Scientific Assessment and Workforce Development, Research, Reviews & Evaluations

Benchmarking Study – Peer Review Travel

Prepared: September 2017

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Thanks are due to ORISE for funding this project. The entire ORAU research team deserves recognition for their work and dedication to ensure this research was conducted with rigorous standards, and completed on schedule: Jim Malone (PI), Section Manager; Leslie Shapard (Co-PI), Associate Director; Meredith Goins, Group Manager; Miriam Davis, Research Associate; Ann Gonzalez, Research Associate; Ashley Golden, Biostatistician and Project Manager; Darren Smith, Evaluation Specialist; Kimberle Kelly, Evaluation Specialist and Project Manager; Maureen Leavitt, Research Associate; Tiffani Conner, Research Associate; and Kelly Phillips, Evaluation Specialist.

Table of Contents

Table of Tables	4
Abstract	5
Introduction	6
Methods	7
Data Sources & Collection	7
Participants	7
Study Population	7
Survey Sample	7
Interview Sample	7
Data Analysis	8
Findings	8
Respondent Characteristics	8
Peer Review	11
Peer Review Travel	12
Peer Review Travel Compensation and Reimbursement	14
Reviewer Feedback and Satisfaction	16
Summary, Discussion and Conclusions	22
Further Research	23
Literature Cited	25
Appendix A – Survey Instrument	26
Appendix B – Interview Protocol	29
Appendix C – Complete Listing of Position Titles	34
Appendix D – Role in Administering or Facilitating Peer Review	
Appendix E – Descriptions Concerning the Extent to Which Various Tools, Systems and Arrangements Were Used for Peer Review Travel Arrangements	37
Appendix F: Limits or Requirements Governing the Amount Reimbursed or Compensated for Expenses Incurred via Participation in Peer Review that Requires Travel	

Table of Tables

Table 1: Respondent Organizations
Table 2: Position Title Categories
Table 3: Role(s) in Peer Review
Table 4: Involvement in Peer Review of Grants and/or Funding Proposals
Table 5:Involvement in Other Peer Review Activities (including Publications)
Table 6: Use of Tools and Systems for Arranging Travel and/or Convening Reviews
Table 7: Frequency of Reimbursement / Compensation for Expenses Incurred in Participating in Peer Review Travel
Table 8: Frequency of Method of Payment for Reimbursement / Compensation of Expenses Incurred in Peer Review Travel
Table 9: Respondents' Assessment of the Degree to which Aspects of the Peer Review Travel Process Influence Reviewers' Decisions to Participate in a Live Review Activity
Table 10: Challenges experienced when implementing peer review involving travel
Table 11: Things that work well when implementing peer review

Abstract

Peer review of research (proposed, funded, and completed) is critical to the production and evaluation of scientific research. One popular way to conduct peer review of research proposed for funding is through face to face panel meetings where experts come together to discuss and critique proposals. Such reviews require experts to gather together and almost always involve travel for at least some of the participants. However, little has been written about the travel related aspects of peer review. This study polled, via survey and interview, representatives of organizations that administer or facilitate peer review. The focus of this study was on the travel related aspects of this process which is overseen by peer review organizations. As such, this study establishes a benchmark on the topic of peer review travel. This study also describes related aspects of peer review of grant and proposal funding, such as the types and amounts of reviews conducted and reviewer satisfaction. Major findings include: face to face reviews are more common than internet based reviews, and most implementing organizations provide an honorarium or stipend for participation that covers most travel related expenses. Reimbursement for expenses incurred is the most common form of compensation provided. Although specifically requesting feedback from reviewers was quite uncommon, peer review organization representatives felt the feedback they do receive is substantial and overwhelmingly positive. Recommendations for further research are also discussed.

Introduction

Peer review is considered the gold standard by which scientific research is judged worthy of inclusion in a field of knowledge (Mayden, 2012). Highly ranked peer-reviewed research proposals have been linked to better research outcomes, as measured by greater numbers of publications, more high-impact publications, and additional follow-on patents (Li & Agha, 2015).

Generally, peer review of research begins when researchers submit a research/grant proposal to a funding agency or organization. Reviewers with the necessary expertise to evaluate the merits of the proposal are then identified and recruited.

Reviews can be conducted in one of three basic ways: internet based, face-to-face, or combination. In internet based reviews, also sometimes called virtual or on-line reviews, all materials to be reviewed are provided to selected reviewers through an online platform, where individual reviewers can enter comments and scores for each proposal. Face-to-face reviews, also sometimes called panel, in-person or live reviews, consist of a group of reviewers meeting face-to-face in a physical location, or by teleconference, to collectively discuss the merits of all proposals. In some instances, a combination review can be helpful, with review comments and initial rankings provided through an online platform followed by a face-to-face or teleconference panel discussion to address the most highly ranked proposals (Turner, 2009).

Face-to-face settings require the greatest time commitment on the part of reviewers. Reviewers must travel to the designated location for group discussion of the merits of each proposal, or call in to participate in a teleconference meeting that can range from 4-8 hours.

Despite the increase in the amount of scientific research conducted, as well as the number of grant and research proposals submitted for review over the last half century, the literature has sparse mention of travel related to peer review activities. A search of the scholarly literature did not produce any specific scholarly articles addressing this topic. Searching the open internet resulted in some relevant information, pertaining to grant review processes for reviewers, mostly located on U.S. government agency websites. In addition, while the management of the peer review of research proposals has led to some observable trends in the field, gaps in knowledge of the process still exist, especially with respect to travel for peer review. This presented an opportunity for further research to fill in these missing data and provide a baseline of information on travel related to peer review activities.

This study addresses these issues by providing an initial characterization of grant and funding proposal peer review from the perspective of organizations that administer or facilitate peer review. It also establishes a benchmark with respect to the travel related aspects of such peer reviews by specifically exploring this topic with those who manage and facilitate peer review travel.

Data Sources & Collection

Data were collected via an online survey (Appendix A) including open ended comment sections, and follow up interviews conducted either in person or via telephone with willing self-referred survey participants. The 20 question online survey concerned respondents' roles and experience in implementing peer review travel, types of peer reviews their organizations were involved with (internet based, face-to-face, or combination), the making of travel arrangements, travel expenses and compensation types and processes, and respondents' evaluation of these aspects of peer review. Survey data were collected using Novi software and analyzed with SAS statistical software. The interviews consisted of 17 related questions designed to elaborate on survey topics (Appendix B). Survey respondents who indicated they were willing to participate in an interview provided their contact information for follow up. Interviews were conducted in person or by telephone. They were recorded and transcribed verbatim. All identifying comments were removed prior to analysis.

Participants

Study Population

The study population was developed by searching for U.S. government agencies and subagencies, research foundations, and international companies who participate in peer review of funding applications. The survey frame consisted of the email addresses for 179 individuals at 30 organizations involved in peer review travel, which were identified via individual recommendations, proprietary directories, and web searches. The survey invitation was sent via email to these 179 individuals.

Survey Sample

179 peer review professionals were invited to complete the survey. One emailed invitation was returned due to an incorrect address resulting in 178 valid invitations. 29 individuals completed the survey, yielding a response rate of 16.3%.

Interview Sample

Eight survey respondents indicated a willingness to participate in a follow up interview and provided their contact information. One of these did not respond to the subsequent interview invitation. Another was unavailable to be interviewed due to a change in employment. A knowledgeable substitute from that respondent's organization served as the interviewee instead. Thus, seven interviews were completed; six with individuals who had completed the survey and one with an individual who had not completed the survey.

Data Analysis

Quantitative data analysis included calculation and comparison of frequencies, percentages, and averages. Initial analysis revealed two to three times as many respondents from the Department of Energy Office of Science Oak Ridge Institute for Science and Education (DOE-SC (ORISE)) as from any other organization. Because the benchmarking purpose of the study benefits from relatively equal weighting of responses, the DOE-SC (ORISE) respondents were examined in two ways to ascertain their influence on the data as a whole. First, the spread of response frequencies within the DOE-SC (ORISE) respondents for each variable of interest was examined to determine whether responses within this group were similar to each other. Second, the DOE-SC (ORISE) responses were compared to those of other respondents to determine whether they responded significantly differently from others on key variables of interest. Both criteria were met. Therefore, except for simply describing the sample in the Respondent Characteristics section below, the DOE-SC (ORISE) respondents were treated as one respondent so as not to unduly influence the results overall. To accomplish this, either the mean or the mode, depending on the nature of the respective variable examined, of the DOE-SC (ORISE) respondents' responses was selected as representative for the group. In the case of categorical variables with Yes/No or Presence/Absence responses, a single Yes/Presence response from any of the DOE-SC (ORISE) respondents was counted as a Yes/Presence for the group. While any given item may not be common among the DOE-SC (ORISE) respondents, a single Yes/Presence response indicates that the item is offered by that type of respondent. The end result of this approach was to collapse the six DOE-SC (ORISE) respondents to a single unit weight so that their influence on the results equated that of other respondents from other organizations.

Qualitative data analysis consisted of content analysis for patterns, themes, and emergent concepts that elucidated survey findings. Survey findings are accompanied by relevant interview data when available to provide a more detailed and rich explanation.

Findings

Respondent Characteristics

The 29 respondents worked at 18 different organizations that handle peer review travel (Table 1). DOE-SC (ORISE) was the most common respondent organization. No more than six respondents (20.7%) worked for any single organization, while 12 respondents were the only one to respond from their organization. Seven interview participants worked at three of the organizations (Table 1).

Table 1: Respondent Organizations		
Organization	Respondents	%
***	(n)	(n = 30)*
DOE-SC (ORISE)**	6	20.7
HHS FDA (Department of Health and Human Services, Food & Drug Administration)	3	10.0
DOE-Other (Department of Energy, Other sections)	2	6.7
EPA (Environmental Protection Agency)	2	6.7
Morris K. Udall Foundation**	2	6.7
NIH (National Institutes of Health)	2	6.7
NURIS (Nazarbayev University Research Innovation System)	2	6.7
711 th Human Performance Wing	1	3.3
DHS (Department of Homeland Security)	1	3.3
HHS CDC (Department of Health and Human Services, Centers for Disease Control)	1	3.3
HHS-Other (Department of Health and Human Services, Other sections)	1	3.3
DOI (Department of the Interior)	1	3.3
NASA (National Aeronautics & Space Administration)	1	3.3
DOE-NNSA (Department of Energy, National Nuclear Security Administration)	1	3.3
NOAA (National Oceanic & Atmospheric Administration)	1	3.3
NSF (National Science Foundation)	1	3.3
ORNL (Oak Ridge National Laboratory)	1	3.3
UTSA (University of Texas at San Antonio)**	1	3.3
Total	30*	100

^{*}One respondent listed two organizations.

Position titles among employees who work with peer review travel vary considerably. However, categories of similarity were identified. Table 2 lists the frequency of each position title category identified among respondents. Directors (of offices, programs, divisions, etc.) and Program Managers represent the majority of respondents' position titles. A full listing of position titles reported is available in Appendix C.

^{**}Indicates at least one interview respondent from this organization.

Table 2: Position Title Categories		
Category	Respondents (n)	% (n = 29)
Director	8	27.6
Project Manager*	7	24.1
Analyst*	3	10.3
Program Manager*	3	10.3
Contracting Officer / Contracting Officer's	2	6.9
Representative		
Group Manager	2	6.9
Deputy Chief Scientist	1	3.4
Executive Officer	1	3.4
Program Coordinator*	1	3.4
Supervisor	1	3.4
Total	29	100

^{*}Indicates interviewee title

Survey respondents were also asked about the specific role they play "administering or facilitating peer review at your organization, including travel arrangements or compensation policies for peer reviewers" and how long they have been involved in this role. This was an open ended question. Seven role categories were identified from the 28 meaningful comments received. Some comments included participation in more than one role. Table 3 summarizes each role category identified and how frequently it was mentioned. The full listing of respondents' roles, as well as how role categories were applied to these comments appears in Appendix D.

Nearly half the respondents are involved in Activities & Operations such as "manage day to day activities associated with solicitations," "Review set up, management, travel support, honoraria, onsite support," and "administering travel arrangements and compensation" (46.4%, n=13). Nearly one third are involved in various Funding & Payments roles including approving payments to contractors, handling compensation policy, and providing reviewer travel reimbursement (32.1%, n=9). One fourth provide some form of oversight to travel processes ranging from "I oversee the entire peer review process including identifying reviewers, setting the travel policies . . . and determining the honoraria paid for reviewers," to "cognizant manager" to "oversight of staff" (25%, n=7). The Contracts category includes those who serve as a Contracting Officer's Representative and those who manage contracts. The remaining three categories contain only one comment each (Appendix D).

Table 3: Role(s) in Peer Review		
Role Category	Respondents (n)	% (n = 28)
Activities & Operations*	13	46.4
Funding & Payments*	9	32.1
Oversight*	7	25
Contracts	4	14.3
Approval Authority*	2	7.1
Human Capital	1	3.6
Liaison	1	3.6
Project Management*	1	3.6

^{*}Indicates interviewee role

Respondents' involvement with these roles at their *current* organization ranged from one to fourteen years with 4.68 years average involvement. Involvement in these roles "or a similar one at *any* organization" was greater, indicating respondents have some experience with peer review and peer review travel. Involvement in this or a similar role at *any* organization ranged from zero to twenty years with 6.75 years average involvement, and 5.5 years median involvement.

Peer Review

Respondents' organizations conduct numerous peer reviews for funding proposals (Table 4), as well as many peer reviews for other types of projects such as publications (Table 5). Annually, many more funding proposal reviews are conducted than are other types of reviews. Funding proposals also require more reviewers per proposal than do reviews for other types of activities.

Table 4: Involvement in Peer Review of Grants and/or Funding Proposals					
	Mean	Std Dev	Min.	Max.	(n)
Proposals/projects/items reviewed annually	7,593	22,253	0	80,000	19
Unique reviewers recruited annually	1,059	3,725	0	15,000	16
Reviewers per proposal/project/item	5.31	7.17	0	30	17

Table 5: Involvement in Other Peer Review Activities (including Publications)					
	Mean	Std Dev	Min.	Max.	(n)
Proposals/projects/items reviewed annually	24.82	59.44	0	200	11
Unique reviewers recruited annually	5.73	12.18	0	40	11
Reviewers per proposal/project/item	3.18	4.05	0	10	11

On average, face-to-face reviews are conducted more often than virtual (internet based) or other types of reviews (mean = 3.11 on a scale of 1 = not at all and 5 = exclusively, n = 20). Almost half the respondents' organizations report they mostly or exclusively conduct face-to-face reviews (45%).

Internet based reviews, on average, are less commonly conducted (mean = 2.62, n = 20). Nearly one third of the respondents' organizations mostly or exclusively conduct internet based reviews (30%). When discussing internet based reviews (virtual), interview respondents described them as "written reviews" where reviews are conducted virtually in writing via email or an online platform. For example, "They receive a small document to review. [Reviewers] might [submit] an informal email or memo style review of a shorter document ... coming out of one of our agencies."

The lowest mean response was reported for "other" types of reviews (mean = 2.15, n = 11). Five individuals provided details concerning the "other" peer review activities their organization conducts. Three of these described virtual reviews in the form of "mail reviews," "postal reviews" and "teleconference or Adobe Connect." However, they did not discuss how frequently their organization conducted such reviews. Therefore, even though these responses describe virtual reviews, they could not be considered as part of the "virtual" review category discussed above. The last "other" response described a combination review in which a "virtual on-line review" is followed by a "review panel in person."

Interviewees also noted that some reviews are initially conducted via an online platform, or by email, with reviewers then coming together for a face-to-face meeting; "We, through the [online review software] system at [peer review organization], give [reviewers] the proposals [approximately a month] ahead of time and then have a face to face meeting in D.C. so the peer review panels can give us their recommendations of who should be given allocations, or not." Another example was a "conference call" review, a form that combines both the internet based (virtual) and the face-to-face (live) categories from the survey.

Peer Review Travel

Face-to-face reviews require at least some of the peer reviewers to travel. In interviews, organizations' representatives were split in terms of whether they felt, based on their experience, reviewers preferred, or did not prefer, to travel to conduct reviews. One representative did not know how reviewers felt, one felt they preferred not to travel, and the DOE-SC (ORISE) interviewees all felt reviewers preferred to travel. Of those who felt reviewers preferred to travel, two representatives qualified this stating the travel must be worth the reviewers' time. For example, "If you have [reviewers] travel to an in-person meeting, you have to insure that it's worth their while, i.e. that the meeting is not so short they feel like the travel was too cumbersome to get to the meeting for the short period of time."

There are also potential side benefits of travelling to participate in a review. One representative stated, "[Reviewers] actually prefer to travel. . . . it also gives them a chance to meet other people within their field that they might not have had an opportunity to meet otherwise, maybe reconnecting with people. So I think for [reviewers] they see

that as a benefit." Additional perceived benefits include, being able to "read body language" when participating in an in-person review. "[Reviewers] can see who's on, you know they have certainty of who's in the room, they're not interrupting [each other] on the phone, "no you" "no you" "no you", the back and forth...you waste a lot of time trying to facilitate that conversation on the phone."

Several tools and systems were measured for the frequency of their use in arranging peer review travel and convening reviews (Table 6). Reviewers making their own travel arrangements was the most commonly used travel arrangement method (mean = 2.81). Approximately 40% of respondents' organizations mostly or exclusively allow reviewers to make their own travel plans. Commercial software tools were used the least (mean = 1.57), with only 13% of respondents' organizations mostly or exclusively using commercial software tools.

Additional detail was requested concerning "who has direct access to the travel arrangement software tool used by your organization." Twenty participants provided a response. Of those, 10% (n = 2) responded that only staff members had access to the software, 25% (n = 5) that only peer reviewers had access to the software, and 65% (n = 13) granted access to both staff and reviewers.

Table 6: Use of Tools and Systems for Arranging Travel and/or Convening Reviews					
	Mean*	Std Dev	% Favorable**	(n)	
Reviewers make their own travel arrangements	2.81	1.47	39	18	
Contracted travel agency	2.20	1.69	29	17	
In-house travel department	2.04	1.59	22	18	
In-house / custom software tool	1.89	1.43	27	15	
Commercial software tool	1.57	1.24	13	15	
Other	1.17	0.41	0.00	6	

^{*} Items were rated on a 5-point scale of: Not at all = 1, Exclusively = 5.

The interview descriptions of the travel arrangement process indicate use of the same tools and systems measured by the survey: reviewers (or reviewers' representatives) make their own travel arrangements, organizations that handle peer review make the arrangements, organizations' in house travel departments make the arrangements, or an external travel agency makes the arrangements.

There can be a difference between reviewers having the ability to make their own travel arrangements, and them necessarily doing so. When asked to, "Describe how reviewers make their own travel arrangements" interviewees provided two general responses. Either it is a simple choice on the part of the reviewer whether they prefer to make their own arrangements, or have it done by the implementing organization, or it has to do with whether the reviewer is under some limitation as to whether they can accept a payment, even a reimbursement for travel costs, from the organization. One interviewee noted their organization prefers reviewers make their own arrangements and purchases, for which they are subsequently reimbursed, because this

^{**%}Favorable = Percentage of participants who indicated Mostly = 4 and Exclusively = 5

decreases the administrative burden for the organization. However, in instances where a reviewer cannot accept an honorarium or stipend, or even a reimbursement for expenses incurred in reviewing, the organization will pre-pay for all the reviewers' expenses themselves.

Those who prefer to make their own travel arrangements generally have access to administrative assistants who handle travel arrangements. In those cases, assistants may simply coordinate with the peer review facilitation organization on travel details, but have the organization actually book the travel and pay for it, or they may coordinate, but book and pay for the travel themselves, preferring to be reimbursed after the fact. On the other hand, another comment was, "I think overall the majority book through us, especially if they've booked with us in the past. They've learned it's a lot easier."

One interviewee summarized the variety of ways in which travel arrangements are, and can be, made well, stating,

"It just depends on what [the reviewer is] allowed to do. I mean at the end of the day, we just have learned over the years, and I've been doing this four years, that you have to have a lot of flexibility when you're bringing people in to do anything. Whether it be a peer reviewer or a speaker at a conference because they all have different institutional policies that dictate how they can engage with you. So we have learned to do it, whatever it takes, to get them here when we want them."

The flexibility provided around travel arrangements varied. The mean response from 19 respondents to "How much flexibility does your organization provide around travel arrangements?" was 3.04 on a scale of 1 = "none" to 5 = "can nearly always [meet] reviewer needs and requests." Nearly half the respondents" organizations were able to often, or nearly always, accommodate reviewers needs and requests (47%, n = 9).

Peer Review Travel Compensation and Reimbursement

Table 7 summarizes the frequency with which respondents' organizations compensate or reimburse peer reviewers for nine types of expenses incurred by participating in peer reviews that require travel. The frequency with which an honorarium or stipend is paid for participation is also shown.

More than half the respondents' organizations offer compensation/reimbursement for seven of the nine expenses measured. The most common expenses for which reimbursement/compensation is offered are airfare (80%) and ground transportation such as taxis, buses, and trains not including rental cars or mileage (79%). Nearly three-fourths of respondents' organizations (73%) provide compensation/reimbursement for lodging, mileage, and a per diem (daily) rate.

Table 7: Frequency of Reimbursement / Compensation for Expenses Incurred in Participating in Peer Review Travel

Expense	% that Offer Reimbursement / Compensation	(n)
Airfare	80	15
Ground Transportation (taxi, bus, train, etc.)	79	14
Mileage	73	15
Lodging	73	15
Per diem (meals & incidentals daily rate)	73	15
Baggage fees	64	14
Honorarium / Stipend	53	15
Rental car	47	15
Travel allowance (flat rate)	40	15
Other	17	6

Honoraria/stipends and flat rate travel allowances are offered by 53% and 40% of respondents' organizations, respectively. Respondents who indicated "Other" as an expense type had the opportunity to describe these expenses, but did not do so. However, via interview, five additional expense types were identified. These were tolls, internet access (at hotels), public transportation, tips, and visa fees.

For each of the expense types measured respondents were asked to "describe limits or requirements that govern the amount." Comments varied and no patterns or categories emerged (Appendix F).

The frequency with which three different methods of payment are employed for compensation/reimbursement of expenses incurred by participating in peer review travel is summarized in Table 8. The expense types are listed in order from most commonly covered by respondent organizations overall to least commonly covered overall. Respondents were able to choose more than one payment method for each expense type.

With the exception of airfare, for each type of expense, it is most common for respondent organizations to reimburse reviewers after incurring the expense. Organizations directly paying for reviewers' expenses is second most common, regardless of expense type. Advancing funds prior to incurring an expense is not a particularly common practice among respondents' organizations. With respect to airfare, the most commonly covered reviewer expense, reimbursement after incurring the expense, and direct payment for the expense, are employed equally.

Among organizations that use reimbursement the most frequently reimbursed expenses are mileage, baggage fees, and offering an honorarium or stipend. Among organizations that offer direct payments, paying directly for airfare is the most common, followed by a flat rate (for travel, an honorarium or stipend and lodging). Advancing funds is not a common method for reimbursement/compensation and is employed by only 17% or fewer of respondents' organizations for payment of a travel allowance (flat rate), rental car and lodging.

Table 8: Frequency of Method of Payment for Reimbursement / Compensation of Expenses
Incurred in Peer Review Travel

Expense	Reimbursed Afterward % (n)	Direct payment % (n)	Advanced Funds % (n)	(n)
Airfare	50 (6)	50 (6)	0	12
Ground Transportation (taxi, bus, train, etc.)	82 (9)	18 (2)	0	11
Mileage	91 (10)	18 (2)	0	11
Lodging	55 (6)	45 (5)	9 (1)	11
Per diem (meals & incidentals daily rate)	82 (9)	27 (3)	0	11
Baggage Fees	89 (8)	11 (1)	0	9
Honorarium / Stipend	87 (7)	50 (4)	0	8
Rental Car	86 (6)	29 (2)	14 (1)	7
Travel allowance (flat rate)	67 (4)	50 (3)	17 (1)	6
Other	100(1)	100(1)	0	1

Interviewees were asked to describe the process of providing compensation and reimbursement for travel expenses to reviewers. The detail of responses varied. All but one respondent described reimbursing reviewers for travel expenses after the fact via either a personal check to the reviewer or an electronic funds transfer (direct deposit) to their bank account. In all cases that provided detail, the choice of check or electronic funds transfer is the reviewers' and seemed largely to depend on personal preference. Another interviewee mentioned that government employees have to be handled differently because they cannot receive any funds directly, therefore, payment for travel expenses must be handled up front and directly rather than going through the reviewer.

Reviewer Feedback and Satisfaction

Survey responses indicate that most organizations do not specifically request reviewer feedback on travel. For those organizations that do receive feedback, it is predominantly received informally or opportunistically through email, phone calls, or in person. In terms of how that feedback is shared, one comment was that the information is "sent to employees and management," and one that the information received is "added to a database available to all program directors and support staff." Only one respondent (survey or interview) indicated their organization had a formal process for receiving feedback that specifically pertains to travel.

Interviewees whose organizations either do not have a formal process for receiving feedback from reviewers concerning peer review travel, or who did not know if they did, were split in terms of whether they felt such feedback would be useful. For example, two felt the feedback they currently receive is either only the negative comments, or only when "somebody's really happy" and that therefore "you don't hear just the improvements." Another comment reflected the potential value of such feedback against the unlikelihood that reviewers would participate in

a feedback opportunity such as a survey. Two others did not feel such feedback would be useful. One who felt this way noted that they are already measuring so many things for impact, adding another just was not in their interest. The other commented,

"we find that these folks . . . they tend to complain a lot so I don't know that in this particular instance I would be interested in their particular feedback. So in general, it's probably a good practice. With this specific group of folks, I would not be interested."

If they were to collect reviewers' feedback, these respondents noted being most interested in reviewers' overall experience, how tickets are purchased and whether there are better ways to do that, online versus paper expense reports, timeliness of processes especially payment, and ways things could be improved. It was noted that any feedback effort would need to be easy and quick. Only one interviewee preferred in person feedback collection in the form of a conversation to online or email survey type collection methods.

Regardless of whether or how feedback is received, respondents felt reviewers are generally satisfied with the peer review process at their organizations. The mean response to "How satisfied do reviewers seem with the peer review travel process at your organization?" was 4.14 (n = 13) on a scale of 1 = Extremely dissatisfied to 5 = Extremely satisfied.

Interviewees were asked to discuss reviewer satisfaction in more detail and with regards to travel specifically. Their comments tended to be more positive than the responses captured by survey. Most representatives felt reviewers were "very" satisfied, one stated reviewers were "satisfied" and one stated they do not "actually specifically organize their travel" and therefore they could not speak to this point. The perception that reviewers are very satisfied is based upon feedback such as, "All I hear are extremely positive comments that our process is so easy, we do everything for them, they don't have to think about anything, it's extremely smooth."

In response to, "What has the greatest influence on reviewer satisfaction?" interviewees referenced having "things taken care of," clear communication, the quality of the proposal, and flexibility in travel.

A subsequent question targeted interviewee's perception of the impact of flexibility in travel on reviewer satisfaction. Those whose organizations were flexible felt it had a high impact. One representative explained, "we rarely pay our reviewers honoraria so we try and accommodate what they are requesting of us because they're giving of their time, you know and not getting anything, you know, in return." Two interviewees noted that due to regulations, policies, or inflexible meeting dates, they were unable to be flexible with travel arrangements. An example of how flexibility can impact reviewer relations is summarized here,

"We actually do within the regulations; we try to accommodate them as much as possible. That comes down from our clients. They are very appreciative of the time that the reviewers are taking to help them out. This last time, one of our reviewers wanted to add a few days of personal time at the end. Her husband and sons were going to come with her to see, they were gonna take a few days to see Washington. We were able to make that happen. Even in her case, she was going

to end up with the cost. We do a cost comparison. We have certain restrictions and regulations that we have to fall into. But again it made things for her a lot easier. She still was paying, you know it was if she was only traveling for business, what she wanted to do, it would have cost more. But we're allowed to let her make up that difference and still provide the opportunity for her to bring her family there. So yeah we will work with them as much as possible. We do try to go out of our way and make sure [of] that within regulations."

Interviewees were also asked about their perception of reviewers' satisfaction with the forms of compensation and reimbursement offered for participating in peer reviews, as well as the process of receiving compensation/reimbursement. Positive comments ranged from "I think they're pretty satisfied," to "We've gotten nothing but positive feedback from everybody we've engaged with" to "They seem to be very satisfied, extremely satisfied" to "They're ecstatic."

Interviewees also commented concerning reviewers' satisfaction with the processes for receiving compensation and reimbursement. Overall, interviewees' perceptions were that reviewers were "very satisfied" or "very pleased" especially concerning the "very fast turnaround." However, even among the positive comments, some problems were noted. For example,

"I honestly can't even say that it's every review, but things fall through the cracks. There are some times that there are things that just take longer for one reason or another. And there are just human errors that can hold up the process. And I think those are the times we have people that have a bad experience."

In addition, although reviewers can be "generally satisfied," there can be difficulties with "them understanding who does what in this arrangement" in terms of who they received the invite from and "this other person who will handle the travel logistics." This confusion was attributed to communication with the interviewee commenting, "I don't think everyone reads their email." Lastly, within one positive comment a point about the length of time it takes reviewers to receive their compensation was shared.

"The only issue I've ever heard is it takes a while to be reimbursed. So, once they send the paperwork in, all the processes and us having to go through, it may be a month, a month and a half before they see a check or it's an EFT in their bank. . . . Other than that, they seem to be satisfied."

When asked how they felt reviewers preferred to be compensated, there was no consensus. One felt electronic funds transfer was preferred, one felt reimbursement checks were preferred to electronic funds transfer, and one did not know. One interviewee commented that a lot of reviewers "are one-time reviewers and they're not going to go through the hassle of filling out paperwork and having somebody else have their banking information out there. So they just say send me a check."

"Based on reviewer feedback (formal or informal)," respondents were also asked to rate the extent to which six aspects of peer review travel "influence reviewers' decisions whether to participate in a live review activity" (Table 9). The greatest mean (3.03) influence on reviewers' decisions to participate in a live review activity was the requirement to travel, or a moderate influence. The mean influence for all other aspects of the travel process measured was closer to a small influence (< 2.50).

Policies and procedures for coordinating travel arrangements and the quality of travel accommodations had the least influence on reviewers' decisions to participate in a live/in-person review activity. No respondents rated the location where a review was being held as having a strong or critical influence on reviewers' decisions to participate. The "other" influential aspects of the travel process identified by respondents' were described as follows:

- "Many of our reviewers feel an obligation to assist DOE with peer review and the travel process doesn't seem to influence their decision to attend a review."
- "Most feedback from reviewers traveling is the time frame of the meeting. They are unable to get flights leaving or returning in time for other commitments."
- "The quality of the program and the desire to be a reviewer for our program is the main impetus for review participation."

Table 9: Respondents' Assessment of the Degree to which Aspects of the Peer Review Travel Process Influence Reviewers' Decisions to Participate in a Live Review Activity

Travel Process Aspect	Mean*	Std Dev	% of Respondents' stating strong or critical influence	(n)
Requirement to travel	3.03	1.29	40	10
Compensation strategies for travel expenses	2.36	1.32	11	9
Other	2.33	1.53	33	3
Ease of coordinating travel arrangements	2.22	1.23	10	10
Location where review is being held	2.18	0.80	0	10
Quality of travel accommodations	1.72	1.07	10	10
Policies and procedures for coordinating travel arrangements	1.90	1.45	20	10

^{*}Note. Items were rated on a 5-point scale of: Not an influence = 1, A critical influence = 5, 3 = A moderate influence.

Lastly, respondents were asked about the challenges for their organization as well as what works well, when implementing peer review involving travel. The challenges identified and their frequencies of occurrence are listed in Table 10. Aspects of the peer review travel process that work well follow in Table 11. Interviewees were asked these same questions. Their responses are summarized after each table below.

Table 10: Challenges Experienced When Implementing Peer Review Involving Travel	Frequency $(n = 12^*)$
Reviewers wanting to combine review and personal travel / Travel	
preferences (for upgraded classes)	3
None / Not aware of specific challenges / Reviews are conducted	
remotely so travel is not an issue	4
Federal Travel Regulations	2
Travel timing (Time sensitivity on part of staff coordinating; difficult to	
find time of reviewers that works, travelling across dateline, etc.)	1
Communication with Reviewers (lack of response from, reviewers not	
informing staff they are making their own arrangements)	1
"Firm-fixed pricing"	1
Getting funding to ORISE, at no fault of ORISE.	1
"Not a priority"	1
Payment issues (can only cover expenses, not offer a stipend)	1
"Providing WBS; Using FTE Exclusively."	1
"After the fact airfare simulations"	1
Weather	1
We generally don't require or include travel as part of our efforts to obtain peer	
**Compared to the desired that the second that	1

^{*}Some responses include more than one Challenge. Some were not applicable (NA).

Three challenges not mentioned in the survey were identified in the interviews. One relates to reviewer responsiveness in terms of completing the necessary paperwork, submitting the travel expense form and receipts, replying to emails, etc. in a timely fashion in order for their reimbursement to be processed. One organization's representative mentioned, "Weather-related can also be an issue, especially when you're onsite and there's a snow, or there's a weather. Then, there's cancelled tickets, you're having to go back and try to find them other tickets while you're onsite, so that can be an issue." And three comments referred to the specifics of having to navigate through different organization's regulations concerning travels, what needs to be done for foreign travelers versus domestic travelers, what specifics need to happen to reimburse a traveler who purchases their tickets themselves versus works with the peer review organization to purchase the tickets, etc. In particular, the organizations are typically under cost restrictions such as needing to purchase the lowest cost reasonable flight, whereas some reviewers prefer to fly business class or purchase extra legroom. As one interviewee pointed out, "it boils down to what they're allowed to do with their organizations." Another stated these issues are "pretty rare" and "We've never had an issue we couldn't resolve. ... [the peer review organization] is really fantastic and responsive so."

Interview responses to the question, "What works particularly well for your organization in terms of peer review travel?" reinforce and add to the survey responses. Both [contracted travel agency] and [peer review organization] were specifically mentioned as examples of professional/assisted travel arrangements working well. For example, "having [peer review organization] coordinate that travel is a huge benefit."

Table 11: Things That Work Well when Implementing Peer Review	Frequency $(n = 20)$
Professional/Assisted Travel Arrangements (travel office, ORAU, ISS,	
ORISE, agency, etc.)	5
Standardized processes	2
Advance coordination	2
Central Location. Federal Facility near hotel	1
Flat fee and allowing them to make their own travel plans	1
It is done almost as a "voluntary" activity	1
Limiting to GSA rates	1
Reviewers timely reply with itinerary requests.	1
Having a contract [sic] where reviewers can contact directly	1
To review remotely	1

^{*}Some responses include more than one Works Well. Some were NA.

Also,

"I like the fact that we do have [contracted travel agency] purchase those tickets. That keeps my [staff] available to work on other things. I like that piece of it, that it's not them trying to find all these airline tickets for all these reviewers. It's very common for me to have 70 or 80 travelers at a meeting and its very time consuming if we were having to find that."

Interview comments not captured in the survey included good team communication, being onsite to process paperwork, being able to be flexible, and timeliness. Examples of these comments follow below.

- "I think just the fact that our teams do a really good job at communicating with the travelers, sending out reminders, . . . and staying on top of this. I know I've been told by some of the reviewers "I really appreciate all the reminders you send even though I don't respond to them." . . . Sometimes we feel like oh this is the third reminder. But I hear back from them, "no, you need to keep sending them because I see it coming through I just don't respond."
- "I think that's probably one of the biggest things that they really like is that they can complete the paperwork and leave it with us onsite. They don't have to worry about getting back and filing everything out and asking all those questions."
- "We're also flexible in that if something happens and they're at the meeting and they have to leave early for some reason, we can always work with them and try to get a ticket sooner or if they need to stay later for the meeting for some reason, we can also work with them even at that point in time. So we're really flexible in that once we purchase the ticket for them, we're always still here to adjust as needed, within reason."
- "Well I guess anytime you have reviewers that submit everything in a timely manner you know that we can get that submitted for them to be reimbursed."

Summary, Discussion and Conclusions

This study provides an initial characterization of grant and funding proposal peer review from the perspective of organizations that facilitate peer review. It also establishes a benchmark with respect to the travel related aspects of these reviews. As such, this study aids in understanding the challenges and opportunities in facilitating peer review, and also points the way towards further research.

Based on these findings, peer review organizations more commonly conduct face-to-face reviews than internet based reviews. 45% of the peer review organizations represented here mostly or exclusively conduct face-to-face reviews, while internet based reviews are mostly or exclusively conducted by only 30% of respondents' organizations. However, based on open ended comments, there is some ambiguity in the definitions of these types of reviews and potential conflation of types within responses. For example, some reviews include two phases, the first being internet based (virtual) and the second face to face (live). It is unclear how, or how consistently, respondents whose organizations conduct such reviews responded in terms of counting such a review as face-to-face, internet based or other. Furthermore, several respondents noted reviews that included a teleconference or webinar portion which in the absence of a clear definition could be considered a combination review.

Reviewers making their own travel arrangements was the most common means by which respondents' organizations arrange travel for reviewers (39% mostly or exclusively make use of this method). Commercial software tools (Appendix E) received the least use (13% mostly or exclusively make use of this method). Via follow up interviews, interesting details emerged concerning reviewers making their own travel arrangements. For example, doing so may depend upon access to administrative assistance, preference, ease, and ability to accept payment from the peer review organization which may further depend on the nature of the reviewer's employment.

Compensation for reviewers' time and participation in reviews was common (Appendix F). More than half the respondents' organizations offer compensation in the form of an honorarium or stipend (53%). Reimbursement or compensation for a number of travel related expenses was even more popular. Nearly three fourths or more of respondents' organizations ($\geq 73\%$) provide compensation or reimbursement for travel related expenses including lodging, mileage, ground transportation, airfare, and meals, and incidentals in the form of a per diem rate.

Reimbursement after expenses are incurred, or after review services are rendered, was by far more common than direct payment for such expenses and services. A minimum of two-thirds of respondents' organizations use reimbursement after the fact to cover the following expenses: flat rate travel allowance, ground transportation, mileage, per diem (meals & incidentals daily rate), baggage fees, honorarium/stipend, rental car (\geq 67%). For lodging and airfare, payments are more equally split between reimbursement and direct payment (55% reimburse for lodging versus 45% direct payment; 50% each for airfare).

The use of advanced funds is extremely limited. Fewer than 10% of respondents indicated their organizations use this practice and that was limited to lodging, airfare, car rental, and flat rate travel allowances.

In terms of the use of electronic funds transfer versus personal checks, this was entirely up to the reviewers themselves with organizations simply accommodating their wishes on a case by case basis.

Specifically requesting feedback from reviewers concerning peer review travel was extremely uncommon. Only one respondent indicated this practice was in place within their organization. Approximately half the respondents (45%) indicated their organizations do receive feedback opportunistically via email, phone calls or in person. Despite this, the mean response to "How satisfied do reviewers seem with the peer review travel process at your organization?" was satisfied (mean = 4.14, n = 13) on a scale of 1 = Extremely dissatisfied to 5 = Extremely satisfied.

Using this reviewer feedback as a basis, respondents were further asked to assess the degree to which six aspects of peer review travel influence reviewers decisions to participate in live review activities. The requirement to travel stood out from other responses as having the greatest influence. However, it is unclear as to whether this exerts a positive or negative influence on the desire to participate.

In addition to the study findings summarized above, conducting this study revealed findings concerning the field of peer review in general, especially with respect to peer review travel, overall. First, the authors encountered the aforementioned paucity of literature concerning identifying, recruiting, organizing and travelling reviewers to conduct grant and funding proposal peer review. Second, simply identifying the population of professional organizations responsible for administering or facilitating peer review travel, and therefore those who needed to be surveyed, proved difficult. Since no professional organization exists with a directory of grant proposal review organizations (neither governmental nor non-profit agencies), a search of websites using broad and inclusively related terms was necessary. Third, determining which individuals within the organizations played which roles in the administration of peer review was equally difficult. For example, the websites of several peer review organizations identified were not sufficiently transparent so as to indicate the roles of individuals at the organization within the peer review process. Therefore, as a default, the survey was sent to anyone whose contact information could be identified and who appeared to have a role in peer review, especially peer review travel. However, this may have artificially inflated the number of invitations sent and should be considered when evaluating the survey response.

Further Research

The professional organizations that administer and facilitate peer review are only one piece of the peer review travel puzzle. To fully understand the challenges and opportunities in facilitating peer review that involves travel, an assessment of reviewers' perspectives may prove useful.

In addition, a discrepancy between the amount of reviewer feedback received compared to perceived reviewer satisfaction was observed. Fewer than half of respondents' organizations reported receiving feedback from reviewers concerning peer review travel. However, on average respondents reported that reviewers are very satisfied with the peer review travel process at their organization. Given the rate of feedback received, and the even lower rate of feedback

requested, it is unclear what this perception is based upon or how accurate it is. This also pertains to additional survey questions, "based on reviewer feedback," concerning respondents' assessment of the degree to which various aspects of peer review travel influence reviewers' decisions to participate in face-to-face review activities. To increase understanding of, and improve service for, peer review travel, further exploration of reviewers' reasons and viewpoints on participating in peer reviews should be conducted.

Second, according to the representatives of peer review organizations surveyed here, none of the six aspects of the peer review travel process measured influenced reviewers' decisions to participate in a face-to-face review. Further research will explore:

- Aspects of decision influence that were missed in this study.
- The influence of sample size.
- Constructs that were unaccounted for or unidentified.
- Combinations of individual factors that vary for each reviewer, rather than a single construct.
- What reviewers themselves say about influential factors influence on their decisions to participate in peer reviews.
- And what influence reviewer reported factors might have on how peer reviews are conducted.

Third, improvements to the survey design and administration could be made. Design improvements would serve to increase clarity and interpretability of results. For example, to avoid the confusion about different review types, categories should be clearly defined and separated. In addition, multi-item scales should be reviewed for internal consistency, and verification questions should be added to ensure the desired sample criteria is met. Additionally, survey questions should be critically reviewed for conceptual singularity. In terms of administration, one suggestion is to follow up emailed survey invitations with phone calls to ensure the survey has been received, and received by the correct individuals, as well as to prompt survey completion.

Lastly, the difficulty in being able to identify those who facilitate, implement, administer or conduct peer reviews, particularly the travel related aspects, bears further consideration. Scientific research cannot be subjected to proper peer review without sufficient information discovery, access, and transparency. Likewise, the peer review process itself, to truly be the gold standard for scientific research quality and trustworthiness, must also be discoverable, accessible and transparent.

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Appendix A – Survey Instrument

Benchmarking Study Survey - Peer Review Travel

Oak Ridge Institute for Science and Education (ORISE) is conducting a benchmarking study about how professional organizations implement travel or payments that might cover travel expenses for peer reviewers. We are asking you to complete the following short survey about travel for peer review. Your responses are confidential, and no individuals will be identified in the results. Aggregate responses will be used in communicating survey results. The survey should take no more than 15 minutes of your time. Please be sure to use the navigation buttons at the bottom of each survey page rather than the back and forward arrow controls at the top of your web browser window.

Online Survey Software Powered by novisurvey.net

				Ben	chma	rking Stu	udy Survey - Peer Review Trav	el
1.	Name of your orga	anization:		•				
2.	What is your posi	tion title?						
	What is your spec reviewers?	ific role in	adminis	tering or fac	ilitating	peer review a	at your organization, including travel arrange	ements or compensation policies for peer
	How long have yo Indicate number of						ase indicate 1.	
5.	How long have yo	u been inv	olved in	this role or a	similar	one at any o	rganization?	
	Indicate number of	years using	whole nu	mbers only. If	less than	one year, ple	ase indicate 1.	
6.	What types of pee	r review a	tivities	does your or	ganizati	on currently	conduct?	
		pr		n average, ho /projects/iter annually	ms are r		On average, how many unique reviewers are recruited annually	On average, how many reviewers serve on each proposal/project/item
	Grants or funding	9						
	Other (Including publications)							
7.	Please indicate h	ow often yo	our orga	nization con	ducts in	teractive pee	r review activities.	
	When responding to	this question	on, only o	onsider activit	ies within	the last five y	ears.	
			_	Sometimes	Mostly			
	Virtual	0	0	0	0	0		
	In person or live	0	0	0	0	С		
	Other	0	О.	С	0	C	I	
	If you indicated 'O	ther', pleas	se speci	ly:				
				0 / 2000				

Benchmarking Study Survey - Peer Review Travel

8. To what extent are the following used for peer review travel arrangements in your organization?

	Not at all	Rarely	Sometimes	Mostly	Exclusively	Please describe (300 characters max)
Venues that your organization owns or operates	0	0	0	0	0	
Commercial locations and venues	0	0	0	0	0	
A contracted travel agency	C	0	0	0	0	
An In-house travel department (describe # of FTE employees needed)	C	С	О	С	0	
A commercial software tool	C	0	0	0	0	
An in-house or oustom software tool	0	0	0	0	0	
Reviewer makes their own travel arrangements	0	0	0	0	0	
Other	0	0	0	0	0	

9.	Who has direct access to the travel arrangement software tool used by your organization?
	C Peer reviewers
	C Staff at your organization
	C Both
	C Not applicable

10. How much flexibility	does you	r organization provide	around travel	arrangements?
--------------------------	----------	------------------------	---------------	---------------

Such as allowing reviewers to request their preferences, extend their travel, etc.

- None
- Can rarely accommodate reviewer needs and requests
- Can cometimes accommodate reviewer needs and requests
- Can often accommodate reviewer needs and requests
- Can nearly always accommodate reviewer needs and requests
- 11. Please Indicate which types of compensation or travel expenses are offered by your organization for peer reviewers. Provide the requested details.

		Meth	od of paymen	t	
	Offered?	Directly paid by organization	Advanced funds	Reimbursed afterward	Describe limits or requirements that govern the amount (300 characters max)
Honorarium or stipend		С		С	
Travel allowance (flat rate)		С			
Transportation (airfare)	v	С		С	
Transportation (baggage)		Г		С	
Transportation (taxi, train, bus, parking, etc.)		Е	0	Е	
Transportation (rental oar)	v	Г	П	Г	
Transportation (mileage)	v	Г	П	Г	
Lodging (hotel)		Г	П	Г	
Per diem (dally rate)	v	Г	П	Г	
Other	-	Г	П	г	

Transportation (mileage)		'		· '	
Lodging (hotel)	×	Г	П	Г	
Per diem (dally rate)		Г	П	Г	
Other	×	г	П	г	
f you indicated 'Other', please spec	0 / 2000				

Online Survey Software Powered by novisurvey.net

Does your organization ever request or receive feedba are the main points of this feedback?						
How satisfied do reviewers seem with the peer review	travel process at yo	our organization?	•			
C Extremely discatisfied						
C Neutral						
C Satisfied						
C Satisfied C Extremely satisfied						
Extremely satisfied						
Extremely satisfied						_
Extremely satisfied	nat extent do the fol Not an Influence	lowing influence A small Influence	reviewers' decision A moderate Influence	whether to particip A strong Influence	ate in a live revie	I do
Extremely satisfied	Not an	A small	A moderate	A strong	A ortitoal	l de kn
CExtremely caticfied ☐ I don't know Based on reviewer feedback (formal or informal), to wh	Not an Influence	A small Influence	A moderate Influence	A strong Influence	A oritical Influence	I do
C Extremely satisfied ☐ I don't know Based on reviewer feedback (formal or informal), to with Requirement to travel	Not an Influence	A small Influence	A moderate Influence	A strong Influence	A orifical Influence	l de kne
Extremely satisfied I don't know Based on reviewer feedback (formal or informal), to wh Requirement to travel Ease of coordinating travel arrangements Policies and procedures for coordinating travel	Not an Influence	A small Influence	A moderate Influence	A strong Influence	A orifical Influence	l de kn
Extremely satisfied I don't know Based on reviewer feedback (formal or informal), to with Requirement to travel Ease of coordinating travel arrangements Policies and procedures for coordinating travel arrangements Guality of travel accommodations	Not an Influence	A small Influence	A moderate Influence	A strong Influence	A oritical Influence	I de kn
Extremely satisfied I don't know Based on reviewer feedback (formal or informal), to with Requirement to travel Ease of coordinating travel arrangements Policies and procedures for coordinating travel arrangements Guality of travel accommodations	Not an Influence	A small Influence	A moderate Influence	A strong Influence	A oritical Influence	I de kn
Extremely satisfied I don't know Based on reviewer feedback (formal or informal), to where the same of coordinating travel arrangements Policies and procedures for coordinating travel arrangements Guality of travel accommodations Compensation strategies for travel expenses	Not an Influence	A small Influence	A moderate Influence	A strong Influence	A oritical Influence	I de kn
Extremely satisfied I don't know Based on reviewer feedback (formal or informal), to where the same statement of the same statement is satisfied by the sat	Not an Influence	A cmall Influence	A moderate Influence	A strong Influence	A oritical Influence	I de kn

	Benchmarking Study Survey - Peer Review Travel
15. What specific challenges do	so your organization experience when implementing peer review involving travel?
18. What works partioularly well	for your organization when implementing peer review involving travel?
17. Do you have any additional o	omments about peer review involving travel or the contents of this survey?
18. Would you be available and	villing to be interviewed by our curvey team about peer review travel issues?
C Yes C No	
19. Would you be interested in o	btaining findings from our peer review travel benchmarking study?
C Yes C No	
20. Please provide your contact	nformation:
Full name:	
Email address:	
Daytime telephone number:	

Appendix B – Interview Protocol

As part of a study concerning peer review travel and expense reimbursement, we are
conducting several one on one interviews. You may recall participating in the online survey
portion of this study previously. The purpose of these interviews is to learn from individuals
as to their experience with different aspects of the peer review travel process.

During this interview, I will ask questions about your organization's work related to peer review. We are particularly interested in the travel related aspects of peer review. As we proceed, please keep in mind there are no "right" or "wrong" answers. My intent is simply to understand your organization's work with regards to peer review travel.

I would like your permission to record this interview. This allows for an accurate transcription of our conversation and enables me to focus on you rather than taking notes. Your name and any identifying information will not be transcribed. Should you wish to, you may receive a copy of the transcript.

Please feel free to ask for clarification or examples at any time during our conversation. While I hope you will feel comfortable sharing your experiences, you are not required to answer any question and you may end the interview at any time.

I expect our conversation to take no more than one hour, and possibly less.
Do you have any questions before we get started?
May I have your permission to record our conversation?
Turn on recorder.

OK, I have turned on the recorder. This is an interview of INTERVIEWEE by INTERVIEWER on DATE at TIME. ______ is also participating, and

_____ is taking notes. For the record, can you please state that I have permission to record this conversation.

Ice Breaker

Q1: To get us started, please describe your role with respect to peer review travel.

- E.g. Administration, facilitation, travel arrangements, compensation processing, compensation policy, etc.

Background

Transition: Thank you. Next, let's talk about the types of peer reviews your organization is involved in.

Q2: Could you describe the most common type of peer review processed by your organization?

- In person, virtual (phone, online, etc.)
- Q3: Are there any other types of peer review handled by your organization?
- Q4: When your organization is involved with in-person reviews, what types of facilities or venues are used?

Peer Review Travel

Transition: The next set of questions concerns travel for in person peer reviews.

- Q5: Based on your experience working with peer review and peer review travel, do you find reviewers prefer, or do not prefer, to travel?
 - What makes you think that?

Transition: Continuing to think specifically about your organization's involvement with travel for peer review,

Q6: Please describe, in as much detail as possible, the process of making travel arrangements for reviewers?

- Made by organization? (in house travel department?), made by reviewer?, made by external travel agency?

- Q6.1 Can you describe how reviewers make their own travel arrangements?
 - What is the process they follow?
 - What tools are used?
 - Commercial software, organization's software, online, etc.?
- Q6.2 What are your **in-house procedures** for making reviewers' travel arrangements?
 - Separate travel department?
 - # FTE?
 - Software used? Can you share the name of the product you use?
 - Is this the same for all peer review travel?
- Q6.3 Please describe your organization's use of **external**, **or professional**, **travel assistance** when arranging reviewer's travel.
 - Agency/company? Contractors?
 - Is this the same for all peer review travel?

Transition: Thank you for sharing these processes and procedures. Let's talk about how reviewers respond to them.

- Q7: Based on your experience, how satisfied are reviewers with the travel processes provided by your organization?
 - What makes you say that?
- Q8: What has the greatest influence on reviewer satisfaction?
 - From your experience. . . .
- Q9: How does flexibility in travel arrangements impact reviewer satisfaction?
 - E.g. allowing reviewers to request their preferences, extend their travel arrangements, etc.
- Q10: What challenges does your organization experience with peer review involving travel?
 - Weather, travel timing, federal regulations, firm-fixed pricing, payment issues, communication issues, etc.
- Q11: What works particularly well for your organization in terms of peer review travel?
 - Flat fee, flexibility in timing, allowing reviewers to make plans, central location, professional travel assistance, etc.

Compensation & Reimbursements for Peer Review Travel

Transition: Thank you. We are also interested in learning about compensation and reimbursement practices related to peer review travel. Let's talk about that.

- Q12: What forms of compensation, or travel expense reimbursements, are offered to reviewers by your organization?
 - After initial response, specifically follow up with each item below. Check off each mentioned as they respond.

0	Honorarium or stipend
0	Per diem
0	Travel allowance (flat rate)
0	Transportation
	 airfare
	 baggage
	 taxi, train, bus, parking
	 rental car
	mileage
0	Lodging
0	Other

- Q13: How satisfied are reviewers with these forms of compensation and/or reimbursements?
- Q14: How does your organization provide compensation and/or travel expense reimbursement?
 - What is the process / Please describe the process ?
 - E.g. reimbursement, advanced, directly paid by organization, etc.?
- Q15: How satisfied are the reviewers with these/this process(es) for receiving compensation and/or reimbursement?
 - What makes you say that?
- Q16. Based on your experience, how would reviewers prefer to be compensated?

Reviewer Feedback		
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Transition: Thank you. We are coming to the end of our conversation. The last set of questions have to do with reviewer feedback.

Q17: Does your organization have a process for gathering feedback from reviewers on their experiences concerning peer review travel?

If YES \rightarrow Q17a: How is this feedback is requested.

Q17b: What information is requested?

Q17c: What other information would be good for you to know?

If $NO \rightarrow Q17d$: Would collecting reviewer feedback be useful?

- What makes you say that?

Q17e: What information would be valuable for your organization to know?

Q17f: What would be the best way for you to collect feedback?

Conclusion

Thank you for sharing your thoughts with us.

Q18: Is there anything about peer review travel we haven't covered that you would like to add?

Q19: Do you have any other additional comments?

Q20: Do you have any questions for me?

Thank you. I appreciate your time.

Appendix C – Complete Listing of Position Titles

Survey Respondent Position Title		
Title	# of Respondents $(n = 29)$	% of Respondents
Project Manager	7	24.14
Group Manager	2	6.9
Program Analyst	2	6.9
Program Manager	2	6.9
Associate Lab Director	1	3.4
Commercialization Office Director	1	3.4
Contracting Officer	1	3.4
Contracting Officer's Representative	1	3.4
Deputy Chief Scientist	1	3.4
Director of Operations	1	3.4
Director of the Research Office	1	3.4
Director, External Funding (Grants and Contracts)	1	3.4
Director, Scientific Review and Evaluation Activities	1	3.4
Division Director - first line supervisor	1	3.4
Executive Officer/Center for Scientific Review	1	3.4
Management Analyst	1	3.4
Program Director	1	3.4
Research Program Coordinator	1	3.4
Senior Program Manager	1	3.4
Supervisory Program Management Officer	1	3.4

Appendix D – Role in Administering or Facilitating Peer Review

Role	Role Category
Manage all day-to day activities associated with solicitations	Activities &
(Cooperative Agreements)	Operations
I lead the operations team which manages all travel for the Office of	Activities &
Health Communication and Education in the Center for Tobacco	Operations
Products.	
I invite reviewers and we have a support staff that facilitate travel	Activities &
arrangements. NSF has fixed compensation policies that the support staff	Operations
helps implement -including electronic sign in, collecting travel vouchers	
where needed, and sending the info to the treasury.	
We just send our applications to your organization for a review	Activities &
	Operations
Program Analyst, coordinates contractor support, reviewer recruitment	Activities &
and other logistical responsibilities.	Operations
I manage the limited submission review process for UTSA. All reviews	Activities &
are done remotely so we rarely provide funds for travel.	Operations
We are arranging the process of collecting proposals for peer review at	Activities &
Nazarbayaev University.	Operations
Review set up, management, travel support, honoraria, onsite support.	Activities &
Teview set up, indiagement, travel support, nonoraria, onsite support.	Operations;
	Funding/payments
We facilitate travel arrangements for participants. We don't usually	Activities &
provide monetary compensation beyond a per diem for lodging and	Operations;
meals.	Funding/payments
I administer the Peer Review Program for my Center. This includes	Activities &
handling travel arrangements and compensation policy.	Operations;
r a gama a gama a ra	Funding/payments
Administering travel arrangements and compensation.	Activities &
	Operations;
	Funding/payments
Manage funding of projects/tasks. Provide reviewer travel	Activities &
reimbursement, onsite support, hotel contracts.	Operations;
	Funding/payments
I oversee entire peer review process, including identifying reviewers,	Activities &
setting the travel policies based on the reviewers institution, and	Operations;
determining the honoraria paid for reviewers. ORAU manages all of our	Funding/payments;
travel arrangements and payment of honoraria.	Oversight
Managing Non-Federal Travel Contract for Peer Review	Activities &
Recommending Policy	Operations;
Honorarium and Payment to Peer Reviewers	Funding/payments;
Managing over 200 Blanket Purchase Agreements for Meeting and	Oversight;
lodging space	Contracts
Processing Blanket Purchase Agreement Contracts for meeting space	

Role	Role Category
Payment of invoices to Meeting properties on Blanket purchase	
agreements	
Supporting Peer Review Community	
Contract Officer Technical Representative/Government Technical Lead	Contracts lead/rep
on contracts governing Independent Science for Missouri River.	-
AS the Contracting Officer's Representative, I work closely with the	Contracts lead/rep
Contracting Officer to monitor travel costs on federal contracts and	-
making sure they adhere to federal travel regulations as described in the	
Federal Acquisition Regulations.	
Help to administer a peer review contract our office has established with	Contracts lead/rep;
a contractor to facilitate preparation of external peer reviews of scientific	Funding/payments;
information. Helped facilitate development of funding actions that use	
another agency peer review contract used to review extramural grant	
proposals (note: last review cycle for extramural grants was conducted in	
FY2011). Some other peer involvement and review has been obtained	
through small purchase (less than \$2,500) contracts awarded directly to	
some external peer reviewers - mostly with individuals employed by	
academic departments or not-for-profit research organizations.	
I am not involved with peer review within my organization. But I do	Funding/Payment;
approve payments to contractors for peer review related expenses.	Approval
	Authority
PAMS, Travel, Financial Management,	Funding/payments
Oversee travel and honoraria payments if applicable for peer reviews.	Funding/payments
Travel includes hotel/meeting logistics, travel authorization letters, travel	
expense reimbursement, purchasing airline or train tickets and ensuring	
all travel and honoraria policies are adhered to.	
Human Capital needs of our organization.	Human capital
T ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	needs
Liaison to the program office.	Liason
I oversee the SREA operation for NIH, among others. Additional	Oversight
information on NIH review travel is available here:	
https://public.csr.nih.gov/ReviewerResources/TravelAndExpenses/Pages/	
default.aspx	0 11
Oversee peer review of various DHS funding initiatives and progress	Oversight
checkpoints.	Ozvansi slat
Only as cognizant manager	Oversight
Oversight of staff in the solicitation, review and selection process for	Oversight
scientific programs.	Oversialst
I serve as the final approving authority for the ORISE program for CDC	Oversight;
	Approval
Managa majagta fan DOE sekiak inglede en en en inglede	Authority
Manage projects for DOE which include peer review facilitation.	Project
	Management

Appendix E – Descriptions Concerning the Extent to Which Various Tools, Systems and Arrangements Were Used for Peer Review Travel Arrangements

Please describe - Venues that your organization owns or operates	Frequency
Internal meeting rooms for video-assisted and other virtual meetings	1
One review uses the Arlington space once a year when available	1
DHS Internal reviews are mostly conducted at a DHS facility	1
Sometimes reviews are held at Forrestal	1
If peer review travel is necessary, some reviews are hosted in agency	1
office space	
Electronic usually or in leased office meeting space	1

Please describe - Commercial locations and venues	Frequency
Hotels	5
Government Facilities	1
Convention Centers	1
Contractor offices or photoshoot locations	1
Space owned and managed by outside organizations	1
"Blanket purchase Agreements"	1

Please describe - A contracted travel agency	Frequency
World Travel Services provides air and train arrangements for non-	
Federal reviewers. Federal reviewers' travel (a small minority of the	
total) is arranged using Federal procurement systems	1
our subcontractors ISS	1
Unless you consider ORISE a contracted travel agency	1
Non Federal Travelers	1

Please describe - An in-house travel department (describe # of FTE	Frequency
employees needed)	
2	1
1-2	1
For federal reviewers	1
Internal staff arrange contracts for meeting and sleeping rooms at	1
specific hotels, coordinate and approve emergency travel arrangements	
Unknown. Very little of our travel is related to peer review.	1
We have ORAU make all of our travel arrangements	1

Please describe - A commercial software tool	Frequency
Concur	1
PeerNet exclusively for NNSA reviews	1

Please describe - An in-house or custom software tool	Frequency
ConcurGov	1
Honoraria are paid using specific software systems that connect rosters	1
to the Federal payment systems.	
We have tailor made products for tracking travel	1

Please describe - Reviewer makes their own travel arrangements	Frequency
DHS pays flat fee for reviewer participation and travel. No travel	1
reimbursements are made	
On rare occasions, a reviewer will make his or her own travel	1
arrangements. We reimburse only up to what would have been spent	
through our other systems.	
Rare that peer reviewers travel on our behalf, but if they did do so, they	1
would make their own travel arrangements.	
Rarely, mostly ORISE is used	1

Please describe - Other	
No responses.	

Appendix F: Limits or Requirements Governing the Amount Reimbursed or Compensated for Expenses Incurred via Participation in Peer Review that Requires Travel

Honorarium or stipend

\$200 for two page narrative

\$200 per panel for virtual; \$760 for in-person

\$200/day

\$500 per day per reviewer

1-2 times per year

Fees arranged at outset, and payments made upon completion (afterward)

Flat fee per read if no travel is involved

Honoraria is typically paid up to \$500 per day but amount is dependent upon customer requirements.

We offer a set honoraria per reviewer (who reviews more than one proposal) so long as they are not a government or DOE lab employee.

Travel allowance (flat rate)

\$235 per meeting

Contract, federal acquisition regulations apply

Flat fee if travel for onsite panel meeting regardless of number of reads

Used very rarely

Transportation (airfare)

Can accommodate other dates, but will use the lowest simulated value

Contract, federal acquisition regulations apply

Flat rate paid to reviewers

Negotiated fixed price per event

Transportation (baggage)

Contract, federal acquisition regulations apply

Flat rate paid to reviewers

Negotiated fixed price per event

Transportation (taxi, train, bus, parking, etc.)

Contract, federal acquisition regulations apply

Flat rate paid to reviewers

Negotiated fixed price per event

Only when this is in place of an airfare. Otherwise it is part of the

Transportation (rental car)

Contract, federal acquisition regulations apply

Flat rate paid to reviewers

Rarely is this required for our location.

Transportation (mileage)

Comes out of flat rate

Contract, federal acquisition regulations apply

Flat rate paid to reviewers

Negotiated fixed price per event

Lodging (hotel)

Contract, federal acquisition regulations apply

Flat rate paid to reviewers

Negotiated fixed price per event

Paid through Blanket Purchase Agreement

Per diem (daily rate)

\$80/day

Contract, federal acquisition regulations apply

Flat rate paid to reviewers

Negotiated fixed price per event

If you indicated 'Other', please specify:

any other travel expenses

As the Contracting Officer, I approve payments to the Contractor as reimbursement for incurred costs.

At Nazarbayev University we only conducting independent review.

We pay you for reviews, you deal with them at your expense.

Describe limits or requirements that govern the amount - Other

Flat rate paid to reviewers

Tolls if applicable