THE DATA MATTER

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Bridging the distance: connecting policy and research

Connecting policy and research

Welcome to *The Data Matter* issue #2 for 2023!

In this edition of the newsletter, we introduce you to the research-policy connections being fostered by the CRDCN, as our Director of Communications and Engagement gives you a quick hitchhiker's guide to data research and policy connections available to you.

The second article examines the work of Professor Anindya Sen at the University of Waterloo's WatSPEED. He and his colleagues have crafted a data and analytics course for policymakers and public servants that has been very well received. He will speak about the critical importance of understanding the policy impacts of data and the unique data training available to public policy colleagues at WatSPEED.

Lastly, we look at the upcoming seminar and work of Professor Rupa Banerjee from Toronto Metropolitan University. As part of the *Canadian Public Policy* 50th anniversary series of lectures, she will be speaking about her research on migration trajectories and bridging a knowledge gap between research and policy. She will also speak about educational opportunities for policy colleagues who are interested in better understanding research results.

Thank you for continuing to read *The Data Matter* and have a safe and happy summer!

Ryan Murphy
Editor, *The Data Matter*

If you have any feedback or ideas for future articles or themes, please reach out to us at info@crdcn.ca.

The data-policy connection: a hitchhiker's guide

If you were a sci-fi lover like me growing up, you may have read Douglas Adams' *A Hitchhiker's Guide to the Galaxy*. Every guide-like piece I write always seems to play on that book a little bit. I can't help it, as it is brilliant little concept that plays on the feeling that most of us have in the dynamic of new and complex topics: we feel like hitchhikers, in need of a guide.

When it comes to data and policy … the data scientists understand the data, while the policymakers understand the policies, but few understand both very well. Those who do are too few to give the rest of us an individually guided ride, so what can guide us? In this issue of *The Data Matter*, and in many of our events, we have looked at the issue from both directions.

For policymakers, some ways to learn more about data results and how to interpret them, with-

out having to commit to an undergraduate degree in data science, include continuing education options. One of the many great programs created for non-data scientists is the Data Analytics for Behavioural Insights Certificate Program offered by WatSPEED at the University of Waterloo, which program lead Anindya Sen says was designed with public servants in mind. You can read more about the program in the interview with him in this issue. Numerous CRDCN partner universities have similar data introduction courses, for those of you interested in sticking closer to your home base, but geography won't limit you in this age of online learning.

What about **researchers** looking to better understand how data informs policy? At CRDCN and our Quebec centre at QICSS , there are programs and

events designed with that in mind. For instance, our National Policy Challenge (NPC) provides mentoring and feedback on researchers' approaches and data applications to policies in many areas of federal, provincial and even municipal policies and regulations. For instance, our last NPC included mentors from Statistics Canada, as well as professors from university departments across Canada in the areas of Psychology, Economics, School of Pharmacy, and Nutrition. Our judges came from Statistics Canada, the Ministry of Education and Child Care, SAS Institute Canada, and social science departments from partner universities.

For both policymakers and researchers, amid our numerous webinars and workshops, CRDCN also provides an annual event or conference each year that delves into one or more research-policy areas of application. In 2023, our entire conference is built around making these connections, where panels, workshops and discussions will centre on ways that the data and policy intersect with researchers, data experts, and policy experts from all levels of government invited to both formal and informal conversations, panels, and workshops on research-policy collaborations. The conference will also host over 50 presentations from data researchers on topics that can range from health, immigration, finance and geography, to race, language, accessibility, economics, the justice system, and more. Networking sessions will give the researchers and policymakers a chance to discuss how the data applies to policy, and research-policy sessions will give policymakers

a chance to exchange insights with researchers on what areas of policy need more quantitative insights.

The CRDCN offers many guest speakers and webinars where the work of applying data to policy is already being done quite well, and these researchers are the drivers of data insights for policy. Our colleague organizations also offer these types of opportunities, one of which is highlighted in this issue in the article about Rupa Banerjee's upcoming lecture as part of *Canadian Public Policy's* (*CPP*) 50th anniversary lecture series. The *CPP* publishes many stellar examples of work which draw on the research efforts of social scientists and health data experts to inform policy decisions on everything from pensions to pandemics, where evidence-based decisions are most crucial. We encourage both new and expert researchers and policymakers to reference the *CPP* for data insights on policy.

There are many more research-policy opportunities coming to the CRDCN in the years ahead. Do you have an idea to help guide this process, or do you need a lift to the next lesson? To send us your questions and suggestions please, by completing this feedback form.

- Michèle Anderson (She/her/mom MA, BA, Grad CertA, DipChin, PRK)

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What you need to know

- Programs such as those offered by WatSPEED at the University of Waterloo can provide public servants and policymakers with a basic to intermediate understanding of how to interpret data analytics and statistics.
- The CRDCN offers many events and webinars for researchers and public administrators to better understand how data informs policy.
- The CRDCN 2023 Conference is built on the idea of making connections between data and policy through panels, workshops, presentations and more.

Data-Based Policy Decisions: at the crossroads

At the crossroads of research and public policy, the roles and expertise of researchers and policymakers is often delineated: researchers interpret the data, draw conclusions and make suggestions on how policy could be impacted, while policymakers use this research and these suggestions to guide their decisions and actions. However, many policymakers are seeing the benefits of gaining an introductory understanding of statistics, data and analysis to understand and interpret the process and findings of quantitative research.

Dr. Anindya Sen, Professor of Economics and Director of the Master of the Public Service program at the University of Waterloo, knows first-hand about the importance of understanding analytics, data and statistics in informing the work of policy in the public sector.

"It is the foundation of evidence-based policy making," says Sen, who is also the lead creator of the Data Analytics for Behavioural Insights Program offered through WatSPEED at the University of

Dr. Anindya Sen.
Photo: WatSPEED/University of Waterloo

Waterloo. He points out that when policymakers have skills in statistical and data analysis, they are equipped with additional tools to understand the societal level effects of government interventions.

The program features the course "Basics of Modern Statistics and Analysis", which aims to educate students with no prior coding or analytics experience. These tools and skills would help public sector professionals further understand how social scientists frame their research and analysis to support policy development. This is an important bridge between research and policy, in that there is a significant need for evidence-based policymaking based on statistical methods, says Sen. "In developing this course, my hope was to construct a course that would be intuitive, in a friendly but challenging way, to introduce professionals to the basics of statistical analysis along with coding. However, the difference in this course, relative to others, is the emphasis on being able to tell stories with data. We use a lot of case studies to help learners grasp the skills of being able to interpret findings from complex statistical analysis in a manner that can be useful to other colleagues/team members."

Thus far the program has been very well received; the first two offerings reaching capacity. The third round of courses begins October 16 and is offered online with live question and answer sessions. Sen says the course will continue to be offered, along with a second course in coding and a third course in regression analysis leading to machine learning. He adds, "I would like to develop a stand-alone course in machine learning."

In terms of lessons learned from this course, Sen was confident that there would be market demand for the course given his interaction with policymakers and their requests for better data training among public servants. "The course has been carefully developed based on my own experience in teaching statistics for quite a few years. Learners have been quite receptive on how the course has been structured."

While Sen believes all policy analysts must have some training in data analytics, he also feels universities must be proactive in bringing research to public servants and policymakers. An example, he notes, is a recent conference organized with the support of Health Canada and Statistics Canada to engage on the topics of artificial intelligence and cybersecurity in health care. These types of events, conferences and training opportunities serve as opportunities for researchers and public policy colleagues to explore one another's roles and responsibilities in developing meaningful policy options.

The CRDCN has developed the program for our upcoming 2023 annual conference with that very need in mind. The theme for CRDCN 2023 is "Leveraging Data, Research, and Policy Collaborations" and many public sector workers will want to engage with researchers and trainers to help build that bridge together.

Those interested in WatSPEED's uniquely public sector friendly course offerings can find more information here.

What you need to know

- Understanding data, statistics and analytics is part of evidence-based policy making.
- WatSPEED at University of Waterloo is offering online courses in data analytics and statistics for those with little experience in the field.
- Universities also have a role to play in bringing research to public servants and policymakers through events and publications.

Closing the distance – reaching policymakers with evidence-based research

To commemorate its 50th anniversary in 2024, the Canadian Public Policy journal is hosting a lecture series, with the presented findings to be featured in an anniversary edition of the journal next year.

One such upcoming lecture is being presented by Dr. Rupa Banerjee, who is Canada Research Chair in Economic Inclusion, Employment and Entrepreneurship of Canada's Immigrants and Associate Professor of Human Resource Management and Organizational Behaviour at the Ted Rogers School of Management at Toronto Metropolitan University. Banerjee will be presenting "Panacea or placebo? Two-step migration trajectories and immigrant integration outcomes" online on June 19 at 1 p.m. EST.

Dr. Rupa Banerjee
Photo: Toronto Metropolitan University

While this is an event to help mark the golden anniversary of *Canadian Public Policy*, the lecture is also an opportunity to help bridge the distance in knowledge and awareness for academics and policymakers around immigration and is one of many ways to help with outreach and education to the various players in the research and public policy realms.

"Temporary migration to Canada has grown dramatically over the past two decades and has been accompanied by a shift in our immigration system from one-step – immigration directly from abroad – to two-step, in which most newcomers first arrive as temporary residents – students or workers – and a select few are granted permanent resident status," says Banerjee. "On one hand this shift towards two-step immigration seems to have improved immigrant outcomes overall,

but at the same time there are a lot of concerns about the price that is paid by temporary residents and the Canadian labour market with this shift. With my research, I am hoping to shed some light on the trends in two-step migration and interrogate the unintended consequences of the trend. I think the gaps in knowledge on this issue exist at all levels."

For those attending the lecture, Professor Banerjee hopes her audience will get a better understanding of the current trends in two-step immigration, as well as an appreciation for how complex the process is and the challenges and barriers for two-step migrants. "Finally, I hope researchers and policymakers learn about the ripple effects of two-step migration and how it is transforming the Canadian immigration system and society more broadly," she says.

In fact, more research and knowledge in this area could have an impact on Canadian universities' ability to attract international academic talent, such as post-doctoral researchers or students.

"International students are currently the largest group of temporary residents in Canada," she says. "We have dramatically increased the intake of international students without a lot of analyses of the policy and practical implications of doing so, or the types of support systems that are needed to ensure that this pool of 'potential citizens' are set up for success."

While lectures are a useful tool for outreach and education efforts to reach policymakers and academics, it's not the only arrow in the quiver of researchers like Banerjee. They also publish their research, pen opinion columns and host panel discussions to put their findings in front of a larger audience.

"For example, I recently participated in a panel discussion with Deputy Minister of IRCC, Christiane Fox, organized by the Public Policy Forum," she says. "I also organized a panel on two-step immigration at the Conference Board of Canada Immigration Summit. Finally, I am working to publish academic research in this area, which I hope will be useful for evidence-based policy decision making."

Banerjee used microdata from Statistics Canada accessed through a CRDCN Research Data Centre to conduct this research and will be using the facility in the future to continue her research.

"I am looking at the labour market experiences of former international students in order to understand how policy changes related to this group have altered their post-landing outcomes over time," she says. "For that research I am using the Canadian Employer-Employee Dynamics Database (CEEDD), which allows me to examine how firm-specific characteristics affect the disparities of former international students." She adds that she's hoping to use the Longitudinal Immigration Database, if it is ever linked to the 2021 Census data, so she can track how the latest cohorts of two-step immigrants are faring in terms of job-skill mismatch.

Those interested in attending the June 19 lecture, presented by Canadian Public Policy and sponsored by CERC Migration and CRDCN, can find more information and register here.

What you need to know

- Dr. Rupa Banerjee's upcoming lecture is an opportunity to bridge the distance in knowledge around immigration for both policymakers and researchers.
- More research into this area could have an impact on Canadian universities' ability to attract international students and faculty.
- Publishing journal articles, hosting panel discussions and penning op-eds are other ways researchers bridge the gap between research and policy knowledge.