

## Recommendations and Takeaways

On November 3, 2017, as part of the Canadian Science Policy Conference, the CRDCN hosted a panel, moderated by **Michelle Gauthier**, Special Advisor to the CRDCN, with Jane **Badets** (Assistant Chief Statistician, Social, Health and Labour Field, Statistics Canada); **Ümit Kiziltan** (Director General, Immigration, Refugee and Citizenship Canada); **Ravi Pendakur** (Professor of Public and International Affairs, University of Ottawa); and **Arthur Sweetman** (Professor, Department of Economics, McMaster University) to discuss: *Immigration, Integration, and the Production and Utilization of Scientific Knowledge: What are Canada's Challenges?* The summary of the discussion below was prepared by the CSPC team.

### What we know:

- Immigrants make up the majority (54%) of STEM graduates between 24 and 64 in Canada; the number of immigrants in computer science and mathematics is even higher (70%)
- Immigrants aged 24 to 64, are more likely to be working in STEM jobs (54%) in Canada compared to those born in Canada (41%).
- Immigrants make up about 22% of Canadian population yet 35% of Canada Research Chairs.
- Immigrants in STEM used to earn about 20% less than Canadians. That gap has increased to 40%. The gap could have been worse if policies hadn't been implemented.
- Economic immigrant principal applicants are twice as likely to start knowledge-based businesses.
- Immigrants account for about one third of patents, but one quarter of the population. STEM occupations and training account for most of the ethnic patenting advantage.
- Language skills seem to play a crucial role in allowing STEM skills to be of value in the Canadian labour market.
- Canada, unlike the U.S., hasn't made the physical capital investments required to make STEM immigrants productive in the workforce.

### Policy lessons learned:

- The Express Entry Program, launched in 2015, is an example of policy based on strong evidence of what works in determinants of success (e.g. earnings; more STEM immigrants working in STEM jobs).
- Patents as a proxy for immigration: Immigrants produce far more patents in the US than in Canada; Canada's "points system" may be hindering productive/innovation employer-employee STEM matches (Express Entry program could help).
- The economic integration of immigrants is probably one of Canada's most evidence-informed large-scale national economic and social policies.
- Economists often use different data than sociologists which can influence policy in different ways.
- Canada needs to do more to improve literacy, communications and numeracy skills among immigrants; such foundational skills have significant rates of return in the labour market.

### **Producing better data:**

- Citizenship Canada is making more of its internal data available to Canada's scientific community in partnership with StatsCan, CRDCN and the policy community, and looking at ways to make more accessible (e.g. virtual remote access).
- Immigration data are increasingly being linked to other data sources, including census data, educational data, tax returns, labour force survey and provincial health databases. This provides a more complete picture of how, for example, students studying in STEM do in the labour market after graduating. Even more linking of datasets is needed.
- Popular memes that conflict with evidence tend to take priority in policy. "We need to think seriously about knowledge transfer."
- There are pockets of remarkably deep knowledge within the civil service, as well as the policy and academic communities but this knowledge has limited influence on popular discourse. (e.g. the positive effect of immigration on the structure of an aging population).
- Economists and social scientists tend to study the same issues over and over while leaving many policy relevant topics unexplored; the academic community could do better.

### **What we don't know:**

- There is a need for more qualitative data.
- There are social determinants that are not tracked that could help explain why wage gaps are higher for immigrants compared to visible minorities (e.g. where they were raised and schooled; loss of social and professional networks, discrimination based on skin colour).
- There is still much we don't know, but they tend to be the hard questions, such as:
  - Economic impact of immigration. Causal impact on GDP per capita is unclear.
  - Does immigration have small positive or small negative effects
  - What would Canada look like if we had a different immigration policy?