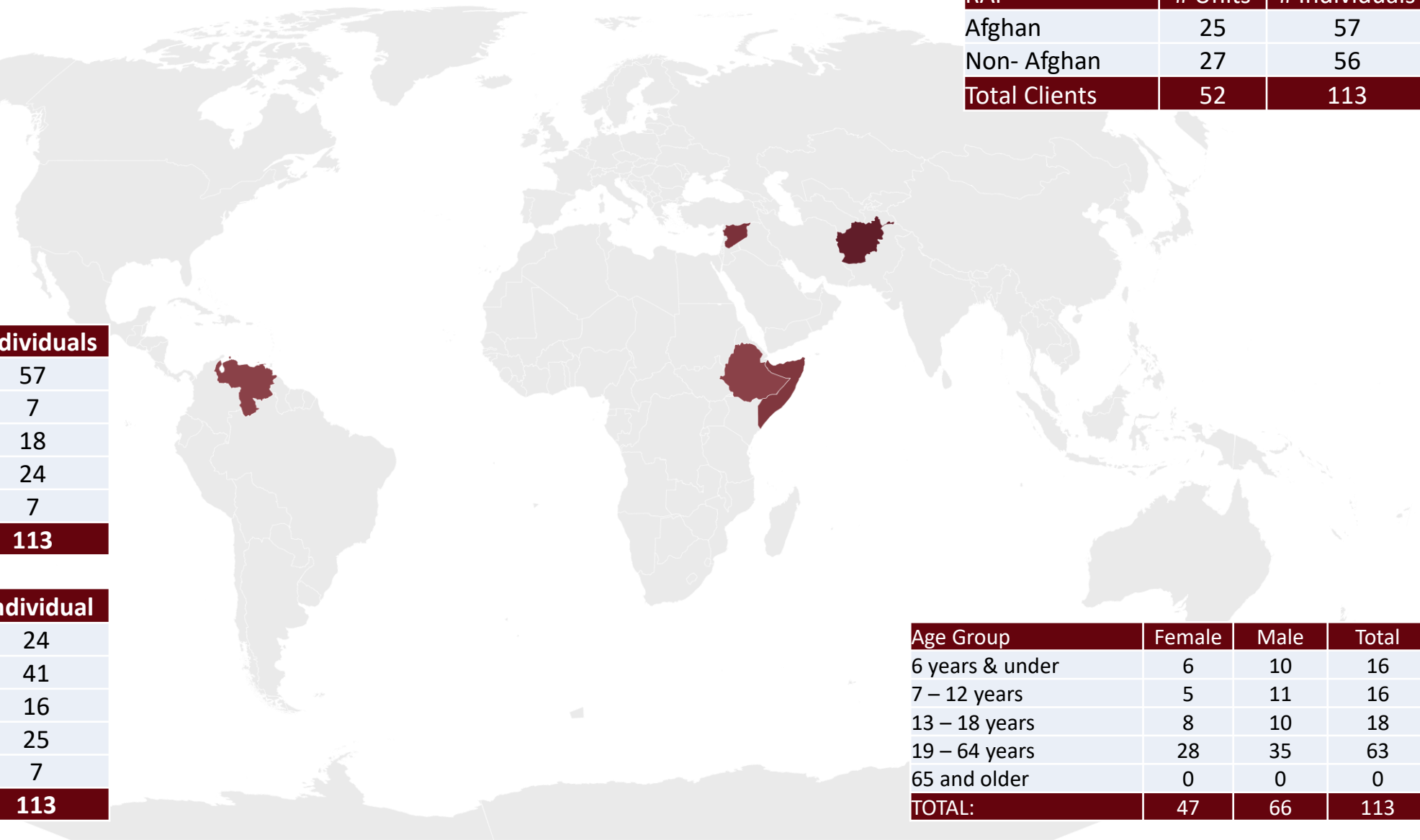


RAP	# Units	# Individuals
Afghan	25	57
Non- Afghan	27	56
<b>Total Clients</b>	<b>52</b>	<b>113</b>

Country of Origin	# Units	# Individuals
Afghanistan	25	57
Ethiopia	7	7
Somali	9	18
Syria	9	24
Venezuela	2	7
<b>Grand Total</b>	<b>52</b>	<b>113</b>

Language Spoken	# Unit	# Individual
Arabic	9	24
Dari	16	41
Pashto	9	16
Somali	16	25
Vietnamese	2	7
<b>Grand Total</b>	<b>52</b>	<b>113</b>

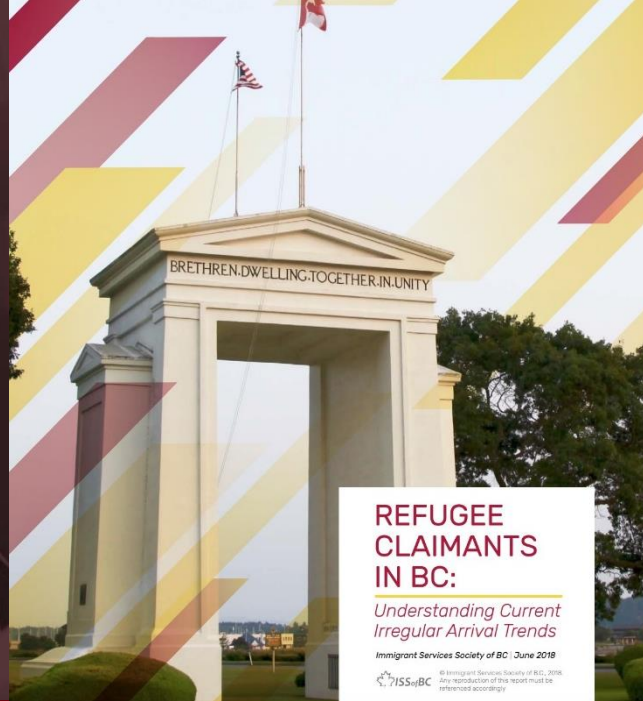
Age Group	Female	Male	Total
6 years & under	6	10	16
7 – 12 years	5	11	16
13 – 18 years	8	10	18
19 – 64 years	28	35	63
65 and older	0	0	0
<b>TOTAL:</b>	<b>47</b>	<b>66</b>	<b>113</b>



# NEEDS ASSESSMENT

RAP ARRIVALS  
JAN 2019 – MAR 2020

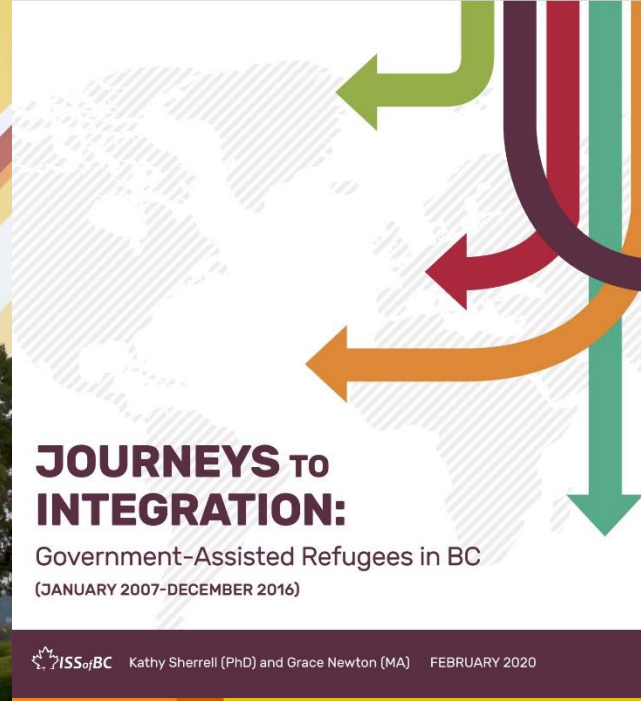
ISSofBC



## REFUGEE CLAIMANTS IN BC:

*Understanding Current Irregular Arrival Trends*

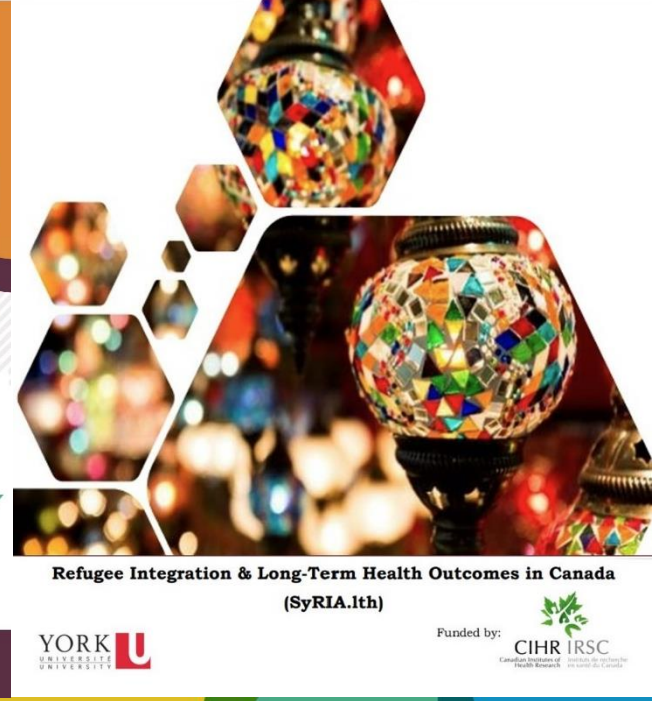
Immigrant Services Society of BC | June 2019  
© Immigrant Services Society of BC, 2019  
Any reproduction of this report must be referenced accordingly.



## JOURNEYS TO INTEGRATION:

Government-Assisted Refugees in BC  
(JANUARY 2007-DECEMBER 2016)

ISSofBC Kathy Sherrell (PhD) and Grace Newton (MA) FEBRUARY 2020



Refugee Integration & Long-Term Health Outcomes in Canada  
(SyRIA.lth)

YORK UNIVERSITY

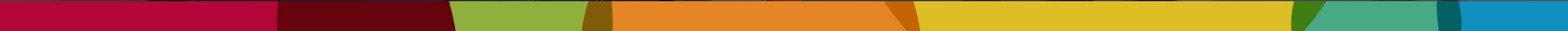
Funded by:  
CIHR IRSC  
Canadian Institutes of Health Research  
Institut de recherche en santé publique

# Evaluation and Research

ISSofBC  
50  
YEARS OF NEW BEGINNINGS



**Thank you**







# Unlocking Settlement Data Matters

## Pathways to Prosperity

November 2022

**Chief Data  
Officer**  
Branch

Direction générale du  
**Dirigeant principal  
des données**



Immigration, Refugees  
and Citizenship Canada

Immigration, Réfugiés  
et Citoyenneté Canada

**Canada**

# What will we be talking about today?

- ❖ IRCC's CDOB Mandate
- ❖ Types of Data Housed in IRCC
- ❖ Settlement Data – modules and types of analyses
- ❖ We help grow and expand analytical capacity of IRCC data at Statistics Canada
- ❖ Data Accessibility and Data Liberation



# IRCC's CDOB mandate



## *Providing data products & services*

### **DEVELOP**

Construct custom person-based data extracts and products, e.g., cubes, flat files

### **REPORT**

Produce statistical reports, analytics, dashboards, dynamic visualization

### **PRESENT**

Design user-friendly analytical reports, fact sheets, and Facts & Figures



## *Enabling data access & responsible use*

### **EXPOSE**

Ensure timely, ready, and secure access to IRCC data as per user needs

### **OVERSEE**

Ensure policy-compliant and ethical use of IRCC data

### **COMMUNICATE**

Promote the value of IRCC data and data products, and their internal and external use



## *Stewarding data assets*

### **CARE**

Ensure IRCC data integrity (quality, standards, interoperability, etc.) and no harm is done to IRCC data

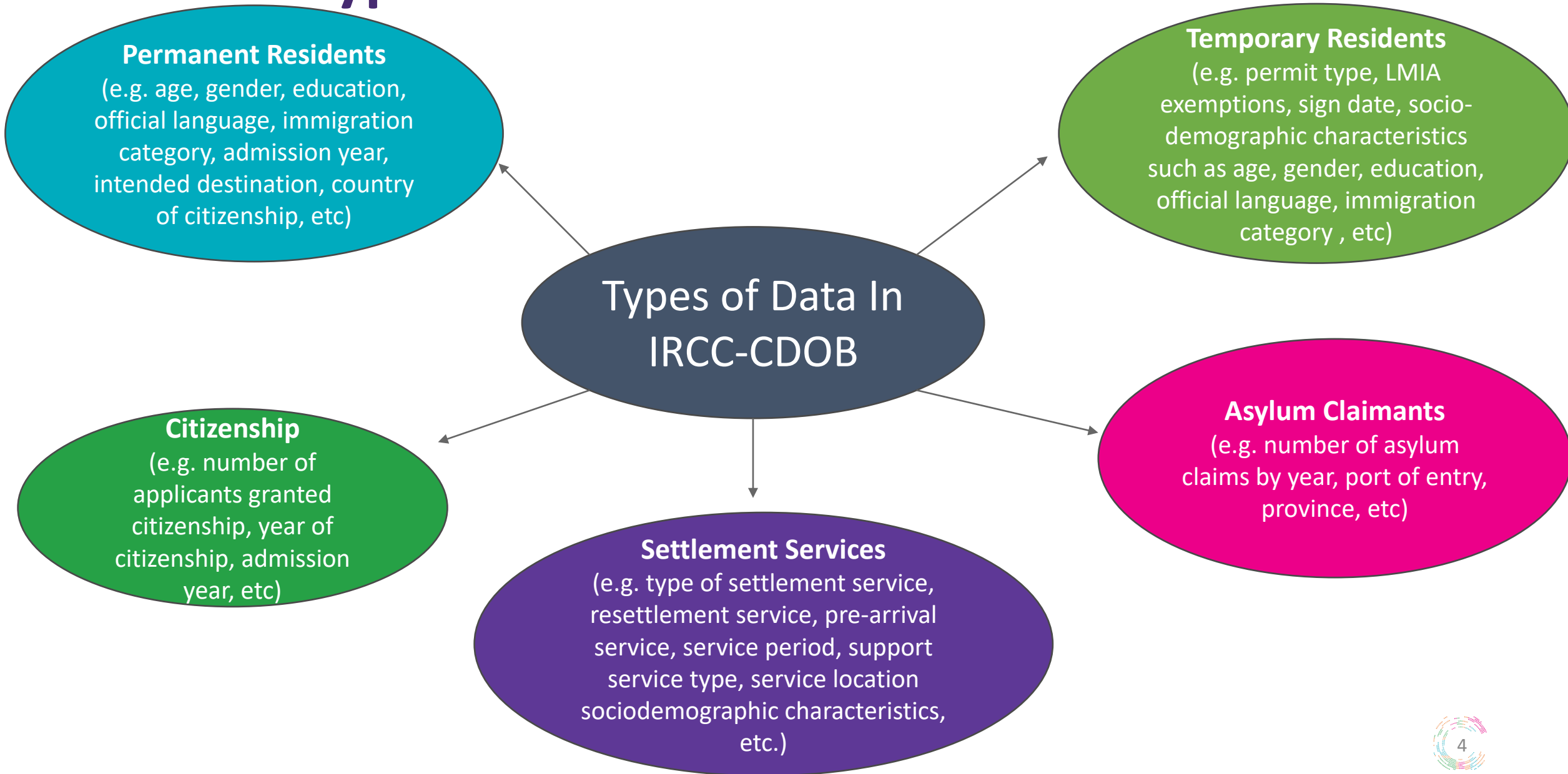
### **ASSESS**

Monitor data gaps, needs, and prospects

### **GROW**

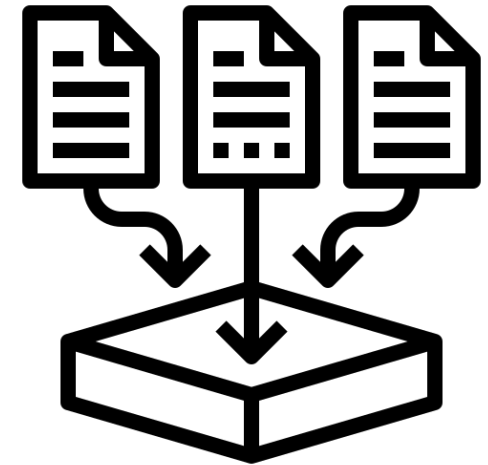
Augment policy-relevant internal and external data assets to meet current, emerging and future user needs

# Types of Data Housed in IRCC CDOB



# (Re)Settlement Data – iCARE

- Before 2013, settlement data was stored in IRCC’s Immigration-Contribution Accountability Measurement System (iCAMS).
- This has been modernized and in turn the original version of iCARE was released in 2013.
- iCARE is a web-based performance measurement data system designed for the collection of client and service information on the Settlement and Resettlement Programs delivered by service provider organizations to eligible newcomers on behalf of IRCC.
- ~4300 active external users from the SPOs & 20,000+ daily transactions.
- Data is entered into iCARE by over 500 SPOs. These organizations are governed by over 700 contribution agreements representing approximately \$1 billion/year.
  - IRCC provides training to over 500 SPOs, to ensure the accurate recording of data.
  - Data is collected to measure results and determine how recipients are performing and to identify areas of improvements on (Re) Settlement.
- iCARE is regularly updated to fully align with (Re) Settlement program changes.





# (Re)Settlement Data – Modules

iCARE is divided into several modules, each of which collects data and information about settlement service clients, and their associated settlement services:



## iCARE

Needs and Assets Assessment

Information and Orientation

Employment-related Services

Community Connections

Language Assessment

Language Training

Resettlement Assistance

# (Re)Settlement Data – Current Use

- The Department links client Settlement and Resettlement services data with its admissions data to analyze service usage patterns by client demographic characteristics including: immigration category, age, gender, official language knowledge and country of birth.
  - iCARE data forms the basis of several reporting products; ~8000 PDF reports generated monthly for the service providers; A suite of multidimensional very diverse reporting tools for IRCC officers (from statics table, cube to flat files)
- The information collected in iCARE is a key component for measuring the overall performance of the (Re) Settlement Programs, and also strongly supports Department’s program reporting, policy development and evaluation.
- IRCC has also put in place a **pilot project that links iCARE data with the Longitudinal Immigration Database (IMDB)** to better understand the economic impact of (Re) Settlement services on clients.
  - Resettlement data and settlement data linked to the IMDB allows researchers to analyze the use of settlement services, as well as the demographic and socioeconomic profile of service clients.



# (Re)Settlement Data – Emerging Needs

- We need to improve the reports that are provided to service providers.
  - They are static PDF reports, and provide no interactive features.
  - Service providers need to be able to quickly produce customized reports for their use and analysis.
- We need to further liberate iCARE data for use by stakeholder groups
  - Such as LIPs, PTs, municipalities, academics etc., who work together to better support the integration of immigrants into their respective communities who need to be able to quickly produce customized reports for their use and analysis.
- We need iCARE's IT infrastructure to be modernized, to ensure that iCARE keeps pace with technological changes implemented both in the GoC and in IRCC.



# At Statistics Canada analytical capacity of IRCC data assets grow to generate new insight



- Policy makers, researchers, and Canadians benefit from Statistics Canada products that use IRCC Data (*e.g. demographic estimates, population projections, and census*).
- The Longitudinal Immigration Database (IMDB) forms the foundation for the immigration data integration environment.
  - We share immigrant landing files to Statistics Canada on a monthly basis so that Statistics Canada can generate the IMDB each year.
  - The IMDB includes over 12 million immigrants who landed in Canada (1952 – 2019) and their income tax records (1982 - 2018), allowing for the analysis of socio-economic outcomes and impact of immigrants over a period of 35 years.
- This integrated data is made accessible in secure environments at over 30 university campuses across the country in partnership with the [Canadian Research Data Centre Network \(CRDCN\)](#).

Longitudinal  
Immigration  
Database (IMDB)



# Analytical capacity is augmented by integrating the IMDB with other federal administrative and survey data sources

**Canadian Employee-Employer Dynamic Database (CEEDD)** combines firm and individual level characteristics in the matched employer-employee database comprising tax and business declaration files allowing an understanding of job creation, and a wide range of economic activity by industry, sector, at lowest immigration category level.

- **2016 (and 2021 to come) Census with Immigration Admission Category** provides information on visible minority and generational status, ethnic origin, official and non-official languages, place of birth, sex at birth, and religion.
- **Canadian Community Health Survey (CCHS)** provides current, detailed and uniform health information in every province and territory which allows comparative studies between population groups.
- **General Social Survey (GSS)** assesses shared values, sense of belonging, participation in society and social networks which allows us to understand social trends.

# Annual Data Growth and Liberation is...



- **informed** by ongoing intradepartmental consultations, assessment of short and long term program level and departmental data needs, risks, and opportunities, and through continuing benchmarking with GC data community;
- **aligned** with [Directive on Open Government](#), [IRCC Data Strategy](#) and the [Report to the Clerk of the Privy Council: A Data Strategy Roadmap for the Federal Public Service](#), and supports the current and emerging IRCC priorities; and
- **monitored and adjusted** against evolving Government of Canada and IRCC priorities, stakeholders' needs, availability of resources, and new data opportunities.

# Current IRCC Data Liberation Spectrum

- ODP provides over 90 static tables on a monthly basis – however this is limited.
- We aim to liberate settlement data by making it more accessible in the cloud.
- In the process of modernizing our data reporting, we will hold consultations across Canada with different SPOs.
- Ultimately, we would like to provide more dynamic data products through PowerBI that would allow people to use the data according to their needs (e.g. profile of PRs, settlement service use).
- Some challenges includes internal gating process (wherein we will start with settlement data).

# What is the Value of Data Liberation

- Providing more dynamic data will also generate more research questions
  - Which will lead to research projects using IRCC data that have expanded through data linkages within Statistics Canada (eg. IMDB, IMDB linked to iCARE, IMDB linked to the Census).
- By doing this, our stakeholders such as SPOs, PTs, and academics will be able to utilize IRCC data at the provincial and Canada level and gain a better understanding of immigrants' settlement journey.





# Questions



Pathways to Prosperity  
National Conference  
November 2022

# Immigration Data in Academic Research and Training

YOKO YOSHIDA

# Administrative records

“Generated from the routine operation of administrative process, often associated with public agencies, for the purpose of registration and record keeping as a part of service delivery (Yoshida, Haan, Schaffer, 2022)”

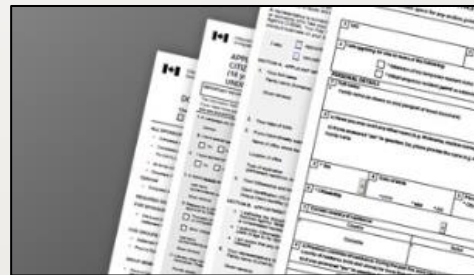
Example:

Immigrant Landing File

T1FF tax records

Immigration Contribution Agreement Reporting Environment (iCARE)

Client data



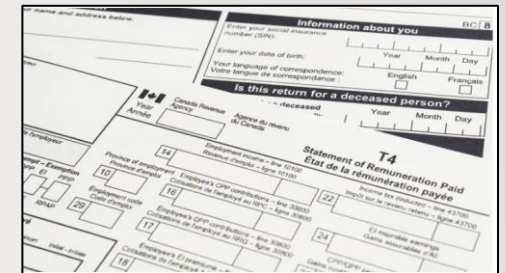
Client Book				
CLIENT NAME	EMAIL	HOME PHONE	CELL PHONE	DOB
Alexander, David	<a href="mailto:david@example.com">david@example.com</a>	(123) 555-0121	(123) 555-0126	1/1/1993
Kim, Shane	<a href="mailto:shane@example.com">shane@example.com</a>	(123) 555-0122	(123) 555-0127	1/1/1992
Mirchandani, Bharat	<a href="mailto:bharat@example.com">bharat@example.com</a>	(123) 555-0124	(123) 555-0128	1/1/1991
Turner, Richard	<a href="mailto:richard@example.com">richard@example.com</a>	(123) 555-0125	(123) 555-0129	1/1/1992
Peale Monk	<a href="mailto:pealemonk@example.com">pealemonk@example.com</a>	(123) 555-0998	(123) 555-9098	12/12/1993

# Administrative records as “Big” & “Found” data

## “Big” data:

- **Volume:** Large volumes of data
- **Velocity:** Routinized real-time accumulation of data
- **Variety:** Various sources and formats
- **Exhaustivity:** Comprehensive coverage (n=ALL)
- **High-degree resolution/Indexicality:** ability to identify and follow micro trends
- **Relationality:** Capacity to link datasets
- **Flexibility:** Capacity to extend and expand

E.g. Tax records

A sample of a Canadian T4 tax slip form, titled "Statement of Remuneration Paid / État de la rémunération payée". The form includes fields for personal information, employer details, and various tax-related amounts.



# Administrative records as “Big” & “Found” data

## “Found” data:

Primary purpose of data collection is outside of research, but re-purposed for research

## “Made” data:

Data, such as surveys is collected to address specific research questions

# Comparisons between “Found” and “Made” data

	Found data	Made data
Volume	Larger	Smaller
Cost of data collection	Low	High
Coverage	Exhaustive	Sample
Bias	Low	High
Data cleaning cost	High	Low
Documentation	Less well established	Well-established
Data management/analysis skills	High	Low
Control over contents	Low	High
Access	Limited to internal users	Informed Consent

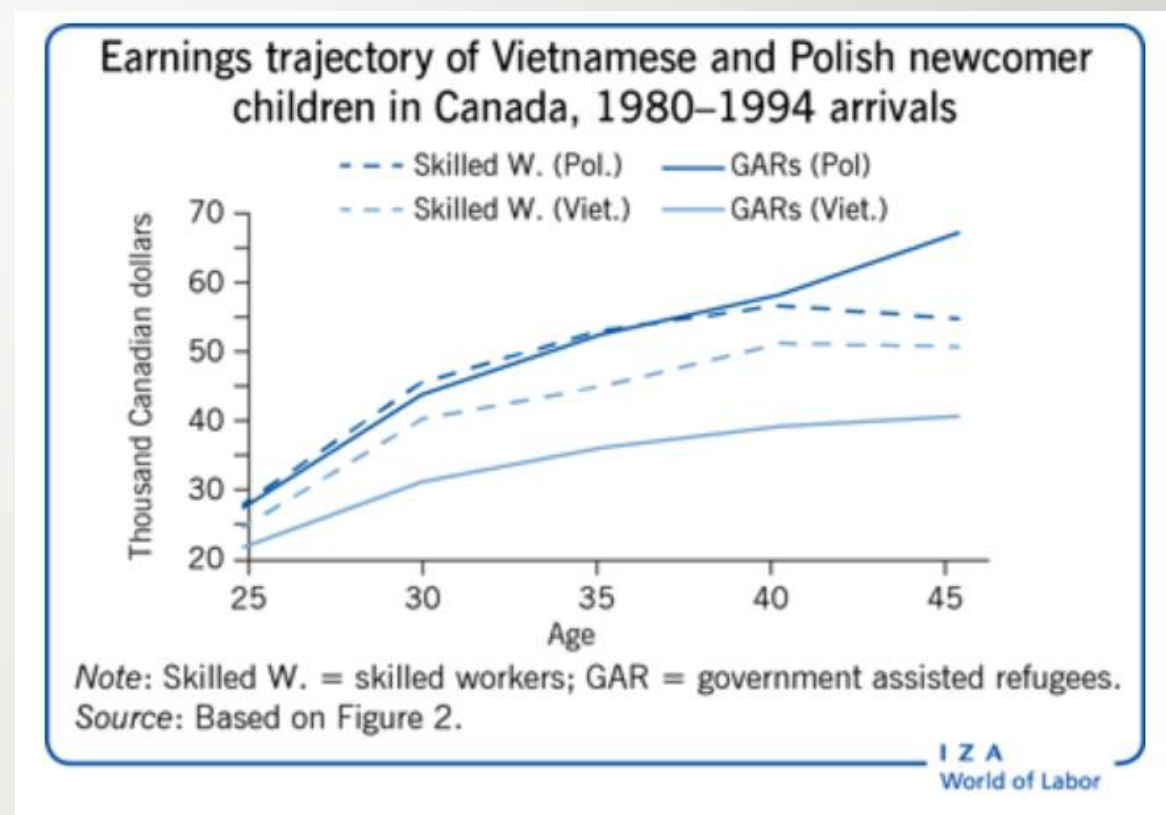
## Example in Academic Research

Follow trends of specific groups

Long term economic impact of refugee status

**Data:** Longitudinal Immigration Database (IMDB)

Landing records (IRCC's PNRF) + Tax Records (CRA's T1FF)



# Example in Academic Research

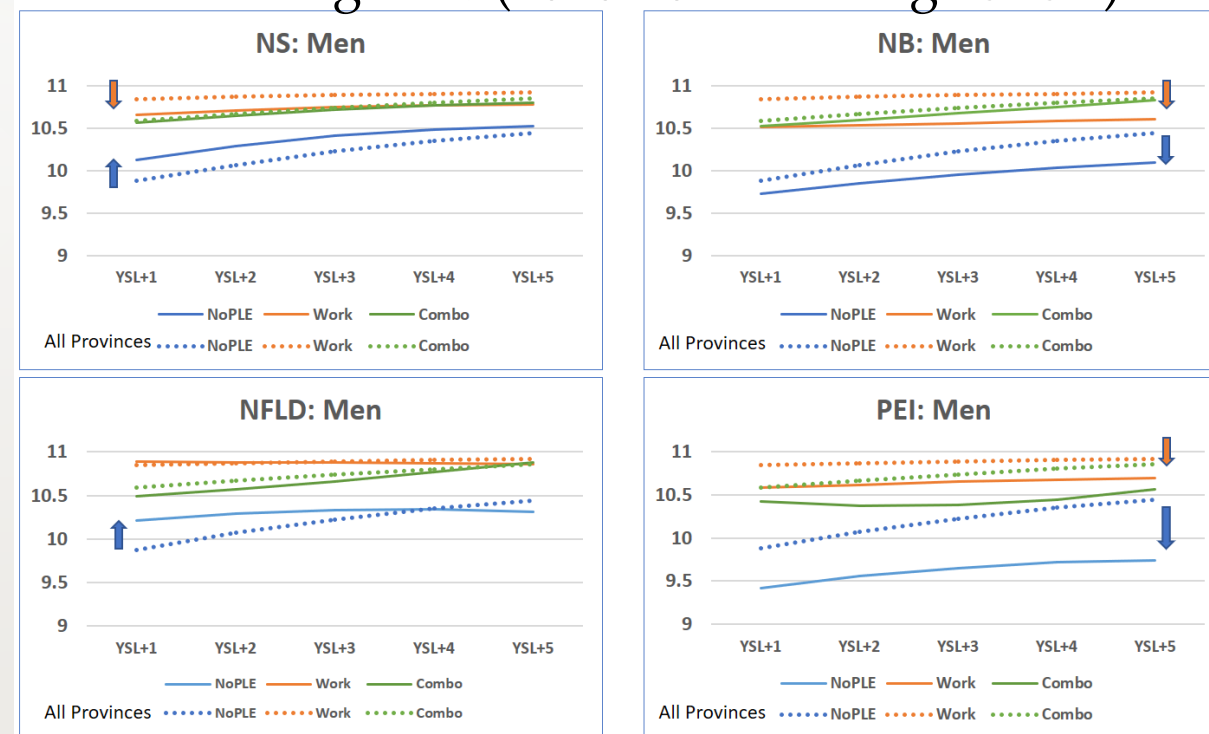
Trends among smaller regions

Earnings of immigrants with and without pre-landing Canadian experience across provinces.

**Data:** Longitudinal Immigration Database (IMDB)

Temporary status (IRCC's TR) + Landing records (IRCC's PNR) + Tax Records (CRA's T1FF)

Earnings trajectory of economic class immigrants (2010-2017 landing cohort)





# Potential Research Questions



Q: Short-term, short-distance mobility

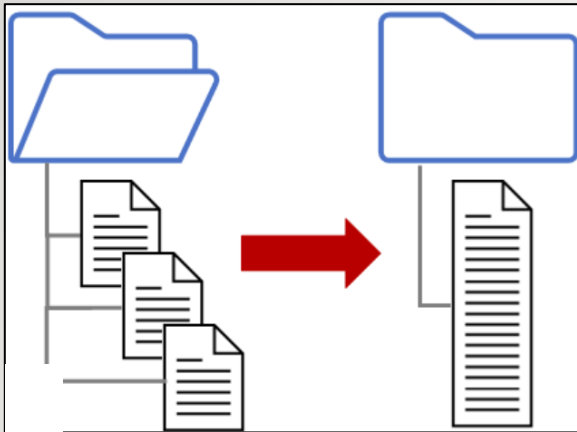
Q: Service use: who use what services, and when?

# Challenges for developing admin data for research use



- Data cleaning / Data inspection
  - Any anomalous values?
  - Missing data?
    - Random or systematic?

# Challenges for developing admin data for research use



- Data documentation
  - User's manual: data structure
  - Codebook: Variable information
- Data analysis

<b>Variable Name:</b>	AGEGR10	<b>Length:</b>
<b>Question Name:</b>		
<b>Concept:</b>	Age group of respondent (groups of 10)	
<b>Question Text:</b>	Age group of respondent (groups of 10)	
<b>Universe:</b>	All respondents	
<b>Note:</b>		
<b>Source:</b>	General Social Survey, Social Identity 20	
<b>Answer Categories</b>		<b>Code</b>
15 to 24 years		01
25 to 34 years		02
35 to 44 years		03
45 to 54 years		04
55 to 64 years		05
65 to 74 years		06
75 years and over		07
	<b>Total</b>	

	Sex	Race	Height	Income	Marital Status	Years of Educat.	Liberalness
R1001	M	1	70	50	1	12	1.75
R1002	M	2	72	100	2	20	4.53
R1003	F	1	55	250	1	16	2.99
R1004	M	2	65	20	2	16	1.13
R1005	F	1	60	10	3	12	3.81
R1006	M	1	68	30	1	9	4.76
R1007	F	5	66	25	2	21	2.01
R1008	F	4	61	43	1	18	1.27
R1009	M	1	69	67	1	12	3.25



# Challenges for developing admin data for research use

- Access to data

- Who has access?
- What role?



- Partnership

