SSHRC CRSH

EVALUATION OF THE INITIATIVE ON THE NEW ECONOMY (INE)

Final Report

August 21, 2009

Social Sciences and Humanities Research Council of Canada
Conseil de recherches en sciences humaines du Canada
Canada

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PREFACE & ACKNOWLEDGEMENTS

INITIATIVE ON THE NEW ECONOMY

The Social Sciences and Humanities Research Council of Canada (SSHRC) is the federal agency that promotes and supports university-based research, training and knowledge mobilization in the humanities and social sciences. Through its programs and policies, SSHRC contributes to the highest level of research excellence in Canada, and facilitates knowledge mobilization across research disciplines, universities and all sectors of society.

As part of the Government of Canada's plan to strengthen education, research and innovation in 2000, research funding of $100 million over five years was provided to SSHRC to establish the Initiative on the New Economy (INE). The INE was a targeted research initiative - its overall objectives incorporated mechanisms for fostering multi-disciplinary, multi-sectoral research in the area of the new economy; facilitating dissemination of research knowledge among research teams and partners beyond academia; informing decision making in public and private sectors, as well as creating new environments for the training of students.

As detailed in the INE's Results-based Management and Accountability Framework (RMAF), a multi-phase summative evaluation of the INE was undertaken in 2007-09 to examine the program's design, delivery and relevance; assess its achievements and results, including the quality of research results in light of the program's objectives; and outline lessons learned. Although the INE initiative has now ended, the focus of this summative evaluation was to create an opportunity for organizational learning as well as to demonstrate the results and impacts of the public investments in SSH research. For example, a knowledge base on labour force in an innovative economy (i.e., HRSDC-IC-SSHRC INE Skills Research Initiative http://www.ic.gc.ca/eic/site/eas-aes.nsf/eng/h_ra01877.html).

SSHRC devised a cluster of support mechanisms under the broad umbrella of the Initiative on the New Economy. These have now run their course and the results are reflected in the evaluation report. Achieving a better understanding of the research impacts, as well as the wider implication for the research communities funded, is an important priority for SSHRC. Findings from this evaluation, substantiated through multiple lines of evidence, has illustrated the value of this targeted investment for the production of high-quality, collaborative research; the establishment of a wide range of partnerships across non-academic organizations; the enhanced capacity in disseminating knowledge to non-academic audiences; and the positive outcomes on student learning and training. This suggests that SSHRC funding can and does influence the research landscape and creates impacts in the research community itself, in addition to producing research results.

At the same time, key findings drawn from this evaluation produced eight lessons learned, aimed at informing current or future SSHRC initiatives. On the basis of these lessons, SSHRC management has agreed that the unique program design elements and organizational support were important to the production of excellent research under the INE. Consideration of how these lessons might be pursued or applied through current or future initiatives is contained in the *Summary Management Response*.

The evaluation was completed by an independent team from R.A. Malatest & Associates Ltd. in collaboration with Natalie Kishchuk: Research and Evaluation Inc. The evaluation was managed by SSHRC's Corporate Performance and Evaluation Division. I would like to thank the external team from Malatest (Natalie Froese, Suzanne Bélanger and Chris Boughton) as well as Natalie Kishchuk. Their professional diligence, dedication and hard work were most appreciated. While the effort involved a close collaboration among many, some are listed below, the views expressed in this study are those of the external consulting team, and do not necessarily reflect the official position of SSHRC.

Special thanks also go to all those who provided feedback and guidance throughout the evaluation process, including follow-up activities (e.g., development of the management response). The evaluation team was ably supported by SSHRC's Corporate Performance and Evaluation and SPJI staff, this included Nicole Michaud, Courtney Amo, Shannon Clark-Larkin, Murielle Gagnon, Éric Bastien and Gail Zboch.

While too numerous to acknowledge individually, I would also like to thank researchers, partners and students within the broader research community who contributed their time and insight to this evaluation. In a world where there are many demands for information, their views were most appreciated.

Finally, I would like to single out the guidance provided by members of the Evaluation Advisory Committee. Members included Gisèle Yasmeen, Gordana Krcevinac, Éric Bastien, André Plourde of the University of Alberta, William (Bill) Reimer of Concordia University, Fred Carden of IDRC and Karen Grant of the University of Manitoba. I would especially wish to thank Gordana Krcevinac who not only served on the evaluation advisory committee but whose familiarity with the INE program was instrumental in providing knowledge and insight throughout the evaluation process.

Taken together, the conscientious and respectful collaboration of all made this evaluation possible.

Wayne MacDonald
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EVALUATION OF THE INITIATIVE ON THE NEW ECONOMY (INE)

Final Evaluation Report

A report by:
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With contribution from:
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For:
The Social Sciences and Humanities Research Council (SSHRC)

August 21, 2009

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List of Acronyms

CRI	Collaborative Research Initiatives
CRI-PI	Collaborative Research Initiative – Principal Investigator
DG	Development Grants
FRR	Final Research Report
HQP	Highly-qualified Personnel
INE	Initiative on the New Economy
JI	Joint Initiatives
KMb	Knowledge Mobilization
K-Net	Knowledge Network
KPM	Knowledge Products and Mobilization
LOI	Letter of Intent
NE	new economy
NGO	Non-governmental organization
POG	Public Outreach Grants (previously Outreach Grants)
PI	Principal Investigator
RA	Research Alliances
RG / INE-RG	Research Grants
RMAF	Results-based Management and Accountability Framework
SOA	Statement of Accounts
SRG	Standard Research Grants
SSHRC	Social Sciences and Humanities Research Council

EXECUTIVE SUMMARY

This Final Evaluation Report is the end product of a multi-phase summative evaluation for the Initiative on the New Economy (INE) of the Social Sciences & Humanities Research Council (SSHRC). This evaluation was conducted by R.A. Malatest & Associates Ltd., with contribution from Natalie Kishchuk of Natalie Kishchuk: Research & Evaluation Inc.

Introduction

As part of the Government of Canada's plan to strengthen education, research and innovation, in 2000 the Minister of Finance announced new research funding to SSHRC of $100 million over five years to establish the INE Program (INE). This five-year initiative was aimed at better understanding the changes and dynamics of this new reality and optimizing our ability to benefit from and influence the future for the broader good.

Following an intensive series of consultations, in 2001 SSHRC launched the Initiative on the New Economy (INE) as a cluster of support mechanisms for research on the new economy. Rather than prescribing a specific definition of 'new economy', the INE allowed for a range of research topics across the four broadly defined areas of: general issues concerning the new economy, management and entrepreneurship, education, and lifelong learning.

In order to deliver significant results/outcomes, the overall objectives for the INE were aimed at: 1) fostering excellent research in the area of the New Economy, with special emphasis on fostering innovative multi-disciplinary approaches to deepen the understanding of the New Economy, 2) extending and developing new research partnerships involving public, private and not-for-profit sectors, and 3) informing decision making in the public and private sectors.[1] In addition, several sub-objectives were developed for this initiative (see section 1.1 of this report).

Evaluation Approach

As part of SSHRC's evaluation plan, and as detailed in the initiative's Results-based Management and Accountability Framework (RMAF), the objectives of the summative evaluation of the INE are to examine the program's relevance, assess program achievements and results, including the quality of research results, in light of program objectives, and outline lessons learned.

Key clients for this evaluation are a) SSHRC's Performance and Evaluation Committee (PEC), for whom the evaluation is intended to provide evidence on the success of the initiative, as well as on the effectiveness and efficiency of the INE as a potential model for SSHRC, and b) the central agencies, for whom the evaluation will provide evidence on the success of the initiative and will feed into future decisions about similar investments.

The sources of information for the evaluation are:

- Key informant interviews (including Principal Investigators of Collaborative Research Grants);

[1] Initiative on the New Economy, Treasury Board Submission, 2001.

- A document, file and administrative data review;
- Research outputs database;
- Surveys of applicants, non-academic partners, and students/other learners; and
- Case studies.

To the extent possible, this evaluation sought to present findings that were substantiated through multiples lines of evidence. However, there were limitations within each line, which limited the consistency (and therefore triangulation) between lines of evidence. Where there was a clearly more accurate or up-to-date administrative line of evidence, that was relied upon.

Summary of Key Findings

SSHRC rapidly mobilized and organized its resources in order to conceptualize, design, and deliver the Initiative on the New Economy. While the INE was based on existing SSHRC programs, it also included a number of features that differentiated it from previous programs. The INE attracted fundable research, as evidenced by the significant response to the competitions, (including 997 applications made directly to the INE and 200 coming from the Standard Research Grants (SRG), for a sum of 460 awards totalling $91.1 million). The program administration was generally effective, and demonstrated responsiveness to 'on the ground' learning throughout its duration in order to address effectiveness issues as they arose.

Results pertaining to the prime and sub-objectives of the INE are discussed in this report under the broad topics of research excellence, non-academic partnerships, training of highly-qualified personnel, and knowledge mobilization. Relevance and continued need for funding on the new economy were also examined as part of the evaluation.

A. Research Excellence

The INE produced 6,729 research outputs, with 63% (4,250) of an academic nature (a typical marker of research excellence) particularly journal articles and conference papers. About one-third of outputs produced (2,479) were of a non-academic nature. Networking and collaboration among researchers were more prevalent in the INE-funded projects than in non-funded projects, and larger Collaborative Research Initiatives researchers tended to describe multi-disciplinary and international collaboration as contributors to high quality research. In some cases, the grant acted as a catalyst or activator to enable and enhance the work and thinking.

In depth discussions about larger Collaborative Research Initiatives (CRI) and Research Alliances (RA) during interviews and case studies brought forth examples of the impacts of the investment in excellent research, and helped illustrate the types of results the INE has brought about, which surpass typical markers such as peer-reviewed journal publications. These included international, world-class collaboration and direct application of results in particular, such as examples of impacts in policy spheres, in the public sector, in institutions and among researchers, and impacts that reach across boundaries.

Case study participants and other interviewees found that face-to-face exchanges of ideas and discussions of findings were most effective and successful ways of working collaboratively and thereby contribute to producing research of a high academic calibre. They did, however, note

challenges in trying to balance the production of question-driven (i.e., applied) and curiosity-driver (i.e., theoretical) research, which were embedded in the INE's objective of excellence and non-academic research.

B. Non-academic Partnerships

Of 210 Final Research Reports that were reviewed, 122 contained information on research partners, including 459 that were unique organizations. Research partners were distributed across a wide range of organization types (academic and non-academic). Partnerships taking place within INE funded projects generally involved leveraging of non-monetary support rather than financial support. Researchers reported that contributions from non-academic partners, in general, had impacts on their projects. This impact was felt to be stronger in the areas of the identification of research questions, the dissemination of findings, and knowledge mobilization activities. Further, there was a clear and strong relationship between partners having made a direct financial contribution to INE grants and productivity in terms of numbers and proportion of academic and non-academic outputs.

SSHRC linkages, partnerships and interactions with outside agencies were primarily done through the INE Joint Initiatives funding mechanism. The Joint Initiatives were felt to have been successful in that sense, in the opinions of key informants from SSHRC and the Joint Initiatives.

Based on the evaluation findings, it appears that SSHRC has a limited understanding of the nature and range of non-academic partnerships, and the evolution of their involvement in a project (i.e., between applications and Final Research Reports), which could be explained in part by lack of data collected in this area. In addition, when surveyed, about half of the researchers could not evaluate the success of their project's non-academic partnerships. Several factors likely contributed to these gaps in knowledge, including: partners being more involved in discrete parts or stages of the project, different types of partner relationships (e.g., collaborators versus funders), and frequent turnover of staff or partner contacts. Evaluation participants reported that time, resources and support were key in establishing a successful non-academic partnerships. Case study interviewees also reflected on the challenges related to balancing academic and non-academic research needs and expectations.

C. Training of Highly-qualified Personnel

INE funding supported 2,880 students and other learners, who were reported by researchers has having been hired through the INE grants, representing with over 25% of INE investment ($43.7 million). Based on budget and Statement of Accounts data, for every $1,000 invested into the INE, $257 was paid out to students.

Graduate and post-doctoral students had more involvement in INE projects (in terms of contributing to the research) than undergraduates, and this same pattern held true for POG-funded initiatives. Regardless, surveyed students overall reported having been provided opportunities to learn and be mentored and from their point of view, they were largely satisfied with their involvement in INE research. In fact, seventy percent (70%) of surveyed students demonstrated a high degree of satisfaction with their involvement in the INE, and most felt that their involvement had contributed to their development of research skills and other competencies.

Most surveyed students felt their involvement in the INE had given them an advantage over their peers in their career path. These findings were validated during case study interviews with students. This suggests that among funded projects, Canadian research capacity has likely improved due to the INE, particularly due to larger CRI and RA projects. Researchers and students involved in such projects tended to emphasize lasting effects of the project, which included: a new body of knowledge in a pertinent subject area, a new group of subject-matter experts, new networks of collaboration, a body of knowledge about how to manage and develop large-scale, multi-disciplinary, international projects, and a better understanding of the value of non-academic relationships.

D. Knowledge Mobilization

Most researchers were aware of SSHRC's expectations for active mobilization of knowledge at the time of their application. In meeting this expectation, survey respondents reported a range of knowledge mobilization and dissemination activities, though a smaller number of knowledge mobilization activities were reported in FRRs than in surveys. The extent to which knowledge mobilization activities were undertaken was greater in Public Outreach Grants, as expected.

While researchers were able to report on activities, they found it more challenging to report on actual use of their research results. Some researchers noted that knowledge dissemination and mobilization, particularly involving non-academic partners and audiences, was new to them and that research skills needed to be complemented with other skills and experience among team members. More support from SSHRC or from a funded communications coordinator would likely have assisted these projects. In addition, SSHRC's activities around knowledge mobilization, including the K-Net web portal, were not adequately planned or resourced to achieve their objectives.

Surveyed non-academic partners were better able to identify examples of how INE research results were used. This included examples of how they integrated the results to their activities, disseminated them to others, and used them to support their broader activities/mandate. However, given the wide range of non-academic partner involvement, it is not possible to tell what proportion of partnerships overall resulted in direct application of findings.

The limitations or barriers to knowledge mobilization, mentioned by researchers and non-academic partners, included time, resources, and a lack of interest experienced by some research projects and/or audiences.

E. Overall Relevance of the INE

The INE was critical to the conduct of more than one-half of the submitted projects and the completion of major research stages. Indeed, more than half of researchers who did not receive funding indicated their project was not undertaken at all and while the vast majority (90%) of surveyed researchers who received funding indicated that they completed all stages of their projects at the time of the evaluation phase, less than one-third (33%)of non-funded researchers had.

While the majority evaluation participants believed there existed a continued need for research on the new economy, some felt that there was no longer a need for specifically-targeted funding for

research in this area. Many also noted that the lack of a clear definition of the new economy made it difficult to assess the continued relevancy of this area. That said, participants involved in CRI and RA felt that projects funded under the INE had unique features not typical of other SSHRC programs, such as level of involvement of students, the international community, and local communities. To preserve these features SSHRC may need to adapt existing programs to reflect some of the priority areas of the INE.

Conclusion

Overall, the evaluation has noted a responsive administration of the INE, which has endeavoured to build on success and change what was not working well. The INE was responsible for the production of a substantial body of multi-disciplinary research, and helped to train and increase the number of highly-qualified personnel in new economy issues within Canada. It also encouraged non-academic partnerships. While these partnerships were not well understood at the onset of the evaluation given limited input and available data, through surveys and case studies, the dynamics of these academic and non-academic relationships have come to light. Although the INE fared well in these areas, the originally intended focus on disseminating findings through program-level knowledge mobilization was not as successful. It appears that there was an insufficient level of or inappropriate resources within SSHRC. Despite this, the focus on knowledge mobilization at the project-level appears to have resulted in more extensive dissemination and mobilization of research results than would have occurred otherwise. While the INE may no longer exist, some of its unique program design features could be adapted and integrated to other SSHRC funding programs.

Lessons Learned

While the INE has ended, an evaluation of the INE affords the opportunity to derive lessons that may help to inform current or future initiatives. For instance, the report was prepared with consideration to the context of recent and current SSHRC initiatives and priorities, including *Framing Our Direction* (2007), *Management, Business and Finance Investment Strategy* (2007), and *International Policy and Strategy* (2005). The Government of Canada plans and priorities, including *Mobilizing Science and Technology to Canada's Advantage* (2007), also informed the evaluation findings.

The *Evaluation of the INE* has illustrated that both unique program design elements and organizational support are important considerations that contribute to the fostering of new and innovative approaches for SSHRC-funded research projects and the production of research activities in Canada. Reflections drawn from evaluation findings with a strong emphasis on the qualitative case study line of evidence, and with input from SSHRC management, are detailed below.

1. In order to fairly administer the funding of programs with a broad mandate, key criteria need to be defined and communicated. It is important to identify boundaries of the mandate and selection criteria so that researchers are able to assess whether their projects fall within the bounds of fundable research. Selection criteria are usually linked to program objectives, as a result these objectives must also be clearly defined.

Discussion: The INE evaluation found that the ambiguity of the "new economy" created an inefficient use of resources of the screening committee. Further, there is evidence that the intended audience of the INE was not fully reached, as SSHRC redirected projects that were submitted to other programs, but qualified for the INE. While the flexibility of the team to reallocate projects to the INE was a key strength of the implementation of the initiative, it does not preclude improving on communication with the target audience in future grant administration.

2. Key program and project objectives must have clear definitions and identified success criteria to achieve both accountability and learning. These definitions and success criteria should be built into program documents, particularly reporting requirements.

   Discussion: As an example, the INE's impact on innovation frequently enabled and enhanced established methodologies, rather than introducing an entirely new approach. Whether or not this met the expectations of SSHRC for research innovation is unclear. Similarly, well defined success criteria may have helped researchers to focus knowledge mobilization efforts and to better account for the results of their efforts by identifying how their research findings have been put into practice.

3. While clearly defined objectives and success criteria are important, retaining adequate flexibility in certain program design elements can allow for project-level creativity and responsiveness, as well as learning within funded research teams.

   Discussion: A positive impact of the ambiguous concept of the new economy is that it allowed for a wide range of research topics to be funded, and provided researchers with the flexibility to address issues related to the new economy from a number of different perspectives. Furthermore, the innovative elements of the INE, such as knowledge mobilization to new audiences and using new media or technology, frequently required research teams to build new relationships, respond to stakeholder needs, respond to opportunities, and acquire new skills. Determining an ideal degree of flexibility within program designs could foster learning and growth among research team members, while still ensuring that the team has clear performance requirements and core competencies among its members.

4. In general, the project management skills of the funded Principal Investigators, as well as the strength of the research teams, were strongly correlated with how the research projects were executed. In order to better support Principal Investigators leading other large-scale projects, guidelines or suggestions for team composition, including a project manager and a knowledge mobilization expert, could be provided.

   Discussion: The INE evaluation demonstrated that funding large, multi-year, international and interdisciplinary work requires that support for developing project infrastructure be built into the grant. While some supporting infrastructure had been readily available within some administering organizations, other researchers felt that they had to build the project infrastructure. Developing non-academic partnerships, training students, mobilizing knowledge towards the public and private sectors requires time and resources, often pulling researchers away from their research and into areas where they may indicate that they are less proficient. Examples of supporting infrastructure found to be helpful included engaging staff to

complete day-to-day project management or administration tasks, and including team members that hold expertise in knowledge mobilization. These supports are more likely to allow researchers to develop new skills in leading innovative projects, while having adequate time to ensure research excellence.

5. Different types of non-academic partnerships require different policies to support them and should have different measures of success.

    a. Programs should be designed to place emphasis on genuine and appropriate non-academic partnerships, where partner organizations' capacity and attributes determine their contribution. This would encourage better use of resources by focusing on productive and mutually beneficial partnerships, without precluding building new partnerships.

        Discussion: From the evaluation of the INE, it was apparent that in some cases there was a perception that more partnerships are always better and that a project is expected to identify a great number of partners in order to be funded. However, both researchers and partner organizations have finite capacity and frequently a small number of non-academic partnerships proved to be fruitful in one or more research areas. In particular, the research areas (e.g., design, data collection, knowledge mobilization) where partner organizations contributed depended on the skills, time, and expertise of the organizations.

    b. Reporting requirements should capture the value that partnerships bring to a project. In particular:

        - Capture the names and roles of partners mid-stream and at the end of the project, not just at the beginning;
        - Identify the type of partner organization, describe their capacity and role on the project;
        - Record the value of non-financial contributions of partner organizations;
        - Identify non-academic partner-oriented outputs;
        - Include partner feedback reports or summaries if the impact of the research on the partner organization is to be captured.

6. A comprehensive and customized approach to reporting will improve the performance measurement of new and/or innovative programs. A comprehensive ongoing performance measurement strategy should include qualitative and quantitative measures and be clearly linked to program and project objectives, as well as features (such as innovative approaches) that are expected to yield new learning.

    Discussion: The evaluation of the INE demonstrated how traditional measures of research excellence and partnerships did not lend themselves well to the assessment of non-academic partnerships and knowledge mobilization, two of the innovative aspects of the INE. In particular, the emphasis on non-academic partnerships and knowledge mobilization to non-academic audiences was perceived by researchers to be misaligned with traditional approaches of reporting on results through Final Research Reports. Program reporting needs to be designed to fit with the new

approaches, balancing the opportunity to learn (e.g., through qualitative descriptive) with indicators that can be measured across projects.

7. In order to lead or coordinate program-level knowledge mobilization, a knowledge mobilization strategy, with significant input from stakeholders and an internal resourcing and performance plan, is required.

   Discussion: The program-level knowledge mobilization, an important objective of the INE, was hindered by lack of an explicit strategy. Resultant weak support within SSHRC and a lack of human resources providing sustained intellectual leadership caused the efforts to falter. For example, the online component of knowledge mobilization (K-Net) was not successful, and there was little follow up on successful elements of knowledge mobilization, such as SSHRC-hosted INE conferences. Planning within SSHRC specific to knowledge mobilization could have identified design flaws and improved effectiveness. These findings are particularly relevant as researchers themselves identified their lack of skills and experience in this area and were counting on SSHRC's support. The development of a plan for program-level knowledge mobilization, with significant input from stakeholders, coupled with appropriate resources for implementing the plan, would have allowed for more success in disseminating knowledge within SSHRC and to the broader research community.

8. The innovative aspects of the INE can be retained, and research on the new economy can be sustained through less targeted funding programs.

   Discussion: While most researchers felt that there was a continued need for research on the new economy, many key informants felt that there was no need for a targeted research fund in this area. That said, many felt that there was a continued need for those elements of the INE that were innovative, such as the increased emphasis on research excellence in all its forms, non-academic partnerships, student training, and knowledge mobilization in the public and private sectors. The relevance and value attributed to these have been highlighted throughout this report. The INE funding was not only focused on generating research findings in this targeted area, but also encouraged new ways of conducting research in Canada, therefore, its objectives can still be pursued (and lesson learned applied) through other existing funding mechanisms.

Reflection

In summary, the *Evaluation of the INE* suggests that both program design elements and organizational support are important considerations that contribute to the production of excellent research activities in Canada. Program design elements, such as a broad mandate and an innovation focus, allow for collaborative research to take place. Furthermore, specific funding criteria increases the emphasis on desired areas, such as training students and knowledge mobilization. A life-cycle approach to working with researchers (from pre-application to public outreach) creates an opportunity to support a project. This, combined with infrastructure and institutional support, appears to lead to strong results. This suggests that SSHRC funding can and does influence the research landscape and creates impacts in the research community itself, in addition to producing research findings.

1. INTRODUCTION

This Final Evaluation Report is the end product of the multi-phase summative evaluation for the Initiative on the New Economy (INE) of the Social Sciences & Humanities Research Council (SSHRC). This evaluation was conducted by R.A. Malatest & Associates Ltd., with contribution from Natalie Kishchuk of Natalie Kishchuk: Research & Evaluation Inc.

1.1 Profile of the Initiative on the New Economy

As part of the Government of Canada's plan to strengthen education, research and innovation, in 2000 the Minister of Finance announced new research funding of $100 million over five years to be managed by the Social Sciences and Humanities Research Council (SSHRC).[2] The funding was to lead to a better understanding of the changes and dynamics of the new economy and thereby optimize Canada's ability to benefit from and influence it for the broader good.

Following intensive consultations, in 2001 SSHRC launched the Initiative on the New Economy (INE) as a cluster of support mechanisms for research on the new economy. These programs were, in part, modelled on established SSHRC programs. Rather than prescribing a specific definition of 'new economy', the INE allowed for a range of research topics across four broadly defined areas:

- General Issues concerning the New Economy – understanding the economic, social and technological dimensions of the new economy;
- Management and Entrepreneurship – understanding and meeting the requirements for private sector leadership and management in the new economy;
- Education – ensuring the effectiveness of the formal education in meeting the needs of the new economy, including new ways of supporting educational practice, decision-making, and appropriate implementation of transformative technologies; and
- Lifelong Learning – determining the true needs, most effective incentives, and best models for lifelong learning in the new economy.

In order to deliver significant results/outcomes, the overall objectives for the INE were aimed at[3]:

- Fostering excellent research in the area of the new economy, with special emphasis on fostering innovative multi-disciplinary approaches to deepen the understanding of the new economy;
- Extending and developing new research partnerships involving public, private and not-for-profit sectors; and
- Informing decision making in the public and private sectors.

[2] Government of Canada (October 18, 2000), *Economic Statement and Budget Update, October 18, 2000*. As quoted in Social Sciences and Humanities Research Council, *An Introduction to the Initiative on the New Economy*, page 1.

[3] Social Sciences and Humanities Research Council (2001), *Initiative on the New Economy, Treasury Board Submission*.

In addition, several sub-objectives were developed for this initiative, including training of students and highly-qualified personnel; enhancing academic and government research capacities; disseminating research findings to a wider, non-academic audience; creating a more competitive and innovative Canada; increasing Canada's standing in new economy research; and knowledge mobilization. A copy of the INE's logic model is included in **Appendix A: INE Logic Model**.

1.2 Evaluation Approach

As part of SSHRC's evaluation plan and as outlined in the Results-based Management and Accountability Framework (RMAF) developed for the INE in 2003, a summative evaluation of the program was to be undertaken in order to:

- Examine the program's design, delivery and relevance;
- Assess program achievements and results, including the quality of research, in light of the program's objectives; and
- Outline lessons learned.[4]

A multi-phase evaluation approach[5] was suggested to, and endorsed by, SSHRC's Standing Committee on Performance and Evaluation. This approach was selected in order to mitigate the risk of underestimating the impact of the INE by allowing sufficient time for results production. The first phase of the evaluation consisted in revising the initial evaluation framework. This was followed by two evaluation phases, the first of which focused on relevance, design and delivery, and shorter-term outcomes, and the second of which focused on longer-term outcomes. An INE Evaluation Advisory Committee provided advice for the evaluation throughout all of its phases.

The principal client for this evaluation is SSHRC's Performance and Evaluation Committee (PEC) of senior management. The evaluation is intended to provide this committee with evidence on the success of the initiative as well as on the effectiveness and efficiency of the INE as a potential model for SSHRC. Other key clients of the evaluation are the Treasury Board Secretariat and the Department of Finance. The evaluation will provide evidence on the success of the program and will feed into future decisions about similar investments.

This report presents the findings of the two evaluation phases, with a focus on results and lessons learned. The sources of information for the report are:

- Key informant interviews with 24 individuals involved in the program administration and/or adjudication;
- A document, file and administrative data review, which included the review of:
  - Internal program documents,
  - Project files for 10 Research Alliances (RA), 16 Collaborative Research Initiatives (CRI) and 5 Joint Initiatives (JI), and
  - 210 Final Research Reports.

[4] Social Sciences and Humanities Research Council (September 2003), *Results-based Management and Accountability Framework*.

[5] Natalie Kishchuk Recherche et évaluation inc. (June 22, 2006), *Social Sciences and Humanities Research Council, Initiative on the New Economy, Evaluation Framework.*

- Surveys with principal investigators (PI) of successful and unsuccessful applications, non-academic partners and students/other learners, distributed as such:
  - 122 research grant recipients, 27 outreach grant recipients, and 133 non-funded applicants,
  - 76 non-academic partners, and
  - 85 students and other learners.
- Interviews with 11 recipients of CRI grants; and
- Case studies of three CRIs and three RAs.

To the extent possible, this evaluation sought to present findings that were substantiated through multiples lines of evidence. However, there were limitations within each line, which limited the consistency (and therefore triangulation) between lines of evidence. Where there was a clearly more accurate or up-to-date administrative line of evidence, that was relied upon.

A copy of the evaluation framework is included in **Appendix B: Data Collection Matrix**; detailed information on the evaluation design and methodological strengths and limitations are provided under a **separate cover** titled Supplementary Documentation and Appendices.

1.3 Structure of the Report and Considerations

This evaluation considered the INE within the context of recent and current SSHRC initiatives and priorities, including as outlined in the Council's *Framing Our Direction* (2007), and as evidenced in initiatives such as SSHRC's *Management, Business and Finance Investment Strategy* (2007), and *International Policy and Strategy* (2005). The broader context of Government of Canada plans and priorities, including *Mobilizing Science and Technology to Canada's Advantage* (2007), also informed the evaluation findings.

This report is structured as follows: **Chapter 2** is a summary of the effectiveness of the design and administrative structure of the INE. **Chapters 3 to 6** contain findings related to research produced, partnerships, training, and knowledge mobilization. Each of these chapters (except 'training') begins with a description of results and ends with elements that facilitated, and challenges to achieving, success in these areas. Finally, **Chapter 7** contains findings on the overall relevance of the INE and **Chapter 8** provides conclusions and lessons learned. Throughout the report, notes, comments and suggestions that have implications for the interpretation of the results or for future evaluations are noted in **text boxes**. A **Glossary of Terms** used in the report can be found at the end of the report, as well as the **INE logic model** and the **Data Collection Matrix**, and a list of **Awards, Prizes and Research Excellence** of INE projects.

Supplementary documentation and other relevant appendices are also included under a separate cover. These include the evaluation approach, detailed program design, administration, and delivery, and findings pertaining to the competition process. Appendices, such as the INE timeline, the value of awards, competition results over time, a list of funded projects and the mandate and membership of INE Evaluation Advisory Committee are also available under this cover.

When reviewing this report, five considerations should be kept in mind:

1. Comments made during key informant interviews, CRI-PI interviews, and case studies are based on notes taken during interviews and are therefore not necessarily verbatim. These are presented in quotations and italics. Identifying information was removed to the extent possible.
2. Most of the reported survey results are based on the 'valid' responses (i.e., excludes those respondents who did not answer, or who checked a 'don't know' or 'no response' option). The exceptions to this are those few instances where a large proportion of respondents excluded themselves from the question by selecting the 'don't know' or 'no response' option. In those instances, the proportion of respondents who selected that option is also shown and included in the analysis.
3. When relevant, statistical tests of significance were conducted, either using t-tests or chi-squares to compare results. If differences were statistically significant at the 95% confidence interval, this is noted into the report along with the findings.
4. Due to rounding of percentages, it is possible that the sum of all percentages for a given question presented in a table, a chart, or in the body of the report does not add up to 100% exactly. Similarly, when reporting on a question that allowed for multiple responses, the percentages presented in the report are based on the number of respondents and may add up to more than 100%.
5. "Non-funded" projects refer to projects that did not receive any INE funding (i.e., an INE application was submitted but was unsuccessful). This does not mean that these projects failed to receive funding from other sources but simply that they did not receive INE funding.

2. PROGRAM DESIGN AND ADMINISTRATION

In order to provide context for findings and lessons learned resulting from the evaluation, some information regarding the program design and administration must first be presented. A short overview of findings from key informant interviews, and document and administrative data review is presented in this chapter for that purpose. A more complete description of the program, its design and administration (including a detailed timeline) is available under a **separate cover** titled Supplementary Documentation and Appendices.

2.1 Design and Delivery Built on Existing Programs

Following the announcement of the federal government's allocation of funding for research on the new economy, SSHRC rapidly mobilized and organized its resources in order to design and deliver the INE. This involved extensive consultations with key stakeholders. The funding mechanisms of the INE, presented in Exhibit 2-1, were in part modelled on existing SSHRC models.[6] Letters of intent (LOIs) were required for the two larger grants. In addition to these funding mechanisms, applicants to the Standard Research Grants could also receive funding from the INE if their research matter was related to the new economy. The INE Collaborative Research Initiatives (CRI) received the largest share of total program funding, followed by INE Research Grants (INE-RG) and INE Research Alliances (RA), with these funding streams accounting for 80% of total awarded monies.

EXHIBIT 2-1: INE Applications, Successful Applications and Total Money Awarded by Funding Mechanism

INE Funding Mechanism	Applications	Successful	Total Award
Research Grants			
INE Collaborative Research Initiatives (CRI) ➢ Funding for large and medium-sized research teams that focus on complex new economy issues. ➢ Grants were $200,000-$750,000 per annum for three to four years, with a maximum total value per grant of $3 million over four years.	153	LOI: 30 Full: 16	$45.6 million
INE Research Alliances (RA) ➢ Funding for cross-sectional research teams that focus on addressing specific new economy issues and challenges. ➢ Grants were for three years with a maximum value of $300,000 per annum.	123	LOI: 26 Full: 10	$9.5million
INE Research Grants (INE-RG) ➢ Funding for researchers working individually or in small teams for applying experience and expertise to new economy issues. ➢ Grants were for three years with a maximum value of $100,000 per annum.	341	121	$17.7 million

[6] Including SSHRC's Major Collaborative Research Grants, Standard Research Grants, Community-University Research Alliances, and joint funding mechanism.

INE Funding Mechanism	Applications	Successful	Total Award
Related Grant			
INE-Funded Standard Research Grants (SRG) ➢ Standard Research Grants that met INE objectives.	200	92	$9.4 million
Other Funding Components			
INE Joint Initiatives (JI) [there were a total of five INE JIs[1]] ➢ Co-funding with external partner organizations for research on a specific aspect, impact or potential of the new economy. ➢ Grant duration and funding arrangements were negotiated by SSHRC for each grant.	112	60	$4.2 million
INE Development Grants (DG)[2] ➢ Funding for experienced researchers to assemble teams that would be competitive in the larger INE funding mechanisms. ➢ Grants were for one year and were for up to $50,000.	167	45	$1.9 million
INE Outreach Grants and Public Outreach Grants (POG)[3] ➢ Funding for disseminating existing research knowledge relevant to new economy issues through innovative means. ➢ Grants were reduced from $60,000 to $50,000 and the timeframe was revised from one year to 18 months.	101	60	$2.8 million
Total	**1,197**	**460**	**$91.1 million**

[1] The five INE JIs were: Crossing Boundaries, INE Skills Research Initiative, CESC-SSHRC Education Research Initiative, INE Data and Statistics Seminars, and The Canada Project Research Initiative.

[2] It should be noted that the last competition of the Development Grants was cancelled given that the results of the competition would not have been available prior to the RA and CRI deadlines, thus making the competition superfluous. This change was moved and carried during the 90th Meeting of the Social Sciences and Humanities Research Council, June 7 and 8, 2002.

[3] The original Outreach Grants did not achieve the expected uptake and were re-launched in year five of the initiative as the INE Public Outreach Grants, open only to researchers funded under the INE. This change was moved and carried during the 90th Meeting of the Social Sciences and Humanities Research Council, June 7 and 8, 2002.

Source: Revision of the Evaluation Framework of the Initiative on the New Economy (INE) Final Report (pages 2-4), and INE administrative data

Despite being based on existing SSHRC programs, the INE also included a number of distinctive features, including[7,8]:

- Funding mechanisms that provided support for the entire life cycle of research, from the creation of knowledge to its dissemination and integration (e.g., DG, RG, and POG funding mechanisms);
- An application process that included a screening of CRI and RA applications in order to assess their relevance to the objectives of the INE prior to the full peer-review adjudication, as well as a two-staged peer-review process for larger grants (LOIs and formal applications);
- SSHRC resources to support events and tools to facilitate ongoing communication of research to researchers, research users and the public;

[7] Social Sciences and Humanities Research Council, *An Introduction to the Initiative on the New Economy*, pages 3-4.
[8] Social Sciences and Humanities Research Council, *The Initiative on the New Economy: Some lessons learned and how they might inform institute models within a transformed SSHRC* (not dated but, based on content, approx. three years after inception of the program).

- Controls on expenditures that required grantees to use within 10% of their training budget on students, and to meet or exceed the communications amount indicated in their application; and
- Project-level reporting and evaluation requirements that include annual financial reports and Final Research Reports (FRR) from all funded projects.[9] The two largest programs, the CRI and RA, also underwent a mid-term review process, which included preparation of a milestone report and site visit by independent peer review committee.

A significant response was garnered for the INE funding competitions, including 997 applications made directly to the INE and 200 applications that were funded under the INE but for which applications had been made to the Standard Research Grants. Applications were well distributed across the four INE theme areas, although the lifelong learning theme generated a significantly lower response (9% or 53 applications) than the other areas of general issues (29% or 162 applications), education (36% or 204 applications), and management and entrepreneurship (26% or 146 applications).[10]

Of the 1,197 applications received, 56 received LOI funding and 404 received a full award for a total of $91.1 million. About one-half of applications related to each theme area were funded, ranging from 49% of applications funded in education to 59% of applications funded in lifelong learning. In addition, as the INE sought to foster multi-disciplinary approaches to research, and attract projects with this scope, the disciplines listed in successful applications were examined.[11] About one third of all INE grants involved a single discipline, and one half involved between two to three disciplines. As would be expected, the Collaborative Research Initiatives were most likely to identify four or five disciplines, with 50% of funded research projects under this mechanism doing so. More information on the response to the INE competitions (as well as on the value of awards, competition results over time, and a list of funded projects) is available under a **separate cover** titled Supplementary Documentation and Appendices.

2.2 Responsive Program Administration

The INE was under the authority of SSHRC's Council. The governance, management and administrative structure of the program included an Advisory Committee, the INE Secretariat, a Screening Committee, and a Knowledge Mobilization Unit.[12] The program administration was generally effective, and demonstrated responsiveness to 'on the ground' learning throughout its duration in order to address effectiveness issues as they arose (e.g. changes to funding public outreach). A short summary of each INE-specific administrative body and key changes are presented below.

- A 12-member INE Advisory Committee was created, with representation from the public, private and non-profit sectors and organizations, in order to support program design and

[9] FRRs were not required of Development Grants recipients.

[10] It should be noted that no theme was available for those applications received as part of the Standard Research Grants, nor for those applications received in 2001 for which no funding was granted. Additionally, the Crossing Boundaries Research Initiatives used theme areas other than the ones for the INE.

[11] Administrative data from applications provided details on the disciplines of each funded project. Applicants were able to list up to five disciplines of relevance to their project.

[12] Social Sciences and Humanities Research Council (September 2003), *Results-based Management and Accountability Framework*, page 8-9.

implementation. The Committee was dissolved in 2004 once its primary task of contributing to the design and implementation of the INE and the adjudication process were completed.

- The initial administration of the INE was carried out through a special INE Secretariat, which was staffed by approximately five program officers and a senior manager. The Secretariat administered all the funding mechanisms except the INE Research Grants, which, because they were adjudicated through the Standard Research Grants program, continued to be managed through that program. While the Secretariat's responsibilities also included developing and managing a more explicit knowledge mobilization mission, its lack of appropriate expertise and resources undermined it from fulfilling this role. The Secretariat was dissolved in 2005 once the funding competitions were completed.
- In addition to SSHRC's standard peer- and merit-review process, a Screening Committee was responsible for assessing each CRI and RA application's relevance to the objectives of the INE. The relevance screening, however, was felt to be redundant and, given the lack of a clear definition of the new economy, a difficult process. The Committee was dissolved in 2002 at its own recommendation.
- A special entity called the Knowledge Products and Mobilization (KPM) Unit was created to provide leadership for knowledge mobilization activities and for developing and piloting knowledge mobilization tools. This unit was to liaise closely with the INE Secretariat. The division consisted of two staff (a vice-president and a program officer) plus an administrative assistant. Overall, the knowledge mobilization function carried out by the KPM Unit was ineffective in that there was a disconnect between the resources (experience, finance, staff) and the goals. The KPM Unit was dissolved in 2005 without the INE's initial vision of knowledge mobilization ever being fully realized.

2.3 Summary of Program Design and Administration

SSHRC rapidly mobilized and organized its resources in order to conceptualize, design, and deliver the Initiative on the New Economy. While the INE was based on existing SSHRC programs, it also included a number of features that differentiated it from previous programs. The INE attracted fundable research, as evidenced by the significant response to the competitions, (including 997 applications made directly to the INE and 200 coming from the SRGs, for a sum of 460 awards totalling $91.1 million). The governance, management and administrative structure of the program included an Advisory Committee, the INE Secretariat, a Screening Committee, and a Knowledge Products and Mobilization Unit. Specific tasks were assigned to each and, once these tasks had been accomplished, each administrative body was dissolved. However, while there was success in leveraging existing structures to deliver a new initiative, using traditional administrative tools may not capture the information or provide guidance appropriate for the innovative vision set out for new programs, such as the INE.

3. RESEARCH EXCELLENCE

The INE was intended to fund projects producing research that would deepen the understanding, and develop new ways, of approaching new economy issues in the four INE theme areas. The INE funding competitions were open to researchers affiliated with Canadian postsecondary institutions as well as those from the not-for-profit sector[13], provided they met the criteria set by the program. Researchers affiliated with foreign institutions were eligible as co-applicants and as collaborators on INE projects. Funded researchers and their teams were expected to produce excellent research on the new economy.

3.1 INE Projects Produced Numerous Outputs

The productivity of the INE-funded research was examined in order to assess its potential for contribution to knowledge on new economy issues. The focus of this section is on research outputs (e.g., reports, books, articles, etc.), which are quantifiable. The source of information on INE outputs is the 204 FRRs that included such information and considers the time between 2001 and 2008 between which projects have been completed.[14] Productivity of INE projects, however, may continue beyond the life of the INE program as the research continues to produce outputs.

3.1.1 Outputs by Funding Mechanism and INE Themes

Analysis of FRR data reveals that a total of 6,729 outputs were produced, as shown in Exhibit 3-1. This is an overall average of 33 outputs per grant, with a range of 1 to 838 outputs per individual grant.

EXHIBIT 3-1: Outputs Produced by INE Funding Mechanism, up to December 2008

Funding Mechanism	No. of grants in database	No. of outputs	Mean no. of outputs per grant	Range
Research Grants				
INE Collaborative Research Initiatives	13	3,248	249.8	38 - 838
INE Research Alliances	9	1,267	140.8	38 - 286
INE Research Grants	98	1,578	16.1	1 - 140
Other Grants				
Joint Initiatives[1]	42	197	4.7	1 - 17
INE Public Outreach Grants	42	439	10.5	1 - 121
Overall	**204**	**6,729**	**33.0**	**1 - 838**

[1] There were no FRR grants in the database for two JIs: the INE Crossing Boundaries Initiative and the INE Data and Statistics Seminar.

Source: SSHRC INE final research report data, research contributions and other research contributions (n = 204 FRRs)

[13] With the exception of the Joint Initiative: Skills Research Initiative.
[14] Final Research Reports were required from grant holders in all programs except the INE Development Grants. Of the 210 FRRs that were received, 204 contained research outputs.

While the more numerous INE Research Grants contributed to a large number of outputs (1,578), the larger Collaborative Research Initiative and Research Alliance grants produced considerably more outputs on average per grant (250 and 141 respectively compared to 16) and contributed to a total of 4,515 (67%) outputs produced.

Overall, the Public Outreach Grants had the best return on investment in terms of output produced for INE-funding provided. This was to be expected as these grants were targeted towards dissemination and mobilization activities rather than (more expensive) research activities. Researchers also appreciated these additional sources of funding:

> *"Providing resources to larger networks as well as smaller grants to principal investigators were a good thing that [SSHRC] should continue."*

The breakdown of outputs by INE themes shows that outputs are most often related to the education theme, followed by general issues in the new economy. The education theme was proportionately more productive of outputs than other INE themes, and the management theme was proportionately less productive, although this can be confounded by the distribution of size and type of grant and across themes, so is not necessarily a reflection on the theme per se.

EXHIBIT 3-2: Outputs Produced by INE Themes, up to December 2008

INE Theme	FRRs in database with outputs		Outputs		Percent
	No.	Percent	No.	Percent	
Education	71	36%	3,274	50%	**50%**
General Issues	58	30%	1,776	27%	**27%**
Management & Entrepreneurship	47	24%	1,067	16%	**16%**
Lifelong Learning	19	10%	557	8%	**8%**
Total	**195**	**–**	**6,674**	**–**	**100%**
Not identified[(1)]	9	–	55	–	–

[(a)] Nine of the FRRs (and fifty-five of the outputs) did not have any theme data entered in the database.

Source: Final Research Reports in database with outputs and theme (n = 204 FRRs).

3.1.2 Types of Outputs

The majority of outputs produced by INE grants (63%) were targeted to academic audiences. As shown in Exhibit 3-3, articles in research journals (1,477) and conference papers (1,464) were the two most numerous types of outputs. Non-academic outputs represent the remaining 37% of all outputs.

EXHIBIT 3-3: Types of Outputs Produced, up to December 2008

Type	Count	Percent	Percent by Category
Academic Outputs			
Article in a research journal	1,477	22%	35%
Conference paper	1,464	22%	34%
Book chapter	605	9%	14%
Book or textbook	498	7%	12%
Thesis	142	2%	3%
Other academic output	64	1%	2%
Total Academic Outputs	**4,250**	**63%**	**100%**
Non-academic Outputs			
Media, radio, television, public lecture	846	13%	34%
Article in popular media, trade journal, or web	504	8%	20%
Reports	167	3%	7%
Audio, film, video, CD, multimedia, website	152	2%	6%
Development of policies and programs, advisory services, consulting	37	1%	2%
Other non-academic outputs[1]	773	12%	31%
Total Non-academic Outputs	**2,479**	**37%**	**100%**
Total	**6,729**	**100%**	

[1] Analysis of other outputs conducted by SSHRC revealed that about two-thirds of these other outputs were events (e.g., workshops, posters, conferences, seminars, etc.) and about one-quarter are products (e.g., journals, working papers, etc.)

Source: SSHRC INE final research report data, research contributions and other research contributions (n = 204 FRRs)

Note: In this table, types of outputs were recoded into a smaller number of categories than those reported in the FRR.

Although about two-third of outputs were of an academic nature, seven out of ten FRRs (70% of the FRRs reviewed) had at least one non-academic output. There were also a total of 846 media outputs that attracted media or public attention (i.e., an output that was identified as 'media, radio, television or public lecture'). This represents 13% of all outputs, and 34% of non-academic outputs.

Further analysis revealed that the highest proportion of non-academic outputs by funding mechanism was found in the Public Outreach Grant: 71% of these outputs were non-academic, compared to 16% to 38% of outputs produced by other funding mechanism. This is in line with what POG survey respondents have reported, with many respondents identifying non-academic audiences (NGOs, educators, students, government, general public, media, and business community) in addition to academic/university audiences. Half or more surveyed POG recipients also said that these groups included new audiences for them. This demonstrates evidence of a wide reach of outreach activities and the funding stream's objective of supporting innovative and effective public outreach activities.

The audience for the outputs listed in the FRR was not always specified as this information was only gathered for outputs listed as 'other contributions' in the FRR template. The audiences for

the 4,501 outputs for which audiences were specified (70% of all outputs) are shown in the next exhibit.

EXHIBIT 3-4: Audience for Other Research Contributions, up to December 2008

Broad Categories	Sub-Categories	Count	Percent
Academia and experts (41.7%)	Academic and Other Experts	1,567	35%
	Learned Societies (discipline based)	311	7%
Public and the media (19.5%)	Informed public (formerly - Educated)	496	11%
	General Public	368	8%
	Libraries, Museums, Archives	9	0%
	Media	5	0%
Professional, practitioners and administrators (9.8%)	Professionals/Practitioners	404	9%
	Administrators	34	1%
International organizations and foreign government (14.90%)	International Research Communities	568	13%
	International Organization	86	2%
	International Intergovernmental Body	4	0%
	Foreign government	13	0%
Universities and students (4.8%)	Universities	90	2%
	Students: Undergraduate - Graduate	124	3%
Policy and decision makers (3.5%)	Policy-Makers	107	2%
	Decision Makers	49	1%
Non-academic organizations (non profit, private, unions) (1.9%)	Non Profit Organizations	40	1%
	Private Sector	10	0%
	Unions	38	1%
Community leaders and groups (2.0%)	Community Leaders	48	1%
	Community Groups	40	1%
Government (Canadian) (2.0%)	Federal Government	81	2%
	Provincial Government	8	0%
	Municipal Government	1	0%
Total		**4,501**	**100%**

Source: SSHRC INE final research report data, other research contributions.

Overall, INE research projects lead to the production of diverse outputs. As one CRI-PI interviewee stated:

> *"We used all the approaches – books, websites, presentation, articles – to business, societies, print, media, we did it all…It's unusual and exciting…You vary your approach – each public is very different. We spent time making sure that our material could be understood by the general public."*

And by doing so, another researcher reported that the INE influenced their attitude towards projects that focus on providing findings to non-academic users:

> *"I was skeptical of socially responsible projects. I really changed my attitude to some extent by the time the project was over. I finished with a different attitude. We had different types of outputs, some that were very educational."*

3.2 Comparison to Standard Research Grants

Of interest in this evaluation is the extent to which the features of the INE resulted in the production of outputs that would reach potential research users (i.e., audiences that were not other researchers). For that purpose, a comparison was undertaken between the number and nature of outputs produced by INE grants and grants awarded through the existing similar SSHRC programs, during the same time period and for research on similar themes. Given the number of Final Research Reports received in other programs, it was possible to conduct this comparison only with Standard Research Grants (SRGs).[15]

Exhibit 3-5 below shows the overall productivity of 95 SRGs and 98 INE-RGs in the FRR database as of December 2008. Statistically, there were no differences in terms of number of outputs by grants between SRGs and INE-RGs, meaning that INE-RGs were no more likely to produce outputs than SRGs.

EXHIBIT 3-5: Comparison of Output Production of SRGs (n = 95) and INE-RGs (n = 98)

Funding stream	No. of grants in database	No. of outputs	Mean no. of outputs per grant	Range
INE Research Grants	98	1,578	16.1	1 - 140
Standard Research Grants	95	1,916	20.2	1 - 104

Source: SSHRC INE and SRG final research report data, research contributions and other research contributions

In comparing the production of academic outputs and outputs intended for non-academic audiences in the SRG and INE research grants (Exhibit 3-5), it is found that close to two-thirds of the outputs of both programs were academic in nature. Although the difference is slight, it is statistically significant, meaning that individual SRGs produced more academic outputs than individual INE-RGs. There were no significant differences in terms of non-academic outputs.

[15] Output information was extracted from the FRRs of successfully funded applicants to SSHRC's Standard Research Grants who could have been eligible for an INE grant but did not apply, for the 2001 and 2002 competition years (the only years in which INE-RG competitions were held), and whose first-ranked applied area of research were in line with the INE research theme areas.

EXHIBIT 3-6: Comparison of Types of INE-RG and SRG Outputs – Academic and Non-academic Outputs

Type	INE-RG (n = 98)		SRG (n = 95)	
	Count	Percent	Percent	Count
Academic Outputs	1,125	71%	77%	1,465
Non-Academic Outputs	453	29%	24%	451
Total	**1,578**	**100%**	**100%**	**1,916**

Source: SSHRC INE and SRG final research report data, research contributions and other research contributions

Finally, when comparing the potential impact that the research will have, two areas had differences which were significant. These were the understanding of economic development policies or practices and teaching or professional practice. INE-RGs were more likely to have an impact on the understanding of economic development, polices and practices while SRGs were more likely to have an impact on teaching or professional practice.

EXHIBIT 3-7: Comparison of Research Area of Impact (INE-RG and SSHRC-SRG)

Will your research have an impact on…	INE-RG (n = 98)				SRG (n = 97)			
	Definitely	Possibly	Unlikely	Not Applicable	Definitely	Possibly	Unlikely	Not Applicable
Our understanding of economic development, policies or practices?	56%	35%	2%	7%	33%	31%	16%	21%
Teaching or professional practice?	50%	36%	6%	8%	69%	25%	3%	3%

Source: SSHRC INE and SRG final research report data, impacts – specific

There were no significant differences in terms of researchers reporting that the research will have an impact on our understanding of culture, social issues and social development, public policy debate, the development of research methodologies, other disciplines and international collaboration.

3.3 Research Excellence of INE Projects

In both academic and applied social research, the meaning of the phrase 'research excellence' has recently become increasingly contested.[16] New and diverse research methodologies have complicated traditional notions of what constitutes robust and respectable research. Where in the past, publication in peer-reviewed journals was considered to be the most reliable indicator of excellent research, many within the research industry have gradually shifted away from this perspective, and have shifted their focus to projects that engage researchers and the public and are oriented towards improving the community that they affect. In fact, the INE encompasses research excellence as a complementary objective to extending partnerships to non-academic organizations, and to the dissemination and application of findings within a wider non-academic audience, such as the public and private sectors. As a result, both publication in peer-reviewed

[16] O'Neil, Maureen (May 4, 2009), *We May Need a New Definition of "Research Excellence"*, The International Development Research Center.

journals and other indicators of research excellence, such as the importance of collaborative work and the multi-disciplinary nature of large projects, were examined.

3.3.1 Publications in Peer-reviewed Journals

Using the FRR data on outputs, the research excellence of the INE-funded projects can be assessed. While there were 4,250 academic outputs reported in the FRRs, information regarding peer-reviewed status is gathered only for academic outputs that are articles in research journals, book chapters and books/textbooks. Of the 2,227 outputs for which this information was gathered, 1,948 (88%) were reported to be peer-reviewed. Others were not peer-reviewed academic outputs.

As shown in Exhibit 3-8, of the peer-reviewed outputs, 1,310 (67%) had been published and 390 (20%) had been accepted for publication, leaving only 13% whose status was 'submitted' at the time the FRR was received. Those outputs that had been published were published in a range of journals of regional, Canadian and international scope.

EXHIBIT 3-8: Publication Status of Peer-reviewed INE Outputs, up to December 2008

Type	Published	Accepted for publication	Submitted	Total
Article in a research journal	933	227	226	1,386
Book or textbook	70	21	6	97
Book chapter	307	142	16	465
Total	**1,310**	**390**	**248**	**1,948**
Percentage	**67%**	**20%**	**13%**	**100%**

Source: SSHRC INE final research report data, research contributions and other research contributions (n = 204 FRRs)

In addition, thirty-one INE outputs (0.5% of all outputs produced) received awards, were considered for prizes, or were invited outputs recognizing excellence (such as an invited lead article for a special issue), some of which may have included the participation of students and other learners. Of the 31 awards/consideration for prizes/invited outputs recognizing excellence, 16 were as a result of an INE Research Grant, seven as a result of an INE Research Alliance, and five as a result of an INE Collaborative Research Initiative. Twelve awards were for grants in the management and entrepreneurship INE theme area. However, these findings can be confounded by the distribution of awards by size and type of grant, and across themes, so it is not necessarily a reflection on the funding mechanism or themes per se. The list of prizes and awards is shown in **Appendix C: Awards, Prizes and Research Excellence**.

This is also without consideration to awards, prizes and other invited outputs that may have been received as an indirect result of the INE, for example, in a subsequent project that is the continuation of INE research:

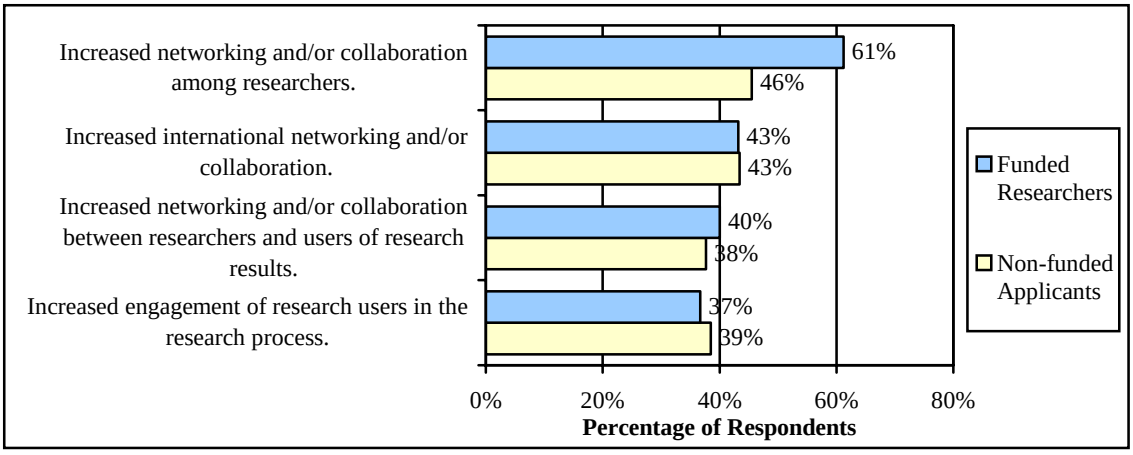
> *"I was invited to be a co-chair of one of most prestigious international seminars in [Foreign Country]. We were able, with INE funds and others to take 8 students, and 3 faculty. The INE was not the financial contribution of going there but the INE let us become established, which allowed us to arrange a meeting with the top people in the world in this area – that would never happen [otherwise]."*

3.3.2 Partnerships, Networking and Collaboration

Surveyed researchers, including those of larger grants who participated in interviews, emphasized elements of productivity and excellence, other than peer-reviewed publications, which also occurred through the INE, that might not have otherwise taken place.

Networking and collaboration among researchers, according to survey results, were more prevalent in the INE-funded projects than in non-funded projects. Just over 60% of INE funded researchers indicated that there was a great or very great increase in networking and/or collaboration among researchers in the course of their research project, compared to 46% of non-funded researchers whose projects was undertaken. This difference was statistically significant, indicating that INE funded researchers were more likely to state this occurrence than non-funded researchers.

EXHIBIT 3-9: Networking and Collaboration Activities Occurring to a Great or Very Great Extent



Source: Survey of PI, QA7b to QA7f (n = 118 to 121); Survey of non-funded, QB7b to QB7f (n = 52 to 55)

Other types of networking and collaboration mentioned in the survey were not felt to have occurred to a great or very great extent by the majority of survey respondents. In both researcher groups, approximately 40% of respondents reported that these activities took place to a great or very great extent.

Anecdotal evidence indicates that, although these may have occurred to a lesser extent, the value of such collaboration and networking is noteworthy. PIs who received CRI grants provided examples of international interest and collaboration, research that attracted the attention of world leaders in subject areas of their projects, and direct use and application of results. They said:

> *"We could not have brought this group of leading scholars together without this resource base."*
>
> *"The fact it was possible to do this [project]: my US colleagues were astounded that we can do this, and people who are at the top of their field in the world [are glad to be involved]."*

> *"We tried to advance conclusions that were understandable – aimed at civil society to industry, government, NGOs. So we built partnerships throughout the world to do this. In Ottawa we had a media strategy, and invited policymakers to hear about the report. We did a joint effort with the US to access Senators and representatives there, plus their staff. We had a media event in London, and another event in Paris. We spent a lot of time disseminating the report, and we think it's very high quality and people will use it. We are seeing a lot of people contacting me about it – locally but also internationally, and meeting a lot of people from industry who are picking up on these ideas."*

This anecdotal evidence suggests that INE research stimulated partnerships, collaboration and networking among researchers and other team members that may not have taken place otherwise.

3.4 Contribution to Research Excellence and Innovation

One of the INE objectives, as stated in the introduction, was to foster excellent research, with a special emphasis on fostering innovative multi-disciplinary approaches. As presented in this section, the INE, and particularly its larger grants, were acknowledged by others as excellent research and provided for collaboration and networking. The evaluation also provided an opportunity to examine factors contributing to and challenges to achieving research excellence and innovation.

3.4.1 Elements that Contribute to Excellence and Innovation

Evaluation findings, particularly interviews with team members of large research grants, suggest that excellence is a distinctly different objective than innovation, although they may be related. Interviewed CRI-PIs and other members of large research grants reflected on what elements had contributed to research excellence and innovation within their respective projects. They identified factors such as:

- Having the right people in the team, not only the right team of lead researchers, but also a complement of students, managers and administrators, which made the difference in terms of quality and productivity;
- Having sustained and long-term funding, along with institutional support, and the ability to be released from teaching, which provide for sustained leadership to the projects;
- Having key partnerships, particularly international partnerships, which strengthened impact of the research results.

Some of the comments made by CRI-PIs included:

> *"Well the people made the difference – not just the expertise, but the enthusiasm among the 'staff' – students, software developers, etc. I tried to get a team that would work well together, but also be productively critical of each other, and it worked very well."*

> *"You need to build these projects from the bottom up. We had one person whose entire contribution was teambuilding and linkages. That was very important. In*

addition we had very good administrative support and technical support built in early on. I can't stress enough how important project management is."

"Getting the INE money was very important to freeing the academics to buy out the administrative end, and get on with what we are good at – research and capacity building."

"Well the funding and money made a lot of things possible that would not happen otherwise. For example close collaboration between researchers, policymakers and local parties. Out of that, come secondary things, like once you do start meeting with people… every year we brought them to the national conference – which has tremendous spinoffs as you deal with collective issues."

As will be presented later in the report (**Chapter 6: Knowledge Mobilization**), researchers were most enthusiastic about face-to-face exchanges of ideas and discussions of findings. They found these to be particularly effective and successful ways to both work collaboratively among disciplines and partners, and share INE findings, and thereby contribute to research excellence. In other words, excellence was more likely to lay within the research itself rather than the practices: *"The topic was innovative rather than the project."*

3.4.2 Challenges in Achieving Research Excellence and Innovation

In the course of the evaluation, it became apparent that the INE's objectives of research excellence and innovation, and of involving non-academic partners and audiences were a challenge. There are fundamental differences between basic/curiosity-driven research (journal articles, books, etc.) and targeted research that meets the needs of non-academic stakeholders (websites, media articles, blogs, fact sheets, etc.). This was validated through interviews with researchers and team members of large INE grants:

"Researchers are not going to particularly care about knowledge mobilization. They need to produce top quality journal publications for tenure."

There was widespread agreement that younger or less experienced researchers were not able to focus on non-academic outputs and knowledge mobilization. Despite this, it was found that more established researchers were better able to without negatively impacting on their careers and researchers of large grants, such as CRIs and RAs, were able to adapt:

"We learned a lot about managing a network spread across the country… for example we learned that the careers of our junior faculty required academic publication – whereas this work is really focused on community and those materials. There were enough in the network so we could let [junior team members] publish, while the more established team members could do the networking."

An unintended impact of this was that these younger or less experienced researchers (and students) were provided a greater opportunity to take the lead on academic publications.

Despite these challenges, in order to achieve the INE knowledge mobilization objectives, non-traditional approaches and non-academic research outputs were necessary and often a large part of a project's contribution.

In addition to the tradeoffs between academic and non-academic publications, several researchers also mentioned the differences between academic-led, 'curiosity driven' research, and targeted, question driven research. They believed that targeted research, driven by stakeholder information needs or interests could not replace curiosity driven research. Rather, researchers worked at finding the right balance between meeting their needs and those of partners:

> *"You need to understand what the group wants to get out of the project. I have a lot of pressure to meet my centre's needs and the need to publish. But you can lay it all out on the project. The project was big enough in terms of funds to put in research questions that would address both the partners and our needs."*

> *"I've spent my entire career doing engaged research. Most people are at a distance from non-academic users. [This was reflected in our] interim report, but the reality is, no community will want you studying them if they don't get anything out of it, so you need non-academic deliverables. This may not be what the Ph.D. or academic needs for publication, but as a community-partnered researcher, you have to meet their needs."*

Some CRI-PIs also reflected upon the INE's emphasis on a broad range of partners, particularly end-users such as policymakers, industry and community. While they noted this encouraged a new, more relevant type of research, they also noted that SSHRC's processes may not have 'kept pace' with these changes, still focusing on traditional measures of research excellence or impact, such as journal publications, rather than on a myriad of 'real time' impacts of research of this type:

> *"These rules are OK for traditional research but these are large expenditures on networking, knowledge mobilization, etc. based on rules that you do your best to understand. [SSHRC] has created the grants but how do grants need to be re-thought to fit with innovation?"*

> *"There needs to be a balance between standard and targeted research program, knowledge mobilization and innovation. Knowledge mobilization happens when the knowledge matters to people. It's important to keep on issues of [project topic]."*

They felt that support from others and leadership from SSHRC may provide additional support among projects and grant researchers with more time to focus on what they do best (i.e., research):

> *"Certainly an unintended consequence compared to when we started: the amount of time it took to manage. I became a manager not a researcher, with very little support from SSHRC or the University on how to train students, engage partners, mobilize knowledge. All of which we did not know how to do."*

As noted above, this level of engagement with community, business and policymakers was often new, and therefore lessons learned about successful approaches offer both researchers and SSHRC insights into how to continue these efforts, in particular adapting program design and delivery to account for the benefits this brings.

3.5 Summary of Research Excellence

INE-funded research produced a large number of outputs. For the time period of 2001 to 2008, a total of 6,279 outputs were recorded by INE researchers in 204 of the 210 FRRs received. The majority of outputs produced by INE grants were destined to academic audiences, with articles in research journals and conference papers being the two most numerous types of outputs. In comparing INE Research Grants (INE-RGs) with Standard Research Grants (SRGs), it was found that there were little differences between the two types of grants.

The outputs produced represented excellent and innovative research in the area of the new economy through their publication in peer-reviewed journals of regional, Canadian and international scope, the awards and prizes received, as well as through the networking and collaboration that occurred among researchers and that may not have occurred otherwise. Researchers also emphasized other important outcomes, such as multi-disciplinary work, developing networks and a presence on the world stage.

While researchers attempted innovative approaches to produce knowledge, the more traditional methods of face-to-face interactions were felt to be best. Further, despite challenges related to balancing academic and non-academic research needs, researchers were able to adapt their efforts. They did, however, point to the need to re-assess traditional measures of research excellence or impact for measures that take into account the 'real time' impact of research.

4. NON-ACADEMIC PARTNERSHIPS

The INE sought to create different forms of linkages and partnerships. INE-funded projects were encouraged to leverage additional support through partnerships with the academic as well as the public, private and the not-for-profit sectors. In addition, it was expected that through these partnerships the quality of the research and the extent to which the results are used by partners would be enhanced. It was also expected that SSHRC would develop linkages with outside agencies as a result of the INE.

4.1 INE Projects Garnered Support from Academic and Non-academic Partners

Leveraged contributions were to have a positive impact on the ability of the Initiative to achieve its overall objectives. While projects leveraged support from a number of sources, including the organization that would administer the grant, the applicants themselves, and sponsoring organizations, this section focuses specifically on partner support, which was a key focus of the INE.

4.1.1 Support Leveraged from Partners

One source of data on partnerships are the Final Research Reports. Of the 210 Final Research Reports, 122 contained information on a total of 459 research partners. While there were 459 research partners, some partners contributed to more than one project, in one or more INE funding streams. As such, there were 541 partnerships in place. Research partners were distributed across a wide range of organizations, the top seven (in order of frequency, ranging from 12% to 5%) being universities, private business enterprises, research organizations, associations, provincial/territorial governments, trade unions and charitable organizations.[17] Research partners provided financial and non-financial support to the INE grants.

Application data shows that 85% of all contributions (81% of partner contributions) were pledged but not confirmed. In order to assess the extent to which pledged contributions materialized, the value of anticipated partner financial contributions, as reported in successful applications, were compared to the value of actual partner contributions, as reported in the FRRs[18]:

- The total value of partner cash contributions of successful applicants, as anticipated at the time of their application, was $5.9 million, of which $1.7 million were confirmed.
- In contrast, FRR data shows actual cash contributions from partners totalled $3.9 million, exceeding the total confirmed cash contributions but below the total anticipated contributions.

[17] Sixteen percent of partnerships in the FFRs did not specify the type of organization.

[18] While an attempt was made to compare anticipated revenues to actual revenues, it was found that there were few similarities between the FRR financial contribution data and the anticipated revenues data: of the 31 FRRs with financial contributions, 19 were also available in the anticipated revenues database. In most instances, the FRR partner who contributed to the project was either not part of the anticipated revenues or was listed as an organization that would be providing non-financial support.

This suggests that some of the cash contributions that were pledged by partners, but not confirmed at the time of the application, materialized while others did not. As stated by one of the interviewed CRI-PIs, it is difficult for researchers to tell in advance, as they are building the methodology, what partnerships will come to fruition.

Both application and FRR data indicate that partner support was more likely to be non-financial than financial. Application data reveals that only 9% of the anticipated partner contributions were cash contributions. Similarly, in the FRRs, when looking at all contributions listed, 10% were either cash ($) or of a financial nature. This suggests that non-financial contributions are much more common than cash contributions. A total of 1,497 non-financial partner contributions are listed in FRRs, in the following proportions:

- Intellectual contribution (16%), diffusion and dissemination of findings (16%), networking (14%), knowledge application (11%), staff time (10%), in-kind contribution (13%), improvements to research design (9%), financial contributions (5%),[19] and other (7%).

Unfortunately, the more up-to-date source of data, the FRRs, does not include estimated values attributed to non-financial contributions. Anticipated revenues data indicates that $19.1 million in partner non-financial contributions were leveraged at the time of the application, of which $5.1 million were confirmed.

When combining FRR financial contribution data ($3.9 million) with anticipated non-financial contribution data ($5.1 million to $19.1 million), it can be estimated that INE-funded projects leveraged at least $9.0 million in partner support.

Calculating Leveraged Contributions

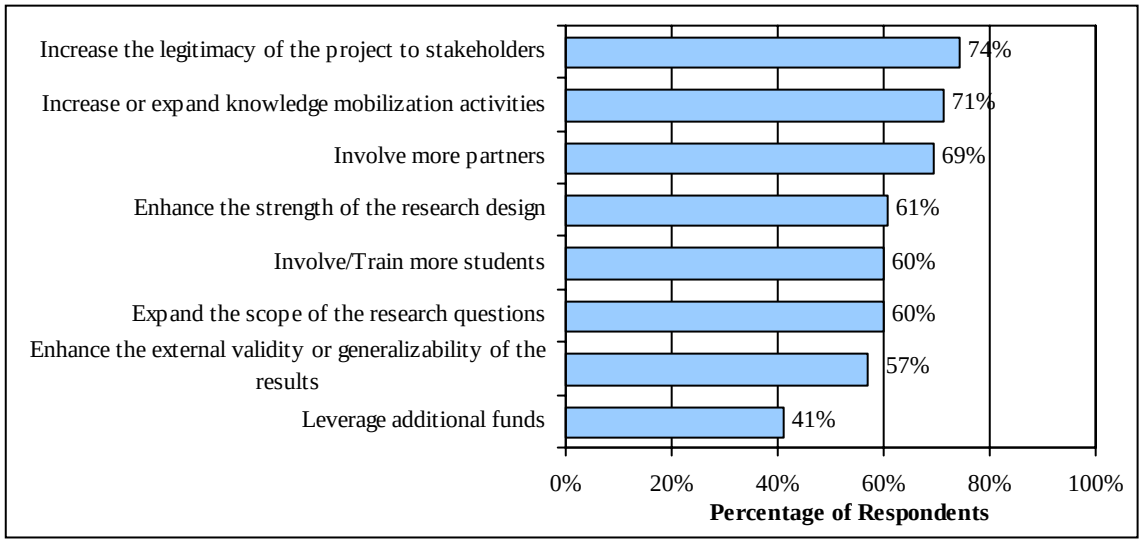
Final Research Reports are a more solid source of information compared to application data when it comes to establishing the value of partner support. However, unlike application data, FRRs do not collect estimated values for non-financial contributions. They also use different categories than those used in the application to describe non-financial contributions, and they do not refer to partnerships listed at the time of the application, which means that there is no clear indication as to what has happened over time to those partnerships (i.e., were identified partners the actual contributors?). FRRs could be adapted to better capture this information in future.

4.1.2 Impact of Partner Support on Project Activities

Survey results show that leveraged contributions did have a positive impact on the ability of the INE to achieve its overall objectives. Just over half of INE researchers who participated in the survey received additional partner support for their project. These researchers were asked what that additional support enabled them to do. Responses to this question are presented in Exhibit 4-1. As shown in the Exhibit, the greatest impacts of leveraged resources were linked to the INE's prime and sub-objectives of extending and developing partnerships, disseminating and mobilizing findings, and training students.

[19] It is unclear why there exists "financial contributions" as part of the non-financial contributions listed in the FRRs.

EXHIBIT 4-1: Additional Support (Financial or In-kind) from Partner and Other Sources Enabled to…



Source: Survey of PI, QA3a to QA3h (n = 62 to 66)

The impact of research partners making direct contributions on the productivity of INE grants (i.e., the dissemination of results) can be further assessed through Final Research Reports. As Exhibit 4-2 shows, there is a clear relationship between partners having made direct contribution, financial or non-financial, and the number and proportion of academic and non-academic outputs, all differences in this table being statistically significant.

EXHIBIT 4-2: Relationship between Partners' Financial Contributions and Outputs, up to December 2008

	Partners Contributed Financially		Partners Contributed Non-financially	
	Yes (n= 31)	No (n = 173)	Yes (n = 111)	No (n = 93)
Mean number of outputs	105	20	50	12
Mean number of academic outputs	59	14	32	8
Mean number of non-academic outputs	45	6	19	4

Source: SSHRC INE final research report data, research contributions and other research contributions, and anticipated revenues.

On average, grants to which partners contributed financially produced five times more outputs, and grants to which partners contributed non-financially produced four times more outputs. All differences in the table are statistically significant, meaning that partner contributions have a real impact on the number of outputs produced.

This shows that leveraged support did enhance the scope of the grants awarded under the INE. Moreover, the leveraged support also contributed to the achievement of INE objectives.

4.2 INE Projects Had Diverse Non-Academic Partnerships

Prior to conducting the evaluation, SSHRC relied heavily on application data, FRR data and personal interaction with researchers (such as through mid-term reviews) in order to assess partnerships – particular attention was paid to the number of partners and type of partner organizations. The evaluation has provided an opportunity to better understand the nature of partnerships, particularly non-academic partnerships.

4.2.1 Number and Nature of Non-academic Partnerships

Evaluation findings, such as a low response to a non-academic partner survey, suggest that fewer non-academic partnerships than reported had been active, or if active, the role of partners may have been more limited than assumed by SSHRC. Several case study participants acknowledged that many of the partnerships identified at the funding proposal stage were unlikely to result in a 'true' (i.e. collaborative research throughout the life of the project) partnership. Most indicated that this is the result of a natural process of determining partner organizations' capacity, individual interests and skills, timing of the work, etc. A few acknowledged that there can be pressure to identify a great volume of partners in an application proposal (speaking of grants in general), regardless of whether or not they will come to fruition and that the accounting process is not designed to discourage this:

> *"There is a motivation to make a laundry list; the longer it is, the more impressive it looks. I think the critical point is, in addition to the front end display (the letters of support from partners), you have to have a back-end accountability from partners."*

For those partnerships that come to fruition, the survey of non-academic partners and case study interviews provided information as to the involvement and expectations of non-academic partners:

- Frequently, partnerships were born of existing relationships. When partnerships were new, often the partner organization contacted the research team after hearing about the project, while other times researchers sought out appropriate organizations – for example through extended networks.
- Most surveyed non-academic partners reported that they had been involved early on in the project: 46% before the grant application was submitted (i.e., when the project was being planned) and 16% after the grant application was submitted but before main research activities began.[20]

The majority of surveyed non-academic partners (84%) felt that their organization's involvement was identical to what they had expected or agreed to and that it largely (32%), fully (35%) or exceeded (17%) their expectations. Of the remainder, nine percent (9%) of respondents felt that their involvement only partially met their expectations and seven percent (7%) felt that their involvement failed to meet their expectations.

What has been missing is an understanding of what those expectations comprise. It appears that for many partners, true collaborative research during the life of the project does not develop, for

[20] A large proportion (18%) of respondents did not know at what time their organization's involvement began.

others, there is a distinct role for partners, and for some, they become integrated into the research stream. Non-academic partnerships were tentatively divided into the following categories: stakeholders, collaborators, enablers, participants, and users and disseminators.

Establishing the Nature of Non-Academic Partnerships

Anecdotal evidence from discussion with non-academic partners and researchers provided some indication as to the nature of partnerships. Based on that information, partnerships tended to fall within one or more of the following categories.[21]

Research collaborators: Partners are involved in several aspects of the research process such as the design, data collection, data analysis, interpretation of findings, etc. This involvement includes frequent contact with the research team throughout the research. For example, partners participate in a research advisory committee.

Research stakeholders: Partners would include a subset of all stakeholders who participate by providing input *early on* into the types of questions they need answered, or information arising from the project that they could make use of. These types of partners may overlap with users and disseminators if the research findings they are interested in come to fruition.

Research enablers: Partners contribute to facilitating the research taking place. This involvement requires limited, often one-time contact with the research team. For example, partners provide funding or access to facilities, databases, etc.

Research participants: Partners are the subject matter of the research. For example, organizations are direct participants during the data collection phase or facilitate data collection from their members (e.g., schools and students). This is a sub-set of research enablers as the partnership is necessary for the research to take place but the role of the partner is defined by the research design rather than by the partner itself.

Research users and disseminators: Partners participate in the 'back end' process of applying the research results within their organization and/or by disseminating the research results to other stakeholders. This involvement includes limited or frequent contact with the research team but only once most of the research has already taken place. For example, partners use findings to support policy changes and present research findings to stakeholders. These partners may or may not have had input into the initial design as identified research stakeholders.

While case studies validated these types of categories, the types of partnerships they actually engaged in varied greatly:

> *"[Partners] have different roles…each partner either brings something to the table or receives something. There is an exchange of ideas that takes place…"*

Some partners said that they fulfilled all these roles, but more often partners played only one or two of them (e.g., enablers and distributors). Based on researchers' perspectives, the overarching objective of the partnership was to link theoretical research with practical uses and applications. Predominant roles of non-academic partners are to identify practical uses (problems or issues for the research to inform) or as one case study participant said: *"drag back the academics to the real*

[21] Case studies validated these roles, but emphasized that they will vary greatly among partners.

world", and in disseminating results. Interestingly, sometimes CRI-PIs did not distinguish between non-academic partners and end-users as distinct from research participants.

Case study participants validated the idea that different types of partners would contribute differently to research projects, based on capacity and other attributes (type of organization, size, geographic location, etc.). They felt that identifying the roles that partners would play was important, particularly as in some cases researchers needed to clarify that they were not 'consultants' to the partners.

> *"We have to be careful that the mandate is not that of a consultant. The research question comes from [the partners] but it still has to be publishable. It's not a consultation mandate. It's an in-between."*

In order to better understand partnerships being funded and their contributions, case study participants validated the idea of describing the nature of partnerships, if not at the application stage, which was generally regarded as too soon, then at the final stage of the funded project.

Several case study participants reflected that fewer, carefully selected partnerships would be more beneficial than trying to achieve many partnerships. Quality, they felt, was more important than quantity:

> *"If I would do it again, I would probably not go with [so many partners]. It was personally draining. I would diversify the [partnerships] to get a broad range of impact."*

Moreover, they felt that fewer partnerships can be more effective/easier to manage and thereby produce stronger results. One researcher suggested that a small amount of funding to explore partnerships for a year, followed by research funding would be useful.

4.2.2 SSHRC's External Linkages and Partnerships

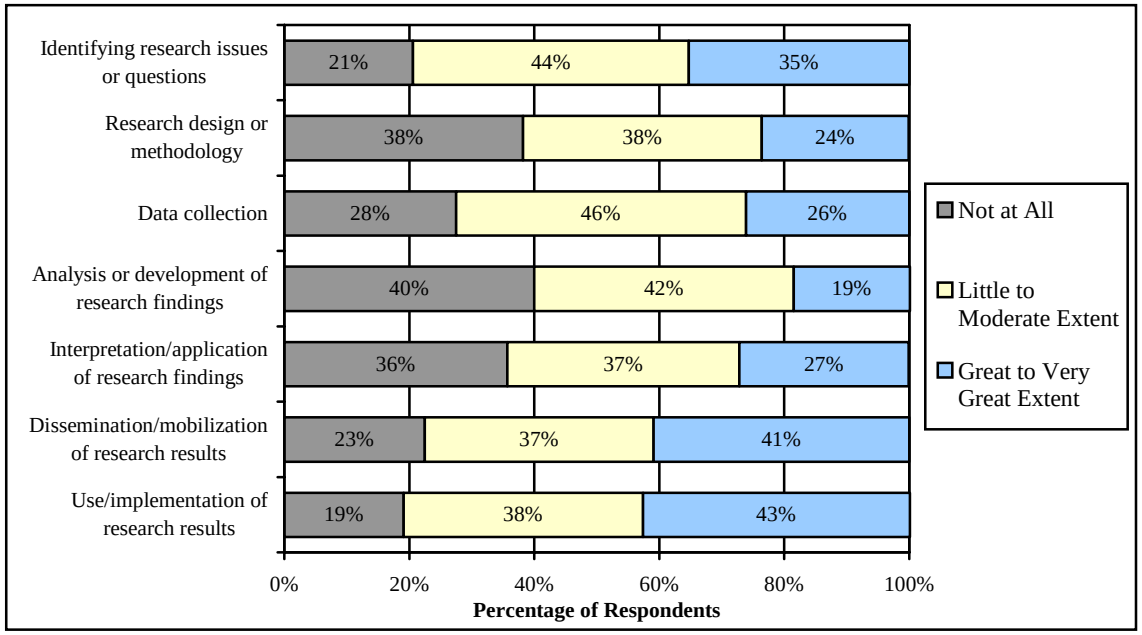
The extent to which linkages, partnerships or interactions were developed by SSHRC with outside agencies was assessed during the evaluation. Overall, key informants noted that the outside partnerships involved in the Joint Initiatives were particularly important to the successful implementation of the INE, and that these were largely seen as having been successful. It was felt that these partnerships had allowed SSHRC to develop linkages, had benefited SSHRC's research community through access to data, and had allowed researchers to develop and benefit from new partnerships at the project level, for example through additional validation. Interviewed Joint Initiative agencies and departments were also pleased with the results of their partnership with SSHRC, noting that the terms of agreement and relationship with SSHRC worked well and helped them achieve the objectives of their project.

4.2.3 Impact of Non-Academic Partner Support on Research Activities

Surveyed non-academic partners were asked to report on the extent to which their organization was able to contribute to a range of aspects of the INE research project. Between about half and three-quarters of non-academic partners contributed to research activities, and those who did tended to report a moderate contribution, as shown in Exhibit 4-3. Areas where 75% or more of surveyed non-academic research partners contributed in at least some extent were: identification

of research issues or questions (79%), dissemination/mobilization of research results (78%), and use/implementation of research results (81%). These activities, it can be noted, are at the very beginning of the project and at the very end, with fewer respondents reporting having been involved in research design or methodology, analysis and interpretation/application.

EXHIBIT 4-3: Extent of Contribution of Partners to Research Activities



Source: Survey of Partners, QB2 (n = 42 to 55)

Similarly, surveyed researchers were asked what effect partnerships with research users had on aspects of their project. While only about a third of surveyed funded researchers (31%) said they had partnerships with research users, those that did provided responses that were in line with what surveyed non-academic partners have said:

- Partnerships with research users generally had a positive effect on all aspects of the research project;
- The *strongest* effects where in the areas of identifying research issues or questions, dissemination of research findings, and use of the research results; and
- The *least* effect where on the design and methodology, and analysis of research findings.

Case study participants validated overall evaluation findings, emphasizing dissemination and mobilization of knowledge, and providing linkages to the subjects of study (i.e., access to participants). Researchers and partners tended to approach the topic of partnership philosophically. Even when partnerships did not develop as planned, they tended to regard the process as organic:

> *"If research is working through a community network, it is organically happening, like going out to conferences, it is not just academic conferences. There is a disconnection with what is happening in research and what is actually being supported both by SSHRC, the partners and the universities. We've seen*

cases where the partner groups say well do this or that and it does not materialize."

Therefore, the effect of a partnership on research projects depended on what opportunities and challenges arose. Similarly, even if partnerships were not particularly collaborative or in-depth, parties involved tended to report that they were satisfactory and as expected.

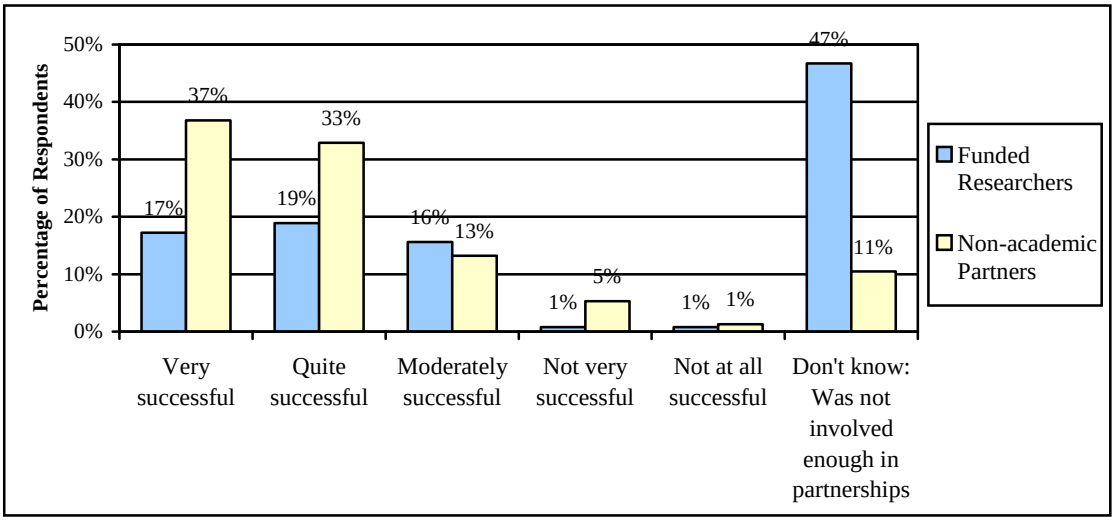
4.3 Development of Successful Non-academic Partnerships

As a prime objective, the INE set out to extend and develop new research partnerships with public, private, and not-for-profit sectors. The evaluation was an opportunity to examine these partnerships and understand what makes non-academic partnerships successful and, more so, what qualified as 'success' for non-academic partners and researchers alike.

4.3.1 Successful Non-academic Partnerships

Respondents to the survey of funded researchers and non-academic partners were asked to comment on the level of success of INE partnerships. The majority of non-academic partners qualified the partnership as successful (37% said 'very successful' and 33% said 'quite successful'). For their part, researchers have found it difficult to assess partnerships (47% were not able to).

EXHIBIT 4-4: Level of Success of Partnerships



Source: Survey of PI, QB6a (n = 122); Survey of Partners, QB1a (n = 76)

Surveyed non-academic partners and researchers who were able to answer the question (i.e., those who did not select 'don't know') were asked to explain their response. Overall, partners and researchers who indicated that the partnership was successful reported that input was solicited during the project or that the results or data were shared with partners. Another portion of researchers indicated that the partnership gave them access to data, staff or other resources.

Further, as one case study participant noted, asking the right questions to partners generated better input (and therefore better results):

> *"Asking 'what research would be interesting to you' generates little from [industry], but asking 'what kind of problems would you like help with' leads to better questions from them."*

This assessment of the level of success of partnerships triggered the more fundamental questions of: what is a successful partnership, and do partners and researchers share the same definition of success. In general, researchers and partners agreed that a successful partnership is one from which both researchers and partners benefit, and one in which research results are useful to partners. However, different partner relationships provided for different views about success. Examples of what constitutes a successful contribution include:

- Intellectual collaboration: some partnerships created a network of experts (academic and non-academic) who could exchange and test ideas. Sometimes, the particular role of partners of this type was to bring the practical or 'real life' view to the table;
- Meeting identified information or other needs: some partners were interested in having specific questions answered or were most interested in a specific component of the INE project. Other times, they met specific researcher needs – for example providing access to a pool of potential research participants or beneficiaries; and
- Providing a voice or a theoretical basis to an important issue: some partners were involved primarily because the research was pertaining to a cause they believed in, therefore, success was about the progress of the research itself.

Additionally, many case study participants felt that partnerships that continue beyond the project were valuable benefits and an indicator of a successful relationship:

> *"Successful partnerships are ongoing partnerships. When they end (contractually) the relationship continues."*

Supporting and Understanding Non-academic Partnerships

Case study participants were asked about ways to better support and understand partnerships. Some referred to things they had tried, others suggested approaches that they thought would be useful. Altogether, they mentioned:

1) Establishing a partner protocol (i.e., what it means to be a partner, or describing different types of partnerships with different expectations);
2) Providing course release for researchers to collaborate with partners;
3) Allowing funding to buyout partner's time, especially for community organizations like non-profits; and
4) Formal partnership mechanisms (including a letter of support/intent, and a 'partner report' in addition to an FRR).

4.3.2 Elements to Contribute to Successful Non-academic Partnerships

CRI-PIs and case study participants, when asked about what made partnerships successful, tended to underline the importance of the interpersonal, in conjunction with enough time and resources devoted to communication with the wider group (through meetings, workshops, trade events etc.). Specific elements of building successful partnerships mentioned included:

- Patience, trust and time;

  "The partner has to be patient. It's not like a contract. Those projects that succeeded were with patient partners."

- Respect and openness;
- Good understanding and awareness of roles, including clarifying 'who's working for who', and agreeing to adhering with respective frameworks or protocols (e.g., confidentiality, intellectual property); and
- Communication infrastructure and capabilities.

Time was described one of the key elements of (and lack of time as a barrier to) partnerships. Partners' contributions of time depended on the capacity of their organizations, and several participants noted that time was not captured/under-inflated in the partnership accounting process, thus underestimating the true contribution of partners to the project.

Non-academic partners who participated in the survey were asked about the factors or activities undertaken by the project team that helped their organization be active contributors to the project. Their responses included:

- Networking and research outreach, including working with the researchers (29%);
- Early involvement in the project and identification of participants (19%);
- Research dissemination and data acquisition (17%);
- Participation in workshops, conferences and forums (15%); and
- Other responses (20%).

There are therefore a number of elements that must be in place to ensure that the partnership is successful, including elements related to the relationship and elements related to participation in the project.

4.3.3 Challenges to Developing Non-Academic Partnerships

In line with what was previously reported as a challenge to research excellence and innovation, one of the challenges of developing non-academic partnerships, as mentioned by team members of large research grants, is meeting partners' needs:

- Firstly, researchers have to produce research aimed for a non-academic audience while still achieving excellence in academic research. Moreover, when end-users are business or industry groups, some researchers warned that there is a risk of a real or perceived threat to credibility and impartiality of the research.

- Secondly, researchers may experience a pressure to produce information at a much faster pace, particularly for partners in the industry, than otherwise. Researchers who participated in the case study stated that they could not always work toward partner established timelines.

This challenge is clearly voiced by this researcher:

> *"One of the challenges is that community partners and academics have somewhat different needs: academics are under pressure to publish scholarly work that has a theoretical base to it, community partners have more practical needs."*

Availability of resources was also mentioned by both researchers and non-academic partners as a barrier to a more collaborative partnership. Some partners indicated that their participation in the project strained their resources (time, staff and money). Researchers and partners noted that there is no monetary incentive for partners to participate in the project, and described participation as being on a 'volunteer' basis:

> *"[Partners] need to clearly see what is in there benefit to make it work. Otherwise, it is a luxury for them to sit and talk about issues and have publications. Let's say you convince them to come. How do you pay them for their time? How do you get them to travel?"*

A few researchers indicated that some partnerships could not be carried out because of lack of resources within the partner organization.

> *"SSHRC expects that the community organizations will give all kinds of help. Even if [the organizations] think it is a good project, it is hard for them to get people. We had one person interested, but he left. It is a small issue in a big scheme at community organizations."*

In addition to resources, partners have different capacities in terms of research expertise. Larger organizations with more resources may have a department or group with a research mandate or experience. However, smaller organizations may have limited capacity, skills or mandate. Researchers indicated that expectations of partners and the definition of a successful partnership need to match the capacity and limitations of the organizations involved:

> *"When you phone and ask 'are you interested in [our] projects' they say yes, of course. But when you ask 'can you commit in kind'… That's not what organizations can do easily. There is friction."*

> *"Our own experience, and the experience related to me by other participants, was that lack of funding constrained their [partners'] participation."*

Surveyed non-academic partners, when asked about factors that limited their organization's contributions to the INE project, provided similar responses. In addition to a lack of, or limited, time and funding, they also mentioned that a late or limited project involvement (29% of respondents) as well as research that was not relevant to their organization (10% of respondents), and distance from the administering institution (4% of respondents) also affected their ability to contribute to the project.

Enhancing and Tracking the Value of Non-academic Partnerships

Case study participants suggested a number of ways to enhance and track the value of partnerships, including:

1) Ensuring that partner-specified/needed outputs are produced and recognized as valuable, specifically by SSHRC, but also by academic institutions. They suggested the project planning and reporting could include:
   - Identifying partners' information needs at the application stage and a follow-up with partners at the end of the project,
   - Introducing 'partnership reports' that focus specifically on partner relationships and results, provided they are realistic given the capacity of partner organizations,
2) Requiring that researchers report back to partners on the results of the project, further validating non-academic publications and ensuring that partners are not 'token'; and
3) Establishing indicators of quality that move beyond traditional academic publications for outputs in order to recognize some of the valuable partner-driver project outputs and outcomes.

4.4 Summary of Non-academic Partnerships

Research partners were distributed across a wide range of organization types (academic and non-academic). For the most part, partner contributions were non-financial in nature. While there is no data on the value of non-financial contributions, FRR data shows that $3.9 million was received in financial contributions. There was a clear and strong relationship between partners having made direct financial contribution to INE grants and productivity in terms of numbers and proportion of academic and non-academic outputs.

The evaluation provided an opportunity to learn more about non-academic partnerships and what makes them successful. One of the lessons learned from the evaluation is that a number of types of relationships and contributions can fall under the general banner of 'partnerships'. For the most part, however, the role of non-academic partners was that of ensuring the research produces relevant and accessible results. The challenge with this role is that non-academic partners have different research needs than researchers. Further, non-academic partners often have limited time and resources to become more fully engaged in the process. Despite these challenges, non-academic partners were involved in the projects. The bigger challenge is tracking the value of these contributions specifically by SSHRC, but also by academic institutions, through project planning and reporting.

There is an opportunity, in better understanding the non-academic partnerships actually taking place, to design funding processes to better support and encourage the most productive types of partnerships, and to better capture the mutual value of these to research organizations and non-academic organizations that are unique to a SSHRC-funded project (e.g. may not have developed otherwise).

5. TRAINING OF HIGHLY-QUALIFIED PERSONNEL

The training of highly-qualified personnel (HQP) was an expected outcome of the INE. SSHRC put in place an innovative policy in order to ensure that students and other learners would play a role in INE-funded research: the amount allocated to student training in the budget at the time of the award could not be decreased by more than 10 per cent and at least 90 per cent of the budgeted amount had to be spent on student salaries/stipends. Further, at the end of the grant period, INE-funded researchers had to demonstrate that the total amount allocated to training had been spent.

5.1 Participation of Students and Other Learners in the INE

The INE was expected to train highly-qualified personnel (HQP) in areas related to the new economy. The Statement of Accounts (SOA) database was reviewed to assess the level of expenditures associated with research training.[22] The database included expenditures for 383 INE projects and 92 SRG projects that were funded through the INE. Of these 475 projects, 429 reported expenditures for students and other learners. In total, students at the undergraduate and graduate level received salaries (including benefits) of $22.8 million and postdoctoral fellows and others received salaries (including benefits) of $20.9 million.

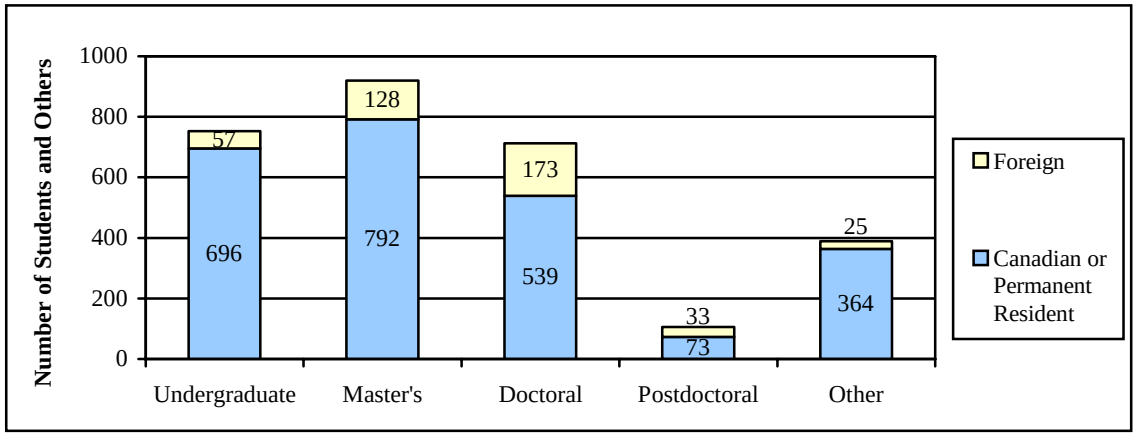
In order to assess differences in student expenditures by funding stream, the INE budget data and the SOA data were compared. The amount of money spent in student salaries and benefits (excluding post-doctoral fellows and others) was calculated for every $1,000 in program expenditures. Overall, for every $1,000 invested into the INE, $257.39 was paid out to students at the undergraduate and graduate level. Two of the five joint initiatives had the highest investment in students of all INE funding mechanisms ($581.85 for the CESC-SSHRC Education Research Initiative and $331.95 for the Skills Research Initiative). Among the research grants, the Development Grants and the INE Research Grants had the highest level of investment ($300.34 and $293.13 respectively).

The SOA database, however, does not include any information on the number of students or the number of hours of student participation in INE projects. When wanting to report on the number of students who participated in INE projects, the most reliable source of data are the Final Research Reports.

[22] Two challenges were encountered in dealing with the Statement of Accounts database. Firstly, there were negative values associated with training expenditure. These are the results of adjustments, such as reimbursements, requested by SSHRC for amounts which were not reconciled. Secondly, a change in the codes used to record expenditures required manipulation of data. Data on graduate training is now broken down at Master's and Doctoral levels, whereas it previously grouped all graduate students together, regardless of the level of studies. This breakdown is only available for those research projects that used the new codes in reporting expenditures. In reporting, a combination of the 'old' and 'new' codes was used to provide an overall view.

Based on the 210 Final Research Reports received, a total of 2,880 students and other learners were reported as being hired to work on INE projects. Most of these students and others (86%) were Canadian or permanent residents.

EXHIBIT 5-1: Total Students and Other Learners as Reported in Final Research Reports



Source: SSHRC INE Final Research Report data, Students Employed.

Overall, when taking into account Canadian/permanent residents and foreign students, FRR data shows that of the students who were hired with the INE grants, 753 were at the Undergraduate level, 920 were at the Master's level, and 712 at the Doctoral level.

Using Self-reported Data

As with any self-reported data, FRR data are subject to interpretation and inconsistencies. In particular 'students' are not defined as either a) unique individuals or b) FTE student positions.

It may also be of interest to collect data related to the number of students and other learners with the Statement of Accounts information. This would allow for closer link between the money paid and the number of students (e.g., would be able to calculate the amount of funding received by the average student). Similarly, it may be interesting to collect information as to the length of involvement of students.

Researchers of large research grants who participated in the evaluation mentioned logistical and practical challenges related to involving a large number of students in research grants. While appreciating the benefits that students gain through their participation in these projects, researchers noted that the student requirements of the INE (or research grants in general) put pressure on researchers to find enough students. When recruiting students, researchers listed two possibilities: they can recruit students from other areas/researchers, which results in fewer students available for others, or they can put pressure on existing enrolment policies:

> *"There was pressure on the Principal Investigator. There was tension because there was lots of money. [A researcher] needs ten students; we can enroll five. There was big pressure on the department to use current students. It's good now but having more students enrolled may not be best later."*

In addition to this challenge, researchers noted that 'taking on' a large number of students requires time away from research. That said, this led in one instance to an unanticipated outcome:

> *"Because of the influx of funding for the project, we were able to attract extra students, which increased the interest in that area and allowed for the development of a School of Retailing."*

5.2 Students and Other Learners Benefited from the INE

For students[23], participation in the project had two main features: funding and learning. During case study interviews, students mentioned that the funding they received through being hired for the INE was not only important to them as students, but also supported high quality research as well as important experiences, such as travel and conference attendance/presentation.

From their point of view, surveyed students were largely satisfied with their involvement in INE research. The majority of surveyed students indicated that their involvement had exceeded (37%), fully met (33%) or largely met (24%) their expectations. Only 6% said their involvement had only partially met or failed to meet their expectations.

Evaluating Student Impact

A limitation of the evaluation is the limited input from students and the potential biases associated with those who participated in the evaluation: as a result of the high level of mobility of this group, the time lapse since their involvement, and lack of contact information for students, participation in the student survey and case studies was limited to those who could be reached via PIs and/or other students. In both instances, there may have been some respondent bias, with those students who had a more positive or long-standing experience in an INE research project perhaps being more likely to respond to the survey and participate in the case studies.

5.2.1 Involvement in Research and Dissemination Activities

Participants in the survey of researchers were asked to report on the level of involvement of their INE students (on a five-point scale). As would be expected, graduate students were significantly more involved in research activities than undergraduate students. Statistically significant differences exist in terms of student involvement by level of study, as evidenced in the survey of researchers, meaning that graduate students working on projects were more involved across all areas.

[23] From this point on, for the sake of conciseness, and as the majority of student survey participants were at the graduate or undergraduate level, 'students' is used to refer to all learners, including post-doctoral fellows and other learners.

EXHIBIT 5-2: Level of Involvement of Students and Other Learners in Research Activities as per Funded Researchers

Area of Involvement	Undergraduate		Graduate & Post-doc.	
	N	Mean	N	Mean
Research design	112	1.70	116	3.28
Data collection	111	2.54	116	3.88
Data analysis	112	2.17	116	3.99
Interpretation of findings	112	1.90	116	3.67
Dissemination of findings	112	1.66	116	3.52
Communicating or liaising with non-academic users of research results	110	1.57	112	2.88

Source: Survey of PI, C2a to C2f (n = 110 to 116)

Note: The 'N' in the table represents the number of researchers who rated the extent of their student's or students' involvement, not the number of students.

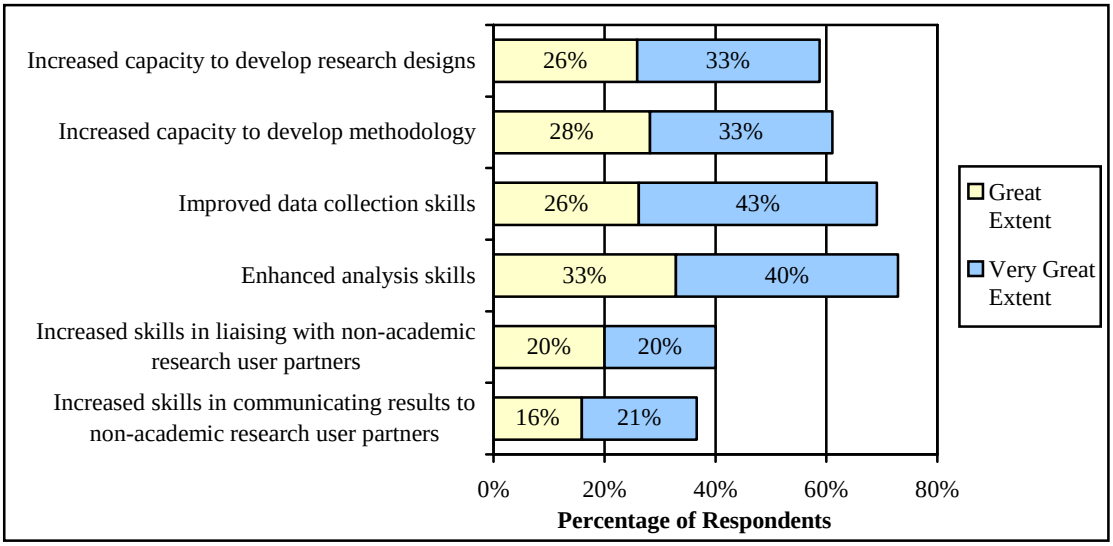
Similarly to INE research grants, POGs' graduate and post-doctoral students were more involved in the INE outreach projects as compared to undergraduate students.

CRI- PIs who were interviewed expanded on the level of involvement of students. They tended to report that students were involved in every aspect of these large projects. Among comments made were:

> *"Students, especially PhDs and post-docs, were given large amounts of authority – for example overseeing the case study, hiring, budget etc. Another student helped write the grant and methodology. So they were involved in every single aspect – presenting at workshops, conference organization, attending workshops, reports, etc. We involved [students] as much to the extent of their ability. I don't know what else we could have done for our students. We did expect them to take on a lot of responsibly and work independently – treating them more like 'junior academics'."*
>
> *"Well I was quite happy with student engagement as partners. They were involved in all stages of the work – from basic conceptualization to findings – very beneficial for students and for us."*
>
> *"Graduate students were involved in all phases, from original design and proposal, and every subsequent phase. Students were involved in all team meetings, analysis of results, design, reporting and publications. They were involved as far as humanly possible."*

In being involved in these research and dissemination activities, students developed a range of skills. As expected, activities in which researchers indicated greater student involvement were also activities in which students expressed greater skill development.

EXHIBIT 5-3: Extent to which Participation in INE Research Contributed to the Development of Research Skills



Source: Survey of students, B4a to B4d and B4p (n = 82 to 85)

As shown in Exhibit 5-3, more than one-half of surveyed students indicated that, to a 'great extent' or 'very great extent', the INE had enhanced their analysis skills (73%), improved their data collection skills (69%), increased their capacity to develop methodology (61%), and increased capacity to develop research designs (59%). A smaller proportion said their involvement had similarly increased their skills in communicating results to (37%) and liaising with (40%) non-academic research user partners.

While the involvement of individual students varied, most of those who participated in the case studies reported having been involved in several research activities. One of these students said:

> *"I first helped with survey data analysis, then organized and facilitated focus groups […]. I interviewed twenty [research participants] and then was involved in every step. I disseminated a lot of information to the media."*

As another student case study participant stated, participating in the INE had repercussions beyond being involved in the project's research activities:

> *"I was lost initially with my Ph.D. The INE helped settle me and flesh out ideas in terms of what I wanted to pursue in terms of my own research."*

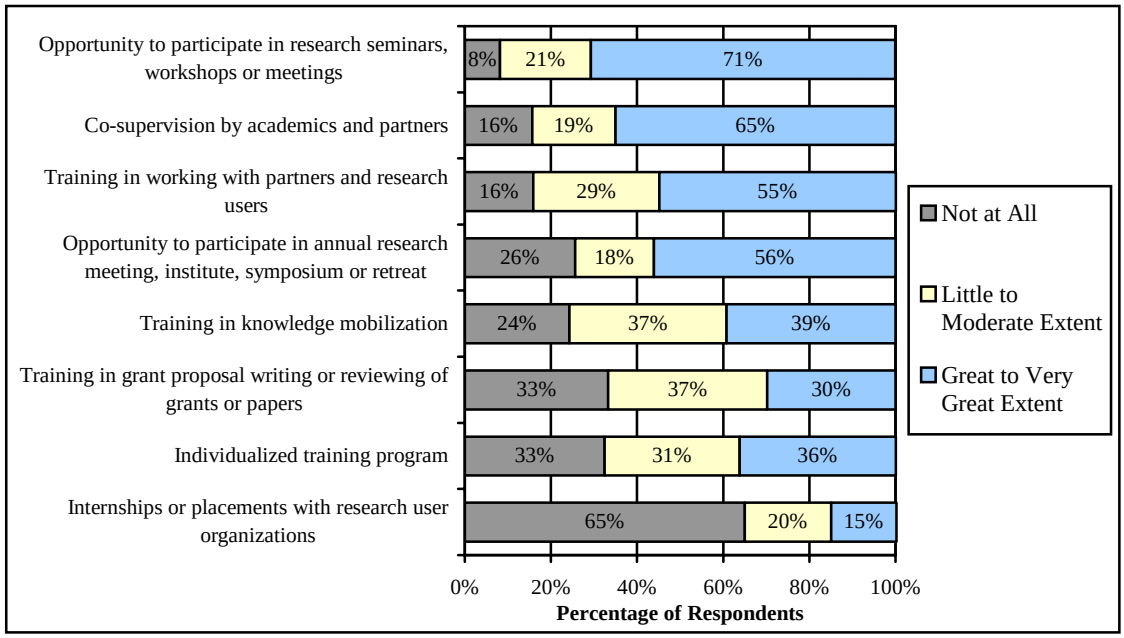
As demonstrated, students were involved in a variety of research and dissemination activities and, thereby, were active participants in the research project and, as a result, improved their skills and became better emerging researchers.

5.2.2 Mentoring by Researchers and Partners

In addition to their involvement in varying project activities, students were mentored in a number of ways by researchers and partners. Nearly all surveyed students (92%) reported having been

provided with opportunities to participate in research seminars, workshops or meetings from a little to a very great extent. Similarly, over 80% were co-supervised by academics and partners (84%) and received training in working with partners and research users (84%) in at least some extent. In general, students reported having been mentored to a great or very great extent.

EXHIBIT 5-4: Extent to which Students were Mentored or Trained



Source: Survey of students, QB3a to B3h (n =78)

Both types of surveyed INE 'trainers' (i.e., researchers and non-academic partners) were also asked about the extent to which students were provided with mentoring opportunities. They gave a similar distribution of responses, although more researchers reported that mentoring and training activities took place to a greater extent than did non-academic partners. One area that contrasted with what students reported is the level of co-supervision by academics and partners. Surveyed researchers and partners reported less involvement co-supervising students in comparison to what students reported. This may indicate that while researchers and partners do not feel that they supervise students to a great extent, from the students' perspective, this supervision meets or exceeds their expectations.

Students who participated in large CRI and RA grants and who were interviewed during the case studies felt that, besides these more 'typical' mentoring activities, their participation in the INE further enriched their experience as students and emerging researchers. Keeping in mind that these were students who participated in large grants, several mentioned that they benefited from:

- Access to peers (e.g., researchers, partners, students) and networking. In particular, they contrasted the collaborative INE environment with traditional solitary graduate work. They mentioned benefits arising from:
  - Undertaking a multi-disciplinary approach,
  - Working with world-class researchers,
  - Receiving feedback from (non-academic) partners,

- Combining theory and practice, particularly practical application of results;

- Leading aspects of the research:
  - Training or managing other researchers,
  - Working with others/collaborating on a wide scale,
  - Being required to be 'active contributors' to the project (e.g., making decisions, presenting findings);
- Being involved in world-class research with a high degree of visibility and credibility, providing them with 'reputation by association'.

For example, case study student participants said:

> *"Working with peers and other students – I benefited from their knowledge and the ways that I could contribute back."*
>
> *"I observed how to do collaboration in research. I had managed projects before, but here I really learned through observing the small and large project teams. These are very important points to being a researcher: project management, organizational skills, etc."*
>
> *"When I told people that my research was on [a certain topic], I did not get much interest. But when I said it was part of this large research project, part of SSHRC-funded research, then people gave more importance."*

Evaluation participants, including interviewed CRI-PIs and other case study respondents, emphasized that the scale of the projects (CRI and RA grants), including a long-term commitment to funding, multi-disciplinary teams, perspectives and collaborations, and the international scope of the work, allowed for students to gain skills that went beyond a more typical research experience.

5.2.3 Impact on Other Skills

Several case study student participants mentioned that their participation in the project helped increase their level of confidence as emerging researchers. This was often felt to be the result of submitting publications, attending conferences, and working with prestigious researchers on credible, visible research. Several mentioned in particular the value in completing graduate studies with many more publications than is typical or possible for other graduate students. Similarly, students also mentioned the value of being 'required' to present and receive feedback on their work at workshops and conferences. A few students presented internationally, thus being exposed to a different scale and style of communicating their work:

> *"Going to international conferences gave me confidence to discuss my research."*
>
> *"During the research phase, the [university centre] allowed me to publish in three journals, and two of these are currently published: one in American Finance and the other Financial American Economics."*

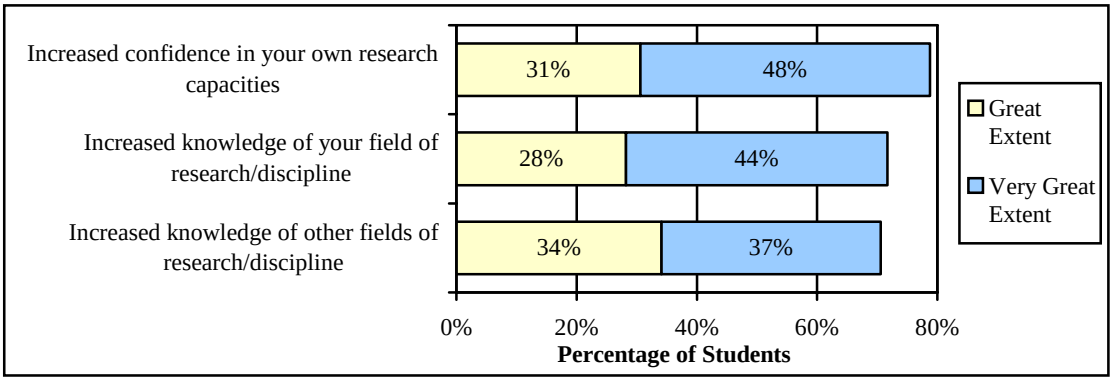
These opportunities portrayed and validated students (particularly those working on the INE or related work for some period of time) as subject matter experts in the field or a particular aspect

of the project, further increasing their confidence and skills set. A few students who participated in case study interviews also received awards or scholarships for their work:

> *"[Participating in the INE] gave me access to a big database and [subsequently] allowed me to win a best paper award during an international conference."*

These changes in skills and confidence appear to be consistent across all INE grants, as evidenced by survey findings. Surveyed students most often reported an increased confidence in their own research capacities (79%), an increased knowledge of their field of research/discipline (72%) and of other fields of research/discipline (71%), as areas that were greatly or very greatly enhanced by their participation in the INE.

EXHIBIT 5-5: Extent to which Students Developed Other Skills Developed



Source: Survey of students, B4e to B4f and B4j (n = 85)

Other skills such as capacity to work in teams, organisation, networking, communication, project management, thesis work, etc. were also noted by surveyed students but to a lesser extent (roughly one-third or less reported great or very great increases).

In some sense, many of the benefits of the INE were not viewed as 'unexpected outcomes' by students at the time when they were involved. However, in speaking with others and comparing their experiences to that of other students not involved in the INE they came to realize the unique benefits of the project, and the extent to which they were provided with substantial opportunities to develop:

> *"In a large project like INE, which is embedded in a large grant, you are exposed to a large number of researchers, conferences, and other graduate students. Those benefits are not tangible in terms of being paid upfront – but the gains become visible in the longer term."*

One student also believed that the involvement of students also enriched professors who, in their view, "*had not worked so closely (collaboratively) with students before*".

5.3 Contribution to Research Capacity on the New Economy

By putting in controls on expenditures, it was ensured that the INE would train students and other learners in areas related to the new economy and, thereby, contribute to increasing the research capacity on the new economy. Thesis produced, employment of students and learners, and continued education in programs related to the new economy are all indicators of the INE contributing to an increase in new researcher capacity that were examined.

5.3.1 Effect of Participation in INE on Students

Participation in the INE has had an effect on students, both in terms of their studies, their employment and their career paths:

- FRR data shows that the INE has generated a total of 142 theses:
  - There were 109 theses produced in the INE-CRIs, sixteen in INE RGs, and fourteen in the INE-RA's. There were also two in the Outreach Grants and one as part of the joint CESC-SSHRC Education Research Initiative; and
  - Based on the INE theme under which the project was funded, the majority of these theses (103) were written under the INE theme of education. The remainder were distributed as follows: 23 in the management & entrepreneurship theme, five in the lifelong learning theme, and eleven under general issues of the new economy;
  - However, these findings can be confounded by the distribution of awards by size and type of grant, and across themes, so it is not necessarily a reflection on the funding mechanism or themes per se.
- About one in five surveyed students (19% or 16 students) started a new program of study in areas related to the new economy either during or after they were involved in the INE research project and the majority (13 of the 16 students) indicated that their participation in the INE influenced them in their choice of area of study.
- At the time of the survey, 81% of surveyed INE students were employed, either full-time or part-time (69 out of 85 students). Of these students, 43 were employed in a research organization (university or research centre/institute), 17 in a government organization, nine in a not-for-profit organization and seven in another type of organization.
- Over one-third (42%) of surveyed students who are currently employed said their participation had contributed to a great or very extent to their gaining employment (22% great and 20% very great). Only 12% said their participation had not contributed at all to their gaining employment.
- Of all surveyed students, more than one-half said that their involvement had given them a major (26%) or definite (29%) advantage over their peers. Another 21% said it had given them somewhat of an advantage and 24% said a minimal or no advantage over their peers.

Students involved in large CRI and RA grants and who participated in the case studies provided some insights as to these survey findings: several case study student participants felt that their participation in the project helped increase their understanding of the non-academic environment. As one researcher and one student stated:

> *"We were able to take the project out of the ivory tower. For students and junior researchers, it was a professional and profound development. At every stage, it was giving consideration to how this work is having an impact at the end."*
>
> *"We went to the workers and surveyed them. For me, what began as a political issue became deeper and more real. I was going hard on the quantitative side. With this project, I deeply fell in love with what qualitative can bring you."*

Other students agreed that this has made them better researchers as a result. They described their new, user-oriented view of research findings, and other skills in creating relationships with end-users of the work.

5.3.2 INE Students in the Workforce

INE students who have now entered the workforce is an indicator of increased capacity on research on the new economy. While the survey of students provided some information on a small sub-set of students, it is not possible to extrapolate these findings to all students.

Researchers who completed the survey provided an estimate of the number of students, that they are aware of, who have entered the workforce. These researchers estimate reveals that at least 581 students have gained employment (and about 30% of these, again in the opinion of researchers, were employed in an area related to the new economy). Employment crossover within INE projects was not uncommon, with students being employed by the INE research group or a partner once their involvement as hired students ended.

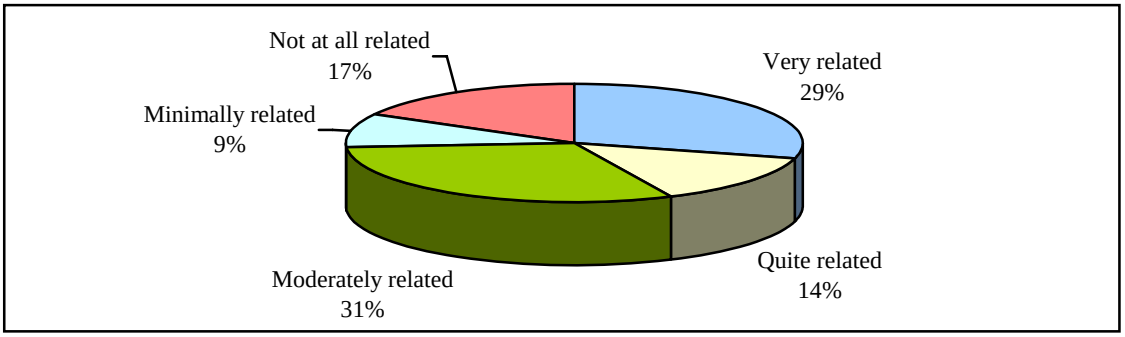
EXHIBIT 5-6: Number of INE Students Employed, as per Researchers and Non-academic Partners

Employment/Employer	Number of Students Reportedly Employed
Number of students who have gained employment	581
Number of students who have gained employment in an area related to the new economy	179
Number of students who were employed within the INE research group after having completed their involvement as hired students	94
Number of students who were employed within the partner organization after having completed their involvement as hired students	21

Source: Survey of PI, QC4b and QC4c; Survey of partner, QC6

Surveyed students who were currently employed were asked how closely related their employment was to new economy issues, research, or policy. Over eighty percent of respondents (52 students) reported that their employment was related to the new economy issues.

EXHIBIT 5-7: Extent to which Students' Employment is Related to New Economy Issues, Research or Policy



Source: Survey of students, QB7 (n = 65)

These students were asked which of the INE theme area(s) their current employment involved.[24] Most reported that their employment was related to general issues of the new economy (75%), followed closely by education (65%). Other students indicated that their employment was related to lifelong learning (41%) or management and entrepreneurship (28%).

Surveyed researchers were asked to describe any examples of how students' education or employment benefited from their having participated in an INE research project. They most commonly commented about students gaining employment, particularly in an organization where they could apply the new economy research results or in research, and pursuing studies at a higher level in areas of the new economy.

Two of the examples provided by researchers included:

> *"The undergraduate student secured a position as a researcher for [private company]. During the interview for the position he described how the interviewers had focused specifically on his experience of working with me in this project. After he was offered the job, his manager told him that they had been especially impressed by his ability to analyze and interpret qualitative data using the software we used for this study. He has since remained in touch with me and continues to use the skills he learned on this project."*

> *"One student involved in the project at the start was a Master's Student who was completing a non-thesis Master's degree and working full time in a non-research function. After joining the project, she became very interested in the topic as well as the research process. She switched to the thesis program, completed her Master's on a topic related to the INE grant, and then went on to complete a doctorate in the area. She received a SSHRC postdoctoral fellowship."*

In addition, the valuable skills development, mentoring, and training accompanies students into the workplace: *"It did not change my career path, but it changed how I do my work."*

[24] Respondents could select multiple responses and, therefore, the sum of their responses exceeds 100%.

5.4 Summary of Training of Highly-qualified Personnel

In conducting the evaluation it was found that, while data regarding student expenditures and hires was easily accessible through Statement of Accounts and Final Research Reports, the INE student population itself was not. Without contact information, it is difficult to reach this group and those who participated in the evaluation may not be representative of INE students overall. That said, those that were reached were generally satisfied with their involvement (including participation in research activities, being mentored and developing/increasing skills). This was also supported by those students who participated in the case studies.

Students who participated in the INE, and particularly those involved in the larger, longer-term projects, benefited from a unique experience, much beyond typical involvement in research activities and mentoring. These students noted that access to others, the possibility to lead components of the research, and being involved in a world-class research team greatly enhanced their experience and helped them increase their confidence, their level of expertise and become better researchers overall.

Through these experiences, the INE contributed to the training of highly-qualified personnel and enhanced Canada's research capacity. Further, interviewed students reflected that their experience on the project, and particularly their work with non-academic partners and other research users has changed the way they view their work as future academics.

6. KNOWLEDGE MOBILIZATION

Knowledge mobilization was a priority of the INE. This importance was reflected in the formal strategy for knowledge mobilization that was approved by the INE Advisory Committee at its inaugural meeting, and in the specific INE policies related to project funding for dissemination of project results. Knowledge mobilization involves both the dissemination of research results and their application by users, either through activities undertaken by funded research projects or tools and processes developed within SSHRC.

6.1 Integration of Knowledge Mobilization into Funded Research

For the INE, knowledge mobilization was defined as "the creation of new mechanisms and venues for researchers and users of research to interact, the promotion of linkages among funded research teams, fostering of communities of practice, and ensuring communication of research outcomes to the public."[25] A more basic description for knowledge mobilization may be the actualization (i.e., use, application, etc.) of research findings. To reach that end, findings must first be disseminated. Final Research Reports are a good source of information in terms of outputs produced (as presented in **Chapter 3: Research Excellence**) but provided little information in terms of activities and the extent to which outputs were used. Surveyed researchers and non-academic partners were therefore asked a comprehensive set of questions regarding dissemination and mobilization activities.

6.1.1 Knowledge Mobilization Activities

Surveyed researchers were asked how aware they were of SSHRC's expectations for active mobilization of knowledge at the time of their application. A majority of funded researchers (78%) said they were highly, quite or somewhat aware of this. Although most researchers were aware of the expectations, case study findings indicate that many may not have had a specific plan as to how this was to be achieved[26]:

> *"The knowledge mobilization bit was not something we knew about when we wrote about it on the grant – we talked about very typical dissemination activities. We were not really aware of the emphasis of the knowledge mobilization/translation."*

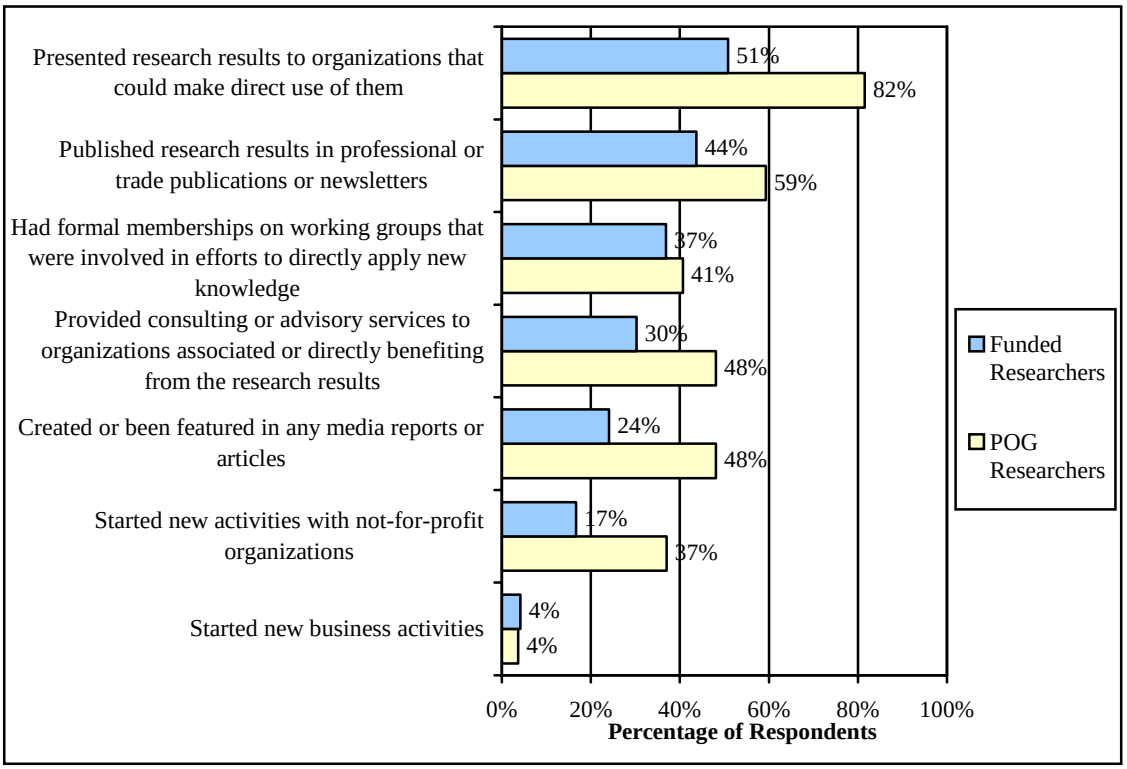
For several of the case studies, the focus appears to have been on research related issues rather than planning for knowledge mobilization. Several participants specifically mentioned that mobilization was not in their forte, that is that they were not equipped with the skills and experience to progress knowledge mobilization as well as they could have, but that they learned as the project progressed.

[25] Social Sciences and Humanities Research Council (March 31, 2003), *Mid-term Report on the Activities of the Initiative on the New Economy, Part I: Report.*

[26] Note that at least one case study had a highly developed knowledge mobilization focus and plans.

Despite these challenges, survey results show that since their first research results were produced, nearly all funded projects undertook one or more knowledge mobilization activity to some extent. Knowledge mobilization activities which were undertaken to a great or very great extent are detailed in Exhibit 6-1, for research grants and Public Outreach grants, as reported by survey participants.

EXHIBIT 6-1: Activities Undertaken to a Great or Very Great Extent Since First Research Results have been Produced



Source: Survey of PI, QB2a to QB2c and QB2f to QB2g (n = 118 to 122); Survey of POG, QB1e to QB1f, QB1h, and QB1k to QB1l (n = 27)

While the distribution of activities that have been undertaken is similar across both research and outreach grant recipients, the extent to which activities have taken place is greater for Public Outreach Grant recipients. As expected, POG recipients reported higher levels of involvement in a range of knowledge dissemination activities, particularly in terms of presenting research results to organizations that could make direct use of them, providing consulting or advisory services to organizations associated or directly benefiting from the research results, creating or being featured in media reports or articles, and starting new activities with organizations. In these areas, differences are statistically significant when outreach grants are compared to research grants.

Capturing Data on Activities

These results contrast somewhat with findings from the FRR data, which showed that few projects produced publications in professional or trade documents, or provided advisory or consulting services. This suggests that the survey results may be an overestimate, based either on sampling bias or over-reporting, or that the FRRs may not be capturing all of these types of outputs, either because they occur past the reporting date or because the nature of the activities do not lend themselves as well to reporting (either because researchers do not think of them when reporting outputs, because they are not academic in nature or because they are not 'formal' dissemination activities).

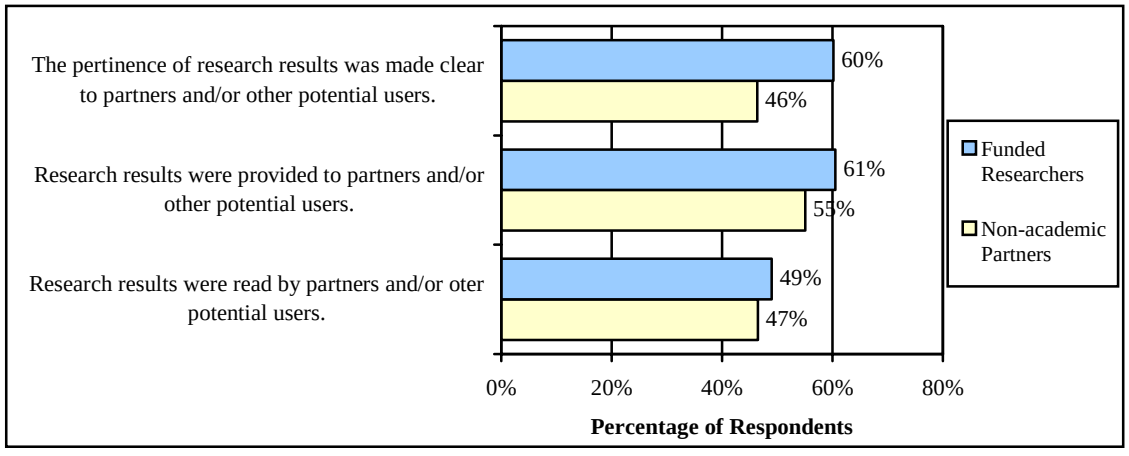
In addition, POG recipients who participated in the evaluation reported a very high degree of involvement in outreach activities other than those listed in Exhibit 6-1: 96% had developed new knowledge mobilization tools such as websites, 89% had expanded existing knowledge mobilization tools, and 96% had presented research results in a collaborative manner with partners and/or stakeholders for new learning opportunities and use of research results.

The value of the POG in knowledge mobilization was also noted by case study participants. Sometimes, case study participants who applied for but did not receive a POG said that the absence of this funding limited their capacity for knowledge mobilization activities.

6.1.2 Provision of Research Results to Partners and Potential Users

A majority of funded researchers believed that they had undertaken to a great or very great extent activities to provide results to partners/users (61%) and to ensure the pertinence of results was clear (60%). However, slightly fewer (49%) believed that the results were read to a great or very great extent among users. Non-academic partners' results mirrored those of researchers, with close to half reporting that the use had occurred to a great or very great extent.

EXHIBIT 6-2: Provision of Research Results to Partners and Potential Users at a Great or Very Great Extent



Source: Survey of PI, QB8a to QB8c (n = 102 to 114); Survey of partners, QC1a to C1c (n = 69 to 71)

Non-academic partners who participated in the survey were invited to provide concrete examples of knowledge mobilization activities that were undertaken. Most mentioned activities such as publications, presentations, and workshops. Specific examples included:

> *"Fact sheets were shared with members. Some of the research was used in a presentation to [organization] regarding telecommunications. There were presentations to [council], the website has made existing materials more accessible […]"*
>
> *"[We] created a stand-alone announcement sent to 35,000 members…[and] held a one-day forum with industry/academic and government stakeholders to share and explore the results."*
>
> *"The main products included a booklet for use by teachers, materials for students, and interactive materials for use in electronic means."*
>
> *"Articles appeared in [a publication] that members of our organization are encouraged to read. Information from the research helped inform publications and documents produced by our organization, e.g., economic analysis, labour market trends, member education."*
>
> *"Union newsletters, teacher union conference presentations. We have used this project to model and show how and why [our partners] collaborate with academies for research purposes. We are quite strategic in using this as one example of building research."*
>
> *"The results were presented at the public meeting of the [education council] and were published in the local newspaper. They were shared at the [administration] meetings and discussed with regard to future directions."*

These findings are somewhat at odds with comments made by key informants involved in the program administration and/or adjudication. These informants were asked whether, to their knowledge, the INE had succeeded in achieving its objectives. While not all informants commented, the extent to which the INE had been able to disseminate findings to a wider, non-academic audience was felt to have been the least successful element of the INE.

6.2 Evidence of Knowledge Mobilization

There is fundamental difference between knowledge dissemination, in which researchers can participate, and actual use, which may be beyond their reach (or control). As a result, almost half of the researchers surveyed did not know the extent to which partners and/or other potential users used the research results (40%) nor how strong the impact of INE research results had been on partner organizations (39%); and between one-third and half of the surveyed researchers said that they did not know whether results were used in decision-making, informed policy development or confirmed the orientations or decisions that had already been made.

This result is in itself important, as it suggests that INE researchers may not entertain ongoing knowledge mobilization exchanges with their partners. Without mechanisms for feedback (and funding to construct these mechanisms), it is difficult for researchers to assess the use or value (i.e., the mobilization) of dissemination activities overall.

Despite these challenges, researchers overall tried to integrate knowledge mobilization activities in their project, particularly in terms of orienting their research towards direct application:

> *"We knew from SSHRC we had to disseminate and we have to be relevant to policy. We knew it had to be useful to policy, so we targeted that, also being a trans-disciplinary team, we tried to reach wide audiences, not necessarily academic journals. We undertook a lot of translating academic work in order to be accessible."*

> *"We produced many deliverables, but I think the largest contributions were policy dialogues… in regard to new technology and post 9/11. Things like providing parliamentary committee testimony on privacy laws, also having some work cited by the Supreme Court of Canada – compared to typical academic things like publications or a book."*

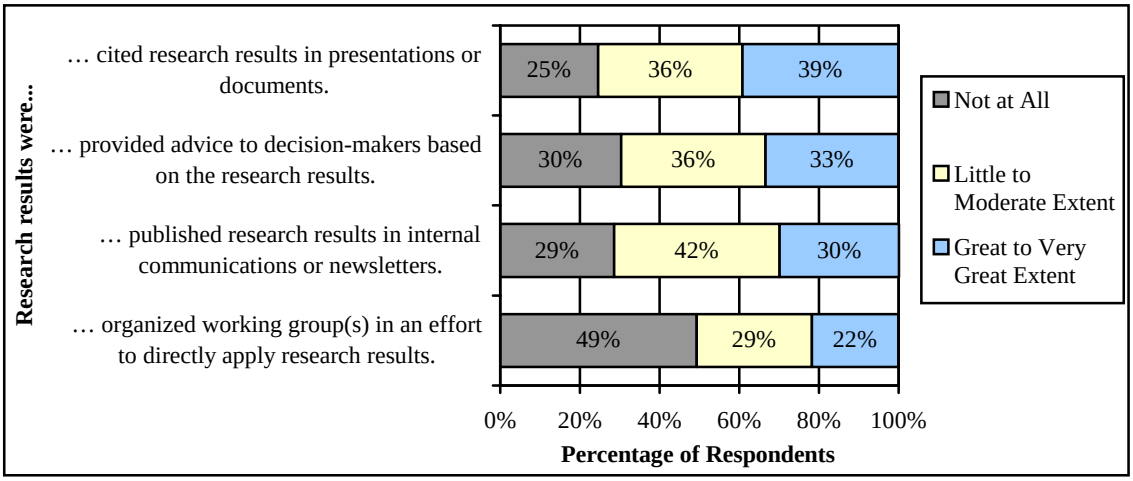
While case study participants noted that some indicators, such as website hits, policy changes, etc. are available, they agreed that these can be difficult to interpret. Rather, when researchers were aware of successful application of the findings, it tended to be due to their personal involvement and ongoing relationships with the partner organizations or other end users of the work, which is not present or practical in all circumstances to maintain. The more involved with a particular instance of dissemination and mobilization researchers were, the more they could elaborate on its effects:

> *"We were called up to train over 400 provincial judges based on our work. These kind of amazing things did happen. Not only are we now training judges... This allowed us to do research which would not have otherwise been possible, through knowledge mobilization, definitely INE enabled."*

6.2.1 Use of Research Results within Non-Academic Partner Organization

Non-academic partners were better able to reflect on how findings were used or disseminated within their organizations compared to researchers. Non-academic partners participating in the survey tended to report more use and dissemination of research findings than did researchers, with about one third of partners reporting that they cited, disseminated, or provided advice based on research results to a great or very great extent, as shown in Exhibit 6-3.

EXHIBIT 6-3: Extent to which Non-academic Partners Have Used Research Results



Source: Survey of partners, QC1d, and C1f to C1h (n = 76)

While most non-academic partners reported that the results have not been used at all or only to a little extent, those who did made different use of the research results, including directly applying the results to their organization/activities, and using the results to support their organization's objectives or new activities. Specific examples included:

> *"Our [committee] used the results to support our mandate. Fed into the creation/authentication of our document designed to provide Canada with a path for advancing our own nation's reputation and capability […]"*
>
> *"The research approach has served as a model for other work. Teaching practice changed. Our approach to literacy support changed."*
>
> *"Research results helped to inform the writing of our annual report card that monitors progress on child and family poverty in Canada and includes commentary and statistics on labour force participation of low income people."*
>
> *"The results, in part, motivated us to move forward with the development of new applications for the telecommunications marketplace that accommodate the access needs of people with disabilities."*
>
> *"We intend to open an office dedicated to work with our members in the recognition of foreign experience and credentials. The research demonstrated the need and we are proceeding to secure the funding."*
>
> *"The research results directly lead our organization to implement a User Centred Design concept for design of our Web mapping applications. The findings have also been used to inform our strategic planning for the Atlas of Canada."*

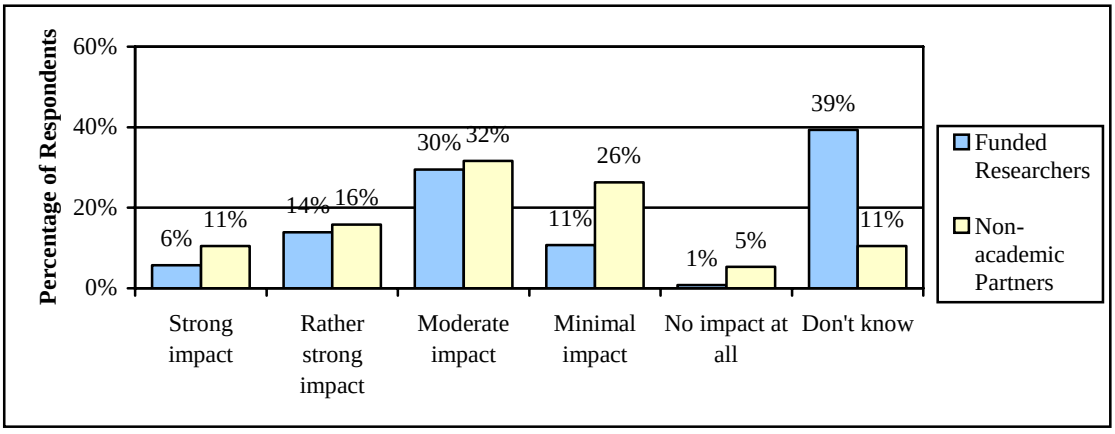
In addition, when discussing larger projects with CRI-PIs, there were many examples of research findings being put into practice in terms of informing real public and private decision-making, both nationally and internationally.

This shows that, while research results may not have always been used by non-academic partner organizations (see Exhibit 6-3), when they were, partners integrated the results to their activities, disseminated them to others, and used them to support their broader activities/mandate. However, given the wide range of non-academic partner involvement, it is not possible to tell what proportion of partnerships overall resulted in direct application of findings.

6.2.2 Impact of Research Results on Non-academic Partner Organizations

Compared to surveyed researchers, more non-academic partner organizations said that the results had some type of impact on them – from strong to minimal – however the higher percentages are due to a much lower incidence of 'don't know' responses. The *pattern* of partner responses are similar to the perceptions of researchers – that results were most likely to have a moderate impact on the organizations, with few reporting no impact.

EXHIBIT 6-4: Strength of Impact of Research Results on Partner Organizations



Source: Survey of PI, QB9a (N = 122); Survey of partners, QC2 (N = 76)

From the non-academic partners' point of view, partners most often benefit from the partnership through the results that are produced. As mentioned by both surveyed and interviewed non-academic partners, project results had an impact on their organization when there were concrete or practical implications, or when results supported other research on which they base their activities. This is also in line with the role of the non-academic partner and the description of a successful non-academic partnership, as reported earlier (**Chapter 4: Non-academic Partnerships**). Other sustained benefits were derived from:

- Relationships, networks and linkages developed through the project;
- Materials (e.g., website materials, training materials) targeted or appropriate for partners, or the partner organizations' reach/audience (e.g., their membership base); and
- Impacts from the research project overall, to which partnerships contributed.

Several case study participants reported that lasting relationships have been created, such as ongoing collaboration on other grants in continuation of the research or an aspect of the research funded by the INE. On the other hand, continued involvement among organizations involved in

the INE projects is often limited once funding ends, particularly when organizations have limited capacity to continue providing resources (e.g., staff, in-kind, etc.)

Assessing Project-Level Knowledge Mobilizations Activities Overall

Although survey data suggests that project-level knowledge mobilization has occurred with some success, including examples of how research results were used, it is not possible to objectively compare these results with the entirety of the research project in order to assess how 'effective' projects are in making these types of impacts – particularly as the nature of the research is such that impacts may continue to accrue well past the INE funding, and be highly opportunistic in nature. Case study participants pointed out that follow-up is needed to truly understand impacts – which is a costly venture. The aforementioned partner reports may aid in this objective.

6.3 SSHRC's Tools and Processes for Knowledge Mobilization

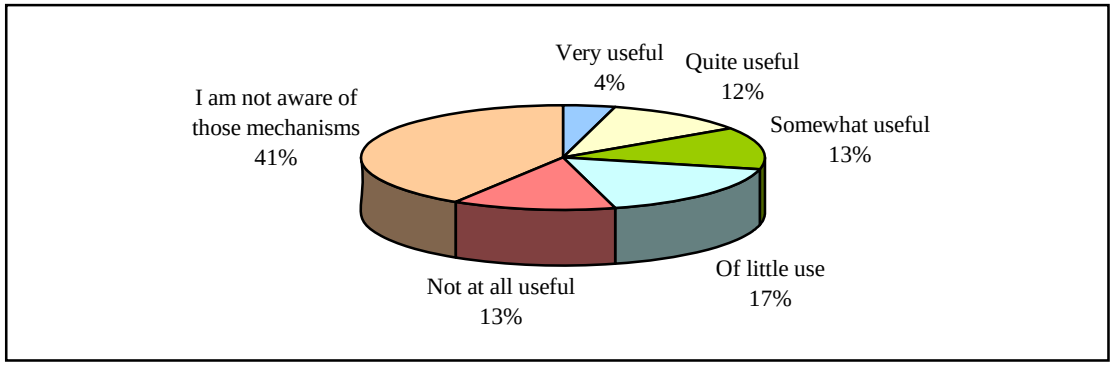
One of SSHRC's activities and expected outputs for the INE was to build infrastructure and processes to facilitate knowledge mobilization. This was to be achieved through tools that would facilitate interactions and exchange of information and knowledge among research producers and research users. SSHRC undertook two main types of knowledge mobilization activities: conferences for INE researchers and stakeholders and the INE Knowledge Network (K-Net), which was an online web community/portal tool.

6.3.1 Awareness of SSHRC's Mechanism for Knowledge Mobilization

When asked about the level of usefulness of SSHRC's mechanisms for interaction, collaboration and exchange of information that would facilitate knowledge mobilization, it was found that a large proportion of researchers were, in fact, not aware (41%) of the mechanisms in place. As one interview participants noted:

> *"Just about everything was new for me – the biggest problem is that you win and then you have no idea what to do – we did not receive support from the university or SSHRC in terms of how to make this successful."*

EXHIBIT 6-5: Level of Usefulness of SSHRC Mechanisms to Facilitate Contact and Communication



Source: Survey of PI, QD5a (N = 122)

Survey findings show that the remaining 61% of surveyed researchers were divided in terms of the usefulness of these mechanisms, with the largest share (30%) stating that they were not at all useful or of little use compared to about 16% stating that they were quite or very useful.

When asked about specific support mechanisms, less than one-half of INE-funded researchers agreed or strongly agreed that they were kept informed by SSHRC about other research being funded through the INE (44%), the research findings of other INE projects communicated by SSHRC were useful to them (27%), and SSHRC helped them share their work with other INE researchers (26%).

During interviews with CRI-PIs, researchers commented on SSHRC's role and what they felt this role should have been. For example, one CRI-PI mentioned that grants were not aligned to the type of innovative knowledge mobilization activities that their project engaged in. This researcher noted the amount of resources (time, release from course work, etc.) needed for establishing responsive knowledge mobilization activities, and which were not covered by the grants:

> *"We had great international coverage, virtually every continent was covered, it was huge media coverage, all the specialized press covered our [project] report. I was named 'person of the week', I was getting a biographical write up. We engaged a large part of the population – but the POG, well it was about for things like workshop and conferences, so we did not win that grant, but we were more broad media coverage, and responsive to the environment – the right message in the right way in the right place. So the POG was not useful to do that kind of work, and not the thing I'm talking about. We need more of a long term investment in knowledge mobilization, that's quite different from [what's provided by] SSHRC."*

In other interviews with CRI-PIs, some of the researchers believed that there may be opportunity for SSHRC to provide ongoing leadership in the area of knowledge mobilization – for the INE and beyond – should that be prioritized within SSHRC:

> *"The SSHRC is currently the repository of the most substantial body of research knowledge in the country – it's a depository, but I believe they still have a mandate of mobilization. I really hope the knowledge of the INE, which is a huge*

investment, can be animated and used in the next phase of thinking about the new economy and not lose [the findings and learnings] or let them collect dust. We have not, as leaders of the INE projects, been involved in this, but the data is still there, the projects are still producing research. This should be articulated and shared."

SSHRC could provide leadership in knowledge mobilization by examining current structures relative to the innovative and ambitious ideals of the INE.

6.3.2 INE Conferences

Two conferences were held by SSHRC near the beginning of the INE between INE researchers of large grants (CRI and RA funding streams) and government stakeholders. It was believed that the conference would allow research teams with overlapping topics or interests to share ideas and collaborate. The conferences were the first time that SSHRC had brought together all major teams funded under a targeted initiative at the start of their research funding to discuss strategic impact issues.[27]

Both conferences involved researchers presenting a short summary of their project, a discussion day, and a panel discussion. The second conference also included an open research fair the third day, which was attended by about 100 stakeholders, including representatives from Industry Canada, Health Canada, Environment Canada, Human Resources and Skills Development Canada, Department of Finance, Treasury Board Secretariat, Statistics Canada, UNESCO, and others.[28]

During interviews, several CRI-PIs provided positive feedback on the conferences, and said that meeting the wider group was useful to their INE projects and other projects that followed:

"I really think the mid-term review and the large meeting that SSHRC organized was very useful – it created an additional momentum, and an imposed milestone. It was very important and very good: to present what we did until that point, we really need to think, [be prepared to answer] questions, there is more involvement [than in submitting reports]."

"The knowledge mobilization conference held in Ottawa by SSHRC for CRI and RA researchers allowed me to meet people and to make good contacts with HRSDC. It also helped launch our [other] project. It was very useful in that aspect."

This suggests that the conferences were an effective mechanism for building partnerships, collaboration and networking, and that they had successfully acted as a forum for communication between researchers and government stakeholders.

The evaluation found no information about subsequent interactions and exchanges with INE researchers and government stakeholders initiated by SSHRC, leading to the inference that there

[27] Social Sciences and Humanities Research Council, *We Build Understanding, Summary Report on the Inaugural Workshop on Knowledge Mobilisation and the INE,* held January 5th and 6th, 2003 in Ottawa.

[28] Social Sciences and Humanities Research Council, *Briefing Note on INE Ottawa 2 (2nd Annual Meeting of the INE Teams, January 2004),* January 25-27, 2004.

was relatively little program-level linkage and exchange activity after these two conferences and no systematic follow-up to them. However, while SSHRC did not actively build on the conferences, it appears that researchers did.

6.3.3 INE Knowledge Network Web Portal (K-Net)

The INE Knowledge Network (K-Net), was an online web community/portal tool launched in August 2003. The portal was intended to be a venue to allow researchers of large INE grants to communicate and share ideas and a French version of the portal was planned. However, little use was made of the portal, as evidenced by those metrics that were available[29]:

- Of 287 members that had accounts created in 2004, only 16% used the site in 2006;
- Only 11 members used the site in 2007, including 5 SSHRC staff; and
- Out of the 26 CRI and RA projects, only one was actively using the workspace.[30]

Following a brief survey of research teams regarding their usage and views on closing the portal, it was ultimately shut-down in May 2007.[31]

Key informants regarded the online web community/web portal, a key tool for INE knowledge mobilization, as ineffective. Although the initial concept had generated some interest within SSHRC, in practice, the tool was not successfully implemented or used. It was noted that its design concept, based on a UNESCO model, was perhaps too ambitious. Those who commented on the reasons for the ineffectiveness of the K-Net noted that it lacked sufficient resources as a knowledge mobilization team member would have been needed to monitor the site and stay in touch with users. For their part, many researchers had their own websites and tools, and most preferred to use their own.[32] This was also mentioned during interviews with CRI-PIs. One lead researcher explained that their project was already investing considerable time and effort in a strong web presence and many CRI-PIs also mentioned project-specific websites, links, tools or blogs; therefore, the portal was a duplication of efforts. The web portal was also available to SSHRC staff to use, but their usage was also apparently minimal. It should be noted that, while researchers indicated establishing their own web-based resources, some also reportedly struggle to maintain these resources once funding ends.

6.4 Development of Effective Non-academic Knowledge Mobilization

As a prime objective, the INE set out to inform decision-making in the public and private sectors. This objective was also supported by sub-objectives of disseminating findings to a wider, non-academic audience and of knowledge mobilization in general. As with research excellence and partnerships, the evaluation provided for an examination of what are effective ways to mobilize knowledge towards non-academic partners and users.

[29] There were limited metrics available to assess usage of the web portal as there were no web trends tool installed within the portal.
[30] Social Sciences and Humanities Research Council, *Op. Cit. (INE K-Net)*, page 7.
[31] Social Sciences and Humanities Research Council, *Final Report and Evaluation Survey, INE K-Net*, last revised June 26, 2007.
[32] Social Sciences and Humanities Research Council, *Op. Cit. (INE K-Net)*, page 8.

6.4.1 Elements that Contribute to Non-Academic Knowledge Mobilization

Case study participants often identified effective knowledge mobilization techniques as targeted conferences and workshops (to partners, stakeholders, other researchers). In fact, while both information and communication technologies (such as DVDs and websites) and traditional media (such as books, journal articles, and other publications) were also used to disseminate findings, case study participants were frequently most enthusiastic about face-to-face exchanges of ideas and discussions of findings. They found these to be particularly effective and successful ways to share INE project findings.

Other knowledge mobilization tools discussed included publications, books, and websites targeted towards non-academic audiences. However, several researchers mentioned that without continued funding, websites cannot be maintained and become outdated.

> *"[A researcher] set up this quite good website, with a lot of research, and asked [us] to maintain it. Well, we don't have [this topic as a] mandate, but we might have overcome this, but because there was no funding, we could not do it. If project funding was set aside to maintain the website, it could have been maintained. Right now, it exists but it's frozen in time."*

In addition, the media was involved in disseminating research findings, sometimes intentionally (i.e., invited to attend workshops, materials prepared for media, etc.) sometimes unintentionally (i.e., media contacts the research team). The ability of research team members to effectively collaborate with media and the impact of media articles on projects varied.

Several participants mentioned that one of the keys to successful dissemination is adapting events and products to meet the needs of different audiences, including producing bilingual products, products which are in an appropriate format, and products that are made available in an appropriate way:

> *"Some people get their news from the newspaper, some from television, some from the local café. If you want it out there, you have to be in all those locations."*

> *"It is important to use language which is readily accessible and understood by communities."*

As mentioned previously, non-academic partners were frequently expected to 'mobilize' the research results within their spheres of influence. Non-academic partners had similar views as that of researchers in terms of the most effective ways to ensure INE research results have impact: they stressed the value of face-to-face exchanges. Non-academic partners felt that researchers' dissemination of results to the community, for example through publications and conferences, and that close collaboration and follow-up with partners (during the research process and after results are produced) were important.

One researcher commented, when speaking about following-up on the impact of research results on partners:

> *"We have not done any follow-up in that regard [the effect of knowledge mobilization] – when we sent out best practice documents to those businesses*

involved, we asked if they wanted a talk, and no one took us up on it. Its one of those things, where it is a two-way street – we make best effort to make info out there, but if they don't take it up… I don't know what is missing [in knowledge mobilization]."

As shown, case study participants mentioned that benefits would need to be tracked over a long period of time as results will not be visible immediately. However they also acknowledged that many resulting benefits simply cannot be measured (or would be impractically costly to do so).

Accounting the Impact of Knowledge Mobilization

Suggestions of case study participants about how to better account for the impact of knowledge mobilization included reference to the following types of indicators:

1) Feedback: from users/potential users of research outputs;
2) Reporting: specifically requesting partner outputs (outputs directed to partners and/or jointly produced with partners) or partner reports which contain feedback on all aspects of the partnership, including impacts of findings;
3) Using citations and searching references in government reports (thereby also identifying any policy or legal changes that resulted); and
4) Recognizing students that were hired at the outset of the project as 'living knowledge mobilizers', particularly as they move on to future academic or industry work.

Finally, the extent to which the INE was able to achieve knowledge mobilization could have been enhanced (or hindered) by the operational context of the project. In one case study, this was a key element to their success.

"In 2001, our sense was to move from insular and traditional academic research to become oriented to real impacts. Many researchers were already engaged [in this way of thinking] …So the knowledge mobilization strategy was percolating already in their area, when the INE came along – it exploded."

6.4.2 Challenges to Knowledge Mobilization

When reflecting on the challenges of knowledge mobilization, survey and case study participants tended to focus on activities that were dissemination oriented. While all were aware of knowledge mobilization as a desired outcome, several factors affected the ability to target mobilization compared to dissemination:

- In a few instances, partner-identified information needs appeared to be more closely tied to a strategy to use research findings within those organizations. However, sometimes partners did not identify their information needs up front, and in fact some researchers pointed out that research must be 'driven by academic curiosity' not only oriented to meeting industry or community information needs. Surveyed researchers also mentioned challenges related to partners' lack of interest in the research or lack of capacity to use the results.

- Sometimes dissemination was described as a critical first step to mobilization – providing research findings allows them to be used or respond to issues as they arise, which are often unanticipated or opportunistic. A lack of uptake of the results, by others and by the media, was mentioned by surveyed researchers as one of the challenges they faced.
- Sometimes, researchers had adopted a more user-centric approach to dissemination, but seemed to regard the application of the results as something which often rested with individual organizations. If there was a close relationship with the organization, they may become aware of how findings were applied, but this did not appear to be built in to the research cycle. Further, surveyed non-academic partners also talked about the challenges of moving academic findings into the non-academic sector.
- Sometimes, researchers pointed out that they did not have the skills or expertise to fully mobilize knowledge, particularly when technical skills were required (website design and maintenance, for example). Surveyed researchers also mentioned the demand knowledge mobilization requires (administrative, teaching, etc.) and the need for release time stipends.

As a result of this, researchers were more likely to relate to how INE project findings were applied to further or ongoing research than used by non-academic partners and other users.

Participants suggested that to overcome these challenges, the research team needed to be built with these needs in mind. One case study noted that their team included an academic partner whose area of study was knowledge mobilization. They reported that this made a substantial difference in being able to integrate knowledge mobilization into the project and to have strong leadership of that project aspect.

Additionally, surveyed researchers, like case study participants, often noted limited time/funding available. Funding was viewed as a factor in being able to conduct all planned mobilization activities (e.g., a DVD). Participants also noted that funding was an important component of retaining the long-term and added-value of the projects' knowledge mobilization efforts – specifically in terms of maintenance and follow-up of websites and other electronic media. For example, participants said:

> *"It's hugely expensive to develop a very good website. It takes a horrendous amount of time."*

> *"Why doesn't SSHRC think of how they will keep it going? If they think it is innovative to create a website, course materials, text, research, etc., why can't they think about this in the beginning?"*

There was a sense among some case study participants that their project results were now an untapped pool of resources (along with findings from other projects for which funding had ended). Clarifying and improving SSHRC's role in knowledge mobilization, particularly as a holder of a vast amount of research knowledge and potential linkages was suggested by these individuals. As one researcher said:

> *"The bottom-line is: unless you provide substantial resources for the assessment of dissemination, what you are going to get is a laundry list from SSHRC, this is what we want, etc. SSHRC is the largest archive of unused knowledge."*

However, this view was not universal. Some were either able to carry on their work, or believed that it had come to a natural conclusion after progressing an issue. Further, as another case study participated noted, only time will tell how useful the research results were:

> *"If it's good research, something will happen for sure afterward. It will have some enduring value, that's why it will be relevant and ongoing, and that is probably one of the best litmus tests of quality of research; after the course of the project, after it is all funded and running, if it still has value onto itself."*

6.5 Summary of Knowledge Mobilization

SSHRC had high expectations for knowledge mobilization in the INE. While researchers were open to the idea of disseminating knowledge to non-academic audiences and undertook a number of activities to achieve this, they found it challenging to capture the use of their research by others. Surveyed non-academic partners were more equipped at addressing the extent to which research results were used within their organization. While this occurred at varying extent, non-academic partners were able to provide concrete examples of directly applying the results to their organization/activities, and using the results to support their organization's objectives or new activities.

While INE projects appear to have been successful (at least to the extent that can be examined), knowledge mobilization activities within SSHRC had mixed results. The INE research conferences were successful but lacked the follow-up that would have taken them to the next level and the INE K-Net, the web portal developed for this program, was closed down for lack of usage.

Overall, researchers noted that knowledge mobilization activities need to be integrated into projects from the outset and tracked over a long period of time. However, they conceded that some benefits simply cannot be measured (or it would be impractically costly to do so). This may be an area where SSHRC's leadership could contribute to helping disseminate knowledge to others.

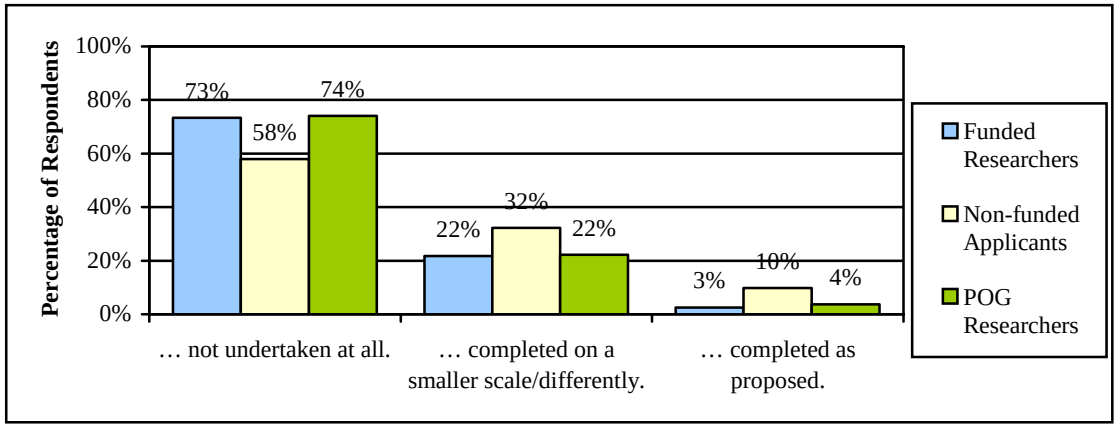
7. OVERALL RELEVANCE OF THE INE

A significant response was garnered for the INE funding competitions and applications were generally well distributed across the four theme areas, with the exception of the lifelong learning theme, which generated a significantly lower response than other areas. The uptake was partly ascribed to the INE allowing for more significant amount of funding for research time release for academics, and other innovative components of the initiative. The extent to which research on the new economy would have taken place in the absence of INE funding and the perceived need for the program are elements that allow for examining the overall relevance of the INE.

7.1 INE Funding Contributed to Research Taking Place

The majority of researchers who received funding for research or outreach activities believed that their project would not have been undertaken at all in the absence of INE funding. This is in line with what non-funded researchers have said happened to their project in the actual absence of INE, as shown in Exhibit 7-1. Very few research or outreach projects would have been completed as proposed, as most projects that would have gone forward would have been completed on a smaller scale or differently.

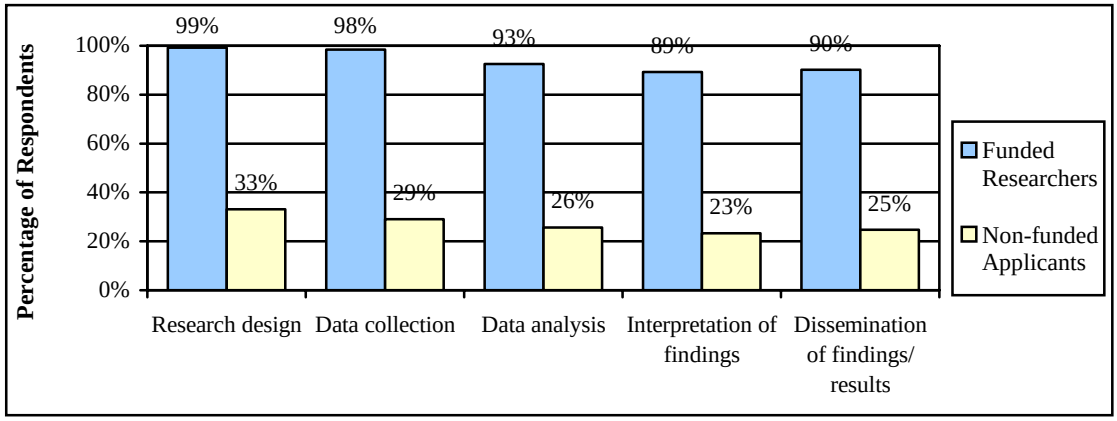
EXHIBIT 7-1: Researchers Response to Question: 'In the Absence of INE Funding, the Project would be/was…'



Source: Survey of PI, QA2 (N = 120); Survey of non-funded, QA1 (N = 133); Survey of POG, QA2 (N = 27)

In addition to being key to undertaking the project, INE funding was also important to ensure that projects progressed through the different research stages. More than 90% of surveyed funded researchers who received INE funding had completed the major stages of their projects (research design, data collection, data analysis, interpretation of findings, and dissemination of findings/results). In comparison, one-third (33%) or fewer surveyed non-funded applicants had completed those same stages.

EXHIBIT 7-2: Stages of the Research Project that have been Completed at Time of Survey



Source: Survey of PI, QA1 (n = 122); Survey of non-funded, QA6 (n = 133)

Note: Responses for non-funded applicants include those who indicated that the project was not undertaken at all (i.e., none of the stages of their research project were completed.)

This is also supported by comments made by researchers who received CRI grants and who participated in an interview, as many provided examples of the incremental impact of INE funding on their work. A synopsis of these discussions is provided below:

> *"The whole thing would not have occurred without INE – maybe pockets of it would have happened, but its only through this sustained project, that we could start developing international linkages, international comparative work – you need the sustained infrastructure."*
>
> *"Well there were two significant features. One was the length of the project; we could do things in a thoughtful way. Second is the actual dollar value – very uncommon in Canada. There are only a handful of studies in [this area] that had this amount of support. So it allowed us to work in a different way than when you have a standard SSHRC grant… and for synergy to occur."*
>
> *"Certainly the magnitude [of the grant made a difference]. Part of it is being able to put an infrastructure in place – we had a full time communications person, so we could take things on that would have been difficult otherwise. We could organize full team meetings, popularization of our work. In academia there are no secretaries – it's not efficient. The INE let us get staff to do logistical work… I now had time and support to take on the bigger picture."*

There is thus evidence of incremental impact of the INE, in that the INE funding was critical to the conduct of more than one-half of submitted projects and the completion of major research stages. In that sense, the INE contributed to the development of knowledge on the new economy that would not have occurred otherwise.

7.2 SSHRC as the Administrator of the INE and Alternatives

All key informants interviewed who felt that there was a continued need for research on the new economy in Canada also felt that there was a need for federal support for this research. Federal support was felt to be key in ensuring that large-scale research and research with a national focus takes place. Key informants were also asked whether SSHRC was the most appropriate federal organization to support research on the new economy. All key informants who were asked agreed that SSHRC should be the organization to provide this federal research support. Reasons for this included that SSHRC:

- Has the experience;
- Is close to the federal government, but at the same time independent from it;
- Has sound management and processes;
- Allows for a multi-disciplinary focus; and
- Already has the necessary credibility and relationships.

CRI PIs tended to agree. Due to the nature of their grants, they tended to emphasize the multi-disciplinary and collaborative natures of the projects, and how they were unlikely to be funded under programs with a more narrow disciplinary or technical focus:

> *"Well we could not have accomplished the [project] with anything like the magnitude we did – without the INE – this is a benchmark for social science research. General research grants could not have done research of this size, with all the subgroup analysis. Each [component] could have been done independently – but the synergy of bringing them together… needed the INE. Few projects of this scale have occurred. So I think the INE was a necessity."*

However, one informant noted that because SSHRC is much geared toward academic research, the Council's ability to deal with research outside of universities is limited.

No other alternatives were suggested by key informants for achieving the overarching objectives of the INE. CRI-PIs tended to agree, saying that the INE was unique, particularly given the scope of their funding. However, they suggested that some of the spirit of the INE could be maintained within or by modifying existing structures. Specifically, they had ideas such as:

- SSHRC providing leadership in knowledge mobilization:

  "We created a non-profit company to translate, educate and disseminate information…Can SSHRC do this? I don't know."

- Funding through new or existing channels:
  - Canada Research Chairs Program;
  - Opportunities Fund;
  - International Funds or funding adjusted to support more international work;
  - A (new) Community Partnership Grant, to develop relationships and delivery to their needs; and
  - Funding mechanisms that break the traditional disciplinary bias.

7.3 Perceptions on the Need for Research on the New Economy

Most survey participants were of the opinion that there was a continued need for research on the new economy:

- Funded and non-funded researchers: 73% overall said there was a continued need (82% of funded researchers said there was, 65% of non-funded researchers said there was);
- Non-academic partners: 76% said there was a continued need;
- Students: 86% of students said that there was a continued need.

Of note, few stated that there was no continued need, with between 10% and 20% of each group saying they simply did not know if there was a continued need.

Other evaluation participants had different perceptions on the continued need for research on the new economy. Key informants, affected by the lack of a clear definition of the new economy, questioned whether specific targeting of funding for this topic was needed. One key informant, for example, noted:

> *"I was never really sure that there really was a 'break' that resulted in a new economy – economies are always evolving."*

CRI-PIs who were interviewed tended to emphasize that the *type* of funding provided to them by the INE (i.e., sustained, substantial funding) was still needed, rather than targeted funding.

The lack of an articulated definition of the new economy was noted by some key informants as a challenge to assessing the topic's continued relevance. Some noted that the ambiguity of the term meant that relevant research on the new economy would likely be funded through regular SSHRC funding programs, such as SSHRC's Standard Research Grants rather than targeted research grants. Other comments, made by key informants only, included that funding in this area was important as the provinces and the private sector do not currently fund research in the New Economy.

While for their part, CRI-PIs who were interviewed tended to emphasize that the *type* of funding provided to them by the INE (i.e., sustained, substantial funding) was still needed, rather than targeted funding.

Researchers, non-academic partners, students and key informants were also asked to comment on the continued need for funding for the four research themes of the INE. On a scale of one to five, the themes that received the most support were education, lifelong learning and general issues, as shown in Exhibit 7-3. Management and entrepreneurship received somewhat less support.

EXHIBIT 7-3: Extent to which there is a Continued Need for Research Focus on the Four INE Themes

Theme Area	Funded Researchers		Partners		Students	
	N	Mean	N	Mean	N	Mean
General issues related to the New Economy	111	3.87	61	3.97	79	4.19
Management and entrepreneurship	109	3.66	58	3.71	72	3.82
Education	114	4.05	65	4.23	81	4.42
Lifelong learning	109	3.84	67	4.27	79	4.16

Source: Survey of PI, QD2; Survey of Partners, QD2; and Survey of students, QC2.

Several key informants noted that research in the INE theme areas would be funded through SSHRC without being the subject of specific targeted funds. It was noted that these theme areas were important, but not necessarily as they related just to the new economy. As well, it was pointed out that other agencies including the Canadian Council on Learning, continue to fund research in these areas.

7.4 Summary of Relevance and Continued Need

The INE funding was critical to the conduct of submitted projects and the completion of major research stages. In that sense, the INE contributed to the development of knowledge on the new economy that would not have occurred otherwise.

SSHRC was felt to have been the appropriate federal organization for administering this funding. That said, there were mixed perceptions as to whether there was a continued need for this type of targeted funding. While survey participants agreed for the most part, interview participants commented that, although funding was important, targeted funding may not be needed. This view was particularly supported by the lack of a clear definition of the new economy.

8. CONCLUSIONS AND LESSONS LEARNED

The evaluation examined a number of lines of evidence, including key informant interviews, document and data reviews, database of research outputs, surveys, and case studies. This was done not only in order to assess the results of the INE, but also to gain a greater understanding of the program and to draw lessons. A summary of the INE's results and a discussion on lessons learned are presented in this chapter.

8.1 Conclusions

SSHRC rapidly mobilized and organized its resources in order to conceptualize, design, and deliver the Initiative on the New Economy. While the INE was based on existing SSHRC programs, it also included a number of features that differentiated it from previous programs. The INE attracted fundable research, as evidenced by the significant response to the competitions, (including 997 applications made directly to the INE and 200 coming from the SRGs, for a sum of 460 awards totalling $91.1 million). The program administration was generally effective, and demonstrated responsiveness to 'on the ground' learning throughout its duration in order to address effectiveness issues as they arose.

Results pertaining to the prime and sub-objectives of the INE were discussed in this report under the broad topics of research excellence, non-academic partnerships, training of highly-qualified personnel, and knowledge mobilization. Relevance and continued need for funding on the new economy were also examined as part of the evaluation.

Overall, the INE was responsible for the production of a substantial body of multi-disciplinary research, and helped to train and increase the number of highly-qualified personnel in new economy issues within Canada. It also encouraged non-academic partnerships. While these partnerships were not well understood at the onset of the evaluation given limited input and available data, through surveys and case studies, the dynamics of these academic and non-academic relationships have come to light. Although the INE fared well in these areas, the originally intended focus on disseminating findings through program-level knowledge mobilization was not as successful. It appears that there was an insufficient level of or inappropriate resources within SSHRC. Despite this, the focus on knowledge mobilization at the project-level appears to have resulted in more extensive dissemination and mobilization of research results than would have occurred otherwise. While the INE may no longer exist, some of its unique features could be adapted and integrated to other SSHRC funding programs.

8.2 Lessons Learned

While the INE has ended, an evaluation of the INE affords the opportunity to derive lessons that may help to inform current or future initiatives. As stated earlier, the report was prepared with consideration to the context of recent and current SSHRC initiatives and priorities, including *Framing Our Direction* (2007), *Management, Business and Finance Investment Strategy* (2007), and *International Policy and Strategy* (2005). The Government of Canada plans and priorities,

including *Mobilizing Science and Technology to Canada's Advantage* (2007), also informed the evaluation findings. Throughout the report, notes, comments and suggestions that had implications on the interpretation of results of this evaluation or on the design, delivery and monitoring of future evaluations were noted in text boxes. Additional reflections pertaining to how current and future programs and initiatives could learn from the INE are detailed below. These lessons learned are drawn from evaluation findings with a strong emphasis on the qualitative case study line of evidence, and with input from SSHRC management, who have identified areas of most direct application.

The *Evaluation of the INE* has illustrated that both unique program design elements and organizational support are important considerations that contribute to the fostering of new and innovative approaches for SSHRC-funded research projects and the production of research activities in Canada. For example, various elements of the INE design had an influence on the structure, execution and results of a number of the INE projects. INE project enhancements included a strengthened collaborative environment (particularly in the case of larger grants) across disciplines and with students, international researchers, and non-academic partners – all of which were key program design elements. Reflections on these interactions are presented as a series of lessons learned that could be applied to current and future programs with objectives similar to those of the INE.

1. In order to fairly administer the funding of programs with a broad mandate, key criteria need to be defined and communicated. It is important to identify boundaries of the mandate and selection criteria so that researchers are able to assess whether their projects fall within the bounds of fundable research. Selection criteria are usually linked to program objectives, as a result these objectives must also be clearly defined.

   Discussion: The INE evaluation found that the ambiguity of the "new economy" created an inefficient use of resources of the screening committee. Further, there is evidence that the intended audience of the INE was not fully reached, as SSHRC redirected projects that were submitted to other programs, but qualified for the INE. While the flexibility of the team to reallocate projects to the INE was a key strength of the implementation of the initiative, it does not preclude improving on communication with the target audience in future grant administration.

2. Key program and project objectives must have clear definitions and identified success criteria to achieve both accountability and learning. These definitions and success criteria should be built into program documents, particularly reporting requirements.

   Discussion: As an example, the INE's impact on innovation frequently enabled and enhanced established methodologies, rather than introducing an entirely new approach. Whether or not this met the expectations of SSHRC for research innovation is unclear. Similarly, well defined success criteria may have helped researchers to focus knowledge mobilization efforts and to better account for the results of their efforts by identifying how their research findings have been put into practice.

3. While clearly defined objectives and success criteria are important, retaining adequate flexibility in certain program design elements can allow for project-level creativity and responsiveness, as well as learning within funded research teams.

   Discussion: A positive impact of the ambiguous concept of the new economy is that it allowed for a wide range of research topics to be funded, and provided researchers with the flexibility to address issues related to the new economy from a number of different perspectives. Furthermore, the innovative elements of the INE, such as knowledge mobilization to new audiences and using new media or technology, frequently required research teams to build new relationships, respond to stakeholder needs, respond to opportunities, and acquire new skills. Determining an ideal degree of flexibility within program designs could foster learning and growth among research team members, while still ensuring that the team has clear performance requirements and core competencies among its members.

4. In general, the project management skills of the funded Principal Investigators, as well as the strength of the research teams, were strongly correlated with how the research projects were executed. In order to better support Principal Investigators leading other large-scale projects, guidelines or suggestions for team composition, including a project manager and a knowledge mobilization expert, could be provided.

   Discussion: The INE evaluation demonstrated that funding large, multi-year, international and interdisciplinary work requires that support for developing project infrastructure be built into the grant. While some supporting infrastructure had been readily available within some administering organizations, other researchers felt that they had to build the project infrastructure. Developing non-academic partnerships, training students, mobilizing knowledge towards the public and private sectors requires time and resources, often pulling researchers away from their research and into areas where they may indicate that they are less proficient. Examples of supporting infrastructure found to be helpful included engaging staff to complete day-to-day project management or administration tasks, and including team members that hold expertise in knowledge mobilization. These supports are more likely to allow researchers to develop new skills in leading innovative projects, while having adequate time to ensure research excellence.

5. Different types of non-academic partnerships require different policies to support them and should have different measures of success.

   a. Programs should be designed to place emphasis on genuine and appropriate non-academic partnerships, where partner organizations' capacity and attributes determine their contribution. This would encourage better use of resources by focusing on productive and mutually beneficial partnerships, without precluding building new partnerships.

      Discussion: From the evaluation of the INE, it was apparent that in some cases there was a perception that more partnerships are always better and that a project is expected to identify a great number of partners in order to be funded. However, both researchers and partner organizations have finite capacity and frequently a small number of non-academic partnerships proved to be fruitful in one or more research areas. In particular, the

research areas (e.g., design, data collection, knowledge mobilization) where partner organizations contributed depended on the skills, time, and expertise of the organizations.

b. Reporting requirements should capture the value that partnerships bring to a project. In particular:
   - Capture the names and roles of partners mid-stream and at the end of the project, not just at the beginning;
   - Identify the type of partner organization, describe their capacity and role on the project;
   - Record the value of non-financial contributions of partner organizations;
   - Identify non-academic partner-oriented outputs;
   - Include partner feedback reports or summaries if the impact of the research on the partner organization is to be captured.

6. A comprehensive and customized approach to reporting will improve the performance measurement of new and/or innovative programs. A comprehensive ongoing performance measurement strategy should include qualitative and quantitative measures and be clearly linked to program and project objectives, as well as features (such as innovative approaches) that are expected to yield new learning.

   Discussion: The evaluation of the INE demonstrated how traditional measures of research excellence and partnerships did not lend themselves well to the assessment of non-academic partnerships and knowledge mobilization, two of the innovative aspects of the INE. In particular, the emphasis on non-academic partnerships and knowledge mobilization to non-academic audiences was perceived by researchers to be misaligned with traditional approaches of reporting on results through Final Research Reports. Program reporting needs to be designed to fit with the new approaches, balancing the opportunity to learn (e.g., through qualitative descriptive) with indicators that can be measured across projects.

7. In order to lead or coordinate program-level knowledge mobilization, a knowledge mobilization strategy, with significant input from stakeholders and an internal resourcing and performance plan, is required.

   Discussion: The program-level knowledge mobilization, an important objective of the INE, was hindered by lack of an explicit strategy. Resultant weak support within SSHRC and a lack of human resources providing sustained intellectual leadership caused the efforts to falter. For example, the online component of knowledge mobilization (K-Net) was not successful, and there was little follow-up on successful elements of knowledge mobilization, such as SSHRC-hosted INE conferences. Planning within SSHRC specific to knowledge mobilization could have identified design flaws and improved effectiveness. These findings are particularly relevant as researchers themselves identified their lack of skills and experience in this area and were counting on SSHRC's support. The development of a plan for program-level knowledge mobilization, with significant input from stakeholders, coupled with appropriate resources for implementing the plan, would have allowed for more success in disseminating knowledge within SSHRC and to the broader research community.

8. The innovative aspects of the INE can be retained, and research on the new economy can be sustained through less targeted funding programs.

   Discussion: While most researchers felt that there was a continued need for research on the new economy, many key informants felt that there was no need for a targeted research fund in this area. That said, many felt that there was a continued need for those elements of the INE that were innovative, such as the increased emphasis on research excellence in all its forms, non-academic partnerships, student training, and knowledge mobilization in the public and private sectors. The relevance and value attributed to these have been highlighted throughout this report. The INE funding was not only focused on generating research findings in this targeted area, but also encouraged new ways of conducting research in Canada, therefore, its objectives can still be pursued (and lesson learned applied) through other existing funding mechanisms.

8.3 Reflection

In summary, the *Evaluation of the INE* suggests that both program design elements and organizational support are important considerations that contribute to the production of excellent research activities in Canada. Program design elements, such as a broad mandate and an innovation focus, allow for collaborative research to take place. Furthermore, specific funding criteria increases the emphasis on desired areas, such as training students and knowledge mobilization. A life-cycle approach to working with researchers (from pre-application to public outreach) creates an opportunity to support a project. This, combined with infrastructure and institutional support, appears to lead to strong results. This suggests that SSHRC funding can and does influence the research landscape and creates impacts in the research community itself, in addition to producing research findings.

LIST OF WORKS CITED

Government of Canada (October 18, 2000), *Economic Statement and Budget Update, October 18, 2000*. As quoted in: Social Sciences and Humanities Research Council, *An Introduction to the Initiative on the New Economy*.

Minutes 90th Meeting of the Social Sciences and Humanities Research Council (June 7 and 8, 2002). Ottawa.

Natalie Kishchuk Recherche et évaluation inc. (June 22, 2006), *Social Sciences and Humanities Research Council, Initiative on the New Economy, Evaluation Framework.*

Social Sciences and Humanities Research Council (2001), *Initiative on the New Economy, Treasury Board Submission*.

Social Sciences and Humanities Research Council (March 31, 2003), *Mid-term Report on the Activities of the Initiative on the New Economy, Part I: Report*.

Social Sciences and Humanities Research Council (September 2003), *Results-based Management and Accountability Framework.*

Social Sciences and Humanities Research Council, *An Introduction to the Initiative on the New Economy*.

Social Sciences and Humanities Research Council (January 25-27, 2004), *Briefing Note on INE Ottawa 2 (2nd Annual Meeting of the INE Teams, January 2004).*

Social Sciences and Humanities Research Council, *Final Report and Evaluation Survey, INE K-Net*, last revised June 26, 2007.

Social Sciences and Humanities Research Council, (02/05/2007), *Policies Governing INE Programs*, retrieved through http://www.archive.org/index.php.

Social Sciences and Humanities Research Council, *The Initiative on the New Economy: Some Lessons Learned and how they Might Inform Institute Models within a Transformed SSHRC* (not dated but, based on content, approx. three years after inception of the program).

Social Sciences and Humanities Research Council, *We Build Understanding, Summary Report on the Inaugural Workshop on Knowledge Mobilisation and the INE*, held January 5th and 6th, 2003 in Ottawa.

O'Neil, Maureen (May 4, 2009), *We May Need a New Definition of "Research Excellence"*, The International Development Research Center.

GLOSSARY OF TERMS

Highly-qualified personnel (HQP):

Individual with a university degree at the bachelor's level or above, as per McKenzie, M. (2007), *A Profile of Canada's Highly Qualified Personnel*. Science, Innovation and Electronic Information Division (SIEID), Statistics Canada.

Knowledge mobilization:

Creation of new mechanisms and venues for researchers and users of research to interact; promotion of linkages among funded research teams; fostering communities of practice; and ensuring communication of research outcomes to the public, as per the Mid-Term Report on Activities of the Initiative on the New Economy.

New economy:

Trends in the world economy such as globalization, information technology, and the computer revolution have resulted in new sources of economic growth. The new economy presents Canada with opportunities and challenges as some markets grow and change, and others decline. In order to meet these challenges in the face of a growing number of competitors, Canadians will need to ensure they have the skills that are needed in the new economy.[33]

It should be noted that no prescriptive definition of the new economy was developed for the INE.

Pledged contribution:

Formal promise in which an organization commits to making a financial or non-financial contribution.

Principal investigator:

Term used to denote the researcher who submits an application to SSHRC. This person is in charge of the research grant, including responsibility for completing the project, directing the research and reporting to SSHRC.

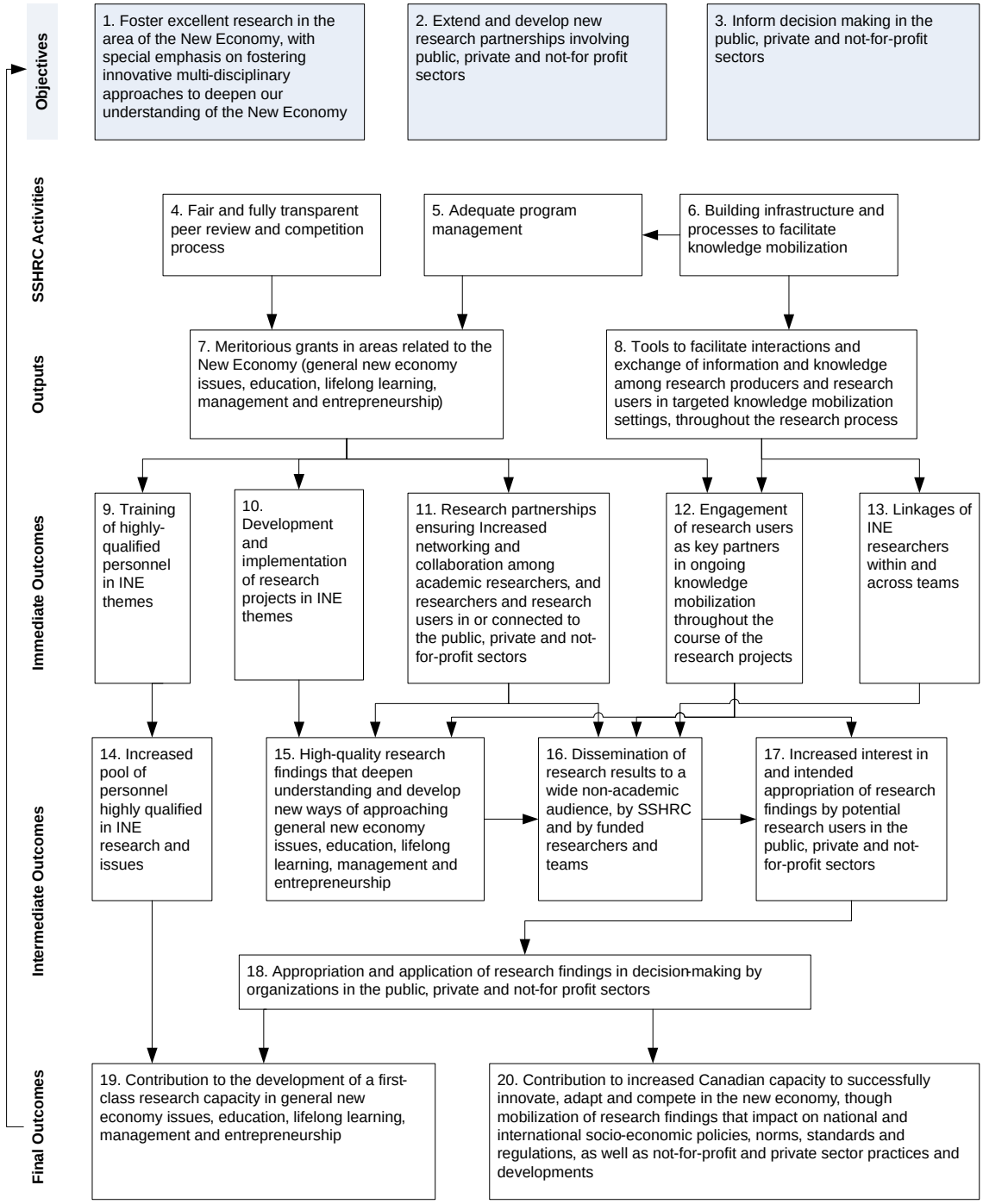
Web portal:

Central website that functions as a point of access to information, services and resources.

[33] Industry Canada website. Industry Canada Glossary. Retrieved November 11, 2008 at: http://www.fin.gc.ca/gloss/gloss-n_e.html#newec

APPENDIX A: INE LOGIC MODEL

Logic Model for the INE



Source: Natalie Kishchuk Research and Evaluation Inc., Social Sciences and Humanities Research Council, Initiative on the New Economy, Evaluation Framework (June 22, 2006).

APPENDIX B: DATA COLLECTION MATRIX

Evaluation of the Initiative on the New Economy (INE) Program
Data Collection Matrix – August 15, 2007

Adapted from Revision of the Evaluation Framework of The Initiative on the New Economy (INE), Final Report, April 30, 2007, Barrington Research Group, Inc., and 2006 INE Summative Evaluation Framework.

Evaluation Issues	Evaluation Questions	Indicators	Data Sources / Methods	Phase
A. PROGRAM DESIGN AND DELIVERY				
A1. INE INPUTS AND DESIGN				
A1.1 Use of funds - Efficiency and effectiveness - Funds leveraged	a) How efficiently and effectively were INE funds used, both overall and by component? b) What impact did the funds that were leveraged from partners, etc., for INE projects have on the ability of the initiative to achieve its overall objectives?	▪ SSHRC administrative costs per grant dollar awarded compared to equivalent SSHRC programs ▪ Impact of leveraged funds on ability to achieve INE objectives ▪ Impact of leveraged funds on research project development	Document & file review	Phase 2
			Review of a) grantees' annual financial reports: disbursements from SSHRC and contributions from other organizations; b) SSHRC INE management / Secretariat expenditures	Phase 2
			Outputs database	Phase 2
			Key Informant interviews	Phase 2
A1.2 Governance and management - Governance & Advisory Committee - INE Secretariat/ Human Resources - Management & Administration - Evaluation Advisory Committee	a) Were the INE governance, management, and administrative resources and structures appropriate and adequate? What specific governance innovations of the INE were most/least useful? Why? b) How did the governance, management and administrative support provided affect the initiative's design, delivery and its ability to support overall INE outcomes? c) To what extent did the governance, management and administrative support provided by SSHRC contribute to knowledge mobilization in the INE?	▪ Judged appropriateness & adequacy of mgmt., governance & committee structures (including INE Advisory Committee) ▪ Degree to which governance exhibited principals and practices of good governance ▪ Effects of changes to INE mgmt, governance & committee structures over period of implementation ▪ Judged adequacy of KM support within SHRC	Document & file review	Phase 2
			Key informant interviews	Phase 2
			Document & file review from KM division of program	Phase 2
				Phase 2

Evaluation Issues	Evaluation Questions	Indicators	Data Sources / Methods	Phase
A1.3 Uptake and adjudication - Priority areas & themes - Competition management - Screening & peer review process	a) How effectively did the competitions attract fundable research in the INE theme areas? b) Was the peer review and competition process fair and transparent?	▪ Breakdown of applications by themes ▪ Judged appropriateness of competition model ▪ Views of non-funded applicants re: fairness and transparency ▪ View of the adjudication committee members regarding the challenges of the adjudication process	Document & file review	Phase 2
			Survey of PI's Survey of CRI PI's	Phase 2 and 3
			Survey of non-funded applicants	Phase 2
			Key Informant interviews	Phase 2
A1.4 Linkages and partnerships - Liaison/integration with KM Unit - Liaison/integration with other SSHRC grant programs - Partnerships within JI projects	a) To what extent did the linkages and partnerships developed in the INE by SSHRC contribute to the successful implementation of the INE? To the implementation of the JI? To overall INE program outcomes? b) To what extent did the linkages and partnerships developed in the INE by SSHRC contribute to knowledge mobilization in the INE?	▪ Views of SSHRC Key Informants re: contribution of interactions with KM Unit, other SSHRC units, & senior mgmt to INE implementation success ▪ Views of Key Informants re: success of KM within SSHRC as a result of the INE	Document & file review	Phase 2
			Key Informant interviews	Phase 2
A2. SSHRC INE PROGRAM DELIVERY				
A2.1 Monitoring and evaluation[1] - Annual Financial Statements - On-site Consultations - Milestone Reports - Mid-term Reviews - Final Research Reports	a) To what extent were the project and program monitoring and evaluation processes helpful to achieving INE objectives? Which project and program monitoring and evaluation processes were most/least useful and why.	▪ Presence of project reports ▪ Evidence of use of RMAF and logic model ▪ Evidence of use of monitoring results ▪ Evidence of changes made based on monitoring information ▪ Evidence of evaluation plans ▪ History of evaluation activities ▪ Views of Key Informants	Document & file review including milestone reports, mid-term reports and mid-term reviews, final research reports and evaluation plans and reports[2]	Phase 2
			Key Informant interviews	Phase 2
A2.2 Knowledge mobilization processes and infrastructure	a) How useful were tools and processes developed to facilitate interactions and exchange of information among research	▪ # and type of tools used to facilitate interactions and exchange of information through knowledge mobilization	Document & file review, including web usage statistics	Phase 2
			Key Informant interviews	Phase 2

[1] Monitoring activities varied by project type
[2] Evidence of use of monitoring results and changes made based on monitoring information may not be available in formal documentation

Evaluation Issues	Evaluation Questions	Indicators	Data Sources / Methods	Phase
	producers and research users? Which were useful, not useful and why. What impact did these tools and processes have? b) To what extent did the INE foster linkages and communications with/between research projects to foster knowledge mobilization? To what extent did the INE create obstacles for linkages and communications? c) How did SSHRC mobilize INE knowledge within SSHRC? Beyond SSHRC?	Web portal indicators: ▪ Resources utilized on web portal ▪ Timeliness of updating of web portal with new information on projects ▪ Awareness of web portal among potential users ▪ Usage of web portal ▪ Evidence of KM linkages, facilitated by SSHRC with/between researchers, research projects, producers & users ▪ Evidence of SSHRC KM activities in/ beyond SSHRC	Survey of PIs Survey of CRI PIs	Phases 2 and 3
B. INE RESEARCH PROJECTS' OUTPUTS AND IMMEDIATE OUTCOMES				
B1. Research projects and results on INE themes	a) What proportion of the funded projects were completed? b) What research outputs were produced? How many of what type were produced, by project and by funding stream?	▪ Proportion of funded projects completed ▪ Outputs produced by funding stream	Final Research Reports	Phases 2 and 3
			Survey of PIs	Phases 2 and 3
			Outputs database	Phases 2 and 3
B2. Knowledge mobilization in areas related to the New Economy	a) How successfully did the research projects integrate knowledge mobilization into their funded activities?	▪ Types of activities integrated and nature of integration of KM activities ▪ Number, frequency & diversity of KM mechanisms used ▪ Extent to which researchers were aware of knowledge mobilization objectives of program – of which aspects were they aware/unaware	Document & file review (FRRs)	Phases 2 and 3
			Survey of PIs Survey of CRI PI's	Phases 2 and 3
B3. Training of highly-qualified personnel in areas related to the New Economy	a) How successfully did the research projects develop capacity in highly qualified personnel and students in the area of New Economy research?	▪ Number & type of training mechanisms developed for students & HQ personnel, compared to equivalent SSHRC programs where applicable	Document & file review (FRRs) Information on number and type of training mechanisms for students and HQP from equivalent SSHRC programs	Phases 2 and 3

Evaluation Issues	Evaluation Questions	Indicators	Data Sources / Methods	Phase
	b) Was mentoring developed successfully? Why/ why not? What were the results? What lessons can be learned from the experience?	▪ Numbers of individuals (students, others) involved, as RA's and for thesis work, compared to equivalent SSHRC programs where possible and appropriate ▪ Proportion of grant funds allocated to student/others training, compared to equivalent SSHRC programs where possible and appropriate	Survey of PIs Survey of CRI PI's	Phases 2 and 3
B4. Partnerships, linkages and network development	a) How successful were the research projects in promoting and/or developing partnerships, networks, communities of practice and other linkages? Which were successful, which were not, and why?	▪ Number, type & diversity of partnerships & linkages, compared to equivalent SSHRC programs where applicable ▪ Perceived success of partnerships & linkages by users	Document & file review (FRRs)	Phases 2 and 3
			Survey of PIs Survey of CRI PI's	Phases 2 and 3
			Survey of non-academic partner organizations Case studies	Phase 3
C. SSHRC & INE Research Projects' Immediate Outcomes				
C1. Research results on INE themes in areas related to the New Economy	a) Did the research projects foster multi-disciplinary approaches? Which types of project were most/least successful in this regards? b) Did the research projects foster excellent research in the area of the New Economy? Which types of projects were most/least successful in this regard? c) Did the partnerships and linkages developed in the INE have an impact on the research results? Which types? What was that impact?	▪ Funding projects included multi-disciplinary teams of researchers ▪ Quality of research produced based on response: a) peer-reviewed publications; b) prizes/awards; c) further research funded based on INE research; d) community uptake (publications, invited presentations, adoption of research findings, media exposure, etc.) e) student training ▪ Number of peer-reviewed publications per $10,000 grant dollar awarded, by program component, compared to similar SSHRC programs ▪ Evidence of impact of partnerships and linkages on research results	Review of Final Research Reports	Phases 2 and 3
			Survey of PIs Survey of CRI PI's	Phases 2 and 3
			Final Research Reports	Phases 2 and 3
			Survey of non-academic partner organizations Case studies	Phase 3
C2. Research partnerships are developed and extended, involving public, private and not-	a) To what extent did the partnerships developed by INE research projects result in increased networking and collaboration among	▪ Evidence of impact of partnerships and linkages on behaviour in networking and collaboration	Review of Final Research Reports	Phases 2 and 3
			Survey of PIs Survey of CRI PI's	Phases 2 and 3

Evaluation Issues	Evaluation Questions	Indicators	Data Sources / Methods	Phase
for-profit sectors	researchers? Which types of partnerships were most/least likely? b) To what extent did the partnerships developed by INE research projects result in increased networking and collaboration between researchers and research users in, or connected to, the public, private and not-for-profit sectors? In what ways did the program create obstacles to partnership development, if any? c) Under what circumstances were research users engaged as key partners in ongoing knowledge mobilization throughout the research projects? Where were they not?	▪ Views of PIs, Partners & Research Users: Evidence of increased networking and collaboration ▪ Views of PIs, Partners & Research Users: Evidence that research users were engaged as partners in knowledge mobilization ▪ Evidence of failed or non-initiated partnerships as a result of the program design, etc.	Final Research Reports	Phases 2 and 3
			Survey of non-academic partner organizations Case studies	Phase 3
C3. INE Research outcomes/ products are disseminated to a wide non-academic audience by both SSHRC and the funded researchers and teams	a) How successful were the research projects in disseminating their results to a wide non-academic audience? Where were they successful and where were they not? What was that audience comprised of? What was the effect of the knowledge mobilization? b) How successful was SSHRC in doing likewise? Where was it successful and where was it not? c) Did the partnerships and linkages developed in the INE have an impact on mobilization outcomes? What was that impact? Which types of partnerships and linkages had the greatest/least impact?	▪ Range of audience types per program component ▪ Nature of the program-audience type relationships ▪ Reach of dissemination per program component ▪ Views of Partners & Research Users of research products' relevance, quality and impacts ▪ Evidence of impact of partnerships and linkages on dissemination outcomes ▪ Views of potential partners outside of the current network	Review of Final Research Reports	Phases 2 and 3
			Survey of PIs Survey of CRI PI's	Phases 2 and 3
			Final Research Reports	Phases 2 and 3
			Survey of non-academic partner organizations Case studies	Phase 3
			Survey of non-funded applicants	Phase 2
C4. Increased pool of personnel highly qualified in INE research and issues	a) To what extent did the INE contribute to increasing Canada's research capacity/pool of highly qualified personnel in the area of the general New Economy, education, lifelong learning, management and entrepreneurship?	▪ Evidence of outcomes resulting from training & mentoring for student & HQ personnel (and other types of research participants) in the research projects: ▪ examples of students and others moving into NE-related positions in research or policy ▪ students feeling their student experience compared favourably to that of their peers as a result of their involvement in INE funded activities	Review of Final Research Reports	Phases 2 and 3
			Survey of PIs Survey of CRI PI's	Phases 2 and 3
			Survey of non-academic partner organizations, individuals Survey of students	Phase 3
			Survey of non-funded applicants	Phase 2

Evaluation Issues	Evaluation Questions	Indicators	Data Sources / Methods	Phase
C5. Evidence of incremental impact of INE program	a) What was the impact of INE funding on INE research and research capacity in Canada?	▪ % of unfunded applicant projects that did not get undertaken at all, or on a smaller/different scope ▪ Proportion of funded projects that may have been undertaken without INE funding ▪ Degree to which research resources (personnel, time) were redirected towards issues of interest to the INE	Survey of PIs Survey of CRI PI's	Phases 2 and 3
			Survey of non-funded applicants	Phase 2
C6. Unanticipated outcomes of the INE are identified	a) Has the INE led to any unintended outcomes or consequences? What were they?	▪ Comparison of planned & actual outcomes, including what elements of INE created unanticipated outcomes ▪ Views of Key Informants ▪ Views of PIs, Partners & Research Users	All sources	Phases 2 and 3
D. OVERALL RELEVANCE				
D1. Relevance of the INE model and the INE theme, in relation to cost-benefit and alternatives	a) Is there a continued need for research on the New Economy? On the four theme areas? Which theme areas are most/least critical to understanding the New Economy? b) Is there a continued need for thematic research using a model similar to the INE? What are the greatest needs in the area? c) Given the alternatives, was the INE the best vehicle for the funds provided? To what extent did the design and delivery model of the INE contribute to its successful implementation? To its overall program outcomes? d) Were the results worth the program's costs, either overall or by component?	▪ Views of SSHRC key informants re: success of thematic research model ▪ Evidence that the INE mixed funding stream model achieved value for money ▪ Views of key informants of the value-added of the INE model versus existing SSHRC programs ▪ Views of researchers on how INE funding streams differed from equivalent INE programs ▪ Analysis of all study findings	Key Informant interviews	Phases 2 and 3

APPENDIX C: AWARDS, PRIZES AND RESEARCH EXCELLENCE

Application Title	Award, Prize or Research Excellence	Author and Output
INE Collaborative Research Initiatives		
The changing nature of work and lifelong learning in the New Economy: national and case study perspectives	2007 Author of the Year Award, National Association of Housing Cooperatives	Schugurensky, D.; Mündel, K.; Duguid, F. (2006). *Learning from each other: housing cooperative members? acquisition of skills, knowledge, attitudes, & values*, Cooperative Housing Journal (CHJ).
Globalization, technological revolutions and education	2007 Doug Purvis Memorial Prize in Economics	Boudarbat, B.; Lemieux, T.; Riddell, W.C. (2006). *Recent Trends in Wage Inequality and the Wage Structure in Canada*, Dimensions of Inequality in Canada.
Beyond best practice: research-based innovation in learning and knowledge work	Outstanding Manuscript of the Year Award presented by Association for Educational Communication and Technology (AECT)-Division of Instructional Development	Zhang, J.; Scardamalia, M.; Lamon, M.; Messina, R.; Reeve, R. (2007). *Socio-cognitive dynamics of knowledge building in the work of nine- and ten-year-olds*, Educational Technology Research and Development.
On the identity trail: understanding the importance and impact of anonymity and authentication in a networked society	International Award for Excellence in the area of technology, knowledge and society, The International Journal of Technology, Knowledge and Society	Matheson, D. (2007). *Virtue and Informational Privacy*, The International Journal of Technology, Knowledge and Society.
On the identity trail: understanding the importance and impact of anonymity and authentication in a networked society	2004 Leonardo Award of Excellence, MIT Press	Mann, S. (2003) *Existential Technology: Wearable Computing Is Not the Real Issue*, Leonardo
Application Title	**Award, Prize or Research Excellence**	**Author and Output**
INE Research Alliances		
A university-union research alliance on socially responsible investment of pension funds in the New Economy	Short list. Donald Smiley Prize. Awarded by the Canadian Political Science Association for the best book on Canadian government and politics.	Carmichael, I. (2005). University of Toronto Press, *Pension power. Unions, pension funds and social investment in Canada.*
Alberta SuperNet Research Alliance	Runner up for the International Award for Excellence in the area of technology, knowledge and society (one of the ten highest-ranked papers emerging from the referee process)	Williams, A.; Langford, C.; Hall, S. (2007). *The Alberta SuperNet: What does it mean to rural business communities?*, The International Journal of Technology, Knowledge and Society.
Harnessing the Web-Interaction Cycle for Canadian Competitiveness	Nominated for Best Paper	Price, Bob; Messinger, Paul R. (2005). *Optimal Recommendation Sets: Covering Uncertainty over User Preferences*, American Association of Artificial Intelligence Proceedings.
Gouvernance, juricomptabilité et création de valeur - Governance, Forensic Accounting and Value Creation	Lauréat en 2006 du concours d'études de cas de l'Association canadienne des professeurs de comptabilité	Martel, Louise; Paul, Diane; avec la collaboration de Valérie Ménard (2006). *Mythco Pharma inc. (cas 33 pages et notes pédagogiques 59 pages)*, Revue internationale de cas en gestion.

Application Title	Award, Prize or Research Excellence	Author and Output
Harnessing the Web-Interaction Cycle for Canadian Competitiveness	Invited lead article for special issue	Messinger, Paul R.; Li, Jin; Stroulia, Eleni; Galletta, Dennis; Ge, Xin; Choi, Sungchul (2007). *Seven Challenges to Combining Human and Automated Service*, Canadian Journal of Administrative Sciences.
Gouvernance, juricomptabilité et création de valeur - Governance, Forensic Accounting and Value Creation	Prix du meilleur cas publié dans la Revue international de cas en gestion	Morin, Danielle. (2003). Corporation Cinar - Partie I *L'ascension. Étude de cas - énoncé (32 pages) et notes pédagogiques (13 pages)*, Revue internationale de cas en gestion du Centre de cas HEC Montréal
Alberta SuperNet Research Alliance	Best Paper Award	Cumming, D.J., Johan, S.A. (2007). *The Internet and Regional Economic Development*, Academy of Management Best Papers Proceedings.
Application Title	**Award, Prize or Research Excellence**	**Author and Output**
INE Research Grants		
Mining the web for business intelligence through link structure analysis	Best Paper Award in Applied Bibliometrics at the 10th International Conference of the International Society for Scientometrics and Informetrics	Vaughan, L.; You, J. (2006). *Comparing business competition positions based on Web co-link data: The global market vs. the Chinese market*, Scientometrics.
Models of asset and derivative pricing for portfolio management and risk management	STOXX Award	Peter Christoffersen, Steve Heston, Kris Jacobs (2006). *A Dynamic Model of Option Skewness*, Journal of Econometrics.
Modern manufacturing in the automobile industry: customization, integration, and flexibility	Solicited article	Van Biesebroeck, J. (2006). *The cost of flexibility*, Assembly Automation.
Examing legal and policy challenges presented by the taxation of electronic commerce	Short-listed for Purvis Prize for work of excellence on Canadian economic policy; reviewed favourably in Canada (including Literary Review of Canada), the United States and Japan	Cockfield, Arthur (2005). *NAFTA Tax Law and Policy: Resolving the Clash between Economic and Sovereignty Concerns* (University of Toronto Press).
The effect of the internet on capital formation	Scholarly Paper Award - Canadian Association of Law teachers	Anand, A. (2003). *The Efficiency of Direct Public Offerings*, Journal of Small and Emerging Business Law.
The nature and evolution of large-small firm partnerships	Published in Academy of Management 2006 Best Paper Proceedings	Dalziel, M. *The seller's perspective on acquisition success*, Journal of Engineering and Technology Management.
Politiques d'orientation professionnelle dans l'économie du savoir : incitatifs clés pour faire de l'apprentissage continu, une réalité pour tous	Prix de l'Ordre des conseillers en orientation du Québec	Riverin-Simard, Danielle; Simard, Yanik (2005). *Vers un modèle de participation continue: la place centrale de l'orientation professionnelle.*
Restructuring, work, health and well-being of municipal employees	Nominated for the 2007 SAGE Prize for Innovation and/or Excellence	McDonough, P. (2006). *Habitus and the Practice of Public Service*, Work, Employment and Society.
Leadership and organizational learning in the New Economy	Nominated as a best paper at the Strategic Management Conference	Dutta, D.; Crossan, M. *Reconceptualizing Hypercompetition: Unraveling the Puzzle.*
Navigating knowledge boundaries between formal education and workplace	Mouton d'Or: Best Paper in 2005 in journal	Hoffmann, M.H.G., & Roth, W.-M. (2005). *What you should know to survive in knowledge societies. On a semiotic understanding of ?knowledge?*, Semiotica.

Application Title	Award, Prize or Research Excellence	Author and Output
Institutional theory & the adoption of technology	Literati Club Award for Excellence (2004)	Tingling, P.; Parent, M.; Wade, M. (2003). *Extending the capabilities of internet-based research: lessons from the field*, Internet Research: Electronic Networking Applications and Policy
Navigating knowledge boundaries between formal education and workplace	Emerald Literati Award for Best Paper in journal in 2005	Lee, Y. J., & Roth, W.-M. (2005). *The (unlikely) trajectory of learning in a salmon hatchery*, Journal of Workplace Learning.
Women's economic progress in the New Economy: gender role attitudes, hours of work and family structure	Doug Purvis Memorial Prize	Nicole M. Fortin and Tammy Schirle (2006). *Gender Dimensions of Changes in Earnings Inequality in Canada*, Dimensions of Inequality in Canada.
Managing e-loyalty through experience design	Best Paper Award, International Applied Business Research Conference	Cyr, Dianne; Trevor-Smith, Haizley (2004). *Localization of Web Design: An Empirical Comparison of German, Japanese, and U.S. Website Characteristics*, Journal of the American Society for Information Science and Technology.
Managing e-loyalty through experience design	Best Paper Award, International Applied Business Research Conference	Cyr, Dianne; Lew, Richard (2003). *The Localization Industry: A Profile of DNA Media*, International Business and Economics Journal.
Managing e-loyalty through experience design	Best Paper Award, European Applied Research Conference	Cyr, D., Head, M.; Ivanov, A. (2006). *Exploring Website Design and Mobility for Culture, Age, and Gender*, International Journal of Human Computer Studies.
Application Title	**Award, Prize or Research Excellence**	**Author and Output**
Joint Initiative: CESC-SSHRC Education Research Alliance		
The Transition from High School to Post-Secondary Education: The Role of Cooperative Education	Being considered for the Ralph W. Tyler award for outstanding and distinguished research in the field of cooperative education and internships	Drysdale, Maureen; Goyder, John; Nosko, Amanda; Easton, Mark; Frank, Kristyn; Rowe, Patricia (2007). *The role of co-op in the transition from high school to post-secondary education*, Journal of Cooperative Education and Internships.
Students at risk for academic difficulties: Transition to junior high	Invited paper	Beran, T. *School achievement consequences of school bullying*, in press.
Application Title	**Award, Prize or Research Excellence**	**Author and Output**
INE Public Outreach Grants		
Changing Higher Education Practices in Communication and Information Technologies	Alan Blizzard Award, Society for Teaching and Learning in Higher Education	Justice, Christopher, Wayne Warry, Carl Cuneo, Sue Inglis, Stefania Miller, James Rice, Sheila Sammon (2002). *Grammar for Inquiry: Linking Goals and Methods in a Collaboratively Taught Social Sciences Inquiry Course*, The Alan Blizzard Award Paper, Special Publication of the Society for Teaching and Learning in Higher Education.