CAnD3 Fellows Awards
2024-25 Cohort Call for Applications

Are you interested in putting what you are learning in your graduate program to work?

Become a CAnD3 Fellow and join our training program, which will complement your formal training in population research with highly marketable skills to support data-driven decision-making.

You will receive an award of **CA$5,000** for your participation in the program followed by an extra **CA$1000** upon completion and submission of deliverables. You will also get privileged access to competitive remunerated opportunities with partners in the private, non-profit and government sectors.

Please consult the following documents and our website for more info on the program and **apply by Monday, April 01, 2024**.

Eligibility criteria
- PhD candidate in population research (e.g. economics, demography, sociology, geography, political science, psychology etc.). Master's students and postdoctoral fellows will be considered on case-by-case basis.
- Enrolled with a CAnD3 academic partner. There will be limited spots available for students who are not from a partner university.
- (Mandatory) Confirmed availability on Wednesdays, from 10AM-2PM ET from September 2024 to June 2025, and the capacity to devote an average of 5 hours per week to the training program.
- (Mandatory) Written and signed approval to participate in program from student's academic supervisor.

How to apply
Before April 01, 2024:
1. Complete information form in Qualtrics here.
2. Send the following *four documents* to cand3@mcgill.ca
   - **One-page statement of interest (~500 words)** with explicit reference to your interests and/or past experiences relating to the three pillars of the CAnD3 Fellows training program: 1) population dynamics in an aging society; 2) population data science; 3) research-to-decision-making pipeline). Instructions: In preparing this statement, we invite you to consult the Fellow profile table below for the basic skills and competencies expected in this program. We ask you to position your past experiences in this framework or expressing your desire for upskilling with regards to certain areas. Note that, if admitted, we will also ask you to fill out a more comprehensive survey regarding your level of competency in these various areas to ensure we have a good grasp of the distribution of skills in the cohort.
   Rest assured that not meeting the minimum requirement for these areas of competency will not negatively affect your application; however, we may recommend some resources for upskilling prior to the program start date to ensure a more enjoyable experience and optimal learning potential.

- o **Short Résumé/CV** highlighting relevant previous experiences (work, research and volunteer experience; coursework), with names and contact information of two references.
- o **Unofficial Transcripts** (undergrad and grad).
- o **Letter from academic supervisor** (using template letter attached) confirming approval of participation.

Typical Fellow cohort
- Multidisciplinary, pan-Canadian & international,
- Ideally at program entry, the cohort will be comprised of Fellows with diversity of skillsets and competencies in each of the Fellow profile skills and knowledge areas (see below) to facilitate peer-2-peer learning and support (in other words, do not think that you have to excel in all areas – you wouldn't need the training program if that were the case!!),
- Fellow selection will be made with full consideration to equity, diversity and inclusion, at both the individual and institutional levels.

Annual Recruitment and Selection Timeline
- January-March 2024: Recruitment & selection (*Application deadline: Monday, April 01, 2024*)
- May 2024: Onboarding to CAnD3 program
- June 2024 (Optional): Annual in-person CAnD3 event (all travel expenses paid)
  Aug 2024: Internship opportunities start being shared (if applicable), one week R workshop summer camp.
- Sept 2024-June 2025: Active engagement in CAnD3 training program (weekly meeting attendance on Wednesdays, availability required 10AM-2PM ET and commitment of about 5 hours per week of participation in activities and exercises)
- June 2025: Annual in-person CAnD3 event (all travel expenses paid)

A limited number of paid internships will also be offered through our partners throughout the training program. **We cannot guarantee participation in these internships** as they are subject to a competitive hiring process managed by our partners.

Consortium on Analytics for Data-Driven Decision Making
Peterson Hall, Room 328,
3460 McTavish Street,
Montreal, Quebec
H3A 0E6
cand3@mcgill.ca

Dear CAnD3 admissions committee,

I, undersigned, confirm my approval for the participation of _____ to the
CAnD3 2024/2025 Fellow program, should they be selected.

I understand that the fellowship requires a commitment of about 5 hours per week of work and
that they must participate in the virtual training modules from September 2024 to June 2025.
These modules are held Wednesdays from 10:00am (EST) to 1:30pm (EST).

I endorse the student's skills and capabilities to succeed and participate in the program (as per
the CAnD3 Fellows Recruitment Profile Matrix).

Sincerely,

_____
Name

_____
Signature

_____
Date

CAnD3 Fellowship Awards
2023-24 Recruitment Profile Matrix

Training topic	Details	Minimum level required upon entry (Evidence: courses; publications; previous research or work experience, honours/ thesis, RA work etc.)
POPULATION DYNAMICS RESEARCH		
Substantive knowledge	Population aging	Capacity to draw connections between their research and aging populations
	Migration & ethnicity; Family & social inclusion; Education, labour & inequality; Well-being & autonomy	An undergraduate course(s) in at least one of the related areas
Population Data	Privacy/ethics	Completed TCPS 2 CORE online tutorial
	Data cleaning & management; basic understanding of data quality issues: e.g. bias, measurement errors, validity etc.	Working knowledge of Statistics Canada or other high-quality population survey data
	Pop data sources: Administrative/ linked administrative data; Social media or Internet data; Population geomatics	Interest in learning about methods to use data sources beyond population surveys
Statistical methods	<u>Statistical software</u>: SAS, SPSS, MATLAB, STATA, R	Working knowledge of at least one in list
	<u>Modeling approaches</u>: Linear regression; Polynomial regression; General linear model/ multivariate; Discrete choice; Binomial regression; Binary regression; Logistic regression; Multilevel model; Multinomial/ Mixed logit; Fixed/ Random effects; Nonlinear regression; Principal components; Errors-in-variables; Difference in differences; Propensity score matching etc.	Working knowledge of at least one in list
Population research	Pop dynamics methods: Mortality, fertility, migration, marriage/ union transition/ dissolution models	Capacity to draw connections between their research and population research methods
DATA SCIENCE		
Programming language skills	R, Python, SQL	None
Visualization	R/R Studio, ggplot, tidyverse	None
Methods	Supervised learning; Unsupervised learning; Clustering; Dimensionality reduction; Structured prediction etc.	None
KNOWLEDGE MOBILIZATION		
Decision-making needs of knowledge users	<u>Processes</u>: e.g. policy cycle/ development; policy analysis & evaluation <u>Knowledge users</u>: types/audiences	Interest in building capacity to draw connections between research and the decision-making processes of knowledge users (public, private, not-for-profit)
Communicating with knowledge users	Skills: knowledge synthesis; visualization; graphic design; writing for lay audiences; academic writing; oral presentation for lay/policy audiences	Strong ability to communicate in English, both spoken and written, is required French proficiency is an asset

CAnD3 Training Calendar 2022-23 FOR REFERENCE ONLY

September

7 Connect2Learn — The Many Faces of Population Aging; From Big Picture to Big Decisions

14 Skills training — Research replicability & workflow mgmt I CRDCN

21 Skills training — Flex time

28 Professional dvp — Tips on time management

October

5 Skills training — Research replicability & Workflow mgmt II CRDCN

12 Lunch&Learn — The Role of Information Technologies in Transportation Services: Promises and Perils of Big Data Manish Shirgaokar

19 Skills training — DataViz Ggplot I Tim Elrick, McGill

26 Professional dvp — Navigating group dynamics for team projects CaPS, McGill

November

2 Skills training — Directed acyclic graphs (DAGs) McGill

9 Lunch&Learn — Future of Home Care: Cross-National Perspectives A Costa & H van Hout

16 Skills training — DataViz Ggplot II Tim Elrick, McGill

23 Connect2Learn — Data Ethics

30 Skills training — Data Science: Introduction to Python I

December

7 Skills training — Data Science: Introduction to Python II

14 Professional dvp — End of term

Happy holidays! we pause for two weeks!

January

Happy holidays! we pause for this week!

11 Lunch&Learn — TBD Anais Lacasse

18 Connect2Learn — Integrated policy framework PCPO

25 Professional dvp — Imagine PhD

February

1 Skills training — Inclusion, Diversity, Equity and Access (IDEA) I

8 Lunch&Learn — Internalized Colorism and Psychobiological Distress among Black Americans Alexis Dennis

15 Skills training — Systematic Literature Review

22 Professional dvp — Interview tips: Academic and Data Science

March

1 Skills training — Causal Inference

8 Lunch&Learn — TBD Dawn Carr & Rebekah Carpenter

15 Skills training — Inclusion, Diversity, Equity and Access (IDEA)- flex time

22 Skills training — Inclusion, Diversity, Equity and Access (IDEA) II

29 Skills training — Inclusion, Diversity, Equity and Access (IDEA) III

April

5 Skills training — Social Media Analysis

12 Lunch&Learn — TBD Zachary Zimmer

19 Skills training — Data Science: Introduction to Machine Learning I

26 Skills training — Data Science: Introduction to Machine Learning II

May

3 Connect2Learn — How to tell a data story Statistics Canada & Health Canada

10 Lunch&Learn — TBD

17 Professional dvp — Dragon's Den ideation semi-finals

24 Connect2Learn — Dragon's Den Dataviz finals

We pause for this week!

June

12 Lunch&Learn — Keynote lecture TBD

Congratulations Fellows!

Legend

Skills training — Activities and exercises to develop skills in population data science, and evidence-to-decision-making skills. Access reserved to Fellows

Connect2Learn — Events facilitating exchange and co-learning among Fellows, team members & partners. Open to all (with registration)

Professional development — Activities addressing professional and workplace skill development. Access reserved to Fellows

Lunch&Learn — Monthly noon-hour (EDT) research seminars and Q&A on population aging topics across four axes. Open to all (with registration)

CAnD3 — CONSORTIUM ON ANALYTICS FOR DATA-DRIVEN DECISION-MAKING

Connection | Capacity | Creative Solutions