



Center for Scientific Review

National Institutes of Health

**NATIONAL INSTITUTES OF HEALTH
CENTER FOR SCIENTIFIC REVIEW
Study Section Member Satisfaction Survey
FINAL REPORT: EXECUTIVE SUMMARY
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Submitted by:

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Introduction

The Center for Scientific Review (CSR) has been engaged in a comprehensive examination and exploration of CSR's processes and organization in an effort to improve and streamline its operations. In conjunction with the CSR Advisory Committee, a multi-step evaluation approach was developed and then approved at the January 2000 Advisory Committee meeting.

One part of this evaluation was to analyze information collected from study section members on their assessment of their preparation as a reviewer; the adequacy of the grant review process; the performance of panel members, chairs, Scientific Review Administrators (SRAs), and other CSR staff; the burden on the reviewer; appropriateness of research topics and scope of applications reviewed; and incorporation of newly emerging research areas. Part of this effort included soliciting the reviewers' ideas on how to improve CSR's processes.

Thus, a Study Section Member Satisfaction Survey instrument was designed and approved by the Office of Management and Budget to be administered between May 31 and August 2, 2000, to 2,864 members of 120 CSR study sections. The questionnaire consisted of 22 multi-part, multiple choice questions and three optional response narrative questions. Counting each subcomponent of a question separately, a total of 48 short answer questions was asked.

Packets with the survey instruments, instructions, attendance form, and return envelopes were distributed to the SRAs 2 weeks before their meetings. Fifteen minutes were set aside the morning of the second meeting day for reviewers to complete the survey. Responding to the survey was voluntary. In some instances, reviewers leaving at the time the survey was administered took the survey with them. Approximately 120 surveys were returned by mail.

Completed questionnaires were received from 117 of the 120 study sections. The questionnaire was not passed out to reviewers in three study sections. Completed questionnaires were received from 2,513 of the 2,808 participants in the 117 study section meetings. Thus, the response rate was 89 percent, representing 87 percent of the total pool of potential respondents.

Analyses of the 48 short answer questions for the CSR as a whole, its three Divisions, and the Integrated Review Groups (IRGs) within each Division are reported. To expedite the review of the findings, the questions were organized into five thematic clusters. This report is organized around those clusters.

Organization of the Report

This report presents the response to the main question of the survey that measures the respondents' overall satisfaction and then organizes the responses to the rest of the questions into five thematic areas, each of which consists of two or more sub-themes. The correlation between each sub-theme and overall satisfaction is also described.

The five thematic areas are:

Cluster I: Reviewer Workload

- Number of applications reviewed/read
- Hours to complete assignments
- Comparison of time required with that expected

Cluster II: Review Process

- Usefulness of explanatory materials
- Helpfulness of reviewer and reader presentations
- Scoring and review priorities
- Span of research
- Conflicts of interest in grant application submissions

Cluster III: Membership Composition

- Professional expertise
- Diversity

Cluster IV: Chair Leadership

- Aspects of leadership
- Inclusiveness

Cluster V: Staff Support and Leadership

- Staff leadership
- Staff expertise
- Logistical support

Presentation of Findings

The majority of the questions in the survey were constructed with a five-point response scale that ranged from most to least approving from which the respondents could choose an answer. (The actual wording of the several types of response scales differs from question to question and is detailed in the findings section.) Because the CSR study section members gave mostly positive responses, the text tends to focus on the top end of the scale; for example, the percentage finding staff leadership "satisfactory" or "very satisfactory," or the percentage rating study section membership composition "appropriate" or "very appropriate." There are 45 figures in the main report that visually depict the full range of responses across all five categories. The percentages discussed in the text for CSR as a whole and for each Division can be found in the tables of Appendix A in the main report. This appendix, organized by thematic area, includes data tables of the responses to all 48 questions.

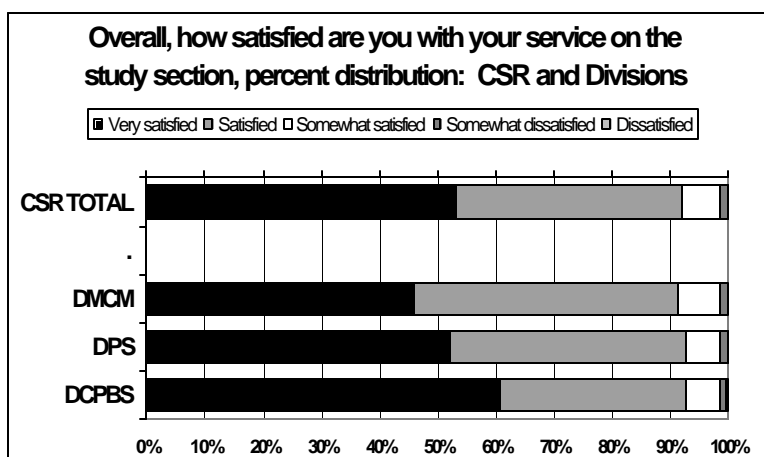
Because each thematic grouping comprises several distinct questions, presenting responses to every question for every organizational group (3 Divisions, 20 IRGs) would quickly become cumbersome for the reader. To facilitate comparisons, several indices have been constructed that average all the questions using the same scale for a particular sub-theme. For example, the "appropriateness" of study section membership in terms of member objectivity, scientific

breadth, expertise, and experience is detailed for CSR as a whole and for each Division by presenting the distribution of responses to each of the four questions separately. For each IRG, study section membership composition is measured by a single index averaging the responses across the four questions.

Summary of Main Findings

Satisfaction

Overall, respondents reported a very high level of overall satisfaction with their service on their respective study sections. Ninety-four percent of all respondents were at least satisfied (53 percent "very satisfied" and 39 percent "satisfied"); only 1 percent reported being "somewhat dissatisfied" or "dissatisfied." Overall satisfaction across the Divisions is very high, although the proportion of respondents who answered "very satisfied" ranges from 46 percent in the Division of Molecular and Cell Mechanisms, to 52 percent in the Division of Physiological Sciences, and up to 61 percent in the Division of Clinical and Population-Based Studies (see figure on page 4).



Reviewer Workload

Study section members received an average of just over 6 assignments to complete written reviews and just over 2.5 assignments to serve as readers (median of 6 and 2 respectively).

The average time spent by respondents, both completing written reviews and preparing as readers for a typical study section meeting, was 49 hours (median of 42 hours). Fifty percent of respondents spent between 27 and 62 hours preparing. The average time spent preparing written reviews was about 36 hours (median of 30 hours), whereas respondents spent about 13 hours preparing as readers.

The total time required to prepare increased with the number of assignments, but reviewers compensated by spending less time per application as the number they were responsible for increased.

The majority of respondents said the time required to prepare reviews was about what they expected (66 percent of those preparing written reviews and 80 percent of those preparing as readers). Twenty-six percent said preparing written reviews took more time than expected with 7 percent claiming it took "much more time" than expected. Fewer readers had such complaints: only 15 percent said it took "more time" than expected, and only 3 percent said it took "much more time" than expected.

Review Process

Respondents found the explanatory materials that were made available to them when they first began as reviewers quite useful. Most useful were the explanatory materials related to review criteria or scoring methodology (78 percent found them "very useful" or "useful") followed by background materials on the grant review process (75 percent) and training and orientation materials (67 percent).

Respondents generally found the reviewer and reader presentations to be helpful in providing information on which to base their scoring of grant applications. The reviewers' presentations judged by the respondents to be "very helpful" in scoring applications' review criteria were: research approach (72 percent), significance (60 percent), innovativeness (52 percent), other research being conducted on the topic (36 percent), and diversity of human subject populations (26 percent).

In assigning priority scores, most respondents (90 percent) believed their study sections gave the proper weight to research methodology and the anticipated impact of the research. There were, however, a small percentage of respondents, almost 10 percent, who thought that their study section placed insufficient emphasis on impact and too much emphasis on methodology.

A slight majority of respondents felt that their study section was reviewing knowledgeably new and emerging areas of science "a great deal," with most of the remaining respondents saying their study section was doing so to at least "some degree." Seventy-eight percent of respondents thought that the span of research topics assigned to their study section was appropriately balanced; 20 percent believed it was too broad, and only 3 percent thought it too narrow.

Of the 68 percent of the respondents who had not had an application of their own moved to another study section to avoid conflict with their study section, the vast majority (86 percent) felt the applications of regular study section members were treated fairly, i.e., treated the same as other applications; 6 percent felt that the applications of regular study section members were treated more leniently. Only 8 percent of the respondents who had not had an application of their own moved felt that regular members' applications were treated more critically.

In contrast, of the approximately 32 percent of respondents who had a grant application of their own moved to another study section to avoid a conflict of interest, 25 percent said that they thought applications from regular members were treated more critically when moved to a Special Emphasis Panel. If the application was moved to another study section, 20 percent thought applications from regular members were treated more critically than did those who did not have an application moved.

Membership Composition

More than 90 percent of respondents thought the professional expertise of their fellow members was at least "appropriate" for their study section, with more than 50 percent rating the objectivity, scientific breadth, scientific expertise, and scientific experience of their fellow members "very appropriate."

Ninety percent of all respondents believed the disciplinary diversity of their study section members "very appropriate" (42 percent) or "appropriate" (48 percent). A somewhat smaller fraction (82 percent) found the demographic diversity of their study section "very appropriate" (38 percent) or "appropriate" (44 percent). Within each Division, there was considerable variation across IRGs in these two measures.

Chair Leadership

Respondents gave their study section chairs good marks for their leadership abilities with 61 percent rating their chairs' ability to lead review and application discussions "very satisfactory" and 63 percent rating the chairs' ability to move the study section to consensus as "very satisfactory."

Study section chairs were rated highly in their willingness to allow all members' views to be aired fully (78 percent found such inclusion "very satisfactory"), although fewer respondents found the chairs considering views expressed in mail reviews as "very satisfactory" (54 percent). Somewhat fewer thought the integration of new and ad hoc members was "very satisfactory" (46 percent for each respectively).

Staff Support

Respondents gave very high ratings to the CSR staff. More than 90 percent rated as "very satisfactory" or "satisfactory" the staff assistance in preparing for meetings, for proficiency in facilitating meetings, and for being responsive, with over two-thirds in each instance rating the staff "very satisfactory." In addition, according to the respondents, there seemed to be a great deal of collaboration between CSR staff and the study section chairs as well as with regular members.

CSR staff were again rated very highly for their objectivity and knowledge of review procedures and process (80 percent of respondents rated them "very satisfactory" on both measures). Respondents' ratings for the staff's adeptness in selecting appropriate reviewers (58 percent "very satisfactory," 29 percent "satisfactory") and for their knowledge about research subject areas (51 percent "very satisfactory," 34 percent "satisfactory") were only slightly less favorable.

Respondents rated staff logistical support in arranging hotel, travel, and reimbursement procedures favorably. Nearly 90 percent found the logistical support "very satisfactory" or "satisfactory," with a majority of respondents rating the support as "very satisfactory" in each area.

Factors Accounting for Overall Satisfaction

The survey respondents were, on the whole, very satisfied with their study section service. Thus, the analysis of the results of this survey was able to discriminate effectively between the highly satisfied respondents and the only slightly less so in only a few of the variables measured. The correlations calculated are between the overall satisfaction scale and the indices for each sub-theme. The very high ratings for staff leadership, expertise and logistical support were most highly correlated with the similarly very high ratings of overall satisfaction, although this correlation may not reflect any sort of causal relationship. The correlation with other thematic areas was somewhat weaker.

In order of strength of the association they were: membership composition, chair leadership, and helpfulness of background materials. Workload had a weak relationship with overall satisfaction, although those respondents who reported spending "much more time" or "less time" than they expected preparing as reviewers or as readers were slightly less likely to be satisfied. Thus, knowledge of an accurate set of workload expectations appears to be important. Also, among those slightly less likely to be satisfied were respondents who thought their study section placed too much emphasis in their scoring on research methodology and those who thought the span of research assigned to their study section was too broad.

Conclusion

The results from this survey are very positive and indicate a great deal of satisfaction on the part of the reviewers with the way CSR currently operates the review process. It is important to note, however, that there is more heterogeneity in the findings at the less aggregated organizational units. The information gathered provides CSR with important and basic baseline measurements that did not previously exist. Future surveys will now be able to ascertain alterations in reviewers' perceptions of their workload, the review process, membership composition, training, staff leadership and support, as well as chair leadership, as management improvements are made.