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Whistleblowers in Research Misconduct Cases: RIOs Preparation of Whistleblowers and Their Reports on Questions Whistleblowers Raised

Final Report

Prepared for

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EXECUTIVE SUMMARY

1. Introduction

Background

The U.S. Department of Health and Human Services' Office of Research Integrity (ORI) contracted with RTI International to examine issues related to "whistleblowers" who report research misconduct. ORI commissioned this study in an effort to expand upon an earlier study of complainants completed by RTI that examined the negative consequences experienced by individuals who filed allegations of research misconduct.

In pursuit of its legislative responsibility, ORI desires to develop responsive educational materials and training opportunities for Research Integrity Officers (RIOs) so they can be well prepared to handle the challenge of providing whistleblowers with reassurance and information they want and need when they consider making an allegation of research misconduct. This requires that ORI gather knowledge about the information that RIOs typically provide and the questions and concerns complainants often have at various points in the allegation resolution process. The overarching goal of this study is to ensure that RIOs know what they need in order to adequately prepare complainants for what will occur in the process of resolving a research misconduct allegation and that RIOs are adequately informed about the most common concerns of complainants who have gone through the allegation resolution process. We believe that providing information on how well informed whistleblowers seem to RIOs about the allegation resolution process when they file a research misconduct allegation, and whether they anticipate that they may suffer retaliation or other adverse consequences for doing so will help institutions become better able to anticipate whistleblower issues and be more supportive of those individuals who are trying to report possible research misconduct.

Study Purpose and Objectives

This study was designed to collect information to identify the allegation-related topics RIOs discuss with complainants, and the topics about which complainants have questioned RIOs before initiating, during, and after completion of the resolution process. In addition to collecting data on what RIOs recall complainants wanted to know, the study also collects information to describe complainants, interactions that the RIOs have had with complainants, and characteristics of the RIOs completing the interview. These data are intended for use by ORI to gain a fuller understanding of the information RIOs provide to complainants as well as of the questions and concerns that complainants and potential complainants expressed at various stages of the allegation resolution process. The study is intended to be descriptive; results will be the basis for developing educational materials and

training opportunities for RIOs to better prepare them to attend to complainants' and potential complainants' concerns and needs for reassurance.

Specific Research Questions

In undertaking this study, RTI endeavored to address several broad questions proposed by ORI, including the following:

- 1. About what allegation resolution topic areas do RIOs say they routinely initiate discussion with complainants and potential complainants when they are first contacted? Do RIOs use a prepared script or other memory aide when discussing these topics?*
- 2. About what allegation resolution topic areas do RIOs most often report getting asked questions by complainants?*
- 3. Do the topic areas of questions that complainants ask RIOs differ by phase of the resolution process?*
- 4. Are there topic areas that RIOs felt needed to be discussed with complainants during the different phases of the resolution process?*
- 5. Do RIOs say they may encourage complainants to file an allegation of research misconduct? If so, under what circumstances do RIOs say they may do that?*
- 6. Do RIOs say they may discourage complainants from filing an allegation of research misconduct? If so, under what circumstances do RIOs say they may do that?*
- 7. Do RIOs observe any changes in the complainants' demeanor from one stage of the resolution process to the next?*
- 8. Do RIOs deal with complainants who are difficult? If so, how do they handle those difficult complainants or situations?*
- 9. Does the number or combination of topic areas/specific aspects of topic areas that RIOs say they discuss with complainants or potential complainants vary with the RIOs' training, experience, or other characteristics?*
- 10. Does the number or combination of topic areas specific aspects about which RIOs say their most recent complainants asked them questions vary with characteristics of the complainants?*
- 11. Is more extensive initial discussion of topic areas/specific aspects by RIOs associated with RIOs reporting complainants ask them about more or fewer topic areas/specific aspects of the process of resolving research misconduct in subsequent contacts?*

2. Study Methods

Study Design

This study's initial design was intended by ORI to expand upon the one employed in the first RTI study of whistleblowers, in which actual whistleblowers were contacted by mail and asked to complete a questionnaire exploring any adverse impacts they felt they experienced as a result of filing the research misconduct allegation. However, because of the current strict interpretation of federal regulations protecting the confidentiality of whistleblowers, ORI was unable to supply a list of complainants from closed cases to serve as a frame from which to select a sample for the current study. RTI developed and tested several alternative approaches to create a list of complainants, but none of them were successful. Ultimately, it became clear that we would not be able to identify, locate, and solicit recent whistleblowers from US institutions of higher education and the study was redesigned.

Accomplishing the research goal involved designing the study to talk with individuals in institutions of higher education having knowledge of the concerns and questions expressed by complainants as they proceeded through the process for making and resolving allegations of research misconduct. We planned to conduct interviews with RIOs who had recent contact with actual or potential complainants. The interview guide was designed to explore the types of questions complainants raised with RIOs when they are considering filing a formal allegation of research misconduct and at more advanced stages of the process, and to ascertain the kinds of information the RIOs provided in their early contacts as well as in response to these inquiries.

Identifying the RIOs to Interview

Our frame construction strategy entailed requesting that ORI review its annual report database to prepare a file identifying institutions that submitted an annual report between 2005 and 2009 indicating whether they had an allegation, inquiry, or investigation of research misconduct. The file ORI provided contained 1,854 records with institutions' names and unique identifiers. We eliminated those that were not institutions of higher education as well as those that had not filed a report for at least 1 year between 2005 and 2009 in which an allegation, an inquiry, or an investigation was reported. We obtained a file listing the names of institutional contact persons who are responsible for submitting the institution's annual report to ORI and merged the contact information onto the sample frame. Removing 21 randomly selected cases for a small pilot study and eliminating several institutions with duplicate contact people reduced the frame to 141 institutions—all of which presumably had a RIO during the 5-year period who had some contact with at least one complainant. To allow for RIOs who would refuse, whom we would be unable to contact, and who would not

be available during the survey period, we surveyed the entire frame to ensure that we would obtain the desired 100 interviews.

Data Collection Procedures

RTI staff worked closely with ORI to develop the interview guide by specifying substantive topics/areas of concern, defining time periods of interest, and specifying actual item wording and likely response categories. Three trained interviewers conducted pilot test interviews with eight RIOs to test and refine the interview guide. We summarized pilot study findings, shared them with the ORI project officer, and revised the instrument accordingly. The project team convened a training session with the five interviewers for the main study to review the instrument and discuss the intent of each question. The interviewers also conducted mock interviews to familiarize themselves with the flow of the items and skip patterns. The training and mock interviews identified a few areas for further refinement.

RTI used an automated process to e-mail the recruitment letter requesting participation in a telephone interview. Cases were allocated equally among the five members of the interview team, and e-mails were released in three waves at approximately 2-week intervals. For the majority of cases, the interviewer needed to follow up with the RIO by phone and e-mail approximately 3 to 5 days after the recruitment letter was sent to schedule the interview. Repeated attempts were made to reach RIOs unless the RIO declined to participate.

The interview was designed to take 45 to 60 minutes to complete; the actual completion time averaged 43 minutes. The interview guide largely consisted of precoded items but also included several open-ended items and items with "Other Specify" responses. Interviewers manually recorded all responses during the interview, which they later entered into a web-based data collection system.

Coding the Write-in Responses

Open-ended interview questions did not have any precoded response alternatives, which meant that codes needed to be assigned to the open-ended item responses. Other questions that included precoded response alternatives also had an Other Specify response option, which also needed to be assigned a code or coded into an existing response category. The coders reviewed all of the qualitative responses for the questionnaire sections and developed new response categories that captured responses that could not be included in preexisting categories. The coders reviewed the open-ended and Other Specify responses and developed a new variable with discrete response categories to summarize the RIO's response. Two of the interviewers independently coded a sample of the items using the list of new variables and response categories. To assess reliability of coding, two interviewers independently recoded a sample of their coded responses to compare them. Intercoder

analysis revealed an overall 87.5% agreement and a kappa coefficient of 0.75 across the entire set of 742 items assessed.

Data Cleaning

A statistical analyst reviewed frequencies for internal consistency and possible data entry errors and exported the cleaned data to create a SAS data set. The data were further prepared for analysis by recoding variables within gateway patterns for consistency, recoding variables within gateway patterns based on logical skips, adding missing codes, and adding variable labels and formats. The numerically coded responses for each write-in response were merged into the original variables or new variables were created. All newly created and recoded variables were reviewed using an initial set of response frequencies. A codebook was developed including information about the variables, variable labels, and response formats.

Creation of Analysis Variables

Examining some questions of interest to ORI required us to create composite count variables. We summed the number of topic areas mentioned by RIOs during the interview. We created these four count variables for each of the four time periods asked about during the interview: (1) the initial contact with the complainant, (2) the time period after the initial contact, (3) time after the initial contact but *before making* the formal allegation, and (4) the period after the allegation was filed. RIOs' responses about specific aspects of the topic areas for the same time periods were also summed.

Analytic Methods

First, we completed a descriptive study of the response frequencies to describe how RIOs respond to inquiries and questions about filing allegations of research misconduct. Then we conducted statistical analysis to investigate potential associations between the eight analysis variables and the behavioral characteristics of RIOs, the RIO's experience, the RIO's organizational factors, the RIO's training, and the complainants' characteristics. We used version 9.2 of the SAS analysis software package for the descriptive analyses and to cross-tabulate each independent variable by the dependent variable. We used phi, and gamma coefficients to measure the associations and the chi square statistic to test for statistical significance.

3. Interview Response Rates and Characteristics of RIOs, Complainants, and Their Initial Contacts

Response Rates

Overall, we conducted interviews with RIOs at 102 of the 141 institutions to which we e-mailed a study participation request, for a raw response rate of 72.3%.

RIO Characteristics

We asked RIOs about their usual title when they are not carrying out RIO responsibilities as well as when they are performing activities related to research misconduct issues, reviewed their responses, and coded them into discrete categories. In addition to serving as RIOs, we found that these individuals are also performing a wide variety of other roles and at differing hierarchical levels in their institutions. RIOs in this study most commonly (36.3%) hold the title of a vice president when they are not performing their RIO responsibilities, and only slightly more than half (52.0%) actually have the RIO title (or a very similar one) when they are performing typical RIO responsibilities. More than half of RIOs (57.8%) indicate that there is a single person between them and top management.

More than three-quarters of the RIOs (77.5%) indicate that they are the primary person to receive allegations of research misconduct at their institutions. Except for one RIO who did not know, all of the RIOs responded that there are no other individuals authorized to take allegations. The vast majority of RIOs (92.2%) responded that they feel they would indeed be obligated to file an allegation if they possessed credible evidence of falsification, fabrication, or plagiarism.

We asked the RIOs to indicate what types of training they had completed or other qualifications they possessed as preparation for serving as RIO, reviewed their responses, and coded them into discrete categories. The type of training most commonly reported by RIOs (32.4%) is attending an ORI-sponsored RIO Boot Camp—an activity that we believe is likely to be of the greatest relevance for training RIOs to carry out their responsibilities because it is the most extensive and intensive one available. We asked about their seniority at their current institution (both generally and as RIO) and the number of years that they have been involved in research misconduct issues. The RIOs report having been employed by their current institution for a mean of 18.1 years ($SD=12.4$), whereas they have been RIO at their current institution for a mean of only 6.9 years ($SD=6.5$). RIOs reported having been involved in research misconduct issues for a mean of 10.3 years ($SD=8.5$).

We inquired about how many times RIOs had asked for advice on handling an allegation. They report having conferred with other RIOs a mean of 3.6 times ($SD=6.2$) and with a staff member of a federal oversight agency like ORI a mean of 4.7 times ($SD=7.6$).

Finally, we asked about the number of times in their career as RIO that they have had contact with actual or potential complainants. Seventy-seven of the 102 RIOs (70.6%) indicate that they have had contact with at least one actual complainant; the mean number of actual complainants with whom these RIOs interacted during the period of interest is 8.5 (SD=10.4). Eleven RIOs (10.8%) said they have never spoken to an actual complainant but have had contact with at least one potential complainant; the mean number of potential complainants with whom these RIOs interacted is 2.9 (SD=3.6). Fourteen RIOs (13.7%) had never had contact with either type of complainant.

Whistleblower Characteristics

We asked RIOs about the characteristics of their most recent complainant, starting with position held in the institution. Almost one-fourth of the actual complainants (23.4%) fill lower status positions of technician, undergraduate, graduate, and post-graduate students through instructor, with most of the remainder (71.4%) filling higher-status positions, including professorial and scientist levels. In contrast, RIOs described more than half of potential complainants as holding lower-status positions (54.6%).

We inquired about the number of additional interactions RIOs had with actual complainants before they filed a formal allegation and with potential complainants before they decided not to proceed with filing. One-third of the actual complainants were prepared to make their allegation at the first encounter with the RIO, and by the second contact nearly two-thirds had made them. RIOs most often reported (36.4%) having one interaction with potential complainants in addition to the first point of contact.

We asked RIOs how well informed of the institution's research misconduct policy they felt the last complainant that they met with was at their initial contact. Just over half of the RIOs (50.7%) that interacted with actual complainants felt that they were very well informed, whereas only 18.2% of the RIOs who focused on potential complainants perceived them to be very well informed. It is understandable that RIOs may have to meet with potential complainants more often in an effort to raise their knowledge level.

Characteristics of Initial Contact Between RIOs and Complainants

We asked some basic questions about the circumstances of the RIO's initial contact with the most recent complainant that they had spoken with or written to about making an allegation. The most common means of communication for the initial contact was e-mail exchanges for actual complainants (33.8%) and face-to-face for potential complainants (45.5%). RIOs report that the vast majority of both actual (90.9%) and potential complainants (81.8%) chose to identify themselves; however, more of the RIOs report that potential complainants chose to anonymous (18.2%) than report actual complainants remained anonymous (7.8%). A majority of RIOs who spoke with actual complainants

(62.3%) said these complainants were alone; the same is true for potential complainants (72.7%).

More than half of the RIOs (52.1%) who had contact with actual complainants reported that their cases involve a higher-status person making an allegation against another higher-status person. The situation is quite different for RIOs who had only had contact with potential complainants, for whom the most common situation is lower-status individuals considering filing an allegation against higher-status persons (40.0%).

4. Findings

How Often Do RIOs Use a Prepared Script or Outline upon First Contact with Complainants or Potential Complainants?

We asked RIOs if they use a prepared script, outline, checklist, or have talking points in mind during their initial contact with individuals who are considering filing an allegation of research misconduct and learned that the majority of RIOs (60.8%) do not use anything of this nature to guide these conversations.

Topic Areas RIOs Discuss with Complainants During Their Initial Contact

We asked RIOs whether they discussed anonymity/confidentiality, the allegation resolution process, institutional responsibilities, potential adverse consequences, or any other topic areas, as well as specific aspects within each of those topic areas, during their initial contact with complainants. Most of the RIOs (83.6%) said they discuss anonymity and confidentiality; the most commonly reported specific aspect of this topic (60.8%) being the extent to which the details, including their identity, can remain confidential throughout the process. Almost all RIOs (92.2%) said they discuss the resolution process with complainants, with most (85.3%) reporting that their discussions typically involve reviewing the specific steps involved in the process. A majority of RIOs (79.4%) said they discuss the types of support the institution is responsible for providing to complainants. Protection from retaliation is the most frequently discussed aspect of institutional responsibilities (67.7%). Despite more than half of RIOs (57.8%) saying they discuss potential adverse consequences, this topic area is the least often discussed during the RIOs' initial contact with the complainant. The most frequently mentioned specific aspects of potential adverse consequences that RIOs discuss are the experience of retaliation (24.5%) and damages to reputation/career (18.6%). Other commonly mentioned discussion topic areas include a review of the research misconduct policy (17.7%) and the definition of research misconduct (16.8%).

To learn more about the process RIOs used to prepare complainants for what to expect if they file an allegation, we asked RIOs several questions about the routine practices, policies, and procedures guiding their initial discussions. Slightly more than one-quarter of RIOs (26.5%) report having used situations of previous complainants to illustrate

potential adverse consequences complainants might face. More than three-quarters of RIOs (77.5%) indicated that they always advise complainants to read the institution's policies and procedures regarding research misconduct, and a majority of RIOs (75.0%) reported actually reviewing relevant portions of the policy with them. A relatively small percentage of RIOs (13.7%) reported having an institutional policy whereby an advisor is assigned to complainants. More than two-thirds of the RIOs (69.6%) do not explicitly ask complainants to speak in the hypothetical during the initial meetings. Nearly all RIOs (93.1%) said they advise complainants that they are obligated to follow up on material information about research misconduct that is disclosed to them. Less than one-quarter of RIOs (22.6%) reported telling complainants that breaking confidentiality may result in a loss of whistleblower protections, and only one-third of RIOs (32.4%) reported explaining that the institution's lawyer's job is first to protect the institution's interests.

Nature of Questions Asked by Complainants During Different Phases of the Misconduct Allegation Resolution Process

We asked RIOs who had previous contact with an actual complainant to think about the questions their most recent complainant (from a completed case) asked about the same four topics areas identified earlier (and specific aspects of them) during three time periods: (1) before the complainant actually made the allegation; (2) after the complainant made the allegation and the inquiry or investigation was under way, but not yet completed; and (3) after the allegation was resolved. Additionally, we asked about topics RIOs discussed with complainants because they felt the complainants should be made aware; the types of questions they asked the complainant before he or she decided to make the allegation; topics on which RIOs offered information, advice, guidance, or support to a complainant and whether they thought the complainant expected it; and RIOs' perceptions about the link between the finding and the questions the complainant asked after the allegation was resolved.

The Time Period before an Actual Allegation Was Made

Less than half of the RIOs (42.9%) who had interactions with an actual complainant indicated that the complainant asked questions before making the allegation. About one-quarter (22.2%) of these RIOs indicated that complainants ask questions about anonymity/confidentiality. More RIOs reported that complainants had questions about the resolution process than any of the three other major topic areas, with two-thirds (66.7%) responding that complainants asked about this topic. More than one-quarter of the RIOs (27.8%) reported that complainants asked questions about institutional responsibilities and just under a fifth (19.4%) of the RIOs reported that these complainants asked questions about potential adverse consequences.

Slightly more than half of the RIOs (52.8%) indicated that they proactively covered topic areas with complainants before they filed their allegation because they felt that the

complainant should be made aware of them, with the most commonly reported topic areas being the time involved in the resolution process (26.3%) and the definition of research misconduct (21.1%).

Less than half of RIOs (44.2%) asked the complainant any questions before the complainant decided to make an allegation. Exactly half of the RIOs that did ask questions indicated that they asked for a description of the misconduct and more than one-third (35.3%) said they asked for information or evidence of the research misconduct.

Almost two-thirds of the RIOs who asked complainants questions (65.7%) offered them information, advice, guidance, or support; most RIOs mentioned describing the process required to resolve the allegation (30.4%) and reviewing the institutions' research misconduct policy (30.4%) as the types of support offered.

The Time Period After an Allegation Was Made and an Inquiry or Investigation Was Under Way

Overall the RIOs reported having an average of 4.7 interactions (SD= 6.6) with complainants after the allegation was made and the inquiry or investigation was under way. Of the RIOs who did not report any interaction during this period, the most common reason was that an inquiry or investigation panel was formed to look into the allegation (33.3%).

A majority (58.7%) of the RIOs who reported having had at least one interaction with the complainant during this period stated that complainants asked them additional questions. Only 13.2% of the RIOs who report that complainants asked questions said that the complainant had asked about anonymity and confidentiality. As with before the allegation was made, more RIOs report that the complainant had questions about the resolution process than about any of the other three topic areas. Most of the RIOs (84.2%) reported that the complainant had questions about the resolution process, with the most common topic areas being the steps involved (39.5%) and the length of time required (29.0%). Almost 30% of the RIOs (29.0%) indicated that the complainant asked questions about institutional responsibilities, with the most common topic being protection from retaliation (21.1%). Although the percentage of complainants that RIOs report asked about adverse consequences at this point in the process (26.3%) is slightly higher than before the formal allegation was filed, the percentage of complainants probing about adverse consequences is still somewhat low given the potential effect these cases can have on a complainant.

The vast majority of RIOs (82.5%) told us they gave complainants information, advice, guidance, or support during this period. Of the topics mentioned, those RIOs discussed most often include the process and procedures related to the resolution process (28.9%), protections against retaliation (19.2%), and the status of the case (17.3%). Less than one-fifth of the RIOs (17.5%) thought the complainant was expecting them to provide

additional information, advice, guidance, or support. Nearly three-fourths (72.7%) of the RIOs who thought the complainant expected something additional thought the complainant wanted more information about progress on the case.

The Time Period After the Resolution of an Allegation

RIOs had an average of 1.8 interactions (SD=2.1) with complainants after the resolution of an allegation. Of the RIOs who did not report any interaction, the most common reason (26.7%) was that the complainant had received a written notification of the resolution, which implies no interaction was necessary. Less than half of the RIOs (47.9%) reported that complainants asked questions, with most of the questions reportedly being about next steps (30.4%) or the outcome of the inquiry or investigation (30.4%).

More than 60 percent of RIOs (62.5%) report offering complainants information, advice, guidance and support during this period; most commonly (20%) saying they offered such support about the findings from the inquiry or investigation, next steps, and actions taken. A slightly higher percentage of RIOs (18.8%) felt that complainants expected them to provide additional information, advice, guidance, or support at this point than in the prior time period when the inquiry or investigation was still under way (17.5%). RIOs most commonly thought the complainant wanted more information about the finding (22.2%), justification for why the outcome was not research misconduct (22.2%), or an explanation for why no inquiry or investigation was conducted (22.2%).

A little less than half of the RIOs (42.9%) felt that the complainant's questions were prompted by the outcome of the case. More than two-thirds of the RIOs who responded that the questions were prompted by the finding (68.4%) thought that the complainants' questions would have been different had the finding been different. When asked how the questions would have differed, RIOs most commonly responded (38.5%) that the complainant would not have had questions, but rather would have been satisfied with the finding.

Encouraging or Discouraging a Person Considering Filing an Allegation

We asked RIOs whether they have ever encouraged or discouraged a person who was considering filing an allegation about following through with his or her intent, and if so, under what circumstances they would do this. Less than one-third of the RIOs (31.4%) responded that they had ever encouraged somebody to file. The most common response about the circumstances under which they would encourage somebody (40.6%) was when the RIO feels the situation meets the definition of research misconduct or warrants follow-up. Just less than one-fifth of the RIOs (19.6%) reported that they had ever tried to discourage a person from filing a formal allegation. A majority of these RIOs (70.0%) stated that they would discourage a person from filing an allegation if the details of the allegation led them to believe it does not meet the definition of research misconduct. Less than half of

the RIOs (41.2%) indicated that they had ever advised a person to wait on filing an allegation until they had taken the time to seriously think it through. The response given by the most RIOs (23.8%) was that they would advise waiting if the complainant was unsure or undecided about proceeding or was very emotional.

RIO Perceptions of Changes in Complainants' Demeanor over Course of Resolving the Allegation

We asked RIOs to describe the complainants' demeanor during the initial contact, after the initial contact, and after the case was resolved, using seven categories we read or other characterizations of their choice. RIOs most commonly described complainants' demeanors as angry and upset (35.3%) or emotional and nervous (34.2%) during their initial contact with the RIO. After the initial contact, but before the case had been resolved, complainants' level of stress seemed to decrease in that RIOs most often described their demeanors as calm and relaxed (27.6%). After the cases had been resolved, more than a quarter of RIOs (27.6%) characterized actual complainants' demeanors as calm or relaxed and just under one-fifth of RIOs (19.7%) described them as seeming satisfied or relieved.

Areas and Ways in Which the RIO Dealt with Difficult Complainants

We asked RIOs who had interacted with actual complainants about whether they had ever, since becoming a RIO, encountered certain types of difficult complainants and how they dealt with it. The type of difficult complainant that the most RIOs (45.7%) had encountered was those who tried to direct the investigation process, which almost all of these RIOs (96.9%) dealt with by limiting the information they shared with the complainant. More than a quarter of RIOs reported having experienced a situation in which a complainant had broken confidentiality (32.3%), and the most commonly reported response (25.0%) was to remind them to maintain confidentiality. Of the RIOs who experienced a situation in which the complainant was being retaliated against by a respondent (27.1%), the majority transferred the complainant to another job. Approximately a fifth of the RIOs (21.4%) had experience dealing with a complainant who was being ostracized by his or her peers and colleagues, and, as with retaliation, most (86.7%) transferred the complainant to another job. Just above one-tenth of the responding RIOs (11.4%) had experience working with a complainant who had tried to obstruct the process when it did not seem to be going well, and half of them (50.0%) asked the complainant to respect the process and "let it work."

Associations Examined

We cross-tabulated each of the RIO characteristics—elements of their behavior, their experience, their organizational position, and their training to be RIOs—with whether they discussed all four topic areas and with a trichotomous version of the number of specific aspects of those topics discussed. The same three RIO characteristics (using a script, or other memory aide, conferring with ORI staff about hypothetical cases, and attending RIO

boot camp) are either statistically significantly related, or are very close to being significantly related, to both discussing all four topic areas during the initial contact with complainants and discussing the seven or more specific aspects of the topic areas they discuss in their initial contact. None of the other cross-tabulations of RIO characteristics and the magnitude of the RIO's discussion with complainants—whether they discussed all four key topic areas or a large number of specific aspects of the topic areas—that we analyzed revealed statistically significant associations.

We also cross-tabulated each of the complainant characteristics with a dichotomy of whether or not the RIO discussed all four topic areas and with a trichotomous (high, medium, low) version of the number of specific aspects of those topics discussed. None of these cross-tabulations revealed associations that were even close to reaching statistical significance at or below the $p = 0.05$ level.

Next we examined whether complainants who receive a more intensive RIO discussion of the key topic areas—that is, the RIOs discuss more specific aspects of the topic areas—are more likely to ask questions about key topic areas in *the time after the initial contact but before filing the formal allegation* than complainants who had a less intensive discussion of the key topic areas in their initial contact with the RIO. Results of this analysis show there is no statistically significant difference between RIOs' reports of questions from complainants with whom the RIOs discussed all four key topic areas and those whose initial contact entailed a discussion of fewer key topic areas. We also found that RIOs who say they discuss all four key topic areas with complainants during their first contact are significantly more likely to report that complainants ask questions about more key topic areas *after filing the allegation* than RIOs who discuss fewer key topic areas in the initial contact.

Additional analysis show that more extensive discussion of topic areas by RIOs is statistically significantly associated with complainants' asking questions about a greater number of specific aspects of the resolution process *after the initial contact* than for RIOs who discussed fewer topic areas in their initial contact with complainants. Further, the more specific aspects of the topic areas RIOs report discussing with complainants during the initial contact is statistically significantly associated with RIOs' reporting that complainants ask about more of the key topic areas after the initial contact. We also found that the greater the number of specific aspects of key topic areas the RIOs cover during the initial contact with complainants, the more specific aspects that RIOs report complainants ask them about.

Finally, complainants who are exposed to RIOs who talk about all four key topic areas ask more questions about specific aspects of the resolution process than those exposed to a discussion of fewer than four topic areas; however, there is no statistically significant difference in the extent of the questions complainants ask between the initial contact and the decision to file a formal allegation. There is also a statistically significant

association between the number of specific aspects of topic areas RIOs discuss with complainants in their initial contact and the number of specific aspects that RIOs report complainants ask them about during the time after the complainant has filed the allegation.

5. Limitations and Recommendations

Limitations

As a descriptive study, our analysis consists primarily of frequency distributions of interview responses and a few limited cross-tabulations examining the impact of RIO and complainant characteristics, and more complete discussion by RIOs of topic areas on the subsequent level of topic area questions asked of the RIOs by the complainants. At best it accurately describes the situation under study and suggests possible relationships but does not firmly establish them.

The study's major limitation is its reliance on the analysis of survey data collected only from RIOs instead of complainants themselves. It is subject not only to the limitations of all interview surveys, but also is limited solely to the recall and perspective of the RIOs. Hence, the study data and the analysis results are markedly one-sided and could be biased. We also have less data to analyze from RIOs who said they interacted with actual complainants (77 cases instead of 102) and too little data on potential complainants (only 11) to make useful comparisons with complainants where such were relevant and possible.

Recommendations

This study is by design descriptive in nature; however, our analysis contains important and interesting findings. We have attempted to make some general recommendations based on the analytic results.

We offer two primary recommendations to ORI. First, based on the study results (RIOs use of memory aides is associated with a more detailed discussion of key topic areas), it appears that using a prepared script or other memory aide may help remind RIOs to cover all four key topic areas identified in this study when they have their initial contact with complainants and potential complainants. Thus we recommend that ORI provide guidance to RIOs to help them develop some type of "cheat sheet" as a guide to use during their conversations with complainants. The cheat sheet can serve as a memory aide and could be customized because not every institution's policy and procedures are the same.

Informing complainants up front of what they may face as a "whistleblower" would put them on their guard against retaliation and better prepare complainants for the process ahead of them. This is especially important because complainants who are stressed by aspects of the process may decide not to fully cooperate with the formal resolution of the allegation of research misconduct. Further, even if they do, they may end up breaking confidentiality in an effort to defend themselves during the process. Therefore, we

recommend that ORI provide training to RIOs during future RIO boot camps and other formal aggregations of RIOs that equips them so they are better able to prepare and support complainants in facing possible adverse consequences, e.g., job loss, failure at promotion, loss of research funding, emotional distress.

Because RIOs are obligated to move forward to conduct an inquiry into allegations of research misconduct once they are made aware of the specifics of alleged misconduct, RTI recommends that more RIOs encourage complainants to discuss the situation as a hypothetical case in that it allows the complainant to learn more about the process in advance and to be better prepared to make a well-informed decision about moving forward to file a formal allegation without revealing the identity of those allegedly involved. Moreover, study results show an association between RIOs reporting that they consult with ORI about a case in hypothetical terms and RIOs reporting that they cover key topic areas in more detail. Thus, we also recommend that, in addition to encouraging complainants to speak to them in hypothetical terms, RIOs themselves should more often discuss cases in hypothetical terms with ORI to ensure that, in their discussions with whistleblowers, RIOs cover key topics related to the allegation-resolution process in sufficient detail.

To adequately prepare a complainant for the resolution process, RIOs should have thorough discussions of the key topic areas and specific aspects of those topic areas. To help them remember to consistently and thoroughly cover these topics, we recommend that RIOs use a tool such as a formal checklist to help ensure complainants are well informed about the resolution process.

1. INTRODUCTION

This section of the report provides brief background information for the research study undertaken. It also describes the purpose of the study and presents a high-level description of the research objectives. The final part of this section enumerates the types of research questions about which this study has been conducted to shed some light.

1.1 Background

The U.S. Department of Health and Human Services (DHHS), Office of Public Health and Science (OPHS), and specifically the Office of Research Integrity (ORI), has contracted with RTI International to examine issues related to “whistleblowers”¹ who report research misconduct. ORI commissioned this study in an effort to enlarge upon an earlier study of complainants completed for it in 1995 by RTI that examined the negative consequences experienced by individuals who filed allegations of research misconduct.

The current study differs in significant ways from the earlier one and thus the purpose, objectives research questions addressed, and study design do as well. A key difference between the two studies is methodological. The current study presents results from telephone interviews with a sample of research integrity officers (RIOs); the earlier one analyzed results from a mail questionnaire completed by a sample of whistleblowers. Another important difference involves the issues examined. The previous study focused on the negative effects that complainants reported experiencing. The current study, on the other hand, aims to understand what information RIOs impart to complainants about the allegation resolution process they are about to go through, and what kinds of questions and concerns complainants have as they proceed through the process.

The two studies are similar in that they both have been conducted to more fully understand the experiences of whistleblowers. They also share the objective of developing training opportunities and materials to better prepare RIOs. In particular, the goal of the current study, and any training materials developed from it, is to ensure that RIOs know what they need to adequately prepare complainants for what will occur in the process of resolving a research-misconduct allegation. In addition, it is for the RIOs themselves to be adequately informed about the most common concerns of complainants and potential complainants who have gone through the allegation-resolution process.

The legislative justification for ORI’s conduct of such a study is based on the Public Health Service Act, Section 493, which directed the DHHS Secretary to create a regulation to protect against biomedical and behavioral research fraud. (See **Appendix A.**) In response, ORI was created (42 USC 289 - Sec. 289b. Office of Research Integrity), and the

¹ Note that the more popularly used term *whistleblower* is used interchangeably with the technically more correct term *complainant* in this report. There is no pejorative connotation intended to be associated with either term.

Secretary issued 42 CFR part 50 and 93, which promulgated regulations requiring institutions to report their research-misconduct investigation activities. (See **Appendix B.**) In addition, 42 U.S.C. Section 289b specifically directed that complainants be protected against retaliation for reporting research misconduct. (See **Appendix C.**)

In 2000, the Division of Education and Integrity (DEI) at ORI was directed to “focus more on preventing misconduct and promoting research integrity through expanded education programs.” Specifically, DEI was directed to “conduct policy analyses, evaluations, and research to improve DHHS research integrity and build the knowledge base in research misconduct, research integrity and prevention” (Federal Register: May 12, 2000, Vol. 65, No. 93, pp. 30600-30601). (See **Appendix D.**)

This research effort focuses on providing information on how well informed whistleblowers seem to RIOs about the allegation-resolution process when they file a research-misconduct allegation, and whether they anticipate that they may suffer retaliation or other adverse consequences for doing so. We believe this information will help institutions become better able to anticipate whistleblower issues and be more supportive of those individuals who are trying to report possible research misconduct.

The system of uncovering research misconduct depends on the voluntary reporting of allegations of research misconduct by fellow researchers, often referred to as whistleblowers or complainants. Institutions that receive PHS funding for research are required to educate their research staff regarding what constitutes research misconduct as well as their responsibility to report it if they suspect it. ORI has research suggesting that suspected misconduct is often *not* reported. Failure to report suspected misconduct threatens the integrity of research and continued research funding. Among the reasons offered for complainants’ reluctance to come forward with their allegation is that they do not understand the resolution process or know what to expect from their institution. Responsibility for educating research staff and informing complainants in particular often falls to the institution’s RIO.

In pursuit of its legislative responsibility, ORI desires to develop responsive educational materials and training opportunities for RIOs so they can be well prepared to handle the challenge of informing and reassuring complainants and potential complainants. Doing that requires that ORI gather data on the information that RIOs typically impart and the questions and concerns complainants often have at various points in the allegation resolution process. ORI intends to use this information to develop materials and training to better prepare RIOs to provide whistleblowers considering making an allegation of research misconduct with the appropriate information they want and need.

1.2 Study Purpose

ORI wants complainants and potential complainants to be fully informed and comfortable about their decision to file an allegation of research misconduct. This means that complainants and potential complainants need to be fully aware of the process their institution uses for resolving allegations of misconduct, as well as the potential negative impact of that process.

To develop the information needed to train RIOs for their role in a way that is targeted to the interests of complainants and potential complainants, it is important to know what questions and concerns complainants have expressed in the course of resolving a case they initiated by making an allegation. Hence, this study was designed to collect information identifying the allegation-related topics RIOs discuss with complainants, and the topics about which complainants have questioned RIOs before initiating, during, and after completion of the resolution process. In addition to collecting data on what RIOs recall complainants wanted to know, the study also collects information to describe complainants as well as interactions the RIOs have had with complainants and characteristics of the RIOs who report having had contact with complainants.

1.3 Objectives of the Study

ORI has contracted with RTI International to conduct telephone interviews with up to 100 RIOs (1) to learn what kind of information the RIOs say they impart to complainants and potential complainants and (2) to identify the questions and kinds of concerns that RIOs report complainants and potential complainants ask them at various stages of the allegation resolution process. The specific stages on which we have focused in this research include: when the whistleblowers initiate the process of making an allegation, while they are in the midst of the resolution process, and following completion of the process. The study database, this report, and the analyses contained in it represent the key study products.

The information collected is intended for use by ORI to gain a fuller understanding of the information given by RIOs as well as the questions asked and concerns expressed by complainants and potential complainants at various stages of the allegation resolution process. (See **Appendix E** for a copy of the data collection instrument.) The information will be the basis for developing educational materials and training opportunities for RIOs so they will be better prepared and able to attend to the information and assurance needs and concerns of complainants and potential complainants.

1.4 Specific Research Questions

In undertaking this study, ORI proposed several broad questions that it wanted RTI to address. They include the following questions:

1. *About what allegation resolution topic areas do RIOs say they routinely initiate discussion with complainants and potential complainants when they are first contacted? Do RIOs use a prepared script or other memory aide when discussing these topics?*

We asked RIOs whether they routinely discussed four particular topic areas with complainants and potential complainants: Anonymity/Confidentiality, the Allegation Resolution Process, Institutional Responsibilities, and Potential Adverse Consequences. We also asked whether any other topic areas were routinely discussed with complainants or potential complainants and, if so, we asked them to specify the topic areas. Analysis of these data will tell us which topic areas are most and least often discussed by RIOs.

2. *About what allegation resolution topic areas do RIOs most often report getting asked questions by complainants?*

We asked RIOs whether they were asked questions about the same four particular topic areas listed above by their most recent complainant or potential complainant. We also asked whether they were asked questions about any other topic areas by complainants or potential complainants and, if so, we asked the RIOs to specify the topic areas. Analysis of these data will tell us which topic areas are asked about most and least often by complainants and potential complainants.

3. *Do the topic areas of questions that complainants ask RIOs differ by phase of the resolution process?*

We asked the RIOs about the questions they were asked by complainants for each of three different phases of the allegation resolution process. These phases correspond to the time before the complainant actually made the formal allegation of research misconduct, the time during which the resolution process was under way, and the time after the resolution process was completed.

4. *Are there topic areas that RIOs felt needed to be discussed with complainants during the different phases of the resolution process?*

We asked RIOs whether there were topic areas in each of the phases that, despite their initial discussion of topic areas and after answering complainant questions, the RIOs felt they needed to discuss with the complainant. These could be aspects of topic areas that the RIO had already discussed or topic areas about which the complainant asked questions but the RIO saw a need to provide additional information.

5. *Do RIOs say they may encourage complainants to file an allegation of research misconduct? If so, under what circumstances do RIOs say they may do that?*

We asked RIOs whether they have ever encouraged a person who was considering filing an allegation of research misconduct to follow through with his or her intent, and if so, what were the circumstances under which they did so.

6. *Do RIOs say they may discourage complainants from filing an allegation of research misconduct? If so, under what circumstances do RIOs say they may do that?*

We asked RIOs whether they have ever discouraged a person who was considering filing an allegation of research misconduct to rethink following through with his or her intent, and if so, what were the circumstances under which they did so.

7. *Do RIOs observe any changes in the complainants' demeanor from one stage of the resolution process to the next?*

We asked RIOs to describe the demeanor of most recent complainant with whom they interacted at each stage of the resolution process: before the complainant made the formal allegation of research misconduct, during the inquiry or investigation phase, and after the allegation was resolved.

8. *Do RIOs deal with complainants who are difficult? If so, how do they handle those difficult complainants or situations?*

We asked RIOs if they have ever dealt with complainants who exhibited several types of difficult behaviors including a complainant who tried to direct the investigation process; broke confidentiality; was being retaliated against by a respondent; was being ostracized by his or her peers and colleagues, and; who had tried to obstruct the process when it did not seem to be going well. If so, how did they handle the situation.

9. *Does the number or combination of topic areas / specific aspects of topic areas that RIOs say they discuss with complainants or potential complainants vary with the RIOs' training, experience, or other characteristics?*

We obtained numerous characteristics of the RIOs to investigate whether more experienced and more fully trained RIOs discuss more topic areas with complainants and potential complainants. Other characteristics whose association with the number and combination of topic areas we will examine include the RIO's position in the institution's hierarchy, years employed at the institution, years as the RIO, number of times the RIO conferred with RIO at another institution or with ORI, whether the RIO uses a prepared script or other memory aide, and number of complainant contacts.

10. *Does the number or combination of topic areas / specific aspects of topic areas about which RIOs say their most recent complainants asked them questions vary with characteristics of the complainants?*

We also obtained numerous characteristics of the complainants to investigate whether those with characteristics associated with greater experience and presumed knowledge of the institution ask questions about more or different combinations of topic areas than those with less.

11. Is more extensive initial discussion of topic areas/specific aspects by RIOs associated with RIOs reporting complainants ask them about more or fewer topic areas/specific aspects of the process of resolving research misconduct in subsequent contacts?

We asked RIOs what questions complainants posed at each phase of the allegation-resolution process to determine whether more extensive discussion of key topic areas is associated with fewer or more questions being asked of RIOs about those topic areas in contacts with the complainant occurring after their initial contact.

2. STUDY METHODS

This section describes the methodology employed for the study, including the study design and identification of the sample of Research Integrity Officers (RIOs) selected for inclusion. It also elaborates on the following aspects of the data collection process: development of the data collection instrument, procedures for contacting and recruiting the RIOs, the coding of write-in responses, creation of composite study variables, and the methods used for analyzing and reporting the data.

2.1 Study Design

This Whistleblower Study's primary goal has been to examine the extent to which complainants and potential complainants believe they had the information they needed to decide whether they should file an allegation of research misconduct. The initial design of this study was intended by ORI to expand upon the design employed in the first RTI study of whistleblowers. In that study actual whistleblowers were contacted by mail and asked to complete a questionnaire exploring any adverse impacts (including retaliation) they felt they had experienced as a result of filing the research misconduct allegation. To conduct the first whistleblower study, ORI searched its records to supply RTI with the names and institutional affiliations of whistleblowers. RTI was able to use this information to contact and, if necessary, trace their current location to solicit their participation in the study. A major expansion planned for the current study was to conduct telephone interviews with complainants. Because of the current strict interpretation of federal regulations protecting the confidentiality of "whistleblowers," ORI was unable to supply a list of complainants from closed cases occurring during the previous 5-year period to serve as a frame from which to select a sample for the current whistleblower study.

In an effort to create a list of complainants for this study, RTI developed and tested several alternative approaches. Among the approaches tried were the following:

1. Google searches for news reports of research misconduct cases that might have identified the complainant;
2. a formal request to a national whistleblower organization asking it to use its newsletter to inform the organization's membership of the RTI study, soliciting the members to contact RTI if interested in participating, and assuring them of confidentiality if they are qualified and volunteer to be interviewed for the study; and
3. a letter to the editor of a journal for scientists that had an ongoing discussion of ethics in the practice of science, describing the RTI study and asking readers to contact the study director if they had been a whistleblower (or knew of someone who had been) and might be interested in participating in the study.

Unfortunately, none of the approaches tested were successful in generating the desired list of complainants. From the Google searches, we found completed cases that named

respondents who were found guilty of research misconduct. These were typically based on ORI reports that carefully avoided naming the complainant in the case. The national whistleblower organization refused to include a story about the RTI study being conducted for ORI because it felt that doing so would be interpreted by its members as an endorsement of the study, something contrary to its policy. The letter to the editor of the journal for scientists resulted in several e-mail replies but, for a variety of reasons, none of the individuals qualified for the study. Finding ourselves unable to construct an appropriate sampling frame from which we could contact and conduct interviews with complainants, it became clear that we would not be able to identify, locate, and solicit recent whistleblowers from US institutions of higher education.

To accomplish the study goal, we needed to redesign the study to talk with individuals in institutions of higher education in the United States and Puerto Rico (hereafter US) having knowledge of the concerns and questions expressed by complainants as they proceeded through the process of making and resolving allegations of research misconduct. Individuals filling the position of RIO in US institutions of higher education are the most likely to deal with whistleblowers during the process and hence to be aware of their concerns and questions. Therefore, we designed the study to conduct interviews with RIOs from institutions of higher education who had recent contact with complainants or potential complainants. The interview guide used in the study was designed to explore the types of questions complainants and potential complainants raised with RIOs when they consider filing a formal allegation of research misconduct and at more advanced stages of the process, as well as to ascertain the kinds of information the RIOs provided in their early contacts and in response to these inquiries.

2.2 Identifying the RIOs to Interview

To identify the study population we developed an efficient frame construction strategy. With an average of about 100 research misconduct actions reported annually among the approximately 2,000 US institutions reporting to ORI, selecting a simple random sample would have been very inefficient by yielding on average only 5 percent of RIOs who had contact with a complainant. We wanted to avoid having to contact and screen the vast majority of the RIOs in US institutions of higher education to identify and interview the approximately 100 who had fairly recent contact with a complainant. We needed a much more efficient strategy to identify them.

The frame construction strategy was based on a request we made to ORI to review the annual report database it has in order to prepare a file that identified institutions that submitted an annual report between 2005 and 2009 indicating whether they had an allegation, inquiry, or investigation of research misconduct. ORI provided a file that contained 1,854 records. The records also included the institution's name and IPF number (a unique identifier for institutions). We further subset that file by eliminating all institutions

except those of higher education. This resulted in a new file containing 1,477 records. We then created an even smaller file consisting of a single record for each institution that had filed a report for at least 1 year (between 2005 and 2009) in which an allegation, an inquiry, or an investigation was reported. There were 184 such institutions in the file.

This file constituted the frame from which we selected the RIOs to interview. We then obtained a file listing the names of the contact persons at each US institution of higher education who are responsible for submitting the institution's annual report to ORI. Using the IPF number, common to both the institutional and contact person files, contact person information was merged onto the sample frame of 184 institutions. Because we planned to conduct a small pilot test before the actual study, we randomly selected 21 cases to use for that purpose, leaving the frame for the main study with 163 institutions. A visual review of these cases identified several duplicate institutions in the file (i.e., institutions with different IPF numbers and campuses of institutions of higher learning with the same contact person identified). We unduplicated the file to leave a contact person associated with only one US institution of higher education. This reduced the frame to 141 institutions, all of which presumably had a RIO during the 5-year period 2005 to 2009 who had some contact with at least one complainant. We believed this was an efficient strategy for identifying institutions that had allegations of research misconduct and expected that though some RIOs who had that contact may no longer be in that position, many of them would still be serving as RIOs.

RTI then assisted ORI in preparing the materials needed to obtain the required clearances from the Office of Management and Budget (OMB) to conduct the study.² RTI also requested and obtained an institutional review board (IRB) exemption prior to conducting interviews with RIOs.

2.2.1 Conduct of the Pilot Test

RTI randomly selected 21 institutions to participate in the pilot test. We e-mailed the contact persons of these institutions an advance letter explaining the study and inviting the RIO (who was often the institution's contact person) to participate in a pilot test of the interview. The letter advised the recipient that an interviewer would call within a few days to set up a convenient time to conduct the interview with the RIO. The letter also advised recipients that they could e-mail the assigned interviewer to suggest convenient times for conducting the approximately 1-hour-long telephone interview. The letter asked that if the recipient were not the RIO that the letter be forwarded to the person serving as the RIO. Interviews were completed with RIOs of 8 of the selected pilot test institutions during August and September 2010. Note that none of the pilot test sample institutions were included in the main study. We summarized findings from the pilot test interviews and

² The valid OMB control number for this information collection is 0990-0364.

shared them with the ORI Project Officer. See **Appendix F** for details on the pilot test results.

2.2.2 Conduct of the Main Study

The objective of the main study was to complete interviews with approximately 100 RIOs from institutions selected from the list of institutions with some kind of allegation activity reported that was provided by ORI, which we refined by unduplicating entries and removing cases randomly selected for the pilot study. This left a frame consisting of 141 institutions from which we wanted to conduct our 100 RIO interviews. To allow for RIOs who would refuse to be interviewed, those we would be unable to contact, and those who would not be available for an interview during the survey period, we decided to survey the entire frame with the expectation that we would be able to obtain the desired 100 interviews.

The institutions in the frame were assigned randomly in as equal sized allocations as possible to the five interviewers. Each interviewer's allocation was divided into three waves as equal sized as possible for e-mailing study announcements, soliciting RIO participation, and conducting interviews when possible. The waves were released at approximately 2-week intervals. We chose to adopt the wave approach to allow interviewers ample time to telephone, recruit, and schedule interviews with the RIOs within a few days of their receiving the e-mailed study announcement and request to participate.

2.3 Data Collection Procedures

This section provides a description of data collection procedures, including the development of the questionnaire and the types of questions we asked the RIOs, the recruitment method we employed, and the data collection process.

2.3.1 Development of the Data Collection Instrument

RTI staff worked closely with ORI to develop and then refine the interview guide used for data collection. This entailed specifying substantive topics/areas of concern, defining time periods of interest, and specifying actual item wording and likely response categories. The data collection instrument also benefited from several extensive face-to-face discussions we held with actual whistleblowers about their experience. They had reported research misconduct and endured the entire resolution process at their respective institutions.

We developed an interview guide, which was divided into four main sections:

- **Section A** included questions regarding RIOs' preparation for initial meetings with complainants and potential complainants as well as the institutional policies and procedures for handling allegations of research misconduct. Questions in this section delved into the topics or issues that RIOs discussed with complainants and potential complainants before the complainants made a decision on whether to file an allegation of research misconduct. This section of the instrument also

- explored what RIOs say and how they react under various circumstances involving potential complainants. These questions were asked of all participants.
- **Section B** contained questions administered to RIOs who had contact with actual internal complainants regarding allegations that were completed within the past 5 years (2005 to 2009). It included questions about RIOs' interactions with the most recent complainant during various stages of the resolution process: before an allegation was made, after the allegation was made but not yet resolved, and after the inquiry/investigation was completed and the allegation resolved. Questions in this section also examined how RIOs handled situations involving both difficult complainants and complainants facing difficult situations (e.g., those experiencing retaliation, those being ostracized, those who tried to direct the investigation process, and those who broke confidentiality or who tried to obstruct the process when it did not seem to be going well).
 - **Section C** was asked only of RIOs who had had no contact with an actual complainant in the previous 5 years but who, in that time, had had contact with at least one potential complainant—that is, a person who contemplated making a formal allegation of research misconduct but who did not follow through. This section focused on questions about the types of information that RIOs discussed with a recent potential internal complainant.
 - **Section D** contained questions about the RIOs' background, including their position within the institution, their training, and experience pertaining to research misconduct.

2.3.1.1 Pilot Study to Refine the Interview Guide and Procedures

As previously noted, we conducted a small pilot study to test and refine the interview guide. In addition to administering the survey questions to pilot test participants, we discussed the following topics with them to facilitate our efforts to refine the questionnaire:

- general impressions of the interview questions,
- length of the interview,
- order/flow of questions,
- wording of questions,
- effectiveness of using of three time periods to ask questions,
- potential for memory recall issues,
- areas of redundancy, and
- likely reasons for which RIOs may not have had experience with actual/potential complainants.

Based on the findings from the pilot test interviews, we made a number of changes to the instrument, including the following:

- rewording specific questions to clarify our intent and to render them less dense/wordy and confusing;
- adding probing instructions for some questions to instruct the interviewer to drill down further and obtain additional details;

- revising the wording of some response choices to enhance comprehension
- inserting “other: specify” categories and free-form text space to capture responses not included in our original response options; and
- adding skip patterns to minimize the potential of asking RIOs questions that may not be applicable to their experiences.

After making the revisions to address the pilot test findings, the project team convened a training session with the five persons who were selected to conduct the interviews for the main study in order to review the instrument and discuss the intent of each question. The interviewers also conducted mock interviews to familiarize themselves with the flow of the items and their skip patterns. As a result of the training and these mock interviews, we identified a few areas for further refinement. In particular, we made minor changes to the probing instructions to ensure that the interviewers asked and probed specific questions in a consistent manner.

2.3.2 Recruitment of RIOs for the Main Study

As with the pilot study sample, we e-mailed a recruitment letter to the contact person, whom we assumed often to be the RIO at each institution, to request participation in a research study of whistleblowers for ORI. This letter from the project director, which is included in **Appendix G**, alerted RIOs that an interviewer from RTI would contact them within a few days about participating in a telephone interview. In addition to introducing the study, this letter contained all of the required elements of informed consent, including the information that participation is voluntary and that all information collected will be kept confidential and unidentifiable by institution.

RTI used an automated process to e-mail the recruitment letter. The project’s programmer created a study-specific e-mail account, which was used to distribute the recruitment letter to the RIOs of the identified institutions. These cases were allocated equally among the five members of the interview team, and the e-mails were disseminated in three waves to ensure that interviewers had sufficient time to contact RIOs, follow up repeatedly (if necessary), schedule interviews in a timely manner, and not build up a large backlog of RIOs to contact. The first of the three waves of e-mails went out in early January 2011 (n=50). Subsequent waves were released in late January (n=42) and in early February (n=49).

A small number of the RIOs replied to the recruitment letter that was e-mailed and phoned their assigned interviewer immediately upon receipt to schedule the interview or to inform us that they were not (or were no longer) the RIO for their institution. However, for the majority of cases, the assigned interviewer needed to follow up with the RIO by phone and e-mail approximately 3 to 5 days after the recruitment letter was sent. Repeated attempts were made to reach RIOs unless the RIO declined to participate.

2.3.3 Data Collection Process and Survey Period

Prior to calling to conduct interviews, each interviewer sent an e-mail reminder to the RIO in an effort to avoid missed appointments and thus reduce the need to reschedule. At the appointed time, the assigned experienced, trained interviewer placed a call to the RIO with a scheduled appointment. Before beginning the interview, the interviewers explained the purpose of the study; confirmed that the RIO was indeed the person at his or her institution with the responsibility of carrying out the policies and procedures for handling research misconduct allegations; administered the informed consent procedures; and requested permission to audio-record the interviews. These recordings were to be destroyed on completion of the data cleaning process.

The interview was designed to take 45 to 60 minutes; for those interviews completed in a single interview session, the actual time to complete averaged 43 minutes. The interview guide, which is provided in **Appendix E**, largely consisted of precoded items but also included several open-ended items as well as items that allowed interviewers to write in “Other Specify” responses. Interviewers manually recorded all responses on a hard copy of the interview during the interview and revisited the audio recording on an as-needed basis to confirm or supplement what they had written. Following each interview, interviewers documented their observations and impressions about the interview. Interviewers later entered the responses they had written on the hard copies of the instrument into a web-based data collection system. All interview data and statuses were entered in the system by mid-April 2011.

2.4 Coding the Write-in Responses

As indicated above, the interview guide included questions that required interviewers to record RIOs’ responses to open-ended questions that asked them to provide a response that did not have any precoded response alternatives. Examples of such items include those in which the RIO was asked to describe the circumstances under which he or she would encourage complainants to file an allegation of research misconduct. The same was true for a comparable question about discouraging complainants from filing an allegation. Consequently, some questions required that codes be assigned to the open-ended item responses whereas other questions that included precoded response alternatives also had an “Other Specify” response option. These also needed to be assigned a code or be coded into an appropriate existing response category.

The project director, who conducted some of the interviews, and a consultant involved in the questionnaire development were the “coders” responsible for reviewing and interpreting the Other Specify responses for each question. To develop a method for coding the RIOs’ responses, the coders reviewed all of the qualitative responses for the questionnaire sections. Then they developed a set of response categories that captured the responses that could not be included in already-existing response categories. Whenever

possible, RIOs' responses were coded into existing response options. Only if an appropriate response option were not available did the coders create a new response category. In the instance where the respondent was asked to explain something or provided free-flowing text, the coders reviewed the response and developed a new variable with discrete response categories to summarize the RIO's response.

Two other project staff, who also served as interviewers, then independently coded a sample of the items with coded responses. These staff reviewed the qualitative text of the selected cases and, using the list of new variables and response categories developed by the coders, assigned a code or response option to the text string.

To assess the reliability of the two coders who coded the open-ended responses, we had two of the interviewers independently recode a sample of their coded responses to compare them. We used the simple measure of percent agreement between the two independent coders and the kappa coefficient to assess how similarly the coders had classified the open-ended and Other Specify responses. We calculated the percent agreement and kappa coefficient across all sections of the interview. The number of disagreements in our inter-coder analysis was small, only 93 out of 742 of item comparisons, resulting in an overall 87.5 percent agreement and a kappa coefficient of 0.75 across the entire set of items assessed.

2.5 Data Cleaning and Creation of Analysis Variables

This section provides a description of the process used to clean the data and create the analysis variables, including those used in the descriptive analysis and those used to examine whether there are associations between RIO characteristics or whistleblower characteristics and what RIOs tell complainants who are considering filing an allegation or who make formal allegations of research misconduct.

2.5.1 Data Cleaning

A statistical analyst reviewed frequencies of the data that had been processed through the data entry system for internal consistency and possible data entry errors. After the data had undergone this review and cleaning, they were exported from the data entry system using version 9.2 of the SAS analysis software package (SAS, 2008) to create a SAS data set. Once the SAS data set was created, the data were further prepared for analysis by (1) recoding variables within gateway patterns for consistency, (2) recoding variables within gateway patterns based on logical skips (i.e., adding codes for legitimate skips), (3) adding missing codes (i.e., don't know, refused, and missing), and (4) adding labels and formats to the variables.

Many of the questions in the survey allowed for write-in responses (as described in Section 2.4). The numerically coded responses for each write-in response were merged into the original variables or new SAS variables were created, as appropriate. An initial set of

response frequencies was created and used to review all newly created variables and all variables recodes. Once we were satisfied with the quality of the data, a codebook was developed that included information about the variables in the data set (e.g., their type—numeric vs. alpha), and variable labels and formats were added as well.

2.5.2 Creation of Analysis Variables

To examine some of the questions of interest to ORI, we created a number of composite count variables. We did this by summing the number of topic areas mentioned in the interview by each RIO. Every count was performed for four different time periods. The count for the first time period consisted of the topic areas discussed by the RIO during the initial contact with the complainant. The second count consisted of the number of topic areas the RIO reported that the complainant asked about after the initial contact. The third count included the topic areas asked of the RIO by the complainant during the time after the initial contact but before the formal filing of the research misconduct allegation. The fourth count consisted of the number of topic areas the complainant asked the RIO about during the time after the allegation was filed. An additional four composite count variables were created for the number of specific aspects of the topic areas for the four same time periods. A total of eight new analysis variables of this type were created and added to the final data set and codebook.

2.6 Analytic Methods

The analysis began with a descriptive study of the response frequencies (numbers and percentages) to describe the way RIOs respond to inquiries and questions about filing allegations of research misconduct. The frequencies of all variables are provided in *Appendices H through M*. Following the descriptive study we conducted a statistical analysis to investigate potential associations between the eight³ analysis variables described above and the following:

- items from the questionnaire that describe the behavioral characteristics of RIOs (four items),
- items from the questionnaire that describe the RIO's experience (three items),
- items from the questionnaire that describe the RIO's organizational factors (three items),
- item from the questionnaire that describes the RIO's training (one item), and
- items from the questionnaire that describe the complainant's or potential complainant's characteristics (seven items).

³ The topic and specific areas about potential complaints were crossed only with items from the questionnaire that describes the complainant's characteristics.

Associations (cross-tabs) were conducted to look for significant associations between the eight analysis variables described in Section 2.5.2 and the items listed directly above. Results of the associations are included in **Appendices N through R**. As with the other descriptive analyses, we used version 9.2 of the SAS analysis software package (SAS, 2008) to cross-tabulate each independent variable by the dependent variable. We used Phi and gamma coefficients to measure the associations and the chi square statistic to test for significance. Results with chi squares having a probability of 0.05 or less were considered significant.

3. INTERVIEW RESPONSE RATES AND CHARACTERISTICS OF RIOS, COMPLAINANTS, AND THEIR INITIAL CONTACTS

3.1 Response Rates

Overall, we conducted interviews with Research Integrity Officers (RIOs) at 102 of the 141 institutions to which we e-mailed a study participation request, for a raw response rate of 72.3%. As shown in **Table 3-1**, we were unable to reach the RIOs for 30 of the 141 institutions; 4 other RIOs declined to participate; another 4 did not complete an interview for other reasons (leaving the institution, too ill, leaving or left on sabbatical); and 1 other RIO had only recently begun serving in the position (less than 6 months) and was considered too new to be able to answer the questions in the interview.⁴

Table 3-1. Status of Interviews with RIOs (N=141)

Interview Status	Frequency	Percent	Cumulative Frequency	Cumulative Percent*
Completed case	102	72.3%	102	72.3%
Not completed, unable to contact RIO	30	21.3%	132	93.6%
Refusal	4	2.8%	136	96.4%
Not completed, other reasons	4	2.8%	140	99.2%
Not completed, RIO too new to participate	1	0.7%	141	100.0%

* totals do not sum to 100% due to rounding

3.2 RIO Characteristics

3.2.1 RIO's Title, Responsibilities, and Other Organizational Characteristics

The institutional titles associated with individuals performing RIO responsibilities are important because they can facilitate complainants' identification of whom they should contact to discuss or report allegations of research misconduct. Accordingly, we asked RIOs about their usual institutional title when they are not carrying out RIO responsibilities as well as their title when they are performing activities related to research-misconduct issues. We reviewed their responses and coded them into discrete categories. Table 3-2 shows the distribution of the coded responses given by RIOs about their usual titles when they **are not** handling research misconduct-related issues. In addition to serving as RIOs, this table shows that these individuals are also performing a wide variety of other roles and at differing hierarchical levels in their institutions. More than a third (36.3%) of RIOs usually have the title of a Vice President when they are not performing their RIO responsibilities. Almost 15% (14.7%) of RIOs have the title of Office, Center, or Program Director. Slightly

⁴ We would have considered interviewing the predecessor RIO, but that person had left the institution and was not available.

fewer (13.7%) of the RIOs are Professors (including Assistant or Associate Professors). Just over one-tenth (10.8%) of RIOs hold the title of Provost. Other titles RIOs reported when not performing RIO functions include Chancellor (8.8%), Dean (6.9%), Compliance Officer (3.9%), and miscellaneous administrative titles such as CFO and (COO (2.0%). Finally, only a small percentage (2.9%) responded that RIO is their usual title, which we take to mean that managing issues related to research misconduct is their sole activity.

Table 3-2. Distribution of Usual Institutional Titles of RIOs When Not Performing Duties Related to Research Misconduct (N=102)

Title or Position	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Vice President (includes Assistant, Associate, Senior, and Executive)	37	36.3%	37	36.3%
Research/Scientific Integrity Officer (RIO)	3	2.9%	40	39.2%
Office, Center, or Program Director	15	14.7%	55	53.9%
Dean (includes Assistant and Associate)	7	6.9%	62	60.8%
Provost (includes Vice, Assistant, and Associate)	11	10.8%	73	71.6%
Compliance Officer	4	3.9%	77	75.5%
Professor (includes Assistant and Associate)	14	13.7%	91	89.2%
Chancellor (includes Assistant and Vice)	9	8.8%	100	98.0%
Miscellaneous Administrative Titles (includes CFO, COO, Administrator, etc.)	2	2.0%	102	100.0%

Abbreviations: CFO, chief financial officer; COO, chief operating officer.

Table 3-3 shows the distribution of responses given by RIOs about their titles when they are performing duties associated with research misconduct. Only slightly more than half (52.0%) of them actually have the RIO title (or a very similar one) when they are performing the typical RIO responsibilities of receiving and resolving allegations of research misconduct. Nineteen percent (18.6%) of RIOs hold a Vice Presidential title when performing RIO responsibilities. Office, Center, or Program Director and Provost are tied at 7.8% for the next most common title. Other titles RIOs hold while performing RIO duties include Dean (4.9%), Compliance Officer (3.9%), Chancellor (3.9%), and Department Chair or Head (1.0%).

Table 3-3. Distribution of Titles of RIOs When Performing Duties Related to Research Misconduct (N=102)

Title or Position	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Vice President (includes Assistant, Associate, Senior, and Executive)	19	18.6%	19	18.6%
Research/Scientific Integrity Officer (RIO)	53	52.0%	72	70.6%
Office, Center, or Program Director	8	7.8%	80	78.4%
Dean (includes Assistant and Associate)	5	4.9%	85	83.3%
Provost (includes Vice, Assistant, and Associate)	8	7.8%	93	91.2%
Compliance Officer	4	3.9%	97	95.1%
Chancellor (includes Assistant and Vice)	4	3.9%	101	99.0%
Department Chair or Head	1	1.0%	102	100.0%

The location of the RIO in the organizational structure provides a sense of the importance the institution associates with this role. To assess how high in the institution's structure the individuals serving as RIOs are placed, we asked RIOs how many persons there are between them and the president or chief executive officer (CEO) of the institution. As can be seen in Table 3-4, a little more than one tenth of RIOs (11.8%) report that there is nobody between them and the president or CEO, suggesting that they either report directly to the top level of the institution's management or that they are at the top of the institutional hierarchy. More than half of RIOs (57.8%) indicate that they have a single person between them and top management of the institution. Approximately one fifth of RIOs (19.6%) have two people between them and the president or CEO, whereas about one tenth (10.8%) report being further away (i.e., from three to five people) from reporting directly to the president or CEO. In this group of RIOs, the mean number of individuals between them and the president/CEO was 1.3 (SD=.90).

Table 3-4. Number of Individuals Between RIO and President/CEO (N=102)

Category/Level	Frequency	Percent	Cumulative Frequency	Cumulative Percent
None	12	11.8%	12	11.8%
One	59	57.8%	71	69.6%
Two	20	19.6%	91	89.2%
Three	9	8.8%	100	98.0%
Four or Five	2	2.0%	102	100.0%

Abbreviations: CEO, chief executive officer.

As shown in Table 3-5, the vast majority of RIOs (77.5%) indicate that they are the primary person to receive allegations of research misconduct at their institutions. Of the remainder, 21 RIOs (20.6%) respond that they are not the primary recipient of allegations and two RIOs (2.0%) are not sure whether they are the primary recipient or not.

Table 3-5. Primary Person Identified to Receive Allegations at Institution (N=102)

Category/Level	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Primary recipient	79	77.5%	79	77.5%
Not primary recipient	21	20.6%	100	98.0%
Don't know	2	2.0%	102	100.0%

When asked whether other persons besides themselves at their institution are also authorized to receive allegations of research misconduct, except for one RIO who does not know, all of the RIOs respond that there are no other individuals authorized to take allegations. It appears that despite being the only one identified as the person authorized to accept allegations of research misconduct, in some institutions persons other than the RIO often receive the allegations.

We asked RIOs if they would be obligated to file an allegation assuming they had evidence of misconduct. Their responses are presented in Table 3-6. The vast majority of RIOs (92.2%) responded that they feel they would indeed be obligated to file an allegation if they possessed credible evidence of falsification, fabrication, or plagiarism. Only four RIOs (3.9%) do not feel they would be obligated to file an allegation in such circumstances. Finally, four RIOs (3.9%) do not know whether they would be obligated to do so or not.

Table 3-6. Obligated to File Allegation If in Possession of Evidence of Research Misconduct (N=102)

Category/Level	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Obligated	94	92.2%	94	92.2%
Not obligated	4	3.9%	98	96.1%
Don't know	4	3.9%	102	100.0%

3.2.2 Training and Other Experience as Qualifications for Becoming a RIO

We asked the RIOs to indicate the types of training they had completed, or to indicate other qualifications they possessed as preparation for assuming the position of RIO. We reviewed their responses and coded them into discrete categories. Note that many RIOs responded with more than one type of training or other qualification. Table 3-7 presents the numbers and percentages of RIOs who indicated they had each of the types of preparation for this position, or no formal training at all. To facilitate assessment of the preparatory activities, we have divided the activities in the table into categories according to what we believe their potential relevance or contribution was to an individual's direct preparation to serve in the RIO role.

Only two RIOs (2.0%) report that they had not had any formal training to prepare them for their role as RIO. The type of training activity that is most commonly reported by RIOs (32.4%) is attending an ORI-sponsored RIO Boot Camp: an intense 3-day training program that reviews regulations, has RIOs practice interviewing skills, and examines in depth how to conduct an inquiry and investigation appropriately. Other common preparatory activities include attending workshops or conferences on research misconduct sponsored by ORI (5.9%) or related associations such as National Council of University Research Administrators (NCURA), Society of Research Administrators (SRA), and National Sponsored Programs Administrators Alliance (NSPAA) (15.7%); learning through on-the-job training (15.7%); attending conferences or workshops on research misconduct for which the sponsor is unspecified (15.7%); self-teaching using materials on the ORI website (12.8%); and working as an assistant RIO, being mentored by the former RIO, or serving as the RIO or Compliance Officer at another institution (10.8%). The remaining types of training or other qualifications that RIOs report are each mentioned by less than 10.0% of RIOs.

Table 3-7. Types of Training and Other Qualifications Reported by RIOs as Preparing Them for Becoming Their Institution’s RIO (N=102)

Type of Training Activities	Frequency	Percent*
No Formal Training	2	2.0%
Activities Likely to Be of Direct Relevance		
Attended one ORI Research Integrity Conference	4	3.9%
Attended one ORI Research Integrity Workshop	2	2.0%
Trained or mentored by the former RIO	5	4.9%
Served as RIO or compliance officer at another institution	4	3.9%
Attended ORI’s RIO Boot Camp	33	32.4%
Attended two or more ORI Research Integrity conferences	8	7.8%
Learned by working as an assistant to the former RIO	2	2.0%
Attended two or more ORI Research Integrity workshops	9	8.8%
Activities Likely to Be of Some Relevance		
Self-taught from materials on the ORI web site	13	12.8%
Wrote or helped to write the institution’s research misconduct policy and procedures	6	5.9%
Had experience as a member of an RM inquiry or investigation committee	4	3.9%
Had experience directing misconduct inquiries or investigations	4	3.9%
Viewed ORI DVD on the responsibilities of the RIO	5	4.9%
Had extended contact with ORI staff	6	5.9%
Had extended contact with RIOs at other institutions	7	6.9%
Attended workshops/conferences on RM sponsored by related associations (e.g., NCURA, SRA, NSPAA)	16	15.7%
Learned through on-the-job training	16	15.7%
Have written articles or book chapters about research misconduct	1	1.0%
Worked closely with institution’s general counsel	5	4.9%
Activities Likely to Be of Less Relevance		
Active researcher for 10 or more years	2	2.0%
Had training or experience in human subjects or IRB issues	9	8.8%
Had experience or training as a research administrator	8	7.8%
Had training or experience in ethics	5	4.9%
Had legal training or experience	9	8.8%
Attended conferences or workshops on RM for which the sponsor was unspecified	16	15.7%
Held/hold a role other than RIO or compliance officer that yielded relevant experience	7	6.9%
Personal experience serving as complainant or respondent or close relationship with somebody with this experience	1	1.0%
Read literature on research misconduct (including but not limited to materials from ORI)	8	7.8%
Member of related professional associations	3	2.9%
Had training or experience in counseling or interviewing	3	2.9%
Reviewed institutional policy and procedures and/or relevant federal regulations	8	7.8%
Presents materials or teaches about research misconduct or ethics	6	5.9%
Participation in listservs	2	2.0%

*Multiple responses provided, thus percentages do not sum to 100.

Abbreviations: NCURA, National Council of University Research Administrators; NSPAA, National Sponsored Programs Administrators Alliance; RIO, research integrity officer; RM, research misconduct; SRA, Society of Research Administrators.

3.2.3 Years of Employment and Research Misconduct-Related Experience of RIOs

We asked the RIOs about how long they had been employed at their current institution, the number of years that they have been involved in research misconduct issues, and their seniority as the RIO of their current institution. The distributions of their responses are presented in Table 3-8. We to assess whether the level of experience that RIOs have had performing activities related to allegations of research misconduct has a bearing on their current level of preparation to handle allegations of research misconduct and to provide meaningful information and appropriate guidance and support to actual whistleblowers as well as people considering filing an allegation of research misconduct.

Table 3-8. Seniority and Measures of RIO Activity-Related Experience (N=102)

Measure	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Years Employed at Current Institution				
0–2 years	2	2.0%	2	2.0%
>2–5 years	21	20.6%	23	22.6%
>5–10 years	15	14.7%	38	37.3%
>10–20 years	19	18.6%	57	55.9%
>20–58 years	44	43.1%	101	99.0%
Refused	1	1.0%	102	100.0%
Years Involved with Research Misconduct Issues				
0–2 years	8	7.8%	8	7.8%
>2–5 years	31	30.4%	39	38.2%
>5–10 years	29	28.4%	68	66.6%
>10–20 years	22	21.6%	90	88.2%
>20–42 Years	12	11.8%	102	100.0%
Years Serving as RIO at Current Institution				
0–2 years	17	16.7%	17	16.7%
>2–5 years	42	41.2%	59	57.8%
>5–10 years	23	22.5%	82	80.4%
>10–20 years	14	13.7%	96	94.1%
>20-28 years	6	5.9%	102	100.0%

Having been at the institution for some time would have allowed individuals an opportunity to be somewhat exposed to and familiar with the institutional culture as well as its key research divisions, activities, and staff. The longer the time at the institution the

greater we would expect that exposure and familiarity to be. Only two RIOs (2.0%) reported being employed by their current institution for 2 years or less. Another fifth of the RIOs (20.6%) indicated that they have been employed by their institution for 2 to 5 years. A smaller number of RIOs report their seniority as being from more than 5 to less than 10 years (14.7%) and more than 10 but less than 20 years (18.6%). Finally, 44 RIOs (43.1%) reported having been employed by their current institution for more than 20 years. The RIOs report having been employed by their current institution for a mean of 18.1 years (SD=12.4).

More extensive involvement with matters related to research misconduct should contribute to greater RIO familiarity with the fears and needs of individuals filing allegations of research misconduct. Only 8 RIOs (7.8%) report having been involved with issues related to research misconduct for 2 years or less. Thirty-one RIOs reported such involvement for more than 2 years but less than 5 years (30.4%), and 29 (28.4%) stated they have been involved with such issues between 6 and 10 years. Finally, about one third of RIOs (33.4%) report involvement in such matters for more than 10 years. The mean number of years RIOs reported having been involved in research misconduct issues is 10.3 years (SD=8.5).

The longer a RIO has held the position, the greater we expect their knowledge of how to interact with complainants to be. We found that more than half of the RIOs (57.9%) report being the RIO at their current institution for 5 years or less. This is somewhat surprising given that the majority of RIOs report having been employed by their current institution for much longer than 5 years. Just over 20% of RIOs (22.5%) report having served in the position of RIO for more than 5 years but less than 10 years, and just slightly less than 20% of RIOs (19.6%) have been in the position for more than 10 years. The mean of RIOs responses regarding how long they have been RIO at their current institution is 6.9 years (SD=6.5).

We also asked RIOs about how many times they had conferred with others for advice on handling an allegation. Our assumption is that obtaining more information about how to handle difficult cases would improve the RIO's role performance. The distribution of their responses is shown in Table 3-9. Slightly more than one-third of RIOs (35.3%) indicate that they have never conferred with a RIO at another institution about issues associated with a case. Although a majority of RIOs have interacted with RIOs at other institutions, such activity is still quite limited. Specifically, 10 RIOs (9.8%) report having conferred with RIOs at other institutions one time, and just over one fourth of the RIOs (28.4%) say they have conferred with other RIOs two or three times. Only a quarter (25.5%) of the RIOs have conferred with RIOs at other institutions on four or more occasions. The mean number of times RIOs report having conferred with other RIOs for advice is 3.6 times (SD=6.2).

Table 3-9. Number of Times the RIO Has Conferred with Others for Advice (N=102)

Characteristic	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Number of Times RIO Has Conferred with RIOs at Other Institutions				
0	36	35.3%	36	35.3%
1	10	9.8%	46	45.1%
2 or 3	29	28.4%	75	73.5%
4 to 50	26	25.5%	101	99.0%
Don't know	1	1.0%	102	100.0%
Number of Times RIO Has Conferred Off the Record or in Hypothetical Terms about Research Misconduct Cases with Someone at a Federal Oversight Agency Like ORI				
0	33	32.4%	33	32.4%
1	9	8.8%	42	41.2%
2 or 3	25	24.5%	67	65.7%
4 to 50	35	34.3%	102	100.0%

Similarly, just less than one-third of RIOs (32.4%) indicate that they have never conferred off the record or spoken about a case in the hypothetical with someone at a federal oversight agency like ORI. Again, the majority of RIOs (67.6%) report having conferred off the record or inquired in hypothetical terms about a research misconduct issue or case with someone at a federal oversight agency, such as ORI Nine RIOs (8.8%) have done so only once, 25 have done so 2 or 3 times (24.5%), and 35 RIOs (34.3%) indicate they had done so more than four times. The mean number of times RIOs report having conferred with a staff member of a federal oversight agency like ORI is 4.7 times (SD=7.6).

3.2.4 Number of Contacts with Complainants or Potential Complainants

The final characteristic of RIOs responding to the survey about which we have information is the number of times in their career as RIO that they have had contact with complainants or potential complainants. Of the 102 RIOs who completed an interview, 77 (70.6%) indicate that they have had contact with one or more actual complainants, but 11 RIOs (10.8%) say they have never spoken to an actual complainant but report having had contact with one or more potential complainants (individuals who consider making an allegation but do not actually do so). The remaining 14 RIOs (13.7%) report that they have never had contact with either an actual or potential complainant. The distributions of RIOs who had contact with actual or potential complainants according to the number of

complainants and potential complainants with whom they have had contact separately as well as the two combined are presented in Table 3-10.

Table 3-10. Number of Times the RIO Has Had Contact with Complainants

Characteristic	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Number of Times RIO Has Had Contact with Actual Complainants (N=77)				
1	11	14.3%	11	14.3%
2 or 3	15	19.5%	26	33.8%
4 to 9	26	33.8%	52	67.5%
10 to 60	25	32.5%	77	100.0%
Number of Times RIO Has Had Contact with Potential Complainants (N=11)				
1	3	27.3%	3	27.3%
2 or 3	2	18.2%	5	45.4%
4 to 9	5	45.4%	10	90.9%
10 to 25	1	9.1%	11	100.0%

Just about one-third of the 77 RIOs (33.8%) who have interacted with actual complainants report having had from one to three contacts with actual complainants. An equivalent number (33.8%) report having had from four to nine such contacts, whereas just one less RIOs (32.5%) indicate that they have had 10 or more. In this group of RIOs, the mean number of actual complainants with whom the RIOs interacted during period of interest is 8.5 (SD=10.4).

As reported earlier, a small number of RIOs who do not report having had contact with actual complainants indicate that they have had contact with potential complainants. Nearly half of such RIOs (45.4%) have had contact with from one to three potential complainants. An equal number report having had contact with from four to nine, and only one (9.1%) reports having had conversations with 10 or more potential complainants. The mean number of potential complainants with whom the RIOs interacted is 2.9 (SD=3.6).

3.3 Whistleblower Characteristics

We asked RIOs a series of questions about the characteristics of their most recent actual or potential complainant. First of all, we sought to learn about what position in the institution the complainants held because we expected that the complainant's position in the organizational hierarchy might be associated with their need for information. The

distribution of RIOs responses about their most recent complainants' position in the institution are shown in Table 3-11. Almost one-fourth of the actual complainants (23.4%) fill lower-status positions of technician, undergraduate, graduate and post-graduate students through instructor, with most of the remainder (71.4%) filling higher status positions including professorial and scientist levels. Graduate students are described as composing the largest single category of actual complainants in lower status positions (13.0%), while according to the RIOs Full and Emeritus Professors constitute the largest category of actual complainants (26.0%) in higher status positions. In addition, RIOs frequently describe their most recent actual complainants as holding positions as associate professor (14.3%), assistant professor (13.0%), and researcher/scientist (11.7%).

We also asked RIOs without actual complainant contacts about the positions held by the potential complainants with whom they had contact. RIOs described more than half of them as holding lower-status positions (54.6%) in the institutional structure. RIOs most frequently report them as holding post-doctoral positions (27.3%) or as being graduate students (18.2%). RIOs identified associate professors most (18.2%) among the potential complainants in higher-status positions.

Table 3-11. RIO's Report of the Position in Institution of Most Recent Complainant

Characteristic	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Position of Actual Complainants (N=77)				
Technician	1	1.3%	1	1.3%
Undergraduate	2	2.6%	3	3.9%
Graduate student	10	13.0%	13	16.9%
Post-doc	4	5.2%	17	22.1%
Instructor	1	1.3%	18	23.4%
Asst. professor	10	13.0%	28	36.4%
Assoc. professor	11	14.3%	39	50.7%
Professor/emeritus	20	26.0%	59	76.6%
Administrator	5	6.5%	64	83.1%
Researcher/scientist	9	11.7%	73	94.8%
Don't know	3	3.9%	76	98.7%
Refused	1	1.3%	77	100.0%
Position of Potential Complainants (N= 11)				
Undergraduate	1	9.1%	1	9.1%
Graduate student	2	18.2%	3	27.3%
Post-doc	3	27.3%	6	54.6%
Asst. professor	1	9.1%	7	63.6%
Assoc. professor	2	18.2%	9	81.8%
Professor/emeritus	1	9.1%	10	90.9%
Researcher/scientist	1	9.1%	11	100.0%

Next, we asked RIOs about the number of additional interactions they had before a formal allegation was filed by an actual complainant or a decision was made to not proceed with such a filing by a potential complainant. We believe that this may give some clue as to their level of confidence about moving forward with making the allegation. Distributions of RIOs responses on the number of interactions RIOs report having had with complainants before the complainant filed the formal allegation are shown in Table 3-12.

Table 3-12. Number of Additional Times Interacted with Complainants Before Complainant Filed Allegation

Characteristic	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Number of Additional Times Interacted with Actual Complainants (N=77)				
0	26	33.8%	26	33.8%
1	22	28.6%	48	62.3%
2	13	16.9%	61	79.2%
3	9	11.7%	70	90.9%
4	1	1.3%	71	92.2%
6	1	1.3%	72	93.5%
20	1	1.3%	73	94.8%
Don't know	3	3.9%	76	98.7%
Refused	1	1.3%	77	100.0%
Number of Additional Times Interacted with Potential Complainants (N=11)				
0	2	18.2%	2	18.2%
1	4	36.4%	6	54.6%
2	1	9.1%	7	63.6%
3	1	9.1%	8	72.7%
4	1	9.1%	9	81.8%
7	1	9.1%	10	90.9%
12	1	9.1%	11	100.0%

RIOs report that with one-third of their actual complainants (33.8%), they had no further contacts after the initial meeting, and with almost as many (28.6%) they report having had only one other contact before the allegation was formally made. In other words, one-third of the actual complainants were prepared to make their allegation at the first encounter with the RIO and, by the second contact, nearly two-thirds had made them. Overall, RIOs had a mean of 1.4 additional interactions beyond the initial one with actual complainants.

RIOs most often reported (36.4%) having one interaction with potential complainants in addition to the first point of contact. This may reflect their relative hesitance to move forward in making an allegation as compared with actual complainants who did ultimately make an allegation. RIOs interacted with potential complainants a mean of 2.9 other times in addition to the initial interaction.

We asked RIOs how well informed on the institution’s research misconduct policy they felt the most recent complainant was at their initial contact. The distributions of RIOs’ responses are shown in Table 3-13.

Table 3-13. RIOs’ Perceptions of How Well Informed Most Recent Complainant Was of Research Misconduct Policy

Characteristic	Frequency	Percent	Cumulative Frequency	Cumulative Percent
How Well- Informed RIO Felt Actual Complainant Was of Institution’s Policy (N=77)				
Very well informed	39	50.7%	39	50.7%
Not very well Informed	27	35.1%	66	85.7%
Not informed at all	9	11.7%	75	97.4%
Don’t Know	1	1.3%	76	98.7%
Refused	1	1.3%	77	100.0%
How Well-Informed RIO Felt Potential Complainant Was of Institution’s Policy (N= 11)				
Very well informed	2	18.2%	2	18.2%
Not very well Informed	3	27.3%	5	45.5%
Not informed at all	4	36.4%	9	81.8%
Don’t know	2	18.2%	11	100.0%

Just over half of the RIOs (50.7%) that interacted with actual complainants felt that they were very well informed. This may explain why so many of the actual complainants were ready to move forward with making an allegation at the initial encounter with the RIO. RIOs considered almost as many to be not very well informed or not informed at all (46.8%).

On the other hand, RIOs who had not encountered actual complainants, and thus report their perception of how well informed were their *potential* complainants, had very much the opposite perception. These RIOs report that only 18.2% of their potential complainants were very well informed. They most often report feeling that the potential complainant was not informed at all (36.4%) or that the potential complainant was not very well informed (27.3%). In light of such differing recollections of how well informed actual

and potential complainants are of their institution's research misconduct policy and procedures, it is understandable that RIOs may have to meet with them more often in an effort to raise their knowledge level.

3.4 Characteristics of Initial Contact between RIOs and Complainants

Just as characteristics of the complainant may be associated with the RIO's behavior in their initial and subsequent interaction, so also may characteristics of the initial contact between the RIO and the complainant. For that reason, we asked RIOs to answer some basic questions about the circumstances of their initial contact with the most recent actual complainant—that is, an individual who had actually proceeded to file a formal allegation—with whom they had spoken or written to about making an allegation of research misconduct. If the RIO had not spoken or written to any actual complainants in the last 5 years, we asked the RIO to focus instead on his or her initial contact with the most recent potential complainant—that is, an individual who considered filing a formal allegation but for some reason chose not to.

First, we inquired about whether the first contact with the complainant had been a face-to-face meeting, a telephone call, an e-mail exchange, or some other type of encounter. As shown in Table 3-14, e-mail exchanges are reported to be the most common (33.8%) means of communication for the initial contact with actual complainants, with face-to-face meetings being a close second (29.9%). About a quarter of the initial meetings are reported to have occurred via telephone calls (24.7%). Four RIOs (5.2%) indicate that the first contact they had with the actual complainant had been via a written allegation and another four RIOs (5.2%) report that the allegation had been relayed to the RIO through other administrative staff.

Of the 11 RIOs who told us about their initial encounters with potential complainants, the most frequently mentioned method for the first contact was face-to-face (45.5%), followed by e-mail (36.4%), and by telephone (18.2%). In summary, more RIOs report that their initial contact with actual complainants occurred via e-mail whereas most of the 11 RIOs who dealt with potential complainants indicated that their initial contact was face-to-face.

Table 3-14. Mode of Initial Contact with Actual and Potential Complainants

Characteristic	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Mode of First Contact with Actual Complainants (N=77)				
Face-to-face meeting	23	29.9%	23	29.9%
Telephone call	19	24.7%	42	54.6%
E-mail exchange	26	33.8%	68	88.3%
Written allegation	4	5.2%	72	93.5%
Allegation made through other administrative staff (i.e., not RIO)	4	5.2%	76	98.7%
Refused	1	1.3%	77	100.0%
Mode of First Contact with Potential Complainants (N=11)				
Face-to-face meeting	5	45.5%	5	45.5%
Telephone call	2	18.2%	7	63.6%
E-mail exchange	4	36.4%	11	100.0%

We wanted to get a sense of how common it is for actual and potential complainants to identify themselves to RIOs (versus remaining anonymous) during their initial contact. The distributions of the responses to this question are shown in Table 3-15. The vast majority of RIOs (90.9%) report that actual complainants chose to identify themselves at the time of their initial contact. Likewise, a majority of the RIOs who interacted with potential complainants (81.8%) stated that a majority of these individuals also chose to identify themselves.

Table 3-15. Anonymity of Initial Contact with Actual and Potential Complainants

Characteristic	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Anonymity of Initial Contact with Actual Complainants (N=77)				
Anonymous	6	7.8%	6	7.8%
Identified	70	90.9%	76	98.7%
Refused	1	1.3%	77	100.0%
Anonymity of Initial Contact with Potential Complainants (N=11)				
Anonymous	2	18.2%	2	18.2%
Identified	9	81.8%	11	100.0%

The next question we asked RIOs about the circumstances of the initial encounter with actual and potential complainants was whether they were alone or had anyone with them during the initial meeting. As shown in Table 3-16, the vast majority of RIOs who spoke with actual complainants (62.3%) said these complainants were alone when they were first contacted. The same is true for the RIOs who said they spoke with potential complainants; the majority (72.7%) said these individuals were alone during the initial contact as well. Because so many of the initial contacts were by telephone and e-mail, it is not surprising that about a quarter (22.1%) of those who told us about actual complainants and almost one out of ten who told us about potential complainants said they did not know whether the person was alone or accompanied by someone in their action.

Table 3-16. Whether Complainants Were Accompanied at Initial Contact

Characteristic	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Persons Accompanying Actual Complainants at Initial Contact (N=77)				
Alone	48	62.3%	48	62.3%
With someone	11	14.3%	59	76.6%
Don't know	17	22.1%	76	98.7%
Refused	1	1.3%	77	100.0%
Persons Accompanying Potential Complainants at Initial Contact (N=11)				
Alone	8	72.7%	8	72.7%
With someone	2	18.2%	10	90.9%
Don't know	1	9.1%	11	100.0%

The final question we asked RIOs about the circumstances of their initial encounter with actual and potential complainants was the institutional status of the person against whom the allegation of research misconduct was being made. We intended to use this information, along with the institutional status of the complainant (see Table 3-11), to characterize whether there is any status difference between the complainant and respondent in the case. For this contrast of statuses, we considered technicians, instructors, and students at all levels to be of lower institutional status than individuals holding junior and senior professorial, emeritus, scientist, and administrative positions. The distribution of the new variable formed by a comparison of the difference between complainant and respondent statuses is presented in Table 3-17.

Table 3-17. Status Differences between Complainants and Respondents at Initial Contact

Characteristic	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Status Differences between Actual Complainants and Respondents at Initial Contact (N=73)				
Lower accuses higher status	15	20.5%	15	20.5%
Higher accuses lower status	17	23.3%	32	43.8%
Lower accuses lower status	3	4.1%	35	47.9%
Higher accuses higher status	38	52.1%	73	100.0%
Status Differences between Potential Complainants and Respondents at Initial Contact (N=10)				
Lower accuses higher status	4	40.0%	4	40.0%
Higher accuses lower status	2	20.0%	6	60.0%
Lower accuses lower status	2	20.0%	8	80.0%
Higher accuses higher status	2	20.0%	10	100.0%

More than half of the RIOs (52.1%) who had contact with actual complainants reported that their cases involve a higher-status person making an allegation of research misconduct against another higher-status person. The least common type of case they report is of a lower-status person accusing another lower-status person (4.1%). Just slightly more than one in five RIOs (20.5%) indicate that their case involved a lower-status person making an allegation against a higher-status person, and approximately the same percentage (23.3%) involve a higher-status person accusing one of a lower status. The situation is quite different for RIOs who only had contact with potential complainants. The most common situation reported by the 10 RIOs who had contact with potential complainants is lower-status individuals considering filing an allegation against higher-status individuals (40.0%).

4. FINDINGS

In this section we present the descriptive statistics to examine the research 10 questions outlined in Chapter 2 of this report. We report the details of the Research Integrity Officers' (RIOs') initial discussions with individuals who are looking for information about filing allegations of research misconduct as well as the details of their encounters with actual and potential complainants.

In addition, we review the distributions of the variables included in each of the conceptual domains (i.e., personal characteristics, experience, training, and organizational characteristics) that we have hypothesized may be associated with the number of allegation-resolution topic areas that RIOs say they cover with individuals during the initial contact, as well as the number of allegation-resolution topic areas that RIOs say complainants ask about before making a decision to file a formal complaint. We also explore whether the characteristics of the complainants are associated with the number of allegation resolution topic areas RIOs discuss during their initial meeting and whether these characteristics are associated with the topics areas about which the complainants ask questions before deciding to file a formal allegation.

4.1 How Often Do RIOs Use a Prepared Script or Outline upon First Contact with Complainants or Potential Complainants?

There is a substantial amount of critical information about which complainants and potential complainants should be aware as they decide whether to file an allegation of research misconduct. To find out how RIOs ensure that they cover all of the information they think necessary, we asked them if they use a prepared script, outline, checklist, or have talking points in mind during their initial contact with a complainant. The distribution of responses presented in Table 4-1 indicates that the majority of RIOs (60.8%) do not use any of these methods to ensure that they cover what they consider the critical information complainants need to know in their initial discussion with individuals who are considering filing an allegation of research misconduct.

Table 4-1. Use of Prepared Script, Outline, Checklist, or Talking Points During Initial Encounter with Complainants (N=102)

Characteristic	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	40	39.2%	40	39.2%
No	62	60.8%	102	100.0%

4.2 Topic Areas RIOs Discuss with Complainants During Their Initial Contact

To further examine whether RIOs provide the necessary information to individuals considering making an allegation, we asked RIOs about the topic areas they discuss with complainants during their initial contact. Based on our earlier discussions with complainants, former RIOs, and ORI staff, we identified four topic areas that we felt were among the most important to discuss with complainants: anonymity/confidentiality, the allegation-resolution process, institutional responsibilities, and potential adverse consequences. Interviewers asked RIOs if they cover each of these topic areas in their initial contact with complainants. The RIOs were also asked whether they cover any other topic areas that we did not specifically ask about. Interviewers coded each topic area that RIOs said they cover during their initial contacts with complainants as “yes.” Interviewers then asked the RIOs for the specific aspects discussed within each of those topic areas and coded any mentioned. Because we believe it is important to understand both the topic areas RIOs say they cover, as well as those they do not cover, if a RIO did not indicate he or she covered a topic area, we coded the topic area, as well as the specific aspects within each topic area, “no.” In this section we discuss the results by topic area.

4.2.1 Anonymity and Confidentiality

Given the potential high-risk and high-profile nature of research misconduct allegations, and that resolving an allegation of research misconduct is difficult if the whistleblower chooses to remain anonymous, we expect that complainants and potential complainants would be well served to know about their ability to make anonymous allegations and the extent to which they would be able to remain anonymous as the allegation-resolution process moves forward. Also, we believe that complainants would be well served to understand the extent to which allegations of research misconduct can remain confidential (i.e., that there are limits to maintaining confidentiality). As shown in Table 4-2, most of the RIOs (83.6%) we interviewed say they discuss anonymity and confidentiality with complainants at their first meeting with them. When we asked what specific aspects of the topic the RIOs cover in regard to anonymity and confidentiality, (1) more than a third of them (36.3%) say they talk about complainants’ ability to make anonymous allegations, and (2) more than half (55.9%) say they discuss their ability to remain anonymous throughout the process. Given that the inquiry and investigation committees would need to have additional details and information should complainants file a formal allegation, it is important that complainants understand to what extent the details, including their identity, can remain confidential throughout the process and that they too share an obligation to maintain confidentiality. Almost two-thirds of RIOs (60.8%) report talking with complainants about this aspect of the topic. Six RIOs (5.9%) mention discussing other aspects of anonymity and confidentiality, including the definition of

anonymity and confidentiality and the availability of an ombudsman or someone else with whom the complainant can speak confidentially about his or her concerns.

Table 4-2. Percentage of RIOs Who Discuss Issues of Anonymity and Confidentiality with Complainants in Initial Contact (N=102)

Topic Area/Specific Aspect	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Anonymity and Confidentiality				
Yes	87	85.3%	87	85.3%
No	15	14.7%	102	100.0%
Ability to make anonymous allegations				
Yes	37	36.3%	37	36.3%
No	65	63.7%	102	100.0%
Ability to remain anonymous throughout process				
Yes	57	55.9%	57	55.9%
No	45	44.1%	102	100.0%
Extent to which details would be kept confidential				
Yes	63	61.8%	63	61.8%
No	39	38.2%	102	100.0%
Other				
Yes	6	5.9%	6	5.9%
No	96	94.1%	102	100.0%

4.2.2 Resolution Process

As shown in Table 4-3, almost all RIOs (92.2%) said they discuss the resolution process with complainants during their initial visit. Most RIOs (85.3%) we spoke with reported that their discussions typically involve reviewing the specific steps involved in the resolution process. More than one-quarter of RIOs (28.4%) say they cover the collection of evidence; nearly 1 in 10 (9.8%) reports discussing the time commitment required of the complainant, and approximately one-fifth (21.6%) discuss the length of time required for the process to run its course. Other, less frequently mentioned specific aspects of the resolution process that RIOs reported covering include the obligations and role of complainants and respondents (4.9%), particulars of the allegation to determine whether there is a basis for the allegation (7.8%), the consequences of bad-faith allegations (3.9%), and the complainants' obligation to report the research misconduct (2%). A small number of RIOs (6%) also reported other aspects that they talk about when discussing the resolution

process, such as the procedures to follow if human subjects are involved, and the status or source of funding for the research.

Table 4-3. Percentage of RIOs Who Discuss the Resolution Process with Complainants in Initial Contact (N=102)

Topic Area/Specific Aspects	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Resolution Process				
Yes	94	92.2%	94	92.2%
No	8	7.8%	102	100.0%
Steps involved				
Yes	87	85.3%	87	85.3%
No	15	14.7%	102	100.0%
Collection of evidence				
Yes	29	28.4%	28	28.4%
No	73	71.6%	102	100.0%
Amount of time required of complainant				
Yes	10	9.8%	10	9.8%
No	92	90.2%	102	100.0%
Length of time required for process to occur				
Yes	22	21.6%	22	21.6%
No	80	78.4%	100	100.0%
Obligations / role of complainant				
Yes	5	4.9%	5	4.9%
No	97	95.1%	102	100.0%
Issues to determine if there is a basis for allegation				
Yes	8	7.8%	8	7.8%
No	94	92.2%	102	100.0%
Consequences of bad faith allegations				
Yes	4	3.9%	4	3.9%
No	98	96.1%	102	100.0%
Scientist's Obligation to report allegations of research misconduct				
Yes	2	2.0%	2	2.0%
No	100	98.0%	102	100.0%
Other				
Yes	6	5.9%	6	5.9%
No	96	94.1%	102	100.0%

4.2.3 Institutional Responsibilities

During the initial meetings with those considering filing an allegation of research misconduct, the majority of RIOs (79.4%) said they discuss the types of support the institution is responsible for providing to complainants. Table 4-4 shows that protection from retaliation is the most frequently discussed topic, with two-thirds of RIOs (67.7%) reporting that they discuss the institution's policy and procedures for protection against retaliation from respondents. The obligation to offer job protection was the next most frequently mentioned, with nearly one-fifth of RIOs (18.6%) saying they discuss this issue. A few (12%) RIOs mentioned that they tell complainants of the institution's responsibility to report the research misconduct to ORI. A few of the RIOs also mentioned the responsibility to provide complainants with advisors to offer guidance, to provide fair and objective treatment to all parties, and to keep the details of the allegation confidential (6.9% respectively). A very few mentioned the institution's responsibility to protect or indemnify the complainant from a lawsuit (2.9%); to protect the institution's reputation, to maintain the integrity of science, and provide respondents with a fair hearing (2%, respectively); and the obligation of the institution to treat incidences of retaliation as research misconduct (1%).

Table 4-4 Percentage of RIOs Who Discuss the Institution's Responsibilities with Complainants (N=102)

Topic Area/Specific Aspects	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Institutional Responsibilities				
Yes	81	79.4%	81	79.4%
No	21	20.6%	102	100.0%
Protection from retaliation				
Yes	69	67.7%	69	67.7%
No	33	32.4%	102	100.0%
Provision of advisors				
Yes	7	6.9%	7	6.9%
No	95	93.1%	102	100.0%
Job protection				
Yes	19	18.6%	19	18.6%
No	83	81.4%	102	100.0%
Protect the institutions reputation				
Yes	2	2.0%	2	2.0%
No	100	98.0%	102	100.0%
University will protect from suit				
Yes	3	2.9%	3	2.9%
No	99	97.0%	102	100.0%
Fair and objective treatment of all parties				
Yes	7	6.9%	7	6.9%
No	95	93.1%	102	100.0%

(continued)

Table 4-4 Percentage of RIOs Who Discuss the Institution’s Responsibilities with Complainants (N=102) (continued)

Topic Area/Specific Aspects	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Responsibility to report to ORI				
Yes	12	11.8%	12	11.8%
No	90	88.2%	102	100.0%
Responsibility to maintain integrity of science				
Yes	2	2.0%	2	2.0%
No	100	98.0%	102	100.0%
Responsibility to maintain confidentiality				
Yes	7	6.9%	7	6.9%
No	95	93.1%	102	100.0%
Responsibility to treat retaliation as misconduct				
Yes	1	1.0%	1	1.0%
No	101	99.0%	102	100.0%
Responsibility to have fair hearings				
Yes	2	2.0%	2	2.0%
No	100	98.0%	102	100.0%

4.2.4 Potential Adverse Consequences

Just as it is important for RIOs to discuss anonymity and confidentiality with complainants, it is even more important that complainants understand the potential adverse consequences of filing an allegation of research misconduct. Although complainants should be encouraged to file formal allegations of research misconduct, they need to consider what filing the allegation may mean to them personally. Table 4-5 displays the percentage of RIOs who report discussing, during their initial contact with complainants, the occurrence of potential adverse consequences of making an allegation. As the table shows, even though a majority of RIOs (57.8%) report discussing potential adverse consequences during their initial meetings with complainants, it is the topic area that is least often discussed. Among the most frequently mentioned specific aspects of potential adverse consequences that RIOs said they discuss most frequently are the following: the experience of retaliation (24.5%), damages to reputation/career (18.6%), and damages to relationships with colleagues (12.8%). Approximately one tenth of RIOs (9.8%) reported discussing the possible need for job or work location transfers, and an even smaller percentage (7.8%) discussed the time-consuming nature of the resolution process. About 6% said they discussed the possibility of losing confidentiality as a result of filing a formal allegation of research misconduct. A very small percentage reported telling complainants that filing a formal allegation leads to personal loss or the threat of a lawsuit (2.9%) and unwanted media attention (2.0%). Approximately one tenth (11.8%) mentioned other things they tell the complainants during these discussions, including that there are adverse consequences for filing an allegation in

bad faith, that the process can be stressful, and that the process can have potential risks for the success of their research.

Table 4-5. Percentage of RIOs Who Discuss Potential Adverse Consequences in Initial Contacts with Complainants (N=102)

Topic Area/Specific Aspects	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Potential Adverse Consequences				
Yes	59	57.8%	59	57.8%
No	43	42.2%	102	100.02%
Retaliation experience				
Yes	25	24.5%	25	24.5%
No	77	75.5%	102	100.0%
Damages to reputation/career				
Yes	19	18.6%	19	18.6%
No	83	81.4%	102	100.0%
Damage to relationships with colleagues				
Yes	13	12.8%	13	12.8%
No	89	87.3%	102	100.0%
Transfer to another lab/job				
Yes	10	9.8%	10	9.8%
No	92	90.2%	102	100.0%
Time-consuming				
Yes	8	7.8%	8	7.8%
No	94	92.2%	102	100.0%
Loss of confidentiality				
Yes	6	5.9%	6	5.9%
No	96	94.1%	102	100.0%
Personal risks and legal action/costs				
Yes	3	2.9%	3	2.9%
No	99	97.1%	102	100.0%
Media attention				
Yes	2	2.0%	2	2.0%
No	100	98.0%	102	100.0%
Other				
Yes	12	11.8%	12	11.8%
No	90	88.2%	102	100.0%

4.2.5 Other Topics Discussed

We asked RIOs to tell us about other topic areas they cover or discuss during their initial contact with complainants. Table 4-6 shows that the most commonly mentioned topics include a review of the research misconduct policy (17.7%), the definition of research misconduct (16.8%), and the availability of witnesses and the adequacy of the evidence (12.8%). A few RIOs said they also discuss how to properly file a formal allegation (2.9%). Almost a fifth of the RIOs (18.7%) said they discuss other things, such as other avenues complainants can pursue for issues that do not constitute research misconduct, the steps that might be taken to rehabilitate the respondent's reputation if the inquiry or investigation committees found that no research misconduct had occurred and the potential consequences for moving forward with the formal filing.

Table 4-6 Percentage of RIOs Discussing Other Topic Areas During the Initial Contact with Complainants (N=102)

Topic	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Review of the research misconduct policy				
Yes	18	17.7%	18	17.7%
No	84	82.4%	102	100.0%
Provide the definition of research misconduct / fabrication, falsification or plagiarism				
Yes	17	16.7%	17	16.7%
No	85	83.3%	102	100.0%
Availability and adequacy of evidence or witnesses				
Yes	13	12.8%	13	12.8%
No	89	87.3%	102	100.0%
How to file a formal allegation				
Yes	3	2.9%	3	2.9%
No	99	97.1%	102	100.0%
Other				
Yes	19	18.6%	19	18.6%
No	83	81.4%	102	100.0%

4.2.6. Policies and Procedures Guiding RIO Initial Discussions with Complainants

To try to better understand the process RIOs used to prepare complainants for what to expect if they file an allegation of research misconduct, we asked RIOs several specific

questions about the routine practices, policies, and procedures that guide their discussions with complainants. As seen in Table 4-7, slightly more than one-quarter of RIOs (26.5%) report having used situations of previous complainants to illustrate potential adverse consequences that complainants might face as a result of filing a formal allegation of research misconduct. More than three-quarters of RIOs (77.5%) indicated that during their first contact they always advise complainants to read the institution's policies and procedures regarding research misconduct. In fact, a majority of RIOs (75.0%) reported actually reviewing the relevant portions of the policy dealing with reporting and resolving research misconduct with complainants.

Providing an advisor to the complainant identifies a neutral party to whom the complainant can go to ask questions and receive informed, confidential guidance and support as the resolution process progresses. Therefore, we asked the RIOs whether they have a policy whereby someone is assigned to serve as an advisor to complainants. A relatively small percentage (13.7%) of RIOs reported having an institutional policy that assigns someone to serve as an advisor to complainants. In some cases, RIOs reported that institutions use an ombudsperson as an advisor to complainants. Presumably, however, in many cases, the RIO or the complainant's dean or department chair may be asked to serve as an advisor on matters pertaining to the allegation resolution process. For obvious reasons, RIOs may prefer that complainants not disclose respondents' identity or specific identifiable situations during the initial meeting; however, more than two thirds of the RIOs (69.6%) do not explicitly ask complainants to speak in the hypothetical without using actual names and other identifiers during the initial meetings (i.e., before formally filing the allegation). If a complainant speaks in the hypothetical and does not disclose details of self or others, the person is still able to consider whether he or she wants to file the complaint anonymously by reporting it by anonymous e-mail or other means.

However, once a RIO is made aware that possible research misconduct has occurred, the RIO is obligated by federal oversight agencies to follow up on the information. Nearly all RIOs (93.1%) we spoke with said they advise complainants that as RIOs they are obligated to follow up on material information about research misconduct that is disclosed to them.

Table 4-7. Policies and Procedures Followed in RIO's Discussions with Complainants (N=102)

Description	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Use past situations as illustrations of potential adverse consequences				
Yes	27	26.5%	27	26.5%
No	71	69.6%	98	96.1%
Don't know	3	2.9%	101	99.0%
Refused	1	1.0%	102	100.0%
Advise complainants to read the institution's policies regarding research misconduct				
Yes, always	79	77.5%	79	77.5%
Yes, usually/often	18	17.7%	97	95.1%
Not usually/often or only sometimes	3	2.9%	100	98.0%
No, never/rarely	2	2.0%	102	100.0%
Review portions of the policy pertaining to reporting and resolving research misconduct with complainants				
Yes	77	75.5%	77	75.5%
No	23	22.6%	100	98.0%
Don't know	2	2.0%	102	100.0%
Have a policy that assigns an advisor to complainants				
Yes	14	13.7%	14	13.7%
No	87	85.3%	101	99.0%
Don't know	1	1.0%	102	100.0%
Ask complainants to speak in hypotheticals without using actual names				
Yes	30	29.4%	30	29.4%
No	71	69.6%	101	99.0%
Don't know	1	1.0%	102	100.0%
Advise complainants that RIO is obliged to investigate information disclosed about misconduct				
Yes	95	93.1%	95	93.1%
No	5	4.9%	100	98.0%
Don't know	2	2.0%	102	100.0%
Inform complainants that they are expected to maintain confidentiality and may lose their whistleblower protection if confidentiality is broken				
Yes	23	22.6%	23	22.6%
No	76	74.5%	99	97.1%
Don't know	3	2.9%	102	100.0%
Institution's lawyer's job is first to protect the institution				
Yes	33	32.4%	33	32.4%
No	64	62.8%	97	95.1%
Don't know	5	4.9%	102	100.0%

Although RIOs underscore the importance of maintaining confidentiality during their conversations with complainants, only about one-quarter of RIOs (22.6%) reported telling complainants that breaking confidentiality may result in a loss of whistleblower protections. It is likely that many complainants incorrectly believe that the institution's lawyer will be available and represent them when they file a formal allegation of research misconduct. Yet, only one-third of RIOs (32.4%) report telling complainants that the institution's lawyer's job is first to protect the institution's interests, which may not coincide with those of the

complainant; this situation may lead to possible confusion on the part of the complainant who may be in need of legal counsel.

4.3 Complainant Questions in the Time Period Before an Actual Allegation Was Made

We were interested in learning whether, and in what way, the types of questions complainants ask RIOs change over the course of the allegation-resolution process. We asked RIOs who had previous contact with an actual complainant to think about the topics and the specific aspects of the topics asked by their most recent complainant from a completed case. We asked them to think specifically about the topics discussed during three distinct time periods: (1) before the complainant actually made the allegation; (2) after the complainant made the allegation and the inquiry or investigation was under way, but not yet completed; and (3) after the allegation was resolved. We then inquired about the same topic areas identified earlier (anonymity/confidentiality, the resolution process, institutional responsibilities, and potential adverse consequences) and asked about what specific aspects of the topics areas complainants have asked questions.

Also, we asked about other topic areas that RIOs discussed with complainants because they felt that the complainants should be made aware of them; the types of questions they asked the complainant before he or she decided to make the allegation; topics on which RIOs offered information, advice, guidance, or support to complainants; RIOs' perceptions of whether the complainant expected them to provide additional information, advice, guidance, or support; and RIOs' perceptions about the link between the finding of the resolution process and the questions the complainant asked after the allegation was resolved.

In this section we discuss the topics and the specific aspects of the topics, as well as the topics on which RIOs offered information, advice, guidance, or support to complainants, for the time period after the initial contact with the RIO but immediately before the complainant made the formal allegation.

As shown in Table 4-8, less than half of the RIOs (42.9%) who had interactions with an actual complainant indicated that the complainant asked questions before making the allegation.

Table 4-8. Whether Complainants Asked Questions in Time Period Before Making Allegation (N=77)

Description	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	33	42.9%	33	42.9%
No	41	53.3%	74	96.1%
Don't know	2	2.6%	76	98.7%
Refused	1	1.3%	77	100.0%

We asked the 33 RIOs who stated that complainants asked questions, the 2 who said they did not know or could not remember whether the complainant asked questions, and the one RIO who refused to respond (N=36) about which topic areas the complainants had inquired. We specifically asked whether the complainant asked questions about each of four topic areas: anonymity/confidentiality, resolution process, institutional responsibilities, and potential adverse consequences. For any topic areas in which the RIO said the complainant had questions, we probed for the specific aspects of each topic area about which the complainant asked questions. We coded the responses into discrete categories. Results presented below are organized by topic area.

4.3.1 Anonymity/Confidentiality

As shown in Table 4-9, about a quarter (22.2%) of those 36 RIOs indicated that complainants ask questions about anonymity/confidentiality before filing a formal allegation. About one-tenth (11.1%) of the RIOs report that complainants asked about their ability to remain anonymous throughout the process. The same percentage indicated that complainants had asked about the extent to which details would be held confidential. Three RIOs (8.3%) reported that complainants asked about the ability to make anonymous allegations.

Table 4-9. Questions Complainants Asked about Anonymity/Confidentiality in Time Period Before Making Allegation (N=36)

Topic Area/Specific Aspect	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Anonymity and Confidentiality				
Yes	8	22.2%	8	22.2%
No	25	69.4%	33	91.7%
Don't know	2	5.6%	35	97.2%
Refused	1	2.8%	36	100.0%
Ability to make anonymous allegations				
Yes	3	8.3%	3	8.3%
No	30	83.3%	33	91.7%
Don't know	2	5.6%	35	97.2%
Refused	1	2.8%	36	100.0%
Ability to remain anonymous throughout the process				
Yes	4	11.1%	4	11.1%
No	29	80.6%	33	91.7%
Don't know	2	5.6%	35	97.2%
Refused	1	2.8%	36	100.0%
Extent to which details are held confidential				
Yes	4	11.1%	4	11.1%
No	29	80.6%	33	91.7%
Don't know	2	5.6%	35	97.2%
Refused	1	2.8%	36	100.0%

4.3.2 Resolution Process

As shown in Table 4-10, two-thirds (66.7%) of the 36 RIOs we interviewed responded that complainants asked about the resolution process during the time before making an allegation. More RIOs reported that complainants had questions about the resolution process than any of the three other major topic areas. Although this was the most asked about topic during the phase before filing an allegation, surprisingly, less than half (41.7%) of the RIOs indicated that complainants inquired about the steps involved in the resolution process. Other common topics RIOs reported include the definition of research misconduct (16.7%) and the length of time required for the process (13.9%). A much smaller percentage of RIOs reported that complainants asked about the amount of time involved (2.8%), the types of penalties imposed on the guilty (5.6%), and other miscellaneous topics related to the resolution process (3.9%).

Table 4-10. Questions Complainants Asked about Resolution Process in Time Period Before Making Allegation (N=36)

Description	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Resolution Process				
Yes	24	66.7%	24	66.7%
No	9	25.0%	33	91.7%
Don't know	2	5.6%	35	97.2%
Refused	1	2.8%	36	100.0%
Steps involved				
Yes	15	41.7%	15	41.7%
No	18	50.0%	33	91.7%
Don't know	2	5.6%	35	97.2%
Refused	1	2.8%	36	100.0%
Amount of time involved				
Yes	1	2.8%	4	2.8%
No	32	88.9%	33	91.7%
Don't know	2	5.6%	35	97.2%
Refused	1	2.8%	36	100.0%
Length of time required				
Yes	5	13.9%	5	13.9%
No	28	77.8%	33	91.7%
Don't know	2	5.6%	35	97.2%
Refused	1	2.8%	36	100.0%
Types of penalties imposed on guilty				
Yes	2	5.6%	2	5.6%
No	31	86.1%	33	91.7%
Don't know	2	5.6%	35	97.2%
Refused	1	2.8%	36	100.0%
Definition of research misconduct				
Yes	6	16.7%	6	16.7%
No	27	75.0%	33	91.7%
Don't know	2	5.6%	35	97.2%
Refused	1	2.8%	36	100.0%
Other				
Yes	3	3.9%	3	3.9%
No	30	83.3%	33	91.7%
Don't know	2	5.6%	35	97.2%
Refused	1	2.8%	36	100.0%

4.3.3 Institutional Responsibilities

A little more than a quarter of the RIOs (27.8%) report that complainants asked questions about institutional responsibilities before proceeding to make an allegation. Table 4-11 shows that the most common topic RIOs say complainants asked about is job protection (11.1%). An even smaller percentage (8.3%) of RIOs report complainants asked about protection from retaliation. The smallest percentage (5.6%) of the 36 RIOs report that complainants asked about the provision of advisors. The same percentage (5.6%) state that complainants asked about other miscellaneous topics related to institutional responsibilities.

Table 4-11. Questions Complainants Asked about Institutional Responsibilities in Time Period Before Making Allegation (N=36)

Topic Area/Specific Aspect	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Institutional Responsibilities				
Yes	10	27.8%	10	27.8%
No	23	63.9%	33	91.7%
Don't know	2	5.6%	35	97.2%
Refused	1	2.8%	36	100.0%
Protection from retaliation				
Yes	3	8.3%	3	8.3%
No	30	83.3%	33	91.7%
Don't know	2	5.6%	35	97.2%
Refused	1	2.8%	36	100.0%
Provision of advisors				
Yes	2	5.6%	2	5.6%
No	31	88.9%	33	91.7%
Don't know	2	5.6%	35	97.2%
Refused	1	2.8%	36	100.0%
Job protection				
Yes	4	11.1%	4	11.1%
No	29	80.6%	33	91.7%
Don't know	2	5.6%	35	97.2%
Refused	1	2.8%	36	100.0%
Other				
Yes	2	5.6%	2	5.6%
No	31	86.1%	33	91.7%
Don't know	2	5.6%	35	97.2%
Refused	1	2.8%	36	100.0%

4.3.4 Potential Adverse Consequences

Just under a fifth (19.4%) of the RIOs who had interactions with actual complainants reported that these complainants asked questions about potential adverse consequences in the time period before making an allegation. As shown in Table 4-12, RIOs said complainants most frequently asked about potential damage to their reputation or career (13.9%). Retaliation experience, damage to relationships with colleagues, and impact on the institution were each mentioned by only a few (5.6%) RIOs. Finally, a small percentage (2.8%) of RIOs indicated that complainants asked about the types of punishment imposed on the guilty party before they decided to file a formal allegation.

Table 4-12. Questions Complainants Asked about Potential Adverse Consequences in Time Period Before Making Allegation (N=36)

Topic Area/Specific Aspect	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Potential Adverse Consequences				
Yes	7	19.4	7	19.4
No	26	72.2	33	91.7
Don't know	2	5.6	35	97.2
Refused	1	2.8	36	100.0
Retaliation experience				
Yes	2	5.6	2	5.6
No	31	86.1	33	91.7
Don't know	2	5.6	35	97.2
Refused	1	2.8	36	100.0
Damage to reputation/career				
Yes	5	13.9	5	13.9
No	28	77.8	33	91.7
Don't know	2	5.6	35	97.2
Refused	1	2.8	36	100.0
Damage to relationships with colleagues				
Yes	2	5.6	2	5.6
No	31	86.1	33	91.7
Don't know	2	5.6	35	97.2
Refused	1	2.8	36	100.0
Types of punishment imposed on guilty party				
Yes	1	2.8	1	2.8
No	32	88.9	33	91.7
Don't know	2	5.6	35	97.2
Refused	1	2.8	36	100.0
Impact on institution				
Yes	2	5.6	2	5.6
No	31	86.1	33	91.7
Don't know	2	5.6	35	97.2
Refused	1	2.8	36	100.0

4.3.4.1 Topics RIOs Felt Should Be Covered with Complainants Before an Allegation Was Made

In addition to interviewing RIOs regarding whether complainants ask questions about the four major topic areas mentioned previously, we also wanted to understand whether RIOs proactively brought to the complainants' attention any topics they considered important for the complainant to know about. As shown in Table 4-13, slightly more than half of the RIOs (52.8%) indicate that they covered topic areas with complainants before they filed their allegation because they felt that the complainant should be made aware of them.

Table 4-13. Whether RIOs Covered Topics with Complainants in Time Period Before Allegation Was Made (N=36)

Description	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	19	52.8%	19	52.8%
No	13	36.1%	32	88.9%
Don't know	3	8.3%	35	97.2%
Refused	1	2.8%	36	100.0%

We asked these RIOs to tell us what those topics were; some mentioned multiple topics. We recorded what these RIOs told us and then coded the topics into discrete categories. Table 4-14 shows the distribution of the coded responses. More than a quarter (26.3%) of the RIOs indicated that they covered the time involved in the resolution process. About a fifth (21.1%) of them report discussing the definition of research misconduct. Other topics mentioned include the resolution process (15.8%), types of penalties imposed on guilty parties (15.8%), and the importance of confidentiality (15.8%). About eleven percent (10.5%) each mentioned they discussed the responsibility to report research misconduct, and that they reviewed the institution's research misconduct policy with the complainant. Finally, a little more than a tenth (13.9%) of the RIOs stated that they felt they should cover other topics (e.g., compensation for retaliation, the possibility of encountering a difficult work environment due to close contact with the respondent, and the possibility that an allegation will result in legal action).

Table 4-14. Topics RIOs Covered with Complainants Before Allegation Was Made Because They Felt Complainants Should Be Made Aware (N=19)

Description	Frequency	Percent*
Time involved in resolution process	5	26.3%
Definition of research misconduct	4	21.1%
Resolution process	3	15.8%
Types of penalties imposed on guilty	3	15.8%
Importance of confidentiality	3	15.8%
Responsibility to report research misconduct	2	10.5%
Reviewed policy	2	10.5%
Other	5	13.9%

*Percents do not total 100; RIOs may cover multiple topics.

4.3.4.2 Questions RIOs Asked Complainants during the Time Period Before Filing the Formal Allegation

To further supplement the information about topics the RIOs discuss with complainants because they feel it is necessary at that stage, we also asked RIOs to tell us about any questions they asked complainants during this time. Table 4-15 shows that less than half of RIOs (44.2%) indicate that they asked the complainant any questions before the complainant decided to make a formal allegation.

Table 4-15. Whether RIOs Asked Complainants Questions Before an Allegation Was Made (N=77)

Description	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	34	44.2%	34	44.2%
No	42	54.6%	76	98.7%
Refused	1	1.3%	77	100.0%

We asked the 35 RIOs (the 34 who responded plus the one who refused) to tell us about the topics of their questions and recorded a summary of their responses. Many of them told us they asked complainants questions about more than one topic. Their responses were coded into discrete categories for analysis. Table 4-16 shows the distribution of the coded responses. Exactly half (50.0%) of these RIOs indicate that they asked the complainant to provide a description of the research misconduct. More than one-third (35.3%) of the RIOs said they asked the complainant for information or evidence of the research misconduct. A few (5.9%) of them mentioned asking complainants about such topics as: responsibility to report misconduct to RIO or the funder, calendar of misconduct discovery, whether they understood the resolution process, funding for the research, whether others had witnessed the misconduct, and their desire to remain anonymous. About a fifth (20%) of the RIOs mentioned other question topics, including whether they were going to file a formal allegation, whether they understood how the resolution time frame would affect their research, their relationship with the respondent (i.e., the person who allegedly committed the research misconduct), whether the misconduct was a danger to patients in trials, whether they were concerned about retaliation, the whereabouts of the respondent, and their expectations from filing the allegation.

Table 4-16. Questions RIOs Asked Complainants Before an Allegation Was Made (N=34)

Questions Asked	Frequency	Percent *
Description of the misconduct	17	50.0%
Evidence of misconduct	12	35.3%
Any Responsibility to report misconduct	2	5.9%
Calendar of misconduct discovery	2	5.9%
Whether understood process	2	5.9%
Funding of research	2	5.9%
Other witness to misconduct	2	5.9%
Desire to remain anonymous	2	5.9%
Other	7	20.6%
Don't know	2	5.9%

*Percents do not total 100; RIOs may cover multiple topics.

4.3.5 Information, Advice, Guidance, or Support RIOs Provided Complainants during Time Period Before Filing Formal Allegation

As shown in Table 4-17, almost two-thirds (65.7%) of the 35 RIOs who asked complainants questions offer them information, advice, guidance, or support before the complainant decided to make an allegation.

Table 4-17. Whether RIOs Offered Information, Advice, Guidance, or Support on Any Topics Before an Allegation Was Made (N=35)

Description	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	23	65.7%	23	65.7%
No	10	28.6%	33	94.3%
Don't Know	1	2.9%	34	97.1%
Refused	1	2.9%	35	100.0%

We asked these 23 RIOs about the topics on which they offered information, advice, guidance, or support. Some of the RIOs told us about more than one topic on which they offered guidance. Because this was an open-ended question, we reviewed the topics they mentioned and coded them into discrete categories. Table 4-18 shows the distribution of the coded responses. As can be seen in the table, many of the topics about which these RIOs said they offer information, guidance, or support are similar to those we asked about directly. Almost one-third (30.4%) of them indicated that they had described the process required to resolve the allegation. Almost a third (30.4%) also responded that they

reviewed the institutions' research misconduct policy with the complainant. Just under a fifth (17.4%) said they talked about protecting the complainant from retaliation, and the same percentage discussed the importance of confidentiality. Thirteen (13.0) percent of the RIOs said they explain the definition of research misconduct to complainants during the time period before filing the allegation. A few reported that they explain possible outcomes of the process or address potential adverse effects of the allegation (8.7% respectively). About a fifth said they provide other information, advice, guidance, or support at this time period. This includes providing ORI materials, offering to answer research misconduct questions, discussing institutional responsibility to file an allegation, requesting evidence, and offering to assist with issues that were not related to research misconduct.

Table 4-18. Topics on Which RIOs Offered Information, Advice, Guidance, or Support Before an Allegation Was Made (N=23)

Description	Frequency	Percent*
Described process	7	30.4%
Reviewed policy	7	30.4%
Said would protect from retaliation	4	17.4%
Told of importance of confidentiality	4	17.4%
Explained definition of research misconduct	3	13.0%
Possible outcomes of process	2	8.7%
Addressed potential adverse effects of allegation	2	8.7%
Other	5	21.7%
Don't know	1	4.4%

*Percents do not total 100; RIOs may cover multiple topics.

4.4. Complainant Contact During Time Period After an Allegation Was Made and an Inquiry or Investigation Was Under Way

After developing an understanding of the content of RIOs' conversations with complainants before they decided to make an allegation, we then shifted our focus to asking RIOs about their interactions with actual complainants after an allegation had actually been made and an inquiry or investigation was under way but not yet completed. Recall that only 77 of the 102 RIOs we interviewed told us about their experience with an actual complainant. As shown in Table 4-19, nearly one-fifth (18.2%) of RIOs indicated that they had no interaction with complainants during the period after an allegation was made, but before the resolution process was completed. Less than 10% (9.1%) of them reported having only a single interaction with the complainant during this time period. Approximately one-third (33.8%) reported having interacted with the complainant between two and four times while the inquiry or investigation was under way. Almost one-third (29.9%) of RIOs had between 5 and 10 interactions with the complainant during this period. Finally, a total

of six RIOs (7.8%) reported having had 11 or more interactions with the complainant at this point. Overall the RIOs reported having an average of 4.7 interactions (SD= 6.6) with complainants after the allegation was made.

Table 4-19. Number of Interactions with Complainants While Resolution Process Was Under Way (N=77)

Description	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	14	18.2%	14	18.2%
1	7	9.1%	21	27.3%
2	12	15.6%	33	42.9%
3	8	10.4%	41	53.2%
4	6	7.8%	47	61.0%
5-10	23	29.9%	70	90.9%
11-15	4	5.2%	74	96.1%
16 or more	2	2.6%	76	98.7%
Refused	1	1.3%	77	100.0%

We asked the RIOs who did not report any interactions with complainants during this time to tell us about the reason that they had not had any communication with them. Table 4-20 shows the distribution of the responses, which we coded into discrete categories. The most common reason they offered was that an inquiry or investigation panel was formed to look into the allegation (33.3%). One fifth (20.0%) of these RIOs responded that no inquiry was held, meaning the allegation did not proceed any further; a fifth (20.0%) also indicated that they did not have any interactions with the complainant because the complainant did not respond to the RIOs' attempts to make contact. A few RIOs gave other reasons, including that there was no need for interaction (13.3%) or that the complainant made the allegation anonymously and the RIO was thus unable to contact him or her (6.7%).

Table 4-20. Reasons for No Interaction with Complainants While Resolution Process Was Under Way (N=15)

Description	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Inquiry/investigation panel formed	5	33.3%	5	33.3%
No inquiry was held	3	20.0%	8	53.3%
Complainant did not respond to RIO's efforts to contact	3	20.0%	11	73.3%
No need for interaction	2	13.3%	13	86.6%
Anonymous complainant and unable to contact	1	6.7%	14	93.3%
Refused	1	6.7%	15	100.0%

As can be seen in Table 4-21, the majority (58.7%) of the 63 RIOs who reported that they had at least one interaction with the complainant during this period stated that complainants asked them additional questions.

Table 4-21. Whether Complainants Asked Questions While Resolution Process Was Under Way (N=63)

Description	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	37	58.7%	37	58.7%
No	25	39.7%	62	98.4%
Refused	1	1.6%	63	100.0%

As we did with the time period before the allegation was made, we asked the 37 RIOs who responded that complainants did ask questions (and the one RIO who refused to respond to the question) to tell us about the topics about which the complainants had inquired. We specifically we wanted to know whether the complainant asked questions about each of four topic areas during the period after the allegation was made and the inquiry or investigation was under way but not yet completed: anonymity/confidentiality, resolution process, institutional responsibilities, and potential adverse consequences. For any topic areas on which RIOs said the complainant had questions, we asked which specific aspect topics of questions they asked about that issue. After each specific response within a topic area, we asked the RIOs to tell us whether the complainant had asked any other questions about that topic area and what questions they asked. We reviewed all 'other'

responses and coded them into existing categories if possible or into new discrete categories. Results presented below are organized by topic area.

4.4.1 Anonymity/Confidentiality

Only 5 of the 38 RIOs (13.2%) we asked about complainants' questions at this point in the process responded that the complainant had asked questions about anonymity and confidentiality. As shown in Table 4-22, 2 RIOs (5.3%) reported that the complainant had asked about his or her ability to remain anonymous throughout the process, and 2 RIOs (5.3%) indicated that the complainant had inquired about the extent to which details are held confidential. Finally, another 5% (5.3%) of RIOs reported that the complainant had asked about other topics related to anonymity and confidentiality.

Table 4-22. Questions Complainants Asked about Anonymity/Confidentiality While Resolution Process Was Under Way (N=38)

Topic Area /Specific Aspects	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Anonymity and Confidentiality				
Yes	5	13.2%	5	13.2%
No	32	84.2%	37	97.4%
Refused	1	2.6%	38	100.0%
Ability to remain anonymous throughout process				
Yes	2	5.3%	2	5.3%
No	35	92.1%	37	97.4%
Refused	1	2.6%	38	100.0%
Extent to which details are held confidential				
Yes	2	5.3%	2	5.3%
No	35	92.1%	37	97.4%
Refused	1	2.6%	38	100.0%
Other				
Yes	2	5.3%	2	5.3%
No	35	92.1%	37	97.4%
Refused	1	2.6%	38	100.0%

4.4.2 Resolution Process

Most of the 38 RIOs (84.2%) we asked reported that the complainant had questions about the resolution process after the inquiry or investigation was under way. As with the time period before the allegation was made, more RIOs reported that the complainant had questions about the resolution process while this process was under way than any of the other three topic areas. Table 4-23 shows that the most common topic areas of

complainants' questions about the resolution process were the steps involved, which 15 (39.5%) of the RIOs reported, and the length of time required, which 11 RIOs (29.0%) reported. Slightly more than one-fifth (21.1%) of the RIOs explained that complainants had asked about the process for the collection of evidence. Only 4 RIOs (10.5%) reported that the complainant had asked about the amount of time involved. Finally, 8 RIOs (21.1%) indicated that the complainant had other miscellaneous questions about the resolution process while the inquiry or investigation was under way.

Table 4-23. Questions Complainants Asked about Resolution Process While Resolution Process Was Under Way (N=38)

Description	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Resolution Process				
Yes	32	84.2%	32	84.2%
No	5	13.2%	37	97.4%
Refused	1	2.6%	38	100.0%
Steps involved				
Yes	15	39.5%	15	39.5%
No	22	57.9%	37	97.4%
Refused	1	2.6%	38	100.0%
Collection of evidence				
Yes	8	21.1%	8	21.1%
No	29	76.3%	37	97.4%
Refused	1	2.6%	38	100.0%
Amount of time involved				
Yes	4	10.5%	4	10.5%
No	33	86.8%	37	97.4%
Refused	1	2.6%	38	100.0%
Length of time required				
Yes	11	29.0%	11	29.0%
No	26	68.4%	37	97.4%
Refused	1	2.6%	38	100.0%
Other				
Yes	8	21.1%	8	21.1%
No	29	76.3%	37	97.4%
Refused	1	2.6%	38	100.0%

4.4.3 Institutional Responsibilities

Almost one third (29.0%) of the 38 RIOs indicate that the complainant asked questions about institutional responsibilities while the inquiry or investigation was under way. As shown in Table 4-24, 8 of the 11 RIOs (21.1%) who reported that complainants ask about institutional responsibilities indicated that the topic of the question was protection from retaliation. A much higher percentage of complainants asked about protection from retaliation at this point than had asked during the time period before the allegation (Table 4-11) was made (8.3%). We take this to mean that concerns about retaliation may be more prominent after the inquiry or investigation has begun than before the formal process of resolving the allegation begins. Approximately 5% of the RIOs (5.3%) report that the complainant asked about job protection. Two RIOs (5.3%) report that the complainant inquired about other topics related to institutional responsibilities.

Table 4-24. Questions Complainants Asked about Institutional Responsibilities While Resolution Process Was Under Way (N=38)

Topic Area /Specific Aspects	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Institutional Responsibilities				
Yes	11	29.0%	11	29.0%
No	26	68.4%	37	97.4%
Refused	1	2.6%	38	100.0%
Protection from retaliation				
Yes	8	21.1%	8	21.1%
No	29	76.3%	37	97.4%
Refused	1	2.6%	38	100.0%
Job protection				
Yes	2	5.3%	2	5.3%
No	35	92.1%	37	97.4%
Refused	1	2.6%	38	100.0%
Other				
Yes	2	5.3%	2	5.3%
No	35	92.1%	37	97.4%
Refused	1	2.6%	38	100.0%

4.4.4 Potential Adverse Consequences

A little more than a quarter of the 38 responding RIOs (26.3%) indicated that the complainant asked questions about potential adverse consequences during the time between making an allegation and the completion of the resolution process. Although the percentage of complainants RIOs report as asking about adverse consequences at this point

in the process is slightly higher than that before the formal allegation was filed, the percentage of complainants probing about adverse consequences is still somewhat low given the potential impact these cases can have for a complainant. As can be seen in Table 4-25, 4 of the RIOs (10.5%) tell us that complainants asked about potential damage to their reputation or career. Three RIOs (7.9%) report that the complainant wondered about retaliation experience. Smaller numbers of RIOs indicated that the complainant had inquired about damage to relationships with colleagues (5.3%) and having to transfer to another job (2.6%). Finally, 3 RIOs (7.9%) say they received other questions about potential adverse consequences.

Table 4-25. Questions Complainants Asked about Potential Adverse Consequences While Resolution Process Was Under Way (N=38)

Description	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Potential Adverse Consequences				
Yes	10	26.3%	10	26.3%
No	27	71.1%	37	97.4%
Refused	1	2.6%	38	100.0%
Retaliation experience				
Yes	3	7.9%	3	7.9%
No	34	89.5%	37	97.4%
Refused	1	2.6%	38	100.0%
Damage to reputation/career				
Yes	4	10.5%	4	10.5%
No	33	86.8%	37	97.4%
Refused	1	2.6%	38	100.0%
Damage to relationships with colleagues				
Yes	2	5.3%	2	5.3%
No	35	92.1%	37	97.4%
Refused	1	2.6%	38	100.0%
Transfer to another job				
Yes	1	2.6%	1	2.6%
No	36	94.7%	37	97.4%
Refused	1	2.6%	38	100.0%
Other				
Yes	3	7.9%	3	7.9%
No	34	89.5%	37	97.4%
Refused	1	2.6%	38	100.0%

4.4.4.1 Information, Advice, Guidance, or Support RIOs Provided Complainants during the Period of the Resolution Process

The vast majority of RIOs (82.5%) told us they gave complainants information, advice, guidance, or support during the period of time after an allegation was made, but before it was resolved, as shown in Table 4-26.

Table 4-26. Whether RIOs Offered Information, Advice, Guidance, or Support on Any Topics While Resolution Process Was Under Way (N=63)

Description	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	52	82.5%	52	82.5%
No	10	15.9%	62	98.4%
Refused	1	1.6%	63	100.0%

We asked the 52 RIOs who responded yes to tell us about the topics they had discussed with the complainant. Some of them mentioned multiple topics; as with the other open-ended questions, we reviewed their responses and coded them into discrete categories. Table 4-27 shows the distribution of the coded responses. Although some of these topics are similar to those mentioned earlier, we learned of some new areas about which the RIOs had discussions with complainants. Of the topics mentioned, those that RIOs discussed most often include the process and procedures related to the resolution process (28.9%), protections against retaliation (19.2%), and the status of the case (17.3%). Six of the 52 RIOs (11.5%) reassured the complainant about the promises they had made related to confidentiality. Four RIOs (7.7%) reported supporting the complainant in the following ways: providing reassurance that the policy would be followed, describing the expertise and character of the panel members, referring complainants to the appropriate person to be assigned a new advisor, and encouraging complainants to see the allegation process through to resolution. Approximately 6% (5.8%) of the RIOs discussed providing the evidence in support of the research misconduct that would be needed as part of the resolution process. Many other topics were addressed by only a few (i.e., one or two) of the RIOs, such as offering support to ensure the complainant could continue to work towards a degree, providing advice on how to interact with colleagues, counseling the complainant to remain patient, and discussing the right to obtain legal counsel.

Table 4-27. Topics about Which RIOs Offered Information, Advice, Guidance, or Support While Resolution Process Was Under Way (N=52)

Description	Frequency	Percent*
Discussed the process/procedures	15	28.9%
Informed complainant of protection against retaliation	10	19.2%
Reviewed status of cases	9	17.3%
Reassured about promised confidentiality	6	11.5%
Reassured the policy would be followed	4	7.7%
Described the expertise and character of the panel members	4	7.7%
Referred complainant to office to get new advisor	4	7.7%
Encouraged complainant to see the allegation process through	4	7.7%
Discussed providing evidence for process	3	5.8%
Offered support to ensure degree progress	2	3.9%
Advised to withdraw manuscript	2	3.9%
Discussed how to interact with work colleagues	2	3.9%
Offered to provide letter of support/references	1	1.9%
Provided access to inquiry panel report	1	1.9%
Counseled patience	1	1.9%
Discussed right to retain legal counsel	1	1.9%
Discussed NIH reporting requirements	1	1.9%
Obtained contact information	1	1.9%
Discussed having access to general counsel	1	1.9%
Participating in process from afar	1	1.9%
Other	1	1.9%

*Percents do not total 100; RIOs may cover multiple topics.

4.4.4.2 Information, Advice, Guidance, or Support RIOs Thought Complainants Expected during Time Period After Filing Formal Allegation

We then asked whether the RIOs thought the complainant was expecting them to provide additional information, advice, guidance, or support. Less than one-fifth of the RIOs (17.5%) responded affirmatively to this question, as indicated in Table 4-28.

Table 4-28. Whether RIO Thinks Complainant Was Expecting More Information, Advice, Guidance, or Support While Resolution Process Was Under Way (N=63)

Description	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	11	17.5%	11	17.5%
No	47	74.6%	58	92.1%
Don't Know	4	6.4%	62	98.4%
Refused	1	1.6%	63	100.0%

When a RIO indicated that he or she thought the complainant was expecting additional information, advice, guidance, or support, we asked the RIO to tell us which topics. We reviewed their responses and coded the topics about which RIOs thought the complainant was expecting additional help into discrete categories. Table 4-29 shows the distribution of the coded responses. Nearly three-fourths of the responding RIOs (72.7%) thought the complainant expected more information about progress on the case. Two of the RIOs (18.2%) thought that the complainant wanted advice or guidance about interacting with faculty and staff. The same percentage felt that the complainant wanted more support. One RIO (9.1%) thought the complainant wanted help interpreting the policy, and another RIO was under the impression that the complainant wanted additional advice or guidance related to whether he or she needed access to general counsel.

Table 4-29. Topics about Which RIO Thinks Complainant Was Expecting More Information, Advice, Guidance, or Support While Resolution Process Was Under Way (N=11)

Description	Frequency	Percent*
Progress on case	8	72.7%
About interacting with faculty and staff	2	18.2%
Wanted more support for complainants	2	18.2%
Interpretation of policy	1	9.1%
Whether needed access to general counsel	1	9.1%

*Percents do not total 100; RIOs may cover multiple topics.

4.5 Time Period After the Resolution of an Allegation

During the interview, we also explored RIOs' interactions with the complainant once the inquiry or investigation had been completed and the allegation was resolved.

Slightly less than a quarter of RIOs (23.8%) indicated that they had no interaction with complainants after the inquiry or investigation was complete. As shown in Table 4-30,

more than one-third of RIOs (34.9%) interacted with complainants one time, one fifth of RIOs (20.6%) interacted with complainants two times, and approximately 10% of RIOS interacted with complainants three times after the case was resolved. Only six RIOs (9.6%) interacted with complainants 4 or more times after the resolution of the allegation. RIOs had an average of 1.8 interactions (SD=2.1) with the complainant during this time period.

Table 4-30. Number of Interactions with Complainant After Allegation Was Resolved (N=63)

Description	Frequency	Percent	Cumulative Frequency	Cumulative Percent
None	15	23.8%	15	23.8%
One	22	34.9%	37	58.7%
Two	13	20.6%	50	79.4%
Three	6	9.5%	56	88.9%
Four	2	3.2%	58	92.1%
Five or more	4	6.4%	62	98.4%
Refused	1	1.6%	63	100.0%

We asked the RIOs who did not report any interactions after the allegation was resolved about the reason they had not had any communication with the complainant during this time period. We coded the reasons into discrete categories. Table 4-31 shows the distribution of the coded responses. More than a quarter of the responding RIOs (26.7%) explained that the complainant had received a written notification of the case's resolution (i.e., via formal letter or final report) implying no interaction was necessary. Three RIOs (20.0%) responded that the complainant was satisfied with the resolution. Smaller numbers of RIOs gave other reasons, including that there was no need for interaction (13.3%), no inquiry was conducted (6.7%), the complainant left the institution (6.7%), the associate RIO became the contact person (6.7%), or there was some other reason for not interacting (13.3%).

Table 4-31. Reasons for No Interaction with Complainants After Allegation Was Resolved (N=15)

Description	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Complainant was notified in writing (i.e., via formal letter or final report)	4	26.7%	4	26.7%
Complainant was satisfied with outcome	3	20.0%	7	46.7%
No need for interaction	2	13.3%	9	60.0%
No inquiry was conducted	1	6.7%	10	66.7%
Complainant left the institution	1	6.7%	11	73.4%
Associate RIO became contact person	1	6.7%	12	80.0%
Other	2	13.3%	14	93.3%
Refused	1	6.7%	15	100.0%

As shown in Table 4-32, slightly less than half of the RIOs (47.9%) reported that complainants asked questions after the allegation was resolved.

Table 4-32. Whether Complainants Asked Questions After Allegation Was Resolved (N=48)

Description	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	23	47.9%	23	47.9%
No	22	45.8%	45	93.8%
Don't know	2	4.2%	47	97.9%
Refused	1	2.1%	48	100.0%

We asked these 23 RIOs about which topics the complainants had inquired during the time after the allegation was resolved. We reviewed their qualitative responses and coded them into discrete categories. Table 4-33 presents the distribution of the coded responses. More RIOs reported that the complainant asked about next steps (30.4%) or the outcome of the inquiry or investigation (30.4%) after the allegation was resolved than any other topic. Four RIOs (17.4%) indicated that the complainant inquired about job protection and three RIOs (13.0%) advised us that the complainant wondered about the types of sanctions or penalties that were being imposed on the respondent. Other question topics

that were only mentioned by a single RIO each (4.4%) included the following: why the respondent was not found guilty, rights to and the process for responding to the report, how to handle a grievance brought against the complainant, how to handle requests for sequestered data, time involved in the resolution process, why no inquiry or investigation was conducted, and what happens if the respondent leaves the institution before the case is resolved.

Table 4-33. Questions Complainants Asked After Allegation Was Resolved (N=23)

Description	Frequency	Percent*
Next steps	7	30.4%
Outcome of inquiry/investigation	7	30.4%
Job protections	4	17.4%
Types of sanctions or penalties imposed on respondent	3	13.0%
Why respondent not guilty	1	4.4%
Rights to and process for responding to the report	1	4.4%
How to handle grievance brought against complainant	1	4.4%
How to handle requests for sequestered data	1	4.4%
Time involved in resolution process	1	4.4%
Why no inquiry/investigation was conducted	1	4.4%
What happens if respondent leaves institution before case resolved	1	4.4%
Other	1	4.4%
Don't know	1	4.4%

* Multiple responses provided, thus percents do not sum to 100.

4.5.1 Information, Advice, Guidance, or Support RIOs Provided Complainants during the Time Period After Case Resolved

As shown in Table 4-34, more than 60 percent of RIOs (62.5%) offered complainants information, advice, guidance, and support after the allegation was resolved.

Table 4-34. Whether RIOs Offered Information, Advice, Guidance, or Support on Any Topics After Allegation Was Resolved (N=48)

Description	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	30	62.5%	30	62.5%
No	17	35.4%	47	97.9%
Refused	1	2.1%	48	100.0%

We asked the 30 RIOs who responded that they had offered such help about the topics of the information, advice, guidance, or support that they had given. We reviewed their responses and coded the topics into discrete categories. Please note that some RIOs mentioned multiple topics. Table 4-35 shows the distribution of the coded responses. One-fifth of the RIOs (20.0%) said they had discussed findings, next steps, and actions taken with the complainant. Topics or types of support that were mentioned by two or three RIOs each included the following: referred complainant to other administrative offices for issues not related to research misconduct (10.0%), provided assurances of protection against retaliation (10.0%), offered general support to the complainant (6.7%), and told complainant continued pursuit would not be advisable (6.7%). A variety of other topics, such as providing reassurance that the complainant was doing the right thing, and providing a copy of the inquiry or investigation report were each mentioned by only a single RIO.

Table 4-35. Topics about Which RIOs Offered Information, Advice, Guidance, or Support After Allegation Was Resolved (N=30)

Description	Frequency	Percent*
Findings, next steps, actions	6	20.0%
Referred the complainant to other administrative offices for issues not related to research misconduct	3	10.0%
Provided assurances of protection against retaliation	3	10.0%
Offered general support to the complainant	2	6.7%
Told complainant continued pursuit would not be advisable	2	6.7%
Reassurance that complainant did the right thing	1	3.3%
Provided a copy of the inquiry/investigation report	1	3.3%
Provided advice on the appeals process	1	3.3%
Information on the evidence gathered	1	3.3%
Provided assurances of anonymity/confidentiality	1	3.3%
How to interact and work with colleagues	1	3.3%
Reviewed grievance policy with complainant	1	3.3%
Told complainant to limit contact with respondent	1	3.3%
Provided information on the process followed	1	3.3%
Obligations of the complainant	1	3.3%
Confidentiality of the process	1	3.3%
Discussed right to retain legal counsel	1	3.3%
Other	3	10.0%
Don't Know	1	3.3%
Refused	1	3.3%

* Multiple responses provided, thus percents do not sum to 100.

As shown in Table 4-36, about 19% of the responding RIOs (18.8%) felt that complainants expected them to provide additional information, advice, guidance, or support after the allegation was resolved. We noted that this is a slightly higher percentage of RIOs than felt this way during the prior time period when the inquiry or investigation was still under way (17.5%).

Table 4-36. Whether RIO Thinks Complainant Was Expecting More Information, Advice, Guidance, or Support After Allegation Was Resolved (N=48)

Description	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	9	18.8%	9	18.8%
No	37	77.1%	46	95.8%
Don't Know	1	2.1%	47	97.9%
Refused	1	2.1%	48	100.0%

We asked these RIOs about what types of concerns they think the complainant was expecting further information, advice, guidance, or support after the allegation was resolved. We reviewed the types of concerns they mentioned and coded them into discrete categories. Please note that some RIOs mentioned more than one. The distribution of the coded responses appears in Table 4-37. Two RIOs (22.2%) thought the complainant was hoping for more information about the finding. Two of the RIOs (22.2%) felt the complainant wanted justification for why the outcome was not research misconduct. Two RIOs (22.2%) explained that they thought the complainant was looking for an explanation for why no inquiry or investigation was conducted. Three of the 9 RIOs (33.3%) also mentioned other concerns or topics about which they thought the complainant wanted additional information, support, or guidance, such as details on sanctions and penalties, more support for complainants, and more guidance than was in the policy.

Table 4-37. Topics about which RIO Thinks Complainant Was Expecting More Information, Advice, Guidance, or Support After Allegation Was Resolved (N=9)

Description	Frequency	Percent*
More information about the finding	2	22.2%
Justification for the outcome (not research misconduct)	2	22.2%
Why no inquiry/investigation was conducted	2	22.2%
Other	3	33.3%
Refused	1	11.1%

* Multiple responses provided, thus percents do not sum to 100.

4.5.2 RIOs' Perceptions of Link Between Questions Complainant Asked and the Findings in the Case

Finally, we wanted to explore RIOs' perceptions of the link between the questions the complainants asked (or that the RIOs felt the complainants had but did not verbalize) and the findings of the cases. We first asked the RIOs if they thought any of the questions the complainants had at this time were prompted by the finding. A little less than half of the RIOs (42.9%) felt that the complainant's questions were prompted by the outcome of the case. The distribution is shown in Table 4-38. We then asked the 18 RIOs who responded that the questions were prompted by the finding (and the single RIO who had refused to answer that question) whether they thought the complainant would have had different questions had the finding been different. More than two-thirds (68.4%) of these RIOs (13) thought that the complainants' questions would have been different had the finding been different.

We then asked about how these RIOs thought the questions would have differed (see Table 4-38). More than any other response, more RIOs (38.5%) gave the response that the complainant would not have had questions, but rather would have been satisfied with the finding if the finding had been different. Only two RIOs (15.4%) provided the second most commonly given response, which was that the complainant would have asked more detailed questions about the process. The other differences, which were each cited by only a single RIO (7.7%), included the following: would have asked more about data protection, would have wanted to know why respondent was not found guilty, would have asked more about maintaining confidentiality, and would have asked why sanctions were not more severe.

Table 4-38. RIOs' Perceptions about Link Between Questions and Findings

Description	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Whether RIO thinks questions were prompted by finding (N=42)				
Yes	18	42.9%	18	42.9%
No	19	45.2%	37	88.1%
Don't Know	4	9.5%	41	97.6%
Refused	1	2.4%	42	100.0%
Whether RIO thinks questions would have been different if finding were different (N=19)				
Yes	13	68.4%	13	68.4%
No	3	15.8%	16	84.2%
Don't Know	2	10.5%	18	94.7%
Refused	1	5.3%	19	100.0%
How RIO thinks questions would have differed if finding had been different (N=13)				
Would not have had questions; would have been satisfied with the finding	5	38.5%	7	38.5%
Would have asked more detailed questions about process	2	15.4%	11	53.9%
Would have asked more about protecting data	1	7.7%	1	61.6%
Would have wanted to know why respondent not guilty	1	7.7%	2	69.3%
Would have asked more about maintaining confidentiality	1	7.7%	8	77.0%
Would have asked why sanctions were not more severe	1	7.7%	9	84.7%
Other	1	7.7%	12	92.3%
Don't know	1	7.7%	13	100.0%

4.6 Encouraging a Person to File an Allegation

We asked RIOs whether they had ever encouraged a person who was considering filing an allegation of research misconduct to follow through on his or her intent, and if so, what were the circumstances under which they would do this. Less than one third of the RIOs (31.4%) responded that they had ever encouraged a person to move forward with filing an allegation.

We asked these 32 RIOs about the circumstances under which they would do so. Table 4-39 shows the distribution of the coded responses. Not surprisingly, the most common response (40.6%) was that the RIO would encourage complaints to file an allegation if the RIO feels the situation meets the definition of research misconduct or

warrants follow-up. The second most frequently reported (18.8%) circumstance under which RIOs would encourage a person to file is that the complainant has real and tangible evidence of research misconduct. Four RIOs (12.5%) responded that they always encourage a complainant who makes a verbal allegation to put it in writing. Another 4 RIOs (12.5%) said they would encourage a person to file if the person thinks or has valid concerns that research misconduct occurred. A small number of RIOs described circumstances in which the alleged research misconduct seems to be serious (3.1%) or there is uncertainty about whether research misconduct occurred (6.3%).

Table 4-39. Whether and Why RIO Has Encouraged a Person to File an Allegation

Description	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Whether RIOs have ever encouraged a person to file an allegation (N=102)				
Yes	32	31.4%	32	31.4%
No	69	67.7%	101	99.0%
Refused	1	1.0%	102	100.0%
Circumstances under which RIOs encouraged a person to file an allegation (N=32)				
RIO feels situation meets the definition of research misconduct or warrants follow-up	13	40.6%	13	40.6%
Complainant has real and tangible evidence of research misconduct	6	18.8%	19	59.4%
Always encourage a complainant who brings an allegation verbally to put it in writing	4	12.5%	23	71.2%
The complainant thinks or has valid concerns that research misconduct occurred	4	12.5%	27	83.7%
Uncertain or on the fence about whether research misconduct occurred	2	6.3%	29	90.0%
The alleged research misconduct seems to be serious	1	3.1%	30	93.1%
Other	1	3.1%	31	96.9%
Missing	1	3.1%	32	100.0%

4.7 Discouraging Complainants from Filing Allegations

Because the process of dealing with allegations of research misconduct can be stressful, emotional, and time consuming for the complainant, we wanted to know whether RIOs ever discouraged a person who was considering filing an allegation of research misconduct from following through with doing so. Just less than one fifth of the RIOs

(19.6%) reported that they had ever tried to discourage a person from filing a formal allegation.

We then asked these 20 RIOs about the circumstances under which they would do this and coded their open-ended responses into discrete categories. Table 4-40 shows that a majority of these RIOs (70%) stated they would discourage a person from filing an allegation if the details of the allegation lead them to believe it does not meet the definition of research misconduct. The second most common response (10.0%) was that they would discourage somebody with an allegation involving authorship disputes or accusations of plagiarism. Other circumstances, which were each offered by only a single RIO, included the following: there is little or no evidence to support the allegation (5.0%), the complainant seems unsure about filing a formal allegation (5.0%), the allegation appears to be based on a dispute or in bad faith (5.0%), or other miscellaneous situations (5.0%).

Table 4-40. Whether and Why RIO Has Discouraged a Person from Filing an Allegation

Description	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Whether RIOs have ever discouraged a person from filing an allegation (N=102)				
Yes	20	19.6%	20	19.6%
No	81	79.4%	101	99.0%
Refused	1	1.0%	102	100.0%
Circumstances under which RIOs discouraged a person from filing an allegation (N=20)				
Allegation doesn't meet definition of research misconduct	14	70.0%	14	70.0%
The allegation involves authorship issues / accusations of plagiarism	2	10.0%	16	80.0%
There is little or no evidence to support allegation	1	5.0%	17	85.0%
Complainant seems unsure about filing formal allegation	1	5.0%	18	90.0%
Allegation appears to be based on a dispute / in bad faith	1	5.0%	19	95.0%
Other	1	5.0%	20	100.0%

In addition to understanding when a RIO would discourage someone outright from making an allegation, we also wanted to explore whether, and if so when, a RIO would discourage somebody from filing a formal allegation right away. In other words, we wanted to know if RIOs would ever advise a person to go home and seriously think it over before filing an allegation and under what circumstances they would offer such advice. As shown in

Table 4-41, less than half of the RIOs (41.2%) indicated that they had ever advised a person to wait on filing an allegation until they had taken the time to seriously think it through. Some of these RIOs told us they felt that doing so would equate to discouraging people from coming forward with allegations of research misconduct.

Table 4-41. Whether RIO Has Advised a Person to Go Home and Think It Over Before Filing an Allegation

Description	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Whether RIOs have ever advised a person to wait on filing an allegation (N=102)				
Yes	42	41.2%	42	41.2%
No	59	57.8%	101	99.0%
Refused	1	1.0%	102	100.0%

We then asked the 42 RIOs who responded that they had at some point discouraged somebody from filing an allegation immediately about the circumstances or conditions in which they would advise such a waiting period. We coded their responses into discrete categories and present the distribution of the coded responses in Table 4-42. The response given by the most RIOs (23.8%) was that they would do this if the complainant was unsure or undecided about proceeding or was very emotional. Almost one fifth of the RIOs (19.1%) responded that adverse consequences would drive them to give this advice. Slightly lower percentages of RIOs explained that they would discourage a person from filing immediately if there was no or little evidence (16.7%), uncertainty about whether the allegation involves or meets the definition of research misconduct (14.3%), and that they feel it is always a good idea to ask people to think it over to be sure they want to proceed (14.3%). Between two and four RIOs described circumstances including the following: a feeling that the allegation is being brought as retaliation, is frivolous, or in bad faith (9.5%); the respondent's reputation (7.1%); the complainant's interest in remaining confidential or potential difficulties in maintaining confidentiality (4.8%); the time involved in handling the allegation (4.8%); and other assorted reasons (7.1%). A single RIO mentioned each of the following situations warranting giving the advice of waiting: lack of witnesses, the involvement of plagiarism that might be difficult to prove, and the disruption the allegation would cause to the science or research (2.4% respectively).

Table 4-42. Circumstances under Which RIO Has Advised a Person to Go Home and Think It Over Before Filing an Allegation (N=42)

Description	Frequency	Percent *
Because the complainant is unsure or undecided about proceeding / is very emotional	10	23.8%
Adverse consequences	8	19.1%
No/little evidence	7	16.7%
Because I always ask people to think it over to be sure they want to proceed	6	14.3%
Uncertain if allegation involves / meets the definition of research misconduct	6	14.3%
Because of a feeling that the allegation is being brought as retaliation, is potentially frivolous, or is in bad faith	4	9.5%
Respondent's reputation	3	7.1%
Because the complainant wants to remain confidential / it will be difficult to maintain confidentiality	2	4.8%
Because of the time involved to handle the allegation / it can be a very drawn out process	2	4.8%
Because the allegation involves a case of plagiarism that might be difficult to prove	1	2.4%
Because the allegation would be disruptive to the science / research	1	2.4%
No witnesses	1	2.4%
Other	3	7.1%

* Multiple responses provided, thus percents do not sum to 100.

4.8 RIO Perceptions of Changes in Complainants' Demeanor over Course of Resolving the Allegation

We advised RIOs of our interest in any changes that they detected in the demeanor of the actual complainant at different points in the allegation process. We read them seven choices and asked them which described the complainants' demeanor at three time points: during the initial contact, after the initial contact, and after the case was resolved. RIOs sometimes provided responses that were not in the precoded list; for these, we reviewed their responses and coded them into discrete categories. Many of the RIOs offered one or more other descriptors at each time point. Table 4-43 shows the distribution of the coded responses they gave for each point in time.

Table 4-43. Complainants' Demeanor During Initial Contact, After Initial Contact, and After Case Resolved (N=76)

Demeanor	During Initial Contact		After Initial Contact		After Case Resolved	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Calm/relaxed						
Mentioned	13	17.1%	21	27.6%	21	27.6%
Did not mention	63	82.9%	55	72.4%	55	72.4%
Angry/upset						
Mentioned	27	35.5%	18	23.7%	14	18.4%
Did not mention	49	64.5%	58	76.3%	62	81.6%
Emotional/nervous						
Mentioned	26	34.2%	15	19.7%	4	5.3%
Did not mention	50	65.8%	61	80.3%	72	94.7%
Afraid						
Mentioned	7	9.2%	2	2.6%	0	0.0%
Did not mention	69	90.8%	74	97.4%	76	100.0%
Confused						
Mentioned	2	2.6%	1	1.3%	1	1.3%
Did not mention	74	97.4%	75	98.7%	75	98.7%
Confident						
Mentioned	11	14.5%	8	10.5%	2	2.6%
Did not mention	65	85.5%	68	89.5%	74	97.4%
Impassioned/resolved / determined						
Mentioned	3	3.9%	1	1.3%	1	1.3%
Did not mention	73	96.1%	75	98.7%	75	98.7%
Aggressive/insistent						
Mentioned	3	3.9%	0	0.0%	0	0.0%
Did not mention	73	96.1%	76	100.0%	76	100.0%
Friendly/trusting						
Mentioned	2	2.6%	2	2.6%	1	1.3%
Did not mention	74	97.4%	74	97.4%	75	98.7%
Frustrated/burned out						
Mentioned	2	2.6%	2	2.6%	2	2.6%
Did not mention	74	97.4%	74	97.4%	74	97.4%
Unhappy/sad						
Mentioned	0	0.0%	0	0.0%	3	3.9%
Did not mention	76	100.0%	76	100.0%	73	96.1%
Satisfied/relieved						
Mentioned	1	1.3%	2	2.6%	15	19.7%
Did not mention	75	98.7%	74	97.4%	60	78.9%
Don't know	0	0.0%	0	0.0%	1	1.3%
Vindicated						
Mentioned	0	0.0%	0	0.0%	2	2.6%
Did not mention	76	100.0%	76	100.0%	74	97.4%
Other						
Mentioned	3	3.9%	3	3.9%	3	3.9%
Did not mention	72	94.7%	71	93.4%	69	90.8%
Don't know	1	1.3%	2	2.6%	4	5.3%

*Of the 77 RIOs with whom we discussed actual complainants, all but one were willing to respond to this question. Percentages were calculated exclusive of the refusing RIO.

RIOs most commonly described complainants' demeanor as angry and upset (35.3%) or emotional and nervous (34.2%) during their initial contact with the RIO. RIOs also generally characterized the complainants' demeanor at this initial point of contact as

calm and relaxed (17.1%); confident (14.5%); afraid (9.2%); aggressive and insistent (3.9%); and impassioned, resolved, and determined (3.9%). Three RIOs (3.9%) described complainants' demeanor at this time in other terms, such as careful and cautious or unsure.

After the initial contact, but before the case had been resolved, complainants' level of stress seems to decrease in that their demeanors were most often described as calm and relaxed (27.6%). However, a noteworthy number of RIOs still described complainants as being angry and upset (23.7%) or emotional and nervous (19.7%) at this point. Whereas 11 RIOs had described the complainant as confident at the initial contact, interestingly the number reporting the complainant's demeanor as confident decreased as the process proceeded, with only 8 RIOs (10.5%) saying the complainant was confident after the initial contact, and 2 saying the complainant was confident by the time the case was resolved. Three RIOs (3.9%) characterized the complainants in other ways such as uncomfortable, helpful and cooperative, and vague and uninformative while the resolution process was under way.

The numbers of RIOs perceiving complainants as still being angry or upset (18.4%) or emotional or nervous (5.3%) dropped after the resolution of their cases. After the cases had been resolved, more than a quarter of RIOs (27.6%) characterized actual complainants' demeanors as calm or relaxed and just under one-fifth of RIOs (19.7%) described complainants as seeming satisfied or relieved. In other words, it appears that the behavior of many complainants revealed that a weight had been lifted off their shoulders once the case was complete. The next most common demeanor mentioned for this period of time was unhappy or sad; although no RIOs described complainants' demeanors using these words or similar for the period before the case was resolved, three RIOs (3.9%) characterized the complainants in this way after resolution of the case.

4.9 Areas and Ways in Which the RIO Dealt with Difficult Complainants

We asked RIOs who had interacted with actual complainants whether they had ever, since becoming a RIO, encountered certain types of difficult complainants, including the following:

- a complainant who was being retaliated against by a respondent;
- a complainant who was being ostracized by peers and colleagues;
- a complainant who tried to direct the investigative process;
- a complainant who broke confidentiality; and
- a complainant who tried to obstruct the process when it did not seem to be going well.

For each type of difficult complainant, the majority of the responding RIOs answered that they had never interacted with a complainant fitting that description during their time as RIO. Results are shown in Table 4-44. The type of difficult complainant that the most RIOs (45.7%) had encountered was a complainant who tried to direct the investigation process. More than a quarter of RIOs reported having experienced a situation in which a complainant had broken confidentiality (32.3%) or who was being retaliated against by a respondent (27.1%). Approximately a fifth of the RIOs (21.4%) had experience dealing with a complainant who was being ostracized by his or her peers and colleagues. Only a little more than one-tenth of the responding RIOs (11.4%) had experience working with a complainant who had tried to obstruct the process when it did not seem to be going well.

Table 4-44. Experience Dealing with Different Types of Difficult Complainants (N=70)*

Characteristic	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Experience with complainant being retaliated against by respondent				
Yes	19	27.1%	19	27.1%
No	50	71.4%	69	98.6%
Refused	1	1.4%	70	100.0%
Experience with complainant being ostracized by peers and colleagues				
Yes	15	21.4%	15	21.4%
No	54	77.1%	69	98.6%
Refused	1	1.4%	70	100.0%
Experience with complainant trying to direct investigation process				
Yes	32	45.7%	32	45.7%
No	37	52.9%	69	98.6%
Refused	1	1.4%	70	100.0%
Experience with complainant breaking confidentiality				
Yes	24	34.3%	24	34.3%
No	43	61.4%	67	95.7%
Don't Know	2	2.9%	69	98.6%
Refused	1	1.4%	70	100.0%
Experience with complainant who tried to obstruct the process when it did not seem to be going well				
Yes	8	11.4%	8	11.4%
No	61	87.1%	69	98.6%
Refused	1	1.4%	70	100.0%

*Of the 77 RIOs with whom we discussed actual complainants, only 70 were asked questions pertaining to dealing with difficult complainants.

We asked the RIOs who reported having experience dealing with each of the different types of difficult complainants what they did to handle the situation. Most of the

RIOs' responses involved more than one action and thus were coded into more than one of the categories. Table 4-45 shows the distribution of the coded actions they said they took to deal with the difficult complainants.

Table 4-45. Approaches to Dealing with Different Types of Difficult Complainants

RIO's Approach	Frequency	Percent*
Complainant being retaliated against by respondent (N=19)		
Transferred complainant to another job	18	94.7%
Told respondent to stop / explained consequences of retaliation	5	26.3%
Referred case to other administrative office (e.g., HR or legal counsel)	4	21.1%
Provided support / reassurance to complainant	2	10.5%
Did not do anything	2	10.5%
Convened a panel to investigate the retaliation	1	5.3%
Followed institutional process for investigating allegations of research misconduct	1	5.3%
Filed allegation against respondent	1	5.3%
Complainant being ostracized by peers (N=15)		
Transferred complainant to another job	13	86.7%
Told those involved to stop	8	53.3%
Reported to or sought advice from institutional official or other administrative office	3	20.0%
Provided support / reassurance to complainant	2	13.3%
Sent written communication advising them to stop	1	6.7%
Did not do anything	1	6.7%
Complainant trying to direct the investigation process (N=32)		
Provided complainant limited information	31	96.9%
Reiterated / followed policy and procedures	9	28.1%
Asked complainant to respect the process / let it work	8	25.0%
Explained the complainant's role in process	4	12.5%
Involved complainant's supervisor or other administrative office	3	9.4%
Listened to complainant's suggestions	2	6.3%
Did not do anything	2	6.3%
Consulted ORI for advice	1	3.1%
Tried to discourage them	1	3.1%
Complainant broke confidentiality (N=24)		
Reminded complainant to maintain confidentiality	6	25.0%
Asked complainant to stop talking	4	16.7%
Gave complainant a warning	4	16.7%
Did not do anything	2	8.3%
Explained consequences of breaking confidentiality	1	4.2%
Sent written correspondence to complainant	1	4.2%
Talked to inquiry committee about breach	1	4.2%
Other	4	16.7%
Don't Know	1	4.2%
Complainant tried to obstruct process (N=8)		
Asked complainant to respect the process / let it work	4	50.0%
Followed the process	1	12.5%
Limited areas of inquiry	1	12.5%
Used outside experts	1	12.5%
Issued written instruction to complainant	1	12.5%

* Multiple responses provided, thus percents do not sum to 100.

Of the 19 RIOs who reported having had a case in which the complainant was being retaliated against by the respondent, 18 (94.7%) said that they handled it by transferring the complainant to another job. More than a quarter (26.3%) of this set of RIOs indicated that they told the respondent to stop or explained the consequences of retaliation. Just over one-fifth of the 19 RIOs (21.1%) referred the case to another administrative office (e.g., HR or legal counsel). Other less commonly cited approaches to dealing with retaliation included providing support/reassurance to the complainant (10.5%), convening a panel to investigate the retaliation (5.3%), and following the institutional process for investigating allegations of research misconduct (5.3%). About one-tenth of the RIOs (10.5%) did not do anything about the retaliation.

As with cases of retaliation, the vast majority (86.7%) of the 15 RIOs who had encountered situations in which a complainant was being ostracized by peers and colleagues addressed it by transferring the complainant to another job. Eight of the RIOs (53.3%) told the guilty party or parties to stop, and 1 other RIO (6.7%) advised the individuals to stop via written correspondence. Still other reactions to this situation included reporting the behavior to another institutional official or other administrative office or seeking their advice (20.0%) or providing reassurance or support to the complainant (6.7%). Only 1 RIO (6.7%) did not do anything about the ostracism the complainant was experiencing from those around them.

As mentioned previously, the type of difficult complainant that most of these RIOs had encountered was the complainant who tried to direct the investigation process. There seemed to be a consensus in responses regarding the best way to handle such complainants: almost all of the 32 RIOs (96.9%) who had experience dealing with such a complainant said they addressed this problem by limiting the information they gave them. Other commonly reported ways RIOs handled directive complainants included reiterating and continuing to follow the policies and procedures (28.1%) and asking the complainant to respect the process or “let it work” (25.0%). Smaller numbers of RIOs indicated that they explained the complainant’s role in the process (12.5%), involved the complainant’s supervisor or other administrative office (9.4%), listened to the complainant’s suggestions (6.3%), consulted ORI for advice (3.1%), or tried to discourage the complainant (3.1%). Finally, 2 RIOs (6.3%) said they did not do anything about the complainants’ attempts to direct the proceedings.

Of the 24 RIOs who had handled a case in which the complainant broke confidentiality, the most commonly reported response to this offense was to remind the complainant to maintain confidentiality (25.0%). One-sixth of the RIOs reported giving the complainant a warning (16.7%); similarly, the same number asked the complainant to stop talking to others about the case. Two of the RIOs (8.3%) said they did not do anything about the breach of confidentiality. Other means of dealing with this, which were reported by only a single RIO each (4.2%), included explaining the consequences of breaking

confidentiality, sending written correspondence to the complainant, and talking to an inquiry committee about the breach.

Half of the eight RIOs (50.0%) who reported having had a case in which the complainant tried to obstruct the process when it did not seem to be going well indicated that they asked the complainant to respect the process and “let it work.” Other ways of handling attempts at obstruction that were each reported by one RIO (12.5%) included following the institution’s established process for resolving the allegation, ignoring the complainant’s attempts at obstructing the process, limiting areas of inquiry that required the complainant’s involvement, using outside experts, and issuing written instructions to the complainant to stop the behavior.

4.10 Exploring Associations Between RIO and Complainant Characteristics and Number of Topic Areas/Specific Aspects of Topics Discussed with Complainants

We collected data on a small number of RIO and complainant characteristics in the interview. We used these characteristics to investigate whether any of them are related to the number of topic areas and specific aspects of the topic areas that the RIOs say they discuss in their initial contacts with complainants. We examined the RIO characteristics to ascertain whether there is anything about the RIOs that is associated with how many topic areas the RIO discussed or the number of specific aspects of those areas that the RIO mentioned in the initial discussion. We examined the complainant characteristics to establish whether there is any association between characteristics of the complainants and the number of topic areas the RIO discussed or the number of specific aspects of those areas that the RIO mentioned in the initial discussion.

The RIO characteristics include (1) elements of their behavior, (2) their experience, (3) their organizational position, and (4) their training to be RIOs. Among the behavioral characteristics are (1) whether the RIO always uses a script or other memory aide in discussing important topic areas and specific aspects of those topic areas with complainants in their initial contact; (2) whether the RIO always advises complainants to read the institution’s policies and procedures with respect to research misconduct; (3) the number of times the RIO ever conferred with a RIO at another institution about difficulties in a research misconduct case; and (4) the number of times the RIO has conferred with any ORI staff to discuss a “hypothetical” case.

Included as measures of RIO experience are the following: (1) the number of actual or potential complainants the RIO has conferred with about a research misconduct case in the past 5 years; (2) the number of months the RIO has been employed by the institution; and (3) the number of months the RIO has served as the institution’s RIO.

Measures of organizational position that we included are the following: (1) whether the RIO is the primary person named by the institution to receive allegations of research misconduct; (2) the number of individuals in the organizational structure between the institution's RIO and the president of the institution's office; and (3) whether the RIO actually carries the official title of Research Integrity Officer (RIO) when performing activities associated with research misconduct.

The final RIO characteristic that we examined is the type of training the RIO reported receiving in the process of being or becoming RIO. One type of training experience stood out from all of the others: attendance at the ORI-sponsored RIO boot camp. Hence we made whether the RIO attended the boot camp the sole training variable.

The characteristics of the complainants include the following: (1) the conditions under which the first contact with the RIO occurred, (2) the RIOs' perception of how well informed the complainant is of the institution's policy and procedures in regard to handling allegations of research misconduct, (3) the complainant's and respondent's position in the institution, and (4) the number of additional contacts the RIO and complainant had before the complainant actually made a decision about filing an allegation of research misconduct.

We collected several pieces of data on the nature of the circumstances surrounding the first contact between the RIO and the complainant. These included whether it was a face to face, telephone, or written contact with the complainant; a contact in which the complainant's identity was known to the RIO or anonymous; and whether the contact was one in which the complainant was alone or accompanied.

To measure how knowledgeable complainants were, we asked RIOs to report how well informed they felt the complainant was of the institution's policy on research misconduct. Responses included very well informed and either not very well informed or not informed at all (which we combined).

Our measures of institutional position are based on the RIO's report of the institutional academic position of both the complainant and the respondent. We divided the positions of both into two groups: low (technician, undergraduate student, graduate student, postdoctoral student, and instructor) and high (assistant, associate, full, and emeritus professor).

The final complainant measure we examined was the number of contacts beyond the initial one that the RIO had with the complainant before the complainant decided to file an allegation of research misconduct. The categories we used were (1) none (the allegation was filed after the initial meeting, suggesting that the complainant did not feel the need for additional discussion), (2) one additional meeting, and (3) two or more additional meetings.

4.10.1 Are RIO Characteristics Associated with Number of Topics/Specific Aspects That RIO Discusses in Initial Contact with Complainants?

We cross-tabulated each of the RIO characteristics with a dichotomy of whether or not the RIO discussed all four topic areas and with a trichotomous (high, medium, low) version of the number of specific aspects of those topics discussed. Some of the RIO characteristics were recoded as grouped versions of continuous measures because of their expansive distributions. Table 4-46 presents the RIO characteristics that are statistically significantly associated with discussing all four topic areas with complainants during their initial contacts. The associations presented in the table are significant at less than the 0.05 probability level. In addition to the chi square value and its associated probability, the table presents a phi coefficient or gamma statistic that provides an assessment of the strength of the relationship between the RIO characteristic and the number of topic areas discussed. The positive Phi coefficients for both characteristics in the table (i.e., RIOs who use a script, outline, checklist or talking points and those who report getting advice about a hypothetical case from someone at ORI on multiple occasions) indicate that RIOs with those characteristics are more likely to discuss all four topic areas than those who do not possess the characteristic.

As shown in Table 4-46, RIOs who say they use a script, outline, checklist, or other tool are more than twice as likely to cover all four topic areas in the initial visit (70.0% vs. 33.9%). Seeking advice and mentoring from ORI staff is also associated with the number of topic areas RIOs discuss with prospective complainants during the initial contact. Results in Table 4-46 indicate that RIOs who report having talked in hypothetical terms about cases to someone at ORI four or more times are also more than twice as likely as RIOs who have never spoken to ORI staff about cases (68.6% vs. 30.3%) to cover all four topic areas in their initial discussion with prospective complainants.

Note, however, that despite not quite reaching the desired 0.05 level of significance, the association between using a script or other memory aide and RIOs who report attending RIO boot camp as part of their training as RIOs comes very close to being significant. RIOs who attend RIO boot camp are about 50% more likely (52% vs.48%) to report discussing all four topics areas in the initial meeting with the complainant than RIOs who have not attended the boot camp (chi sq = 3.09, df = 1, P = 0.079, Phi = 0.17).

Table 4-46. Statistically Significant RIO Characteristics Associated with Discussing All 4 Topic Areas during Initial Complainant Contact

RIO Characteristic	RIO discusses 0 to 3 topic areas	Rio discusses all 4 topic areas
RIO uses a prepared script, outline, or talking points in initial contact with complainants		
Yes	12 (30.0%)	28 (70.0%)
No	41 (66.1%)	21 (33.9%)
Chi sq = 12.71 df = 1 P = 0.0004 gamma = 0.64 phi = 0.35		
Times RIO conferred with ORI staff about a hypothetical case		
0 times	23 (69.7%)	10 (30.3%)
1-3 times	19 (55.9%)	15 (44.1%)
4 or more times	11 (31.4%)	24 (68.6%)
Chi sq = 10.28 df = 2 P = 0.0059 gamma = 0.49 phi = 0.31		

We also examined whether any of the RIO characteristics are associated with the number of specific aspects of the topic areas that the RIOs report discussing. Table 4-47 presents the only RIO characteristic that is significantly associated with discussing a greater number of specific aspects of the topic areas RIOs report they discuss with complainants during their initial contacts. The association presented in the table is significant at less than the 0.05 probability level. Similar to the results for the four broader topic areas, the Phi coefficient is positive, indicating that RIOs with the characteristic (i.e., RIOs who use a script, outline, checklist or talking points), are more likely to discuss more specific aspects across the four topic areas than those who do not use such an aide.

As shown in Table 4-47, RIOs who use a script, outline, or checklist at their initial contact with complainants are more than twice as likely to discuss seven or more specific aspects across the four topic areas (61.1% vs. 27.2%) than RIOs who do not use such tools. Using some kind of memory tool is associated with a larger number of specific aspects discussed as it is with topic areas.

No other RIO characteristic reached statistical significance; note, however, that despite exceeding the desired 0.05 level of significance, two other variables come very close. RIOs who report attending RIO boot camp as part of their training as RIO are nearly twice as likely (51.5% vs. 27.5%) to report discussing seven or more specific aspects across the four topics areas in the initial meeting with the complainant as RIOs who have not attended the boot camp (chi sq = 5.64, df = 2, P = 0.06, gamma = 0.34, phi = 0.24). In

addition, RIOs who report conferring with ORI staff about hypothetical cases four or more times are also about twice as likely (51.4% vs. 25.7%) to report discussing seven or more specific aspects as RIOs who say they never have spoken to ORI staff about hypothetical cases (chi sq = 8.72, df = 4, P = 0.07, gamma = 0.36, phi = 0.29).

Table 4-47. Statistically Significant RIO Characteristic Associated with Discussing Greater Numbers of Specific Aspects of Topic Areas during Initial Complainant Contact

RIO Characteristic	Discussed 0 to 4 specific aspects across 4 topic areas	Discussed 5 or 6 specific aspects across 4 topic areas	Discussed 7 to 11 specific aspects across 4 topic areas
RIO uses a prepared script, outline, or talking points in initial contact with complainants			
Yes	6 (15.0%)	12 (30.0%)	22 (55.0%)
No	30 (48.4%)	18 (29.0%)	14 (22.6%)
Chi sq = 14.92 df = 2 P = 0.0006 gamma= 0.69 phi = 0.38			

The same three RIO characteristics (using a script, etc., conferring with ORI staff about hypothetical cases, and attending RIO boot camp) are either statistically significantly related, or are very close to being significantly related, to both discussing all four topic areas during the initial contact with complainants and discussing the seven or more specific aspects of the topic areas they discuss in their initial contact. None of the other cross-tabulations of RIO characteristics and the extensiveness of the RIO's discussion with complainants—whether they discussed all four key topic areas or discussed a large number of specific aspects of the topic areas—that we prepared and analyzed revealed associations that were even close to reaching statistical significance at or below the $p = 0.05$ level.

4.10.2 Are Complainant Characteristics Associated with Number of Topics/Specific Aspects That RIOs Discuss in Initial Contact with Complainants?

We also cross-tabulated each of the complainant characteristics with a dichotomy of whether or not the RIO discussed all four topic areas and with a trichotomous (high, medium, low) version of the number of specific aspects of those topics discussed. Some of the RIO characteristics were recoded as grouped versions of continuous measures because of their expansive distributions. None of the cross-tabulations of complainant characteristics and the extensiveness of the RIO's discussion with complainants—whether they discussed all four key topic areas or discussed a large number of specific aspects of the topic areas—

that we prepared and analyzed revealed associations that were even close to reaching statistical significance at or below the $p = 0.05$ level.

4.11 Exploring Associations between the Number of Topic Areas/ Specific Aspects That RIOs Discuss in Their Initial Contact with Complainants and the Number of Topic Areas/Specific Aspects about which RIOs Recall Complainants Having Questions

Up to this point in our analysis, we have identified associations between RIO characteristics and the number of topic areas and specific aspects of those topic areas that RIOs discuss in their initial contact with complainants. Also, we failed to find any associations between complainant characteristics and the number of topic areas and specific aspects of those topic areas discussed by the RIO in the initial contact with the complainant.

In this section, we examine whether there is an association between the number of topic areas and specific aspects of those topic areas that RIOs discussed in their initial contact with complainants and the number of topic areas and specific aspects about which RIOs recalled complainants asking questions after their initial contact. This is intended to establish whether more extensive discussion of topic areas and specific aspects by the RIO at the first contact with the complainant is associated with complainants asking fewer or more questions about topic areas and specific aspects of the institution's research misconduct policy and adjudication process after the initial contact with the RIO. We will also examine whether any existing association is due to questions arising before or after the formal allegation of research misconduct had been filed with the RIO.

4.11.1 Is More Extensive Initial Discussion of Topic Areas/Specific Aspects by RIOs Associated with Rios Reporting Complainants Ask Them about More or Fewer Topic Areas/Specific Aspects of the Process of Resolving Research Misconduct in Subsequent Contacts?

We examined whether there is an association between RIOs discussing all four topic areas in their first contact with complainants and the number of topic areas about which they report complainants asking questions of them in subsequent contacts. We are examining this association to determine whether more extensive discussion of key topic areas is associated with fewer or more questions being asked of RIOs about those topic areas in contacts with the complainant occurring after their initial contact. The more extensive discussion of topics by RIOs could either serve to anticipate complainant questions or it could sensitize complainants to topic areas about which to ask questions, both of which may be contributing to the fuller understanding by complainants of the research misconduct resolution process. The results of the analysis are presented in Table 4-48.

Table 4-48 demonstrates that there is a statistically significant association between the number of topic areas discussed by the RIOs and the number of topic areas about which

they report that complainants have questions in the time after the initial contact. As the gamma coefficient shows, there is a direct (positive) association indicating that complainants exposed to greater discussion of topic areas by RIOs in their initial contact ask questions about more topic areas after their initial RIO contact than do complainants exposed to discussion of fewer topic areas.

Table 4-48. Association between Number of Topic Areas Discussed by RIOs in Initial Complainant Contact and Number of Topic Areas about which RIOs Report Complainants Asking Them after Initial Contact

No. of Topic Areas Discussed in First Contact	Complainant asked RIO about zero topic areas after initial contact	Complainant asked RIO about 1 topic area after initial contact	Complainant asked RIO about 2 or more topic areas after initial contact
RIO discussed 0 to 3 topic areas	18 (48.7%)	7 (18.9%)	12 (32.4%)
RIO discussed all 4 topic areas	5 (12.8%)	17 (43.6%)	17 (43.6%)

Chi Sq = 12.33 df = 2 P = 0.0021
gamma = 0.41

Next, we examined whether the number of key topic areas discussed during the initial contact between the RIO and the complainant occur during the time before the complainant actually files an allegation of research misconduct or after filing such an allegation, or both. The analysis explores whether RIOs' providing a more extensive discussion of the key topics in the initial contact leads to complainants having more questions about aspects of the topic areas in the time before filing a formal allegation or having more questions about topic areas after having filed an allegation.

Table 4-49 presents the results of the analysis examining whether complainants who receive a more intensive RIO discussion of the key topic areas are more likely to ask questions about key topic areas in the time after the initial contact but before filing the allegation than complainants who had a less intensive discussion of the key topic areas in their initial RIO contact. The table shows that there is not a significant difference between the RIOs' reports of questions from complainants who had a discussion of all four key topic areas and those whose initial contact involved a discussion of three or fewer key topic areas.

Table 4-49. Association between Number of Key Topic Areas Discussed by RIOs in Initial Complainant Contact and Number of Key Topic Areas about which RIOs Report Complainants Ask Them after Initial Contact But Before Filing Allegation

No. of Key Topic Areas Discussed in First Contact (N = 74)	Complainant asked RIO about zero key topic areas after initial contact but before making allegation	Complainant asked RIO about 1 key topic area after initial contact but before making allegation	Complainant asked RIO about 2 or more key topic areas after initial contact but before making allegation
RIO discussed 0 to 3 key topic areas	24 (64.9%)	6 (16.2%)	7 (18.9%)
RIO discussed all 4 key topic areas	20 (54.1%)	10 (27.1%)	7 (18.9%)

Chi sq = 1.36 df = 2 P = 0.5057 gamma = 0.15

The final piece of analysis we performed examined whether RIOs who provide complainants with a more extensive discussion of the key topics in the initial contact are associated with complainants asking RIOs more questions about aspects of the topic areas in the time after filing a formal allegation. Table 4-50 shows the results of that analysis.

As can be seen from Table 4-50, RIOs who discuss all four key topic areas with complainants during their first contact are significantly more likely to report that these complainants ask questions about more key topic areas after filing the allegation than RIOs who discuss three or fewer key topic areas in the initial contact.

Table 4-50. Association between Number of Key Topic Areas Discussed by RIOs in Initial Complainant Contact and Number of Key Topic Areas about which RIOs Report Complainants Ask Them after Initial Contact and After Filing Allegation

No. of Key Topic Areas Discussed in First Contact (N = 76)	Complainant asked RIO about zero key topic areas after initial contact and after making allegation	Complainant asked RIO about 1 key topic area after initial contact and after making allegation	Complainant asked RIO about 2 or more key topic areas after initial contact and after making allegation
RIO discussed 0 to 3 key topic areas	26 (48.7%)	7 (18.9%)	4 (10.8%)
RIO discussed all 4 key topic areas	13 (33.3%)	17 (43.6%)	9 (23.1%)

Chi sq = 10.38 df = 2 P = 0.0056 gamma = 0.56

We then investigated whether an association exists between RIOs discussing all four topic areas in their initial contact with complainants and the number of specific aspects of the topic areas about which the RIOs report complainants asked questions of them in subsequent contacts. As can be seen from Table 4-51, there is a statistically significant direct (positive gamma) association between these two variables. This suggests that RIOs discussing all four topic areas with complainants during the initial contact does not reduce the number of subsequent questions by complainants. Rather, more extensive discussion of topic areas by RIOs is associated with complainants' asking questions about a greater number of specific aspects of the resolution process after the initial contact than for RIOs who discussed fewer than all four topic areas in their initial contact with complainants.

Table 4-51. Association between Number of Topic Areas Discussed by RIOs in Initial Complainant Contact and Number of Specific Aspects of Topic Areas about which RIOs Report Complainants Asking Them after Initial Contact

No. of Topic Areas Discussed in First Contact	Complainant asked RIO about zero specific aspects of topic areas after initial contact	Complainant asked RIO about 1 or 2 specific aspects of topic areas after initial contact	Complainant asked RIO about 3 or more specific aspects of topic areas after initial contact
RIO discussed 0 to 3 topic areas	18 (48.7%)	12 (32.4%)	7 (18.9%)
RIO discussed all 4 topic areas	5 (12.8%)	19 (48.7%)	15 (38.5%)
Chi sq = 11.79 df = 2 P = 0.0027 gamma = 0.55			

Next, we examined the association between the number of specific aspects that RIOs discussed with complainants at their first contact and the number of topic areas that complainants asked RIOs about after their initial contact. As can be seen from Table 4-52, there is a statistically significant positive relationship between these two variables. It indicates that more intensive discussion by RIOs of specific aspects with complainants at the initial contact is associated with RIOs reporting that complainants asked about more topic areas after their initial contact.

Table 4-52. Association between Number of Specific Aspects of Topic Areas Discussed by RIOs in Initial Complainant Contact and Number of Specific Aspects of Topic Areas about which RIOs Report Complainants Asking Them after Initial Contact

No. of Specific Aspects of Topic Areas Discussed in First Contact	Complainant asked RIO about zero topic areas after initial contact	Complainant asked RIO about 1 topic area after initial contact	Complainant asked RIO about 2 or more topic areas after initial contact
RIO discussed 0 to 4 specific aspects	13 (54.2%)	3 (12.5%)	8 (33.3%)
RIO discussed 5 or 6 specific aspects	6 (27.3%)	9 (40.9%)	7 (31.8%)
RIO discussed 7 or more specific aspects	4 (13.3%)	12 (40.%)	14 (46.7%)

Chi sq = 12.43 df = 4 P = 0.0144 gamma = 0.35

Then, we investigated whether the number of specific aspects of topic areas that RIOs discussed with complainants at their first contact is associated with the number of specific aspects that complainants ask RIOs about in the time after their initial contact. Table 4-53 presents the results of the analysis and shows that the two measures are statistically significantly associated. The relationship is positive and indicates that the greater the number of specific aspects that RIOs discuss in their initial contact with the complainant, the greater the number of specific aspects about which RIOs report that complainants ask them.

Table 4-53. Association between Number of Specific Aspects of Topic Areas Discussed by RIOs in Initial Complainant Contact and Number of Specific Aspects about which RIOs Report Complainants Asking Them after Initial Contact

No. of Specific Aspects of Topic Areas Discussed in First Contact	Complainant asked RIO about zero specific aspects after initial contact	Complainant asked RIO about 1 or 2 specific aspects after initial contact	Complainant asked RIO about 3 or more specific aspects after initial contact
RIO discusses 0 to 4 specific aspects	13 (54.2%)	6 (25.0%)	5 (20.8%)
RIO discusses 5 or 6 specific aspects	6 (27.3%)	13 (59.1%)	3 (13.6%)
RIO discusses 7 or more specific aspects	4 (13.3%)	12 (40.%)	14 (46.7%)
Chi sq = 16.30 df = 4 P = 0.0026 gamma = 0.49			

Next, we sought to determine whether there is an association between the number of complainants' questions to the RIOs about topic areas and specific aspects of those topic areas that were reportedly asked in the time after the initial contact and before filing the allegation, or whether the association occurs in the time after filing the allegation. The tabular analyses of the number of topic areas and specific aspects discussed by RIOs during the initial contact with the complainant and the number of questions RIOs report being asked about topic areas and specific aspects *in the time after the initial contact but before filing the allegation* are not statistically significant.

However, the analyses of the number of topic areas and specific aspects discussed by RIOs during their initial contact with complainants and the number of questions asked about specific aspects by complainants *in the time after filing the allegation* are statistically significant. The analysis results presented in Table 4-54 shows that the number of RIOs who discuss all four topic areas in their initial contact with complainants is statistically significantly related to the number of questions RIOs report being asked about specific aspects by complainants during the time period after filing the allegation of research misconduct.

Table 4-54. Association between Number of Topic Areas Discussed by RIOs in Initial Complainant Contact and Number of Specific Aspects of Topic Areas about which RIOs Report Complainants Asking Them after Filing Allegation

No. of Topic Areas Discussed in First Contact	Complainant asked RIO about zero specific aspects of topic areas after filing allegation	Complainant asked RIO about 1 specific aspect of topic areas after filing allegation	Complainant asked RIO about 2 or more specific aspects of topic areas after filing allegation
RIO discussed 0 to 3 topic areas	18 (48.7%)	12 (32.4%)	7 (18.9%)
RIO discussed all 4 topic areas	5 (12.8%)	19 (48.7%)	15 (38.5%)
Chi sq = 11.16 df = 2 P = 0.0038 gamma = 0.60			

The analysis results presented in Table 4-55 indicate that the statistically significant positive association between the number of specific aspects of topic areas RIOs discuss with complainants in their initial contact and the number of specific aspects that RIOs report complainants ask them about is due to questions complainants ask the RIO during the time after the complainant had filed the allegation. It is possible that the more extensive discussion of specific aspects of the topic areas provided by RIOs in their initial contact with complainants satisfies complainant concerns associated with filing a formal allegation, but it potentially raises questions about the later stages of the allegation resolution process occurring after the allegation has been filed.

Table 4-55. Association between Number of Specific Aspects of Topic Areas Discussed by RIOs in Initial Complainant Contact and Number of Specific Aspects about which RIOs Report Complainants Asking Them after Filing Allegation

No. of Specific Aspects of Topic Areas Discussed in First Contact	Complainant asked RIO about zero specific aspects after filing allegation	Complainant asked RIO about 1 specific aspect after filing allegation	Complainant asked RIO about 2 or more specific aspects after filing allegation
RIO discusses 0 to 4 specific aspects	17 (70.8%)	4 (16.7%)	3 (12.5%)
RIO discusses 5 or 6 specific aspects	11 (50.0%)	8 (36.4%)	3 (13.6%)
RIO discusses 7 or more specific aspects	11 (36.67%)	7 (23.3%)	12 (40.0%)
Chi sq = 10.45 df = 4 P = 0.0334 gamma = 0.44			

5. SUMMARY OF KEY FINDINGS, LIMITATIONS, AND RECOMMENDATIONS

In this final section of the report, we provide a brief summary of the key findings and discuss the main limitations of the study. We also make recommendations for how ORI can increase the capabilities of Research Integrity Officers (RIOs) to more fully prepare complainants for what to expect during the process of resolving an allegation of research misconduct. We also provide recommendations for what RIOs can do to better prepare complainants for what they could face in making an allegation of research misconduct.

5.1 Summary of Key Findings

In the process of conducting this study, we collected information from 102 RIOs to identify the topic areas related to (1) the process of resolving allegations of research misconduct that RIOs discuss with complainants and (2) those topic areas about which complainants have questioned RIOs at various stages of the allegation-resolution process. That is, we wanted to know what topic areas the RIOs discussed with complainants during various stages of the allegation resolution process: their initial contact with them, when they initiate the process of making a formal allegation, during the inquiry and investigation stages of the resolution process, and after the allegation is resolved. In particular we asked about what topic areas and specific aspects of these topic areas RIOs discuss with complainants in their first contact and the topics and aspects of these topics that complainants ask about at each stage. Also, we collected data from a broad representation of RIOs. We also gathered information to help us describe the complainant characteristics and the discussions between RIOs and complainants throughout the resolution process, as well as the characteristics of the RIOs. We achieved a response rate of 72.3%.

Of the four topic areas we asked RIOs about—anonymity and confidentiality, the resolution process, the types of support the institution is responsible for providing to complainants, and potential adverse consequences—the topic area discussed by the most RIOs during their initial contact with complainants was the resolution process (92.2%), followed by anonymity and confidentiality (85.3%), and institutional responsibility (79.4%). Only 57% of RIOs said they discuss potential adverse consequences of filing an allegation with the complainant during the initial meeting. More than a third (39.2%) of RIOs indicated that they use a script, talking points, or other memory aides to guide discussions during their initial encounters with complainants. Importantly, less than half of the RIOs (48%) reported discussing all four topic areas.

Of the 77 RIOs who described the questions that complainants asked about before filing the allegation, the largest proportion (31%) indicated that the complainant asked about the resolution process, followed by questions about the institution's responsibility related to the allegation (13%), questions about anonymity and confidentiality (10%), and

potential adverse consequences (9%). After filing the allegation, RIOs reported that the complainants' questions followed a similar pattern; however, more of them said that complainants asked about the resolutions process (42%). Slightly more of the RIOs also indicated that complainants asked about the institutional responsibilities (14%), and potential adverse consequences (13%), but fewer asked about anonymity and confidentiality during this stage in the process.

We cross-tabulated whether all four key topic areas were discussed in the initial contact between RIOs and complainants with characteristics of the RIOs, characteristics of the complainants about whom they reported, and the number of topic areas about which the RIOs recalled the complainants had further questions. We found that RIOs who used a script or list, talking points, or other memory aide and those who spoke with ORI staff about hypothetical cases are more likely to discuss all four topic areas. Likewise, RIOs' using a script or other memory aide was associated with the RIO covering a larger number of specific aspects within topic areas. None of the other RIO characteristics we examined were statistically significantly associated with the number of topics or specific aspects of topics discussed with complainants during the initial meeting.

We also examined whether there is an association between RIOs discussing all four topic areas in their first contact with complainants and the number of topic areas about which they reported complainants asking questions of them in subsequent contacts. Findings suggest that complainants exposed to a discussion of more topic areas by RIOs in their initial contact ask questions about more topic areas after their initial RIO contact than do complainants exposed to discussion of fewer topic areas.

Likewise we examined whether complainants with whom the RIO had a more comprehensive discussion of the key topic areas—that is, they discussed more specific aspects of the topic areas with them—are more likely to ask questions about key topic areas *in the time after the initial contact but before filing the formal allegation* than are complainants who had a less detailed discussion of the key topic areas in their initial RIO contact. Results of this analysis show there is no statistically significant difference between the RIOs' reports of questions from complainants with whom they discussed all four key topic areas and those whose initial contact involved a discussion of fewer key topic areas. We also found that RIOs who say they discuss all four key topic areas with complainants during their first contact are statistically significantly more likely to report that complainants ask questions about more key topic areas *after filing the allegation* than RIOs who discuss fewer key topic areas in the initial contact.

Additional analysis showed that more extensive discussion of topic areas by RIOs is statistically significantly associated with complainants' asking questions about a greater number of specific aspects of the resolution process *after the initial contact* than for RIOs who discussed fewer topic areas in their initial contact with complainants. Further, RIOs who

report discussing with complainants more specific aspects of the topic areas during the initial contact is statistically significantly associated with RIOs reporting that complainants ask about more of the key topic areas after the initial contact. We also found that the greater the number of specific aspects of key topic areas the RIOs cover during the initial contact with complainants, the more specific aspects RIOs report complainants asking them about.

Finally, complainants who are exposed to RIOs who discussed all four key topic areas ask more questions about specific aspects of the resolution process than those exposed to a discussion of fewer than four topic areas; however, there is no statistically significant difference in the extent of the questions complainants ask between the initial contact and the decision to file a formal allegation. But there is a statistically significant association between the number of specific aspects of topic areas that RIOs discuss with complainants in their initial contact and the number of specific aspects that RIOs report complainants asking them about during the time after the complainant had filed the allegation.

5.2 Limitations

This study has been a first effort to describe what RIOs discuss with complainants during their initial contact and the impact of what is discussed on the questions that complainants have afterwards. As a descriptive study, our analysis consists primarily of frequency distributions of interview responses. We also conducted limited cross-tabulations examining the impact of RIO and complainant characteristics, and more complete discussion by RIOs of topic areas on the subsequent level of topic area questions asked of the RIOs by the complainants. At best it accurately describes the situation under study and suggests possible relationships but does not firmly establish them.

The study's major limitation is its reliance on the analysis of survey data collected only from RIOs. For this reason, it is subject not only to the limitations of all interview surveys, but also is limited solely to the recall and perspective of the RIOs. While for many of the interview items we would expect the data to be quite accurate and robust, that may not be so for the data representing the complainant. Making an allegation of research misconduct is a rare and noteworthy event so we expect that having as long a recall period for the interview as five years probably did not affect data very much. Nonetheless, complainants may well have remembered their initial contact with the RIO, the discussion, their questions about topic areas and specific aspects of them and other things differently than the RIO. Hence, the study data and the analysis results are markedly one-sided and could be biased.

As mentioned above, the data for this study were collected through an interview survey and as such, they reflect some of the same limitations as other surveys. These include errors of study subject recall and failure to interview all of the relevant study

subjects. In our study we completed interviews with nearly 85% (102 of 121) of the study subjects (RIOs) contacted, a very good response rate. There were very few outright study subject refusals. Most of the attrition from the sample was the result of a failure to successfully identify, contact, and interview all of the relevant subjects (RIOs who had contact with at least one complainant in the past five years). A related limitation involves the number of RIOs identified and interviewed that actually did not have contact with any complainants or only had contact with a potential complainant (someone who thought about filing a formal allegation of research misconduct but did not go through with it). It meant having less data to analyze about complainants (77 cases instead of 102) and too little data on potential complainants (only 11) to make useful comparisons with complainants where such were relevant and possible.

5.3 Recommendations

This study is by design descriptive in nature; however, our analysis contains important and interesting findings. We have attempted to make some general recommendations based on the analytic results, for ORI to create additional training opportunities for RIOs, and for RIOs to help increase the preparedness of complainants who are considering filing formal allegations of research misconduct.

5.3.1 Recommendations to the Office of Research Integrity

Our analysis found that although most RIOs say they cover the key topic areas—the resolution process, anonymity and confidentiality, institutional responsibilities, and potential adverse consequences—less than half of RIOs cover all four of these key topic areas. Thus we offer two primary recommendations to ORI. First, only a little more than a third of the RIOs say they use a script or other memory aide during their initial contact with complainants, but based on the study results (RIOs use of memory aides is associated with a more detailed discussion of key topic areas), we believe that using a prepared script or other memory aide may help remind RIOs to cover all four key topic areas identified in this study when they have their initial contact with complainants and potential complainants. Thus we recommend that ORI provide guidance to RIOs to help them develop some type of “cheat sheet” as a guide to use during their conversations with complainants. These reminders could identify and specify the important things for RIOs to include while preparing for contacts with complainants to discuss the importance of confidentiality, the responsibilities of the institution, prohibition of retaliation against complainants, or the hazards associated with making an allegation, for example. They can serve as a memory aide and could be customized because not every institution’s policy and procedures are the same.

Secondly, our study results show that only 57% of the RIOs said they discussed potential adverse consequences with the complainant during the initial contact and fewer discussed potential adverse consequences in subsequent contacts with complainants. Based

on results of ORI's 1995 study on whistleblowers in which 25% of whistleblowers experienced severe adverse events (e.g., job loss, failure at promotion, loss of research funding, emotional distress), we expected that the vast majority of RIOs would more openly discuss the potential impact on complainants of making an allegation. Informing complainants up front of what they may face as a "whistleblower" would put them on their guard against retaliation and better prepare complainants for the process ahead of them. This is especially important because complainants who are stressed by aspects of the process may decide not to fully cooperate with the formal resolution of the allegation of research misconduct. Further, even if they do, they may end up breaking confidentiality in an effort to defend themselves during the process. Therefore, we recommend that ORI provide training to RIOs during future RIO boot camps and other formal aggregations of RIOs so they more fully understand the multiple roles that RIOs play in the research misconduct allegation-resolution process. For example, RIOs have an institutional role and responsibility to investigate allegations of research misconduct (e.g., understanding the legal process, sequestering evidence), but they also have a responsibility to sensitize and prepare the whistleblower for the possible retaliation they may experience during the allegation resolution process. As part of preparing the complainant, RIOs need to understand that complainants are likely to experience some level of stress or anxiety and possibly adverse consequences and they need to be trained so they are equipped to prepare the complainant for the possibility of these adverse consequences. RIOs should also be trained and prepared to provide support to the complainant if they do experience adverse consequences.

5.3.2 Recommendation for Research Integrity Officers

Only about a third of RIOs reported that they ask complainants to use hypothetical situations— without using names—during their initial meetings to discuss the possibility of filing an allegation of research misconduct. Because RIOs are obligated to move forward to conduct an inquiry into allegations of research misconduct once they are made aware of the specifics of alleged misconduct, RTI recommends that more RIOs encourage complainants to discuss the situation as a hypothetical case in that it allows the complainant to learn more about the process in advance and to be better prepared to make a well-informed decision about moving forward to file a formal allegation. Moreover, study results show an association between RIOs reporting that they consult with ORI about a case in hypothetical terms and RIOs reporting that they cover key topic areas in more detail. Thus, we also recommend that, in addition to encouraging complainants to speak to them in hypothetical terms, RIOs themselves should more often discuss cases in hypothetical terms with ORI to ensure that, in their discussions with whistleblowers, RIOs cover key topics related to the allegation-resolution process in sufficient detail.

As noted earlier, fewer than half of the RIOs in our study said they cover all four of the key topic areas we inquired about. Our analysis suggests that complainants who

receive detailed information about more topic areas from RIOs in their initial contact ask more questions after their initial RIO contact than do complainants exposed to discussion of fewer topic areas. This suggests that to adequately prepare a complainant for the resolution process, RIOs should have thorough discussions of the key topic areas and specific aspects of those topic areas. To help them remember to consistently and thoroughly cover these topics, we recommend that RIOs use a reminder such as formal checklists, as a memory aide to help ensure complainants are well informed about the resolution process.

6. REFERENCES

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