

Final Report by

Science-Metrix

Risk-Based Analysis of Documented Competitive Processes Guidelines and Processes: Screening, Assessing, Ranking and Recommending Applications

Compilation of Information for the Audit of the Competitive Processes for Awarding Grants in the SSHRC - Phase 1

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by Frédéric Bertrand, M.Sc.
and Éric Archambault, D.Phil.

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Executive summary

Science-Metrix was mandated by the Social Sciences and Humanities Research Council of Canada (SSHRC) to compile the application screening, assessment and ranking and recommendations documentation for 13 SSHRC programs from the following three program clusters: Research Grants (2 programs), Strategic Research Grants (7 programs) and Strategic Joint Initiatives (4 programs). The programs were selected because they constitute a major part of SSHRC's mandate and budget and have similar competitive processes.

Research Grants

1. Standard Research Grants
2. Major Collaborative Research Initiatives (MCRI)

Strategic Research Grants

3. Aboriginal Research: Development
4. Aboriginal Research: Research
5. Community-University Research Alliances (CURA)
6. Image, Text, Sound and Technology (ITST) - Networking Grants
7. Image, Text, Sound and Technology (ITST) - Summer Institute, Workshop, & Conference Grants
8. Research/Creation Grants in the Fine Arts
9. Strategic Research Clusters Design

Strategic Joint Initiatives

10. Canadian Initiative on Social Statistics (CISS) - CISS Data Training Schools
11. Canadian Initiative on Social Statistics (CISS) - CISS Research Data Centres
12. Multicultural Issues in Canada
13. Relationships in Transition

One of the tasks was to identify the guidelines and procedures that mitigate the personal, linguistic, gender, disciplinary, regional, or institutional preference and bias risks, and other risks not previously foreseen. The scope of the study includes the documented guidelines and procedures used to screen, assess, rank and recommend applications for funding, but not the selection decisions on which grants were awarded.

The analysis presented is based on examination of SSHRC online documentation, and internal documentation provided by program officers. However, during the course of this study, it became apparent that there was additional documentation which SSHRC used in their evaluation and adjudication processes, which was not made available to Science-Metrix.

The study produced several recommendations for improving the quality of the documentation used, particularly to increase transparency, and mitigate potential risks and biases. The main focus of the study was on the specific areas and issues where improvements were needed; it should be noted that scrutiny of online and internal documentation indicates that the essential information on adjudication guidelines and procedures is available.

SSHRC's adjudication policies are available online in the *Administrative Regulations* section and are quite well integrated in the preliminary sections of the adjudication committee manuals: *Fundamental Principles for Adjudicators* and *Role and Functioning of Adjudication Committee* especially in terms of non-discrimination, confidentiality, appeals and complaints procedures, official languages and conflicts of interest. These sections include guidelines on how to deal with risks and biases, and some of the procedures used to mitigate them.

Conflicts of interest are covered in a clear and comprehensive manner in most program manuals. Areas where conflicts of interest can arise are clearly indicated, and recommended action and specific advice for individual programs is presented. The information in the internal documentation on confidentiality is generally comprehensive. The use made by SSHRC of information gathered, and the processes for communicating award results are made clear, as are the measures taken to protect personal information on applications and assessors. Information on how committee members should behave to insure the quality and objectivity of adjudication in the case of appeals and complaints is comprehensive. The documentation clearly stresses the importance of assessors not communicating with applicants concerning their application, thus mitigating the risk of reducing the quality and validity of the adjudication process.

Overall, therefore, the SSHRC's web site provides comprehensive information and access to documentation for applicants. Every program has an "Apply for funding" web section, most of which have a section pertaining to the competitive process: Objectives, Description, Value and Duration, Eligibility, Evaluation and Adjudication, Administrative Regulations. Although the format and level of detail of these sections vary considerably between programs, they constitute a comprehensive information portal for SSHRC's clients, staff and collaborators involved in the adjudication process.

Many of our recommendations are based on examples of best practice from the program documentation analysed in this study. For example, the *Standard Research Grants* program manual provides the most complete account of the adjudication process, listing the specific tasks of program officers, committee members and committee chairs. It explains with great clarity the roles and the tasks of committee members before, during and after the adjudication committee meeting. Overall, guidelines and procedures relating to the roles and tasks of committee members (internal assessors) before a committee meeting were found to be fairly well documented. However, the processes to be followed during a meeting were less detailed and not systematically presented in adjudication manuals.

Another example of best practice is the *Research/Creation Grants in the Fine Arts* binder, which includes specific guidelines for evaluators and a Preliminary Feedback & Scoring Sheet. In accordance with adjudication guidelines and procedures, this type of material should be included in every adjudication manual since it represents a key part of the evaluation process.

Evaluation criteria are included in every program manual. The evaluation criteria and related scoring systems are central to the peer-review adjudication process and vary in terms of assessment objects, quantity and level of detail according to the objectives of and applicants to the different programs. The number of scored criteria varies across the 13 programs reviewed here. In many programs, criteria are simply listed or only briefly described. In others, the criteria are described in detail or, for instance in *Standard Research Grants*, are cross-referenced with information to be provided by applicants. Scoring systems were available for the programs reviewed, but were fairly heterogeneous.

Adjudication committees and observers have an important role in improving the Council's adjudication process. Following the adjudication process, the committees hold a policy discussion in order to inform SSHRC's staff of difficulties encountered in the adjudication process and to advise on program policy issues. The minutes of these sessions and reports from observers serve as a basis for SSHRC senior management to make improvements to policies and procedures. This process is of great value in improving future adjudication procedures and mitigating risks and biases.

SSHRC's Corporate Policy and Planning Division compiles, updates and annually publishes program statistics and competition results to enable SSHRC's management, program staff and clients to have access to detailed up-to-date statistics on each grant program (see the *Program Statistics* in *About SSHRC* section on the SSHRC web site). Disaggregated statistics are readily available for the Standard Research Grants program; for other programs statistics are aggregated at cluster level (i.e. Strategic Grants). However, statistics on budgets, applications, applicants, institutions and awards are not systematically presented either in adjudication committee manuals or online program documentation.

The procedures for mitigating risks and biases are not sufficiently detailed, and the links between these procedures and the evaluation processes are often not sufficiently explicit. Although the information needed by applicants and other stakeholders is generally available, it is often spread across several documents or web pages.

Our examination of the internal documentation suggests that some procedures are informed by tacit knowledge vested in the program managers. From a knowledge management perspective, the absence of well documented adjudication rules constitutes a risk. Indeed, the competencies and knowledge gained from the practical experience of program managers, committee chairs, committee members and external assessors in dealing with SSHRC policies need to be more thoroughly documented in order to ensure rigour, uniformity and continuity over time, across existing programs and in the creation of new programs.

Information on program characteristics and documentation are summarized in Table 1 (page vi) and is used here to provide an overview of comparable elements of the grant programs reviewed. A first look at the program statistics suggests that it is a useful way to assess certain programs in terms of their efficiency in processing applications using available documented guidelines and procedures.

There is significant variation among programs with respect to the proportion of applications rejected on the basis of eligibility or “relevance”¹. The *Aboriginal Research - Development Grants Pilot Program* and the ITST program in particular have a high proportion of proposals of “non-relevance” (17.6% and 13.6% respectively compared to other programs - 1.9% to 7.7%). This might be an indication of inadequate or unclear information regarding application to these programs.

In looking from top to bottom of the second part of the table, potential risks can be identified by analysing the discrepancies in documentation procedures and practices among programs. First, with the exception of the Standard Research Grants program, the guidelines and procedures for screening the applications are generally not well documented in program manuals. This situation clearly presents some risks. The guidelines and procedures in the Standard Research Grants manual should be extended and adapted to the other programs. Second, the only procedure mitigating against potential risks in the process of screening the proposals is the application of the non-discrimination policy. However, the non-discrimination policy is not explicitly detailed in the program manuals since it refers only to eligible applications. The SSHRC’s *Non-Discrimination Policy* applies to persons (applicants) that meet the eligibility requirements. Therefore, it is important to define, record and make public all documented and tacit requirements, criteria, administrative rules and processes that determine their suitability to avoid risks and bias prior to the program officer’s final decision.

In addition, external assessment is not part of the assessment process of all the programs reviewed. SSHRC most likely applies some rationale in order to decide if a program needs the contribution of external advice for the adjudication of grants. However, some programs, despite their significant investment in grants (program expenditure and average grant value), do not use external reviewers at all. This obviously increases the risk of discrimination as a result of personal, linguistic, gender, disciplinary, regional or institutional preference bias, and the risk of conflicts of interest in the review process. For instance, the ITST, CISS, the Multiculturalism Issues in Canada and Relationships in Transition programs, which awarded grants in 2004 to an average value of \$50,000, \$150,000, \$47,000, and \$40,000 respectively for large teams, do not make use of external reviewers (Table 1). Also, for two of the programs, CURA and Strategic research Design, external assessment is optional. These two programs awarded \$997,000 (5 years) and \$30,000 (5 months) on average. A risk-based assessment of

¹ Some programs, such as Aboriginal Research, have a relevance review, or in the case of MCRI and CURA, have a preliminary review of a letter of intent prior to assessment of full applications. These two application processes are considered as a application stages in this report.

the value of external assessment as part of the adjudication process for these programs is worth consideration.

All program manuals make clear the criteria used for evaluation, yet the number of these criteria varies widely across programs. It would be interesting to determine whether this variation is related to the characteristics of individual programs, or if it constitutes another area of risk. This seems especially pertinent as the Standard Research Grants and MCRI program list many criteria, but only a few are actually scored. Thus, although the amount of detail might be high qualitatively, this is not reflected in the final score. This possible weakness is even more pronounced in the CISS Research Data Centers program where none of the four evaluation criteria is actually scored. This might negatively impact on the adjudication process.

The need for a unified, systematic step-by-step workflow plan is overwhelming as demonstrated by the table, which shows that most program manuals give only partial or minimal guidelines on how to conduct assessment of the applications and the adjudication. The few exceptions highlight the relevance of making efforts to streamline and improve manuals in this respect, which applies also to information on guidelines and materials regarding preliminary feedback and scoring.

Risks regarding the use of the official languages could be reduced by streamlining the procedures concerning their use during the adjudication process. The guidelines in the Relationships in Transition program manual could be used as a model.

Almost all program manuals included sections on *Fundamental Principles for Adjudicators* and *Role and Functioning of Adjudication Committees*, which is reassuring since the information contained in those two sections goes a long way towards mitigating risks. The CISS Data Training Schools manual, which does not include this information, must be updated.

Finally, there is a clear lack of information regarding ranking of applications and recommendations for financial support. The majority of program manuals do not include a well defined ranking system, or guidelines to provide a framework for the recommendation of applications. Guidelines for budget reviews are also missing from most manuals and were not included in the online information. Committee members are not currently involved in risk mitigation – a situation that perhaps should be examined.

Overall, some programs present more risks than others. The CISS Data Research Centres manual, while still in a draft version, will need to be significantly improved in terms of its provision of information and accompanying risks. The Aboriginal Research - Development Grants Pilot Program and the Research/Creation Grants in Fine Arts Pilot Program manuals both are weak in relation to information on the role and functioning of adjudication committees.

Our analysis of the internal documentation suggests that online material is often used in adjudication manuals as a unique source of information for specific issues. This suggests that the online content is not only a source of information for applicants, but also for adjudication committee members and external reviewers. It is therefore important that SSHRC should complete and synchronize online content with internal documentation in order to ensure rigour and transparency.

Table 1 Risk-based summary analysis of program characteristics and documented grant adjudication processes (1/2)

	Research Grants		Strategic Research Grants						Strategic Joint Initiatives			
	Standard Research Grants	MCRI	Aboriginal Research - Pilot Program	CURA	ITST Networking Program	ITST Summer Institute, Workshop, & Conference Grants	Research/Creation Grants in Fine Arts Pilot Program	Strategic Research Clusters Design	CISS Data Training Schools	CISS Research Data Centres	Multi-culturalism Issues in Canada	Relationships in Transition
PROGRAM STATISTICS												
Program partners	No	No	No	No	No	No	No	No	Statistics Canada	Canadian Heritage	Law Commission	
Program expenditure 2003-04 (\$ '000)	\$60,965	\$10,242	\$1,322	\$6,476	\$567	\$1,792	\$885	\$450	\$967	\$84		
% of total SSHRC program expenditure	28.7%	4.8%	N/S	3.1%	0.3%	0.8%	N/S	0.2%	0.5%	0.0%		
% of average total SSHRC program expenditure	30.2%	5.7%	N/S	3.8%	N/A	N/A	N/S	0.3%	N/A	0.1%		
Duration of grants (Number of years)	Up to 3	5	Dev.: Up to 2 Res.: Up to 3	Up to 5	1	Up to 3	Less than 1 (5 months)	3	1	1		
Maximum annual grant value (\$ '000)	\$100	\$500	Dev.: \$25 Res.: \$100	LOI: \$20 FULL: \$200	\$50	\$100	\$30	\$50	\$50	\$25 \$40 large		
Maximum total grant value (\$ '000)	\$250	\$2,500	Dev.: N/S Res.: 250	\$1,000	\$50	\$250	\$30	\$150	\$50	\$25 \$40 large		
Average value of grants 2004 competition (\$ '000)	\$90	LOI: 20 FULL: 2,498	\$180	LOI: 19 FULL: 997	\$40	\$144*	\$29	\$150	47	\$36*		
Number of applications 2004 competition	2,249	LOI: 45 FULL: 9	125	LOI: 125 FULL: 40	22	200*	137	3	70	13*		
Number of eligible applications	2,206	LOI: 41 FULL: 9	103	LOI: 124 FULL: 40	19	191*	135	3	67	12*		
Rejected applications based on eligibility (%)	1.9%	LOI: 8.9%	17.6%	LOI: 0.8%	13.6%	4.5%	1.5%	0.0%	4.3%	7.7%		
Number of grants, 2004 competition	948	LOI: 9 FULL: 4	28	LOI: 31 FULL: 15	12	34*	31	3	18	3*		
Success rate as percentage of eligible applications	43%	44%	27%	48%	63%	18%	23%	100%	27%	25%		
Number of adjudication committees 2004 competition	20	LOI: 1 FULL: 1	1	LOI: 1 FULL: 1	1	1*	1	1	1	1*		
SCREENING THE APPLICATIONS												
Screening guidelines and procedures - web-based	No details	No details	No details	No details	No details	No details	No details	No details	No details	No details	No details	No details
Screening manual (guidelines and procedures)	Yes	No	No	No	No	No	No	No	No	No	No	No
Procedures that mitigate risks ¹	Non-discriminatory Policy											

N/A: Not applicable; N/S: Not specified; LOI: Letter of intent; FULL: Full proposal; Dev: Development; Res: Research;

¹ Personal, linguistic, gender, disciplinary, regional, or institutional preference and bias; * 2003 Competition

Source: Compiled by Science-Metrix from SSHRC public documentation data provided by SSHRC Corporate Policy and Planning

Table 1 Risk-based summary analysis of program characteristics and documented grant adjudication processes (2/2)

	Research Grants		Strategic Research Grants						Strategic Joint Initiatives			
	Standard Research Grants	MCRI	Aboriginal Research - Pilot Program	CURA	ITST Networking Program	ITST Summer Institute, Workshop, & Conference Grants	Research/Creation Grants in Fine Arts Pilot Program	Strategic Research Clusters Design	CISS Data Training Schools	CISS Research Data Centres	Multi-culturalism Issues in Canada	Relationships in Transition
ASSESSING THE APPLICATIONS												
Application stages	1	2	2	2	1	1	1	1	1	1	1	1
External reviewers	Yes	Yes	Yes	Optional	No	No	Yes	Optional	No	No	No	No
Number of reviewers / assessors per file	2 (per file)	N/S	2 (readers)	2	2 (readers)	N/A	No assessor; Readers in AMIS	N/S	N/A	N/A	N/A	N/A
Guidelines and procedures	Partial	Minimal	No	No	N/A	N/A	No	No	N/A	N/A	N/A	N/A
Evaluation criteria	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Overall number of evaluation criteria	17	21	5	LOI: 5 FORMAL: 8	6	6	5	7	5	4	5	3
Number of scored evaluation criteria (not LOI)	2	5	5	5	5	5	2	4	5	N/S	5	3
Predetermined scoring scales	Yes	No	Yes	No	Yes	Yes	No	No	Yes	No	No	No
Step-by-step workflow plan/detailed guidelines	Complete	Minimal	Complete	Minimal	Partial	Partial	Complete	Minimal	Partial	Partial	Minimal	Minimal
Preliminary feedback and scoring guidelines	Complete	Partial	No	Partial	Partial	Partial	Complete	Partial	Partial	N/A	Partial	Partial
Preliminary feedback and scoring sheet	No	No	Yes	No	No	No	Yes	No	No	No	No	No
Official language procedures	Partial	Partial	Minimal	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Complete
Procedures that mitigate risks ¹	Confidentiality, Non-discriminatory Policy & Conflict of interest											
Fundamental principles for adjudicators	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Role and functioning of adjudication committees	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
RANKING AND RECOMMENDING												
Ranking system	No	No	Yes	No	No	Yes	No	No	Yes	No	No	No
Predetermined ranking scale	No	Yes	No	Yes	No	No	No	Yes	No	No	Yes	Yes
Ranking & Recommending guidelines and procedures	No	No	No	No	No	No	No	No	No	No	No	No
Budget review guidelines and procedures	Yes	No	No	Yes	No	No	No	No	No	No	No	No
Procedures that mitigate risks ¹	No, only role and task of the Chairs and Program Officers											

N/A: Not applicable; N/S: Not specified; LOI: Letter of intent; FULL: Full proposal; Dev: Development; Res: Research;

¹ Personal, linguistic, gender, disciplinary, regional, or institutional preference and bias; * 2003 Competition

Source: Compiled by Science-Metrix from SSHRC public documentation data provided by SSHRC Corporate Policy and Planning

All recommendations formulated so far in this report represent a significant information and knowledge management challenge to SSHRC. Although SSHRC will necessarily want to keep some administrative information confidential, there is room for more transparency and simplification, which could be achieved through more detailed description of procedures. This can be achieved by compiling, standardizing and by centralizing relevant information for applicants and adjudication committee members, which would also reduce potential risks or biases related to misinformation or absence of information.

As with other federal departments and agencies that are confronted by growing information management challenges, SSHRC may benefit from a more systematic approach to documenting its standard operating procedures.

Science-Matrix suggests that SSHRC should investigate the value of obtaining an ISO 9000 certification or, alternatively, of training staff along the lines of this type of program, which aims to optimize and standardize information and its management.

Science-Matrix compiled and analysed extensively a large quantity of information covering SSHRC's documented competitive processes guidelines and processes for 13 programs. It was necessary to focus on the most critical issues in order to obtain a manageable set of recommendations. The 14 recommendations presented in the next section are the most important to consider for further immediate discussion and/or action. These recommendations address three basic areas:

1. **Standardize** process and guidelines across programs;
2. **Compile and complete** detailed information currently absent, or dispersed across web pages and printed documentation;
3. **Document** all the processes and guidelines that aim to mitigate risks and bias.

Recommendations

This section presents 14 recommendations, ordered by SSHRC competitive process component, or specific issue and reflects the order in which they are addressed in the report. Recommendations should be read in conjunction with the analysis described in report (please see page reference). The recommendations are ranked as [High] or [Medium] priority. Low ranked recommendations are not included here, but they are flagged as suggestions in the report.

Screening the application

Eligibility requirements and screening process

- **[High] Recommendation 1:** To improve consistency, compile all the eligibility criteria in one section of the web-site. This section should mirror the SSHRC internal eligibility documentation used for screening applications. The criteria should be presented in the form of a check list.3
- **[High] Recommendation 2:** Produce for each program, an eligibility screening manual aimed at program officer, that takes account of the above recommendations (no. 1). This manual should clearly document the formal and tacit rules used to determine the eligibility of applications and should document in detail the administrative rules and action expected from program officers in relation to frequently encountered situations and document procedures that mitigate each of these risks of bias. This manual must make a clear distinction between eligibility criteria and administrative criteria.5

Assessing the applications

Online documentation

- **[High] Recommendation 3:** Compile and standardize the documentation relating to evaluation and adjudication guidelines and procedures including presentation and definition of evaluation criteria throughout online and internal documentation for every program. Scoring guidelines and procedures for each program that lead to recommendation for funding should also be documented and published online.6
- **[Medium] Recommendation 4:** Produce a downloadable and printable manual for applicants to each program that integrates application instructions, application forms, eligibility and admissibility (administrative) criteria, risk mitigation procedures, evaluation criteria, scoring and ranking guiding principles, and detailed step-by-step evaluation and adjudication procedures.7

Internal documentation

- **[Medium] Recommendation 5:** For each program, standardize generic material from adjudication committee manuals by ensuring that all the manuals include comprehensive sections on the fundamental principles for adjudicators and on the role and functioning of adjudication committees. 8
- **[Medium] Recommendation 6:** Assess the effectiveness of and standardize the scoring methods and the number and the value of scored criteria for each program. Also provide in the scoring guidelines in the adjudication manual a predetermined scoring scale for each ranked criterion.12
- **[High] Recommendation 7:** Document and publish clear evaluation guidelines and scoring procedures as appropriate, to ensure that track records of applicants and any other particular variables are considered in the assessment in relation to their career stage or other particular circumstances. Where the evaluation does not consider any particular dimension or where programs target particular types of applicants, the target population should be explicitly described. 12
- **[High] Recommendation 8:** Produce and include in the adjudication manual preliminary feedback and scoring sheets for each program and clearly document the guidelines and procedures for preliminary feedback and scoring in an explicitly labelled section of the adjudication manual.13
- **[High] Recommendation 9:** Adopt a step-by-step workflow approach (A, B, C) for each program, and standardize, document and concentrate the roles, tasks and underlying procedures for each of the individuals involved in the adjudication process. This workflow schedule could be incorporated in the adjudication committee manuals and should clearly document for each program the guidelines and procedures pertaining to particular

adjudication committee members such as chair, program staff, and evaluators' (readers) assignments and tasks before, during and after the adjudication meetings. This should include cross-references to the tasks of chairs and program officers, and evaluators, detail the possible risks and biases that might be encountered in adjudication process, and include official procedures to mitigate them.....16

External assessment

- **[High] Recommendation 10:** Clearly document in a specific section of the adjudication manual for each program, whether external assessment of applications is mandatory, discretionary, or not applicable. This section should include guidelines and procedures to be followed by the committee in terms of the treatment and consideration of external advice in the adjudication process. In addition, instructions to external assessors should also be included in manuals.....16
- **[High] Recommendation 11:** Based on why/how it is used in some programs, assess the usefulness of external review for those programs where it is optional or never used. Integrate this external review process where appropriate.....17

Ranking and recommending applications

- **[High] Recommendation 12:** Clearly document the guidelines and procedures used by each program's adjudication committee to rank and distribute the scores of meritorious applications, to review the budget, and to determine award size and to decide about which applications to fund when several fall on the cutting line. Ranking and recommendation guidelines and procedures should be also available online and should mirror SSHRC's internal documentation. The documentation related to budget rulings should be included in the manual and should provide guidelines and procedures that mitigate risks and biases (personal, linguistic, gender, disciplinary, regional, or institutional preference and bias) during budget allocation and review.....20

Official languages

- **[Medium] Recommendation 13:** Standardize for all programs the guidelines and procedures concerning spoken and written language usage during adjudication committee meetings. Guidelines for applicants on official languages guidelines should be accompanied by language-relevant guidelines and procedures used by adjudication committees and any other relevant committees in evaluating, ranking and recommending eligible applications.....22

Program statistics

- **[Medium] Recommendation 14:** Compile, update and make publicly available detailed program statistics for each grant program competition. SSHRC staff and clients would benefit from a summary table of these statistics being published in the program documentation designed for program officers, applicants and adjudication committee members.....22

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1 Purpose of this Study

The Social Sciences and Humanities Research Council of Canada (SSHRC) is an arm's length federal agency that promotes and supports university-based research and training in the social sciences through several funding programs. SSHRC grants and fellowships are currently awarded through an independent peer-review process. In 2003-2004, SSHRC's base budget was \$230 million. More than 90% of this budget is allocated to transfer payments through its portfolio of national, competitive funding programs. All decisions on awards are made by expert committees and quality is a central focus. As SSHRC's *Corporate Risk Profile and Audit Plan* (2003) noted, "it is therefore crucial for the credibility of the council and its reputation that the decision-making processes are transparent and rigorous".

In accordance with the priorities of the *Action Plan for Improving SSHRC's Management Practices*, the SSHRC's Corporate Performance, Evaluation and Audit (CPEA) Division is currently implementing the first phase (Phase 1) of an independent internal audit. The audit targets the competitive processes for awarding grants for research funding programs. The central objective of this audit is to perform an assessment of one of five major risks identified by the SSHRC's *Corporate Risk Profile and Audit Plan* (2003): "quality, credibility and viability of decision making for the allocation of grants and scholarships". This incorporation of risk management practices into strategic and operational planning, program evaluation and internal audit will allow improvement in quality assurance by mitigating potential deficiencies in SSHRC's grants allocation processes and their accompanying guidelines.

As part of the preparatory work for Phase 1 of this internal audit, the CPEA division mandated Science-Metrix to examine the documentation (in print and online) on the competitive processes for 13 research support programs administered by Research Grants Strategic Research, and Strategic Joint Initiatives (see Appendix A for the list of programs targeted by this study). This compilation is to be used by the SSHRC internal auditor as the starting point in an effort to provide an independent and objective assessment of the department management control framework (MCF) established to ensure that SSHRC grants are awarded with objectivity, consistency, and rigour. The control framework comprises the policies, procedures, and activities that ensure that the organization's objectives are achieved. The specific elements of the control framework for which information is to be compiled are:

1. Screening the applications

- Guidelines followed by program staff to screen eligible applications.
- Processes applied by program staff for screening.

2. Assessing the applications

- Guidelines followed by the selection committees to assess applications.
- Processes applied by the selection committees for assessment.

3. Ranking and recommending the applications for funding

- Guidelines followed by the selection committees to rank and recommend the applications for funding.
- Processes applied by the selection committees to rank and formulate recommendations.

The report examines each element of this control framework in three separate sections (respectively, sections, 2, 3, 4). This examination of the SSHRC's Web-based and internal documentation aims to identify the guidelines and procedures that mitigate each of these risks: personal, linguistic, gender, disciplinary, regional, or institutional preference and bias, in addition to other potential risks not previously foreseen. While the processes involved in the decision-making are documented, the selection decisions are beyond the scope of this study.

2 Screening the Applications

2.1.1 Eligibility requirements

The description of the eligibility requirements on the SSHRC Web site varies considerably depending on the program. Although at first glance these descriptions appear to be quite short, when the amount of text in the hyperlinked web pages (HTML) and documents (such as PDF) is taken into account they are not always very concise. SSHRC's eligibility criteria on the Web begin with a short description, with hyperlinks to other parts of the site to direct applicants towards definitions and rules common to all programs. This approach has some advantages from an information management point of view, but it somewhat complicates the task for applicants and introduces certain risks in terms of coherence (see Box 1. below)

Box 1. SSHRC Web-based instructions for applications

The image shows a screenshot of the SSHRC application website with several callout boxes providing definitions for key terms used in the instructions. The callouts are:

- Applicant (principal investigator/project director):** An individual with the primary responsibility for the intellectual direction of the research and who assumes administrative responsibility for the grant. In the case of team research, the principal investigator/project director is understood to be responsible for the overall leadership of the research team. Eligibility requirements may vary with specific programs.
- Co-applicant (co-investigator):** An individual who makes integral contributions to the intellectual direction of the research, plays a significant role in the conduct of the research, and who may also have some responsibility for the financial aspects of the research. Eligibility requirements may vary with specific programs.
- Collaborator:** A scholar or researcher who may play a valuable role in a research project or program of research, including postgraduate students, in an essential direction. Collaborators do not need to be affiliated with a Canadian postsecondary institution. They may be faculty or post-graduate students of Canada or foreign origin. SSHRC does not cover expenses that research collaborators incur in the conduct of research or research-related activity. However, the principal investigator and one of the co-applicants may apply for a grant specifically to cover travel and subsistence costs that may be claimed.

The screenshot also shows a 'Welcome Page' with sections for 'Registration and Login' and 'My account'.

The advantage for SSHRC is that this method simplifies information management. For example, where the definition of *Applicant (principal investigator/project director)* is common to several programs, if it needs to be changed then it is not necessary to find every reference to it in the different programs. Thus, this method preserves coherence.

However, if the definition of a feature changes, the amended definition may not be completely coherent with all the programs, and may provide applicants with irrelevant information. Therefore, when individual definitions are updated, all the program specific information on the Web must be reviewed to ensure coherence and congruence. This mitigates the advantage of using hyperlinks to program information.

Another problem is that the documentation used internally although it appears to be reproductions of the documents available on the SSHRC's Web site, does not include the hyperlinked documents. For instance, in the case of the program on Aboriginal Research, the internal documentation does not include the following information, which should be used systematically in the screening of applications (see Box 2 below).

Box 2. Printed multiple applications eligibility instructions with hyperlinks

SSHRC will not fund the same research project with more than one grant at the same time. However, researchers may submit multiple applications for SSHRC funding. In such cases, the following additional regulations apply:

1. A researcher may not hold, as [applicant](#) (principal investigator/project director), more than one standard research grant at the same time.
2. A researcher may not hold, as [applicant](#) (principal investigator/project director), more than one grant of the same support mechanism in the same strategic grant program at the same time.
3. A researcher may hold, as [applicant](#) (principal investigator/project director), a standard research grant and a strategic grant at the same time provided that each research project involves different objectives.
4. A researcher may hold, as [applicant](#) (principal investigator/project director), a standard research grant or strategic grant and participate in, as co-applicant or collaborator, any number of other grants.
5. In the Community-University Research Alliances (CURA) program, SSHRC will accept more than one application from any university or community organization. However, applicants are strongly encouraged to promote consultation and coordination within their organizations, as only one CURA may be funded per university or community organization per competition.
6. A researcher may hold as [applicant](#) (principal investigator/project director), at the same time and for the same activity, a grant from the Aid to Occasional Research Conferences and International Congresses in Canada program and a grant from the Federalism and Federations Aid to Research Conferences program.

Note: In evaluating proposals, peer review committees may take into consideration the ability of the researcher or research team to successfully carry out the project, given their involvement in other funded research.

(Source: Aboriginal Research Adjudication Meeting - Committee Resource Binder)

The term "eligibility" usually refers to criteria that relate to individuals, particularly on the SSHRC Web site. However, in examining the *Standard Research Grant* (SRG) eligibility criteria manual and the eligibility section in the SRG adjudication committee manual, it is clear that internally there are several more criteria applied to determine the admissibility of an application (as opposed to criteria relating only to the applicant). In addition to the criteria described in the "Eligibility" section of the SSHRC Web site, in other sections criteria are included that would appear to determine admissibility: some appear in the description of the programs; some in the "Value and Duration" section; some under Evaluation and Adjudication; others among the Administrative Regulations – in other words, in nearly every section of the Web site and, in many cases, of the internal documentation where this documentation mirrors the Web site. Other guidelines about eligibility appear in the Definitions section, especially in the definitions of "Applicant", "Co-applicant" and "New scholar". The *Regulations Governing Grant Applications* section also mentions eligibility in certain sub-sections such as Intercouncil Grant Mechanisms, Multiple Applications, Research Time Stipends and Salary Replacement, Tri-Council Guidelines for the Support of Research and Training in Psychology. In addition, procedural eligibility guidelines also appear at the top of the online Application Form Instructions (see Box 3 next page).

- **[High] Recommendation 1:** To improve consistency, compile all the eligibility criteria in one section of the web-site. This section should mirror the SSHRC internal eligibility documentation used for screening applications. The criteria should be presented in the form of a check list.

Box 3. Additional procedural eligibility guidelines

Note: In response to increasing concerns from selection committees, SSHRC will be taking this year a stricter approach to applications that do not meet the specified format requirements. **Applications where attachments exceed the specified page limits and margin requirements may be declared ineligible.** In addition, stricter and more clearly defined limits have been placed on the type and size of font that applicants must use in the body text of their attachments. Ensure that you read carefully the specific program requirements outlined under the Attachments section of this document.

(Source: Application Form - Standard research Instructions (Web), p.1)

2.1.2 Distinction between eligibility and administrative criteria and mechanisms to mitigate risks

Another problem is that it is not clear from SSHRC's internal documentation whether an item should be considered to be an eligibility criterion or an administrative criterion. An eligibility criterion should be a fairly clear, dichotomous item: an application either meets that criterion or does not. Failure to meet an administrative criterion in terms of a SSHRC or specific program standard would not usually mean that an application would be rejected on that basis alone. It would involve either a program manager taking steps to overcome the problem or negotiating with the applicant to this end. An example might be the title of a proposal. The SSHRC internal Standard Research Grant's Eligibility Criteria manual states: "Please ensure that the title is "politically" correct since the Public Affairs Division will be publishing the results of the successful applications". An award would be unlikely to be denied on the basis of a not very acceptable title. Rather, the applicant would be contacted by a SSHRC's official and asked to provide a title that would be more acceptable to the Canadian public.

The lack of a proper distinction between eligibility and administrative criteria may create another problem: responses to similar situations could vary among program officers and over time. Currently, no program has an accompanying manual that provides an in-depth description of the *process* followed to screen an application. This means that new program managers are not trained according to an established procedure. Rather, they undergo an initiation process during which they progressively acquire the tacit knowledge on which decisions about the eligibility of an application are based. At best, this translates into significant variation in judging what is considered to be an eligible application. At worst, it opens the way to individual prejudice being applied to decide whether an application is fit or not. The lack of properly documented standard operating procedures and of screening process manuals means that the collective memory of SSHRC is vested in individual program officers' memories and therefore is liable to be lost on their departure. It also introduces the risk of discriminatory behaviour.

One of Science-Matrix' tasks was to "identify the documented procedures that mitigate each of these risks: personal, linguistic, gender, disciplinary, regional, or institutional preference and bias and to note those risks that are not addressed." After careful reading of all the documentation provided by SSHRC, and on the basis that this documentation is all that is available to program officers, we have to conclude that no formal mechanisms are in place to mitigate those risks among program officers. Of course, there may be some general SSHRC documents (which we were not privy to) that are read by program managers and provide a code of conduct that aims to reduce the risks of positive or negative discrimination.

The SSHRC's *Non-Discrimination Policy* applies to persons (applicants) that meet the eligibility requirements (see Box 4 next page). Therefore, it is important to define, record and make public all documented and tacit requirements, criteria, rules and processes that determine their suitability to avoid risks and bias prior to the program officer's final decision.

Box 4. Non-Discrimination Policy

SSHRC's web site

No persons meeting the eligibility requirements will be subject to discrimination under any program or activity receiving financial assistance from the Social Sciences and Humanities Research Council.

Applicants are requested to inform SSHRC if there are special circumstances, such as child-rearing, administrative responsibilities, illness or disability, which may have delayed or interrupted studies or research, or otherwise affected the performance on which the assessment for funding will be made.

While particular care is taken by SSHRC to draw the attention of the adjudication committees to the special circumstances described in the applications, the final judgement on the weight to be given any factors detailed by applicants is left to the collective judgement of the adjudication committee members.

SSHRC expects that the institutions countersigning the applications have committed themselves to a similar policy.

(Source: Apply for funding, SSHRC's web site - http://www.sshrc.ca/web/apply/policies/nondiscrimination_e.asp)

Adjudication committee manual

No persons meeting the eligibility requirements will be subject to discrimination under any program or activity receiving financial assistance from the Social Sciences and Humanities Research Council.

(Source: Standard Research Grants Programs – Manual for Adjudication Committee Members, p.7)

Suggestion: Science-Metrix suggests that SSHRC should clearly document the formal and tacit rules used to determine the eligibility of applications and document in detail the administrative rules and action expected from program officers in relation to frequently encountered situations, and document procedures that mitigate each of these risks of bias: personal, linguistic, gender, disciplinary, regional, or institutional preference. Also, to improve the documentation of eligibility requirements, SSHRC should provide clear definition of eligibility criteria as opposed to administrative criteria. This distinction should be used in all the documentation.

2.1.3 Eligibility screening procedures

Generally, program officers are accountable for recommendations as to the eligibility of applications for their Director for sign off on. The program officers screen applications for eligibility inform unsuccessful applications by letter signed by the Director, and then prepare and forward applications to the committee in advance of the adjudication meeting. However, as mentioned before, there is no specific manual or formal documentation providing program officers with comprehensive guidelines and screening procedures. The only eligibility criteria manual provided for this study had been produced to familiarise the program officers of the *Standard Research Grant* with eligibility criteria. Examination of SSHRC internal documentation relating to eligibility screening suggests that in most cases, it was put together by copying and pasting the contents of SSHRC online program sections (*Apply for funding*) into the adjudication manuals. This cannot be considered to be a well documented standard operating procedure, and existing program-specific documentation does not address the risks linked to preferences and biases and how to mitigate them. Science-Metrix suggests that SSHRC produce a screening manual for each program. Because program officers may have to discuss the eligibility status of some applications with adjudication committee members, this manual should be accessible to adjudication committees and, ideally, to SSHRC clients in order to ensure rigour and transparency. The template for these screening manuals should be the same for each program.

- **[High] Recommendation 2:** Produce for each program, an eligibility screening manual aimed at program officer, that takes account of the above recommendations (no. 1). This manual should clearly document the formal and tacit rules used to determine the eligibility of applications and should document in detail the administrative rules and action expected from program officers in relation to frequently encountered situations and document procedures that

mitigate each of these risks of bias. This manual must make a clear distinction between eligibility criteria and administrative criteria.

3 Assessing the Applications

3.1 Online documentation

3.1.1 Online evaluation and adjudication guidelines and procedures

The documentation analysed in this section was gathered from the Evaluation and Adjudication² section of SSHRC's Web site for each of the 13 grant programs selected for this study. An "Evaluation and Adjudication" section is available for most programs, it briefly describes the process and provides information such as the number of application stages and their related peer review procedures, the composition of the adjudication committees, and other committees where applicable, the number of external assessments and evaluation criteria. The information in this section about application requirements and procedures is rather mixed.

Similar to the online eligibility section, the format and level of detail of the evaluation and adjudication sections vary considerably between programs. In addition, the online documentation is scant compared to internal (printed) documentation, which means that the evaluation and adjudication process is not transparent. For instance, for most programs, this section gives only a brief list of the evaluation criteria although a few programs describe the evaluation and adjudication process in a more structured and detailed manner. One program, the CISS Research Data Centres, has no online evaluation and adjudication section.

SSHRC's funding programs have diverse objectives and cover a broad range of research activities. This diversity is reflected in the widely varying number and types of criteria used to assess applications across funding programs. However, why some programs provide fairly detailed information while others provide a simple list of criteria is not clear and is not explained by the relative sizes of the programs.

3.1.2 Online scoring and ranking procedures

Furthermore, generally (except for Standard Research Grants and Research/Creation Grants in Fine Arts) there is no information about the scoring and ranking guidelines and procedures, e.g. the score value of each evaluation criterion, and the minimum score required for each evaluation criterion, and minimum overall score for the application. When preparing grant applications, SSHRC clients would benefit from knowing more about how each evaluation criterion is scored. This could be presented in the form of a score sheet that cross-references application requirements.

- **[High] Recommendation 3:** Compile and standardize the documentation relating to evaluation and adjudication guidelines and procedures including presentation and definition of evaluation criteria throughout online and internal documentation for every program. Scoring guidelines and procedures for each program that lead to recommendation for funding should also be documented and published online.

3.1.3 Online guidelines and procedures used by committees to mitigate risks

Online documentation does not inform SSHRC clients in detail about the guidelines and procedures used by committees to mitigate risks and biases during the adjudication process. However, it can often be

² That is, following this path : >Apply for funding > All SSHRC Programs > e.g. Standard Research Grants > Evaluation and Adjudication.

critical for an applicant to know how the adjudication process will deal with his/her particular status or characteristics and institutional affiliation. The only online documentation that discusses mitigation procedures was in relation to young career researchers, new applicants or former grant holders, or small research institutions as illustrated below (see Box 5 below).

Box 5. Documented mitigation procedures (online):

Standard Research Grants: *“Particular emphasis will be placed on the applicant's overall contribution to research, measured against the stage of his/her research career. Circumstances that can be shown to have justifiably impeded the applicant's development of research achievements will also be taken into consideration. Regarding item (h) above, allowances will be made for applicants who have not had the opportunity to supervise graduate students because their university does not offer graduate-level programs in their disciplines or fields.”*

“For applicants adjudicated in the [new scholar](#) category, the record of research achievement and the program of research are weighted in the overall score such that either a 60/40 or 40/60 ratio will apply, depending on which will produce the more favourable overall score. For example, if a new scholar receives a higher score on the program of research compared to the record of research achievement, 60 per cent of the overall score will derive from the score on the program of research, and 40 per cent from the score on the record of research achievement.”

Major Collaborative Research Initiatives (MCRI): *“SSHRC's adjudication committees consider applications for a second MCRI grant on an equal basis with new applications. Adding knowledge or disseminating research results as a follow-up activity to a previously-funded MCRI project do not constitute grounds for receiving a second MCRI grant. To compete with new applicants, second-time applicants must present persuasive arguments for the leading-edge nature of their proposed research and its major impacts. They must also demonstrate their capacity to deliver promised outputs from their first MCRI grant.”*

Research/Creation Grants in Fine Arts: *“The committee's application of the five criteria will take into account the stage the applicant and any team members have reached in their careers. Emerging scholars will be assessed as much on their promise as artist-researchers as on their achievement to date in research/creation. The committee will also take into consideration circumstances that the applicant demonstrates have justifiably impeded his or her achievements in research/creation. Allowances will be made for applicants from smaller institutions who are not in a position to supervise graduate students.”*

Suggestion: Science-Metrix suggests that SSHRC program managers should determine whether the guidelines and procedures used by committees to mitigate risks and biases during the adjudication process should be included in online documentation for all programs.

All recommendations formulated so far represent a significant information and knowledge management challenge to SSHRC. Although SSHRC will necessarily want to keep some administrative information confidential, there is room for greater simplicity and more transparency which can be achieved by more detailed description of describing procedures. This can be achieved by standardizing and by centralizing relevant information for applicants. Potential risks or biases related to misinformation or absence of information would also be reduced.

- **[Medium] Recommendation 4:** Produce a downloadable and printable manual for applicants to each program that integrates application instructions, application forms, eligibility and admissibility (administrative) criteria, risk mitigation procedures, evaluation criteria, scoring and ranking guiding principles, and detailed step-by-step evaluation and adjudication procedures.

As mentioned above, currently SSHRC's online documentation is distributed among several Web pages (HTML) and is in Portable Document Format (PDF) files. Access would be greatly improved if the contents of all these pages were organized into a single downloadable manual in both PDF and Word formats. Dynamic tables of contents and cross-references using hyperlinks could be incorporated to

facilitate navigation of the manual. Also, search functions would help users to quickly find specific information.

3.2 Internal documentation

The description of the evaluation and adjudication guidelines and procedures available in online documentation was generally found to be less detailed than in a number of internal adjudication committee manuals.

This section summarizes our findings based on a systematic scan and analysis of internal documents.

3.2.1 Fundamental Principles for Adjudicators and Role and Functioning of Adjudication Committees

Adjudication committee manuals (and binders) relating to the programs under study commonly consist of generic guidelines and information on the adjudication procedures applicable to all SSHRC funding programs. This generic material generally comprises four sections: *Purpose of the Manual*, *The Social Sciences and Humanities Research Council*, *Fundamental Principles for Adjudicators*, and *Role and Functioning of Adjudication Committees*.

The *Fundamental Principles for Adjudicators* and *Role and Functioning of Adjudication Committees* sections were found to include guidelines that addressed risks and biases, and the procedures used to mitigate them.

The *Fundamental Principles for Adjudicators* section includes the most important guidelines on areas of confidentiality such as the Access to Information Act and the Privacy Act, the protection of intellectual property of applications, anonymity of external reviewers, assessors and committee members, management of conflicts of interest, Ethics and Integrity in Research, SSHRC's Non-Discrimination Policy, and the appeals and complaints procedures.

The *Role and Functioning of Adjudication Committees* section provides details on the organization of committees and on the selection of committee members (process, criteria, term of service). This section also describes the responsibilities of committee members and adjudicators (Readers A and B), the Committee Chair and the Program Officer.

Committee selection guidelines and criteria are the basis for well functioning procedures to mitigate risks and bias in the adjudication process (see box Box 6 below):

Box 6. Selection Criteria

The primary considerations in structuring adjudication committees are to ensure:

- the overall competence and credibility of the committee;
- the scholarly stature of the individual nominees;
- **appropriate representation on the basis of areas of expertise, university, region, language and gender;**
- **appropriate knowledge of both official languages.** (In order to participate in bilingual discussions without simultaneous translation, members must have a reading knowledge and good aural comprehension of the second official language.)

(Source: Standard Research Grants Programs – Manual for Adjudication Committee Members)

In some internal program manuals, these two sections were found to have different formats, were incomplete or completely missing (see following box).

- **[Medium] Recommendation 5:** For each program, standardize generic material from adjudication committee manuals by ensuring that all the manuals include comprehensive

sections on the fundamental principles for adjudicators and on the role and functioning of adjudication committees.

3.2.2 Conflicts of Interest

With the exception of the CISS Research Data Centres, conflicts of interest are covered in a clear and comprehensive manner in most program manuals. Areas where conflicts of interest can arise and appropriate action are clearly indicated, and specific advice offered in relation to individual programs (see Box 7 for example).

Box 7. Managing Conflicts of Interest

SSHRC recognizes that real or perceived conflicts of interest can and do arise in the adjudication of grant and fellowship applications. SSHRC's position is that these situations must be managed in an open and transparent manner. Committee members are responsible for identifying and addressing real or apparent conflicts of interest in order to maintain the community's confidence and trust and to ensure accountability.

Committee Chair

The committee chair plays a vital role in ensuring that SSHRC's policies and procedures are observed, and that potential or actual conflict of interest situations involving committee members are avoided. The chair works closely with program officers and seeks guidance, as appropriate, before and during the adjudication process.

Evaluation Criteria and Scoring

As with the letters of intent, except in cases of conflict of interest, all members must read all formal applications submitted to the committee for review. Each member comments on the proposal, the external assessments and the budget requested.

Source: Major Collaborative Research Initiatives Program - Manual for Adjudication Committee Members.

The information in the internal documentation on confidentiality is generally comprehensive. The use of information gathered by the SSHRC, and the processes for communicating award results are made clear, as are the measures taken to protect information on applications and assessors. Greater transparency about confidentiality could be provided by inclusion of a pro forma of the declaration signed by adjudication committee members. Risks might be mitigated if the exact guidelines that adjudication committee members must follow regarding confidentiality were made more explicit and were more readily available to all SSHRC staff and collaborators involved in these issues.

Suggestion: Science-Metrix suggests including in the section of the documentation on confidentiality of each program, a copy of the declaration that adjudication committee members sign to comply with the *Privacy Act*. Alternatively, a summary or list the guidelines that adjudication committee members agree to by signing this declaration could be provided.

3.2.3 Confidentiality, impartiality and objectivity

Information on the behaviour to be adopted by committee members to insure the quality and objectivity of adjudication in the case of appeals and complaints is comprehensive. The documentation clearly stresses the importance of assessors not communicating with applicants concerning their application, thus mitigating the risk of reducing the quality and validity of the adjudication process. Examples of the types of errors that provide grounds for appeals from applicants are also provided: these are useful for those involved in the adjudication process. The documentation would be improved by more explicit instruction about applicants and assessors not communicating directly. Currently warnings are only provided on the Notification of Competition Results page of the Regulations Governing Grant Applications section of the Website, and the Regulations section does not contain information on Confidentiality principles. Including these principles, and specifically those protecting the identity of assessors, might discourage attempts at contact from applicants, and reduce potential threats to objective evaluation.

Suggestion: Science-Metrix suggests that SSHRC includes instruction in the documentation relating to the Regulations Governing Grant Applications on the SSHRC Website, about contact between assessors and applicants, and on confidentiality, to discourage attempts from applicants to make contact.

It is interesting here to consider possible links between the *Fundamental Principles for Adjudicators* and the *Role and Functioning of Adjudication Committees* sections and detailed procedure workflow plans. The fundamental principles regarding conflicts of interest are already integrated in the section on the *Role and Functioning of Adjudication Committees*. Also, in some manuals, conflicts of interests and language of operation are mentioned in procedure workflow plans' section on the responsibilities of committee members and committee chair. These reminders reinforce the importance given to the fundamental principles for adjudication, further reducing possible risks and bias in the process. This could be done by making more reference to the *Fundamental Principles for Adjudicators* in the description of committee members' individual roles and responsibilities detailed in the *Role and Functioning of Adjudication Committees* section and in detailed procedure workflow plan section.

3.2.4 Evaluation and adjudication guidelines and processes

Following the generic guidelines and information located at the beginning of the manuals (*Fundamental Principles for Adjudicators* and the *Role and Functioning of Adjudication*), the contents of the internal adjudication manuals were very similar to the online program documentation in terms of program overview and objectives, context, description of the budget and number of applications, value and duration, and eligibility. These details are similar to the information that can be found in the program sections of the *Apply for funding* section of SSHRC's Web site. The findings and recommendations relating to these online sections are generally applicable to the corresponding sections in the adjudication manuals.

Program manuals contain a variety of guidelines on the adjudication process, with a view to making explicit the selection of members and setting up of the committees, the roles played by the various members of the committee, and the steps in the process. Most program manuals (CISS Data Training Schools; CURA; ITST; MCRI; Multiculturalism Issues in Canada; Standard Research Grants Program; Strategic Research Clusters Design Grants Program) provide guidelines on adjudication through the *Responsibilities* segment of the *Role and Functioning of Adjudication Committees* section. This segment presents the respective roles of Program Officers, Committee Members and Committee Chairs throughout the adjudication process from before and until after the Committee Meeting.

The description of members' responsibilities contains the most detailed information available on the adjudication process in many program manuals: only a few give additional information. The CISS Data Training Schools and ITST manuals provide an overview of the adjudication process, mostly focusing on the roles of various members and the preparation leading up to the committee meeting, in addition to the *Responsibilities* segment of the *Role and Functioning of Adjudication Committees* section. The Standard Research Grants Program manual provides the most complete account of the adjudication process, listing the specific tasks of program officers, committee members and committee chairs. However, other internal adjudication committee manuals do not include this detail. For example, guidelines and procedures on the handling of application files during the adjudication committee meeting is not systematically documented in the adjudication manual. Usually, two or three committee members (not including the chair) are designated to examine each application in detail in advance of the meeting. They are designated as Readers A, B and/or C. Reader A presents his/her evaluation in detail and readers B and C discuss reader A's findings and scoring and make additional comments. In fact, *Evaluating and Adjudicating Applications* sections tend to mainly present guidelines on evaluation criteria, scoring and ranking procedures, and to focus on preliminary scoring steps rather than on the adjudication committee meeting. Developing a systematic, step-by-step approach similar to that found in the Standard Research Grants Program manual would streamline the adjudication processes.

Finally, the Aboriginal Research and Research/Creation Grants documentation does not comprise a *Responsibilities* segment in the *Role and Functioning of Adjudication Committees* section or any step-by-step instructions. It does, however, provide procedural instructions regarding the adjudication process. These instructions cover topics such as the roles of committee members in the process, language of operation, steps in the process and general advice about how to proceed, among others. These instructions make very effective pointers and also refer to some of the Fundamental Principles of the adjudication process. It might be useful to consider integrating the content of these instructions in a step-by-step description of the adjudication process.

3.2.5 Evaluation criteria and scoring scales

Evaluation criteria are found in every program manual. The evaluation criteria and relative scoring systems are central to the peer-review adjudication process and vary in terms of assessment objects, quantity and level of detail according to the objectives and clientele of the different programs. The number of scored criteria ranges from 2 to 5 in the 13 programs reviewed here. In many programs, criteria are basically listed and described briefly. In others, the criteria are given a detailed description or, for instance in *Standard Research Grants*, are cross-referenced with the information to be provided by applicants.

Importantly though, the evaluation criteria mentioned in the adjudication manual of the Research/Creation Grants in Fine Arts program are not exactly the same as the ones listed online in the Evaluation and Adjudication section. This presents a fairly high risk of confusion.

As a general observation of the review process, the scoring systems were found to be fairly heterogeneous among programs. The scores attributed to individual criteria are generally well documented for all programs. Most of the programs reviewed use a monolithic score for each criterion. However, some programs attach greater importance to certain criteria by awarding higher weight among scored criteria. For instance in MCRI, the criterion *Proposed research program* is 30 points in a 100, Strength and Skills of the Project Director attracts a maximum of 20 points, Strength and expertise of the team is 20 points, Student training 15 points and Dissemination strategies 15 points. In CURA, it is the *Outcomes* criteria that attract the highest weighting with 40 points in a 100 and the criteria *Present Canadian strength* and *Demonstrated experience* are worth a maximum of 35 points each in Strategic Research Clusters Design.

Predetermined scoring scales, or score ranges, for each criterion are documented for some programs, but for nearly half of the program are not included. In general, if the maximum score for each criterion is 10 points, score ranges are as follows: 9.1-10/Outstanding, 8.1-9.0/Very good, 7.1-8.0/Good, 6.0-7.0/Acceptable, 0.0-5.9/Insufficient quality. Programs with non monolithic scoring schemes (MCRI, CURA and Strategic Research Clusters Design) and some other programs such as Multiculturalism Issues in Canada, Relationships in Transition, do not have predetermined scoring scales or score ranges in their scoring guidelines.

The *Standard Research Grants* and *Research/Creation Grants in Fine Arts* scoring schemes evaluate two criteria: Record of Research Achievement and Program of Research. These two criteria are scored to a maximum of 10 points each. However, they are defined by a set of non-scored detailed specific criteria (six to eight), while in other programs scores are attributed to each specific criterion listed. Since it simplifies the scoring process (at the cost of greater subjectivity), the use of this aggregate scoring method is undoubtedly attributable to the fact that this program receives a large number of applications each year.

The Pilot Program Aboriginal Research/Development Grants is an exception since its summary sheet uses a nominal three-level scale (High, Average and Low). However, a printed e-mail from the program officer suggests that committee members adopt a numeric score ranging from 0 to 10, which is similar to

the method used in other programs. Also, it mentions that “*The committee can establish what it believes are the 'earmarks' of applications at various levels. Then the score can be adjusted so that the final committee rankings reflect this understanding*”.

Overall, predetermined score ranges or scoring scales for each evaluation criterion are often absent from adjudication manuals or not fully integrated in the scoring procedures section and some additional indications in relation to scoring have been found in ad hoc material (e-mail or miscellaneous sections in binders). In order to establish a common base for assessment among evaluators and especially for the preliminary scoring made before the adjudication committee meeting, adjudication manuals should provide a predetermined scoring scale for each ranked criterion.

The variation in terms of scored criteria between programs can certainly be explained by the modus operandi of the particular program. However, it could be beneficial for SSHRC to assess the relevance of these different evaluation criteria and scoring schemes in order to standardize the overall SSHRC assessment process. This could minimize risk of inequities in the assessment of applications between programs and would increase the transparency of the process.

- **[Medium] Recommendation 6:** Assess the effectiveness of and standardize the scoring methods and the number and the value of scored criteria for each program. Also provide in the scoring guidelines in the adjudication manual a predetermined scoring scale for each ranked criterion.

3.2.6 Particular evaluation and scoring guidelines

Some programs aim at supporting and encouraging researchers at the start of their careers or those returning to research (see Box 8 next page). Two programs have specific scoring/ranking systems for such applicants: *Standard Research Grants* and *Research/Creation Grants in Fine Arts*. This commitment is clearly indicated in the Eligibility Criteria section and in the Scoring System section of the manual. The scores and descriptors take account of stage of career, or special circumstances, as appropriate.

Most programs do not specifically consider and rate qualifications, experience and the career stages of applicants. While some programs are reserved to more experienced and qualified researchers, others have no clear guidelines as to the evaluation and scoring disadvantages faced by young researchers or those with non-conventional career-paths. Indeed, except for *Standard Research Grants* and for *Research/Creation Grants in Fine Arts*, no such evaluation and scoring guidelines are documented in adjudication manuals.

- **[High] Recommendation 7:** Document and publish clear evaluation guidelines and scoring procedures as appropriate, to ensure that track records of applicants and any other particular variables are considered in the assessment in relation to their career stage or other particular circumstances. Where the evaluation does not consider any particular dimension or where programs target particular types of applicants, the target population should be explicitly described.

Box 8. New Scholars guideline in SRG

SSHRC is committed to supporting and encouraging scholars who are beginning their research careers or who are returning to research after an interval devoted to family responsibilities. Such scholars may apply as *new scholars* (the term bears no relation to the age of the scholar in question). SSHRC staff determines whether an applicant is eligible as a new scholar on the basis of the criteria set out below. The adjudication committee may not change an applicant's designation.

[Applicants](#) requesting consideration as a new scholar must demonstrate that they have not applied successfully, as principal investigator or project director, for a grant from any of the following SSHRC programs: [Standard Research Grants](#), [Major Collaborative Research Initiatives](#), or [Strategic Grants](#).

In addition, they must have:

1. completed their highest degree no more than five years before the competition deadline (SSHRC considers only the date of completion of the first doctorate); **or**
2. held a tenured or tenure-track university appointment for less than five years; **or**
3. held a university appointment, but never a tenure-track position (in the case of institutions which offer tenure-track positions); **or**
4. had their careers significantly interrupted or delayed for family reasons.

(Source: Standard Research Grants Programs – Manual for Adjudication Committee Members, p. 16)

3.2.7 Preliminary feedback and scoring guidelines and procedures

Preliminary scoring, ranking, and comments from committee members are usually requested in advance of the adjudication committee meeting. Some internal documentation (mainly collated into binders) provides summary sheet/preliminary feedback and scoring sheet (point-form comments sheet) for evaluation, but most of the manuals do not include this fundamentally important material. Some programs, such as MCRI refer to a “Scoring and Comments Sheet” which committee members must complete before the letter of intent and the full application stages, but do not include these documents in the manual. This suggests that material additional to the adjudication manual is provided to committee members, together with applications forms and attachments (applications binders).

The best practice is exemplified by the *Research/Creation Grants in the Fine Arts* binder which encloses specific guidelines to evaluators and a Preliminary Feedback & Scoring Sheet. In accordance with adjudication guidelines and procedures, this type of material should be included in every adjudication manual since it represents a key part in the evaluation process.

To expedite proceedings at the adjudication meeting, committee members are asked to fax or e-mail to program officer preliminary scores for each application between two and five days in advance of the meeting. Program staff then compile a spreadsheet containing the preliminary set of scores. This collection of preliminary scores and comments by program officers ahead of the meeting is an important process, which ensures objectivity and independence of assessment among committee members. Despite the importance of this information, details on preliminary scoring and comments procedures are not collated in one place but are spread across the “Evaluating and adjudicating applications” section of manuals, in the “Adjudication Process”, in “Adjudication Committees: Organization and Operation” section, in the “Responsibilities - Committee Members” section, and in a dedicated section entitled “Submitting Preliminary Scores”. There is no detail about procedures for program officers to ensure that committee members submit their preliminary scores on time.

- **[High] Recommendation 8:** Produce and include in the adjudication manual preliminary feedback and scoring sheets for each program and clearly document the guidelines and procedures for preliminary feedback and scoring in an explicitly labelled section of the adjudication manual.

3.2.8 Guidelines and procedures underlying assessors' assignments and tasks

Overall, guidelines and procedures that tackle the roles and tasks of committee members (internal assessors) before the committee meeting were found to be fairly well documented. However, the processes during the meeting were less well detailed and not systematically presented in adjudication manuals. Some programs that provide detailed instructions about the adjudication procedures through a step-by-step workflow, or specific detailed active guidelines and procedures give more insight into the modus operandi of the committee.

As mentioned in the SRG manual, the main procedural steps³ in the adjudication committee meeting are to:

- discuss all the applications on the basis of their preliminary scores;
- decide, by consensus, on a final score for each application;
- rank the applications;
- agree, for each application recommended for funding, upon an adequate budget for the proposed research;
- agree the comments that will be forwarded to each applicant (principal investigator).

The first two steps, and the preliminary assessment work of committee members and external assessors, constitute the core of the evaluation procedure. Not all the programs reviewed require external assessment and advice for the evaluation of applications. External assessment is mandatory for research programs in Standard Research Grants and MCRI. Strategic research programs have different guidelines regarding external assessment. For the six strategic grants programs, it is mandatory for two (Aboriginal Research and Research/Creation Grants), optional for two (CURA and Strategic Research Cluster Design) and not applied for two (ITST Networking Program and ITST Summer, Institute, Workshop & Conference Grants).

For the majority of programs reviewed (8 on 13), committee members are designated as Readers, related to their areas of expertise, to assess particular applications in advance of the meeting. During the meeting, preliminary deliberations and discussions of the comments of two or three readers (who have examined the application in detail) for each application, ensure that the scores fairly reflect the merits of the applications. Basically, Reader A provides members with a brief summary that identifies the strengths and weaknesses of the proposal and makes a preliminary recommendation. Reader B (and Reader C) makes additional comments. To ensure that the decision reached reflects a consensus, any member may request further discussion. The role of assigned readers is described in the section "Responsibilities - Committee's members" or in the adjudication section (see Box 9 next page).

The procedures relating to in-session readers' deliberations are not well documented in the adjudication manuals.

³ Source: Standard Research Grants Programs – Manual for Adjudication Committee Members, p. 19.

Box 9. Readers A and B (in Responsibilities - Committee Members)

In Standard Research Grants, to facilitate committee discussion, two committee members (other than the chair) examine each application in detail. They are designated as Readers A and B.

As Reader A or B, you must:

- Ensure that you are not in a conflict of interest with the applicant (principal investigator) or with any co-applicants (co-investigators) or research collaborators of any application assigned to you.
- Prepare your comments on each application with a view to the discussion that will take place at the committee's meeting in March, including a summary, on the Committee Comment and Scoring Sheet, of your observations about the records of research achievement and proposed programs of research according to the criteria set out in this manual. Where possible, relate your observations to the assessors' comments, noting agreement or disagreement. Where your views do not concur with at least one of the assessors', briefly explain in your notes why you do not endorse the assessors' opinions. Your notes on the scoring sheets will serve as your speaking notes during committee discussions and to the extent that the committee endorses readers' observations, their notes form the basis of the comments that the committee forwards to each applicant.
- Assign a preliminary score to each application assigned to you, based on one score for research achievements and one for program of research. Use Tables 1 and 2 in Part VII, Section 5 of this manual.
- Recommend an amount for the budget of each application assigned to you. In those cases where you assign scores above 6.0 for both research achievement and program of research, you must propose, based on the budget you have recommended, an amount to be awarded for each year that is sufficient to allow the applicant to conduct the research successfully.

(Source: **P1.M1** Standard Research Grants Programs – Manual for Adjudication Committee Members.)

Preliminary Deliberations (in Evaluating Letters of Application)

In Relationship in Transition Strategic Joint Initiative, the Chair will review the preliminary scores with the committee and make note of any application where there is a **discrepancy of 10 or more points** in the assigned scores.

Reader A will provide members with a brief oral summary, identify strengths and weaknesses of the proposal and suggest a preliminary recommendation. Reader B and Reader C will make any additional comments. Those applications that have a discrepancy between the Readers will be discussed in more detail. To ensure that the decision reached is a consensus, any member may request further discussion of any application.

(Source: Relationships in Transition - Instructions for Committee Members)

3.2.9 Guidelines and procedures underlying committees' chair and program officers assignments and tasks

As mentioned earlier, the committee chair has a central function in ensuring that SSHRC's policies and procedures are observed, that discrepancies in the deliberations (on preliminary and external reviews, scoring and comments) are investigated, and that potential or actual conflicts of interest involving committee members are avoided. During all stages of the adjudication process, the chair works closely with the program officer from whom he or she seeks guidance. Together, they ensure that, throughout the competition, everyone involved fully understands and consistently applies the relevant SSHRC policies and regulations, and treats each application equitably and fairly. These guiding principles constitute the basis for ensuring that the adjudication process is performed with rigour, fairness and effectiveness. All these documented guidelines assume tacit knowledge of undocumented hands-on procedures to mitigate different types of risks and biases. Needless to say, manuals cannot document all these procedures, but it could be beneficial for SSHRC to produce a generic procedures manual that cross-references chairs' and program officers' tasks, and details possible risks and biases that might be encountered in adjudication process and related documented procedures.

- **[High] Recommendation 9:** Adopt a step-by-step workflow approach (A, B, C) for each program, and standardize, document and concentrate the roles, tasks and underlying procedures for each of the individuals involved in the adjudication process. This workflow schedule could be incorporated in the adjudication committee manuals and should clearly document for each program the guidelines and procedures pertaining to particular adjudication committee members such as chair, program staff, and evaluators' (readers) assignments and tasks before, during and after the adjudication meetings. This should include cross-references to the tasks of chairs and program officers, and evaluators, detail the possible risks and biases that might be encountered in adjudication process, and include official procedures to mitigate them.

3.3 External assessment

External assessment of applications is an important part of the adjudication process in a number of the programs studied here. Five of the 13 programs studied require external assessment. This requirement for additional external expertise is mandatory in some cases and is at the discretion of the adjudication committee in others. Generally, documented basic information, guidelines and procedures relative to external assessments are not fully detailed or systematically presented. This applies also to cases where external assessment is optional (a short sentence mentions the possible participation of external assessors) or is not part of the adjudication procedure. The *Standard Research Grants* manual presents clear guidelines to committee members in a specific section called *External Assessments* (see Box 10 below). This section places the judgement of committee members within the perspective of possible biases, inequality and conflicting recommendations from external assessors.

Box 10. External Assessments guidelines

The first part of the adjudication process involves obtaining, for every application, independent assessments from Canadian and international specialists in the appropriate field(s). Given the number and breadth of proposals that SSHRC receives, adjudication committees depend on the advice of external experts since they do not always possess the range of expertise necessary to competently judge all applications.

Each application must receive not fewer than two and not more than three such assessments. One of the assessors is selected, where possible, from the applicant's list of suggested assessors; the program officer chooses the other(s). SSHRC staff aim to send all applications to the assessors before the beginning of January and to forward the external assessments to committee members at regular intervals, with most reaching the committees before the beginning of February.

During the adjudication meeting, committee members judge the quality of the external evaluations and weigh the opinions expressed in order to decide on the relative merit of the applications. Should the committee make a negative recommendation contrary to the favourable recommendations of one or more of the assessors, the committee must take particular care to provide a clear rationale for that recommendation in order to demonstrate that the decision took full account of the external evaluations.

On occasion, the committee receives an assessment which it judges to be biased, unfair, or personally hurtful to the applicant. In such a case, Council asks the committee to use the committee comments to inform the applicant that it does not endorse the views of the assessor in question. In extreme cases, the committee may recommend that a particular assessor not be consulted in future.

If an assessment is insulting, degrading or defamatory to an applicant, the program officer may choose not to show that assessment to the committee.

In the rare case in which no external assessment is available for an application, the committee must take special care to justify its recommendations (based solely on its members' assessments) as fully as possible.

(Source: Standard Research Grants Programs – Manual for Adjudication Committee Members)

- **[High] Recommendation 10:** Clearly document in a specific section of the adjudication manual for each program, whether external assessment of applications is mandatory, discretionary, or not applicable. This section should include guidelines and procedures to be followed by the committee in terms of the treatment and consideration of external advice in the adjudication process. In addition, instructions to external assessors should also be included in manuals.

As mentioned above, external assessment is not used in the assessment process of all programs studied. SSHRC in all probability use some particular rationale to decide if a particular program needs the contribution of external advice for the adjudication of grants. However, some programs, despite their significant investments in grants (program expenditure and average grant value), do not use external reviewers. This obviously increases the risk of discrimination as a result of personal, linguistic, gender, disciplinary regional or institutional preference bias, and of conflicts of interest in the review process. For instance, the ITST, CISS, the Multiculturalism Issues in Canada and Relationships in Transition programs, which awarded grants in 2004 to an average of \$50,000, \$150,000, \$47,000, and \$40,000 respectively for large teams, do not make use of external reviewers (Table 2). Also, two of the programs studied use external assessment optionally: CURA and Strategic research Design. These two programs each awarded \$997,000 (5 years) and \$30,000 (5 months) on average.

Table 2 Risk-based analysis of external assessment practices and of program statistics

	Strategic Research Grants			Strategic Joint Initiatives		
	CURA	ITST ¹	Strategic Research Clusters Design	CISS ²	Multi-culturalism Issues in Canada	Relationships in Transition
External reviewers	Optional	No	Optional	No	No	No
PROGRAM STATISTICS						
Program expenditure 2003-04 (\$ '000)	\$6,476	\$567	\$885	\$450	\$967	\$84
Duration of grants (Number of years)	Up to 5	1	Less than 1 (5 months)	3	1	1
Maximum annual grant value (\$ '000)	FULL: \$200	\$50	\$30	\$50	\$50	\$25/\$40 large team
Maximum total grant value (\$ '000)	\$1,000	\$50	\$30	\$150	\$50	\$25/\$40 large team
Average value of grants 2004 competition (\$ '000)	LOI: \$19 FULL: \$997	\$40	\$29	\$150	\$47	\$36*
Number of applications 2004 competition	LOI: 125 FULL: 40	22	137	3	70	13*
Number of eligible applications	LOI: 124 FULL: 40	19	135	3	67	12*
Number of grants, 2004 competition	LOI: 31 FULL: 15	12	31	3	18	3*
Success rate as percentage of eligible applications	48%	63%	23%	100%	27%	25%

N/A: Not applicable; N/S: Not specified; LOI: Letter of intent; FULL: Full proposal; Dev: Development; Res: Research; ¹ Data Training Schools & Research Data Centres; ² Networking Program & Summer Institute, Workshop, & Conference Grants; * 2003 Competition

Source: Compiled by Science-Metrix from SSHRC documentation data provided by SSHRC Corporate Policy and Planning

Also, The number of grants awarded by these programs (with no or optional external assessment) ranges from 3 to 31 and the success rate of eligible applications ranges from 23% to 48%, which is comparable to other programs where external assessment is mandatory. Thus, risk-based analysis of the value of external assessment within the adjudication process for these programs is worth consideration.

- **[High] Recommendation 11:** Based on why/how it is used in some programs, assess the usefulness of external review for those programs where it is optional or never used. Integrate this external review process where appropriate.

4 Ranking and Recommending the Applications

4.1 Online documentation

Online documentation was found to be almost completely lacking in any reference to guidelines and procedures for ranking and recommendation. This information is available only in internal SSHRC adjudication manuals. As noted in relation to evaluation criteria, online documentation does not include information about ranking scales or how they relate to funding recommendations. Furthermore, in addition to fixed score-based ranking systems, some ranking procedures comprise a distribution of results reflecting the relative merits of the applications, the budget availability and a distribution formula. Again, these ranking and recommendation procedures are not described in the in online content. These guidelines and procedures are important to the understanding of SSHRC clients of the adjudication process and clients would benefit from access to them for two reasons: 1) they would be in a better position to understand their relative scores and the comments provided by the program officer; and 2) they would be able to identify and investigate administrative or procedural/factual errors that might have occurred in this part of the adjudication process.

The following sections examine ranking and recommendation guidelines and procedures documented in Adjudication Committee Manuals.

4.2 Internal documentation

4.2.1 Applications rank and distribution

Most of the programs use a system to rank or distribute the scores of applications. These ranking systems characterize the overall scores in specific ranges in order to harmonize scores among adjudication committee members. Predetermined ranking scales that set an overall minimum scoring value for funding consideration are used in five programs. The number of scoring scales and minimum scoring value for consideration vary little across these five (see Box 11 next page).

Other programs use an overall scoring threshold value to determine whether an application is worthy of further consideration for funding. This threshold is consistent with predefined minimum ranking values: 60/100 or 70/100. For some programs, this threshold may vary according to the level of applications, the available level of funding and the amounts to be awarded. In order to standardize the process, these ranking guidelines must be adhered to by committee members in making their preliminary scores. These ranks are discussed during the committee meeting and budget allocations are reviewed.

Box 11. Number of scoring scales and minimum scoring value for consideration

Programs	MCRI	CURA	Strategic Research Clusters Design	Multiculturalism Issues in Canada	Relationships in Transition
Number of predetermined ranking scales	3	4	3 (6 pairs)	3	4
Ranking scales (Ranking value, recommendation, meaning)	<p>80-100: excellent letter of intent; appears to fully meet all program objectives; highest priority.</p> <p>70-79: solid letter of intent; appears to meet most of the program objectives; worthy of consideration.</p> <p>less than 70: insufficient merit and/or potential.</p>	<p>80 - 100 Excellent proposal; appears to meet the objectives of the program fully; highest priority</p> <p>70 - 79 Solid proposal; appears to meet most of the objectives of the program; worthy of consideration</p> <p>60 - 69 Marginal proposal; appears to meet some but not all of the objectives of the program; the applicant may be encouraged to revise the proposal and resubmit in a subsequent competition</p> <p>Less than 60 Insufficient merit and/or potential</p>	<p>100/ 90 – 99.9/ 80 – 89.9 Should be funded/Excellent proposal</p> <p>70 – 79.9/ 60 – 69.9 Could be funded/Solid proposal</p> <p>59.9 or less Not recommended/Insufficient merit and/or potential</p>	<p>80 - 100 Excellent proposal; appears to meet the objectives of the program fully; high priority</p> <p>60 - 79 Solid proposal; appears to meet most of the objectives of the program; worthy of consideration</p> <p>Less than 60 Insufficient merit and/or potential</p>	<p>25-30 Excellent proposal; meets the objectives of the program fully; highest priority</p> <p>20-24.9 solid proposal; meets most of the objectives of the program; worthy of consideration</p> <p>15-19.9 marginal proposal; meets some but not all of the objectives of the program</p> <p>less than 15 insufficient merit and/or potential</p>
Minimum value for consideration	70/100	70/100	60/100	60/100	67/100 (20/30)

4.2.2 Budget and award size review and ranking applications according to available funds

At this stage of the adjudication process, the risks associated with personal, linguistic, gender, disciplinary, regional, or institutional preference and bias are mainly related to the preliminary and committee scoring processes of readers A, B, C, and on the committee members' deliberations on the attribution of final scores. Once overall scores are reviewed and given to each application, some adjudicating committees use predefined scoring distribution formulas to rank applications.

However, budget and award size review processes and related rank-ordering procedures are not systematically documented in adjudication manuals (see Box 12 for an example of this type of documentation) and are absent from many manuals. Globally, adjudication manuals are likely to focus on the preliminary scoring and preliminary ranking guidelines and procedures rather than on the meeting's deliberation and modus operandi. An exception here is the *Standard Research Grants* manual which presents a specific section on budget review (Section VIII) that details eligible and ineligible expenses, research time stipends and multiple funding sources guidelines and includes a section providing information on the historical distribution of application scores. Furthermore, specific guidelines consider the type of institutions of applicants thus reflecting the fact that researchers working in remote areas will tend to allocate a larger proportion of their budget to travel and communications than researchers located in urban centres.

Box 12. Budget Review and Size of Award

For each application that has received a score higher than 6.0 out of 10, the committee determines the level of funding that will be sufficient for the applicant(s) to carry out the approved program of research.

You should base the recommended grant value on the following criteria:

- the budget requested (which must bear clear and reasonable relation to the applicant's program of research);
- the justification provided;
- the normal standards and requirements of the relevant discipline(s) or field; and,
- the advice of the external assessors (if provided).

Please note that the budget appropriate for a team research program is likely to be somewhat larger than that required for an individual research program.

In addition, it is important to take into account the type of institution with which an applicant is affiliated: a researcher working at an isolated institution will tend to assign a larger part of his or her budget to travel and communications expenses than a researcher located in a major centre.

The primary task of the adjudication committee in this respect is to establish an appropriate overall level of funding for the program of research rather than to examine in minute detail each element of the proposed budget.

(Source: **P1.M1** Standard Research Grants Programs – Manual for Adjudication Committee Members)

4.2.3 Risks associated with ranking and budget availability

At the end of the committee meeting, the committee reviews the rank-ordered list of applications and finalizes their scores, rankings and budgets. A final list to be transmitted to the Council is produced in order to clearly allocate the adjudicated applications into three categories such as successful applications, applications recommended for funding, but for which funds are not available, and applications not recommended for award. However, there are no guidelines about what to do in the case that several applications with the same score are on the cutting line and a decision must be made about which to fund. The Standard Research Grants manual mentions this situation as problematic for the committee, but does not suggest a solution.

- **[High] Recommendation 12:** Clearly document the guidelines and procedures used by each program's adjudication committee to rank and distribute the scores of meritorious applications, to review the budget, and to determine award size and to decide about which applications to fund when several fall on the cutting line. Ranking and recommendation guidelines and procedures should be also available online and should mirror SSHRC's internal documentation. The documentation related to budget rulings should be included in the manual and should provide guidelines and procedures that mitigate risks and biases (personal, linguistic, gender, disciplinary, regional, or institutional preference and bias) during budget allocation and review.

4.2.4 Policy discussions from observers and committee members

The committees have an important policy role in improving the Council's adjudication process. Following the adjudication process, the committees hold a policy discussion in order to inform SSHRC's staff of difficulties encountered in the adjudication process and to advise on program policy issues. The minutes of these sessions serve as a basis for SSHRC senior management to improve policies and procedures. This practice constitutes a valuable process to improve future adjudications and to mitigate risks and biases.

For Standard Research Grants adjudication committee meeting, observers are also invited to attend the adjudication committee meetings: *"The observers act as liaison between the selection committees, SSHRC management and the Council and ensure that the committee follows SSHRC policies and*

selection criteria. Observers attend the committee meetings, but do not participate in the discussion of the applications". This procedure reinforces the roles of the committee chair and the program officers in ensuring that the committee's work is conducted with fairness, thoroughness and integrity and that all concerned fully understand and consistently apply all relevant SSHRC policies and regulations and treat each application equitably and fairly.

Despite the importance of this feedback process, few adjudication manuals incorporate observers'/visitors' and committee members' observations. This material would be helpful to new adjudicators in giving a flavour of the kinds of problems that have been identified and discussed.

Suggestion: Wherever possible, Science-Metrix suggests that comments and policy discussion on process improvement from observers and committee members should be available and be reflected by changes in the adjudication manuals and online material.

5 Official languages

5.1.1 Bilingualism requirement

SSHRC's *Regulations Governing Grant Applications* invite applicants to submit applications for funding in either of the two official languages. The bilingual requirement could be made more transparent to applicants if it were accompanied by the languages guidelines and procedures used by program officers and adjudication committees. For example, the Aboriginal Research Program internal manual specifies that "the language we all happen to share is English, however, a number of files are in French - here we may need to use some French to express views (e.g., subtleties) in the assessment". It is important for French speakers to know that English is the language used in committees since a French speaker might feel that the risk of discrimination would be lowered if the application were written in English rather than French. Currently, the only advice given to applicants on the SSHRC Web site is (see Box 13 below):

Box 13. Official languages guidelines used in application process

Applications may be submitted in either English or French. For further information, please refer to Canada's [Official Languages Act](#).

(Source: http://www.sshrc.ca/web/apply/policies/g_languages_e.asp)

This basic requirement of a reading knowledge and good oral comprehension of the second official language is also presented in the section *Fundamental Principles for Adjudicators*. However, this requirement is sometimes nuanced in other sections of manuals with ad hoc guidelines for language usage during the adjudication committee meeting (see box Box 14 below).

Box 14. Official languages guidelines used in adjudication process

Aboriginal Research - Development Grants	Research-Creation Grants in Fine Arts	Relationships in Transition
<p>Language(s) of operation:</p> <ul style="list-style-type: none"> - the language we all happen to share is English; - however, a number of files are in French - here we may need to use some French to express views (e.g., subtleties) in the assessment; - suggest we take the time needed 	<p>Language of operation:</p> <ul style="list-style-type: none"> -our common denominator is the ability to read the other official language -but we each need to be able to express ourselves in our langue de précision -so we will need to help other faire le 	<p>Since members are expected to be able to participate in bilingual debates without simultaneous translation, a reading knowledge of the second language and a good level of comprehension of its oral expression are minimum requirements. Members should feel free to speak in the language of their choice at committee meetings. Committee recommendations are</p>

<p>to translate, summarize in English;</p> <ul style="list-style-type: none"> - it's important on the French files that enough time be taken to ensure a fair assessment; - don't hesitate to provide or ask for clarification, whatever the language in use. 	<p>point</p> <ul style="list-style-type: none"> -suggest a mix of French & English + when discussing files, you can follow along on the Reader A Sheets -don't hesitate to ask for clarification (summaries are good to have anyway!) 	<p>recorded in the language of the applicant.</p>
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In addition, adjudication manuals do not contain specific sections or guidelines or procedures in relation to official languages.

- **[Medium] Recommendation 13:** Standardize for all programs the guidelines and procedures concerning spoken and written language usage during adjudication committee meetings. Guidelines for applicants on official languages guidelines should be accompanied by language-relevant guidelines and procedures used by adjudication committees and any other relevant committees in evaluating, ranking and recommending eligible applications.

6 Program statistics

Comparative analysis of programs based on quantitative information is a useful way to identify program management risks. In addition, the compilation of time-series indicators can provide a portrait of how programs evolve since some programs may have important year to year variations (total operating budget, total grant budget, number of applicants, number of awards allowed, etc.). SSHRC's Corporate Policy and Planning Division compiles, updates and annually publishes program statistics and competition results to enable SSHRC management, program staff and clients to have access to detailed up to date statistics on each grant program (see the *Program Statistics* in *About SSHRC* section on the SSHRC Web site). Disaggregated statistics are readily available for the Standard Research Grants program; for other programs statistics are aggregated at cluster level (i.e. Strategic Grants).

Program statistics on budgets, applications, applicants, institutions and awards are not systematically presented either in adjudication committee manuals or online program documentation. These detailed statistics could be summarized in a table incorporated in the relevant program documentation for program officers, applicants and adjudication committee members. Publicly available statistics would provide common background knowledge for those unfamiliar with the programs. Furthermore, detailed statistics are rich in terms of personal, linguistic, gender, disciplinary, regional, and institutional information and could be the basis for in-depth investigations of risks and biases.

SSHRC Corporate Policy and Planning (CPP) provided us with specific program statistics not systematically or easily available through public online or internal documentation. Detailed statistics were produced for each of the reviewed programs, but data for two sub-programs were not available since in the CPP database they were aggregated with their parent programs. In particular, the ITST Summer Institute, Workshop, & Conference Grants program is aggregated with the ITST Networking Program and the CISS Research Data Centres programs with CISS Data Training Schools.

- **[Medium] Recommendation 14:** Compile, update and make publicly available detailed program statistics for each grant program competition. SSHRC staff and clients would benefit from a summary table of these statistics being published in the program documentation designed for program officers, applicants and adjudication committee members.

Appendix A – SSHRC Programs Covered in this Study

Research Grants

- Standard Research Grants
- Major Collaborative Research Initiatives (MCRI)

Strategic Research Grants

- Aboriginal Research: Development
- Aboriginal Research: Research
- Community-University Research Alliances (CURA)
- Image, Text, Sound and Technology (ITST) - Networking Grants
- Image, Text, Sound and Technology (ITST) - Summer Institute, Workshop, and Conference Grants
- Research/Creation Grants in the Fine Arts
- Strategic Research Clusters Design

Strategic Joint Initiatives

- Canadian Initiative on Social Statistics (CISS) - CISS Data Training Schools
- Canadian Initiative on Social Statistics (CISS) - CISS Research Data Centres
- Multicultural Issues in Canada
- Relationships in Transition