

Canadian Research Data Centres Network (CRDCN)

30 Plus One (Regina)

Excerpts from presentation given by Martin Taylor, Executive Director of CRDCN, at CRDCN National conference in Hamilton, Ont. Oct. 18, 2018

[https://crdcn.org/sites/default/files/taylor - the crdcn- progress opportunities and challenges.pdf](https://crdcn.org/sites/default/files/taylor_-_the_crdcn-_progress_opportunities_and_challenges.pdf)



CONTINUUM of MICRODATA ACCESS

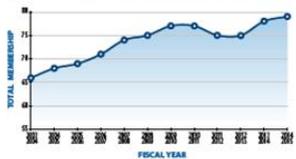


Nonrestricted Access

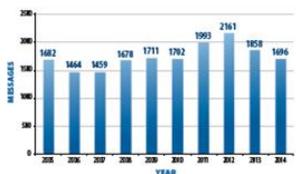
DATA LIBERATION INITIATIVE (DLI)

- the DLI is a partnership that started in 1996 between post-secondary institutions and Statistics Canada, formalized under a licence agreement for improving access to Canadian data resources
- Canadian post-secondary institutions can access over 350 standard products, such as Public Use Microdata Files (PUMFs), on machine-readable files
- modifications performed by Statistics Canada, including collapsing, suppressing, and removing variables before PUMFs are released, ensure that the risk of breaching confidentiality has been removed
- support and training for each DLI contact enable contacts to train researchers / professors / students and employees on how to use information from the DLI collection
- a listserv, an electronic mailing list, exists where questions related to the collection can be asked and answered by Statistics Canada, the DLI community or specialists
- data accessed through the DLI are used for research, training and planning purposes

DLI MEMBERSHIP



DLI LIST MESSAGES BY YEAR



ACCESS TO PUBLIC USE MICRODATA FILES (PUMFs) COLLECTION

- access for Canadian or international organizations to standard products on machine-readable files under a licence agreement
- support to researchers to enable them to use the information from the PUMF collection
- a listserv, an electronic mailing list, exists where questions related to the collection can be asked and answered by Statistics Canada or specialists
- data accessed through PUMFs Collection are used for research

REAL TIME REMOTE ACCESS (RTRA)

- online remote access facility allowing users to submit programs to run, more or less in real time, data analysis on microdata located in a central, secure location
- Statistical Analysis Software (SAS) programs that run descriptive statistics
- confidentiality applied automatically
- no primary manual interventions
- currently over 60 data files
- ability to interrogate RTRA microdata at any time
- access from any computer with Internet access, using a secure username and password – no travel to RDCs required

RESEARCH DATA CENTRES (RDC)

- a partnership with universities, Statistics Canada, and Canadian research funding agencies to provide access to researchers, in a secure university setting, to microdata from population and household surveys and administrative data
- currently over 350 confidential microdata files
- universities centres are accessible to academic, government and other researchers
- one RDC in Ottawa provides access to these data for federal government researchers
- purpose of access is to conduct complex statistical analysis (these data can be longitudinal, survey, administrative or linked, and have detailed geographies)
- access granted to researchers with approved projects and security clearance
- provide support and training to RDC researchers in the areas of statistical methods and data

Restricted Access



CANADIAN CENTRE FOR DATA DEVELOPMENT AND ECONOMIC RESEARCH (CDER)

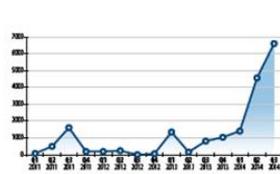
- repository for business and economic microdata files containing sufficient detail for researchers to undertake meaningful and complex analysis while safeguarding the confidentiality of the results and the privacy of business respondents and workers in these establishments
- two-stage review-process feasibility and detailed project review/costing
- extracts of microdata are provided based on approved project requests
- access granted to researchers with approved projects and security clearance
- CDER works with researchers and Statistics Canada to produce specific analytical data files

ACCESS IS A KEY PILLAR IN STATISTICS CANADA'S CORPORATE BUSINESS PLAN:

"Increasingly, modern policy research requires access not only to aggregated statistics but also to data at the level of the individual business, household or person. Statistics Canada is committed to removing obstacles to access while preserving the privacy and confidentiality of respondents."

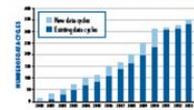
(CORPORATE BUSINESS PLAN 2014-15 TO 2016-17, STATISTICS CANADA)

AVERAGE NUMBER OF SUCCESSFUL SUBMISSIONS

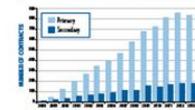


FOR MORE INFORMATION:
www.statcan.gc.ca

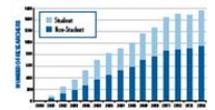
NUMBER OF DATA CYCLES IN THE RDCs



AVERAGE MONTHLY ACTIVE CONTRACTS



AVERAGE MONTHLY COUNTS OF RESEARCHERS



LOCATION OF RDCs ACROSS CANADA



SECURITY REQUIREMENTS FOR AN RDC



Canadian Community Health Survey

- To protect confidentiality, the CCHS **PUMF** contains limited information on each respondent involving suppressed data, levels of geography restricted to the province and health region and broad variable coding (e.g. income and education categories).
- By contrast, the CCHS micro-data **RDC** Master file contains disaggregated information on each respondent including variables suppressed in the public file (e.g. the exact body height of a respondent), lower levels of geography (e.g. CMA and postal code), more detailed variable coding (e.g. additional categories of income and education) and variables at a continuous scale (e.g. age).

What are CRDCN's goals?

- CRDCN research to be recognized internationally as leading edge social science and health research (SSHRC & CIHR)
- CRDCN HQP to be rising stars and emergent leaders in social science and health research and **public policy**
- CRDCN research recognized as a vital source for **informing public policy** by federal and provincial governments and NGOs
- CRDCN is an exemplar of the strategic and operational value of a social science and health research network

Major CRDCN Research Initiatives

- **Indigenous Peoples' Health and Well-Being**

- * Analysis of Aboriginal Peoples' Survey by CRDCN researchers
- * May 2017 CRDCN-INAC Workshop and Report
- * Research results and workshop are informing INAC's **policy and program planning**

- **Gender Equity**

- * Waterloo team's federally funded research on occupational segregation, skills, and the gender wage gap
- * Presentation and report to the federal Pay Equity Office
- * Results inform Government of Canada's economic growth, **labour force and working family policies**

- **Healthy Eating**

- * Impact analysis of policy to ban junk food in schools
- * **Policy report** on the health and economic impact of a tax on sugary drinks in Canada to leading NGOs
- * First Canadian evidence of the effectiveness and impacts of these **policies**

Disciplines of CRDCN Researchers

• DISCIPLINE	RESEARCHERS	• DISCIPLINE	RESEARCHERS
• ECONOMICS	641	• NUTRITION	47
• PUBLIC HEALTH / EPIDEMIOLOGY	362	• POLITICAL SCIENCE	28
• SOCIOLOGY / ANTHROPOLOGY	286	• EDUCATION SCIENCE	22
• PSYCHOLOGY / PSYCHIATRY	108	• PHYSICAL REHABILITATION SCIENCE	15
• GEOGRAPHY / URBANISM	105	• NURSING	15
• MATHEMATICS / STATISTICS	78	• LAW / CRIMINOLOGY	13
• MEDICINE	66	• INFO. TECH. / APPLIED SCIENCES	9
• INDUSTRIAL RELATIONS	61	• OTHER HEALTH SCIENCE	91
• DEMOGRAPHY	60	• OTHER SOCIAL SCIENCE	90

CRDCN Research Partners

- **Federal Partners**

- Employment and Social Development Canada
- Immigration Refugees and Citizenship Canada
- Indigenous and Northern Affairs Canada
- Status of Women Canada

- **Provincial Partners**

- Provincial Research Funding Agencies
- Ontario Ministries of Community and Social Services, Finance, Health and Long-term Care, Advanced Education and Skills Development
- BC Ministry of Education
- Saskatchewan Ministry of Justice

CRDCN Emerging Scholars Grant

- \$1,000 grant to Ph.D. students who are undertaking thesis-related research in one of the 30 RDCs
- Designed to:
 - Raise the profile of the CRDCN among students and faculty across departments and across the country
 - Create a sense of belonging and community among emerging scholars across a broad range of disciplines
 - Promote career long engagement with the local RDCs and the Network.
- Grant holders will be formally recognized as CRDCN scholars and invited to present their completed research at a CRDCN conference or event

HPC System Architecture (CFI \$9.3 M)

