

The Royal Society of Canada and Expert Panel Assessments: An Overview

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This overview was initially drafted by William Leiss in January 2010. It has been revised and augmented for presentation on the Website of the Royal Society of Canada.

Introduction

Among the many public-service roles of national academies around the world, one of the most important is the preparation of expert assessments on critical issues of public policy. The national academies in the United States, England, France, Germany and other European countries notably, have been very active on this front for many years.

By far the largest operation of this kind is managed by the National Academies in the United States, which operate under Congressional legislation dating back to 1863. This mandate directs government departments to commission studies on any subject where expert knowledge may be relevant to the public policy process. More than two hundred major studies are produced and disseminated each year. A large library of current and past studies is maintained through a website (www.nas.edu); many are available to the public, in the form of PDF files, free of charge.

Beginning in the 1970s agencies of the Government of Canada commissioned an occasional report of this type from the Royal Society of Canada, for example those carried out under the direction of Kenneth Hare on subjects such as nuclear waste and heavy metals. In the late 1980s, two influential reports were produced, one on HIV/AIDS and the other on nicotine and addiction. Between 1996 and 2004, after the Society standardized its procedures for conducting such studies, the Government commissioned a series of eight reports, many of which received widespread recognition around the world for their excellence in providing authoritative guidance on difficult issues of public policy. Most of them are available on this website (www.rsc-src.ca)

Typically, national governments request such assessments, but other governments and organizations also may do so. In addition, national academies may also undertake such projects on their own initiative. Over the years, different national academies have developed specific procedures for doing such assessments, and they are in a position to guarantee to produce a report that is authoritative in all respects: balanced, thorough, independent, free from conflict of interest, and based on a deep knowledge of all of the up-to-date, published and peer-reviewed research that is pertinent to the questions that have been posed. The RSC document “Expert Panels: Manual of Procedural Guidelines” (1996, revised 2009) is recognized as a model for the conduct of Expert Panels. It is also available on this website (www.rsc-src.ca)

1. The Purpose and Governance of Expert Panels

The fundamental purpose of expert panels is to provide governments and their agencies with independent, expert advice on key issues of public policy. Expert Panel Reports are meant to facilitate evidence-based policy-making. Generally, these reports deal with the interface between scientific knowledge and government policy-making. In all countries where Expert Panel Reports are produced, the national academy *always* has a direct role in overseeing the expert panel process, in choosing the panel members, and in reviewing the report before it is released to the public. The integrity of the process demands that these roles cannot be delegated by a national academy to any other organization.

Expert Panels sponsored or co-sponsored by the Royal Society are independent of the Society itself. The Committee on Expert Panels, chaired by the Expert Panel Secretary of the Society, is responsible for overseeing the establishment, administration and financing of Expert Panels. Once a proposal for an Expert Panel has been approved by the Committee on Expert Panels, the management of the Expert Panel process is governed by the scientific Advisory Committee, whose members are appointed by the Committee on Expert Panels upon the recommendation of the Expert Panel Secretary.

Specifically, expert panels:

- summarize and critically evaluate the “weight of evidence” on the questions posed to it, based on the published, peer-reviewed literature;
- follow recognized procedures in their inquiries, based on the practices of senior national academies that have extensive experience in such matters;
- are “balanced” in their composition (with respect to recognized disciplinary approaches), are free of conflict of interest, have all of the expertise necessary to answer the questions, and are suitably varied in their composition;
- prepare reports that are peer-reviewed, but are not seen by the organizations which request them until the report is released to the public.

2. Choosing topics for Expert Panels

In most developed countries national academies are frequently asked by governments and their agencies to prepare expert assessment reports. These agencies typically initiate the process by presenting the academy with a draft terms of reference for a study, and normally there is a standing agreement about how the project costs will be covered. Occasionally, private organizations, including business and industry entities or charitable bodies, may request this type of study. However, where businesses propose to sponsor a study, national academies are careful to seek a wider sponsorship, including public-interest groups, before they agree to proceed.

In addition to situations where Expert Panels are proposed by governments, agencies and private bodies, national academies often take the lead in establishing Expert Panels. Sometimes national academies partner with other academies or NGOs in sponsoring Expert Panels. Finally, national academies can also sponsor these projects by themselves, without having an external partner, using their own funds. In both these latter cases, national academies usually establish oversight committees to determine whether or not to institute an Expert Panel process. The Committee on Expert Panels and the Scientific Advisory Committee for Experts Panels are the two RSC bodies that perform this function.

The Committee on Expert Panels is the Society’s clearing-house for the selection of Expert Panel topics. Fellows who wish to suggest a new topic for treatment by an expert panel may write to the President of the RSC or the Chair of the Committee on Expert Panels with a one-page proposal. The proposal should contain the following sections: (1) A one-paragraph description of the subject-area and the reason why a report on it by a national academy expert panel would be in the public interest; (2) a list of key questions about the subject-area that such a panel should address; (3) if possible, suggestions about what agencies (governments or suitable private parties) might be willing to cover the costs of the project. The Committee on Expert Panels will consult with the Scientific Advisory Committee once such a proposal has been made, and will determine whether the proposal is timely and financially feasible.

3. The Expert Panel Process

A specific administrative structure has been developed to assist the Society and the Committee on Expert Panels in managing the expert panel process. This structure is based on a separation of functions between project approval, oversight, panel membership, and peer review.

Project approval is in the hands of the Committee on Expert Panels. Oversight is provided by a Board or Senior Committee whose members are responsible for ensuring that recognized rules of procedure are followed. The Scientific Advisory Committee on Expert Panels performs this function and is responsible for recommending the membership of panels, including the chair; overseeing the conduct of panel

activities, managing the peer review of the draft final report, and assisting the panel chair and members with any difficulties that arise during the conduct of their work.

The Scientific Advisory Committee on Expert Panels performs two key functions in the early stages of all panel projects: (1) preparing the preliminary terms of reference [TOR] for each project, and (2) compiling the panel appointment dossier that is the basis for the selection of panel chair and panel members. (If there is an external client for a panel project, the Scientific Advisory Committee on Expert Panels works with the client on formulating the preliminary TOR.) The preliminary and final terms of reference for a panel project is in a sense the Scientific Advisory Committee on Expert Panels's most important responsibility, because they define the specific nature of the project and because the panel will be held accountable for fulfilling the demands of its terms of reference.

Once it is appointed, each panel reviews the preliminary TOR at its first meeting and may propose changes to it; however, any changes must be accepted by the Scientific Advisory Committee. The TOR are published at the time the panel is announced. With the concurrence of the Scientific Advisory Committee, the panel may also, at some point in its deliberations, issue a document known as "Working Terms of Reference," in which it gives an indication as to how it will approach the discussion of the major issues that have been set before it. Finally, through the peer review process the panel's accountability for responding adequately to the study's TOR is evaluated.

The panel appointment dossier consists of three sections: (a) a determination, by the Scientific Advisory Committee, of what types of academic expertise specializations are needed in the panel composition; (b) those individuals recommended for appointment; and (c) a list of other candidates who were considered for panel appointment, some of whom would have been asked to serve and declined this opportunity for a number of personal reasons. This dossier is supplied to the Committee on Expert Panels, which is requested to recommend to the President of RSC that the proposed appointments be made.

A variety of considerations goes into the judgements made by the Scientific Advisory Committee about what is likely to be a robust panel composition. These include, in the first place, the size of the panel, but also matters of appropriate distribution with regard to gender, geographical region, seniority, and the university where a faculty appointment is held, as well as representation of those working in both official languages. For all RSC Expert Panels, a majority of panel members will be Canadians; but almost all panels have at least one foreign representative.

Of course, the overriding criterion for panel selection is the specific academic and professional expertise that is required in light of the subject-matter stipulations in the terms of reference for the project. The "balance" that is sought in panel composition is largely a matter of matching the subject-matter requirements with the individuals whose cumulative, overall academic performance record is best suited to addressing those requirements. There is, of course, an element of subjective judgement here that is unavoidable.

The Scientific Advisory Committee asks every panel to make every effort to prepare a consensus report on the major issues set before it, wherein all panel members agree on a single text for the final report and there are no dissenting views expressed in minority reports. (Since every panel operates with a high degree of autonomy, there is no rule forbidding the tabling of minority reports.) Long experience of various national academies, including RSC, in sponsoring expert panel reports indicates clearly that panel members are comfortable with the idea of producing consensus documents.

4. The Peer Review Process

National academy panels employ a special, independent process to ensure the integrity of the Final Report. First, the Scientific Advisory Committee, in consultation with a Peer Review Monitor that it also names, appoints a number of expert peer reviewers who work independently of each other. Each Peer Reviewer files a separate commentary and report with the Expert Panel, which is then requested to consider any points raised by these reviews.

The general assignment given to peer reviewers for national-academy expert panel reports is generally the same, no matter what the area of inquiry:

1. Has the panel addressed, satisfactorily, the study requirements as contained in the terms of reference?
2. Does the draft final panel report cite, and rely upon, the up-to-date academic literature, as published in peer-reviewed journals and books in all of the relevant subject-areas?
3. Do the arguments advanced by the panel, in response to the terms of reference, display the requisite range, balance, appeal to evidence, and consideration of diverse perspectives in its response to the relevant literature?
4. Do the arguments advanced by the panel display the requisite degree of conceptual and analytical rigour? If the report contains policy recommendations, are those recommendations well-supported by evidence and argument?

The Peer Review Monitor, also appointed by the Scientific Advisory Committee, is entirely independent of the Expert Panel and the Peer Reviewers. This person, who does not also serve as a peer reviewer, is charged with overseeing the peer review process. Since the subject-areas of panel projects typically range more widely than do most academic publications, the number of peer reviewers is usually larger than usual. The Monitor's main function is to examine the panel's responses to the peer review comments, and then to prepare a written report for the Scientific Advisory Committee on Expert Panels in which the adequacy of the panel's responses is independently assessed. Of course, just as in other academic peer review situations, the authors in this case (the panel) may disagree, perhaps strenuously, with one or more review comments and with specific recommendations for changes in the text. But in such cases the panel must explain fully its rationale for the disagreements and the Monitor must agree that the panel's responses are appropriate. The peer review process is not completed until the Peer Review Monitor has reported in writing to the Chair, CEP that the final panel report has passed these tests satisfactorily.

Once the peer review process is completed the Chair of the Scientific Advisory Committee advises the President of the RSC and the other members of the Committee on Expert Panels that a panel report is ready for public release. As noted above, where there is an external client for a panel project, the client is not permitted to review a draft panel report before it is ready for public release. The President may, at his or her discretion, review the report and consult with the Committee on Expert Panels and other Society officials before authorizing the release of a panel report.

5. The Roles of RSC Fellows in the Expert Panel Process

The design of the society's Expert Panel process offers many opportunities for Fellows to become involved in Expert Panels.

Most obviously, the Committee on Expert Panels welcomes suggestions from Fellows about potential topics for Expert Panels. In addition, The Committee welcomes suggestions and observations from Fellows about improvements to any aspect of the Expert Panel process.

There are also numerous opportunities for Fellows to become involved in particular project. For example, Fellows who have a special interest in expert panel projects may inform the President or the Expert Panel Secretary of this fact. Other roles for Fellows include: membership on the Committee on Expert Panels; membership of the Scientific Advisory Committee; membership on Expert Panels; and service as a peer reviewer for draft panel reports.

The Society encourages Fellows, whether or not involved in any aspect of a particular Expert Panel, to assist the Society and the Committee on Expert Panels in publicizing and promoting Expert Panel Reports. This can involve sponsoring activities at universities that call attention to this role of national academies, including the holding of meetings and workshops after the Society has released an expert panel report.

It should be noted that national-academy expert panels usually include some Fellows as panel members. However, the main requirement with respect to panel composition is in providing the specific types of academic expertise needed to address the terms of reference for the study. The key role of the Society and its Fellows is to ensure that the process of study preparation is carried out appropriately, so that the report that is produced satisfies the high level of performance expected of any national-academy report.

Concluding Observations

National academies produce expert panel reports as a public service. Their objective is to issue reports that are authoritative and free from conflict of interest. The special credibility of such reports is a function of both the robustness of the procedures under which they are produced and the high standing of the individuals who make up the panel composition and who serve without remuneration. The record of achievement in this regard, represented by hundreds of current documents of this type produced by several national academies, speaks for itself. The RSC is proud to have taken the lead role in Canada over several decades in initiating and executing Expert Panel Assessments.