

**Supporting Statement For
Evaluating Effectiveness of Institutional Efforts to
Educate Staff on their Policies for Dealing with
Research Misconduct and Research Integrity**

Submitted by:

Office of Research Integrity (ORI)
Office of Public Health and Science (OPHS)
Office of the Secretary of Health and Human Services (OS)
U.S. Department of Health and Human Services (HHS)

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A. JUSTIFICATION

A1. Circumstances Making the Collection of Information Necessary

The Office of Research Integrity (ORI) is conducting this study of Research Misconduct Education in medical schools because these institutions are responsible for dissemination of information and guidelines to their faculty, staff, and students concerning the U.S. Public Health Service (PHS) Policies on Research Misconduct (42 CFR Part 93) and derives the congressional mandate from section 493 of the Public Health Service Act, or 42 U.S.C. § 289b. ORI reviews of institutional research misconduct policies and research misconduct investigation reports, institutional requests for technical assistance in handling research misconduct allegations, and analyses of institutional filings of the Annual Report on Possible Research Misconduct (PHS 6349) have raised questions about the level of knowledge that medical school faculty conducting research have of their institution's process for responding to allegations of research misconduct as well as the faculty's perception of their institution's commitment to dealing with research misconduct. ORI's further interest is to assess the extent to which faculty members' knowledge and perceptions are associated with the structure established to assure research integrity and the way in which the procedures in place in the institutions to follow-up on allegations of research misconduct are carried out by the institution's research integrity officer (RIO).

Receipt of a research misconduct allegation is a low probability event at most institutions. From 1992-2001, only 248 institutions reported receipt of an allegation and more than half of these institutions reported receiving only a single allegation. Although concentrated in the top 150 National Institutes of Health (NIH) funded institutions, allegations of misconduct are received in institutions located much further down the funding ladder as well. ORI has reviewed over 2,100 institutional research misconduct policies and procedures since 1995. However, ORI has not evaluated institutional compliance with the regulatory provision requiring institutions to inform their research staffs about their policies and procedures for responding to research misconduct allegations nor their commitment to and process for promoting those policies and procedures. This study will be a step in the direction of collecting information on these

issues. Without this information, ORI cannot properly establish the parameters of a training program. Nor can it begin to evaluate how well institutions are implementing the PHS Policies on Research Misconduct. Authorization for ORI to collect this information is provided for in the founding legislation as amended. A copy of the Federal Register summary of ORI responsibilities is included as **Attachment 1**.

A2. Purpose and Use of Information Collection

This study has been designed to evaluate what medical school faculty members know and believe about their institution's policies and procedures to deal with research misconduct. The study will also identify best practices and approaches used by medical institutions which account for the most positive perceptions of commitment and the best understanding of research misconduct. The study is needed to identify the areas of responsibility and specify the activities that institutions perform in the process of educating their employees to the meaning of scientific misconduct at their institutions. Without this information, ORI will be left with little or no basis for assessing institutional compliance with the regulatory provision requiring institutions to inform their research staffs about their policies and procedures for reporting and responding to research misconduct allegations and their level of commitment to those policies and procedures.

This supporting statement is requesting clearance for a proposed new data collection that will be the primary source of data -- a survey to be conducted of research faculty and staff members in U.S. medical schools. The data collection instrument to be used for this survey has been developed and tested as part of this project. We propose to collect the data from research faculty and staff using an e-mail/Web-based approach. A copy of a paper version of the data collection instrument is included as Attachment 2.

A3. Use of Improved Information Technology and Burden Reduction

As indicated above, the new data collection for this study will be completed using an efficient, largely automated data collection modality. We are employing available information and technology to be efficient and to reduce the burden on respondents and thereby increase the ease with which they can participate.

The data collection activity involves completion of a Web-based survey. Using the universe of U.S. medical schools, we have selected a sample targeting faculty/staff members who are researchers. These researchers have been identified from a list of medical school principal investigators (PIs) that we obtained from the National Institutes of Health (NIH). All received NIH research projects awards in 2005 or 2006. There were 21,798 NIH research project awards made to medical school PIs in those two years. After taking account of multiple awards to PIs within and across those two years, there were 16,374 unduplicated/unique PIs identified as being researchers in medical schools.

A probability sample of 10,754 researchers has been selected to participate in the Web-based survey. The selection of PIs was stratified by medical school. The sampling fraction within the strata varied with the number of PIs identified in each medical school. Within each medical school, the selection of PIs was random. We established a minimum (10) and a maximum (168) number of PIs to be sampled from a medical school. Two of the 125 U.S. medical schools did not have any PIs, and eight others had fewer than 10 PIs and were excluded. Because these 10 medical schools have no researchers included in the sample, they are not represented in this study.

The research plan calls for advance letters to be e-mailed to the sampled research faculty members to explain the purpose of the survey and to inform them of their selection. A few days later a cover letter invitation letter will be e-mailed asking them to participate in the survey. An internet link to the survey webpage will be provided within that e-mail, along with a user ID and password. The letter will also explain that the survey is voluntary and will take approximately 20 minutes to complete. The faculty members will be given assurance that their identity and that of their institution will not be included in the database or the report prepared for ORI at the conclusion of the survey. In an effort to obtain participation from all researchers, RTI will alternately send weekly e-mail thank you/reminder or follow-up e-mails (one every two weeks for up to 10 weeks) and selectively make telephone follow-up calls to researchers who do not respond to the original request or the initial reminder e-mails.

A4. Efforts to Identify Duplication and Use of Similar Information

To our knowledge, the survey data collection activity proposed in this project has never been performed before, thus, there are no similar data available that could be used instead to address these research questions. The RTI project staff conducted an automated search of the published literature to identify manuscripts employing potentially similar data and reviewed prior data collections, published documents, and available reports seemingly relevant to this study to ensure that this planned data collection is not duplicative of others already performed. They could find no published assessments of researcher knowledge and perceptions of their institution's compliance with PHS research misconduct regulations. RTI staff also spoke at length with ORI with the intent of identifying previous studies of medical school researchers' knowledge of research misconduct and their perception of their institutions' commitment to informing them, and there were none. Project staff also spoke with other investigators working in the area of research misconduct, but they were not able to identify anyone who has collected data similar to what are planned for this study.

We are satisfied from these efforts that this study will collect important new information that will allow ORI to develop conferences, workshops, and other training opportunities for increasing the education of medical school researchers to identify and report research misconduct while improving the performance of institutions to handle allegations of research misconduct in their institutions. Such training will help to ensure a higher level of performance and greater comparability of performance across different institutions, therein addressing ORI's mission to ensure that research misconduct is identified and dealt with forthrightly and consistently, thereby fostering research integrity.

A5. Impact on Small Businesses or Other Small Entities

Not applicable. Members of small business entities will not be included in this study. The collection of information under consideration in this supporting statement only includes research faculty and staff in U.S. medical schools performing NIH funded research. None are small entities.

A6. Consequences of Collecting the Information Less Frequently

This information collection is only planned for one time and has never been performed before. Respondents will be asked to voluntarily participate in this Web-based survey just this one time. There is at present no plan for further survey participation, i.e. follow-up studies or subsequent rounds.

A7. Special Circumstances Relating to the Guidelines of 5 CFR 1320.5

This data collection activity fully complies with the Guidelines of 5 CFR 1320.5.

A8A. Comments in Response to the Federal Register Notice

Since the Federal Register notice has yet to be published, there are no comments to report at this time. A copy of the Federal Register notice is included as **Attachment 3**.

A8B. Efforts to Consult Outside the Agency

Dr. David Wright, a faculty member and former RIO at Michigan State University (dewrite@msu.edu), has been used as a consultant for this project. He has helped with the development of the proposed survey, in particular with the scenarios that are included in the survey to assess how researchers would respond to what might be construed as research misconduct. In addition, he has helped to identify specific elements of an institution's research misconduct policy and procedures protocol that should be noted as critical to advancing research integrity. He has been involved in this project since it began in October 2006.

A9. Explanation of Any Payment or Gift to Respondents

No payments will be made to respondents in the study. We expect there will be interest in the study and a willingness on the part of medical school researchers to participate.

A10. Assurance of Confidentiality Provided to Respondents

Concern for data confidentiality and protection of respondents' rights has always played a central part in RTI's research activities and will again for the current project.

This will be emphasized in our initial e-mail advance letter to the sample of medical school researchers selected. We will openly communicate the source and method of their selection into our sample in order to reassure them of the legitimacy of our research. We will also stress RTI's commitment to maintaining confidentiality of the data collected to the extent legally possible. The e-mail advance letter will explain that individual identities and medical school affiliations will be kept as confidential as possible, being available only to the RTI survey staff, programmers, and analysts in an identifiable form. The initial e-mail advance letter will also provide an introduction to the study, describe its purpose, and describe the login process to be used to access the Web-based survey. A copy of this advance letter to be e-mail to sampled researchers is included as **Attachment 4**. The next e-mail will be a cover letter that reiterates much of the information in the advance letter and also includes a hyperlink (as well as a login and password) to a site where they can go to complete the survey questionnaire. A copy of this cover letter to be e-mail to sampled researchers is included as **Attachment 5**. To encourage response from the sampled researchers, RTI has developed a secure Web-based survey recruiting application that will allow individuals to respond safely over the Internet. RTI also has the capability to obtain telephone response to the survey through the RTI Call Center in the event that Internet response is not sufficient and there is a need to conduct a telephone survey non-respondent follow-up.

Approval for this study will be obtained from RTI's standing IRB. RTI conducts all research involving human subjects in accordance with Federal regulations (45 CFR 46 and 21 CFR 50 and 56). RTI has prepared all of the documents necessary for completing this process, submitted all relevant research protocols and study materials, and ensured that IRB approval was obtained before pilot testing the procedures and the questionnaire. A copy of the IRB approval is included as **Attachment 6**. RTI will revise the IRB materials as needed to obtain final approval to conduct the full Web-based survey.

RTI's IRB reviews research plan to ensure that:

- risks and burden to subjects are minimized and are reasonable in relation to anticipated benefits to subjects (if any) and to the importance of the scientific knowledge resulting from the research,
- selection of the subjects is equitable,

- research subjects are fully informed of the risks and benefits of participation and are informed that legally effective, informed consent is obtained from subjects prior to their participation and documented in accordance with applicable regulations, and
- privacy of subjects and confidentiality of data are ensured.

RTI is accustomed to handling information of an extremely confidential nature. For the self-administered Web-based questionnaire, the information collected will be treated as confidentially as possible despite its lack of sensitivity. RTI's normal survey procedures for handling confidential data will be followed. They are as follows:

- Security awareness training for project staff: Topics include careful selection and changing of passwords, use of screen saver passwords when leaving a computer unattended, leaving confidential records and media in locked facilities, file encryption techniques, and Internet security issues.
- System security measures include underground location in a masonry building, fire protection via halon systems, Liebert heating and air-conditioning systems, temperature and humidity controls with alarms, alarm to detect water under the raised floor, controlled access with logs, and automatic backup of data files on a regular schedule.
- Emergency, backup, and contingency planning.
- An active IRB, which reviews all aspects of the project plan to determine whether any potential exists for physical, psychological, or social risk to study participants.

A11. Justification for Sensitive Questions

There are no questions of a sensitive nature included in the interview.

A12A. Estimates of Respondent Time Burden

We propose surveying a sample of 10,754 research faculty who were recent NIH grant PIs at one of the 115 U.S. medical schools listed by NIH and having 10 or more unique PIs receiving an NIH research project award. This project seeks to survey an average of 94 medical school researchers per institution. However, we recognize that some medical schools do not have that many faculty/staff members receiving NIH grants. For those medical schools with fewer PIs we selected all the available NIH research project grantees (census) and reallocated the leftover sample allocation to other medical schools with more than the average number of NIH research project awardees in a way proportional to their number of research award winning faculty/staff. This design allows us to focus resources on medical schools as well as the PIs within them, allowing us to

capture and understand the differences between how each medical school is perceived as informing their research faculty/staff of its policies and procedures for addressing alleged research misconduct, as well as its possible impact on their PIs' knowledge and perception of research misconduct. The survey instrument has been designed to take approximately 20 minutes to complete on average and includes approximately 65 survey items, some of which maybe be skipped as non-applicable.

The questions in the data collection instrument are divided into seven sections. The first section seeks to obtain demographic, educational, and professional and research information. Section two attempts to measure the familiarity of the respondents with their institution's research misconduct policy and procedures. The third section collects information on how and when the institution educates its researchers with respect to its research misconduct policy and procedures. Section four collects the perceptions of researchers about the efforts made by their institutions to promote the responsible conduct of research and to resolve allegations of research misconduct. In the fifth section there are questions that seek to obtain the level of certainty necessary for the researcher to make an allegation of research misconduct to an institutional official. In the sixth section, the items assess the previous experience of the researchers with research misconduct proceedings (as a respondent, a witness, a member of an inquiry or investigation panel) and how it has affected the researcher's inclination to report possible research misconduct. In the final section there are "scenarios" about which we ask respondents to offer their opinion as to whether there is likely research misconduct and if so, what they would do in response. Respondent time burden is presented below in **Table 1**.

Table 1. Estimated Maximum Annualized Respondent Time Burden for the Survey

Type of Instrument	Number of Repondents	Number of Responses per respondent	Average burden per response (in Hours)	Total Burden
Advance letter e-mailed to recruit researcher respondents to survey	10,754	1	15/60	896
Completion of a Web-based survey				

instrument	10,754	1	20/60	3,585
Total				4481

A12B. Estimate of Annualized Cost Burden to Respondents

We have estimated the cost burden to respondents based on the estimated response burden for each element of the survey and an estimated hourly wage for the medical school researchers. These are contained in **Table 2**.

Table 2. Estimated Maximum Annualized Cost Burden to Respondents for the Survey

Type of Instrument	Total Burden	Estimated Hourly Wage Rate	Total Respondent Cost Burden
Advance letter e-mailed to recruit researcher respondents to survey	896	\$75.00	\$67,200.00
Completion of a Web-based survey instrument	3,585	\$75.00	\$268,875.00
Total			\$336,075.00

A13. Estimates of Annualized Respondent Capital and Maintenance Costs

There are no capital or maintenance costs to the respondents.

A14. Estimate of Annualized Cost to the Federal Government

The annual cost to the Government for collecting the data is estimated to be the portion of the evaluation contractor and Government staff time that is devoted to the data collection and analysis effort for the survey component of this study. This is presented in **Table 3**. The estimated cost of the Government staff time represents the pro-rated share of the project monitor’s time expected to be spent monitoring contract activities during the survey and analysis portions of the project.

Table 3. Estimated Annual Cost to the Federal Government for Data Collection

Type of Costs	Source	Amount
Salaries	RTI	\$114,832
Other Direct Costs	RTI	\$48,133
Indirect Costs	RTI	\$96,568
Fee	RTI	\$19,574
Consultant	RTI	\$20,000
Total Contractor	RTI	\$299,107
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Total Fed. Govt. Salary	ORI	\$30,000
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Total Combined Costs of Contractor and Government	Both	\$329,107

A15. Explanation for Program Changes or Adjustments

This is a new data collection.

A16. Plans for Tabulation and Publication and Project Time Schedule

Tabulations from the survey will provide an overall description of the respondents in terms of demographic characteristics and markers of their career stage, training, department, perceptions, attitudes, behaviors, and other characteristics. Descriptive tabulations and other analyses of respondents will take into account survey non-response by being weighted to represent the full compliment of researchers identified as NIH research project grantees at their respective medical schools in 2005 and 2006. The other analyses will include multiple variable regression to simultaneously measure associations between characteristics of the researchers or their institutions and the researchers’ (1) knowledge of the definition of research misconduct, (2) familiarity with the medical school’s research misconduct policy and procedures, (3) experience with allegations of research misconduct, (4) opinions of important considerations when contemplating whether to make an allegation of research misconduct, (5) perceptions of the institution’s efforts to control research misconduct, and (6) successful identification of examples of possible research misconduct.

The estimated time schedule for the data collection, analysis, and reporting of the survey data is presented in **Table 4**.

Table 4. Estimated Survey Data Collection and Analysis Time Schedule

Task	Time Schedule
Finalize Web-based survey instrument and all e-mail letters.	1 to 2 months after OMB approval

Send advance letter by e-mail to the sample researchers to them inform of and recruit them for the survey.	
Send the cover letter e-mail with information on how to access the Web-based survey. Send out automatic thank you/reminder e-mails. Conduct specific follow-up with non-respondents by e-mail. Telephone interviewers will complete a 4-hour training session, so they can call non-respondents by telephone as a last resort.	2 to 3 months after OMB approval
Conduct Web-based survey with medical school research faculty (including five e-mail and selective telephone prompting follow-up efforts to try to attain a 70 percent response rate).	2 to 3 months after OMB approval
Begin cleaning, coding, and analysis of Web-based survey data.	4 to 6 months after OMB approval
Provide initial draft analysis to ORI and data file.	7 months after OMB approval
Provide complete draft final report to ORI.	8 months after OMB approval
ORI comments to RTI on draft final report.	9 months after OMB approval
Submit revised final report to ORI.	10 months after OMB approval

A17. Display of OMB Expiration Date

The collection of information will be done through a Web-based survey, nonetheless, the first page of the instrument image will contain the OMB number and expiration date. However, participants will not receive any “written” materials. Since respondents will not be able to easily print out a copy of the questionnaire, we will also include the OMB number and expiration date on the advance and cover letter e-mails that they can easily print and retain.

A18. Exceptions to Certification

This collection of information involves no exceptions to the Certification for Paperwork Act Submissions.

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

B1. Respondent Universe and Sampling Methods

The survey for which we are requesting OMB clearance includes research faculty from medical schools in the 50 states, Washington D.C., and Puerto Rico. The frame from which we drew the stratified random sample of researchers included 115 of the 125 U.S. medical schools recognized by the American Association of Medical Colleges (AAMC) that were listed by NIH as receiving 10 or more research project awards in 2005 and 2006. Institutions that receive PHS/NIH research project funding are required to have an approved research misconduct policy and procedures assurance document on file with ORI and to submit annual reports of research misconduct activity.

The primary units of analysis for this study are the medical school researchers listed in the position of PI on NIH awards made to U.S. medical schools. We requested and obtained a list of NIH research project awards in 2005 and 2006. There were 21,798 awards made to PIs listed at U.S. medical schools in 2005 and 2006. This reduced to 16,374 unduplicated PIs receiving at least one NIH award in either year. This list was used to identify medical schools with 10 or more unduplicated principal investigators (PIs) receiving at least one NIH research project award in 2005 or 2006. We decided to exclude PIs from the eight U.S. medical schools with 10 or fewer PIs because we felt that there would be too few PIs in each to reliably represent the research environment of a medical school. The secondary units of analysis in this study are the medical schools as characterized by their PIs knowledge of research misconduct policy and their perceptions of the medical school's efforts to control research misconduct.

The sampling design we employed for the selection of PIs for the samples was stratified by medical school. In an effort to keep the variances of the PI samples within medical schools reasonably close in size, a larger sampling fraction was used in selecting PIs from medical schools with fewer PIs. This resulted in our selecting every PI in medical schools with fewer than 110 PIs. The sampling fraction was reduced for medical schools with 111 or more PIs with the maximum number of PIs selected from any medical school being 168. The total selected sample size was 10,754.

We have developed a survey approach that is intended to achieve a 70 percent response rate for this Web-based survey. That will yield completed surveys of at least 7,528 researchers. In our experience, this will be a large enough number to obtain adequate quantitative information to conduct the planned analyses and prepare the desired report. We intend to use weighted data adjusted for non-response as well as by researcher and medical school characteristics in the analysis.

B2. Procedures for the Collection of Information

The project will utilize a Web-based survey. We will send an advance letter by e-mail to the 10,754 research PIs in the sample. The advance letter will provide an introduction to the study, explain the PIs selection, and review the survey procedures including how to log in to access the Web-based survey. This advance letter will be followed by an e-mail cover letter inviting the PI to participate in the survey. The cover letter will include a hyperlink that will take the PI to a secure survey site at RTI. Sample members will then have an opportunity to complete the survey.

The survey will be designed to take no longer than 20 minutes to complete and include approximately 60 survey items. Five follow-up e-mails will be sent to non-responders at two-week intervals. A week after the lead letter and each of the follow-up letters are sent, a thank you/reminder e-mail will be sent to persons receiving them. Each follow-up e-mail will include language that increases the importance of the study to them and urges their participation. The remaining non-responders following the fourth follow-up will receive one final follow-up. At the time of the fifth follow-up, the non-responders will be divided in half based on the participation rate of their respective institutions. Responsibility for contacting non-responders from institutions with low overall response will be given to the RTI Call Center to provide a telephone prompt. The remaining non-responders will be sent a final e-mail reminder stressing the importance of their participation in the study.

The split sample will help RTI to control costs by focusing resources on the most critical group of non-responders. Other RTI studies have been very successful in obtaining an increased response rate using a telephone prompt. It is expected that the telephone group will require several calls in order to actually reach the sample member. After several calls, a voice-mail will be left for the sample member and be considered a successful prompt contact. RTI Call Center telephone interviewers will be trained in

study procedures, protocol, and provided sufficient knowledge of the study to deliver the telephone prompt. Furthermore, they will be provided with a sheet with answers to frequently asked questions. Questions that cannot be answered by the telephone interviewer will be directed to the survey manager and a follow-up call will be made to the sample member.

In preparation for the telephone prompt component to this study, all telephone interviewers will be expected to complete a 4-hour training session prior to making telephone calls. RTI expects that some faculty may want to complete the interview by telephone during the telephone prompt. Telephone interviewers will be trained to conduct the survey by phone at the sample members' request. The telephone interviewer will be provided with scripts, consent information, and all of the necessary tools to conduct the interview with the respondent. Interviewers will enter the data into the Web-based instrument as they administer the questions. No additional programming will be necessary for an interviewer-assisted interview.

Data collection is expected to continue for up to two months. RTI is expecting to employ an aggressive follow-up in an effort to attain up to a 70 percent response rate using a combination of multiple reminders and telephone prompts. Assuming OMB clearance is received by early July 2008, we expect data collection to begin in September 2008 and run through October 2008.

B3. Methods to Maximize Response Rates and Deal with Non-response

As we indicated above, to maximize the response rate, sample member PIs will be e-mailed an advance letter explaining the purpose of the study and seeking the PIs' participation in the study. This will be e-mailed to all 10,754 PIs selected in the sample. The advance letter will provide an introduction to the study and provide a description of the login procedures in order to access the Web-based survey. Web-based surveys can be a great convenience for busy people who accept the importance of the survey, and we think that by reducing the burden for them, they are more likely to respond. Those who do not respond after a reasonable time (one week) will be sent up to five reminder e-mails at one week intervals, and failing to respond to those reminders, non-respondents from medical schools with a below

average response rate will be contacted by telephone by persons specially trained and experienced to solicit their participation in the study. In addition, the letters will indicate that the study is sponsored by ORI but stress only aggregated data will be reported to ORI and that any data that identifies individuals who were selected or responded, or identification of their medical school, will be kept confidential and not provided to ORI.

As for encouraging participation in the survey, we have tried to make the letters informative and the survey instrument as interesting as possible. Further, the survey will be conducted using a specially developed Web-based survey that RTI has created and tested. Again, we have developed a survey plan that experience has shown can achieve up to a 70 percent response rate. Research faculty who do not respond to the letters will be contacted by telephone and urged to complete the survey online. Further, RTI will have several trained and experienced interviewers available to conduct the telephone prompting of non-responders if necessary.

B4. Test of Procedures or Methods to Be Undertaken

We recently completed the process of pilot testing the solicitation by e-mail of research faculty for participation in the Web-based survey on researchers' knowledge of research misconduct and their perceptions of their institution's research misconduct educational efforts. The pilot test plans were reviewed and approved by the RTI IRB. The plan was to conduct follow-up activities until we receive up to nine responses. We solicited the participation of up to 15 randomly selected researchers who are similar to the sample members in the main study except that they were not selected to be in the main study sample. We asked the pilot study sample members to complete the questionnaire and to offer comments to us in writing (or orally by having us telephone them) on anything they found problematic in the letters they received, the instructions we gave, the items we asked, and response alternatives that they were given.

A total of nine persons responded to the pilot test. Overall, pilot test respondents had few comments on the letters, instructions, questionnaire items, and response options. However, two respondents were particularly helpful with suggested word selection and rewording of items in the instrument. All of their item modifications and wording

suggestions were incorporated. Further review of the items and their responses by the survey team led to the reformulation of several complicated items into simpler ones, the addition of two new short items, and the elimination of three longer items. In addition to what seem to be useful alterations to the data collection instrument, the pilot test response rate suggested that it may be necessary to send at least five follow-up letters urging researcher participation to achieve the desired response rate

B5. Individuals Consulted on Statistical Aspects and Individuals Collecting and/or Analyzing the Data

Sandra Titus, Ph.D. is the ORI staff person responsible for receiving the project deliverables, including the research plan, sampling design, and survey instrument.

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The project director and person responsible for the overall study design and analysis is Arthur J. Bonito, Ph.D.

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The person who has assisted in the development of the domains of the data collection instrument is project consultant, David E. Wright, Ph.D.

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