



Management Report 10-02
September 2010

Measuring Personnel Security Investigation Quality: A Review of Two Approaches

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of Two Approaches**

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Released by – James A. Riedel

BACKGROUND

The goals of investigation quality assessment include: (a) establishing valid, reliable and practical methods and metrics for assessing investigation quality baselines and changes over time, (b) reporting metrics that include the number and percentage of investigations that fully achieve a required quality standard and the number and percentage that do not, and (c) helping reduce investigative deficiencies by providing specific, actionable information about the number and types of deficiencies so that appropriate remedial steps can be taken.

These goals support accurate tracking of both complete and deficient investigations and provide recognition for good quality investigative products, as well as fair and valid feedback to investigative providers about deficiencies. This report applies science and best practice to review two methods for assessing investigation quality, and evaluate how well they meet the above goals.

HIGHLIGHTS

Review of the two quality measurement approaches led to four recommendations: (1) define quality in terms of specific, important requirements and set the standard at the level where all requirements are met, not exceeded; (2) rate all deficient cases; (3) use a computer-based tool to collect quality assessments; and (4) create a review team to examine investigative standards and quality requirements and determine whether improved investigator writing requirements are necessary. Of the two quality measurement approaches, the Rapid Assessment of Incomplete Security Evaluations (RAISE) is better for addressing the goals of assessing and improving investigation quality.

PREFACE

Personnel security investigations are a key component of the process for determining who should have access to classified information. Department of Defense (DoD) adjudicators use investigative results to make at least 600,000 such determinations each year. Given the importance of investigative results, it is critical to DoD that personnel security investigations meet high quality standards. Therefore, DoD began developing investigation quality measures in 2002.

In addition to DoD's interest in investigation quality, current, extensive efforts to reform the personnel security process have led to great interest in quality measurement. The Performance Accountability Council (PAC), Performance Measures and Management Subcommittee (PMMS), is the component of the reform effort that is responsible for quality metrics. It is cochaired by representatives of the Office of the Director of National Intelligence and the Office of Personnel Management. PERSEREC staff are involved in many aspects of the reform effort but do not serve on this PAC subcommittee.

PMMS developed a quality measurement tool, and key stakeholders have raised questions about differences between the DoD approach and that of the reform team. One of the main goals of this report is to outline and explain the similarities and differences between the two measures.

As described in this report, there are various ways to measure quality and various strategies for developing these measures. Rigorous, scientific methodologies result in the development of measures that are more likely to be reliable and valid and produce meaningful results. This report describes the two measures of investigation quality, developed using different methodological approaches; the report also evaluates the type of information each is likely to produce. The results of this evaluation provide useful insights and can be helpful for decisions about how to best implement the quality measures.

James A. Riedel
Director

EXECUTIVE SUMMARY

The material in this document covers important considerations for measuring investigation quality and reviews two investigation quality measurement approaches. The Defense Personnel Security Research Center assembled the material into document format in September 2009, at the request of General James Clapper, Under Secretary of Defense for Intelligence. The material was initially prepared in December 2008 for presentation to staff from the Office of the Director of National Intelligence, who were serving as representatives of the Performance Accountability Council (PAC), Performance Measures and Management Subcommittee (PMMS).

PMMS developed the first approach covered in this document. The PMMS approach relies on a paper-based¹ investigation quality measure and collects information about a sample of all investigations, including both deficient and satisfactory investigations. The Department of Defense (DoD) developed the second approach. The DoD approach uses a computer-based investigation quality tool called the Rapid Assessment of Incomplete Security Evaluations (RAISE). RAISE collects information about all *deficient* investigations.

A review of the two approaches shows that the PAC approach:

- Is not based on best practice and science for defining and measuring quality.
- Defines quality with either single word descriptors (Outstanding, Satisfactory) or very general statements of problems (e.g., Investigative standards not met, Issues not fully resolved).
- Requires handwritten problem summaries to capture any explanatory information.
- As a paper-based form, is not sufficiently automated and will result in slower data collection, analysis and reporting.
- Collects important information as unstructured “write-in” text which has significant labor and time costs and introduces greater human error.
- Does not include the capability for data reliability checks such as checks for data entry errors or data integrity issues.
- Is likely to underestimate the percentage of deficient cases that adjudicators choose to correct themselves (instead of sending back to the investigation provider).

¹ Representatives from the Office of Personnel Management reportedly demonstrated a potential computer-based version of this quality tool, but no information or screen shots have been forthcoming.

EXECUTIVE SUMMARY

- Relies on sampling methods that will yield, at best, rough approximations rather than exact percentages, of deficient investigations.

The DoD approach (i.e., RAISE), on the other hand:

- Underwent extensive development to make best use of lessons learned from science and practice.
- Incorporates detailed quality standards (1) based on input from both users of investigation products and the investigation provider and (2) focused on specific, important aspects of investigations. For example, the investigation scope quality standard asks whether each pertinent scope item (in accordance with the investigation provider's product tables) was completed correctly.
- Collects information through an computer-based application that minimizes the burden on adjudicators and automatically enters responses into a database to facilitate analysis.
- Uses a structured question and answer format to simplify and speed data collection and reduce labor costs.
- Performs automatic error and data integrity checks to improve data reliability.
- By requesting information about all types of deficiencies, easily captures information about additional investigative work that the adjudicator performed, rather than returning the investigation to the provider.
- Can be programmed to automatically produce a form containing all the information an adjudicator needs in order to send a case back to the investigation provider, which reduces the burden on adjudicators.

RAISE assessments will be more timely, complete, accurate, reliable, and actionable. RAISE best supports the investigation quality assessment, longitudinal tracking and continuous improvement needs of the Joint Suitability and Security Reform Team.

RECOMMENDATIONS

- (1) Define quality in terms of specific, important requirements and set the standard at the level where all requirements are met, not exceeded.
- (2) Rate all deficient cases.
- (3) Use a computer-based tool to collect quality assessments.
- (4) Create a review team of stakeholders to examine investigative standards and quality requirements and determine strategies for best communicating investigative results (e.g., to incorporate "Outstanding" efforts by investigators).

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INTRODUCTION

Quality in the context of personnel security investigations requires assessment of two primary components of the investigations: scope and issue information. Both the investigation service provider and national investigative standards set requirements for the types of investigative leads, or scope items that must be completed (e.g., criminal history checks, financial checks). The issue information component refers to the need for the investigation to include sufficient information to allow adjudicators to determine whether any adjudicative issues, as defined in the national adjudicative standards, disqualify the individual from eligibility for access to classified information.

The review and recommendations in this paper are based on the application of science and best practice to the definition, measurement and improvement of investigation quality, and are intended to meet three goals:

- Establish valid, reliable and practical methods and metrics for assessing investigation quality baselines and changes over time.
- Report metrics that include the number and percentage of investigations that fully achieve a required quality standard and the number and percentage that do not meet the standard.
- Help reduce investigative deficiencies by providing specific, actionable information about the number and types of deficiencies so that appropriate remedial steps can be taken.

These goals support accurate tracking of both complete and deficient investigations and provide recognition for good quality investigative products, as well as fair and valid feedback to investigative providers about deficiencies. The goals also support accountability and provide practical tools for improving investigation quality.

Subsequent sections of this report describe two approaches for meeting these goals: (1) an approach developed by the Performance Accountability Council (PAC), Performance Measures and Management Subcommittee (PMMS), and (2) an approach developed by the Department of Defense (DoD). The two are reviewed and recommendations made for best achieving the goals stated above.

SECTION 1. SCIENCE AND BEST PRACTICE FOR MEASURING QUALITY

SECTION 1. SCIENCE AND BEST PRACTICE FOR MEASURING QUALITY

The consensus for several decades among leading scientists and business authorities working on quality measurement issues is that quality should be measured relative to an established standard or specific set of requirements. Clearly defined standards are prerequisites for measuring quality. A good standard is explicit, reliable, realistic, valid, and clear. Standards of quality should be based on the best scientific evidence available and stakeholder expectations of quality (both client and community) should be incorporated in the quality definitions.

Once quality measures are defined and shown to target important quality requirements, the quality measures should be used to assess the product or process of interest. Quality is achieved when the product or process meets the specified standard. Products that do not fully meet established standards (i.e., poor quality) are a performance concern because requirements were not achieved. Similarly, products that exceed established standards (i.e., “gold plating”) are a performance concern to the extent that time and other resources were expended to achieve a result that was not required. Given clear and specific quality standards, it is unreasonable to expect a worker to produce a product that is different (in excess) from what was requested or to imply that a worker who fully satisfied all quality requirements did not achieve a desired quality level.

Hundreds of best practice business examples have consistently demonstrated the following:

- When a product meets required standards, quality has been achieved.
- Goals and requirements that lack sufficient specificity, such as telling writers to emulate a “best selling” writing style, are typically ineffective for improving quality.
- When higher product quality is desired, the current quality standard should be changed and more clearly specified to reflect the new requirements.

SECTION 2. PMMS QUALITY SURVEY APPROACH

PMMS is responsible for assisting in the development and oversight of performance measures to monitor progress and quality in the security and suitability reform effort. PMMS members include representatives from the Office of the Director of National Intelligence (ODNI) and the Office of Personnel Management (OPM) and representatives from a few executive agencies (e.g., Department of Energy, DoD).

This description of the PMMS approach to measuring investigation quality was provided to a DoD representative from the Defense Personnel Security Research Center (PERSEREC) during a December 2008 meeting that included the PMMS Co-Chair (from ODNI) and an ODNI staff member supporting the Co-Chair. In January 2009, PERSEREC received a copy of version 5 of the PAC investigation quality survey. However, since that time PMMS has not released to PERSEREC updates or details describing the PAC quality survey form or methods, although PERSEREC has shared the concerns described herein with members of PMMS.

OPM AND QUALITY MEASUREMENT

As the investigation provider for the vast majority of personnel security investigations, OPM has an inherent interest in and responsibility for investigation quality. The OPM director referenced this interest and OPM's involvement with the PMMS quality approach during the 15 September 2009 Senate Committee on Homeland Security Hearings on Security Clearance Reform:

"The performance subcommittee of the Performance Accountability Council is finalizing a data gathering tool to provide agencies another avenue to report on the quality of specific background investigations. This process has been tested with the Department of Defense, Department of Energy, and Department of Homeland Security, and the results of that test are being analyzed to further refine the process."

The DoD investigation quality measure had already undergone extensive development before PMMS began to develop its own approach. During development, DoD staff asked OPM staff for input. Feedback from the OPM reviews, in the form of changes and suggestions, was incorporated into the final product (see the section in this report describing the DoD development process for more information). The DoD developers also made efforts to learn from existing OPM quality assessment practices. However, although OPM staff mentioned internal quality assessment procedures, they did not provide specific information.

PAC QUALITY SURVEY DESCRIPTION AND DEVELOPMENT

ODNI and OPM staff played major roles in developing the PMMS quality approach. The one-page, paper-based measure was drafted by PMMS members and administered to a sample of adjudicators. No information was available to

SECTION 2. PMMS QUALITY SURVEY APPROACH

PERSEREC describing details of the development or whether adjudicator feedback was used to make revisions.

The proposed PAC data collection approach relies on a paper-based² survey that requires handwritten rater assessments in open-text comment boxes (see Appendix A for a copy of the measure). The PAC quality survey collects four pieces of information:

- First, the PAC survey collects identifying information about the case being rated and the person making the rating (e.g., case serial number, case type, case seriousness code, name of person completing the review).
- Second, the PAC survey asks the case adjudicator (the person completing the review) to choose one of four options:
 - "I was **ABLE** to make an adjudicative decision based on the results of this investigation."
 - "I was **NOT ABLE** to make an adjudicative decision based on the results of this investigation and it was returned to **OPM** as deficient."
 - "I was **NOT ABLE** to make an adjudicative decision based on the results of this investigation; however, it was corrected by the requesting agency."
 - "No 'in person' review of this investigation was conducted."
- Third, for the option selected in step two, the PAC survey asks the adjudicator to either rate quality (option one), select an explanation to indicate why it was not possible to make an adjudication decision (options two and three), or indicate that the case was electronically adjudicated (option four).
 - If the adjudicator indicates that he or she was able to make a decision, the three choices for quality ratings are: Outstanding; Satisfactory; or Investigative standards met but additional information would have been beneficial.
 - If the adjudicator chooses one of the options to indicate that it was not possible to make a decision, he or she must select an explanation: Investigative standards not met; Issue(s) not fully resolved; Information inaccurate; Information not timely; or Other.
 - The last option, "This investigation was electronically adjudicated," is selected if no 'in person' review was conducted (i.e., when electronic business rules were applied and no missing scope items or issue concerns were identified).

² The Office of Personnel Management has developed an online quality assessment tool, but no information or screen shots have been shared with PERSEREC. It is also unknown whether this tool applies only to suitability investigations or if it can also be used to assess national security investigations.

SECTION 2. PMMS QUALITY SURVEY APPROACH

- The fourth section of the PAC survey consists of several blank lines for comments and is provided to capture handwritten problem summaries of any explanatory information the adjudicator wishes to include.

SUMMARY OF THE PAC INVESTIGATION QUALITY APPROACH

The PAC investigation quality survey is a paper-based tool that was developed by members of PMMS. It uses single word descriptors or very general statements of problems to define quality. Adjudicators who complete the form must provide: (1) background facts such as investigation type, (2) one check mark that represents the entire quality rating, and may provide, if desired, (3) handwritten comments to explain ratings.

Once the paper survey is completed, it must be faxed or mailed from the rating facility to an OPM location where a data entry person would have to check it manually for bad markings and subsequently enter the survey data into a database by hand. If the handwritten adjudicator comments are to be useful, they must also be included in the database, so the data entry person must interpret the handwriting and enter the information into the database accurately.

The PAC investigation quality measurement approach makes several assumptions that are problematic in terms of science and best practice, including the assumptions that:

- Raters can reliably distinguish between categories of investigation quality that are defined solely by either single word descriptors or very general statements of problems: “Outstanding”, “Satisfactory”, and “Investigation standards met but additional info would have been beneficial.”
- Statements such as "Investigation standards not met" or "Issue(s) not fully resolved" provide sufficient information to identify deficiencies and strategies for resolving them.
- Handwritten comments will include sufficient interpretable, actionable detail to further clarify the nature of deficiencies.
- Survey sample sizes necessary to make accurate estimates of population percentages for each quality type would be reasonably small, i.e., rating no more than 5% of all investigations, so that the time and cost burden on quality raters (adjudicators) would be reasonably low.
- The resulting information would be statistically valid and useful for reducing investigation deficiencies, improving investigation quality standards, and monitoring changes over time.

As mentioned, science and best practice point to some problems with the assumptions outlined above. As a consequence, the PAC measure faces greater

SECTION 2. PMMS QUALITY SURVEY APPROACH

obstacles to producing reliable and valid information about investigation deficiencies.

SECTION 3. DOD RAISE QUALITY MEASUREMENT APPROACH

DoD has an inherent interest in investigation quality because investigation results form the basis for all adjudicative decisions. An adjudicator must have thorough and accurate information that meets national standards in order to successfully adjudicate each case. The quality measurement process described in this section resulted from the importance of investigative results to adjudicators and from concerns raised by adjudicators about the information they were receiving. The anecdotal information provided previously was not a sufficient basis for evaluating something, however. DoD determined to develop a quality measure that adjudicators could use to systematically document the problems they perceived. The quality measure had to reflect specific, detailed standards that could be used to evaluate the validity of perceived deficiencies and identify appropriate strategies for resolving them. To accomplish this, DoD undertook extensive development efforts focused on defining quality in a meaningful and measurable way and aimed at creating an easy-to-use tool for capturing data.

DOD QUALITY MEASURE DEVELOPMENT

Research to develop an investigation quality measure began in 2004 with a study conducted by the Personnel Security Managers' Research Program and PERSEREC (Youpa, Marshall-Mies, & Carney, 2004). A draft investigation quality measure was developed based on a review of investigations-related materials (e.g., investigations manuals, contracts, rating criteria) and interviews with investigation personnel and adjudicators. The draft measure included sections for rating scope, issue resolution, presentation, and utility of investigative reports. Senior security personnel from several federal agencies reviewed and revised the quality measure. Data provided by adjudication experts were used to evaluate interrater reliability and criterion-related validity.

DoD Pilot Test

Next, the measure underwent a pilot test at two DoD central adjudication facilities (CAFs). Using an iterative process, feedback was gathered from experienced adjudicators after they used the quality measure to assess investigations. The feedback was used to further revise the quality measure, and the result was called the Background Investigation Quality Rating Form (BI-QRF). The BI-QRF was then implemented on a trial basis at three DoD CAFs. As part of the trial implementation, the BI-QRF was set up as an online application, readily accessible to adjudicators at the participating CAFs.

Implementing the BI-QRF as an online data collection application had a number of advantages over the previous paper-and-pencil versions of the measure. The online application was easy for users to access, there was no need to keep track of or transmit paper forms, and the application entered responses directly into a database, thereby avoiding the types of errors that arise when data entry personnel

SECTION 3. DOD RAISE QUALITY MEASUREMENT APPROACH

must key data into a database from a paper form. Also, by creating an online application, it was possible to employ structured questions with automatic error and data integrity checks and branching options. The branching options allowed users to skip the sections of the program that were not relevant and to minimize the number of entries they had to make. If users wanted to include more detailed comments, the online form included options for entering that information directly into the database using the keyboard instead of writing it out by hand.

OPM Input and Revisions

Data collected from the pilot test were shared with quality management staff from OPM, and feedback was requested. As a result of this feedback, a disconnect was identified between adjudicator expectations and OPM implementation of national investigative standards. OPM interpretation of the national standards differed from adjudicator interpretations in a number of ways. For example, DoD adjudicators interpreted the standards to include citizenship checks for NACLIC investigations if the subject was not born in the United States. However, for NACLIC investigations, OPM only performs this check if it is specifically requested.

This critical finding led to significant revisions to the rating form. The first major revision was the incorporation of the OPM investigation product tables (2007) to accurately capture investigation scope items. The OPM product tables describe the scope items that OPM performs as part of each investigation and the circumstances under which those checks are performed. The OPM product tables document the components of each investigation type and thus define investigation scope standards.

The second major revision was made to the issue information section. The issue information section requests adjudicator input about whether the investigation included enough information to allow the adjudicator to resolve any adjudicative issues that were identified. The adjudicative issues referred to are those defined in the national adjudicative guidelines. The guidelines provide a definition for each issue area as well as a set of disqualifying conditions that describe behaviors that render a person ineligible for access to classified information and a set of conditions that may mitigate disqualifying behavior. OPM has specific standards for collecting information about investigative issues that correspond roughly to the disqualifying conditions. Based on OPM feedback, the disqualifying conditions were added for each adjudicative issue. Indicating the disqualifying condition for issues that the investigation did not adequately cover would provide much more specific feedback.

Other Revisions

As a final change, the overall ratings for each category were eliminated. Pilot test data indicated that the overall category ratings did not agree with the ratings of items within a category. For example, adjudicators might identify multiple missing scope items, but still provide an overall rating of "Satisfactory." Several reasons for this mismatch were identified. First, it was consistent with the body of social

SECTION 3. DOD RAISE QUALITY MEASUREMENT APPROACH

science research that finds that the relationship between overall ratings and assessments of specific, well-defined items within a category is often confounded by other factors (central tendency errors, recency effects). Second, based on comments entered by adjudicators, adjudication staff will, when possible, collect missing information themselves. In these cases, it appeared that the overall rating reflected this fact (i.e., the adjudicator was satisfied with completeness because he or she did the work to ensure the investigation was complete).

QUALITY DEFINITION

The revisions described above helped to further clarify the definition of quality by establishing more detailed standards for the two major components of investigation quality: scope and issue information. The detailed scope standard consisted of specific investigative leads for each investigation type and the detailed issue information standard was made up of specific disqualifying conditions, both of which would provide targeted information that could be used to address specific quality or other concerns.

DOD RAISE DEVELOPMENT

The revised measure was renamed the Rapid Assessment of Incomplete Security Evaluations (RAISE). Appendix B shows a sample screenshot of the page where adjudicators indicate which investigation scope items were missing. The background information about the investigation being assessed is filled in automatically by the computer system. The content of the rest of the page varies depending on the type of investigation; only those scope items associated with a specific investigation type appear on the screen. The scope items appear in the first column, the second column indicates whether the item is standard, conditional or by request. Columns three through five list options describing potential problems with a scope item (i.e., Missing, Incomplete, or Inaccurate). For each investigation where there are scope item problems, the RAISE user can indicate: (1) which item has the problem and (2) the type of problem, simply by clicking on one checkbox.

RAISE captures deficiencies in issue information in a similar fashion. The issue information screen lists the 13 adjudicative issue areas (e.g., financial considerations) from the national guidelines. The adjudicator clicks on the checkbox for the issue area that lacks information. Clicking on the issue checkbox brings up the list of disqualifying conditions associated with each issue area in the national guidelines (e.g., inability or unwillingness to satisfy debts), and the user clicks on the checkbox for the relevant disqualifying condition. By clicking on two check boxes, the adjudicator can quickly and specifically identify issue information problems.

RAISE also allows for the entry of comments about any problems identified. Open-text fields are provided that allow the user to type comments and additional details. However, the comments are not required in order to interpret the data about scope

SECTION 3. DOD RAISE QUALITY MEASUREMENT APPROACH

or issue information deficiencies. The scope and issue sections of the rating form are sufficiently specific to pinpoint deficiencies and provide feedback that can be used to resolve them.

CATS

Final programming of RAISE was assigned to the developers of the DoD Clearance Adjudication Tracking System (CATS). RAISE appears as a tab on the main CATS screen, making RAISE simple to access and further streamlining the process for adjudicators. CATS handles electronic case files, including an electronic version of the case closing transmittal (CCT) that is part of each report of investigation and lists all of the completed scope items. CATS analyzes the CCT by applying business rules and can identify missing items and notify the adjudicator of the possible need for a RAISE evaluation and further simplifying the evaluation process for adjudicators.

An additional advantage of CATS is that it can be programmed to automatically produce a Reopen or Reimbursable Security/Suitability Investigation (RSI) request. Reopen and RSI requests are tools for returning investigations to OPM when additional work is required. A reopen request is made when an investigation is missing information that should have been provided. A RSI request is made when there is additional information an adjudicator would like to see. As the process is currently implemented, an adjudicator must complete a paper form and fax it to OPM to initiate the request. With RAISE, the form could be completed automatically based on information the adjudicator provided during the RAISE evaluation and the form transmitted to OPM electronically, thereby eliminating a task that adjudicators currently must perform manually.

DATA COLLECTION

RAISE was designed to collect information about investigative deficiencies and employs a data collection strategy wherein only investigations with deficiencies are evaluated. By limiting the data collection to deficient investigations, it is likely that adjudicators would be required to rate about 5% of the investigations, based on previous PERSEREC research. This minimizes the number of RAISE evaluations adjudicators must complete but still allows for the collection of sufficient information to understand the nature of the deficiencies and to help identify strategies for resolving them. All investigations that are not evaluated with RAISE would be considered to meet the quality standards (i.e., no deficiencies).

It is important to note that not all investigations evaluated with RAISE will be deficient in terms of the quality standards used by OPM. PERSEREC research has shown that due to differences in interpretation of the national investigation and adjudication standards, adjudicators may view some investigations as deficient, even though those investigations meet the quality standards OPM has established. For example, adjudicators may expect citizenship checks for individuals who are

SECTION 3. DOD RAISE QUALITY MEASUREMENT APPROACH

naturalized citizens, but OPM does not automatically perform these checks for all types of investigations. By collecting detailed information about adjudicator evaluations of investigative results, DoD can identify adjudicator training needs as well as concerns to address with OPM to clarify policy and determine whether additional checks should be added to better meet adjudicator needs.

SUMMARY OF THE DOD INVESTIGATION QUALITY APPROACH

The DoD investigation quality measurement approach underwent extensive development, resulting in a computerized tool called RAISE. The quality standards employed by RAISE were carefully and clearly defined and are based on either standards established by the investigation provider or national requirements. The RAISE program fills in background information such as investigation type automatically and adjudicators can provide detailed information about specific investigative deficiencies with a small number of actions (one click for each scope problem or two clicks for each issue problem).

Adjudicators can enter explanatory comments by typing in an open text comment box that enters the information directly into a database. The programming includes error and data integrity checks, and, as an additional benefit, RAISE can be programmed to produce a completed form that may be sent to the investigation provider electronically if additional investigative work is required, eliminating the need for adjudicators to manually complete a paper form and fax it to the investigation provider.

The RAISE measure incorporates lessons from science and best practice including:

- Careful development strategies that incorporated feedback from multiple stakeholder groups.
- Quality assessments based on clearly defined standards established by the investigation provider and national guidelines.
- Gathering information about deficiencies by requiring that adjudicators provide detailed information about specific problems.
- Maximizing the amount of information gathered by collecting information about all deficiencies rather than a sample of cases. Only a small percentage of cases (an estimated 5% of all cases) are deficient; therefore, any sampling strategy would capture information about only a small number of possible problems.

Through this careful development process and attention to the requirements of science and best practice, RAISE maximizes the collection of statistically valid and reliable information that could be used to reduce investigation deficiencies, improve investigation quality standards, and monitor changes over time.

SECTION 4. SUMMARY OF PAC AND RAISE QUALITY MEASUREMENT APPROACHES

SECTION 4. SUMMARY OF PAC AND RAISE QUALITY MEASUREMENT APPROACHES

- (1) **Science and Best Practice.** With respect to the science and best practice of assessing quality, it is unlikely that the difference between investigations that fully meet current quality requirements, that is, those that are described as “satisfactory,” and those that are “Outstanding” can be validly defined or measured. Research on rating scales demonstrates a number of problems with these types of ratings (e.g., research shows that raters make personal interpretations of rating terms, raters may not be consistent in their ratings, ratings are affected by reference groupings). The ratings are likely to be unreliable (not consistently reproducible by different raters assessing the same products) and unlikely to reflect a meaningful difference in actual quality.
- (2) **Quality Standards.** Investigators who produce a product that fully meets requirements may react negatively to being compared to a small number of investigators who produce a different product that was not defined in the standard requirements, but is nevertheless labeled “superior.”
- (3) **Sample Size.** The proposed PAC approach to data collection is to randomly sample investigations to obtain accurate estimates of the number and percentage of various quality categories of all investigative products. This would require a complex stratified random sampling of approximately 5% of all investigations to have acceptable confidence levels and margins of error. The resulting sample will include mostly investigations (approximately 95%) that meet the current investigative standards, and a relatively small number of deficient investigations (because the percentage of low quality investigations is low).

This sampling approach would yield only estimates (rather than exact numbers) of different quality outcomes and include very few deficient investigations. Consequently, the estimates would obscure small longitudinal changes/improvements in quality and provide very few deficient investigation examples. This limits the amount of useful feedback available for the investigative provider and adjudicators and also limits available feedback that could be used for policy discussions and potential quality improvements.

The proposed RAISE approach of collecting data about all deficient investigations overcomes these limitations while still requiring ratings of approximately 5% of all investigations. Recently, DoD has added the requirement to document in RAISE 7% of all Single Scope Background Investigations, 14% of all Periodic Reinvestigations, and 14% of all Phased Periodic Reinvestigations regardless of whether or not the investigation was deficient.

SECTION 4. SUMMARY OF PAC AND RAISE QUALITY MEASUREMENT APPROACHES

- (4) **Feedback to Investigation Provider.** It is not clear whether the PMMS investigation quality approach would assess and provide detailed feedback to the investigative provider for investigations where "Investigation standards met but additional info would have been beneficial." Although customer organizations should have the discretion to adjudicate such investigative results, tracking and providing detailed feedback on such products to the investigation provider is important for improving deficiencies.
- (5) **Data Collection Methodology.** The PAC investigation quality survey was proposed as a printed survey that must be mailed or faxed for processing. Such surveys are slower and more prone to errors than computer-based surveys that can collect and process quality assessments immediately and include built-in error and completeness checks.
- (6) **Adjudicator Burden.** The PAC investigation quality survey requires adjudicators to use an open-ended free text field to note critical quality details (e.g., category of missing scope items or specifics about deficient issue information). If such details are not collected systematically, important actionable quality information is lost. The need to note important details in free-text fields also places a considerable writing burden on adjudicators. RAISE, on the other hand, has fixed fields for collecting specific details about quality deficiencies and minimizes the burden on adjudicators.
- (7) **Data Coding.** Most important, because the PAC investigation quality survey collects critical information in a free-text field, every form would have to be human-reviewed and coded, and then manually entered into a database prior to analysis. Coding would be additionally difficult because all comments are lumped into one comment field without any distinguishing categorization. Processing these data would incur substantial labor costs for human coding and related time delays in analyzing coded results. In addition, the use of human coders would introduce greater unreliability to the coded information.
- (8) **Data Analysis.** Written responses must first be coded and then entered into a computer database before analysis is possible. Not only do coding and data entry incur significant labor costs, they also have significant costs in terms of the time required to perform analyses. Additionally, humans must perform coding and data entry tasks, which negatively affects the reliability of the gathered information and limits overall quality assessments and corrective feedback. The fixed fields in RAISE enable the immediate and automatic creation of an analysis database as each RAISE form is completed.

SECTION 5. RECOMMENDATIONS

SECTION 5. RECOMMENDATIONS

- (1) **Define the quality standard as meeting all requirements.** The “Outstanding” rating that is part of the PAC quality measure is unlikely to be validly defined and measured and should be eliminated. Quality definitions and assessments should distinguish investigations that fully meet current quality requirements (“good quality”) from deficient investigations that do not (e.g., deficient in scope and/or issue information). Using this strategy, good quality investigations would be calculated as the percentage of all investigations that are not assessed as deficient. This would yield clear and precise recognition for good quality investigative products delivered by the investigative provider.
- (2) **Rate all deficient cases.** Research by PERSEREC estimates that 5% of all investigations are deficient. Therefore, a more productive and simpler quality assessment approach would be to identify and rate all deficient investigations rather than a complex stratified random sampling of the entire range of cases (PERSEREC has successfully pilot-tested definitions for identifying deficient investigations). Examination of deficient investigations is useful for correcting investigations that do not meet current standards. This approach would yield a similarly small rating burden (5%) as that proposed by PMMS, but has the advantage of providing more exact results because all deficient investigations are assessed. Also, a database of information about all deficient investigations allows for more indepth analysis to develop recommendations for improving quality, adjudicator training and policy.
- (3) **Use a computer-based tool to collect quality assessments.** A computer-based tool can facilitate the speed, accuracy, reporting, and analysis of quality assessments. CATS includes the computer-based “Rapid Assessment of Incomplete Security Evaluations” (RAISE), which allows an adjudicator to quickly enter investigation quality information. If needed, RAISE content could be modified further to meet PAC goals.
- (4) **Create a review team.** To move toward increased quality, a review team (e.g., with expert adjudicators, policymakers and experienced investigators) should be created to (1) examine current and emerging investigative standards to define quality and explore how the standards and quality requirements should be changed or raised, and, once standards are agreed upon, (2) determine how investigative reporting can best communicate findings (e.g., clarify or redraft writing requirements and train investigators to meet them).

The above recommendations support accurate initial baseline and ongoing investigation quality assessments, provide recognition and remedial feedback that is valid and practical, and support accountability for effective investigation quality improvements.

REFERENCES

Youpa, D.G., Marshall-Mies, J.C., & Carney, R.M. (2004). *Development and evaluation of a single-scope background investigation quality rating form*. Monterey, CA: Defense Personnel Security Research Center.

**APPENDIX A:
PAC INVESTIGATION QUALITY MEASURE**

APPENDIX A

Investigation Content / Quality Survey

To be completed by Investigative Service Provider (ISP)		Name of Org:	
ISP Quality Review Completed by:		(Please Print)	Date:
Case Serial Number:	Case Type/Service:	SOL:	Case Seriousness Code:

Instructions to Case Adjudicator:

This investigation was randomly selected for an assessment of the quality of the coverage obtained and the reports furnished. Please complete the following and return your response to *enter appropriate agency poc...*

Please complete Section 1, 2, 3 or 4 below:

Section 1: I was **ABLE** to make an adjudicative decision based on the results of this investigation. Select one of the following which describes the investigative coverage and report content provided:

- Outstanding (Please provide details in the comments section below)
- Satisfactory (investigative standards met)
- Investigative standards met but additional information would have been beneficial. (Please provide details in the comments section below)

Section 2: I was **NOT ABLE** to make an adjudicative decision based on the results of this investigation and it was returned to **OPM** as deficient. Please select one or more of the following reasons:

- Investigative standards not met (provide summary below)
- Issue(s) not fully resolved (provide summary below)
- Information inaccurate (provide summary below)
- Information not timely (provide summary below)
- Other (Please provide details in the comments section below)

Section 3: I was **NOT ABLE** to make an adjudicative decision based on the results of this investigation however it was **corrected by the requesting agency**. Please select one or more of the following reasons:

- Investigative standards not met (provide summary below)
- Issue(s) not fully resolved (provide summary below)
- Information inaccurate
- Information not timely
- Other (Please provide details in the comments section below)

Section 4: No 'in person' review of this investigation was conducted.

- This investigation was electronically adjudicated.

Comments

To be completed by Adjudicative Organization		Name of Org:	
Case Adjudicated by:		(Please print)	Date:

Figure A-1: Investigation Content/Quality Survey

**APPENDIX B:
DOD INVESTIGATION QUALITY MEASURE**

APPENDIX B

RAISE
Case Data Documents Letters OPM DCII Incidents Command POC History

TESTER, TED T Edit Subject New Case

Eligibility: NO ACTIVE/CURRENT **DOB:** 19690717 **Elig Date:**

SSN/PID: 111-11-1111 **Citizen:** US CITIZEN BY BIRTH **POB:** DC, US

Category: CIVILIAN TEMP-SEASONAL CO-OP **UIC:** DONCAF

Other Open Cases:

Foreign Relations: None

Case Data

Facility: **WHS** Adjudicator Code: **LCN27**

Subject: **TED T TESTER** OPM Case#:

Investigation: SOI:

Open Date: Closed Date:

Guidelines: [\[Edit\]](#)

Rationale: **Deviation: Other employment check provided //**

Case Disposition: No Report Complete Re-Open RSI Inadequate-Not Returned

Case Deviation:

Other employment check provided

Subject could provide no other reference coverage

Save All Changes to the RAISE Survey

Tip: you can hover over the Scope Item to get a description of what that item is

Scope Item	Category	Missing	Incomplete	Inaccurate
PRSI	Conditional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RESI	Conditional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
EMPL	Conditional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LAWI	Standard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LAWI PR	Conditional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GENL	Conditional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MEDI	Conditional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PUBR	Conditional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
REFE	Conditional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SII	Standard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SIIF	Conditional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FBIF/FBFI	Standard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FBIN/FBNI	Standard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DCII	Standard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DCIF	Conditional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CRED	Standard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SESE	Conditional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CGIN	By Request	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PERI	By Request	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SCIS	By Request	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SPIN	By Request	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
STPA	By Request	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

General Comments:

Standard Items Comments:

Conditional Items Comments:

Figure B-1: DoD Investigation Quality Measure: Sample Screen Shot