

THE STUDY PROCESS

of the National Academies of
Sciences, Engineering, and Medicine



A GUIDE FOR **COMMITTEE CHAIRS**

The National Academies of
SCIENCES • ENGINEERING • MEDICINE

Welcome and Introduction

Study committees and panels* of the National Academies of Sciences, Engineering, and Medicine (the Academies) make distinctive and often indispensable contributions to the welfare of the nation by providing evidence-based counsel on complex questions in science, engineering, and health. The results of the study process are intended to inform governmental and other decisions and may significantly influence policy.

You have been invited to serve as the chair of an Academies study committee and you may have questions about what this role entails. This guide—a supplement to *The Study Process of the National Academies of Sciences, Engineering, and Medicine: A Guide for Committee Members*, which we hope you will also read—explains the chair’s role in the study process. It was prepared with help from a group of successful, experienced chairs and with advice from skilled study directors. While every chair will have a distinctive approach to a committee’s work, some important responsibilities and tasks are carried out by nearly all chairs. This guide discusses those responsibilities and tasks, identifies common challenges that may be faced by a chair during the course of a study, and offers suggestions for making the study process as effective as possible.

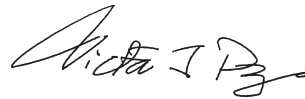
We hope that this guide will help to make your experience as a committee chair both successful and rewarding, and we are grateful for your service to the Academies and to the nation.



Ralph J. Cicerone
President
National Academy of Sciences



C. D. (Dan) Mote, Jr.
President
National Academy of Engineering



Victor J. Dzau
President
National Academy of Medicine

* Study committees are referred to as “panels” when they are overseen by a board that has “Committee” in its name, such as the Committee on National Statistics.

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The Roles of the Committee Chair

The effectiveness of the committee chair is of critical importance to a National Academies of Sciences, Engineering, and Medicine (the Academies) study. Sometimes, a chair has considerable expertise in the subject being studied. Other times, a chair is chosen not for specific expertise but for bringing a reasoned, objective perspective to a complex or a controversial subject. Above all, a chair is a leader—an individual who inspires colleagues and keeps them focused on the necessary effort to complete a study.

Committee chairs assume four key roles in every study: (1) leader, facilitator, and team builder; (2) partner to the Academies study director and staff team; (3) intellectual leader during report development; and (4) spokesperson for the committee. During the course of a study, the chair may delegate some of these roles and assign certain tasks to the Academies staff and members of the committee. However, even if roles are delegated or shared, the chair remains the principal leader for the committee throughout the project. Studies that bridge disciplines or fields lend themselves to leadership by co-chairs, who jointly carry out the roles described below. Other studies may designate a vice chair, whose primary role is to support the chair in working with the committee and the staff.

LEADER, FACILITATOR, AND TEAM BUILDER

The chair is responsible for offering guidance to the committee and the staff on how best to approach the study, giving thought to how the committee will use its resources, information gathering, and deliberation time in order to effectively meet its charge. As the facilitator of the committee's meetings, the chair helps to frame the issues, sets the tone for the committee's discussions, and encourages the expression and constructive discussion of diverse viewpoints. At every meeting, each committee member should feel that he or she had a full opportunity to express opinions and otherwise contribute to the study process. Throughout the process, the chair must also be a team builder in order to achieve consensus among committee members on key issues.

In addition, the chair sets the expectations for the committee members. These expectations can be as basic as punctuality and active listening at meetings or as significant as drafting major elements of the committee's report. The level of responsibility and expectations that a chair brings to the analysis of issues and the drafting of the report will determine how the committee approaches the task.

PARTNER TO THE ACADEMIES STUDY DIRECTOR AND THE STAFF TEAM

The chair and the Academies study director are a management team, working together to develop agendas for committee meetings, prepare background materials, write or edit portions of the report, and maintain regular contact with committee members. If the chair is identified early enough, he or she may also work with the study director to plan the study and help identify potential committee members. The chair serves as the study director's

partner in charting the course for the study, managing the study to identify problems, developing strategies to resolve them, and keeping the committee on schedule.

The study director has primary responsibility for ensuring that the committee's charge or Statement of Task is being followed; taking actions to keep the project on course; monitoring the committee's progress relative to the study timeline; tracking the project's financial status against a time-phased budget; complying with contractual and statutory obligations, including Section 15 of the Federal Advisory Committee Act (FACA); and maintaining communication with the study sponsor(s). The Academies staff team will also include someone to manage administrative tasks associated with the project and perhaps a research associate or other program staff member. In addition, the director of the Academies board under which the study falls is ultimately responsible for the conduct and quality of the studies within the board's portfolio and typically attends some of the committee meetings. In the unlikely event the chair experiences problems working with the study director or other staff, this should be brought to the attention of the board director.

INTELLECTUAL LEADER DURING REPORT DEVELOPMENT

The chair directs a creative effort that starts with the development of a report's substantive architecture and progresses through information gathering, information analysis, and committee deliberations; development of findings, conclusions, and recommendations; and production of a final report. The chair provides leadership to modulate diverse viewpoints and help the committee blend various types of expertise to achieve new insights or interpretations of relevant scientific evidence. He or she ensures that differences of opinion or conflicting interpretations of the evidence are identified and considered during the process of reaching consensus. The chair monitors the committee's arguments and final conclusions and recommendations to ensure that they are based on evidence and that any weaknesses in the evidence are acknowledged. The chair also assists the study director with what is often a substantial challenge—integrating the various parts of the report so that it speaks with a single voice. In addition, the chair works with the study director to ensure that the committee is thorough in preparing its response to review.

SPOKESPERSON FOR THE COMMITTEE

The chair serves as the chief spokesperson for the committee, both during the study and after its report is released. During the study, the chair may be asked to handle media interviews in order to explain the committee's task and the study's purpose. (The findings, conclusions, and recommendations must be kept confidential until the report's public release.) More information about the chair's role as spokesperson during and after the report's public release can be found on page 16.

Preparing for the Study

Some chairs take a hands-on role in many aspects of a study, while others prefer to delegate more responsibility to the Academies staff. An important part of preparing for a study is defining these roles and responsibilities through early consultation among the chair and the staff (including, as needed, the board director). Prior to the first committee meeting, the chair and study director are expected to confer in person or by phone to discuss roles, responsibilities, and the study background. The list of study background materials below and the series of questions that follow will help frame the initial discussions between the chair and the study director.

STUDY BACKGROUND MATERIALS

Several key background documents will be provided by the study director for the chair to review:

- A comprehensive description of the study, including the study prospectus approved by the Academies' leadership.
- The Statement of Task (sometimes referred to as the SOT), which outlines the specific charge to the committee and proposed products.
- The provisional committee membership, if known. If committee selection is still under way, the chair may be asked for input, although final selection and approval rests with the Academies leadership. Once approved and confirmed, the committee list will be posted online with biographies (statements of qualifications) for public comment.
- A tentative work plan with a schedule and milestones. The study director may request the chair's help in developing or finalizing this work plan.
- The personnel, information, and other resources available to the committee.
- The "Ensuring the Integrity of the Academies Committee Process" guide, which describes the Academies' confidential deliberative process in light of the Academies policy on complying with Section 15 of FACA.

QUESTIONS TO DISCUSS WITH STUDY DIRECTORS

Below are several suggested questions for chairs to discuss with study directors during early conversations:

- How did the study originate?
- Can you describe the nature of the interactions with the sponsor so far? What does the sponsor expect to be able to do with the results of the study?
- Should the committee be aware of any expectations or pressures from other key audiences and stakeholders?
- What is within the scope of the committee's work, and what is outside of it, as defined by the Statement of Task? How much discretion does the committee have to suggest modifications to the Statement of Task?

- What is the timeline for the work? How many meetings will be held?
- Who will be staffing the study? What role will each staff member play?
- What areas of expertise have been identified for the committee members and who has been proposed to serve on the committee? What other expertise or perspectives might be needed to address the charge?
- What sources of information are available to the committee? What information-gathering activities will the committee undertake?
- Who will be responsible for writing the report (committee members, staff, a hired writer, or some combination)?
- Are there responsibilities in addition to those listed in this document that I am expected to fulfill as chair?

Planning and Facilitating Meetings

A typical study will include four to six committee meetings, with the possibility of conference calls between meetings. Much must be accomplished in the limited time the committee is together and volunteers must always feel their time is being used productively. This requires careful planning of each meeting agenda and work assignments between meetings by both the chair and the Academies staff. The study director generally confers with the chair when planning meetings to identify the information to be gathered, topics to be discussed, and goals to be accomplished. The chair typically plays the lead role in facilitating the meetings.

The first committee meeting is crucial in setting the study on the right course and it is important that it be well planned and conducted. The chair must ensure that the committee clearly understands why it was constituted, its charge, and what is expected of it by the Academies and the study sponsor. This discussion should not be shortchanged. Some members will bring to the study personal interests that extend beyond the committee's charge and may desire to reframe or supplement the issues in the Statement of Task; the chair is responsible for ensuring that this type of behavior is short-lived.

It is almost always useful to invite sponsors to talk with the committee at its first meeting and to spend as much time as necessary ensuring that the focus and boundaries of the charge are well understood by all. If the committee considers it essential to modify the Statement of Task, agreement and formal approval by the sponsor and the Academies leadership is required. The committee cannot determine the Statement of Task for an Academies study.

It is also vitally important that the committee be made aware early in the study of the demands of the Academies' report review process. Committees need to be prepared for their work to meet Academies standards so that it will stand up to a rigorous review. If some of the findings, conclusions, and recommendations in the report are not based sufficiently on the evidence, the review process may require significant changes to the report, which delays the timeline. The chair and the Academies staff should explain the requirements of review at the first meeting and offer reminders throughout the deliberative process.

PLANNING MEETINGS

As they work with the Academies staff to plan meetings, chairs should keep certain considerations in mind:

- Every meeting should have clear objectives derived from the study's work plan and from the progress of the project to date. The agenda should be designed to support those objectives and should state them clearly.
- The meeting agenda should be lean and flexible, because meetings often run short on time.
- If presentations to the committee will be requested from outside parties, the purpose, scope, and duration of every invited presentation should be defined before

it is requested. Requests for presentations should be made in writing and they should clearly indicate what the committee would like to know, the context for the information being sought, and the time allotted for the presentation.

- Closed meetings or sessions (which include only committee members and staff) also should have specific agendas.
- Periodic breaks and time for committee members to talk informally with one another (e.g., over a dinner) should be scheduled to pace the committee's work and to promote effective working relations among the members and the staff.
- Committee members should be sent reading materials for the meeting far enough in advance so that they can be well prepared.

FACILITATING MEETINGS

Effective chairs have offered the following suggestions for facilitating meetings successfully:

- Begin each meeting by reviewing the Statement of Task to keep discussions focused.
- Be clear that all members are expected to be present for the entire meeting.
- Have a system to ensure balanced participation. Watch for members who are holding back their opinions and draw them into the meeting.
- Refocus discussions that are straying far afield.
- Exercise restraint when stating your own views during meeting discussions, because a strong opinion voiced by a chair may discourage further discussion. When there is a difference of opinion within the committee, the chair usually should not endorse one side early in the discussion.
- For public sessions of meetings, make sure that each speaker is aware of the time constraints on his or her presentation. Be strict in expediting speakers who are taking too much time, as attendees have planned their attendance around the publicized schedule.
- At the beginning of public meeting sessions, remind attendees of the ground rules (see box on page 10).
- At the close of each committee meeting, note what was accomplished, what remains to be done, and what subsequent actions should be taken by the committee members and the staff, including deadlines for each next step.

TIPS FOR TROUBLESHOOTING

Even well-planned meetings managed by skilled committee chairs are not immune to disruptions that could hinder the committee's progress. Below are some common problems and tips for troubleshooting them.

Early leave takers. If committee members establish a pattern of leaving meetings early, soon the entire group will pack up before the scheduled adjournment time. From the beginning, the chair and study director should stress the importance of meeting attendance and consider polling the committee for preferred starting and ending times.

Disengaged members. Missing occasional meetings is inevitable, but trouble can arise when members stop participating during the middle stage of the study and then later resurface and ask for major changes in the report. Such problems are best avoided by working hard to keep everyone involved from the beginning. The chair and study director should have candid discussions with committee members who are not participating, bringing in the Academies board director for support as necessary. If members miss numerous meetings they may need to be asked to resign.

Disgruntled members. Part of the role of chair is to serve as a diplomat, working with the study director to resolve conflicts and disagreements among committee members. Much of this diplomacy will take place behind the scenes, during committee breaks and social events, and by phone or e-mail between meetings. Sometimes a committee member may feel that his or her opinions are not being heard. Giving the member an opportunity to consult with the chair and the study director in private can go a long way toward reestablishing committee effectiveness.

Ground Rules for Public Meetings

At some point during nearly all studies, the Academies committees hold workshops or information-gathering meetings that are open to the public and the press. Chairs should introduce these sessions by explaining “ground rules” that clarify the meeting’s purpose and the limits of what can be inferred from committee comments and questions. Sample language is below.

As chair of this study, and of this committee meeting, I’d like to welcome everyone. The task being undertaken by this committee of the National Academies of Sciences, Engineering, and Medicine is to [explain task briefly], which is indicated on the information sheet that has been handed out. I would also like to give some sense of the format of today’s meeting [explain generally what the order of events will be].

In addition, I want to note that this is an open, on-the-record session. Interested individuals and members of the press have been invited to attend as observers. This is not a news conference, however, and we will not be entertaining questions from the floor. Reporters who would like to talk with members of the committee are kindly asked to touch base with the study director or media officer, [give names and ask these staff members to identify themselves], and should plan to do so during a break.

I also would like to remind everyone that this is an information-gathering session. That is, the committee is in the process of assembling materials that it will examine and discuss in the course of making its findings, conclusions, and

recommendations. Therefore, I ask everyone here today to be extremely mindful of the fact that the committee has made no conclusions and that it would be a mistake for anyone to leave here today thinking otherwise. Comments made by individuals, including members of the committee, should not be interpreted as positions of the committee or of the Academies. In addition, committee members typically ask probing questions in these information-gathering sessions that may not be indicative of their personal views.

The committee will deliberate thoroughly before writing its draft report. Moreover, once the draft report is written, it must go through a rigorous review by experts who are anonymous to the committee, and the committee then must respond to this review with appropriate revisions that adequately satisfy the Academies' Report Review Committee and the National Academy of Sciences president before it is considered an official Academies report.

Writing the Report

Writing and revising the report is an iterative process that should begin early in the study process and continue throughout the information-gathering and deliberative phases. The chair and study director will typically spearhead this process by preparing a “straw man,” or a draft working outline of the report, usually during the first committee meeting or shortly thereafter. Some key steps in developing a report outline include

1. Preparing a preliminary outline.
2. Expanding the preliminary outline of the report to flesh out the committee’s messages.
3. Developing a report concept to highlight what each chapter of the report will cover, show how the chapters relate to each other, and demonstrate how the report will tell its “story.”

As progress is made in the information-gathering phases of the study, it is important to develop a first draft of the report, based on this report outline and concept, for consideration by the committee. Whether the chair should draft major sections of the report or should instead focus on assessing, revising, and integrating drafts prepared by others depends on factors specific to the project. If the chair is the initial drafter of large sections of the report, he or she may have less time to act as intellectual leader and integrator during report development. On the other hand, if a chair brings special expertise to particular topics, he or she may be the best choice as the initial writer on those topics. On a study with sharp differences of view, the chair may reserve the right to compose a “neutral version” of sections, or a version that incorporates arguments from the opposing sides, rather than writing initial drafts. Most of all, by the example set, the chair determines the work ethic for the committee.

In cases in which committee members contribute to the writing, the chair, working with the study director, assigns the writing and subsequent revision of chapters or sections to teams or individuals. Deadlines for writing assignments should be established at the outset and the chair should support the study director in encouraging committee members to adhere to these deadlines. The study director is mindful of the fact that the committee members are volunteers who have other professional and personal responsibilities outside those of the study committee and tries to balance those with the requirement of the study task and report deadlines. The chair’s partnership with the study director in navigating this balance and maintaining committee harmony and effectiveness is critical to the success of a study and underscores the importance of encouraging early drafts of report chapters. If certain committee members are not contributing or are lagging in the completion of their assignments, the chair should send e-mails and make phone calls to diplomatically remind these members of the importance of their commitments to the study.

To ensure efficiency, clear parameters in terms of content, style and tone, and approximate page limits for each contribution should be agreed on before committee members

start their assigned writing. For the same reason, it is often useful to request a draft outline from a committee member before he or she invests the time required to produce draft text.

In addition, the chair and study director should ensure that committee members understand there is no exclusive ownership of specific content or report language. First-time committee members may incorrectly assume they have the same prerogatives as when writing a chapter in an edited book, where there is deference to the author's language. It is crucial for them to understand that their writing—and even some of their conclusions—normally undergo extensive modification through the committee's deliberative process.

As the development of a report progresses, the chair should read the drafts and ensure that the report as a whole evolves as a consistent, well-reasoned, and effective document. Between the penultimate meeting and the final one, the committee should strive to formulate an almost-consensus draft that can be reviewed and finalized at the last meeting. Following the final meeting, only modest changes may be needed to arrive at a “review draft” that is ready to send to the report review process.

More detailed suggestions for developing high-quality reports are offered in *The Study Process of the National Academies of Sciences, Engineering, and Medicine: A Guide for Committee Members*.

Reaching Consensus

Academies committees have a diverse composition—a characteristic that both adds to their strength and complicates the process of reaching consensus. Throughout the study, the chair must be concerned with the committee's progress toward consensus. Difficulties in achieving consensus can arise for a variety of reasons, especially when committee members have widely varying judgments about an issue at hand. Chairs should be alert to such situations and help the committee resolve difficulties in a collegial way. Fairness and flexibility are required if a committee is to move beyond initial differences and achieve a group consensus that goes beyond the obvious.

Early meetings of the committee should be designed to provide members with a common knowledge base on which to render their judgments. Well in advance of the final committee meeting, the chair should facilitate extensive discussions of a written version of the committee's draft findings, conclusions, and recommendations. Often, disagreements do not arise until members see words on paper. In many cases, these disagreements can be resolved by fine-tuning the words.

When consensus is not possible, or if reaching consensus would skew an important majority position of the committee, it is better to expose the lack of consensus than to obscure it through compromise. In most cases, where disagreements remain, they can be handled by explaining the nature of the controversy in the report text; thus, a report can identify the knowledge gaps and present the range of opinions. More difficult situations arise when one or two members have opinions counter to the consensus of the rest of the committee. In rare cases, committee members who disagree with the majority may choose to write a short dissenting opinion, which is published as an appendix to the report. If the dissenting view is very brief and related to a specific passage in the report, an option is to explain the dissenting view in a footnote.

Report Review

It is the responsibility of the chair and study director to ensure that during the Academies report review process, each committee member has the opportunity to examine and concur with responses to reviewers' comments and that each committee member signs off on the revised report before it is delivered to the sponsor and released to the public. The process for involving individual committee members in the response to review (often referred to as the RtR) is decided by the chair, committee, and staff. Often, the committee members delegate the preparation of responses to the bulk of the comments to the chair and the staff; specific technical comments may be addressed by particular committee members. However, all significant changes to the report—such as changes to the findings, conclusions, or recommendations—should be discussed with the entire committee, usually via e-mail and conference calls. If the study's budget allows, it can be advantageous to have an in-person committee meeting to quickly address review comments. The chair should ensure that every review comment is mined for its maximum value and that the committee is thorough and thoughtful in preparing its response to review. Even seemingly minor review comments can have important implications for the content, structure, clarity, and readability of the report.

As the chair and study director consider the study's timeline and plans for eventual transmittal to the sponsor and public release, they should be careful to allot sufficient time for the review process. The Table provides a sample review timeline for a typical 18- to 24-month project, based on a 300-page report. However, the sample timeline shown assumes that no significant issues or problems are encountered during review; for reports that are particularly complex or address controversial issues, the review process will often take longer.

TABLE Sample Review Timeline

Report Review Milestone	Time to Allow
Submit draft to reviewers and receive comments	2–4 weeks
Receive summary of key review issues from monitor and coordinator	1–2 weeks after reviewer comments submitted
Prepare and submit response to review	2–4 weeks
Receive sign-off from monitor and coordinator	1–3 weeks after submitting response to review
Prepare manuscript for delivery to sponsor and Congress and release to public	2 weeks

Report Release and Communications

As the chief spokesperson for the committee, the chair plays a central role after the report receives institutional sign-off and is ready for release to the sponsor, Congress, and the public. The chair, together with the study director and often one or two additional committee members, typically briefs the sponsor and Congress before the report's public release. If the report has broad public interest and an event such as a public briefing or a news conference is planned, the committee chair usually leads the event, offering an overview of the report's findings, conclusions, and recommendations and answering questions from the audience, often supported by one or two additional committee members. For reports expected to receive media attention, the Academies' Office of News and Public Information will help the chair and any other committee spokespeople prepare to handle interviews and respond to journalists' questions.

Academies communications staff may develop dissemination products—such as report briefs, summaries for lay audiences, infographics, or other materials—designed to explain the report's messages to broader audiences. The chair may be asked to review these materials to ensure that they accurately reflect the committee's views. He or she may also work with staff to consider other outreach activities, such as making a short video about the report's main messages, identifying professional meetings where presentations about the report could reach new audiences, or other approaches.

More detailed information about report release and ongoing communications efforts can be found in *The Study Process of the National Academies of Sciences, Engineering, and Medicine: A Guide for Committee Members*.

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The **National Academy of Sciences** was established in 1863 by an Act of Congress, signed by President Lincoln, as a private, nongovernmental institution to advise the nation on issues related to science and technology. Members are elected by their peers for outstanding contributions to research. Dr. Ralph J. Cicerone is president.

The **National Academy of Engineering** was established in 1964 under the charter of the National Academy of Sciences to bring the practices of engineering to advising the nation. Members are elected by their peers for extraordinary contributions to engineering. Dr. C. D. Mote, Jr., is president.

The **National Academy of Medicine** (formerly the Institute of Medicine) was established in 1970 under the charter of the National Academy of Sciences to advise the nation on medical and health issues. Members are elected by their peers for distinguished contributions to medicine and health. Dr. Victor J. Dzau is president.

The three Academies work together as the **National Academies of Sciences, Engineering, and Medicine** to provide independent, objective analysis and advice to the nation and conduct other activities to solve complex problems and inform public policy decisions. The Academies also encourage education and research, recognize outstanding contributions to knowledge, and increase public understanding in matters of science, engineering, and medicine.

Learn more about the National Academies of Sciences, Engineering, and Medicine at www.national-academies.org.

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