Final Report

Third Year Review of the Canada Research Chairs Program

Prepared for:

Canada Research Chairs Program Evaluation Steering Committee

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Executive Summary

This report provides the findings, conclusions and recommendations resulting from the third year review of the Canada Research Chairs Program. The objectives of the review were to:

- Examine the structure and operations of the Program; and,
- Identify potential adjustments that would improve the likelihood of achieving the Program objectives.

Context

In the Speech from the Throne in January 2001, the federal government called for Canada to be among the most innovative countries in the world. Canadian universities will play a central role in meeting this challenge by generating new knowledge through research and by training new researchers.

Canada has sought to significantly strengthen the capacity of its universities to conduct excellent research and train researchers. At the federal level, recent initiatives include the creation of the Canada Foundation for Innovation (CFI) and the Canadian Institutes of Health Research (CIHR), and an increase in funding for the Natural Sciences and Engineering Research Council (NSERC) and the Social Sciences and Humanities Research Council (SSHRC).

Faced with forecasts of increasing faculty retirements, universities in Canada and abroad are aggressively seeking ways to address future needs for excellent researchers. The Canada Research Chairs Program, first announced in 1999, is part of the solution.

Chairs Program

The key objective of the Canada Research Chairs Program is to enable Canadian universities, affiliated research institutes and hospitals to become world-class centres of research. Building on the success of the federal granting agencies in sponsoring high quality research in Canadian universities, the Program provides substantial incremental support in the form of salaries and research support for world-class researchers, or potential world-class researchers, across Canada.

This $900 million federal program will enable the creation of 2,000 university-based Chairs for outstanding researchers. Forty five percent of the Chairs will be allocated to the natural

sciences and engineering, thirty five percent to the health sciences, and twenty percent to the social sciences and humanities[1].

Chairs are available in two categories:

- **Tier 1 Chairs** for the world class established researchers of today. These awards are for seven years, renewable.
- **Tier 2 Chairs** for emerging researchers. They are for five years, renewable once.

The Program design attempts to accommodate the wide diversity of Canadian universities. These range from large institutions that provide a full spectrum of academic programs and undertake extensive research in all major areas of scientific endeavour, to small universities that offer undergraduate programs only and have research strength in a relatively small number of disciplines.

The Chairs Program allocates most universities a share of the 400 Chairs available annually from 2000–01 to 2004–05[2], distributed according to the proportion of federal granting agency funding that universities have received in the past. The tier level and discipline group for each Chair is specified when it is allocated. A proportion of the Chairs (6%) is set aside specifically for small universities.

Universities receive $200,000 annually for each Tier 1 Chair and $100,000 annually for each Tier 2 Chair. In addition, the Canada Foundation for Innovation (CFI) has earmarked $250 million to provide infrastructure support for each Chair—an average of $125,000 per Chair.

Each university has developed its own process for identifying candidates to be nominated for Chairs. Universities forward their nominations to the Chairs Secretariat which administers a peer review selection process. A Chair nomination must demonstrate research excellence and support the long-term research priorities of the university as articulated in its Strategic Research Plan (SRP).

Study Approach

The study was broadly outlined in an evaluation framework developed for the Chairs Program[3]. The review team subsequently developed a detailed study plan for approval by the program Evaluation Steering Committee.[4] Information was collected through 85 interviews

[1] This distribution reflects both the relative proportions of the Granting Council budgets (NSERC receives roughly 45% of the total Granting Council budgets, while CIHR receives 43% and SSHRC 12%), and an increased emphasis by CIHR to support social science and other disciplines contributing to improved health outcomes.

[2] According to the terms of the program, a university has up to four years to have researchers in position once it has been allocated Chairs. In this way, Chairs allocated in 2004-05 may be filled as late as 2008-09.

[3] Circum Network inc., *Performance Measurement and Evaluation Framework for the Canada Research Chairs Program 2000-2004*, December 2001.

[4] The Canada Research Chairs Program Evaluation Steering Committee is comprised of evaluation specialists or policy analysts from the Canada Foundation for Innovation, CIHR, Department of Finance, Industry Canada, NSERC, SSHRC and the Treasury Board Secretariat

with a broad range of stakeholders and a survey of 499 Chairholders. Interviewees included Program managers, representatives of universities (both with and without Chairholders in position), representatives of university associations, and researchers who were awarded Chairs but declined to accept them. In addition, the team reviewed Program data and documentation, the results of three special studies[5], and a sample of Chair nomination packages.

Findings and Conclusions

Although the Program is just two years old, it is seen by those consulted as a very successful initiative. It is providing universities with an incentive to develop further research capacity following a planned and coordinated approach. It is helping to create and develop centres of research excellence that are leading to a strengthened and more internationally-competitive research environment in Canadian universities and related research institutions.

However, given the diversity of Canadian universities and affiliated institutions in terms of size, location, subject areas of focus and intensity of research interests, implementation of the Program has presented and continues to present significant challenges.

Attraction and Retention of Researchers

The Chairs Program aims both to attract new researchers and retain those who are already in the universities. The third-year review sought to examine progress in attracting new researchers and retaining existing talent and to identify the challenges that the universities are facing in filling Chair positions.

As of April 2002, upon completion of data collection for the study, 536 Chairholders had been appointed; 80% were researchers already at the nominating institutions, 12% were recruited from abroad, and 8% were transfers of faculty from one Canadian university to another. Universities have indicated that they will increasingly shift attention to attracting researchers from other countries.

Views of current Chairs, university administrators and persons who declined the offer of a Chair suggest that the main challenges to attracting Chairholders from outside Canada include:

- Insufficiently competitive financial packages offered by universities;
- Unattractive teaching and administrative loads at host institutions;
- A lengthy Chair selection process; and,
- Difficulty in finding employment for spouses.

[5] *Allocation Method for the Canada Research Chairs Program*, Mireille Brochu and Nicole Bégin-Heick (March, 2002). *Gender-based Analysis of the Canada Research Chairs Program*, Nicole Bégin-Heick and Associates Inc. (December, 2001). *Use of Grant Funds and University Commitments*, Nicole Bégin-Heick and Mireille Brochu (March, 2002)

The ability of universities to address these challenges differ markedly. Larger universities have a wider range of contacts, expertise and recruitment tools. They have the resources to offer faculty positions to Chair nominees even if the Chair nomination is not approved. Smaller universities expressed considerable interest in receiving assistance from the Chairs Program to help overcome obstacles to recruitment. In general, universities face considerable challenges in their efforts to recruit internationally.

The Nomination and Selection Processes

The third-year review examined the nomination processes of the universities and the selection processes administered by the Chairs Secretariat. It studied guidelines for reviewers of Chair nominations to determine if they were explicit and appropriate.

The nomination processes within the universities vary widely, and, according to survey responses, are sometimes not considered to be entirely fair, open and transparent. One third of Chairholders said that they did not know enough about the nomination processes or that processes needed improvement, suggesting a need for increased transparency and better communication.

There is wide support for the review process, in which nominations are examined by experts in the Chair candidate's field. That process, administered by the Chairs Secretariat, is seen as essential to maintaining research excellence across Canada and the prestige of the Chair award. The selection criteria are thought to be appropriate but need careful consideration when applied to interdisciplinary research.

Study findings indicate that there is room for further streamlining of the process for review of nominations, including the interface of the Chairs Program with the CFI.

Smaller Universities

The third-year review examined whether smaller universities encountered unique challenges in filling Chairs.

One hundred and twenty (120) Chairs, 6% of the 2,000 available, were set aside for those universities which receive 1.0% or less of federal granting agency funding, but more than $100,000 per year. This allocation of Chairs has been very positively received. However, filling of Chair positions at these universities is inhibited by a lack of recruitment expertise, lack of critical mass in areas of research, and in some cases the unattractiveness of remote locations.

Smaller universities had initially expressed a concern that the Program would exacerbate the loss of their best researchers to larger universities. Program data indicates that this is not a problem. However, smaller universities remain vulnerable to losing staff as larger universities recruit to fill positions that have been vacated by research Chair appointments.

The Chairs Allocation Formula

The third-year review also examined the appropriateness of the allocation formula and what the effects would be of having an open competition or an alternative formula.

Stakeholders generally favoured maintaining the current allocation formula. However, the review team also heard dissenting views—that Chairs should be more evenly distributed across universities. Proposed alternatives to the current formula included allocating Chairs in proportion to size of faculty and/or student body. Of continuing concern is the low number of Chairs for the social sciences and humanities disciplines. Universities without health or engineering faculties feel disadvantaged by the current formula which is based on the success of universities in obtaining research funding from the federal granting agencies.

Currently, the allocation formula provides close to an equal distribution of Tier 1 and Tier 2 Chairs at each university. The majority of universities would like to have greater flexibility in the assignment of Chairs by Tier to accommodate the differing recruitment needs of their departments. Greater flexibility would enable them to take advantage of recruitment opportunities at either Tier 1 or Tier 2 levels as they arise.

Many Program stakeholders support the idea that no less than 50% of Chairs should be for Tier 2 positions. These "rising star" Chairs are needed to ensure adequate succession for retiring faculty, and to improve the balance of distribution of Chairs to men and women researchers.

The review team concluded that allocating Chairs on the basis of the research strength of universities, as measured by funds received through the national peer review processes of the federal research granting agencies, is appropriate. However the universities need greater flexibility to manage their allocations in order to match recruitment opportunities to university strategic needs.

Distribution of Chairs to Women and Men

A separate study analyzed statistics on Canadian university faculty and Chair nominees in an attempt to determine whether the proportion of women and men among Chairholders was similar to that among faculty. Such analysis is challenging because over the past decade the proportion of women among university faculty has been increasing while the proportion of men has been decreasing. Further, in some disciplines, such as nursing, most faculty members are women, while in others, most are men. While the analysis identified some specific subject areas in which the proportion of women nominated for Chairs was lower than the proportion of faculty, the report concluded that, in general, the proportion of women nominated approximates the proportion of women who could potentially participate in the program. The study also noted that there was no difference in the approval rate for nominations of either gender.

Program policy has been adjusted to counterbalance a tendency of the universities to nominate more senior researchers for Tier 2 Chairs because this tendency could result in a disproportionately high number of nominations of men researchers. The policy now requires

that nominees for Tier 2 Chairs should have no more than ten years of postdoctoral experience.

The review team also noted that throughout the nomination, review and renewal process there should be greater recognition of circumstances, such as time away from research to have children, that may affect the career research productivity of women.

University Commitment

The third-year review examined the extent to which universities are providing support for their Chairs, how Chairs funding is being used in the universities, and whether they have attracted additional support to the Chairholders' research programs.

Universities have considerable discretion in using Chair funding to cover both direct and indirect costs of Chairs' research programs. They may also use their own resources to provide a more attractive Chair package. Overall, the level of university commitment to Chairholders appears to be quite high. However, an area of concern to about half the Chairholders was the teaching load imposed by the universities. Chairholders in health disciplines, and some researchers attracted from abroad, appear particularly dissatisfied in this regard.

Based on the interviews, and special studies on university commitments and use of funds, the review team observed that universities appear to be managing Chair and CFI funds in keeping with the objectives of the Program.

The review team concluded that introducing further administrative controls, standards, or policies on the use of Chair funds would be difficult to implement and could hamper the different strategic research opportunities the universities are pursuing.

Key Recommendations

For each recommendation, the reader is referred to the section(s) of the report that explore the underlying issues:

1. Given the current profile of Chair appointments, **that the Chairs Secretariat and the universities closely monitor issues related to filling Chair positions, including rate of recruitment (from both inside and outside Canada) and take-up by women and by men.** (*See* Sections 4.1 and 4.5)

2. In recognition of the diversity in size, profile and needs of universities in Canada **that the Chairs Program provide an increased level of flexibility to the universities in the allocations by tier, within an overall funding envelope, and that universities commit to filling their allocated Chairs within that envelope.** (*See* Section 4.4)

3. In order to provide more transparency in the nomination process, **that universities be required to establish and make readily and widely available the institutional policies and practices relating to their internal nomination process.** (*See* Section 4.2)

4. In order to accelerate the appointment of Chairs, **that the Chairs Secretariat streamline the review and adjudication processes, where possible, with special consideration for processes involving nominees from other countries.** (*See* Section 4.2)

5. Given the depletion in the size of the Chairs reserve from 30 Chairs to 16, and the increasing number of smaller institutions becoming eligible for a Chair allocation, **that the plan for an open competition for smaller universities in the fourth and fifth years of the Program be re-examined by the Canada Research Chairs Steering Committee.** (*See* Section 4.3)

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1. Introduction

1.1 Background

The Treasury Board submission that resulted in the creation of the Canada Research Chairs Program (Chairs Program) included the following reporting requirements[6]:

- A review of the operations and structure of the Program to be conducted during the third year of the Program.
- A comprehensive evaluation to be carried out during the fifth year of the Program.

On behalf of the Chairs Program Secretariat, the Social Sciences and Humanities Research Council (SSHRC) retained the services of Hickling Arthurs Low (HAL) Corporation to conduct this third year review. In support of the review, the Secretariat commissioned three special studies[7] on

- the issue of the balance of distribution of chairs to women and men,
- the Chair allocation method, and
- the use of funds by universities. An evaluation framework[8] provided general guidance for this review.

1.2 Review Objectives

The objectives of the third year review are to:

- Examine the structure and operations of the Program; and
- Identify potential adjustments that would improve the likelihood of achieving the Program objectives.

The principal client for the study is the Chairs Program Steering Committee, which is comprised of the Presidents of the federal granting agencies (NSERC, CIHR, and SSHRC) and the Canada Foundation for Innovation (CFI), and the Deputy Minister of Industry Canada. Other clients include the Chairs Evaluation Steering Committee and the Chairs Secretariat

[6] Social Sciences and Humanities Research Council, Request for Proposals for the Review of the Canada Research Chairs Program, December 2001
[7] See footnote 5
[8] See footnote 4

management and staff. Canadian universities that have, or have potential to, partner with the Chairs Program in delivering the Program also have a stake in the findings of this study.

1.3 Structure of the Review Report

This report presents the findings, conclusions, and recommendations of the third year review of the Chairs Program, structured as follows:

Table 1-1: Structure of the Report

Chapter	Title
1	Introduction
2	Program Profile
3	Study Approach and Methodologies
4	Findings and Analysis
5	Conclusions and Recommendations
Appendix A	List of Interviewees

2. Program Profile

2.1 Program Objectives

The Chairs Program's key objective is to enable Canadian universities, and their affiliated research institutes and hospitals, to foster research excellence that enhances their role in the global, knowledge-based economy as world-class centres of research excellence[9]. In pursuit of this objective, the Program facilitates the attraction and retention of world-class—and potentially world-class—researchers to Canadian institutions. The Program builds on the investments of the federal granting agencies over the past several decades in sponsoring university research and capacity building.

The secondary objectives of the Program are the following:

- To strengthen research excellence in Canada and increase Canada's research capacity by attracting and retaining excellent researchers in Canadian universities;
- To improve, through research, the training of highly qualified personnel;
- To improve universities' capacity for generating and applying new knowledge; and,
- To ensure the effective use of research resources through strategic planning by the institutions as well as through inter-institutional and inter-sectoral collaboration, as appropriate.

2.2 Program Structure and Operations

A model that illustrates the structure and operations of the Program is provided in Figure 2-1 below. It shows the different Program stakeholders and the nature of the relationship among them. Some key points:

- Members of the **College of Reviewers** are appointed by the federal granting agencies to assess Chair nominations, and related requests for infrastructure, and make recommendations for funding to the Program Steering Committee and the CFI Board.
- The **Interdisciplinary Adjudication Committee** (IAC) consists of 15 experts appointed by the Program Steering Committee from the members of the College of Reviewers. The IAC becomes involved in the review of Chair nominations when the College of Reviewers

[9] Canada Research Chairs Program Guide, Chairs Secretariat, April, 2002.

has not given unanimous approval to a nomination or when a nominee for a Tier 2 Chair is more than 10 years beyond his/her PhD completion.

To be eligible to submit nominations to the Chairs Program, universities must have a Strategic Research Plan (SRP). An SRP is intended to be the only strategic research planning documents required of universities by the Chairs Program, the granting agencies, and the CFI. All nominations for Chairs are assessed against two criteria:

- The quality of the nominee and the proposed research program; and,
- The integration of the research program with the SRP of the institution.

The SRPs are accepted by the Chairs Program as submitted.

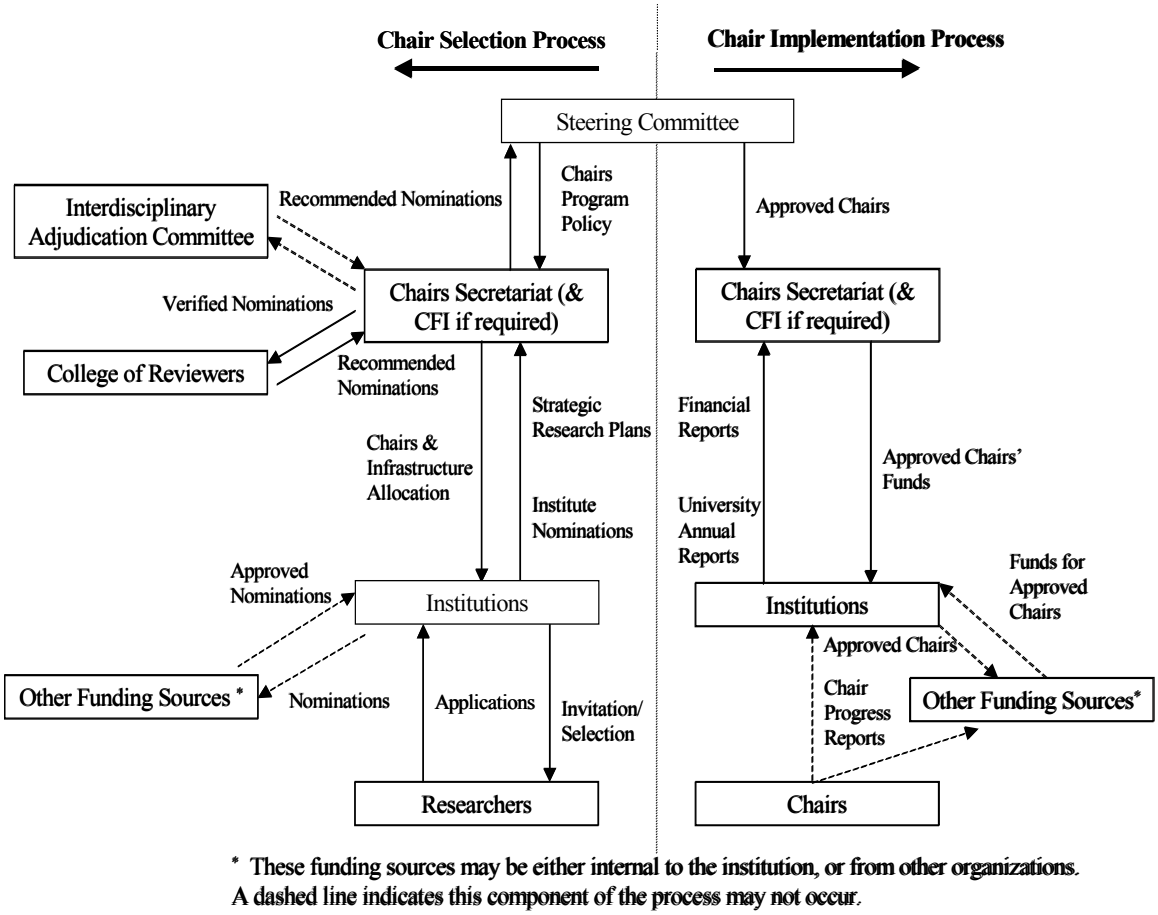
There are two types of Chairs

- Seven-year renewable Tier 1 Chairs for acknowledged world leaders in their research fields; and ,
- Five-year Tier 2 Chairs, renewable once, for exceptional emerging researchers.

The university receives $200,000 annually for each Tier 1 Chair, and $100,000 annually for each Tier 2 Chair. Universities have some flexibility in the use of funds, but they must be used in support of the Chairholder and the Chair's research program[10].

[10] Canada Research Chairs Program Guide, Chairs Secretariat, April, 2002.

Figure 2-1: Chair Selection and Implementation Process



The Chairs Program has partnered with the CFI to combine the application process for Chairs funding and application for infrastructure support. The CFI accepts the assessment by reviewers of the Chair nomination with respect to the applicant's request for infrastructure support. Following the decision of the Program Steering Committee and the CFI Board, all nominating universities receive copies of reviewers' comments on their nominees. Information that might identify the reviewers is removed from the reviews.

The CFI requires an assessment of research collaborations and partnerships that will be enabled through the provision of the infrastructure, and the anticipated benefits of the nominee's research to Canada. The reviewers make such assessments in accordance with a methodology developed by the CFI. Technical details of infrastructure proposals are assessed by CFI staff. Accountability for the funds invested through the CFI rests with the CFI itself. The CFI approves each Chair-related infrastructure application, and provides due diligence with respect to the implementation of the planned research infrastructure.

2.3 Allocation of Chairs

As indicated in Table 2-1 below, 62 universities have received an allocation of Chairs. The number of Chairs allocated to each university is based on the proportion of federal granting agency funds that it has received. Overall, the allocation is distributed as follows: 45% of Chairs to natural sciences and engineering disciplines, 35% to health research disciplines, and 20% to social sciences and humanities disciplines.[11] As of April 1, 2002, 49 universities had submitted successful nominations for Chairs, four had submitted nominations that were not approved, and nine had not yet submitted nominations.

Table 2-1: Current Allocation of Chairs

Status	Number of Universities Involved	Number of Chairs
Chairs Allocated	62	1984
Nominations Received	53	618*
Universities Currently with Chairs	49	536
Universities without Chairs – Nominees Not Funded	4	4 nominees
Universities without Chairs –No Nominations Submitted	9	

*626 nominations were received. However, eight nominees were withdrawn then a second nomination was submitted.

2.4 Program Governance

The Chairs Secretariat is responsible for the day-to-day administration of the Program. Program Officers at the Secretariat, each specializing in the area of one of the three granting agencies and the CFI, provide a single point of contact for those organizations in all matters relating to the operations of the Program. The Secretariat reports to the Management Committee, which is chaired by the Executive Director of the Program. The Management Committee reports to the Steering Committee, which is currently chaired by the President of the Social Sciences and Humanities Research Council.

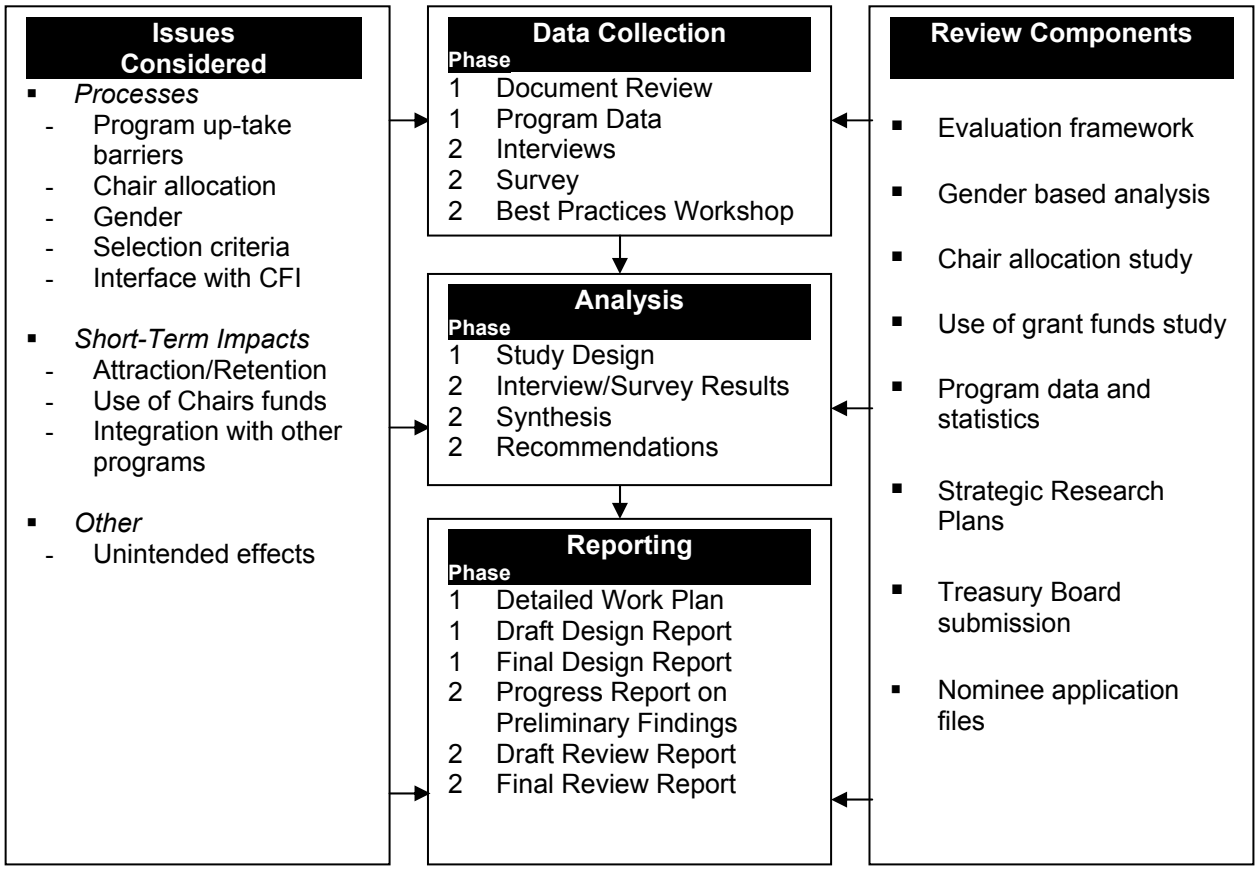
11 A special reserve of 6% of the Chairs was set aside for smaller Universities. To be eligible for an allocation of Chairs, a smaller university must have a specified amount of research funding from federal granting agencies. Universities with more than $100,000 but less than $200,000 may be allocated up to $200,000 from the Chairs Program. Those that have $200,000 or more in federal research funding may receive up to $400,000 from the Program. Smaller schools are not constrained by Tier or discipline when nominating researchers. In addition, all smaller universities may apply in an open competition, in the fourth or fifth year of the Program, for Chairs remaining in the special reserve.

3. Study Approach and Methodologies

3.1 Study Approach

The primary purpose of this review was to assess the implementation and short-term impacts of the Program by gathering and analyzing data within the time and budgetary constraints available. The approach, summarized in Figure 3-1, was in two phases: study design; and, study implementation.

Figure 3-1: Approach



Note: The boxes on the sides of the figure show the major influences on the conduct of the review—the review issues and the review components. The boxes in the centre of the figure show the work elements conducted by our team—data collection, analysis, and reporting.

3.2 Issues Considered in the Review

The evaluation framework had identified issues for the third-year review in seven areas:

Issues relating to Program processes

Nomination and selection process

Q1 What are the barriers, if any, to the creation of Chairs?

Q2 Did smaller universities encounter more/different barriers to the creation of Chairs?

Q3 What is the value-added of the peer review selection process?

Allocation formula design, effects and alternatives

Q4 Is the design of the allocation formula appropriate?

Q5 What would be the effects of alternative Chair allocation formulae?

Distribution of Chairs by gender

Q6 Does the make-up of the pool of Chairholders reflect an effort to distribute Chairs appropriately between men and women?

Selection criteria

Q7 Are all the selection criteria, and the guidelines for their application, explicit and appropriate?

Interface between CFI and Chairs

Q8 Is the interface between CFI and Chairs efficient?

Q9 How could it be made more efficient?

Issues relating to Program short-term impacts

Attraction and retention

Q10 What has been the up-take of the Chairs Program and its CFI component?

Q11 Is the balance between attraction and retention adequate?

Use of funds and integration with other sources of funds and programs

Q12 How are the Chairs Program funds being used?

Q13 To what extent are universities committed to supporting the Chairs?

Q14 What has been the leverage effect of the Program?

Q15 Is the Chairs Program appropriately integrated with other programs?

In our presentation of findings from the study, we found it useful to organize results within six topic areas.

1. Attraction and retention of researchers
2. Nomination and selection processes
3. Smaller universities
4. Allocation formulae
5. Distribution of Chairs to women and men
6. University commitment

Many of the 15 key questions of the study gave rise to information that was relevant to several topic areas. The following table is provided for readers who want to trace the linkages between specific study questions and the presentation of findings.

Table 3-1: Linkage between study questions and the presentation of findings

Topic Area	Study Questions that Contributed to the Findings
Attraction and retention of researchers	Q1, Q2, Q10, Q11, Q12, Q13, Q15
Nomination and selection processes	Q1, Q2, Q3, Q7, Q8, Q9
Smaller universities	Q2, Q15
Allocation formulae	Q4, Q5
Distribution of Chairs to women and men	Q6, Q10
University commitment	Q10, Q12, Q13, Q14, Q15

3.3 Review Components

3.3.1 Commissioned Studies

Three studies were undertaken in support of this review. The purposes of the studies are summarized in Table 3-2.

Table 3-2: Commissioned studies

Study	Completion	Purpose

Analysis of distribution of Chairs to women and men	January 2002	To explore whether the distribution of chairholders by gender reflects that of the faculty from which they were drawn; and whether there are barriers that would influence this balance.
Chair allocation study	March 2002	To explore whether the balance of chairs by discipline is appropriate; whether the allocation by discipline and tier is appropriate; whether past wealth structures have been reinforced; whether the formula is hindering/helping innovation; whether the "small university" threshold is appropriate; whether growing universities are at a disadvantage; and, what would be the effects of an alternative allocation process.
Use of Chair funds study	March 2002	To explore the extent to which universities are committed to supporting Chairs; whether they are including funding on their own from internal or other sources to create the chairs.

3.3.2 Other review Components

The Chairs Secretariat collects performance data on an ongoing basis. We examined this data, as well as the following: Strategic Research Plans prepared by universities; Annual Reports of universities to the Chairs Program Secretariat; a selection of Chair nominee files; and, other documents such as the Treasury Board submission on the Program.

3.4 Data Collection

Details on the methodologies used in data collection are given in the design report[12] prepared by HAL as a deliverable of the review. We briefly comment here on the key methodologies.

3.4.1 File Review

The Chairs Secretariat maintains a file for each of the nominations it receives. To gain an understanding of the Chair selection process, we examined a selection of these files. Our focus was the processes used for reviewing and selecting nominees, and included an examination of the comments of reviewers.

The files were selected using a stratified random sample according to: gender; tier; university size; the position of the nominee (Assistant, Associate or Full Professor); their country of origin; nomination status (approved or rejected); and the nominee's response (accepted or declined).

3.4.2 University Annual Reports

Universities are required to report annually to the Chairs Secretariat using a form designed for this purpose. The reports provide information such as the policies and practices that have been

[12] Study Design Report, Third Year Review of Canada Research Chairs Program, March 28, 2002.

developed to implement the Chairs Program. These reports were due April 30, 2002. We examined those available at the time of this study.

3.4.3 Interviews

Interviews were a primary information source for the study. The list of interview groups and sample sizes are provided in Table 3-3. The list of interviewees by institution is given in Appendix A.

Table 3-3 Interview Groups, Sample Sizes, and Participation Rates

Interviewees	Sample Size
Program Management Stakeholders	
Steering* and Management Committee Members	9
Secretariat Management - Executive Director and Director of Operations	2
Secretariat Staff – Program Officers	4
Interdisciplinary Adjudication Committee Members	4
University Stakeholders	
Universities that have a Chair in place	47
Universities that have submitted nominations but have none funded	2
Universities with no nominees	3
Associations**	6
Nominees who have declined Chairs	8
Total Interviews	85

* NSERC, CIHR, SSHRC, CFI, Industry Canada

** Association of Universities and Colleges of Canada (AUCC), Canadian Association of University Teachers CAUT), Humanities and Social Sciences Federation of Canada (HSSFC), Canadian Association of Graduate Studies (CAGS), Partnership Group for Science and Engineering (PAGSE), and the Canadian Federation of Biological Societies (CFBS).

3.4.4 Chairholder Survey

As of April 1, 2002, 536 Chair nominations had been approved, and 499 Chairs were in position. This group of Chairholders was surveyed. The survey was administered via the Web. Responses were received from 342 Chairs as of May 6, the date the survey was closed—a response rate of 68.5%.

4. Findings and Analysis

In this Chapter, we present the study findings in the six topic areas as explained in Section 3.2:[13]

- Attraction and retention of researchers
- Nomination and Selection processes
- Smaller universities
- Allocation formulae
- Distribution of Chairs to women and men
- University commitment.

4.1 Attraction and Retention of Researchers

The Chairs Program aims at both attracting new researchers and retaining those who are already in the universities. The third-year review sought to examine progress in retaining existing researchers and attracting new ones and to identify the challenges that the universities are facing in filling Chair positions.

4.1.1 Chair Appointments

The program makes allowance for 2000 Chairs allocated over a five-year period ending March 31, 2005[14]. That implies an allocation of about 400 per year. We found that Chairs had been allocated at the expected rate, but that universities were not able to immediately fill them. For example, by Summer 2002, universities had filled 536 of 800 allocated Chairs. That is, the universities had filled 67% of the Chairs that had been allocated to them; 33% (264 of the 800 Chairs) had still to be filled.

Program designers expected that Chairs would initially be used to help retain researchers already in place at Canadian universities. This expectation has been realized. Approximately 80% of current Chairs are occupied by researchers who were already established at the host

[13] Tables of data collected in the study are available in a Technical Report.

[14] The Chairs Program budget is calculated based on this intention. However, universities have three years to submit a nomination for a Chair, thus those that will be allocated for 2005 may receive a nomination as late as 2008, and the nominee may take up the position as late as 2009.

institution (423 of 536). Of the 113 Chairholders attracted from outside the universities, about two thirds have come from abroad and one third from other Canadian universities.

The proportion of recruitments from outside Canada (12%) is worthy of consideration given that a key Program objective is to attract world class (and potentially world class) researchers to Canadian institutions. Our interviews with university officials indicate increased efforts to recruit top candidates from abroad—particularly the U.S. The proportion of recruitments from outside Canada should increase in the next few years.

4.1.2 Chair Attractiveness

4.1.2.1 Overall attractiveness of Chairs Program

Many university stakeholders commented on the importance of the Chairs to Canada. For example:

"Le programme est une opportunité extraordinaire pour permettre aux universités de donner à ses chercheurs les moyens pour atteindre l'excellence en profitant de l'obtention d'une chaire pour bien équiper son laboratoire avec les programmes de la FCI, et d'utiliser le prestige associé à la chaire pour augmenter les subventions en R&D auprès des conseils subventionnaires ou auprès des programmes provinciaux".

–University Stakeholder

"This is the best research program that has ever been created in Canada."

–Tier 1 Chairholder

The attractiveness of the Chair positions was examined in order to determine how the Program (particularly recruitment) might be improved. We addressed funding levels for each Tier of Chair, and looked at other major factors contributing to research capacity (time available to do research, teaching load, and infrastructure availability).

4.1.2.2 Tier funding levels and attractiveness of Chairs

The study clearly registered concerns that funding levels for Chairs make it difficult to attract researchers from the US—particularly at the Tier 2 level. This appeared to be particularly true for researchers in the health area, certain disciplines in natural sciences and engineering (in particular, information technology) and social sciences (economics, for example). While recognizing that the Chair program funding is not expected to provide a complete package, respondents were of the view that the appropriate range for federal funding of Tier 2 Chairs (now $100,000) would be between $125,000 and $150,000.

In terms of salaries, the survey of Chairholders showed that those in Tier 2 are less satisfied than those in Tier 1 - 43% of Tier 2 Chairholders find the salary level attractive or very attractive compared to 64% of Tier 1 Chairs. Merit increases that may occur over the tenure of the Chair are not factored into some awards. This would reduce the funds available over the relatively lengthy tenure of a Chair—possibly as long as 20 years. This disincentive may be further compounded by the fact that awards are not protected against inflationary pressures. A

majority of university stakeholders would like to see this potential future decline in the real value of Chairs taken into account.

4.1.2.3 Attractiveness of the research capacity provided by the Chair appointment

Survey results indicated that across all discipline groups and among universities of all sizes over 80% of Chairholders are well satisfied with the overall research capacity offered by the Chair appointments. The factor "time available to do research" through the Chair was rated either attractive or very attractive by 72% of all respondents, and by a higher proportion of Chairs in social sciences and humanities (93%). The CFI component is important. Over 90% of respondents considered "infrastructure availability" to be a factor in accepting a Chair award. Many (57%) considered it a major factor.

The Chairholders were less satisfied on the question of "teaching load". Only 34% of Chairs at large universities are satisfied or very satisfied with the "teaching load"; at medium and smaller universities, 55%. Satisfaction levels differ among the disciplinary groups; 63% of social sciences and humanities Chairholders reported being satisfied or very satisfied with the "teaching load," in contrast to 48% of natural sciences and engineering Chairs, and 27% of health research Chairs.

Concerns with "teaching load" of Chairholders were also evident in our interviews and in the comments of surveyed Chairholders. We found that the name "Canada Research Chair" has created expectations that the incumbent will have a reduced teaching load—which may not occur. This expectation appears to be particularly true among externally recruited researchers. The separate study on the use of funds by universities also indicates that, in certain institutions, expectations of significantly reduced teaching load are not being satisfied.

4.1.2.4 Factors that might influence Chairholders' decisions to stay in Canada

The survey provided an indication of how various factors (salary, research capacity, funding level, and teaching load) might influence a Chairholder in accepting a position **outside** Canada. About 75% of Chairholders, regardless of discipline, reported that if they were to leave Canada it would likely—or very likely—be for a better salary. Responses on the relative importance of the research environment differed according to university size and disciplinary group. Overall, 80% of respondents from large and medium universities, but 59% from smaller universities, would depart to work in an environment with stronger research support and capacity. Research capacity is an important draw for 63% of Chairs in social sciences and humanities, and for 80% of Chairs in the other disciplines.

Reduced teaching load would be an important external draw for 66% of the Chairs in natural sciences and engineering. It would be a less important factor in the career decisions of other Chairs.

4.1.2.5 Reasons nominees declined Chairs

As of the date of this study, eleven nominees were awarded Chairs but subsequently declined them. Eight of these eleven nominees were interviewed. The reasons cited for declining a Chair included an inadequate financial package, an overly long selection process, an excessive

teaching and administrative load, and the lack of an available position for the nominee's spouse. Most still had a desire to come to Canada, or to return to Canada. They observe that the research culture in Canada is more collegial, and the overall quality of life is higher. Should their concerns be addressed, such nominees would consider accepting another offer of a Chair.

4.2 Nomination and Selection Processes

The third-year review looked into the nomination processes of the universities and the selection processes administered by the Chairs Secretariat. It examined guidelines for reviewers to determine if they were explicit and appropriate. These findings are now reported.

4.2.1 Nomination Processes

Survey responses raised a number of concerns about the nomination processes at universities. For example, the nomination processes within universities appear to vary widely and may not be fair, open and transparent in all cases. One third of Chairholders said they did not know enough about the process or that the process needed improvement, primarily thorough increased transparency and better communication.

Difficulties in recruiting researchers from outside Canada, introduced in Section 4.1 were reinforced by our findings from our examination of nomination processes.

- The value of awards does not compete with salary and research packages held by prospective U.S. nominees. However, this does not appear to be the case for researchers from countries other than the U.S.
- One Program stakeholder observed that members of the College of Reviewers may have difficulty assessing the track record of nominees from countries other than the US and Canada.
- Citizenship and Immigration Canada only provides residency status for the duration of the first term of the Chair. Some foreign nominees have interpreted this as an obstacle to their working and studying in Canada.

"Coming from abroad, I find my status in Canada extremely difficult. With my level of employment authorization, I cannot obtain loans (for a car or a house) or a credit card, despite having a permanent position…there should be assistance to fast track applications for landed immigrant status for Research Chairs." (Chairholder)

- Significant resources and expertise are required for universities to recruit foreign researchers. This issue is of particular concern for smaller universities.

4.2.1.1 Relationship of Nominations and the University Strategic Research Plans

Universities must prepare a Strategic Research Plan (SRP) as a starting point for the nomination process. The comments from the interviews and the survey regarding the SRPs fell into two general groups—researchers who said the SRPs are often generic in nature

without specific direction, and university administrators, who see SRPs as an important planning tool.

Many that we interviewed in the universities and the granting agencies stated that SRPs—through the process of preparing them and the end result—are important to the transformation of the way researchers do research, and the way universities direct and support research. Among other changes, researchers now see themselves competing more against others within their university, and universities now consider themselves to be competing more strategically against other universities in Canada and abroad. Some estimate the transformation to full strategic orientation will take between five and twenty years, perhaps less in the case of smaller universities and universities with stronger leadership.

"The transformation to institutionally driven research plans must be followed through, for now. The jury is still out, but we must still keep trying. While the Program design is "ideological", it is good, and should be pursued." (Program Stakeholder)

4.2.2 Selection Processes

4.2.2.1 Selection criteria

Virtually everyone consulted felt that the selection criteria, and the guidelines for their use by the College of Reviewers, are appropriate. Program and university stakeholders emphasized the need for vigilance on the part of the College to maintain standards of excellence while recognizing the varying levels of support different universities provide their Chairholders.

4.2.2.2 Peer review process

Everyone consulted believes that the peer review process provides prestige to the Program and is essential to the Program's intent to achieve research excellence. The level of satisfaction of survey respondents with the process was consistent across discipline groups. Overall, less than 7% of Chairholders surveyed reported that the process needs improvement. Nevertheless, some of the suggestions for improving the process are here transmitted.

- Refinement of the guidelines for members of the College of Reviewers and the IAC could improve the interpretation of the selection criteria on excellence. Guidelines would take into account that smaller universities offer less potential for research productivity in general or for research related to community economic development in particular.
- Reviewers might benefit from more guidance on the review of nominees whose research program was inter-disciplinary. Approximately one in three university interviewees indicated the Program placed insufficient emphasis on inter-disciplinary research.
- The nomination forms could more effectively present information on a nominee's record in training future researchers. In certain instances, for example, reviewers report difficulty in determining if students under a nominee were working towards Masters or Doctoral degrees, and whether the nominee was thesis director or was just on the thesis supervisory committee.

- Nominees who declined Chairs pointed out that the length of the review process jeopardizes the ability of universities to attract foreign researchers. A swifter process would be received favourably, as long as it does not compromise quality. Some respondents did not agree with the decision to reduce the number of Chairs competitions from four to three per year.

4.2.2.3 Interface between CFI and Chairs Program in the Nomination and Selection Process

As noted earlier, the CFI has reserved $250 million for the Chairs Program. The interface between the Chairs Program and CFI was examined as part of our study. CFI Staff have recently received delegated authority to approve the management and operational plans for CFI supported infrastructure for Chair nominees. This delegated authority will reduce the workload of the College of Reviewers, and address concerns of its members about their lack of expertise for assessing infrastructure needs. Coordination between CRC and CFI in the review of nomination packages is working well.

The requirement that infrastructure applications be simultaneously submitted with the Chair nomination packages can be a considerable challenge when a nominee is being attracted from another institution, in particular from abroad. It can be quite difficult for foreign nominees to assess from a distance the infrastructure they would need in the nominating institution. However, the Program does allow recruitment expenses to be charged to the Program. Thus, nominating universities could reimburse nominees for travel expenses related to their prospective Chair site to assess existing infrastructure.

4.3 Smaller Universities

The third-year review examined whether smaller universities encountered unique challenges in filling Chairs. These findings are now reported.

4.3.1 Chair Allocation to Smaller Universities

The 6% special allocation of Chairs for smaller universities has been received very positively by smaller universities. Other special assistance to smaller universities include the following:

- Smaller universities have been given full flexibility with respect to the discipline and tier level of the Chairs received through their special allocation.
- The CFI does not require matching funds from a partner for infrastructure requests of $75,000 or less from smaller universities.

4.3.2 Domestic Transfers for Chairs

Initially there was concern that Chair recruitment by larger universities would result in smaller universities losing faculty. In fact, our analysis of Program data shows that domestic transfers for Tier 1 Chairs have been neutral for smaller universities (four researchers gained and four lost), positive for medium universities, and negative for large universities. Domestic transfers

for Tier 2 Chairs have favoured smaller universities. Tier 2 researchers have been much more likely to be attracted to smaller universities from larger ones than the reverse; in fact, four researchers went from large to small universities for Tier 2 Chairs, while none did the reverse. However, some smaller universities reported that they had been losing faculty to larger schools who were filling teaching positions that had come available as incumbents accepted research Chairs.

4.3.3 Chairs Recruitment in Smaller Universities

From our interviews and our analysis of the survey results, we have identified a number of factors that may inhibit the creation of Chairs at smaller universities. These generally fall into two areas:

- Lack of resources for recruitment activities, and
- Scale of operations at smaller universities.

Formulating a recruitment strategy, and meeting the challenges of foreign recruitment, is particularly difficult for small universities. Offering a tenured or tenure track position and laboratory start-up funds can be more difficult. Smaller universities are less able to risk appointing a nominee before the Chair selection process has been completed.

Smaller universities are less likely to have a critical mass of research activity to attract prospective Chairholders. Their small scale also places them at a disadvantage in finding a position for a Chairholder's spouse, which may be a deciding factor in a Chair nominee's decision to accept an award.

4.3.4 Open Competition for Smaller Universities

The current plan is to hold a competition in the fourth and fifth years of the Program among all smaller universities (including those with Chairs) for the Chairs remaining in a reserve within the special allocation for smaller universities. There are now 16 Chairs in the reserve for such a competition. Some informants were of the view that universities which had not participated in the Program by year four or five would be unlikely to succeed in an open competition. Others put forward the position that it is essential that universities which did not qualify for a Chair because of their low level of federal research funding have an opportunity to make their case for a Chair.

4.4 Allocation Formula

The third-year review examined the appropriateness of the allocation formula and what the effects would be of having an open competition or an alternative formula; for example, one based on number of faculty at a university instead of the amount of federal research funding that it receives. The following summarizes the findings of the review team on these matters.

4.4.1 Allocation by Tier

The allocation formula provides an approximately equal distribution of Tier 1 and Tier 2 Chairs at each university. Program stakeholders supported this equal allocation by tier for a number of reasons:

- The importance of attracting and retaining both established and potential world-class researchers;
- The importance of Tier 2 Chairs to improving the balance in distribution of Chairs between women and men (See Section 4.5); and
- The importance of Tier 2 Chairs to faculty succession planning. Currently 40% of Chairs are Tier 2, but there is a trend towards an equal distribution by tier. The prevalent view among interviewees was that **no less** than 50% of Chairs should be for Tier 2 positions.

Program stakeholders were concerned that universities have tended to fill Chairs at the Tier 1 level and to favour senior researchers for both Tier 1 and Tier 2 Chairs. To address this, IAC now requires that Tier 2 nominees have less than 10 years of post-PhD experience. Tier 2 nominees with more than ten years of experience must be considered on a case-by-case basis by the IAC and will be approved only in exceptional circumstances.

Most university interviewees advocated more flexibility in the allocations by tier. Program stakeholders indicated they are receptive to this idea. Many factors are considered when determining the most appropriate tier level for a Chair, especially the long-term staffing needs of the department where the Chair would be located. Ultimately, universities are seen as best able to determine the Chair tier level that meets their recruiting requirements and promotes their long-term competitiveness.

The study revealed some evidence that suggests university affiliated research institutions and hospitals may face difficulties when negotiating their allocation of Chairs. These institutions were not consulted as part of this study. There was, therefore, insufficient evidence to determine whether the current allocation formula sufficiently supports their participation in the Program.

4.4.2 Allocation by Discipline Group

The federal government has allocated 45% of Chairs to natural sciences and engineering disciplines, 35% to health research disciplines, and 20% to social sciences and humanities disciplines. This allocation is based on the intent of the Program to build on the research strengths of the universities as developed through the investments of the federal granting agencies over many years. The low number of Chairs in the social sciences and humanities disciplines continues to be raised as an issue by Program and university stakeholders. Some advocated adjusting the allocation formula by discipline group in favour of social sciences and humanities disciplines. Universities with no medical or engineering faculties felt disadvantaged by the allocation formula.

4.4.3 Alternative Chair Allocation Formulae

Three alternative formulae were examined through the study:

1) Award Chairs through an open competition

Advantages

Because universities would not be constrained by their historical levels of funding from the federal granting agencies, this approach was considered by a majority of those consulted to be better suited to achieving research excellence and enabling universities to pursue new research areas. This alternative would also be consistent with the federal granting agencies' approach to funding.

Disadvantages

It would be more difficult for smaller universities to compete, and the ability of universities to plan research would be reduced because they would not know the number of Chairs available to them. As well, an open competition could increase the burden on reviewers and the Chairs Secretariat.

2) Award Chairs proportional to the number of faculty and/or students and/or operating budget

Advantages

This alternative was perceived to address concerns regarding the imbalance between the proportion of faculty in social sciences and humanities disciplines (approximately 55%) and the proportion of Chairs they receive (20%). It could also provide increased opportunities for research areas that have been less successful in attracting funding from federal granting agencies. This option would allow universities to plan their research because Chairs would still be allocated.

Disadvantages

Chairs would not be allocated on the basis of research excellence as defined by success in obtaining funding from the federal granting agencies. Given that Chairs would be more widely distributed among faculties and universities, this approach would be less suited to achieving critical mass in targeted research areas. Finally, it would not address the overriding concern of the interviewees—the relatively low funding level of SSHRC.

3) Award Chairs based on a Chair allocation expressed as an overall budget for each university

Advantages

This is the approach taken by the CFI component of the Chairs Program. CFI awards $125,000 to a university for each Chair it is allocated, regardless of tier or discipline group. This method would provide greater flexibility for universities to allocate resources to achieving the SRP, resulting in an increased accountability requirement by the university President (or Rector or Principal) for the achievement of the SRP. It would facilitate the creation of "Chair packages" based on the availability of funds from many other programs and adapted to opportunities. A known allocation of Chairs would enable universities to plan research.

Disadvantages

This alternative might exacerbate feelings expressed by one researcher that the Chairs Program "is a money grab for university bureaucrats". It might also result in fewer funds being allocated to some Chairs who would no longer have a basis (either $100,000 or $200,000 annually, according to the tier) upon which to negotiate. The need for a firm base for negotiation is indicated by the fact that, even within the current arrangement, some Chairs feel disadvantaged. For example, Chairs in the social sciences and humanities tend to receive less CFI funding for infrastructure. Although social sciences and humanities disciplines receive roughly 17% of the number of the CFI awards, they receive only 10% of the amount of the CFI funding.

4.5 Distribution of Chairs to Women and Men

The review team examined the distribution of Chairs to women and men. The findings from this examination are as follows.

4.5.1 Balance of Chairs Between Women and Men

We reviewed the Gender Based Analysis of the Chairs Program which had analyzed data on University faculty, Chair nominations and Chair appointments. The author of that report devised an algorithm to determine whether or not the proportion of women nominated for Chairs was commensurate with their proportion within the pool from which nominees were selected. Results indicated that, overall, there was close correspondence between the proportion of women in the eligible population and the proportion receiving Chairs. However, there were situations in which the author concluded that, at a high level of disciplinary aggregation (i.e., health, social sciences, natural sciences and engineering), representation of women was lower that expected. We believe these observations require further analysis. For example, for Tier 1 Chairs the proportion of women was slightly lower overall than the proportion of women at the full professor level. This was attributed to a smaller than expected proportion of women researchers nominated in the health area. Further analysis would be required to indicate whether this finding is related to differences in the current research capacity of health professions (such as nursing, physiotherapy or rehabilitation) where the large majority of faculty are women and the faculties are distributed among large, medium and small schools.

It was noted that the tendency of universities to nominate more senior researchers, a group in which for historical reasons the proportion of men is higher, would raise the proportion of men researchers receiving Chairs. As mentioned earlier, at the Tier 2 level at least, Program policy has been revised to promote the nomination of younger researchers, those with less than 10 years of post-PhD experience.

In our interviews we encountered a positive attitude in the universities towards ensuring gender balance in their nominations for Chairs.

4.5.2 Gender Differences in Perceptions of the Program

Analysis of the survey responses indicates women and men Chairholders have differences in their attitudes to the Chairs Program. In terms of the prestige and recognition afforded by the Chair, 44% of women report being very satisfied compared to 34% of men. A third (33%) of women said that they would very likely still be in Canada in 2005 if they hadn't received the Chair, compared to 12% for men.

On the matter of the Chair nomination processes, a higher percentage of women Tier 2 Chairholders (26%) than men (15%) expressed concerns with the nomination process. The most frequent comment from women (Tier 1 and Tier 2) responding to the survey was that the positions were not openly promoted to all eligible faculty members.

"I do not think that there is sufficient effort to openly advertise the availability of such [Chair] positions. No other senior academic appointment would be filled without an advertisement process!" (Chairholder)

4.5.3 Gender-Related Factors

Over the course of the review, we noted that parental leave is not explicitly taken into consideration at some points in the assessment processes. This could impact on the number of nominations of women researchers. For example, when a request for renewal of a Chair is considered, the research productivity will be based on the full period of the award, including periods of parental leave. When preparing a nomination package, nominees are asked to report accomplishments within the past five years, including periods of parental leave. That is, it has not been explicitly stated that parental leave is to be taken into consideration in assessing research productivity and achievement. It was also noted that through recent changes to the Federal Employment Insurance program, beneficiaries are now eligible to receive up to one year of parental leave. A one-year hiatus in research work to enable raising a family clearly needs to be taken into account in the nomination and assessment process.

4.6 University Commitment

The third-year review examined the extent to which universities are providing support for their Chairs, how Chairs funding is being used in the universities, and whether they have attracted additional support to the Chairholders' research programs. The findings of this examination are summarized below.

4.6.1 Level of Satisfaction With University Commitments

We report here on the results of the survey regarding the level of Chairholders' satisfaction with the commitment of universities to support Chairs. We were unable to assess the success of universities in attracting funding from other sources that had been identified in the nomination packages. Such data was to be delivered by universities in their first Annual Report to the Program Secretariat, at the end of April 2002, one month after the completion of data collection for the third-year review. Other issues relating to university commitment to the

program (funding levels, research capacity, and teaching load,) were examined earlier in relation to the attractiveness of the Chairs program (See Section 4.1.2).

4.6.1.1 Level of satisfaction with the allocation of liberated funds

We examined the level of Chairholders' satisfaction with the universities' use of funds liberated by internal Chair appointments, and the extent to which these resources had contributed to the achievement of the Chairs' research program. One third of respondents (33%) reported that these resources were used in support of the Chair, while 21% reported that they were allocated for research purposes but not related to the Chair. Not surprisingly, 53% of the first group reported being very satisfied with the Chairs Program, compared to 29% of the second group.

4.6.1.2 Meeting Chairholder expectations

Our analysis also considered whether the expectations that Chairholders developed during the nomination process were realized once the Chair was awarded. The majority observed no differences, or if differences existed, they were positive. Favourable commentary by respondents related mostly to the prestige of the position, and the level of support received from universities being greater than expected.

4.6.2 Integration of Chair Program With Other Sources of Funds

4.6.2.1 The extent to which the Chairs Program is aligned with other programs

The sources of funds reported most frequently by Chairholders as being more accessible as a result of the award were the CFI, the relevant federal granting councils, the Chairholder's institution, and provincial sources. This suggests that the Chairs Program helps Chairholders attract funds from other sources.

4.6.2.2 Support for Chairholders compared to support received by peers outside Canada

Chairholders were asked to compare their level of support from university and external sources with that of their peers outside Canada. According to 58% of those surveyed, their support from external sources is comparable to the best or above the average of their peers. In comparison, 41% report their support from the university as comparable to the best or above the average of peers outside Canada.

4.6.3 Use of Chair Funds by Universities

Based on our interviews with university stakeholders and review of the special study "Use of Grant Funds and University Commitments," universities appear to be managing Chair funds in keeping with the objectives of the Program and in a fully accountable manner. There is no evidence that the Chairs Program is duplicating any other federal or provincial programs. In the special study a concern was raised that universities may not be observing the Program rule that prevents them from placing a levy on Chair awards for purposes not directly related to the Chairs' research programs.

5. Conclusions and Recommendations

5.1 Overview

This study draws conclusions and makes recommendations in five areas:

- Monitoring of variables related to filling Chair positions
- Increased flexibility to universities to deploy Chair funds
- Increased transparency in the nomination process
- The selection process for Chairs
- The special reserve of Chairs for small universities and the planned open competition

The study conclusions and recommendations, as well as suggested implementation options, are summarized below according to these five areas.

5.2 Monitoring of Variables Related to Filling Chair Positions

Universities face many challenges in recruiting to fill the Chairs made available through this federal program. These include:

- world-wide demand for excellent researchers and a concomitant need for assembling highly attractive recruitment packages;
- an appropriate representation of women and men researchers among Chair holders;
- the need to consider disciplinary groupings and Tier levels when filling Chairs;
- making sure that eligible researchers both within and without the university are apprised of the availability of Chairs;
- coordinating Chair appointments with faculty staffing plans and infrastructure development plans;
- maintaining a fair, open and transparent nomination process;
- relating Chair nominations to University Strategic Research Plans.

An effective Canada-wide response to these challenges requires solid information on market demand, the gender distribution of eligible researchers, and university plans. This leads to our first recommendation.

Recommendation #1

Given the current profile of Chair appointments, that the Chairs Secretariat and the universities closely monitor issues related to filling Chair positions, including rate of recruitment, attraction and retention, and take-up by women and by men. (*See* Section 4.1 and 4.5)

We offer the following suggestions for improving the capabilites of universities to attract and retain Chairholders:

a) The Chairs Secretariat and the CFI could jointly explore the possibility of continuing infrastructure support beyond the first 2000 Chairholders.

b) The Chairs Secretariat and the CFI could jointly explore the possibility of allowing Chair nominees who are first time faculty appointees to draw on CFI allocations under both the Chairs Program and CFI's New Opportunities Fund (NOF). They could also consider including CFI funding for Chairs in the base used for calculating university entitlement to Infrastructure Operating Funds, thereby increasing the operating funds potentially available for research.

c) The Chairs Secretariat and the CFI could explore the possibility of requiring less stringent specification of the infrastructure requirements for nominees being recruited outside Canada.

d) The Chairs Secretariat and the federal granting agencies could explore the possibility of providing start-up operating grants for Chairholders who don't already have them— normally researchers newly appointed to a Canadian university faculty— thereby increasing the attractiveness of Chairs and accelerating the launch of Chair research programs.

e) The Chairs Secretariat and the universities could investigate the issue of spousal employment as a factor in external Chair recruitment.

f) The Chairs Secretariat might assist universities with foreign recruitment. One Program stakeholder proposed a "Team Canada" approach, with senior university and Program representatives travelling to other countries to promote Canada as offering a world-class research environment.

5.3 Increased Flexibility to Universities to Deploy Chair Funds

The current allocation formula provides close to an equal distribution of Tier 1 and Tier 2 Chairs at each university. Allowing universities more latitude in their allocation of Chairs would better enable them to take advantage of recruitment opportunities at either Tier 1 or Tier 2 levels as they arise. If this increased flexibility was governed by an overriding requirement that at least 50% of Chairs be at the Tier 2 level, the benefits of a significant number of Tier 2 awards, to succession planning and to increasing the proportion of awards to women researchers would not be jeopardized.

Recommendation #2

In recognition of the diversity in size, profile, and needs of universities in Canada, that the Chairs Program provide an increased level of flexibility to the universities in the allocations by tier, within an overall funding envelope, and that universities commit to filling their allocated Chairs within that envelope. (*See* Section 4.4)

We conclude that the universities have generally made effective use of Chair funding and have demonstrated a commitment to the Chairs program. We believe that increased flexibility is justified in terms of the recruiting challenges that universities face.

The following suggestions are provided to program stakeholders for consideration when determining the extent of an increased flexibility for universities:

a) Remove the requirement for universities to have an equal number of Tier 1 and Tier 2 Chairs, but require that a minimum of 50% of all Chairs be Tier 2.

b) Allocate to the universities an overall annual budget by discipline group based on an average of $150,000 per allocated Chair, and require that universities commit to filling that number of Chairs within the budget envelope.[15]

c) If universities are given increased flexibility in the use of Chairs for recruiting researchers, consider increasing the level of required reporting of program impact. For example, university assessments of program impact might be required of the University President or Rector. While we note that impact assessment will be a major focus of the next evaluation (year five of the Chairs Program) it might also be incorporated into annual reporting on the program.

[15] This would require a change to the current allocation method. Currently, Chairs allocated to a university in previous years may be lost if the relative research performance of a university declines. The review team feels that a more appropriate method would be to assure universities that they will not lose previously allocated Chairs. They could thus prepare solid recruitment plans.

5.4 Increased Transparency in the Nomination Process

Processes adopted by universities in formulating their SRPs, and in making Chair nominations that support the achievement of these SRPs, vary by university. Our survey showed that Chairholders were more likely to be satisfied with these processes when they were open and transparent. It is through increased transparency and a sharing among universities of policies and practices that the processes can be improved.

Recommendation #3

In order to provide more transparency in the nomination process, that universities be required to establish and make readily and widely available the institutional policies and practices relating to their internal nomination process. (*See* Section 4.2)

Implementation of this recommendation might be accomplished in part by universities publishing on websites their policies and practices on:

- Advertising Chair positions
- Selecting nominees
- Communicating with nominees
- Assigning loads for Chairs
- Providing infrastructure support
- Covering the indirect costs of Chairs
- Publicizing the leverage effect of Chair awards.

Of particular note, universities are making considerable efforts to achieve a balance in Chairs appointments between women and men, but more needs to be done. To assist in this, the Chairs Secretariat should also facilitate the sharing of policies and practices in this area.

5.5 The Selection Process for Chairs

Recruiting internationally requires not only a capacity to mount attractive research and salary packages for researchers but also an ability to move quickly to a decision once a nomination has been put forward for consideration under the program. The following recommendation aims to increase the speed of decision-making.

Recommendation #4

In order to accelerate the appointment of Chairs, that the Chairs Secretariat streamline the review and adjudication processes, where possible, with special consideration for processes involving nominees from other countries. (*See* Section 4.2)

The review team noted a number of possibilities for accelerating Chair appointments, and suggests the following for consideration:

a) A Notification of Intent (NOI) process might be used. As soon as the Secretariat receives a NOI, it could begin identifying appropriate reviewers, thereby accelerating that component of the decision process.

b) If a nomination package for a researcher external to the nominating university raises no policy matters, and if the peer review is complete and unanimous in its support, the program's Executive Director might be delegated the authority to approve these applications immediately.

c) A communications plan, including a protocol for announcing successful nominees more quickly, could be prepared.

d) The Chairs Secretariat could explore ways of helping the universities obtain permanent residency status for successful nominees. The current "Letter of Validation" process only allows the candidate to stay in Canada for the first tenure period of the Chair. The Secretariat could serve as a broker in assisting universities with immigration problems for Chairs coming from other countries.

While not directly related to speeding up the decision process, the following ideas might lead to a better review process overall.

a) Prepare and publicize guidelines for the IAC in assessing research related to community economic development and interdisciplinary research.

b) Include representation from smaller universities on the Interdisciplinary Advisory Committee.

c) Ensure that all program guidelines and policies explicitly recognize that time for parenting (or for recovery from illness) be taken into account when considering research productivity and achievements over time.

d) Revise the nomination form to facilitate the assessment of nominees' record as a trainer /mentor of graduate students and postdoctoral fellows.

e) In those instances where one or more reviewers of a nomination do not provide an assessment on time, that the application go directly to the IAC for decision.

f) All nomination packages requiring review by IAC and/or Steering Committee members be sent to members at least eight days prior to the meeting.

5.6 The Special Reserve of Chairs and the Planned Open Competition for Small Universities

The six percent allocation of Chairs for smaller universities has been very positively received and has enabled planning that would otherwise not be possible. The value of having an open competition for the few Chairs (16 at present) remaining in the reserve has been questioned. It

is believed by the review team that the intent of the open competition was to provide an opportunity for smaller universities not already participating in the Program to be able to do so. The review team questioned the capability of these universities to be successful in an open competition with other smaller universities that had earned Chair allocations. That is, if there is an Open Competition, consideration should be given to opening it only to universities that have not, by year 4, been able to participate in the program.

Recommendation #5

Given the depletion in the size of the reserve from 30 Chairs to 16, and the increasing number of small institutions becoming eligible for a Chair allocation, that the plan for an open competition for small universities in the fourth and fifth years of the Program be re-examined by the Canada Research Chairs Steering Committee. (*See* Section 4.3)

5.7 Issues Outside the Mandate of the Third Year Review

5.7.1 Examination of Program Rationale

In reviewing the Evaluation and Performance Measurement Framework for this program, we noted that the issue of Program Rationale was not clearly stated for consideration in the Year Five evaluation of program outcomes. This oversight was brought to the attention of all concerned parties.

5.7.2 University Strategic Research Plans

We note that government wants to ensure that universities are required to produce only one Strategic Research Plan to rationalize requests for funding through federal programs. It is important, we believe, that this desire of government to mitigate the production of a plethora of overlapping or duplicative plans be clearly understood by administrators of all federal research and development support programs.

A. List of Interviewees

A.1 University Stakeholders

Name	Position	University
Michael Leiter	VP Academic	Acadia University
R. McGreal	Associate VP Research	Athabasca University
Jonathan Rittenhouse	Vice-Principal	Bishop's
Jack Miller	Associate VP Research and Dean of Graduate Studies	Brock University
F. Hamdullahpur	VP Research	Carleton University
Jacquelyn Scott	Vice-President	College of Cape Breton
J. Lightstone	Provost and Vice-Rector, Research	Concordia University
Samuel E. Scully	Vice-President, Academic & Provost	Dalhousie University
Christophe Guy	Directeur de la recherche et du développement	École de technologie supérieure
Sylvie St-Onge	Directrice de la recherche	École des hautes études commerciales
D. Stacey	Asst. VP, Infrastructure Programs	Guelph University
Anne Klymenko	Manager, Research and Int'l Development	Lakehead University
Douglas Parker	VP Academic (Anglophone Affairs)	Université Laurentienne
Dennis Fitzpatrick	Associate Vice-President, Research	University of Lethbridge
Luc Vinet	Provost & Vice-Principal, Academic	McGill University
M. Shoukri	VP, Research and Intl Affairs	McMaster University
Chris Loomis	Vice-President, Research & International Relations	Memorial University
Peter Ennals	Vice-President, Academic & Research	Mount Allison University
Derek Muggeridge		Okanagan
R.K. Rowe	Vice-Principal, Research	Queen's University
C. Lajeunesse	President	Ryerson Polytechnic University
S. Roppel	Director, Academic Relations, Office of the VP, Academic	Simon Fraser University
Louise Bertrand	Directrice de l'enseignement et de la recherche	Télé-université, Université du Québec
C. Metcalfe	Dean of Research and Graduate	Trent University

Name	Position	University
	Studies	
Yves Gagnon	Doyen par intérim, Faculté des études supérieures et de la recherche	Université de Moncton
Massimo Pandolfo	Professeur associé	Université de Montréal
Réal L'allier	Vice-recteur adjoint à la recherche	Université de Montréal
Edwin Bourget	Vice-recteur à la recherche	Université de Sherbrooke
Sinh LeQuoc	Directeur scientifique	Université du Québec – Institut national de la recherche scientifique (INRS)
Jean-François Moreau	Doyen des études de cycles supérieurs et de la recherche	Université du Québec à Chicoutimi
Denis Dubé	Vice-recteur à l'enseignement et à la recherche	Université du Québec en Outaouais
Danielle Laberge	Vice-rectrice à la recherche, à la création et à la planification	Université du Québec à Montréal
Daniel Coderre	Vice-recteur intérimaire à la recherche, à la création et à la planification	Université du Québec à Montréal
Michel Ringuet	Vice-recteur à la formation et à la recherche	Université du Québec à Rimouski
Alain Maire	Doyen des études de cycles supérieurs et de la recherche	Université du Québec à Trois-Rivières
Johanne Jean	Vice-rectrice par intérim à l'enseignement et à la recherche	Université du Québec en Abitibi-Témiscamingue
Louise Filion	Vice-rectrice à la recherche	Université Laval
Doug Owram	Provost and VP Academic	University of Alberta
Jeff Williams	Vice-President, Academic & Research	University of Brandon
D. Atkins	Office of the Associate VP's Academic	University of British Columbia
Keith Archer	Interim VP, Research	University of Calgary
Joanne Keselman	VP Research	University of Manitoba
Gregory Kealey	Vice-President, Research	University of New Brunswick
Max Blouw	VP Research	University of Northern British Columbia
Howard Alper	Vice-Rector, Research	University of Ottawa
Katherine Schultz	Vice-President, Research and Development	University of Prince Edward Island
Michael Atkinson	Vice-President, Academic & Provost	University of Saskatchewan
Carl Amrhein	Dean of the Faculty of Arts and Science	University of Toronto
Martin Taylor	VP Research	University of Victoria
Paul Guild	Vice-President	University of Waterloo
N. Petersen	VP Research	University of Western Ontario

Name	Position	University
A. Alfa	Associate VP, Research	University of Windsor
A. Abd-el-Aziz	Associate VP Research and Graduate Studies	University of Winnipeg
R. Smith	VP, Academic	Wilfred Laurier University
S. Shapson	VP, Research & Innovation	York University

A.2 Program Stakeholders

Name	Position	Organization
David W. Strangway	President and CEO	Canada Foundation for Innovation
Carmen Charette	Senior Vice-President	Canada Foundation for Innovation
Alan Bernstein	President	Canadian Institute of Health Research
V. Peter Harder	Deputy Minister	Industry Canada
Marie Tobin	Director General	Industry Canada
Thomas A. Brzustowski	President	Natural Sciences and Engineering Research Council of Canada
Marc Renaud	President	Social Sciences and Humanities Research Council of Canada
Jules Duchastel	IAC Member & Chairholder	Université du Québec à Montréal
Joel Weiner	IAC Member & Chairholder Associate Dean (Research)	University of Alberta
Vijay K. Bhargava	IAC Member & Chairholder	University of Victoria
Alan Cairns	Chair of IAC	University of Waterloo

A.3 Associations

Name	Position	Organization
Robert Best	Vice President, National Affairs	Association of Universities and Colleges of Canada
Alan Weedon	President	Canadian Association of Graduate Studies
James Turk	President	Canadian Association of University Teachers
Peter Anderson	President	Canadian Federation of Biological Societies
Patricia Clements	President	Humanities and Social Sciences Federation of Canada
Louise C. Mâsse	Nominee	National Cancer Institute, Washington, D.C.

Howard Alper	Past Chair	Partnership Group for Science and Engineering