



## UPGRADING SOCIAL POLICY RESEARCH AND ADVICE

### *Modernizing our Data, Tools and Practices to Meet Evolving and New Challenges*

This Discussion Paper has been prepared by the Experts Panel on Income Security of The Council on Aging of Ottawa. The Panel seeks ways to improve the understanding, choices and policies affecting the income security of Canadians generally, and of Canada's seniors in particular. The Panel encourages and supports improved analysis for better informed decision-making leading to more effective policies and programs with improved social outcomes. There is a need and an opportunity for interested organizations like The Council on Aging to speak up in support of better analysis of important policy issues, especially those with longer-term time horizons. Information about the Panel's members is found in the Annex.

#### *Summary*

The current federal government has committed to re-instating and emphasizing "evidence-informed policy making." This is highly welcome. However, the quality of evidence for strong and robust policy making is inadequate.

- **Basic data and analytical tools are missing**, as is a diverse group of government and non-government institutions that can produce reliable assessments of retirement income prospects and adequacy.
- **The policy research and analysis apparatus and resources across federal departments has been weakened over many years**, and was diminished further under the previous government.
- **This applies as well to Statistics Canada, whose role in developing key data for research and analysis – and undertaking analysis of their data themselves – is absolutely crucial.**
- **The importance of policy work by organizations outside of government** – including in independent research centres, think tanks, NGOs (including charitable organizations), business and labour organizations – **has grown over time, which complicates but also enriches the policy making process.**
- **Managing all this "reboot" will take effort, resources, leadership and a sustained priority.** Given the urgency of so many active files, and the level of government commitments to them, it is not obvious how and how quickly an upgraded evidence-building process can be achieved. Urgent, short-term issues and focus can often push longer-term issues aside.

Revitalizing Canada's data and analytical capacity is particularly relevant for retirement and pension planning, and other issues related to aging (health care being another important example). The Council on Aging is concerned about Canada's elderly and their retirement income security prospects and policies. To achieve evidence-based policy analysis and advice, the Government needs more sophisticated longer-term data and analysis informing pension discussions. Analysis should focus on distributional characteristics (not just averages) and recognize the evolving, changing nature of the



economy, its work patterns, and increasingly varied challenges, choices and outcomes as people move through their life cycles.

Registering concerns and recognizing needs is one thing. Some of these were set out in a recent discussion paper “The Grey Tsunami Threat: A Failure of Evidence to Drive Policy” (Experts Panel on Income Security, the Council of Aging of Ottawa, October 2017). It seems also useful to set out proposals for ways-and-means to strengthen the information, tools and apparatus needed to do the work called for by the government’s evidence-base commitments. Those constitute the focus of this companion paper.

### *Socio-economic changes over time and program interactions*

Current analytic approaches which are based on changes over time in the average characteristics of groups of people are most useful in addressing potential problems taken one at a time, in examining the effects of possible policy responses on a program by program basis, and in applications that focus on the immediate effects of possible program changes. That is, they are most useful for examining small incremental program changes. That is important since most policy reforms are of this sort. However, traditional analytic tools are less useful in:

- Examining problems that have multiple causes, and involve real-life diversity with changing characteristics over time.
- Taking account of the longer-term changes in behavior that could result from policy changes.
- Examining the combined effects of changes in different programs - including their interaction with other income transfers and the personal income tax.

Important problem areas such as low income typically involve a complex of causes including, for example, loss of a job, lack of skills to find new work, loss of work by another family member, sickness, or the need to care for family members. In these cases, it is difficult to construct the population sub-groups that are needed when using conventional repeated cross-sectional data sets, even when these data are collected on a regular basis with consistent data elements over time. There are useful analytic tools such as different forms of regression for exploring the relationship among these different characteristics at different points in time, but it is often not possible to construct clearly-defined, mutually exclusive groups whose average characteristics can be tracked over time.

To understand the longer-term need for, and effects of policy changes, it is also important to have evidence on how things change over time at the level of individuals. In the case of pensions, for example, deeper understanding will come from data on when particular individuals enter the paid labour market after leaving school, on their employment history (which allows us to better understand the circumstances in which they can contribute to both workplace and public pensions or save for retirement and how they build and lose the skills needed to work longer) and data on their income and expenses during the often very long periods of life spent in retirement. It is this kind of individual-level life course evidence of how things change over time that enables the painting of more realistic pictures

of the actual needs and capacities of a highly diverse population, and in turn enables assessments of how government interventions are likely to be most effective.

The potential solutions are well known in the research community. They first involve the collection of data from longitudinal surveys and administrative sources where the same individual is tracked over time. Potentially powerful microsimulation tools that can embody and draw out the implications of increasingly powerful “big data analytics” methods applied to these longitudinal data derived from multiple sources have been available for many years but their use has waned in policy applications. The second is to integrate information across domains – to support evidence-based policy for the increasing gamut of “horizontal” policy issues – and to do so in a way that differences across individuals and families can also be readily studied.

Finally, in policy areas such as retirement income, many factors influence outcomes, including a broad range of income support, service provision and tax programs of all orders/levels of government. Often complex problems are best solved through co-ordinated changes to a number of different programs. Once again, microsimulation techniques are the best way of keeping track of the combined effects of different programs.

In an ideal world, this kind of analysis would use a standard logic model approach in describing program interventions. That is, it would keep track of the input costs of different programs and relate them to the immediate outputs of those programs and, as well, to a range of higher order outcomes that are achieved as a result of the combined and often jointly interacting effects of various programs. Data sources are not yet in place to do this in a comprehensive fashion. However, over the medium-term, big data techniques using administrative data show much promise. Work is underway in utilizing these administrative data bases in a number of centres (e.g., Statistics Canada and several universit-linked institutes, though predominantly in the health area), but use in federal government policy research and analysis is, arguably, considerably weaker now than it was even a decade ago.

### *Analytical Needs and Developments*

It is important to underscore that the data and tools for longitudinal microanalysis and for exploiting administrative data already exist and have been available, in some cases, for decades. The problem is that they have not been used by the federal government for recent practical policy applications, most notably the expansion of CPP, and have fallen into disrepair or been disbanded. In particular, for several decades Statistics Canada has been developing and maintaining a microsimulation tool called LifePaths that has had the capacity to carry out many of the functions described above. However, Statistics Canada recently stopped supporting the tool since it was not being financially supported and used by the key federal government policy branches.

However, LifePaths has been and continues to be significantly used outside the federal government, albeit based on quite limited resources. Papers published by the IRPP and C.D.Howe Institute drawing on LifePaths simulations were central in establishing the evidence of serious issues with the adequacy of Canada’s retirement income system from 2011 to 2015, and the IRPP papers specifically were highly influential in influencing the proposed Ontario pension plan, and the Quebec government’s initial position vis a vis the final version of CPP expansion.

Why did this happen? Some explanations include that LifePaths was hard to use, costly to develop, and required policy analysts to learn new skills. These are only symptoms however. A deeper reason lies in the fact that most policy analysis over recent decades has been directed to making incremental changes to existing programs, with an emphasis on improving their immediate effects including an emphasis on maintaining or reducing the cost of those programs. Simple analysis often works adequately in these cases, especially where cost-cutting and political considerations dominate. There has been relatively little serious policy development work directed to examining how program changes can work together to achieve higher level, longer-term outcomes such as improvements in the quality of life, reducing poverty or improving labour market efficiency. It is these latter kinds of applications that especially require stronger analytic capacities.

A notable example is the increase in the age of entitlement to OAS and GIS legislated by the previous government, subsequently reversed by the current government. The initial change had no supporting evidence. Yet the issue it was addressing – the longer term sustainability of Canada’s public pension programs in the face of an aging population – has not disappeared; it will return to the policy agenda. But the federal government’s toolkit and policy analysis capacity appears seriously constrained in its ability to produce the needed kinds of longer term, individual-level analyses – the kind enabled by LifePaths.

In other words, the demand for more in-depth kinds of analysis has been relatively weak, even if the need for it is often recognized at least rhetorically. A number of longitudinal surveys were launched in the early 1990s (children, health, incomes) in part at the urging of the research community. However, in the allocation of resources, priority has usually been given to filling gaps related to shorter term issues, and then premised on more conventional and often siloed kinds of analysis.

Another example is the Survey on Household Spending. A critical role for this survey is to provide the consumption basket for the Consumer Price Index (CPI). Until major changes in 2010, it was also the only source for microdata on expenditure patterns and household-level saving – both are critical kinds of data for understanding population aging and pension policy. However, the 2010 changes have essentially destroyed the utility of this survey for anything but supporting the CPI.

The federal government is now giving more attention to housing issues in Canada, and associated with this is welcome funding for Statistics Canada to collect more data in this area. And funding for a more regular survey of assets and debts has been provided. But in both of these major areas, the risk remains that these new data are being developed in a stovepipe manner. It is essential that Statistics Canada and policy analysts across the country have the capacity to integrate these data with other closely related data, e.g. on labour market activity, saving, health, and disability so that policy ideas like “housing first” can be properly considered and assessed. Even in areas where Statistics Canada has been collecting data for many years, such as functional health status and disability, there are serious concerns about the usefulness of these data as the specific concepts and definitions keep changing, which impairs any analysis seeking to understand longer term trends.

On the other hand, Statistics Canada and the Canadian Institutes of Health Research (CIHR) have placed growing emphasis on developing Canada's wealth of administrative data for purposes of research and analysis, especially the longitudinal aspects of these data.

Hopefully we are now at a turning point. This can be seen in new emphasis that current federal government has placed on evidence-based policy decisions, in its commitment to strengthening the independence of Statistics Canada, and in the mandate given to Ministers to place emphasis on achieving measurable outcomes. The Minister for Employment and Social Development has, for example, been given the mandate to develop "comprehensive strategies for poverty reduction", which necessarily takes a medium- to longer-term time perspective and which can only be accomplished by looking at the higher order outcomes achieved through the combined effects of a range of different programs and tax measures.

Similar expectations now exist in several provincial governments as well. The Ontario government is making a large new investment in the empirical base to support social policy decision-making by launching a large Basic/Guaranteed Annual Income pilot study. While the policy payoffs from investments in expensive GAI pilots are highly uncertain and may be controversial, the willingness to make significant investments to place policy on a more empirical base is most welcome.

There appears to be renewed understanding that, for example, issues related to health care costs, long-term care, homelessness, poverty and pension adequacy require more integrated micro-level, longitudinal analysis. There also appears to be an interest in developing the needed analytic capacity by taking advantage of continuing and ultimately radical advances that are being made possible by new computer technologies and predictive analytic techniques.

### ***Looking Ahead: How to Proceed***

Moving forward ideally requires action on three fronts:

- Strengthening the independence and capacity of the central statistical office.
- Creating a clear and distinct budgetary and decision-making stream to support the development of a new generation of analytic tools, supporting data, and associated human capital.
- Providing the needed leadership to allow efficient, integrated implementation.

On the first point, action is already underway to strengthen the statistical system. Legislation has been introduced to strengthen the independence of Statistics Canada. This legislation will ensure that the appointment of the Chief Statistician will be for fixed five-year terms based on merit, with the Chief Statistician only removable for cause, not at the pleasure of the government. The National Statistics Council will also be replaced with a newly created Canadian Statistics Advisory Council to reinforce independence, relevance and transparency in the national statistical system.

A strengthened mandate for Statistics Canada is a key step forward, but it is not sufficient. It must be accompanied by sufficient resources that will allow it to develop the needed analytic tools, to strengthen its collection of data from longitudinal surveys, to facilitate access to its data by bona fide external researchers, and to greatly accelerate its work in making use of administrative data for

statistical purposes. (That latter function will, in addition, greatly strengthen the government's more general commitment to open government.)

There will be large payoffs from the investment of new resources to strengthen the evidence base, but these will take time to accrue. It will be important to recognise that a significant upfront investment will be needed, perhaps similar to an investment in big scientific research.

New resources are needed not only in Statistics Canada but also among the user community in and out of government. The capacity to use the new analytic techniques is very thinly spread at present and in some policy areas does not exist at all. That can be resolved over time; departmental, academic and NGO capacity in this area can adjust to meet new demands. But this will take time and some form of one-time capacity-building exercise may be required. This area is one where the federal research granting councils can play a major role.

In addition to building research capacity inside government to address retirement income issues, consideration should be given to providing ongoing financial support to non-government organizations that conduct research programs including in particular those related to the retirement income system. The support provided by the US Social Security Administration for centers of retirement research is a possible model to explore.

Longitudinal, micro-simulation modeling is an essential analytical tool for addressing retirement income issues. Statistics Canada made important progress in this area through the development of its LifePaths model. It is regrettable that funding for the model was terminated.<sup>1</sup> Funding for it and/or similar models should be restored and the timetable for improving this critical analytical toolbox should be accelerated.

The objective of these changes is to move Canada's statistical system away from excessive reliance on point-in-time totals and averages, and to enable analyses that integrate information across domains and over time – to support evidence-based policy for the increasing gamut of "horizontal" policy issues – and to do so in a way that differences across individuals and families can also be readily studied.

Experience over the decades has shown that financing of a new kind of statistical capacity simply does not work if it is included in a decision-making and budget process that focuses on traditional statistics in support of either shorter-term incremental policy-making or long-standing and well-established areas of policy (e.g., the System of National Accounts and macro-economic policy). There are many legitimate demands to fill gaps and make improvements in these traditional statistics. Given that most users and funders of statistics are involved in these traditional (and still important) functions, it is these areas that get funded. There is no body with a mandate and budget to invest in the longer-term forward-looking and innovative capacity that we argue is needed. That may well change in the future, but at least for the next several years an active focus with leadership and a separate funding stream to initiate improvements is essential.

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<sup>1</sup>The savings habits of Canadians and their variation through time have been central to recent debates on pension reform. The data that would be most useful to addressing this issue would be longitudinal micro-data on consumption and saving. Yet data of this sort are not available.

Much of this work should necessarily be centred in Statistics Canada. However, it may be appropriate that an outside body (or individual or commission) be enfranchised to take a leadership role, at least in the shorter term. Such a body could have a mandate to articulate the evidence system (and associated tools) that are likely to be needed in the future, and to recommend changes.

The need for new resources and a strengthened role for Statistics Canada raise a final point about leadership. How are decisions to be made on priorities for new development? A multi-faceted approach may well be needed, perhaps involving central agencies of the federal government. For example, over 20 years ago a Policy Research Initiative (PRI) was set up in Privy Council Office with some of these functions (but without the budget needed to fund the development of the needed capacity). The current Results and Delivery group in the PCO might play a central role. A Minister might be assigned a lead role, at least for improving capacity in the social policy area. An independent commission could be set up for this purpose. The proposed Canadian Statistics Advisory Council could play a role, as might a policy research and analysis advisory body specially created for this purpose.

There are many possibilities, but focused initiative and leadership are crucial. Among federal departments, and as in the past, Employment and Social Development Canada has a key and central role to play. Also, Industry Minister Bains' announcement this past July concerning the Government's "vision to support innovation in a data-driven world" signals an important role for Innovation, Science and Economic Development Canada.<sup>2</sup> In both cases, these roles should involve close cooperation with the Department of Finance and with active PMO/PCO support, unless a new separate agency is mandated.

We urge the federal government to invest in these changes, in support of their avowed interest in evidence to support public policy decision making. Social policy generally, and policies affecting seniors (both present and future) in particular need more attention.

These initiatives should not and need not be delayed in the face of the large and important agenda in which the new government is understandably engaged. Mandating initiatives now, perhaps with both governmental and outside participants, can lead to the strengthening over time of the government's policy making and thus to the fulfillment of its commitment to governance supported by evidence.

Thus, high-level commitment and leadership sustained over time will be essential, as will involvement and cooperation both within and across governments, including with the provinces and territories, but also internationally in developing and adopting international standards of best practice.

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<sup>2</sup> [https://www.canada.ca/en/innovation-science-economic-development/news/2017/07/positioning\\_entrepreneursandinnovatorstosucceedinadata-driveneco.html](https://www.canada.ca/en/innovation-science-economic-development/news/2017/07/positioning_entrepreneursandinnovatorstosucceedinadata-driveneco.html)

## ANNEX

### EXPERTS PANEL ON INCOME SECURITY

#### THE COUNCIL ON AGING OF OTTAWA

The Council on Aging of Ottawa (COA) has been active for 40 years in support of the wellbeing of seniors, not only in the Ottawa area but for Canada generally. Income security for present and future seniors is a current concern and priority. To assist in this broad and complex area, in 2015 the Council convened an advisory panel of experts each of whom has contributed over many years to relevant policy research and development in Canada as well as abroad (membership listed below). This panel has been meeting regularly for more almost two years (???) now, analyzing issues affecting our pension programs and other aspects of Canada's retirement income system.

Our panel has identified, and submitted to the federal government, concerns about the quality and availability of data, analytical models and relevant policy research relating to Canada's seniors. These concerns support the present government's priority that good government policy decisions should be based on solid evidence. The panel has been discussing with Statistics Canada their data priorities and challenges, including their program of Statistics on Population Aging and Seniors.

In August 2016 the Panel made a submission to the Parliamentary Standing Committee on Finance arguing for a major enhancement to Statistics Canada's independence and resources, both to recover and improve needed support for policy research and development, including work to enhance the quality of life of Canadian seniors.

The group is also actively communicating with the Department of Social Development and Employment, in light of its important income security mandates and programs.

#### PANEL MEMBERS

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