CANADA RESEARCH COORDINATING COMMITTEE

MOBILIZING CANADIAN RESEARCH

PROGRESS REPORT (2019–20)

Government of Canada Gouvernement du Canada

Canada

“OUR GOAL IS TO MOBILIZE A RESEARCH COMMUNITY AS STRONG AND DIVERSE AS CANADA—A SOURCE OF CREATIVITY AND INNOVATION FOR OUR COUNTRY AND THE WORLD.”

Dr. Michael Strong
Chair, Canada Research Coordinating Committee (2020)
President, Canadian Institutes of Health Research

Note: most photos that appear in the 2019–20 Progress Report were taken pre-pandemic, before health measures were in place.

The Honourable François-Philippe Champagne, P.C., M.P.
Minister of Innovation, Science and Industry

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Message from the Ministers

The Honourable François-Philippe Champagne, Minister of Innovation, Science and Industry
The Honourable Patty Hajdu, Minister of Health

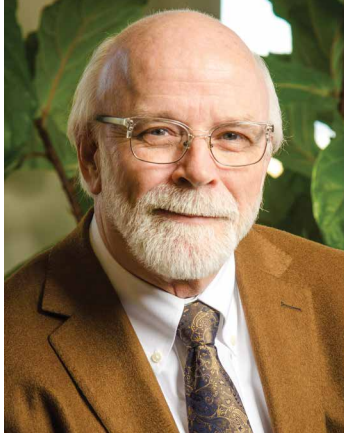
On behalf of the Government of Canada, we would like to thank the Canada Research Coordinating Committee (CRCC) for its efforts in mobilizing Canadian research to meet new challenges and foster a bold and dynamic research enterprise.

Since 2017, the CRCC has been helping to coordinate policies and programs across Canada's research funding agencies in support of ambitious initiatives important to Canadians. As we look back over the actions taken in 2019–20, we can see how this collaboration is delivering results and driving innovation.

We want more Canadians, particularly those who are underrepresented, to participate in Canada's research enterprise. We know that initiatives to encourage equity, diversity and inclusion—and to support early career researchers—result in adding more perspectives and bringing more innovation to Canadian research. As well, the Indigenous research and training strategic plan, co-developed with First Nations, Inuit and Métis Peoples will improve research outcomes for the benefit of Indigenous communities.

At the same time, the New Frontiers in Research Fund is enabling Canadian researchers to take their place at the cutting edge of interdisciplinary, international, rapid-response research. Through shared objectives and principles for international research collaboration, the federal research funding agencies are also strengthening Canada's reputation as a valued partner in international research and innovation.

As we continue to address the global challenge of COVID-19, it is more important than ever that our federal research institutions work collaboratively to address emerging issues rapidly and effectively. The steps forward, highlighted in this report, show how working together around key initiatives can make this a reality.



Message from the Chair (2020)

When COVID-19 first appeared in Canada in January 2020, researchers mobilized to gauge the danger, assess existing knowledge, identify resources and prepare a rapid response. In all fields, they turned their expertise to matters of public health: from the development of diagnostic tests, therapies and vaccines, to the production of protective equipment and studies of social behaviour and the many ways pandemics affect our society and economy.

Canada's research funding agencies mobilized in lock step with the research community. The first call for proposals for rapid response research to battle against COVID-19 was launched jointly by five different agencies on February 10—and that was just the beginning. This unprecedented effort was a testament to the ideals and energy of the Canadian research community and the close collaboration among Canada's research funding agencies.

Even before COVID-19, that collaboration had increased substantially in 2019–20 as member agencies and departments of the Canada Research Coordinating Committee (CRCC) worked together, on shared priorities, to mobilize Canadian research. We introduced initiatives to increase equity, diversity and inclusion across the research enterprise.

We listened to First Nations, Inuit and Métis Peoples who helped shape a new strategic plan for Indigenous research and research training with us. We took steps to bring more early career researchers into the research ecosystem. And we launched new programs to support Canadian leadership in high-risk/high-reward, international, interdisciplinary research. These initiatives helped strengthen our response to COVID-19 and, in the years ahead, will make our research better for all Canadians.

On behalf of my CRCC colleagues, I want to thank the former Minister of Innovation, Science and Industry and the Minister of Health for placing their confidence in us. I want to thank the dedicated public servants throughout our agencies and departments who have risen to an unprecedented challenge this year. And most of all, I want to thank the Canadian researchers, Indigenous leaders and partners in all sectors who are helping us mobilize Canadian research.

Sincerely,

Michael Strong, MD, FRCPC, FCAHS, FAAN
Chair, Canada Research Coordinating Committee (2020)
President, Canadian Institutes of Health Research

EXECUTIVE SUMMARY

The Canada Research Coordinating Committee (CRCC) advances federal research priorities and the coordination of policies and programs across Canada's research funding agencies. It provides a senior strategic forum for sharing information, building consensus and making decisions on forward-looking initiatives that strengthen Canada's research enterprise.

This report outlines the CRCC's priorities and the actions taken by member agencies and departments in fiscal year 2019–20 to mobilize Canadian research for the benefit of all Canadians.

Highlights include initiatives to:

Strengthen equity, diversity and inclusion (EDI) in research:

- released the Tri-agency Statement on Equity, Diversity and Inclusion and strengthened the Tri-agency EDI Action Plan;
- launched the Dimensions: equity, diversity and inclusion Canada program;
- awarded Equity, Diversity and Inclusion Institutional Capacity-Building grants;
- adopted a harmonized EDI training plan for agency staff;
- harmonized tri-agency collection of self-identification data for research team members.

Strengthen Indigenous self-determination, leadership and capacity in research and training:

- released *Setting New Directions to Support Indigenous Research and Research Training in Canada 2019–2022*, a plan co-developed with First Nations, Inuit and Métis Peoples that sets out four strategic directions informing the development of new models of support for Indigenous research and training to advance reconciliation.

Support early career researchers (ECRs):

- strengthened the Tri-agency ECR Action Plan;
- updated the Tri-agency ECR definition to enhance support for ECRs;
- continued to monitor and report on shared tri-agency performance indicators for ECR initiatives;
- adopted balanced funding for ECR-led projects in appropriate flagship research programs and extended parental benefits for emerging scholars.

Increase engagement in interdisciplinary, international, high-risk, rapid-response research through the New Frontiers in Research Fund (NFRF):

- awarded the 2019 Exploration grants;
- launched the inaugural 2020 Transformation competition and the International stream's 2020 Horizon Global Platform competition;
- contributed funding to the Government of Canada's first research response to the COVID-19 pandemic (see last bullet).

Enhance interagency cooperation on international research:

- released the *International Framework: Statement of Objectives and Principles* to inform agency decisions in areas of mutual interest and help guide the design of interagency initiatives.

Support Canada's research response and recovery to COVID-19:

- allocated $7 million from NFRF to fund research addressing a wide range of issues related to COVID-19, including diagnostics, disease forecasting, public health, public policy, education, community engagement and global coordination.

MOBILIZING CANADIAN RESEARCH

The Canadian research ecosystem is an essential resource for creating and sustaining our quality of life. It connects researchers in postsecondary institutions and hospitals, government departments, companies and not-for-profit organizations across the country and links them with colleagues around the world.

CRCC members met with the Minister of Health and the former Minister of Innovation, Science and Industry on January 30, 2020, to discuss research priorities. ***Front-right:*** *Roseann O'Reilly Runte.* ***Back, left to right:*** *Stephen Lucas, the Honourable Patty Hajdu, the Honourable Navdeep Bains, Simon Kennedy, ISED ministerial staff Amanda Woodley and Sarah Hussaini. Photo credit: ISED*

It includes researchers in the Arctic aboard the CCGS *Amundsen*, graduate students two kilometres underground in SNOLAB, and scientists in advanced containment facilities at the International Vaccine Centre. It includes social scientists analyzing microdata in secure Statistics Canada data centres, humanities scholars pouring over microfiche at Library and Archives Canada and Indigenous researchers working with First Nations, Inuit and Métis communities. And it includes innovators developing new technologies with companies and not-for-profit organizations at the National Research Council.

In partnership with Canadian postsecondary institutions and research hospitals, provincial governments and private-sector organizations, the federal government plays an essential role in sustaining this ecosystem. To ensure that it thrives for the benefit of all Canadians, the government has made significant investments and, in 2017, established the CRCC.

The government called on the CRCC to mobilize Canadian research throughout the ecosystem by coordinating policies and programs and by encouraging risk-taking, interdisciplinary and international research, engaging the knowledge and experiences of First Nations, Inuit and Métis Peoples, the energy of young innovators and the talents of all Canadian researchers.

This progress report highlights the 2019–20 accomplishments of the CRCC's member organizations, working together toward these goals.

LEADERSHIP

The CRCC advances federal research priorities and the coordination of policies and programs of Canada's research funding agencies to address issues of priority and common concern to its member organizations. It provides a senior strategic forum for information sharing, consensus building and decision-making on forward-looking initiatives that strengthen Canada's research enterprise, foster world-leading research and advance the social and economic well-being of Canadians.

CRCC members with the Minister of Health and the former Minister of Innovation, Science and Industry, January 30, 2020. ***Left to right:*** *Catherine MacLeod (Executive Vice-President at CIHR, delegate for Michael Strong), Iain Stewart, Simon Kennedy, Stephen Lucas, Mona Nemer, the Honourable Patty Hajdu, the Honourable Navdeep Bains, Alejandro Adem, Roseann O'Reilly Runte, Ted Hewitt. Photo credit: ISED*

The CRCC comprises the executive heads of the Canada Foundation for Innovation (CFI), the Canadian Institutes of Health Research (CIHR), the Natural Sciences and Engineering Research Council (NSERC) and the Social Sciences and Humanities Research Council (SSHRC), as well as the deputy ministers of Innovation, Science and Economic Development Canada (ISED) and Health Canada (HC), the president of the National Research Council of Canada (NRC) and the chief science advisor.

In 2019–20, they were:

- Alejandro Adem, President, NSERC (Vice-Chair, 2020)
- Ted Hewitt, President, SSHRC (Chair, 2019)
- Simon Kennedy, Deputy Minister, HC (to September 2019), ISED (from September 2019)
- John Knubley, Deputy Minister, ISED (to September 2019)
- Stephen Lucas, Deputy Minister, HC (from September 2019)
- Mona Nemer, Chief Science Advisor
- Roseann O'Reilly Runte, President and CEO, CFI
- Iain Stewart, President, NRC
- Michael J. Strong, President, CIHR (Vice-Chair, 2019; Chair 2020)

As per the CRCC's terms of reference, the position of chair rotates each calendar year between the presidents of CIHR, NSERC and SSHRC. Ted Hewitt, President of SSHRC, chaired the Committee in 2019 and Michael Strong, President of CIHR, assumed that role in 2020.

VISION

The CCRC envisions a coordinated system of federal support that strengthens the research ecosystem and contributes to the social and economic well-being of Canadians. It envisions an integrated and agile, interdisciplinary, international and inclusive system that supports young innovators, encourages risk-taking and propels Canadian research excellence.

PRIORITIES

In pursuit of this vision, the CRCC and its member organizations set out to advance the following key priorities for federally funded postsecondary research:

- achieve a more equitable, diverse and inclusive Canadian research enterprise;
- co-develop with Indigenous Peoples an interdisciplinary research and research training model that contributes to reconciliation;
- support early career researchers in exploring innovative ideas and developing their potential;
- increase engagement in interdisciplinary, international, high-risk, rapid-response research; and
- develop a framework for international cooperation and engagement that positions Canada as a valued partner in global research and innovation.

When COVID-19 emerged as a global threat to health and security early in 2020, the CRCC mobilized quickly to address a new, urgent priority: Canada's research response and recovery. This priority focuses on the needs of Canadians and researchers in this difficult time, recognizing that the research community and federal research funding agencies play a critical role in Canada's response to the pandemic.

RESOURCES

To advance these priorities, the Government of Canada invested significant resources in Budgets 2018 and 2019. In addition to major investments in core agency programs, Budget 2018 provided the following:

- $275 million over five years, with an annual budget growing to $124 million by 2023–24, for interdisciplinary, international, high-risk, rapid-response research;
- $6 million over five years to improve data collection and $15 million over five years for programs to increase equity, diversity and inclusion in research at postsecondary institutions;
- $3.8 million in 2018–19 to co-develop with Indigenous Peoples a strategic plan for research by and with Indigenous communities;
- $210 million over five years for the Canada Research Chairs Program to attract and retain leading early career researchers at postsecondary institutions while increasing diversity among nominated researchers.

In Budget 2019, it invested:

- $37.4 million over five years, with $8.6 million per year ongoing, to expand parental leave coverage from six months to 12 months for students and postdoctoral fellows.

CRCC members discuss the evolution of "research excellence" at CSPC 2019. ***From left to right:*** *Roseann O'Reilly Runte (CFI), Alejandro Adem (NSERC), Tammy Clifford (Vice-President, Research Programs at CIHR, delegate for Michael Strong), Ted Hewitt (SSHRC) and moderator Liette Vasseur (Brock University). Photo credit: CIHR*

ENGAGEMENT

To launch work in all priority areas, the CRCC and its member organizations engaged Canadian researchers, graduate students and administrators in national consultations, completed in 2018. Through regional round-tables, online surveys, written submissions and ongoing engagement with Indigenous communities, collectives and organizations, as well as discussions with the governing bodies of CRCC member agencies, more than 1,500 people helped shape CRCC initiatives in 2019–20.

See the CRCC's Summary Report on Proposed Measures to Strengthen Science in Canada.

CRCC members continued their dialogue with the research community in 2019–20, engaging delegates at the Canadian Science Policy Conference (CSPC) in a plenary session on the future of research excellence. The concept is always changing as our understanding of what constitutes knowledge, its creation and its use expands. Many of the initiatives described below reflect this evolution and will play an important role in the years ahead, keeping Canadian research on the leading edge of knowledge.

PROGRESS

Informed by the insights and advice of Canadian researchers, Canada's federal funding agencies for postsecondary research, training and infrastructure have worked closely together to advance national priorities, mobilize Canadian research broadly and in the context of COVID-19, and refine our understanding of excellence.

The following pages summarize their progress over the past year.

PRIORITY

STRENGTHENING EQUITY, DIVERSITY AND INCLUSION IN RESEARCH

Canada mobilizes its full potential for developing talent, exploring solutions and discovering new insights when the research enterprise is inclusive. By tapping into diverse perspectives from different backgrounds, research has more impact and is more responsive to the needs of society. It is strengthened for the benefit of all.

Yet, systemic barriers and biases remain for underrepresented groups in the research funding system and the research enterprise more broadly. The CRCC, together with the federal research funding agencies, are working with key stakeholders to address these obstacles.

In September 2019, the agencies jointly released the Tri-agency Statement on Equity, Diversity and Inclusion (EDI). The statement reflects a shared commitment to mobilizing an inclusive research culture in Canada and promoting outcomes that are rigorous, relevant and accessible to diverse populations. It supports equitable access to funding, the integration of EDI considerations in research design, increasing equitable and inclusive participation in research, and ongoing data collection and analysis.

As part of this commitment, the agencies have updated and strengthened the Tri-agency EDI Action Plan and have taken important steps in its implementation. The plan sets out two objectives: fair access to tri-agency research support and equitable participation in the research ecosystem. Both objectives include key performance indicators, initiatives and milestones for monitoring success and supporting targeted outcomes.

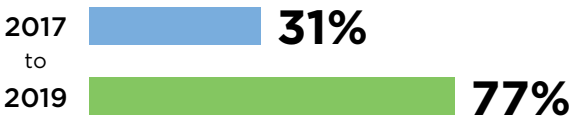
Within this context, many actions have been taken or are underway to foster greater EDI in Canada's research ecosystem and strengthen Canadian research.

ACTIONS

Canada Research Chairs Program out front on EDI

The tri-agency Canada Research Chair Program (CRCP) has been out front in efforts to increase EDI, launching its Equity, Diversity and Inclusion Action Plan in 2017. Equity targets—an important monitoring tool—were set for December 2019 for four underrepresented groups: women, persons with disabilities, Indigenous Peoples and members of visible minorities.

Institutions meeting their targets increased from:



Through this plan, the CRCP is increasing representation for underrepresented groups over time. From 2017 to 2019, institutions meeting their targets increased from 31% to 77%. Targets were again raised in 2019 to meet the objectives of the 2019 Addendum to the 2006 Canadian Human Rights Settlement Agreement. Institutions not meeting their targets can now only submit new nominations from individuals who self-identify in one or more of the four underrepresented groups.

Capacity-Building Grants

The Equity, Diversity and Inclusion Institutional Capacity-Building Grant pilot program awarded $5.3 million in March 2019 to small universities and colleges to help advance EDI. Fifteen institutions received up to $200,000 per year for up to two years to support efforts in eliminating systemic barriers that impede the career advancement, recruitment and retention of underrepresented and/or disadvantaged groups.

In their progress reports, institutions that received grants noted accomplishments such as hiring EDI specialist(s) and implementing EDI data collection, policy reviews and training initiatives. The pilot's second round application process runs from September 2020 to March 2021 and is again open to small universities, colleges and CÉGEPs.

How some smaller universities are using EDI Institutional Capacity-Building Grants to advance EDI

- Cape Breton University (CBU) created an online education program "Learning about the L'nu Way." The program provides foundational knowledge on who the L'nu (Mi'kmaq) are, their history and culture, and the rights-based challenges they face in Canadian society today. The learning experience is available to current CBU staff and will be part of the intake process for all new members.
- University of Regina created a position for an Equity, Diversity and Inclusion Officer for Research. It now has a dedicated expert to lead EDI initiatives across the research portfolio.

Cape Breton University's Learning about the L'nu Way program begins with a one-hour video, "Learning about the Mi'kmaw Creation Story," told by Stephen Augustine, Hereditary Chief of the Mi'kmaq Grand Council and the Associate Vice-President of Indigenous Affairs and Unama'ki College at CBU. Photo credit: Cape Breton University

Pauline Streete, EDI Officer for Research, and Thomas Chase, Interim President and Vice-Chancellor, engage with faculty, staff and students at one of the University of Regina's townhalls on EDI.
Photo credit: University of Regina

Dimensions

On May 9, 2019, the Dimensions: equity, diversity and inclusion Canada tri-agency program was launched to mobilize the transformational and cultural change needed to increase EDI within postsecondary institutions and the research ecosystem. The program recognizes institutional progress made toward instilling a culture of EDI. Modelled after similar programs in the UK, Ireland, Australia and the USA, the program was shaped by 2018–19 cross-country consultations to reflect the Canadian context.

Dimensions addresses systemic barriers in research, particularly those experienced by members of underrepresented or disadvantaged groups, including, but not limited to, women, Indigenous Peoples, persons with disabilities, members of visible minority/racialized groups and members of LGBTQ2+ communities. A voluntary initiative, the program includes:

- **Dimensions Charter:** Institutions that endorse the Dimensions Charter commit to embed EDI principles in their policies, practices, action plans and culture. To date, more than 110 research-focused institutions and 10 federal government departments and agencies in Canada have endorsed the charter.
- **Dimensions pilot recognition program:** From a group of 40 that applied, 17 Canadian postsecondary institutions were selected to develop a program that publicly recognizes—through a non-monetary award system—efforts and progress in increasing EDI. The other institutions (affiliates) remain engaged. All institutions across Canada will learn and benefit from this program.

Dimensions
Equity, diversity and inclusion Canada

Art Blake (he/him), Director, Dimensions Pilot Program and Professor, Department of History at Ryerson University
Photo credit: Alia Youssef

For Ryerson researchers—undergrads, grads, postdocs and faculty—participating in the Dimensions Pilot unites us all around key questions of EDI before we form or join a research team or write a grant. We have Dimensions teams in every faculty, and in the Yeates School of Graduate Studies, looking at best practices and at barriers specific to each research area. The enhanced attention to EDI by the tri-agency councils has provided a good foundation for the challenges inherent in implementing the Dimensions Pilot."

*CRCC members Alejandro Adem **(far left)**, Mona Nemer **(centre)** and Iain Stewart **(back right)** with the Dimensions Charter signed by federal government departments and agencies at the Celebrating Government of Canada Women in STEM Symposium, February 11, 2020.*
Photo credit: NRC

Other initiatives

Strengthening EDI to mobilize a more vibrant research enterprise requires ongoing effort and a multi-faceted approach. Other actions taken include:

- **Harmonized EDI training plan for agency staff:** Adopted by CFI, CIHR, NSERC and SSHRC in December 2019, the plan outlines mandatory EDI training for all agency staff, as well as external review, selection, governance and advisory members. It includes common elements, such as Gender-based Analysis Plus (GBA+) training, and more customized EDI training tailored to agency-specific needs. It provides concrete steps for building a stronger EDI competency in each agency, through training in unconscious bias and proactively addressing barriers, and by providing tools for assessing how diverse groups experience policies, programs and initiatives.
- **Harmonized collection of self-identification data for research team members:** Building on the launch of a harmonized self-identification questionnaire in 2018, in 2019–20 the agencies and the CFI continued to work together to collect and analyze self-identification data for research team members[1] to evaluate ongoing progress in EDI.
- **New Frontiers in Research Fund includes EDI as an evaluation criterion:** Successful applications must reflect a commitment to EDI and consider identity factors in research design when applicable. To support this, the program released the Best Practices in Equity, Diversity and Inclusion in Research Guide in September 2019 to increase stakeholders' EDI awareness and understanding.

To view reporting on EDI by the federal research funding agencies and the CFI, go to Annex I: Self-identification data collection in support of equity, diversity and inclusion.

1 Research team members include all participants' roles: applicants, co-applicants, collaborators, nominated principal investigator, co-nominated principal investigator.

PRIORITY

STRENGTHENING INDIGENOUS SELF-DETERMINATION, LEADERSHIP AND CAPACITY IN RESEARCH AND TRAINING

Mobilizing and building Indigenous research capacity in Canada requires a new approach that speaks to the experiences, knowledge and leadership of Indigenous Peoples. Reconciliation with First Nations, Inuit and Métis is an ongoing commitment of Canada's research funding agencies. It is part of the Government of Canada's efforts to establish a new relationship with Indigenous Peoples—one that creates a more equitable and just society that acknowledges the importance of Indigenous knowledge systems, based on a guiding principle of mutual respect.

In 2018–19, the agencies engaged with Indigenous communities and organizations across the country to listen and learn from their experiences and insights on research and research talent development.

First Nations, Inuit and Métis Peoples informed the creation of a new strategic research and research training plan for the agencies that integrates Indigenous leadership and responds to community needs. This was achieved through regional roundtables held with Indigenous community leaders, students and researchers, the contribution of 110 position papers (developed with support from Indigenous Research Capacity and Reconciliation Connection Grants), the convening of the National Dialogue event, and ongoing engagement with Indigenous organizations and communities.

ACTIONS

Strategic Plan

Released in January 2020, *Setting New Directions to Support Indigenous Research and Research Training in Canada 2019–2022* identifies four strategic directions that are informing the development of new models of support for Indigenous research and training in Canada:

1. Building relationships with First Nations, Inuit and Métis Peoples
2. Supporting research priorities of Indigenous Peoples
3. Creating greater funding accessibility to research funding agency programs
4. Championing Indigenous leadership, self-determination and capacity in research

The plan embodies a new approach, ensuring that Indigenous Peoples set their own research priorities, guide how research is done and how data is used, and have equitable access to research and research training opportunities.

As a key step toward implementing the plan, the federal research funding agencies issued a call in January 2020 for Indigenous individuals with a deep cultural understanding of First Nations, Inuit and Métis research to form a new Reference Group for the Appropriate Review of Indigenous Research. Membership was announced in September 2020, providing a group to advise the agencies and guide the development and implementation of culturally appropriate peer review for research conducted by and with Indigenous Peoples.

“The National Centre for Truth and Reconciliation (NCTR) celebrates the important work of the CRCC and the tri-agencies in responding to Call to Action 65, and encourages ongoing efforts across all federal departments and agencies to uphold and advance the Truth and Reconciliation Commission Calls to Action and Principles of Reconciliation.”

“The NCTR has enjoyed a close working relationship with colleagues at federal research funding agencies in the development of a national reconciliation research strategy. This strategy, with its proactive affirmation of Indigenous organizations, qualifications and research methodologies, represents a significant step forward in ensuring all voices are heard in the search for new knowledge and understanding.”

Ry Moran, former Director, National Centre for Truth and Reconciliation, January 2020. Ry Moran is now Associate University Librarian, Reconciliation, University of Victoria.
Photo credit: Nardella Photography.

Source: Setting New Directions to Support Indigenous Research and Research Training in Canada 2019–2022. Artwork: Donald Chrétien

PRIORITY

SUPPORTING EARLY CAREER RESEARCHERS

Early career researchers (ECRs) inspire and drive some of Canada's most innovative and forward-looking research. By introducing measures to help mobilize their efforts, Canada unlocks new discoveries and strengthens its position as a world leader in research talent development, both now and in the future.

Many ECRs face barriers in developing their potential, including the challenges of establishing research credentials or having them recognized, securing resources, and competing for a limited number of research positions. Overcoming these obstacles by supporting ECRs and their innovative ideas is essential to keeping Canada's research enterprise dynamic and vibrant.

That's why the CRCC and Canada's federal research funding agencies continue to look for ways to strengthen their support for the next generation of research talent.

ACTIONS

Updated Tri-agency ECR Action Plan

The ECR plan was simplified and enhanced in 2019–20 to include two high-level, measurable objectives:

1. Fair access to tri-agency research support
2. Equitable participation in the research ecosystem

Both objectives include performance indicators, initiatives and milestones for monitoring success and supporting targeted outcomes.

Updated Tri-agency ECR definition to better support ECRs and meet program needs

The harmonized definition provides more clarity on how an ECR is defined. It also credits twice the time taken for eligible leaves to reflect the time ECRs need to re-integrate back into a research role. Adopted in September 2019, it will be phased in over time in appropriate agency and tri-agency programs.

Tri-agency ECR Definition

An ECR is a researcher within five years from the date of their first research-related appointment, minus eligible delays in research, where:

- research-related appointments are defined as those where the individual has the autonomy to conduct research independently; and
- all eligible leaves (e.g., maternity, parental, medical, bereavement) are credited as twice the amount of time taken; and
- professional leaves (e.g., training, sabbatical, administrative) are not credited.

NFRF-funded early career researcher, Assistant Professor Jan Dettmer of the Department of Geoscience at the University of Calgary, is studying next-generation volcano- and landslide-hazard monitoring at the Mt. Meager volcano massif. Through a novel interdisciplinary, cross-sectoral approach, the project is developing new knowledge about volcanoes, slope stability, glaciers, how these complex systems interact, and real-time monitoring technology.

In the photo, Jan Dettmer (left), with PhD student Pejman Shahsavari (centre) and industry partner Jason France (right) of OptaSense, are installing a sophisticated fiber-optic sensing system on the glacier-clad mountain to monitor deformation events. Photo credit: Carson Laing, OptaSense

Shared performance indicators for ECR initiatives

Building on the initiatives undertaken in 2018, the agencies and the CFI monitor and report on harmonized 2019–20 performance indicators for supporting ECRs, a critical step for working together to evaluate ongoing progress.

Balanced funding for ECRs

In appropriate flagship programs, the agencies committed to dedicating a portion of funding to ECR-led projects, relative to the number of ECR-led applications received. Rollout of this commitment has started. NSERC's Discovery Grants and the New Frontiers and Research Fund both implemented balanced funding for ECRs in 2019–20.

Increased parental benefits

Announced in Budget 2019 and part of the Tri-agency ECR Action plan, parental leave coverage for students and postdoctoral fellows who are funded directly or indirectly by agency funds was expanded from six to 12 months in 2019–20 to increase support for emerging scholars during leaves.

250 Tier 2 Canada Research Chairs allocated to emerging researchers

Announced in Budget 2018, 250 new Tier 2 Chairs, with an additional $20,000 research stipend for first-term appointees, were added to the Canada Research Chairs Program to develop promising emerging research talent. Institutions continue to fill these positions, with 36 appointments made in 2019–20.

To view reporting on ECR participation in programs offered by the federal research funding agencies and CFI, go to Annex II: ECR data for flagship investigator-initiated research grant competitions.

PRIORITY

INCREASING ENGAGEMENT IN INTERDISCIPLINARY, INTERNATIONAL, HIGH-RISK, RAPID-RESPONSE RESEARCH

Following consultations with Canada's research community, the New Frontiers in Research Fund (NFRF) was launched in late 2018 to mobilize world-leading interdisciplinary, international, high-risk/high-reward, rapid-response Canadian research. The fund is investing $275 million over five years (2018–19 to 2022–23) and will grow to have an annual budget of $124 million in 2023–24.

NFRF has three streams, each designed to support specific goals:

Exploration
generates opportunities for Canadians to conduct innovative high-risk, high-reward interdisciplinary research.

Transformation
provides large-scale support to build Canadian strength and leadership in interdisciplinary transformative research.

International
enhances opportunities for Canadian researchers to partner on international projects.

International research is an important focus of the fund. To meet this goal, the International stream funds Canadians participating in international projects, while the other streams provide Canadian-led projects with the option of including international researchers in the team, who are eligible for funding.

New Frontiers in Research Fund
Fonds **Nouvelles frontières** en recherche

ACTIONS AND ACCOMPLISHMENTS

The year was marked by major milestones and accomplishments in rolling out NFRF's three funding streams, as well as the introduction of important enhancements and innovations in program design and delivery.

Competitions

2019 Exploration: Awarded 186 grants (up to $250,000 over two years) in March 2020 to explore high-risk, high-reward, interdisciplinary research: 38% of the awards were for proposals led by ECRs; 29% of projects included an international research participant.

2020 Transformation: Launched the stream's inaugural competition in December 2019 following consultations with diverse stakeholders from Canada's research community in summer 2019. The competition offers grants between $2 million and $4 million per year over six years for large-scale, Canadian-led interdisciplinary research projects that tackle a major problem or challenge. Interest has been strong with more than 400 notices of intent received in February 2020. Postponed due to COVID-19, the deadline for the invitation-only application is set for April 2021.

2020 Horizon Global Platform: Launched the International stream's first competition in January 2020 with grants up to $125,000 per year for four years to support Canadian researchers participating in 34 eligible European Union Horizon 2020 projects.

Rapid-response research for COVID-19: Contributed $7 million in March 2020 to the Government of Canada's first research response to COVID-19. This included funding 15 projects that are examining and developing solutions to address a wide range of issues related to COVID-19, including diagnostics, disease forecasting, public health, public policy, education, community engagement and global coordination.

Program enhancements and innovations

To move research in innovative directions, the program has the flexibility to try different approaches for selecting projects for funding. In the last year, the following initiatives were introduced or enhanced, many of them helping to advance other CRCC priorities:

Merit review puts ideas first: To help identify truly innovative research, competition evaluation processes focus primarily on the research idea. For example, Exploration competitions use a double-blind merit review process whereby external reviewers are not given information that identifies the research team. NFRF applications are also designed to provide more flexibility in demonstrating expertise and experience than traditional approaches.

Supporting reviewers to embrace risk in Exploration: Recognizing that risk is unavoidable when exploring breakthrough ideas, it is expected that some funded Exploration projects will fail. The Multidisciplinary Review Panel is encouraged to support and recommend the funding of risky projects with the potential for high reward.

Balanced funding for ECRs in Exploration: Introduced in the 2019 competition, ECR-led projects receive funding in proportion to the number of applications received. While ECRs often face barriers in research, their ideas help drive some of Canada's most innovative and forward-looking research.

“With 2021 marking the beginning of the United Nations Decade of Ocean Science for Sustainable Development, our ‘Blue Justice Alert’ research project is testing a new paradigm for globally securing small-scale fisheries against the impacts of climate change, urban and tourism development, and changing fishery policies and laws.”

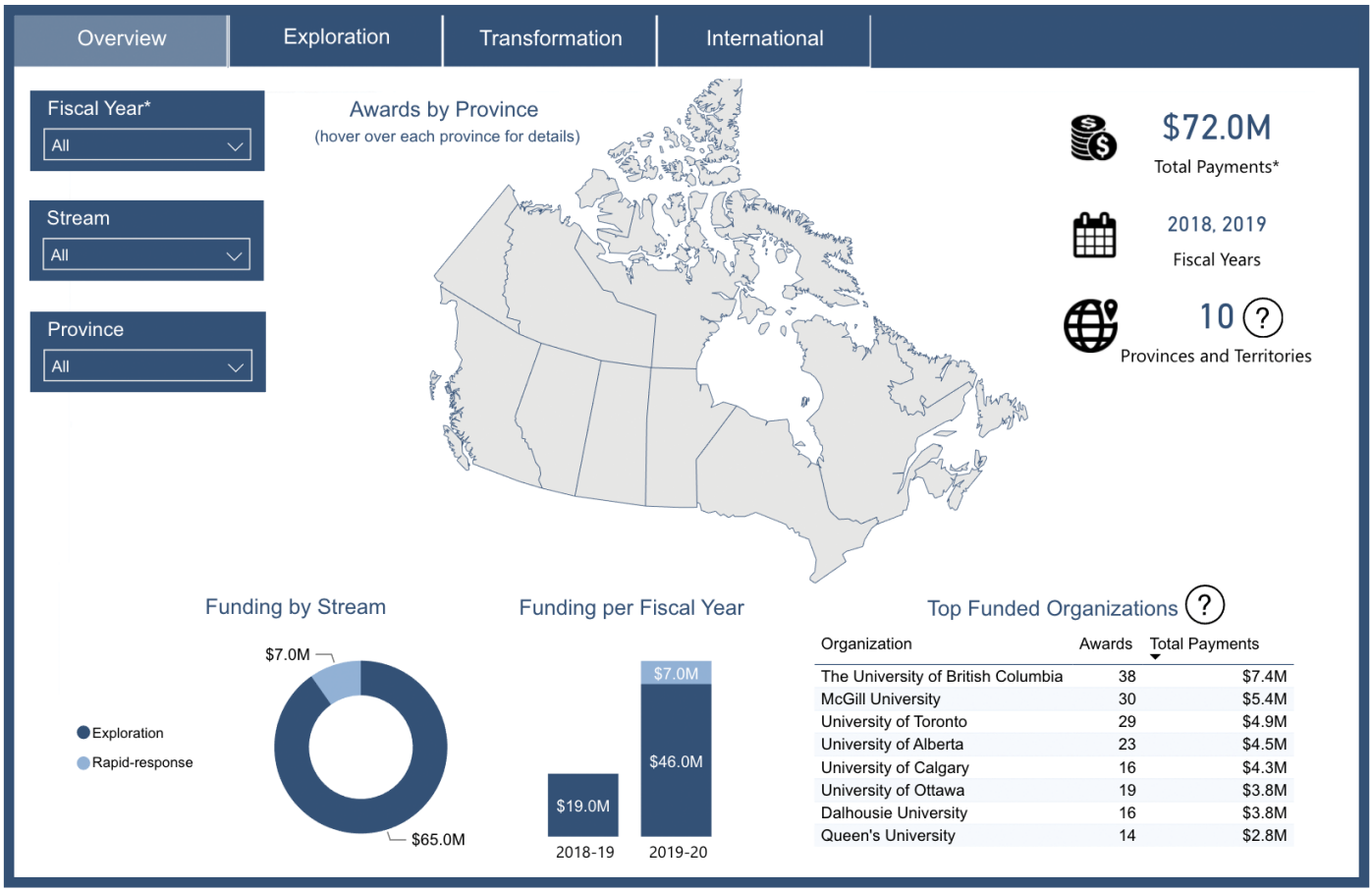
“Our interdisciplinary and international team is incorporating knowledge from diverse fields—including ethics and human rights, sustainable development, sociology, information and decision systems, and fishery management—to build a new mobile, interactive platform from the ground up for helping small-scale fisheries around the world secure their livelihoods. Research team members in Bangladesh, Mexico and South Africa are working closely with local small-scale fisheries for input into the development of the platform and to test use cases. The project’s novel approach, using readily accessible technology, aims to help small-scale fisheries connect with experts and other stakeholders like government. It also aims to assist small-scale fisheries in co-creating solutions that support sustainability.”

Ratana Chuenpagdee, University Research Professor, Department of Geography, Faculty of Humanities and Social Sciences at Memorial University of Newfoundland and recipient of an NFRF 2019 Exploration award.
Photo credit: Rich Blenkinsopp

Strengthened EDI: Released in September 2019, the Best Practices in Equity, Diversity and Inclusion in Research Guide aims to increase EDI awareness and understanding among NFRF applicants and stakeholders. Achieving a more equitable, diverse and inclusive Canadian research enterprise is essential for Canada to realize its full research potential. Successful applications in all streams—Exploration, Transformation and International—must reflect a commitment to EDI through concrete actions.

Consideration of identity factors in research design: Projects funded through the NFRF program must integrate Gender-based Analysis Plus (GBA+) into the project design. GBA+ considers the impacts of identity factors such as sex, gender, race, ethnicity, religion, age and mental or physical disability. By considering diverse perspectives, research is more rigorous, relevant and accessible to varied populations. When a researcher believes the project has no identity factor impacts, a rationale must be given.

For more information on NFRF.



See the New Frontiers in Research Fund's interactive dashboard for key data on competitions.

PRIORITY

ENHANCING INTERAGENCY COOPERATION ON INTERNATIONAL RESEARCH

Canadian researchers are increasingly seeking out international partners and are being invited to work with colleagues from around the world. These international research collaborations strengthen Canadian research and allow Canadian researchers to contribute to global society.

*Prime Minister Justin Trudeau and Donald Tusk **(right)**, the former President of the European Council, sign the Canada-European Union Summit Joint Declaration on July 18, 2019, recognizing the importance of research collaboration and welcoming support, through the New Frontiers in Research Fund, for Canadians participating in international teams funded through Horizon 2020 or Horizon Europe. Photo Credit: Office of the Prime Minister*

The scale and scope of international research have increased to such an extent in recent years that funding agencies in many countries are now making concerted efforts to develop, support and sustain international collaborations. In this context, CRCC member agencies set out to develop shared objectives and principles to help guide joint international activities, mobilize Canada's full research potential and safeguard Canadian interests while positioning Canada as a valued partner in international research and innovation.

ACTIONS

International Framework

In January 2020, the CRCC released the *International Framework: Statement of Objectives and Principles*. The framework serves as a reference that complements the international strategies of CRCC member agencies and applies when agencies have converging or intersecting international priorities. It informs decisions in areas of mutual interest and helps guide the design of interagency initiatives with an international component, such as NFRF.

OBJECTIVES

1. Develop world-class Canadian research and researchers by engaging global research excellence
2. Support Canadian researchers addressing challenges of global importance
3. Strengthen Canada's presence and visibility in the international research community

PRINCIPLES

- Supporting excellence in research
- Transparency, independence and merit
- Scientific/research integrity
- Equity, diversity and inclusion
- Open science

Even before the framework was adopted, the CRCC and Canada's research funding agencies initiated measures consistent with its objectives and principles. They extended support for international participants in all NFRF-funded projects and, in response to the July 2019 Canada-EU Summit Joint Declaration, approved the NFRF 2020 Horizon Global Platform competition.

In February 2019, the CRCC signed a Letter of Understanding (LOU) with UK Research and Innovation (UKRI) to facilitate cooperation in research, innovation and training through shared principles and activities. Building on the LOU, in 2019, Canada's federal research funding agencies and four UKRI councils announced the Canada-UK Artificial Intelligence (AI) Initiative aimed at building competitive, resilient and healthy economies and societies. In March 2020, funding was provided for 10 projects, investing approximately C$5 million and £5 million over three years to fund interdisciplinary, international AI research teams.

PRIORITY

SUPPORTING CANADA'S RESEARCH RESPONSE TO COVID-19

Since COVID-19 emerged as a threat to Canadians' health and well-being in January 2020, the CRCC, its member agencies and departments, and the research community have worked closely together to strengthen Canada's research response and recovery. The first rapid-response call for proposals was launched on February 10 with funding awarded four weeks later.

Top: *The former Minister of Innovation, Science and Industry, the Honourable Navdeep Bains, and the Minister of Health, the Honourable Patty Hajdu, announced $27 million in funding for Canadian-led COVID-19 research projects on March 6, 2020. CRCC contributed $7 million through NFRF for this initial, rapid-response call. Photo credit: CIHR*

Bottom: *Université Laval's Professor Louis Flamand chairs the Faculty of Medicine's Department of Microbiology and Immunology where he leads a NFRF-funded project studying the pathogenesis of COVID-19. At Laval's Biosafety level 2 lab, Flamand holds a cryo tower of samples preserved at -150˚C.*

As the Steering Committee for NFRF, the CRCC allocated $7 million to this first competition to support projects focused on diagnostics, forecasting, public policy, education and global coordination. In addition, the CRCC extended NFRF deadlines for competitions in progress and topped up 2018 Exploration grants for ECRs to help researchers effectively manage disruptions.

These initiatives, taken in the early days of the pandemic, were only the beginning. Even then, it was clear that mobilizing Canadian research to combat the pandemic would be the first priority for Canada's research funding agencies and departments well into 2020–21 and beyond.

BUILDING BACK BETTER—THE YEAR AHEAD

There is no question that COVID-19 changed the lives of all Canadians in 2020. Certainly, it changed the lives of Canadian researchers in every discipline and sector who were called into action—with their international colleagues—to provide a rapid, comprehensive, scientific response to help their fellow citizens. For many, the experience brought home the value of working together and engaging all our knowledge and talent to address our greatest challenges.

It is a realization with implications for Canadians and Canadian science that goes far beyond our pandemic response. COVID-19 is just one example of the complex challenges facing our country that demand interdisciplinary, intersectoral and international scientific cooperation and coordination.

Working together through the CRCC, Canada's research funding agencies and departments are helping Canadians meet those challenges. In 2019–20, they responded quickly—in unison—to the pandemic. They also took important strides to coordinate policies and programs encouraging risk-taking, interdisciplinary, international research; engaging Indigenous Peoples; energizing young innovators; and mobilizing the research talents of more Canadians across the research ecosystem. The goal is to mobilize a research community as strong and diverse as Canada, which is a source of creativity and innovation for our country and the world.

The goal in 2020–21 will be to sustain and grow that community, to help Canadians meet the pandemic challenge and build back better.

ANNEXES

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ANNEX I

SELF-IDENTIFICATION DATA COLLECTION IN SUPPORT OF EQUITY, DIVERSITY AND INCLUSION

This annex represents two separate and distinct data sets drawn from the self-identification questionnaire for tri-agency and agency-specific (CIHR, NSERC, SSHRC and CFI) major funding opportunities from the 2019 competition year.[2] The tables and figures from each data set present a snapshot of self-identification information regarding the following groups: women, Indigenous Peoples, visible minorities and persons with disabilities. Completing the self-identification questionnaire is mandatory; however, all questions provide an option to select "I prefer not to answer."

The first data set presents a summary of the application and award rates[3,4] of tri-agency and agency-specific major funding opportunities (Tables 1a and 1b; Figures 1a–1d).[5] The data distinguish between applications and award rates for research and training programs and provide an overview of the nominations and filled allocations for the Canada Research Chairs Program. The second data set summarizes the number of research team members[6] participating in agency program applications, per agency, who have completed the self-identification questionnaire (Tables 2a–2e).

Application and award rates for tri-agency and agency-specific major funding opportunities

Application and award rates for major funding opportunities for competition year 2019 are outlined below as they relate to the four groups identified in the self-identification questionnaire. The data are collected from the questionnaires completed by the individual who has the primary responsibility for the application.

The collection of this data is still very new, and caution should be exercised in interpreting the data, particularly for competitions

2 Competition year is defined by the fiscal year in which the first award payment for a competition is anticipated. Applications may be received in the previous fiscal year, and/or some awardees may receive their first payment in the subsequent fiscal year, but all application and award data for a given competition year will be kept together. Tri-agency funding opportunities are NOT included.

3 The application rate is calculated by dividing the number of applications in the competition year where the individual responsible for the application self-identifies as a member of an underrepresented group by the total number of applications in the competition year, multiplied by 100 (to calculate a percentage).

4 The award rate is calculated by dividing the total number of awardees from a competition year who identify as a member of an underrepresented group by the total number of awardees who received funding in a competition year, multiplied by 100 (to calculate a percentage). Here, awardees are the individuals responsible for the application and do not include their colleagues who are part of research teams, where applicable.

5 This first data set represents the individual identified as having the primary responsibility for the overall intellectual direction of the research, research-related activity or partnership; generally, the agencies refer to this person in various ways, such as the "principal investigator", "project director" and "(nominated) principal applicant"; this also includes students and postdoctoral fellows who submit applications to the scholarships and fellowship programs.

6 The second data set includes all members of the research team, i.e. generally includes the principal investigator or project director or (nominated) principal applicant, as well as co-applicants, collaborators, students and postdoctoral fellows.

with low numbers of applications. As more data are collected in coming years, trends can be tracked and analyzed for a clearer picture of underrepresented groups' participation in the Canadian research enterprise and in accessing available funds.

Table 1a: Summary of application and award rates for tri-agency and agency-specific major funding opportunities

	Women		Indigenous		Persons with disabilities		Visible minorities	
Research Program	**App. rate**	**Award rate**	**App. rate**	**Award rate**	**App. rate**	**Award rate**	**App. rate**	**Award rate**
CIHR Project Grants	34.7%	36.3%	0.6%	–	2.0%	2.4%	21.3%	16.3%
NSERC Discovery Grants	22.2%	21.5%	0.6%	0.3%	1.6%	1.5%	23.5%	22.0%
NSERC Partnership Grants	16.3%	15.2%	0.5%	–	1.4%	1.1%	33.2%	33.5%
SSHRC Insight Grants	50.5%	53.1%	1.8%	2.1%	4.1%	3.9%	19.5%	18.0%
SSHRC Partnership Grants	53.3%	59.6%	3.0%	3.2%	3.6%	4.5%	14.6%	15.4%
CFI John R. Evans Leaders Fund	38.6%	39.6%	1.8%	1.9%	0.9%	0.9%	20.4%	19.8%
New Frontiers in Research Fund*	35.9%	38.7%	0.9%	–	2.7%	2.9%	30.3%	28.3%
Training Program	**App. rate**	**Award rate**	**App. rate**	**Award rate**	**App. rate**	**Award rate**	**App. rate**	**Award rate**
Canada Graduate Scholarships – Master's*	59.8%	63.4%	2.5%	3.0%	4.5%	4.0%	21.3%	18.7%
CIHR Doctoral Research Awards	62.7%	62.4%	–	–	2.4%	2.8%	20.3%	22.1%
CIHR Postdoctoral Fellowships	53.3%	50.0%	0.7%	–	1.3%	–	28.6%	25.0%
NSERC Postgraduate Scholarships – Doctoral	38.1%	37.7%	2.0%	1.2%	2.6%	2.3%	25.0%	23.1%
NSERC Postdoctoral Fellowships	35.3%	31.3%	–	–	1.2%	–	37.5%	33.0%
SSHRC Doctoral Awards	62.6%	61.5%	5.8%	5.4%	6.4%	4.1%	18.9%	18.9%
SSHRC Postdoctoral Fellowships	53.4%	53.8%	0.7%	–	5.2%	4.9%	20.4%	16.8%
Vanier Canada Graduate Scholarships*	58.7%	55.1%	3.5%	4.2%	5.6%	6.6%	29.1%	26.9%
Banting Postdoctoral Fellowships*	47.2%	35.7%	–	–	4.2%	8.6%	23.9%	27.1%

*Tri-agency funding opportunities

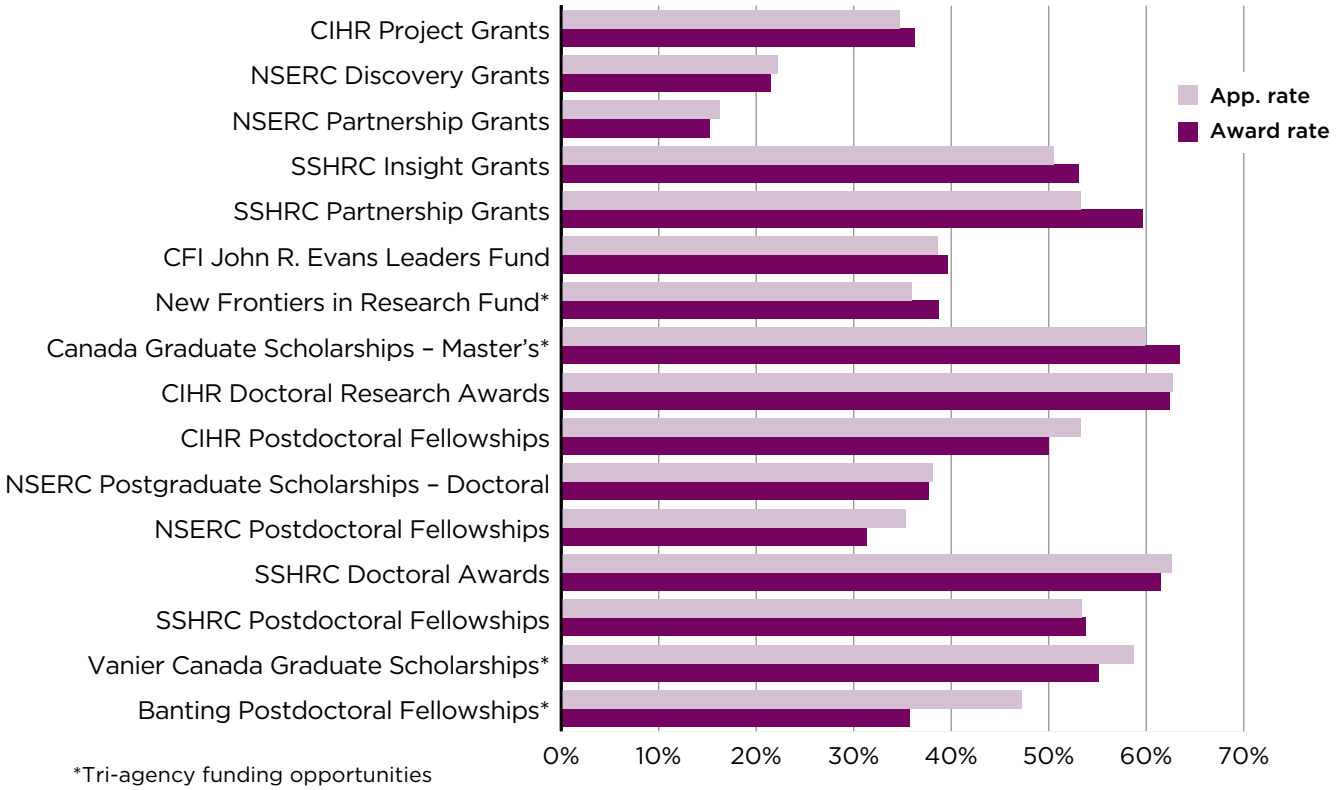
Table 1b: Nominations and filled allocations for the Canada Research Chairs Program

	Women		Indigenous		Persons with disabilities		Visible minorities	
Program	**Nominations**	**Filled alloc.***	**Nominations**	**Filled alloc.***	**Nominations**	**Filled alloc.***	**Nominations**	**Filled alloc.***
Canada Research Chairs Program	51.5%	38.1%	5.3%	3.2%	7.7%	5.4%	26.8%	20.9%

*As of August 6, 2020

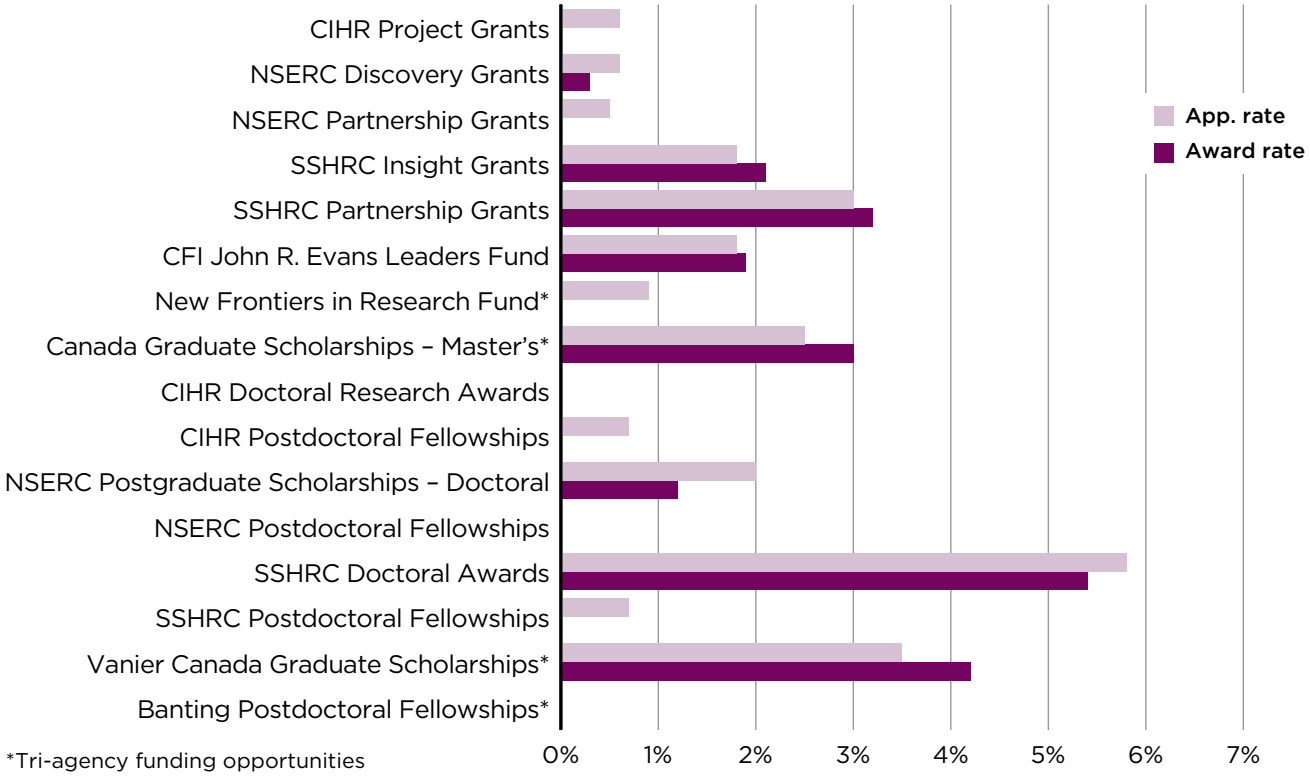
Note: Figures 1a-1d below are visual representations of the data provided in Table 1a, above.

Figure 1a: Application and award rates for **WOMEN** by tri-agency and agency-specific funding opportunities



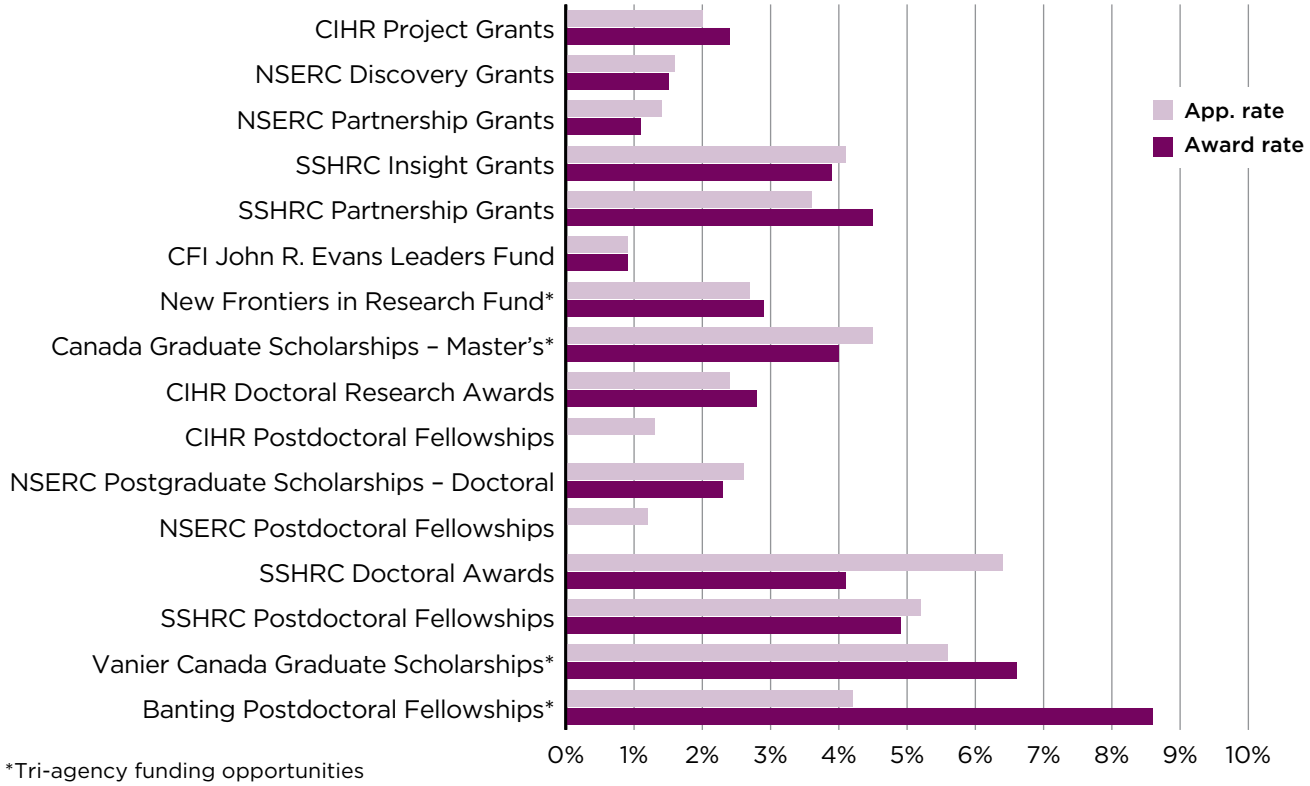
*Tri-agency funding opportunities

Figure 1b: Application and award rates for **INDIGENOUS** by tri-agency and agency-specific funding opportunities



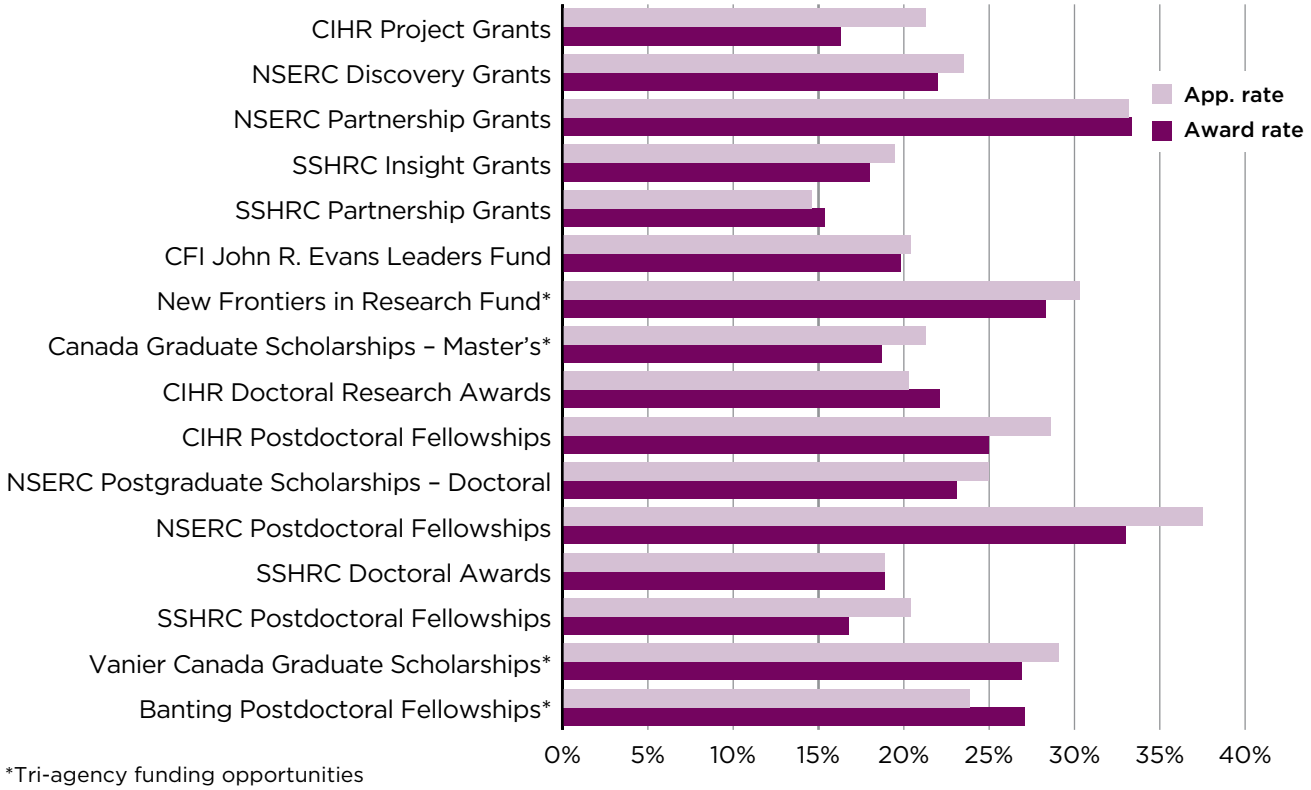
*Tri-agency funding opportunities

Figure 1c: Application and award rates for **PERSONS WITH DISABILITIES** by tri-agency and agency-specific funding opportunities



*Tri-agency funding opportunities

Figure 1d: Application and award rates for **VISIBLE MINORITIES** by tri-agency and agency-specific funding opportunities



*Tri-agency funding opportunities

Notes:

- A dash (-) indicates categories where five or fewer responses were received.
- The CRCP requires that all nominees submit a self-identification form as part of a complete nomination package; as such the data presented in this table correspond to the nomination rate and filled allocations. This data must not be used to calculate award rates or success rates. For additional program statistics, consult the program website.
- The CRC nominations represent the number of nominations in all cycles of the reporting year (e.g. 2019–1 and 2019–2) in which nominees self-identify as a member of an underrepresented group, divided by the total number of nominees in all cycles of the reporting year, multiplied by 100 (to calculate a percentage).
- The filled CRC allocations (total representation in program) represent the number of active chairs who self-identify as a member of an underrepresented group, divided by the total number of active chairs, multiplied by 100 (to calculate a percentage). Due to the nature of the program, these data are only available as point in time.

Summary of self-identification data collected per agency

The following tables provide a snapshot of the number of self-identification forms submitted to CIHR, NSERC, SSHRC and CFI for their major funding opportunities in competition year 2019. All funding opportunities and all research team members' roles (as defined in note 6, above) are included; members are only counted once per agency.

Similarly to 2018 competition data, the percentage of individuals who "prefer not to answer" is low; these results appear to indicate that members of CIHR, NSERC, SSHRC and CFI's research communities understand the need for self-identification information and are generally comfortable completing the questionnaire.

Table 2a: Total number of research team members (as identified in note 6)

Agency	# of unique research team members per agency
CIHR	19,655
NSERC	11,346
SSHRC	20,068
CFI	1,097
Overall	**52,166**

Table 2b: Gender

Agency	Gender			
	Woman	Man	Gender-fluid, non-binary, and/or two-spirit	Prefer not to answer
CIHR	47.6%	49.2%	0.5%	2.6%
NSERC	30.8%	63.9%	0.4%	4.8%
SSHRC	56.3%	39.0%	1.2%	3.5%
CFI	33.3%	62.4%	0.5%	3.8%
Overall	**47.0%**	**48.8%**	**0.7%**	**3.5%**

Table 2c: Indigenous identity

Agency	Indigenous identity		
	Yes	No	Prefer not to answer
CIHR	3.0%	93.6%	3.4%
NSERC	1.3%	93.1%	5.6%
SSHRC	3.5%	92.6%	4.0%
CFI	1.6%	91.7%	6.7%
Overall	**2.8%**	**93.0%**	**4.2%**

Table 2d: Persons with disabilities

Agency	Persons with disabilities		
	Yes	No	Prefer not to answer
CIHR	2.9%	93.0%	4.1%
NSERC	1.8%	91.5%	6.7%
SSHRC	4.2%	89.8%	6.0%
CFI	0.9%	91.7%	7.4%
Overall	**3.1%**	**91.4%**	**5.5%**

Table 2e: Visible minority

Agency	Visible minority		
	Yes	No	Prefer not to answer
CIHR	20.6%	74.4%	5.0%
NSERC	26.2%	65.5%	8.3%
SSHRC	18.2%	76.4%	5.4%
CFI	18.3%	73.4%	8.3%
Overall	**20.8%**	**73.2%**	**6.0%**

Notes:

- Self-identification data from tri-agency funding opportunities were not included.
- CFI asks questions regarding Indigenous identity and visible minority only when research team members are affiliated with institutions located in Canada.
- CFI's question regarding disability uses a narrower definition of disability than the tri-agency question. The definition used by CFI is limited to impairment and accommodation in the workplace.
- The "Overall" statistics are calculated by using the total number of individuals who completed the questionnaire from all agencies as the denominator and all relevant individuals who completed the questionnaire from all agencies as the numerator.

ANNEX II

EARLY CAREER RESEARCHER DATA FOR FLAGSHIP INVESTIGATOR-INITIATED RESEARCH GRANT COMPETITIONS

Each agency has provided an update to last year's report, providing data from the 2018 and 2019 competition years from their flagship Investigator-Initiated Research Programs based on grant amounts committed at the time of offer.

CIHR has included data from the Open Operating Grant Program (OOGP), which ran from 2000 to 2015, and the Project Grant Program (PJT), which began in 2016.

NSERC has included data from the Discovery Grant (DG) Program. The Discovery Launch Supplement, which began in 2018, is included for 2018 and 2019.

SSHRC has included data from two funding opportunities separately. The first table includes data for the Insight Development Grants (IDG) program, which began in 2011; the second table includes data for the Insight Grants (IG) program, which began in 2012.

CFI has included data from the John R. Evans Leaders Fund (JELF).

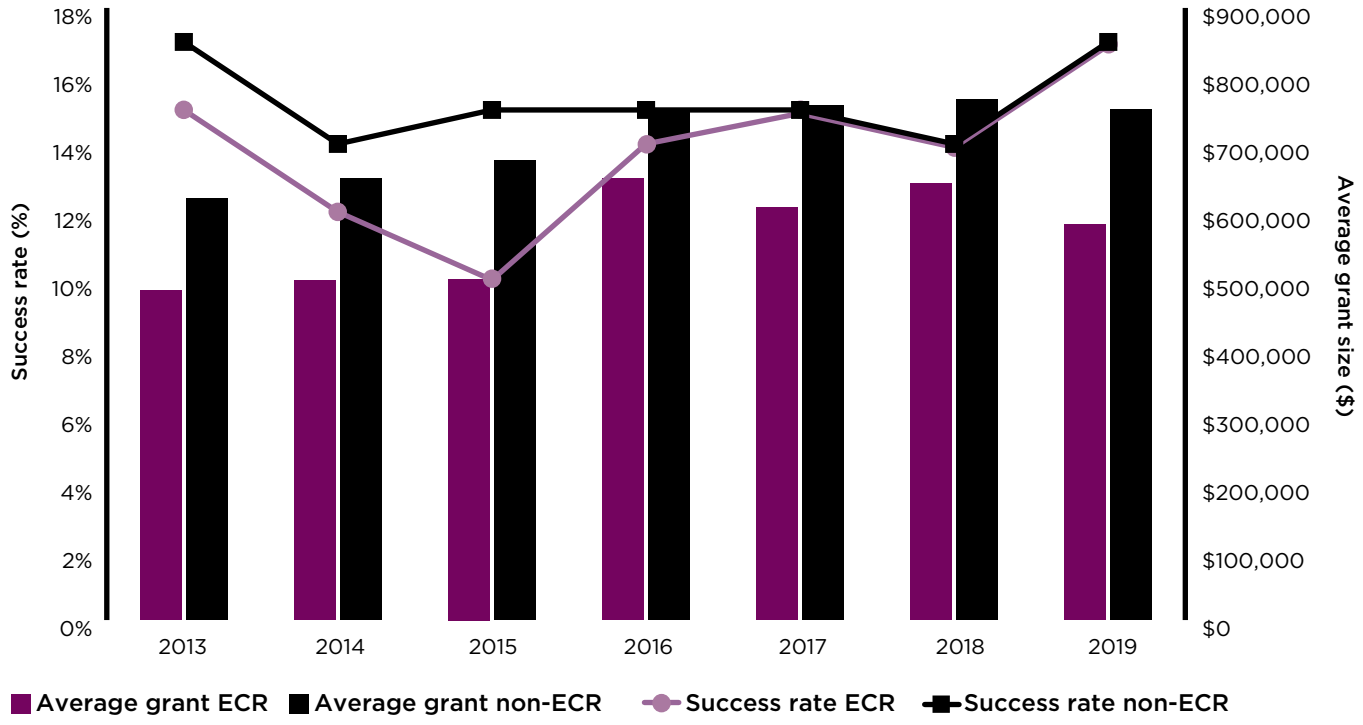
Canadian Institutes of Health Research

Project Grants are designed to support researchers at any career stage to build and conduct health-related research and knowledge translation projects. There are two Project Grant competitions per year (spring and fall), and researchers can submit up to two applications per competition. Researchers can serve as the nominated principal investigator on more than one Project Grant at a time as these awards support research projects rather than programs of research. In addition to the nominated principal investigators, other principal investigators, co-applicants and collaborators can participate in a Project Grant. Grant values and durations are proportionate to the requirements of the research proposed and vary depending on the research field, research approach and scope of project activities, but are not explicitly capped.

At CIHR, an ECR has historically been one who, at the time of application, has held a full-time, independent research appointment, for a period of up to five years (60 months), excluding leaves of absence. ECR status was validated only for project competitions from 2016 to 2017. ECRs in OOGP competitions (2013 to 2015) are considered those within five years of the date of their last degree.

Within the overall competition budget, there is a specific funding envelope to support ECRs and ensure that success rates for them are equal to those of established researchers. Competition processes and peer review for this cohort are fully integrated in the entire competition, with no additional steps required on the part of the applicant.

Figure 1: CIHR success rates (lines) and average grant sizes (bars) for ECRs and non-ECRs for OOGP and Project Grants from 2013–2019



CIHR Table

OOGP & Project Grants	2013	2014	2015	2016	2017	2018	2019
Application pressure (number of applications) – Total	4,781	2,862	2,682	6,697	3,415	5,117	4,629
Application pressure (number of applications) – ECRs	789	445	403	1,515	821	1,130	1,016
% of all applications	17%	16%	15%	23%	24%	22.1%	21.9%
Success rate – ECRs	15%	12%	10%	14%	15%	14.5%	16.6%
Success rate – Established researchers	17%	14%	15%	15%	15%	14.4%	16.6%
Average grant – ECRs	$484,560	$499,585	$501,453	$649,423	$606,909	$641,404	$581,139
Average grant – Established researchers	$619,235	$649,479	$675,264	$759,156	$756,462	$765,262	$750,253
Total OOGP/PJT funds awarded to ECRs	$56,209,004	$27,477,201	$21,061,029	$134,430,504	$74,649,750	$105,190,260	$98,212,527
Total OOGP/PJT funds awarded	$478,527,130	$251,547,297	$251,326,181	$711,389,291	$368,913,660	$545,981,020	$547,613,842
% of funds to ECR	12%	11%	8%	19%	20%	19.3%	17.9%
Average grant (per year of grant) – ECRs	$122,595	$122,025	$122,894	$151,524	$142,565	$145,751	$140,158
Average grant (per year of grant) – Established researchers	$141,520	$145,307	$146,186	$167,376	$169,043	$169,984	$166,980
Total OOGP/PJT funds awarded to ECRs (per year of grant)	$14,221,059	$6,711,363	$5,161,554	$31,365,461	$17,535,442	$23,903,223	$23,686,639
Total OOGP/PJT funds awarded (per year of grant)	$110,737,735	$56,842,202	$55,010,876	$158,571,008	$83,293,027	$121,814,153	$123,707,806
% of funds to ECRs	13%	12%	9%	20%	21%	19.6%	19.1%

Natural Sciences and Engineering Research Council

Discovery Grants (DG) support ongoing programs of research with long-term goals rather than a single short-term project or collection of projects. DGs are awarded to individual researchers only, and the duration is normally five years. There is one DG competition per year. Researchers can apply for and hold only one DG at a time. DG holders cannot reapply for another DG until the last year of their current award.

Applicants are categorized as either early career or established researchers. From 2013 to 2016, ECRs were defined as applicants who were within two years of the start date of their first eligible position at a university and had no prior academic or non-academic independent research experience. From 2017 to 2018, the ECR eligibility window was increased to three years; in 2019, it was increased to five years. In all years reported, the window for being considered an ECR could be adjusted to include instances where a researcher had an acceptable delay in research (illness, parental leave, etc.).

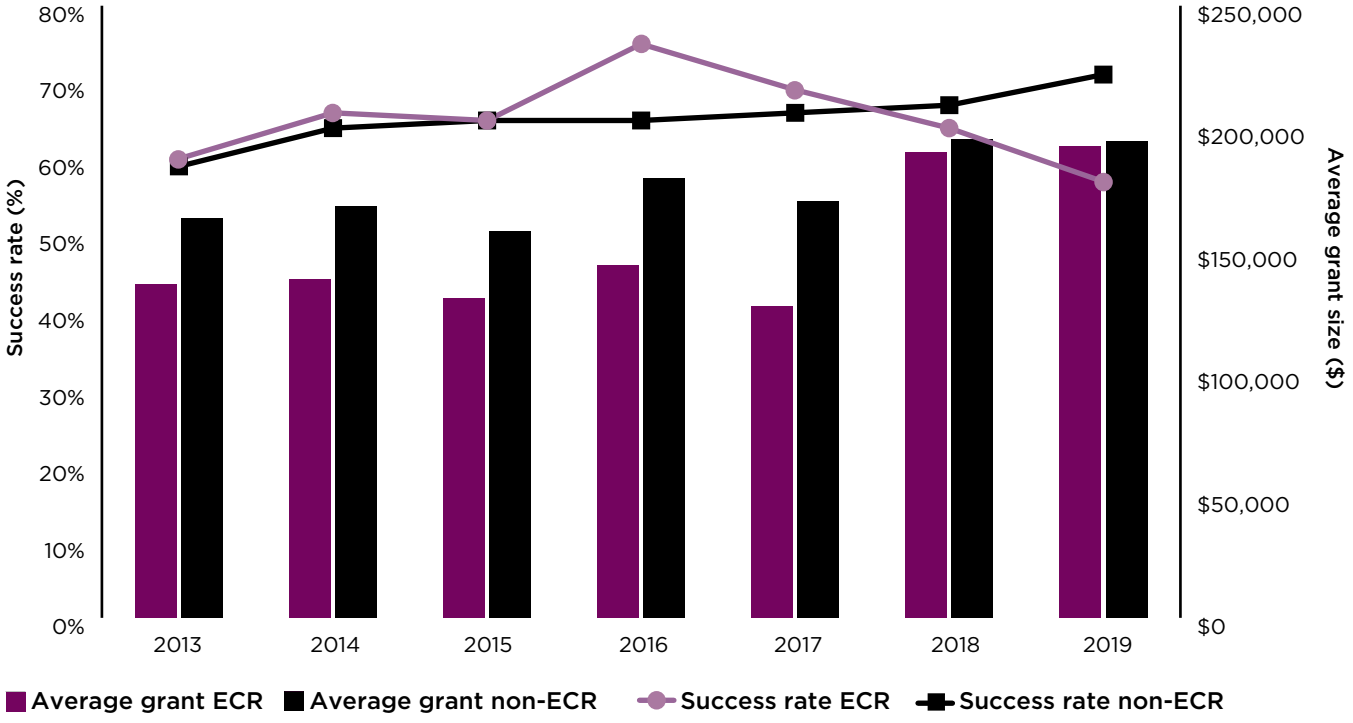
While applications from ECRs are evaluated against the same three selection criteria as established researchers, it is recognized that early career applicants may not have had the opportunity to make the same level of contributions to research or training as established researchers. For this reason, NSERC implements a different quality cut-off for funding ECRs, ensures that the overall ECR success rate is at least 50%, and offers additional sources of support to those awarded a DG. These include:

- an annual $5,000 top-up on their DG;
- the Discovery Launch Supplement (DLS) introduced in 2018, which is a one-time award valued at $12,500;
- starting in 2017, ECRs scheduled to apply for their second DG are offered the option of requesting an additional year of funding on their existing DG at the same level.

Note that the increases in funds awarded to ECRs in 2018 and 2019 in comparison to previous years reflect the DLS and the additional year of funding.

Besides DGs, NSERC also devotes Discovery Research funds to a number of supplemental programs for Discovery Grants, many of which provide support to ECRs.

Figure 2: NSERC success rates (lines) and average grant sizes (bars) for ECRs and non-ECRs for Discovery Grants from 2013–2019



NSERC Table

Discovery Grants	2013	2014	2015	2016	2017	2018	2019
Application pressure (number of applications) – Total	3,398	3,134	3,159	3,167	3,240	3,213	3,404
Application pressure (number of applications) – ECRs	471	427	489	494	562	677	882
% of all applications	14%	13%	15%	16%	17%	21%	26%
Success rate – ECRs	60%	66%	65%	75%	69%	64%	57%
Success rate – Established researchers	59%	64%	65%	65%	66%	67%	71%
Average grant – ECRs	$136,111	$138,073	$130,553	$143,855	$127,043	$190,094	$192,549
Average grant – Established researchers	$163,271	$168,017	$157,924	$179,571	$169,937	$195,366	$194,672
Total DG funds awarded to ECRs	$38,247,145	$38,660,539	$41,385,170	$53,082,500	$48,911,515	$82,310,534	$96,081,926
Total DG funds awarded	$318,419,710	$328,489,387	$316,489,081	$362,842,820	$349,530,120	$412,869,600	$442,598,291
% of funds to ECRs	12%	12%	13%	15%	14%	20%	22%
Average grant (per year of grant) – ECRs	$27,438	$27,723	$26,120	$28,771	$25,409	$32,099	$32,508
Average grant (per year of grant) – Established researchers	$34,323	$35,513	$32,903	$37,135	$34,948	$40,355	$40,071
Total DG funds awarded to ECRs (first year of grant)	$7,709,941	$8,137,508	$8,280,084	$10,616,500	$9,782,303	$13,898,839	$16,221,571
Total DG funds awarded (first year of grant)	$67,021,454	$70,208,877	$65,870,975	$74,674,964	$71,605,024	$82,179,749	$87,547,244
% of funds to ECRs	12%	12%	13%	14%	14%	17%	19%

Social Sciences and Humanities Research Council

Insight Development Grants (IDG) enable the development of new research in its initial stages. They are project-based: funding is provided for short-term research development projects. IDGs are valued at up to $75,000 over one to two years. A minimum budget of $7,000 in at least one of the years is required. The application deadline is set in February.

Within the IDG funding opportunity, funding is available for two distinct categories of scholars:

1. Emerging scholars: Applicants identifying themselves as an emerging scholar must demonstrate that they have not successfully applied, as principal investigator or project director, for a grant offered through SSHRC, NSERC or CIHR. In addition, they must meet at least one of the following criteria:

    - have completed their highest degree no more than six years before the competition deadline (SSHRC considers only the date of completion of the first doctorate); or
    - have held a tenured or tenure-track postsecondary appointment for less than six years; or
    - have held a postsecondary appointment, but never a tenure-track position (in the case of institutions that offer tenure-track positions); or
    - have had their careers significantly interrupted or delayed for health or family reasons within the past six years.

Emerging scholar status is validated for IDG and at least 50% of funds are reserved for applications from emerging scholars.

2. Established scholars: Someone who has established—or who, since the completion of their highest degree, has had the opportunity to establish—a record of research achievement.

Insight Grants (IG) support research excellence. They are project-based. IGs are valued at $7,000 to $100,000 per year over two to five years, up to a total of $400,000. Applicants choose from one of two funding streams, depending on the scale of their project:

- Stream A: $7,000 to $100,000
- Stream B: $100,000 to $400,000

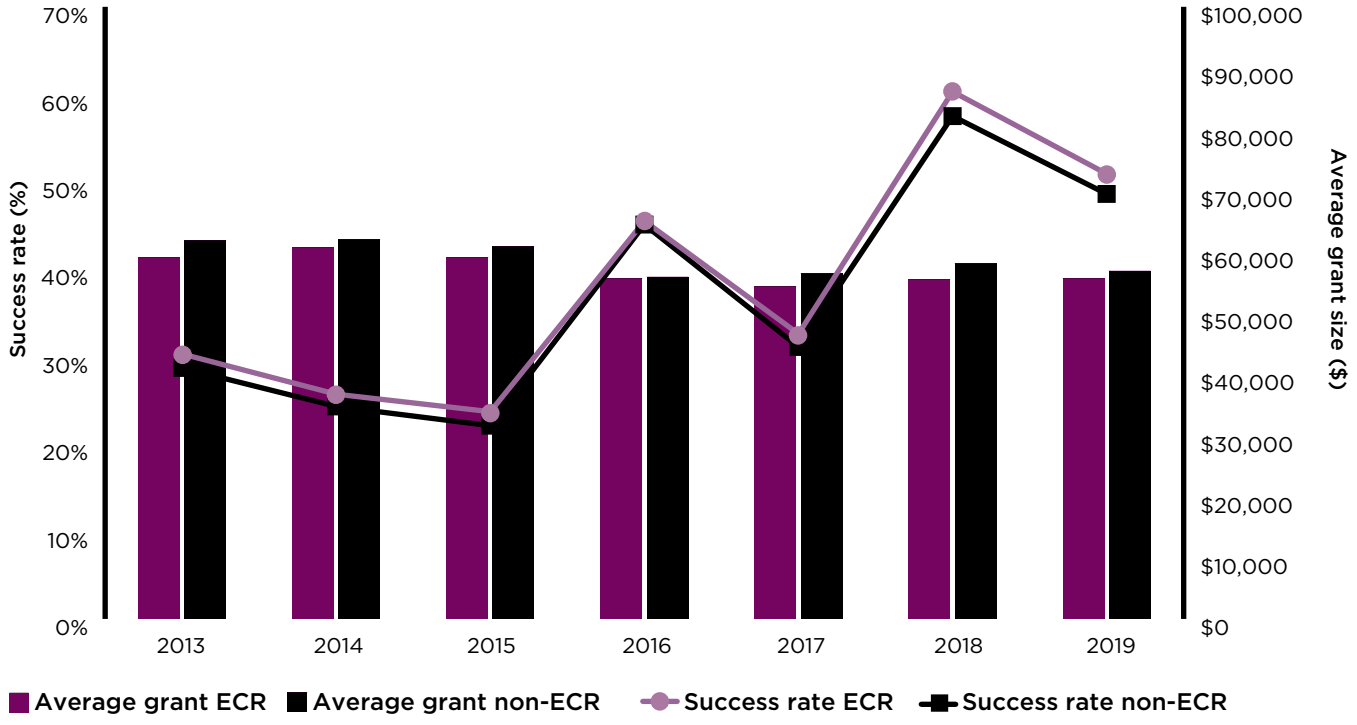
The application deadline is set in October. There is no reserved budget envelope for emerging scholars as all applicants compete in the same pool. As a result, ECR status is not validated within the scope of the Insight Grants.

The following applies to both IGs and IDGs:

- Applications may be submitted by a principal investigator or a team consisting of one principal investigator and one or more co-investigators, collaborators, or both.

- Applicants may be PhD students or postdoctoral researchers so long as they establish a formal affiliation with an eligible Canadian postsecondary institution within three to five months of the grant start date.
- An individual can only apply once as principal investigator in any given IG or IDG competition. However, there is no limit to the number of times an individual can apply as co-investigator or collaborator for an IG or IDG.
- While researchers may not normally apply as an applicant for an IG and an IDG within the same calendar year, in 2017 SSHRC approved an exception to this regulation, which has been extended for the foreseeable future: researchers who applied unsuccessfully for an IDG in February of a given year can apply for an IG in October of that same year.
- Applicants may hold an IDG and an IG simultaneously provided that the objectives of the two research projects are significantly different.

Figure 3: SSHRC success rates (lines) and average grant sizes (bars) for ECRs and non-ECRs for Insight Development Grants from 2013–2019



SSHRC Table

Overall	2013	2014	2015	2016	2017	2018	2019
Application pressure (number of applications) – Total	3,211	3,271	3,225	2,912	2,749	2,675	2,493
Application pressure (number of applications) – ECRs	1,066	1,055	1,026	970	1,013	1,000	884
% of all applications	33%	32%	32%	33%	37%	37.4%	35.5%
Total IDG/IG funds awarded to ECRs	$23,529,427	$22,633,881	$19,972,111	$27,464,866	$23,579,015	$39,941,520	$29,049,725
Total IDG/IG funds awarded	$109,040,307	$115,651,421	$98,888,444	$110,634,127	$114,577,848	$139,711,962	$122,615,958
% of funds to ECRs	22%	20%	20%	25%	21%	28.6%	23.7%
Insight Development Grants							
Application pressure (number of applications) – Total	1,028	1,128	1,237	1,211	1,236	1,139	1,128
Application pressure (number of applications) – ECRs	700	762	799	803	853	798	739
% of all applications	68.1%	67.6%	64.6%	66.3%	69.0%	70.1%	65.5%
Success rate – ECRs	30.3%	25.7%	23.7%	45.5%	32.6%	60.3%	50.9%
Success rate – Established researchers	28.7%	24.3%	22.1%	45.1%	31.1%	57.5%	48.6%
Average grant – ECRs	$59,113	$60,643	$59,123	$55,604	$54,372	$55,434	$55,694
Average grant – Established researchers	$61,762	$62,048	$60,869	$55,862	$56,476	$58,087	$56,849
Total funds awarded to ECRs	$12,532,005	$11,886,052	$11,174,264	$20,295,306	$15,115,320	$26,663,844	$20,940,988
Total IDG funds awarded	$18,337,608	$17,408,342	$17,078,587	$30,573,895	$21,835,969	$38,048,922	$31,685,401
% of funds to ECRs	68.3%	68.3%	65.4%	66.4%	69.2%	70.1%	66.1%
Average grant (per year of grant) – ECRs	$30,106	$30,629	$29,695	$27,872	$27,180	$28,016	$27,950

Insight Development Grants	2013	2014	2015	2016	2017	2018	2019
Average grant (per year of grant) – Established researchers	$31,212	$31,649	$30,592	$28,101	$28,599	$29,419	$29,482
Total funds awarded to ECRs (per average duration of grant)	$6,231,879	$5,926,653	$5,538,089	$10,103,675	$7,542,462	$13,543,093	$10,512,432
Total IDG funds awarded (per average duration of grant)	$9,168,804	$8,680,117	$8,490,250	$15,232,059	$10,902,787	$19,324,171	$15,984,153
% of funds to ECRs	68.0%	68.3%	65.2%	66.3%	69.2%	70.1%	66.1%
Insight Grants							
Application pressure (number of applications) – Total	2,183	2,143	1,988	1,701	1,513	1,536	1,365
Application pressure (number of applications) – ECRs	366	293	227	167	160	202	145
% of all applications	16.8%	13.7%	11.4%	9.8%	10.6%	13.2%	10.6%
Success rate – ECRs	14.5%	18.4%	20.7%	28.7%	31.3%	47.5%	43.4%
Success rate – Established researchers	22.9%	23.8%	23.7%	31.4%	40.9%	47.3%	46.1%
Average grant – ECRs	$207,499	$199,034	$187,188	$149,366	$169,274	$138,309	$128,710
Average grant – Established researchers	$191,599	$198,853	$174,670	$151,540	$152,127	$140,072	$147,108
Total funds awarded to ECRs	$10,997,422	$10,747,829	$8,797,847	$7,169,560	$8,463,695	$13,277,676	$8,108,737
Total IG funds awarded	$90,702,699	$98,243,079	$81,809,857	$80,060,232	$92,741,879	$101,663,040	$90,930,557
% of funds to ECRs	12.1%	10.9%	10.8%	9.0%	9.1%	13.1%	8.9%

Insight Grants	2013	2014	2015	2016	2017	2018	2019
Average grant (per year of grant) – ECRs	$50,066	$50,625	$45,437	$37,895	$39,220	$36,524	$34,498
Average grant (per year of grant) – Established researchers	$47,252	$48,947	$42,830	$37,925	$37,349	$36,316	$37,422
Total funds awarded to ECRs (per average duration of grant)	$2,686,006	$2,712,069	$2,164,915	$1,820,841	$1,941,214	$3,521,152	$2,155,487
Total IG funds awarded (per average duration of grant)	$22,507,707	$24,145,314	$19,969,335	$19,818,373	$22,460,343	$26,605,122	$23,338,470
% of funds to ECRs	11.9%	11.2%	10.8%	9.2%	8.6%	12.8%	8.7%

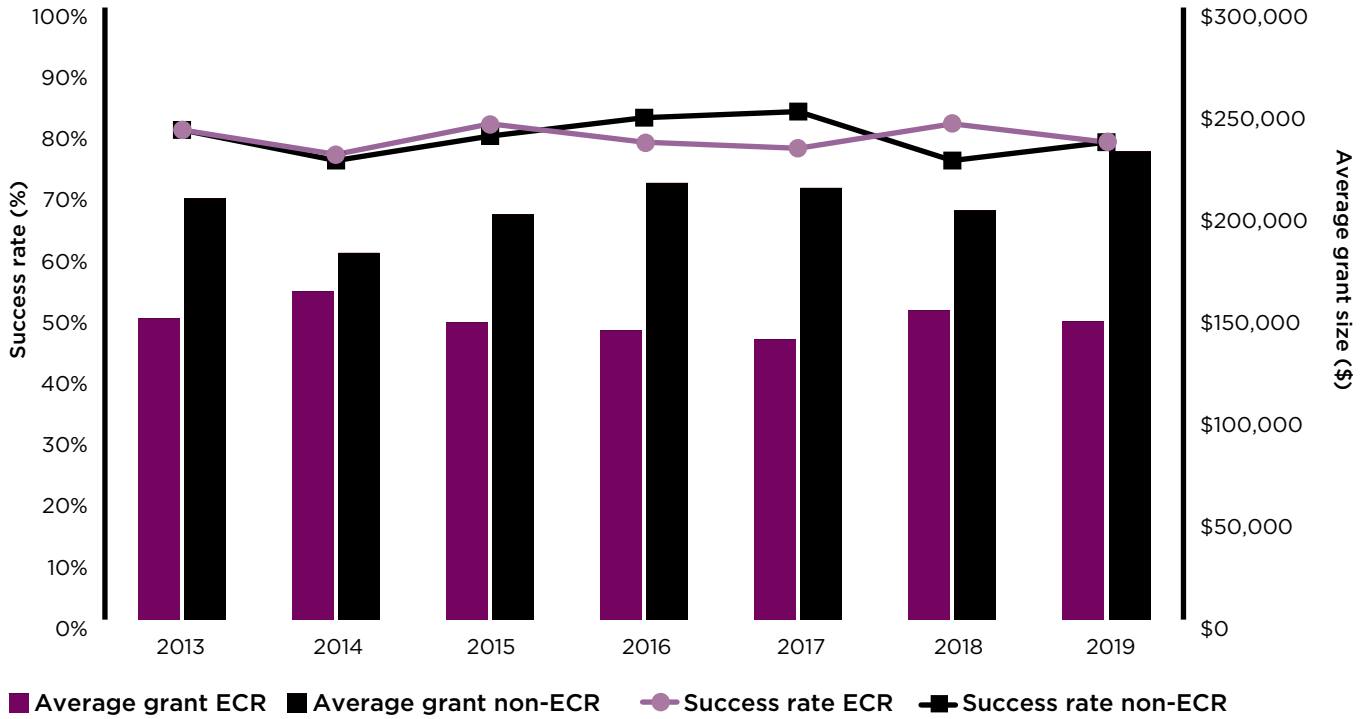
Canada Foundation for Innovation

The John R. Evans Leaders Fund (JELF) is designed to help institutions attract and retain the best researchers by providing them with the foundational research infrastructure needed to be or become leaders in their field. The JELF also offers institutions the opportunity to create competitive research support packages in the form of infrastructure and a portion of the operating and maintenance costs, coupled with direct research costs from partner organizations (CRCP, Canada Excellence Research Chair Program, NSERC and SSHRC).

Canadian universities, affiliated research hospitals and research institutions recognized as eligible by the CFI can apply for the JELF if they have received a minimum annual average of $200,000 in research funding over the last three years from the three federal research funding agencies. The researchers listed on the proposal must be:

- a recognized leader or have demonstrated the potential for excellence in the proposed research field(s);
- engaged in or embarking on research or technology development that is original, internationally competitive and of high quality; and
- a current faculty member with a full-time academic appointment or a candidate that the institution is recruiting to a full-time academic position in an area of strategic importance.

Figure 4: CFI success rates (lines) and average grant sizes (bars) for ECRs and non-ECRs for the John R. Evans Leaders Fund from 2013–2019

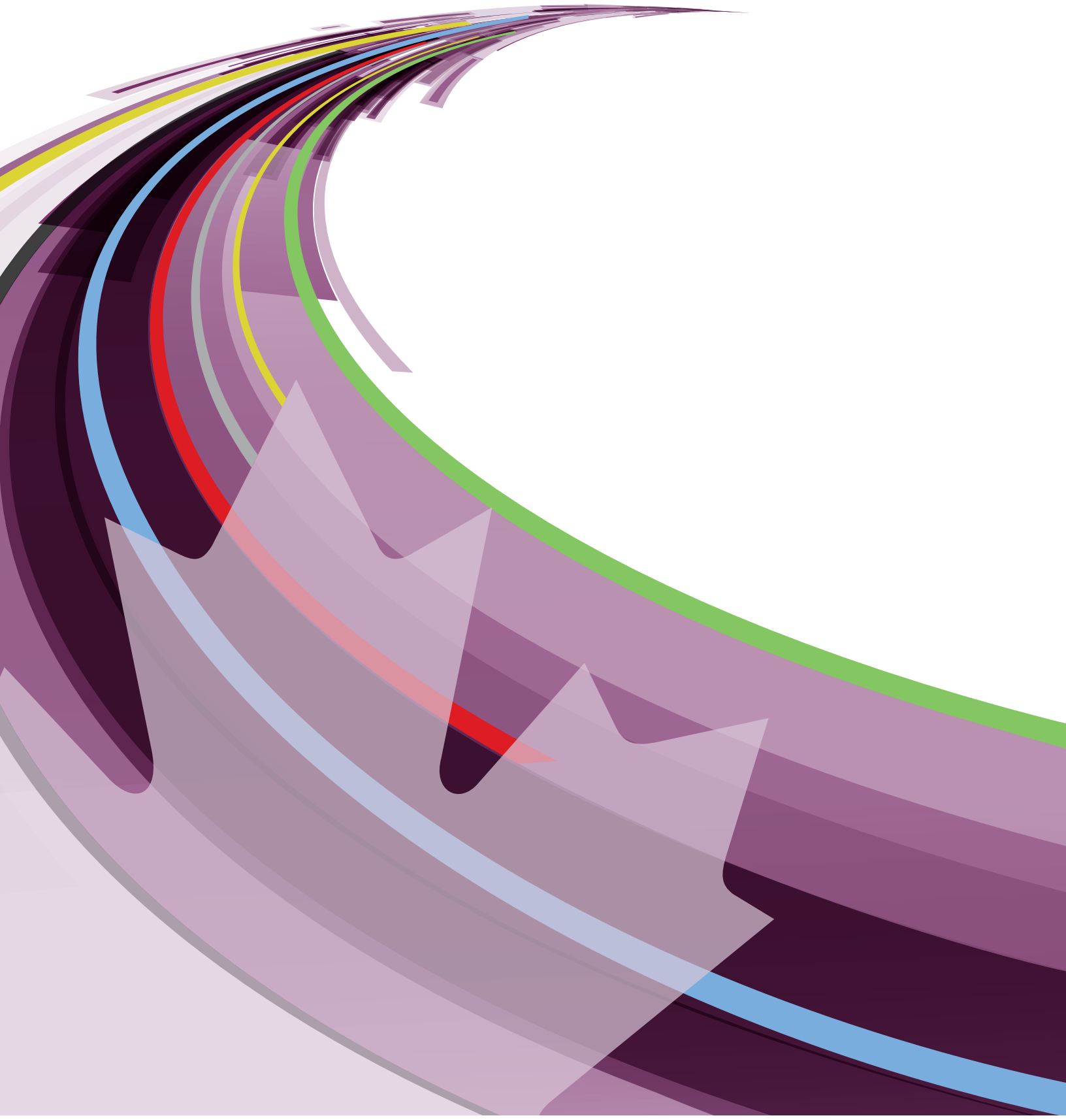


CFI Table

John R. Evans Leaders Fund	2013	2014	2015	2016	2017	2018	2019
Application pressure (number of applications) – Total*	573	382	439	575	402	444	657
Application pressure (number of applications) ECRs**	296	216	259	291	223	277	327
% of all applications	52%	57%	59%	51%	55%	62%	50%
Success rate – ECRs	80%	76%	81%	78%	77%	81%	78%
Success rate – Established researchers	80%	75%	79%	82%	83%	75%	78%
Average grant – ECRs	$147,778	$161,031	$145,845	$141,662	$137,362	$151,741	$146,113
Average grant – Established researchers	$206,551	$179,824	$198,789	$214,060	$211,657	$200,740	$229,649
Total JELF funds awarded to ECRs	$35,023,363	$26,409,068	$30,481,504	$32,298,857	$23,488,855	$33,989,888	$37,112,709
Total JELF funds awarded	$80,877,746	$48,887,096	$58,709,489	$82,388,854	$54,814,058	$59,082,408	$96,132,582
% of funds to ECRs	43%	54%	52%	39%	43%	58%	39%

* Overall, approximately 3% of applicants' data did not include information on their PhDs and has been excluded.

**Current CFI definition of ECR: Difference from the year of first PhD in their career and the proposal submission year is within 10 years.



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