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THESIS

FINANCIAL CRITERIA USED
IN CASE ADJUDICATION BY
THE DIRECTORATE FOR INDUSTRIAL
SECURITY CLEARANCE REVIEW (DISCR)

by

Janet G. Goldstein

December 1991

Co-Advisors:

Howard W. Timm
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Financial Criteria Used in Case Adjudication by the
Directorate for Industrial Security Clearance Review (DISCR)

by

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Submitted in partial fulfillment of the
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ABSTRACT

An analysis of financial criteria used in case adjudication by the Directorate for Industrial Security Clearance Review (DISCR) was conducted to determine those financial factors most relevant in granting or denying security clearances to industrial personnel.

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Ten financial factors most highly correlated with case outcome were identified and grouped into four main categories. Adjudicators were found to determine case outcomes in accordance with established adjudication policy.

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I. INTRODUCTION

A. BACKGROUND

The United States Department of Defense (DOD) procures many goods and services from private industry. In the process, industrial firms frequently produce or handle sensitive documents, the unauthorized disclosure of which could result in damage to the US national security. Consequently, DOD must ensure that only trustworthy and reliable individuals are permitted access to such documents.

Sensitive documents are classified at one of three classification levels: "top secret" (most sensitive), "secret" (sensitive), or "confidential" (least sensitive). Individuals who require access to such classified information must first obtain a security clearance. In this thesis, a person in private industry who requires access to DOD classified information and applies for a clearance shall be termed an "industrial applicant" or simply "applicant." DOD determines the trustworthiness of industrial applicants through the industrial security clearance process.

The Defense Industrial Security Clearance Office (DISCO) in Columbus, OH, coordinates the industrial security clearance adjudication process and reports to the Director of the Defense Investigative Service (DIS). If the Personnel Investigations Center (PIC), which also reports to the

Director of DIS, uncovers no derogatory information or issues (e.g., financial problems, mental illness, drug or alcohol abuse) in an applicant's background, then DISCO will issue the clearance. If PIC does find significant derogatory information, then DISCO will forward the "issue" case to the Directorate for Industrial Security Clearance Review (DISCR) in Columbus, OH.

If DISCR's office in Columbus cannot grant the clearance, then the case is forwarded to DISCR's second location in Arlington, VA. If DISCR's Arlington division cannot grant the clearance, then the applicant is notified as to the reasons for clearance denial and is entitled to further administrative review. If clearance is still denied, the applicant may appeal the decision. The points in the process at which clearances may be granted are referred to as stages, levels, or segments, with DISCO the first stage or lowest level, and reviews and appeals at DISCR the final stages or highest levels.

DISCR is the central adjudication facility (CAF) for industrial clearances. (The military and civil services have their own CAFs.) The main function of DISCR's two locations is the adjudication of industrial security clearances, or the determination based on evidence both favorable and unfavorable as to whether granting access to classified information for a particular industrial applicant is in the national interest [Ref. 1:p.3]. While both locations utilize the same written

guidelines in adjudicating cases during the adjudication process, only DISCR's office in Arlington may ultimately deny a clearance. Adjudicators are personnel who adjudicate clearances. The three types of adjudicators employed at DISCR (listed from the lowest to highest adjudicative level) are personnel security specialists, administrative judges, and members of appeal boards. This thesis examines the criteria used by administrative judges in adjudicating cases involving financial issues, factors or matters (e.g., liens, judgments, indebtedness, bankruptcy).

B. PURPOSE

The purpose of this thesis is to analyze cases adjudicated by the Directorate for Industrial Security Clearance Review (DISCR) in order to determine empirically the financial criteria used in granting or denying security clearances to industrial applicants.

C. DISCUSSION

The Stilwell Commission, in its report on DOD security policy and procedures, recommended the "enunciation of more precise criteria" in the adjudication process, noting that "this is a fertile area for research, as there is scant empirical data available on which to base sound standards." [Ref. 2:p. 36] This thesis should help fill some of this research void by empirically determining the financial criteria used in adjudicating industrial security clearances.

Also, in the interest of greater efficiency in an environment of increasing budgetary constraints, senior personnel at DIS have commented that their investigators should not waste their time investigating those financial issues which, even under a worst case scenario, would not result in the denial of a security clearance [Ref 3]. DIS Special Agents investigating financial issues would also be more likely to view their assignments as meaningful and "making a difference" if these unproductive avenues of investigation were eliminated. To this end, DIS approached the Personnel Security Research and Education Center (PERSEREC), an organization "established to apply behavioral science research methodology to the problems of personnel security," [Ref. 4:abstract] to design a study whose purpose would be to determine empirically the financial criteria used by DISCR in granting or denying security clearances to industrial personnel. PERSEREC agreed to sponsor the study, which was performed as thesis research and reported in this document.

In addition to helping DIS investigators more effectively focus their efforts, this study, by clarifying which financial factors and thresholds thereof are used at the final stages of case adjudication at DISCR, could help to identify those financial factors that should be considered at earlier stages of the case adjudication process. If more security clearances were resolved at a lower level in the case adjudication

process, savings in time, money, and personnel should result. In addition, people at higher levels in the adjudication process would be able to focus their energies on those cases most deserving of attention. If the adjudicative criteria used at the various levels differ from those suggested in written policy guidance, then those particular levels might want to consider whether written directives need to be revised or whether their adjudicators need to adjust their approach to more closely adhere to that suggested in the guidelines.

Finally, if DIS investigators concentrated their attention on those areas of interest to DISCR adjudicators, then DISCR would benefit through the receipt of more relevant information from DIS. Case adjudication at DISCR may then proceed more smoothly and efficiently with a minimum of delays due to lack of information.

D. OBJECTIVES

The primary research question in this thesis is "What financial criteria are used by DISCR in granting or denying security clearances to industrial applicants?" Financial criteria include not only types of financial factors (e.g., bankruptcy, indebtedness, judgments, liens) but also the thresholds of those factors (e.g., dollar amounts, number and recency of occurrences) used in adjudication. Subsidiary research questions include the following:

1. Do the actual factors used differ from those outlined in DOD Directive 5220.6 [Ref. 1]? If yes, how? Do the results of this study suggest the revision of current adjudicative practice to conform to the guidelines or revision of the guidelines themselves?

2. Do the results of this study suggest certain financial issues which are unproductive in terms of their impact on adjudicative outcomes? For example, are there financial issues that, even under a worst case scenario, would not result in adjudicators denying a clearance?

3. Can the results of this study be used by DISCR to improve the processing and adjudication of cases?

4. Can the database established as a result of this study be further utilized to examine other relevant areas of research, such as automated credit scoring?

E. APPROACH

An empirical method was chosen in which redacted case summaries (i.e., cases in which identifying information such as the applicant's name and social security number have been deleted) were analyzed as objectively as possible to determine the factors having the greatest impact on adjudication decisions. These factors were then compared to those specified in the applicable written directives.

Case analysis was used as the main research methodology in this study for the following two reasons. (1) The redacted

case summaries were easily accessible through DISCR, and (2) a given case summary conveniently recapitulates in one document the testimony and/or evidence considered by the administrative judge in adjudicating the case.

Financial cases chosen for study were reviewed to determine the financial information they contained. Based upon this review, a computer codebook was established to facilitate data entry and retrieval (see Appendix A). Among the information included in the redacted case summaries was the applicant's income and expenses, nature of each financial item (e.g., delinquent debt, bankruptcy, garnishment), frequency and dollar amount of each item, applicant's attitude, and adjudicative outcome.

Once each case was analyzed to determine the specific information contained therein, that information was entered into a computerized database for additional analysis. Analyses were performed on the data by using SPSS statistical software in order to determine the degree to which different types of financial factors were correlated with adjudicative outcome. For example, if every case involving bankruptcy had an adjudicative outcome of "clearance denied" while most cases without bankruptcy had an adjudicative outcome of "clearance granted," then there would appear to be a very strong relationship between the incidence of bankruptcy in a case and the adjudicative outcome. One might conclude that bankruptcy was a primary financial factor used in case adjudication.

As a final note, many biodata items other than those previously noted, particularly those of a nonfinancial nature, were encoded in the database established for this study. Among those additional items were the applicant's age, sex, and marital status; dates of hearings and appeals, including all intermediate determinations; and provision for other nonfinancial case issues, such as drug abuse and mental illness. The database was intended to be broad in scope to facilitate additional analysis by others, easy expansion for future studies, and the determination of such items as the financial profile of the average applicant denied a clearance.

F. SCOPE

As previously noted, this study examines the financial criteria used in making clearance determinations at DISCR through analysis of redacted case summaries. Both the subject matter and the decision to use data drawn from the redacted case summaries affect the scope of the study, as illustrated below.

1. Industrial Cases Only

DISCR only adjudicates security clearances for DOD industrial applicants. Military and DOD civil service personnel are adjudicated by other organizations. At the present time, DISCR is the only CAF that prepares case summaries and indexes to the cases that it has reviewed by issue.

2. Cases Adjudicated by Administrative Judges Only

Only those industrial cases adjudicated by an administrative judge at DISCR were examined, vice those cases in which (1) clearance was approved at a lower level in the review process or (2) clearance was denied by DISCR and the applicant did not request review of the case by an administrative judge. In other words, every case examined in this study involved both (1) denial of clearance by DISCR and (2) review by an administrative judge at the applicant's request. This restriction was necessary due to the unavailability of information on cases adjudicated at lower levels in the clearance process. One advantage, however, is that the cases heard by administrative judges are the most controversial, requiring keen judgment as to whether the factors in the case do or do not support the granting of a clearance. Consequently, such cases are considered to be the most useful in helping to distinguish the specific financial factors, and thresholds thereof, which determine whether or not clearances are granted.

3. Financial and Financial/Unreliability Cases Only

All cases designated as pertaining to a financial issue by the letter "L" in the "Index to Cases" volumes published by DISCR were included for study. Also, since most adjudicators consider the existence of financial difficulties indicative of general immaturity and carelessness on the part of the applicant, the great majority of financial cases were

encoded not only with an "L" for their financial content but also with the letter "I" for "poor judgment, unreliability, or untrustworthiness." [Ref. 1:p. 6] Consequently, those financial cases encoded "LI" were also included for study, along with those financial cases encoded "L", to ensure a representative and meaningful population size. Financial cases involving other issues, such as psychiatric illness (encoded "LJ") or drug abuse (encoded "LN"), were not included for study, so as to facilitate the isolation of financial criteria used in adjudicating security clearances.

4. Cases Adjudicated Under New DOD Directive Only

Only those cases adjudicated under DOD Directive 5220.6 dated August 12, 1985 [Ref. 1] were included for study, because the new directive introduced major changes in adjudication procedure at DISCR. (1) It revised the definition of financial criterion "L"; (2) it established new adjudication policy for determining the degree of financial irresponsibility displayed by applicants; and (3) it altered the role of appeal boards in case adjudication. The aforementioned changes may have affected the adjudication of cases to some unknown extent.

Two other considerations reinforced the decision to use only more recent cases. First, almost all cases adjudicated prior to 1985 in which clearances were granted resulted in "split" decisions, whereby applicants were cleared for access to information up to, but not above, a stated

classification level (e.g., secret, confidential). In contrast, cases adjudicated after 1984, including those used in this study, make no such distinction. Applicants granted clearances are cleared for access to information up to the classification level requested by their employers. Second, the remoteness in time of earlier financial cases, which were available as early as 1966, may have reduced their current relevancy due to possible changes in financial attitudes and standards in society.

All cases examined in this study were adjudicated under the same guidelines, thereby enhancing case comparability.

5. Cases Issuing Final Determinations Only

Only those cases considered "closed", in which final determinations were issued stating unequivocally whether a security clearance was granted or denied to the applicant, were included for study. Cases in which final outcomes were unknown could not, obviously, be useful in a study attempting to determine which financial factors affect adjudicative outcome.

G. LIMITATIONS

There were several important limitations of this study. First, any inaccuracy in the "Index to Cases" volumes used to identify financial cases may have reduced the number of cases chosen for this study. For example, if a financial case were

coded "M" instead of "L" in the index, then the case could not have been properly pulled for analysis. A random sample of cases was studied to provide some measure of index accuracy.

Second, this study used case analysis to determine the financial criteria used by DISCR in case adjudication as opposed to interviews or questionnaires. A given case summary contains only that information chosen for inclusion by the administrative judge who wrote it. As a result, only that information contained in the case write-ups was examined; any other information, such as nonverbal communication (e.g., "body language") at the hearing, credit reports, related correspondence before or after the hearing, exhibits presented at the hearing, and any other case file information not written as part of the case determination was not examined, regardless of how pertinent or objective in nature.

The financial information chosen for inclusion in each case summary varied to some extent from case to case, depending on several factors, including the following:

- (1) the applicant's financial situation (i.e., not every applicant had a bankruptcy);
- (2) the reasons for denial of clearance (e.g., a delinquent debt satisfied ten years ago may not have been a reason for denial and so was not addressed);
- (3) combining or "lumping" of data (e.g., three delinquent debts of \$20, \$30 and \$40 listed as "\$90 of delinquent debts"); and

(4) personal discretion of the administrative judge (e.g., some administrative judges noted exhibits presented at the hearing or other miscellaneous case file information, such as monthly income and expenses of the applicant, in greater detail than others).

While the variations in financial information from case to case impaired case comparability to some extent--the true extent of which is unknown since any excluded information cannot be determined without examining the original case file --there was enough similarity in case information to permit meaningful analysis.

In addition, only that financial information encoded under criterion "L" or "I" was included for study. In other words, any financial information listed under a different criterion was not considered. For example, such financially-related items as "extortion" and "embezzlement" were usually encoded and adjudicated under criterion "H" for criminal conduct rather than financial criterion "L." Consequently, meaningful conclusions could not be drawn from this study for such items.

Finally, as mentioned earlier, all cases used were redacted, meaning that all identifying information was removed. Such items as the applicant's name, social security number, and name of employer were not needed for analysis and so their omission was of no consequence. Sometimes, however, when identifying information was deleted, other types of

information were also deleted by mistake, such as the type of debt. Such instances, however, were sufficiently infrequent so as to not impede a meaningful analysis of the data.

H. THESIS OUTLINE

The remainder of this thesis is organized as follows: Chapter II highlights recent developments in personnel security and examines major issues in clearance processing. Chapter III outlines the major steps in the adjudication process, and reviews applicable policy and directives. A description of the database, data collection, and methodology is provided in Chapter IV, while Chapter V discusses results and interpretations. Chapter VI presents conclusions of the study, recommendations, and areas for further research. Appendix B defines terms having specific meanings within the context of personnel security. Appendix C lists the main acronyms used in this thesis.

II. LITERATURE REVIEW

This chapter reviews the reasons for renewed interest in national security during the 1980s, provides a chronology of significant events, and examines major issues in the security clearance process.

A. RENEWED EMPHASIS ON NATIONAL SECURITY

In response to a series of espionage cases in the eighties (26 U.S. citizens were convicted of espionage from 1984 to 1986 alone) a number of governmental studies and congressional hearings were conducted to determine if various national security procedures needed strengthening [Ref. 5:p. 4]. In addition, legislation affecting national security procedures was introduced and some was passed [Ref. 6, 7 and 8]. While many areas, such as information and physical security, were examined, the security clearance process was especially scrutinized, because present and former U.S. governmental and contractor personnel with access to classified information played key roles in all recent espionage cases [Ref. 5:p. 1]. A brief chronology of events follows.

B. CHRONOLOGY OF EVENTS IN SECURITY

Early eighties: Foreshadowing a decade of increasing concern over national security, the General Accounting Office (GAO) issued a series of reports in the early eighties whose

purpose was a "continuing review of the protection of national security information." [Ref. 9:p. 1] Each report usually focused on a particular topic.

March 1983: Amidst controversy, President Reagan's "National Security Decision Directive 84" (NSDD-84) was issued and included the following elements: It (1) required the signing of nondisclosure agreements by all personnel with access to classified information, (2) required the agreement of persons with access to the most restricted materials to prepublication review of their writings, (3) called on agencies to adopt policies concerning employee contacts with the media, and (4) authorized the investigative use of polygraph examinations. Many considered the provisions too restrictive. [Ref. 6:p. 2]

November 1983: In response to the 1983 arrest of James Durward Harper, Jr., later convicted of espionage involving a DOD contractor facility, the DOD Industrial Security Committee ("Harper Committee") was convened to "analyze the effectiveness of current industrial security requirements and develop recommendations for program improvement." [Ref. 10:p. vi]

April 1985: In response to the arrests of William Holden Bell, members of the Walker family, and others later convicted of espionage, congressional hearings were held on federal government security clearance programs "to evaluate the efforts by several agencies of the executive branch to

establish the integrity and reliability of persons applying for and working in Federal positions and contractor employment." [Ref. 11:p. 1] The hearings were extremely broad in scope and surveyed programs in all federal agencies, both DOD and non-DOD.

June 1985: Secretary of Defense Caspar W. Weinberger established the DOD Security Review Commission ("Stilwell Commission") whose task was to examine and make recommendations concerning DOD security policies and procedures. The commission's report of recommendations, *Keeping the Nation's Secrets*, set the future course for DOD security policy. The commission believed that existing security procedures were basically sound but needed improvements in their implementation. [Ref. 2]

1986-1989: Many federal agencies and departments, both DOD and non-DOD, independently investigated their own security clearance programs to evaluate their effectiveness. These agencies included the Air Force, State Department, Department of Energy, and Nuclear Regulatory Commission [Ref. 12 through 17]. Weaknesses discovered in those programs were very similar to those in DOD.

February 1987: The House Select Committee on Intelligence issued a report addressing "serious security deficiencies [that] exist in a number of areas within the U.S. intelligence community." [Ref. 5:p. 2] This report disagreed with the Stilwell Commission that existing security procedures were

sound and suggested their complete overhaul. In October 1988, the same committee issued a status report which recognized some initial improvements but noted "the lack of a dedicated commitment of management to provide the necessary leadership and resources" as a barrier to further progress [Ref. 19:p. 2]. The status report also reiterated the need to move beyond mere improvement of the existing security screening system to a thorough reexamination of its "underlying philosophy, focus and methods." [Ref. 18:p. 3]

March 1990: Congressional hearings were held to examine a proposed executive order, first drafted in November 1987, which would rescind the right of federal employees and contractors denied clearances to be informed of the charges against them and respond to those charges. The purpose of the order was to provide uniformity in clearance processing for all federal and contractor personnel. The order is still pending (as of September 1991). [Ref. 7]

June 1990: A bill titled *The Counterintelligence Improvements Act of 1990* was introduced by the Jacobs Panel, featuring the following provisions: (1) forfeiture of profits from espionage, (2) new criminal penalties for possession of espionage devices and selling of top secret materials to foreign governments, (3) rewards for reporting espionage, (4) amending the Right to Financial Privacy Act to increase access to financial information for security clearance

investigations, and more. Senate hearings were held in July 1990. [Ref. 8]

C. GENERAL WEAKNESSES IN THE CLEARANCE PROCESS

This is the first of three sections highlighting major issues concerning security clearances addressed during the "decade of the spy." While space limitations preclude an exhaustive examination of all major issues concerning the clearance process, the issues covered were among the most problematic, significant, or controversial. Issues are divided into three categories: general, adjudicative, and financial. This section covers broad, general issues.

1. Lengthy Clearance Processing Times

In 1982, processing delays for two types of personnel security investigations (PSI)--the background investigation (BI) and the national agency check (NAC)--were estimated to average 130 days and 73 days, respectively [Ref. 9:p. 8]. The Harper Commission stated, "It is clear that the current process which can take as long as three years or more is not acceptable for the Government and can create a hardship for both the contractor and the individual whose clearance has been suspended." [Ref. 10:p. 22] Some studies recommended that greater resources be allocated to DIS, even at the expense of other programs [Ref. 2 and 18:p. 3]. For example, the Select Committee on Intelligence stated that "the United States has spent billions of dollars to acquire

technologically advanced means of intelligence collection but seems unwilling to invest in the relatively few millions of dollars necessary to better protect them from compromise." [Ref. 5:p. 12] Another solution suggested was the use of interim clearances.

In fiscal year (FY) 1989, DISCO increased the use of interim security clearances with the following positive results: (1) out of 82,445 requests for interim clearances, 69,331 were issued, usually within 5 days, (2) only .06 percent of the interim clearances granted were subsequently withdrawn, and (3) approximately 45 days of clearance processing time were eliminated, thereby saving contractors, and ultimately the government, an estimated \$182 million [Ref. 19:p. 15]. The steady growth in automated information systems should further speed clearance processing time [Ref. 19:p.1].

2. Proliferation of Clearances

From 1980 to 1985, the number of security clearances increased by an estimated 40 percent [Ref. 5:p. 12]. Reasons included relaxing of the "need-to-know" principle and contractor reluctance to withdraw clearances. Subsequently, in June 1985, the Secretary of Defense mandated a 10 percent reduction in the number of security clearances outstanding for DOD and defense contractors in each classification level--top secret, secret, and confidential--by October 1985. Not only was the original goal surpassed by 6 percent for all classification levels combined (although the goal was not

achieved for each individual classification level), but an overall reduction of almost 34 percent was achieved by October 1986. An additional requirement to reduce requests for clearances by 10 percent was also met. [Ref. 20:p. 2]

3. Backlog of Periodic Reinvestigations

Various studies emphasized the importance of periodic reinvestigations by pointing out that "...the greater and more probable threat to DOD security is the individual who is recruited [for espionage] after he has been cleared." [Ref. 2:p. 37] Even more emphatic was the Harper Commission, which stated that "...personnel security risks commence after a clearance is granted (and access is afforded) and increase significantly thereafter." [Ref. 10:p. 87] A Senate Intelligence Committee report noted the following:

Most [spies] are amateurs, and few, if any, enter the military or civilian employment with the intent to commit espionage. Neither do they necessarily behave at the time of entry in ways considered unsuitable. [Ref. 18:p.18]

Congress appropriated \$25 million in FY 1986 to reduce the backlog of periodic reinvestigations [Ref. 20:p. 3]. The number of reinvestigations conducted increased "from a low of 208 in FY 1982 to more than 80,000 in FY 1987." [Ref. 21:p. 62] By FY 1989, DIS had completely eliminated the backlog of top secret reinvestigations and had begun to eliminate the backlog of secret level reinvestigations [Ref. 19:p. 17].

4. Overclassification of Documents

Some estimates put the number of classified documents in existence into the trillions [Ref. 5:p. 13]! The Stilwell Commission, however, estimated the number at a more realistic 100 million as of 1985 [Ref. 2:p. 19]. In any case, appeals were made to those who classified documents to reconsider whether unauthorized disclosure of a given document would realistically damage national security so that protection efforts would be concentrated on those documents most in need of restricted access.

5. Lack of Managerial Involvement

The Stilwell Commission noted that in every case of recent espionage, "there has been evidence of conduct known to the commander/supervisor which, if recognized and reported, might have had a bearing on the continued access of the individual." [Ref. 2:p. 44] The Commission went on to recommend the implementation of "reliability" programs requiring supervisors to perform initial and recurring evaluations to certify that subordinates are fit for anticipated duties [Ref. 2:p. 44]. The Harper Committee echoed the importance of encouraging "industry to initially screen employees and be continually alert to behavioral changes and other circumstances that may affect an employee's continued suitability for classified access." [Ref. 10:pp. 2-3]

The House Select Committee on Intelligence noted that "frequently it is difficult to ascertain the possibility of espionage based on lifestyle alone, even when background investigations and reinvestigations are conducted properly," and emphasized the importance of "encouraging security awareness by fellow employees, who can report patterns of work activity potentially associated with espionage." [Ref. 18:p. 11] The Committee also quoted a senior DOD personnel security official. "There should be an opportunity to share problems at early stages with a supervisor or counselor who might be able to help, before the problem becomes desperate, unshareable, and a motive for illegal behavior like espionage develops." [Ref. 18:p. 11]

6. Limited Scope of Secret-Level Investigations

The Stilwell Commission recommended "expansion of the investigative scope for a secret clearance to include a credit check of the subject and written inquiries to past and present employer(s)." [Ref. 2:p. 9] The Harper Committee concurred [Ref 10:p. xii], as did the House Intelligence Committee, which strongly attacked the insufficiency of the NAC as the sole requirement for access to information classified at the secret or confidential level.

It is inexcusable that the majority of people who require access to classified information are cleared at the secret level, and for these individuals, the government conducts only a NAC, seeking no financial or employment history information. The Committee finds this failure to act inexcusable. Testimony from professional security experts was unanimous that these two elementary criteria should

have been made a part of the NAC years ago. [Ref. 18:p. 6]

D. MAJOR ISSUES IN CLEARANCE ADJUDICATION

This section explores major issues believed to affect the quality of the adjudicative process.

1. Screening Methods Used in Adjudication

Judgmental and empirical screening are the two main methods used in determining personal financial responsibility. The judgmental method recognizes that "the average behavior of a category of people does not necessarily indicate the behavior of a particular individual within that category" and encourages individual evaluation [Ref. 22: p. 47]. On the other hand,

unlike the judgmental method, the empirical method, in its purest form, does not concern itself with the individuality of the applicant. Credit scoring is an empirical method of determining personal financial responsibility. It is the newest method and involves quantification of the applicant's personal trait variables to arrive at a score for the individual. The score is compared to a required standard to determine applicant approval. [Ref. 22:p. 52]

While the judgmental method is generally considered to be subjective and the empirical method objective, there is subjectivity involved in setting the standards, or thresholds, in the empirical method. Also, standards may discriminate against certain population groups who may be less likely to score high in particular rated variables, such as home ownership, but may be financially responsible nonetheless. Consequently, "setting a cutoff score for an applicant's

approval can only be considered objective in the sense of being consistently applied." [Ref. 22:p. 58]

The clearance process used in DOD is mainly judgmental, with some empirical aspects. For example, some thresholds are applied to identify "issue" cases involving enough derogatory information to require further or expanded investigation. Investigators, however, are encouraged to expand any cases if, in their judgment, circumstances so warrant--even if case data fall under the established thresholds [Ref. 23]. The trend in DOD adjudication, however, is toward a more empirical emphasis, as discussed in the next paragraph.

2. Specificity of Adjudicative Criteria

Many studies recommended that criteria for adjudicating security clearances be made more specific and binding on the adjudicator. For example, the Harper Committee recommended "strengthening the adjudication process through the establishment of adjudicative standards as opposed to adjudicative guidelines which shall be uniformly applied throughout the DOD." [Ref. 10:p. viii] The Stilwell Commission concurred, noting that the general nature of adjudicative criteria made it "possible for different adjudicators to arrive at different determinations after applying the same guidelines to a given set of investigative results." [Ref. 2:p. 35] Civilian security specialists also advise that "in using background information, you should

establish some criteria for objective and consistent evaluation" [Ref. 24:p. 51] and "to avoid erroneous judgments, the subjective process of risk appraisal must be given an objective framework on which appraisers can base their final judgments." [Ref. 25:p. 52]

In response, more specific and binding adjudicative criteria, termed "Adjudication Policy," were established in DOD Directive 5220.6 dated 12 August 1985 for a number of areas, including financial irresponsibility, criminal and sexual misconduct, alcohol and drug abuse, and mental/emotional illness. The newly established criteria list factors, both for and against the granting of a clearance, which must be considered by adjudicators in making clearance decisions. [Ref. 1:encl (3)]

3. Written Quality of Reports

One study assessed the writing quality of reports of investigation, the documents which summarize the investigative results for each applicant and are the primary material relied on by adjudicators in making clearance decisions. Adjudicators commented on "the inconsistent quality of writing they reviewed" and agreed "that grammatical, spelling, usage, and punctuation errors caused them to question the thoroughness and intelligence of the field agent." [Ref. 26:p. 19] The study cautioned that "the negative perceptions associated with poorly written reports may cause adjudicators

during their decision process to unconsciously assess field agents as a mitigating factor." [Ref. 26:p. 19]

4. Connotative Effects of Language

Research into the effects of language used in reports of investigation indicated that:

Adjudicators responded differently to the connotations of the language that special agents used. These responses could have a significant impact on how the case was adjudicated. Terms like "financial irresponsibility," "bankruptcy," "sexual misconduct," "drug abuse," and so on triggered in adjudicators radically different reactions to similar kinds of information. [Ref. 26:p. 22]

The study provided the following financial example:

...the words "bankruptcy," "past-due," "collection agency" triggered in one adjudicator reviewing a PSI containing a history of significant financial problems...language schema that caused the adjudicator to feel that the subject was irresponsible, dishonest, and would be prone to financial blackmail. He intended to recommend denial of clearance...In contrast, another adjudicator in the same adjudication facility was evaluating a PSI with an almost identical financial profile (in fact, the history of financial difficulty was more severe). This agent reacted neutrally to terms like "bankruptcy," "past due," and "collection agency." She believed the subject had merely fallen on bad times and had run into a string of bad luck. [Ref. 26:p. 22]

The study suggested that "adjudicators need to develop a better self-consciousness about their own language biases and the extent to which their adjudication decisions may be affected by those biases." [Ref. 26:p. 26]

5. Perception of Verbal and Nonverbal Cues

Yet another study examined verbal and nonverbal cues indicative of deception in investigative interviews. Examples of possible verbal cues to deception included fewer past tense

verbs, more first-person pronouns, fewer unique words, fewer references to specific groups or persons, and less emphasis on the negative aspects of people or situations [Ref. 27:p. 79]. Possible nonverbal cues to deception included increased shrugs, more or less posture shifts, and fewer illustrating hand gestures [Ref. 27:p. 80]. The idea was that persons more adept at judging truthfulness in applicants would produce more accurate investigative information. Such information would be of interest to adjudicators who must determine the security worthiness of applicants from results of investigative interviews and/or testimony at administrative hearings. The study concluded from available research that "humans can often detect deception at better than chance levels, but not much better." [Ref. 27:p. 83] In other words, the perception of verbal and nonverbal cues could have a positive effect on the information used in adjudication, but not markedly.

6. Training of Adjudicators

In 1985, the Stilwell Commission made the following comments concerning the training of adjudicators:

DOD requires no formal training for persons performing adjudicative functions. Indeed, no such training is conducted beyond an occasional seminar. The application of adjudication guidelines thus becomes largely a matter of on-the-job training. Moreover, the grade levels of adjudicators appear uniformly low, considering the degree of judgment and skill required. [Ref. 2:p. 35]

One study confirmed that adjudicative tasks, while varying in complexity from less to more challenging, involved "primarily complex cognitive capabilities," including

numerical facility, visual perception, convergent and divergent reasoning, verbal aptitude, and memorization [Ref. 28:pp. 22-23]. The study also indicated that "as a career area adjudication has been neglected for many years and has a requirement for a dynamic enhancement program." [Ref. 28:p. ii] Changes in the area of adjudicative training appear likely as analyses of adjudicator tasks and training continue [Ref. 29 and 30].

7. Due Process in Adjudication

Controversy exists over to what degree, if at all, due process, as guaranteed in the U.S. Constitution, applies to the adjudication of security clearances. Pursuant to the 1959 U.S. Supreme Court case of *Greene versus McElroy*, 360 U.S. 496, which first asserted the right of an individual to review charges and confront accusers [Ref. 31:p. 4], Executive Order 10865 was issued. It established the right of any federal employee or contractor denied a clearance to a written statement of reasons and chance to respond [Ref. 32]. As mentioned previously, an executive order proposing to rescind the foregoing rights was fought on the grounds that it lacked due process or violated the inherent rights of applicants [Ref. 7]. At house hearings on the proposed order, Gerry Sikorski, chairman of the Subcommittee on Civil Service, made the following statement:

This opportunity to confront our accusers, or at least the accusations, and to present our case when we are in danger of losing an interest of great importance to us, is one of

the fundamental premises upon which America was founded.
[Ref. 7:p. 1]

Yet, as Emilio Jaksetic, Appeal Board Chairman at
DISCR, pointed out in a preliminary legal analysis,

absent a liberty or property interest, the Due Process Clause [of the Constitution] does not apply, and the Government is free to exercise its judgment and discretion as to what procedural protections, if any, it wishes to grant to applicants for security clearance. Of course, if any federal statute applies, then whatever procedural requirements mandated or required by that statute must apply. [Ref. 31:p. 169]

In fact, two Supreme Court decisions, both issued in 1988, addressed the right to a security clearance. A US Supreme Court opinion concerning the case of *Department of the Navy versus Thomas E. Egan*, U.S. Supreme Court 86-1552 (1988), stated that there was no inherent right to a security clearance [Ref. 31:p. 4], while the case of *Hill versus Department of the Air Force*, 344 F. 2d 1047 (1988), "went further in stating that there is no liberty or property interest in possession of a security clearance." [Ref. 31:p. 6]

In any event, as Jaksetic commented,

absent a rigorous analytical approach, supported by abundant case law, and cogent reasoning, the Government will have little chance of convincing a court that the principles articulated by the Supreme Court in the *Greene* case [concerning rights of confrontation and cross-examination] do not or should not apply to security clearance cases under a new system or Executive Order. [Ref. 31:p. 173]

8. Personal Values of Adjudicators

Every individual has his or her own personal sense of "right and wrong." Such personal, or moral, values have been pinpointed by some as a major reason for subjectivity in adjudicative decisions:

[Appraisers] may overlook past activities if they are similar to activities they or their acquaintances were once involved with. Or if past activities offend an appraiser's personal moral values, the appraiser may take a particularly harsh stance regardless of what these actions really indicate about the applicant's probable future behavior. [Ref. 25:p. 51]

In addition, most individuals, including adjudicators, could probably describe themselves as "liberal," "conservative," "moderate," or some variant thereof in their general orientation. While such attitudes and values may affect clearance adjudication to some unknown extent, skilled adjudicators who are aware of their existence can work to minimize their effect. The administrative judge is a variable studied in this thesis.

9. Environmental Factors

One final factor which could affect the adjudication of security clearances is the influence of so-called "environmental factors", a term used to refer to such items as prevailing public opinion and agency philosophy. For example, in the midst of outcries from governmental committees that the DOD clearance denial rate of about 1 percent was too low [Ref. 2:p. 36; 11:p. 4; and 18:p. 7], adjudicators may have felt inclined to deny more clearances. In addition, as is true for

most agencies, departmental philosophy may change from time to time perhaps influenced by the liberal or conservative attitudes of departmental personnel or managers. These attitudes, may, in turn, exert some unmeasured influence on adjudication. Finally, in an era of increasing budgetary constraints, pressure often mounts to do more with less. The resulting increase in individual caseloads may encourage an emphasis on the number rather than quality of cases adjudicated [Ref. 33:p. 19]. Adjudicators should be aware of the presence of such influences so as to minimize their potential impact on adjudicative decisions.

E. FINANCIAL ASPECTS OF SECURITY RISK

This section examines the financial aspects of security risk by exploring the motives involved in the commission of both white collar crime and espionage. Knowledge of such motives has lead to an increased emphasis on government access to personal financial information, which will be discussed last.

1. Motives in White Collar Crime

One definition of "white collar" crime, a term coined more than 40 years ago by criminologist Edwin Sutherland [Ref. 34:p. 109], is "committing a premeditated illegal act against the institution where the individual is employed," with the term "institution" applying to both the government and the private sector [Ref. 35:p. 486]. While some believe that "the

biggest group of offenders are persons heavily in debt," [Ref. 35:p. 486] research indicates that persons commit crimes against their employers for many reasons.

For example, two groups--100 certified public accountants and 90 participants at a security conference--were independently asked to rank reasons why employees steal or embezzle from their employers. The top four reasons were the same for both groups. (1) They can get away with it, (2) stealing a little from a big company won't hurt, (3) each thief has his or her own motives so there is no general rule, and (4) fear of being caught is not a deterrent. In fact, the motive that "they think they desperately need, want, or desire the money or articles stolen" was ranked only 13th! [Ref. 36:pp. 112-113]

Other reasons cited in the literature for employee crime include revenge against the company, peer pressure, the challenge of beating the system, hatred of management, outside pressures such as blackmail or extortion, a company's reluctance to prosecute due to negative publicity, an internally corrupt business environment where "stealing is a way of life," alienation from the corporate bureaucracy, a court system that "goes light" on white collar crime, and a prevailing attitude in society and the business world that "it isn't a crime if you don't get caught." [Ref. 37:pp. 93-94; Chap. 26; and 39:p. 63]

Many models, theories, and generalizations about crime have been offered. For example, according to one article, there are two general causes of workplace dishonesty-- individual predisposition and management indifference [Ref. 40:p. 94]. Economic theories of crime, on the other hand, regard "the criminal as a rational actor, maximizing profit within a matrix of costs and opportunities." [Ref. 41:p. 1] For example, in the Becker economic model, if the gain in expected utility from engaging in an illegal activity is positive, then a decision maker will choose to engage in the activity [Ref. 41:p. 3].

Yet another study identified the essential preconditions of internal crime as need, opportunity, and justification. An employee could "need" money, revenge, or excitement; have the "opportunity" to commit the crime due to poor internal controls, lack of punishment, or a clearance for access; and "justify" the crime based on a corrupt corporate environment, poor treatment by management, impersonality of the corporation, or societal reinforcement ("everyone's doing it"). [Ref. 42:pp. 14-15]

In fact, as one article pointed out, there is some validity to the excuse "everyone does it--I'm only taking my share." [Ref. 42] Seven out of ten employees can be expected to steal at one time or another; one-half of corporate executives see nothing wrong with bribing foreign officials; and 60 percent of employee theft occurs at the

executive/managerial level [Ref. 42:pp. 12-16]. According to a study done by the Bureau of Justice, 75 percent of all employees will steal at least once [Ref. 37:p. 93]. Recognition of the prevalence of white collar crime is reflected in such statements as "the defense industry is rife with corruption" [Ref 38:p. 26] and "if you were going to prosecute all the companies in America engaging in industrial espionage, then you'd have to put most of the Fortune 500 in jail." [Ref. 38:p. 28].

Regardless of the reasons why employees steal, some suggested solutions to the problem have included the following: (1) honesty testing [Ref. 43]; (2) a complete prescreening sequence to include interviews, psychological testing, and reference, credit, and criminal checks [Ref. 40:p. 95]; (3) improvement of the corporate environment to include a willingness to prosecute, better relations with employees, and higher ethical standards [Ref. 38:p. 28-31]; and (4) continuing observation of employees, including periodic background investigations and identification of employees who are disgruntled or living beyond their means [Ref. 37:p. 94].

It should be apparent from the foregoing discussion that employees commit crimes against their employers for many reasons. In other words, financial crimes are not necessarily committed solely because of financial need or greed. Consequently, a "clean" credit check does not guarantee that

an employee will not commit a financial crime. As will be seen in the next section, however, the financial motive, while not always controlling in the commission of white collar crime, seems to figure much more prominently in espionage.

2. Financial Motive in Espionage

The following quotes reflect the strong influence of the financial motive--including both need and greed--in the commission of espionage:

The KGB itself has provided a clue to the types of people in whom it is particularly interested. It uses an English word to remind its officers of the appeals they should use in their recruiting efforts. The acronym is 'MICE'--for Money, Ideology, Compromise, and Ego. [Ref. 44:p. 8]

Money has become an increasingly important factor in U.S. espionage cases during the last quarter century. In virtually all recent spy incidents, Soviet agents have paid substantial sums to the Americans who purloined information for them. More than anything else, they have been business deals with, in some instances, the American making the original approach to the Soviets. Greed and need have been the motivators. Nowadays officers and agents of the KGB and GRU (Soviet military intelligence) look for the government or contractor employee with access who is a compulsive gambler or has other serious money management problems. The contractor whose firm is having financial problems also interests them. They can be very generous if the information potentially available is "hot" enough. [Ref. 44:p. 8]

Most of the Americans who were caught spying between 1984 and 1986 had no ideological commitment to another foreign country. They sold U.S. secrets for financial reasons. [Ref. 5:p. 6]

It is a sad fact that the preponderance of recent espionage cases have hinged on the greed of Americans willing to betray their country's secrets [Ref. 5:p. 15].

Stanislav Levchenko, the highest-ranking KGB officer to defect to the U.S., in predicting increased Soviet efforts to obtain

U.S. intelligence, commented, "For the price of one tank...you can recruit a dozen people." [Ref. 45:p. 7] Said William Bell, who was convicted of espionage in 1981,

[Polish intelligence officer] Mr. Zacharski had found a fool that needed money. I had a weak spot. He took advantage of me. [Ref. 10:p. 228]

In the case of James Harper, who was convicted of espionage in 1984,

It appeared that the Poles were not as interested in the classified Defense documents from SCI as he had originally thought, so, upon his return to California, he buried them in an out-of-the-way location in the San Joaquin River delta near Stockton--just for safe-keeping in case a buyer could later be found. [Ref. 10:p. 210]

Of 59 cases of espionage compiled by the Department of Defense Security Institute from the last 15 years, 41 of them --almost 70 percent--involved the successful or attempted exchange of money. Thirty-one cases involved cleared US citizens selling documents for money; 10 cases involved foreign agents paying US undercover agents for documents. [Ref. 46]

Evidence indicates that the trend toward "spying for profit" will continue. Frank Nesbitt, former Air Force and Marine official, was indicted in 1989 for attempting to sell classified information to the Soviets [Ref. 45:p. 1]. Charles Schoof and John Haeger, both former Navy petty officers, were convicted in 1990 of attempting to sell classified information to the Soviets [Ref. 47:p. 1]. Clyde Conrad, former army sergeant, was sentenced to life in prison for selling material

to the Hungarian and Czechoslovak secret services [Ref. 48:p. 1]. Roderick Ramsay, another former army sergeant who worked for Conrad, was indicted for selling secret NATO plans to the Soviet Union [Ref. 48:p. 2].

While additional research is clearly needed to better predict who might commit espionage, one researcher observed that there are not enough cases of espionage from which to draw statistically significant conclusions as to who will or will not commit espionage [Ref. 49:p. 4]. Also, studies must be planned to include financial information. For example, the author of one study of background investigation data admitted that one major limitation was the undersampling of financial credit data [Ref. 50:p. 969]. While more studies are being conducted, the US government's more immediate response to the increasing incidence of espionage is to increase access to the financial records of employees applying for and currently holding security clearances.

3. Increased Access to Financial Information

As the financial motives of spies became increasingly apparent, efforts were initiated to increase access to financial information during the security clearance process through several means, some of which were discussed previously. (1) There should be increased emphasis on periodic reinvestigations, since in "recent espionage cases (e.g., Chin, John Walker), the employees who engaged in espionage were never subjects of reinvestigation." [Ref. 5:p.

16] (2) Investigations for secret clearances should be expanded to include credit checks. (3) There is a need for new legislation, such as the proposed *Counterintelligence Improvements Act of 1990*, which would require that persons who receive top secret clearances permit the government access to their financial records anytime during the period the clearance is held and for five years thereafter [Ref. 7:pp. 2, 10].

The following quote represents a viewpoint held by more and more persons concerning the importance of financial information in the clearance process:

The Committee [on Intelligence] believes strongly that financial information deserves a more important focus in background investigations. Background investigations and reinvestigations are critically incomplete--and security decisions based on them are equally flawed--absent essential financial information. Failure to consider such information in security investigations is a serious security flaw. [Ref 5:p.15]

III. BACKGROUND

This chapter examines the official directives and guidelines governing the clearance process and outlines the major steps in the DISCR adjudication process.

A. OFFICIAL DIRECTIVES AND GUIDELINES

Each of the following documents is discussed in turn: (1) DOD Directive 5220.6, "Defense Industrial Personnel Security Clearance Review Program" [Ref. 1]; (2) DIS 20-1-M, "Defense Investigative Service Manual for Personnel Security Investigations" [Ref. 23]; and (3) Executive Order 10865, "Safeguarding Classified Information Within Industry" [Ref. 32].

1. DOD Directive 5220.6

While DOD Regulation 5200.2-R, "DOD Personnel Security Program" [Ref. 51], is the basic personnel security regulation for all DOD components, DOD Directive 5220.6 is the implementing instruction for the adjudication of industrial clearances at DISCR [Ref. 1]. Both list the main categories of criteria to be considered in adjudicating cases. These categories are listed in Appendix D. It should be noted that a different letter has been designated for each type of criterion. A case containing derogatory information in a certain criterion is labelled with the letter corresponding to

that criterion. As previously noted, a case involving an excessive amount of debt is labelled with the letter "L." A case may be labelled with as many letters as apply, usually no more than five or six in practice. [Ref. 1:pp. 5-7]

The most current DOD Instruction 5220.6, dated 12 August 1985, introduced three major changes in adjudication procedure at DISCR. First, it revised the definition of financial criterion "L" to delete the phrase "repetitive unexplained absences from places of employment or official duty." The current definition is "excessive indebtedness, recurring financial difficulties, or unexplained affluence." Consequently, cases involving unexplained absences from work or duty were no longer adjudicated under criterion "L" unless financial indications were present. [Ref. 1]

Second, the instruction established new adjudication policy which must be considered by adjudicators in determining the degree of financial irresponsibility displayed by applicants. The new policy is reproduced in Appendix E. Other criteria, such as drug or alcohol abuse, mental illness, and criminal behavior, have their own adjudication policy. Some criteria, such as "I" for irresponsibility, have no corresponding adjudication policy. However, the directive requires that the following general factors be considered in all determinations:

1. The nature and seriousness of the conduct;
2. The circumstances surrounding the conduct;

3. The frequency and recency of the conduct;
4. The age of the individual;
5. The motivation of the individual, or the extent to which the conduct was negligent, willful, or voluntary;
6. The absence or presence of positive evidence of rehabilitation; and
7. The probability that the conduct will or will not continue or recur in the future. [Ref. 1:p. 5]

Third, the new instruction altered the role of appeal boards in case adjudication. Prior to 12 August 1985, appeal board determinations, whether affirming or reversing the determinations of administrative judges, were final. Cases were remanded (returned) to administrative judges only when appeal boards directed that additional testimony or evidence be admitted into the record for consideration or further investigation be conducted on the case. Under the new DOD Directive, however, appeal boards may only affirm or remand, but not reverse, the determinations of administrative judges. In other words, if an appeal board disagrees with a given determination, it must remand the case to the administrative judge for a "determination pursuant to remand." [Ref. 1:Encl (1)]

The main emphases in adjudication as outlined in the directive include the following: (1) Clearances may be granted only when "clearly consistent with the national interest" to do so, and (2) "each personnel determination must be a fair and impartial overall commonsense decision based upon a

consideration of all available information, both favorable and unfavorable." [Ref. 1:p. 5]

2. DIS Manual 20-1-M

DIS 20-1-M outlines the requirements and guidelines to be followed by DIS in performing PSIs of applicants for clearances. Areas covered include (1) interview procedures; (2) thresholds for determining "issue" cases, those cases containing enough derogatory information to require or warrant "expanded" investigations; and (3) investigative requirements, the depth of which depends on the level of clearance requested [Ref. 23]. For example, credit checks are required for top secret, but not secret, access. Consequently, the likelihood of finding derogatory financial information is greater for top secret vice secret clearance applicants. This point explains why the level of clearance requested is a variable in this study.

While the depth of investigations depends on the level of access requested, it is interesting to note that cases are not adjudicated on the basis of the level of clearance requested. The final determination of Case OSD No. 83-1345, issued 30 July 1984, concluded that neither the Appeal Board nor the administrative judges had the power to issue so-called "split" decisions, whereby an applicant was granted a security clearance at but not above a certain classification level. Consequently, cases adjudicated thereafter make no distinction as to the level of classified information to which the

applicant has access and simply grant the applicant a security clearance, the level of which is determined by that requested by the employer.

3. Executive Order 10865

This executive order, promulgated by President Eisenhower in 1960 and revised periodically thereafter, requires due process for industrial clearance applicants, to include the following: (1) written reasons for denial, (2) a chance to reply in writing to the reasons, (3) the right to a hearing, (4) reasonable time to prepare for the hearing, (5) the right to be represented by counsel, (6) an opportunity to cross-examine witnesses, and (7) written notice of the final decision [Ref. 32]. As will be seen in the next section, the DISCR adjudication process incorporates all these elements so as to afford industrial applicants due process.

B. THE SECURITY CLEARANCE PROCESS

Exhibit 1 shows the organizational relationships among the four main agencies--DIS, DISCO, DISCR, and PIC--involved in the DOD industrial security clearance process. Exhibit 2, adapted from Appendix C in reference 31, shows the sequence of major steps in the DOD industrial security clearance process, highlighting the DISCR adjudication process. Each step will be explained below.

Step 1 - Request for Clearance. A company security officer generally submits to DISCO, the agency in Columbus, OH,

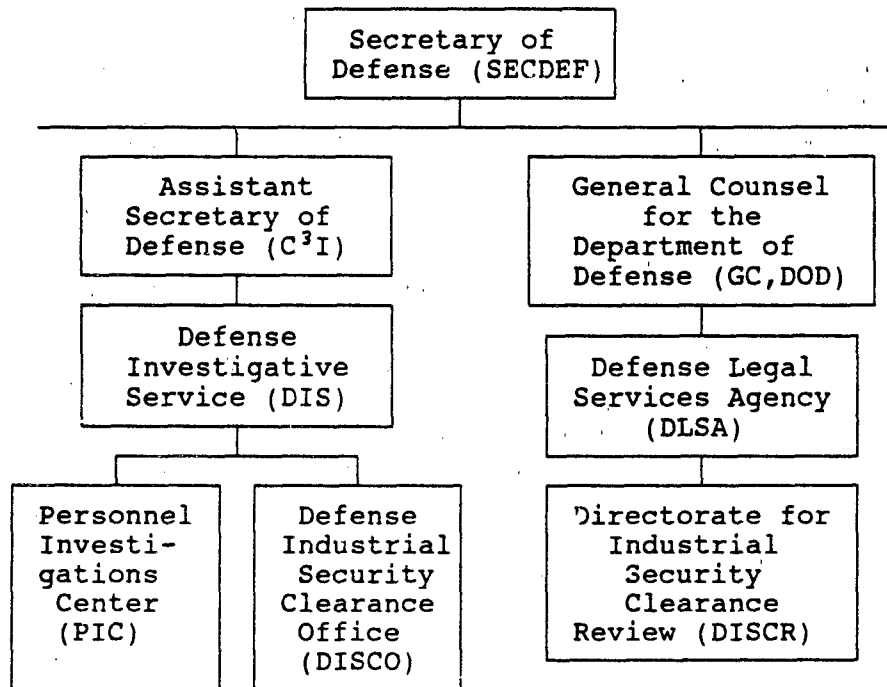
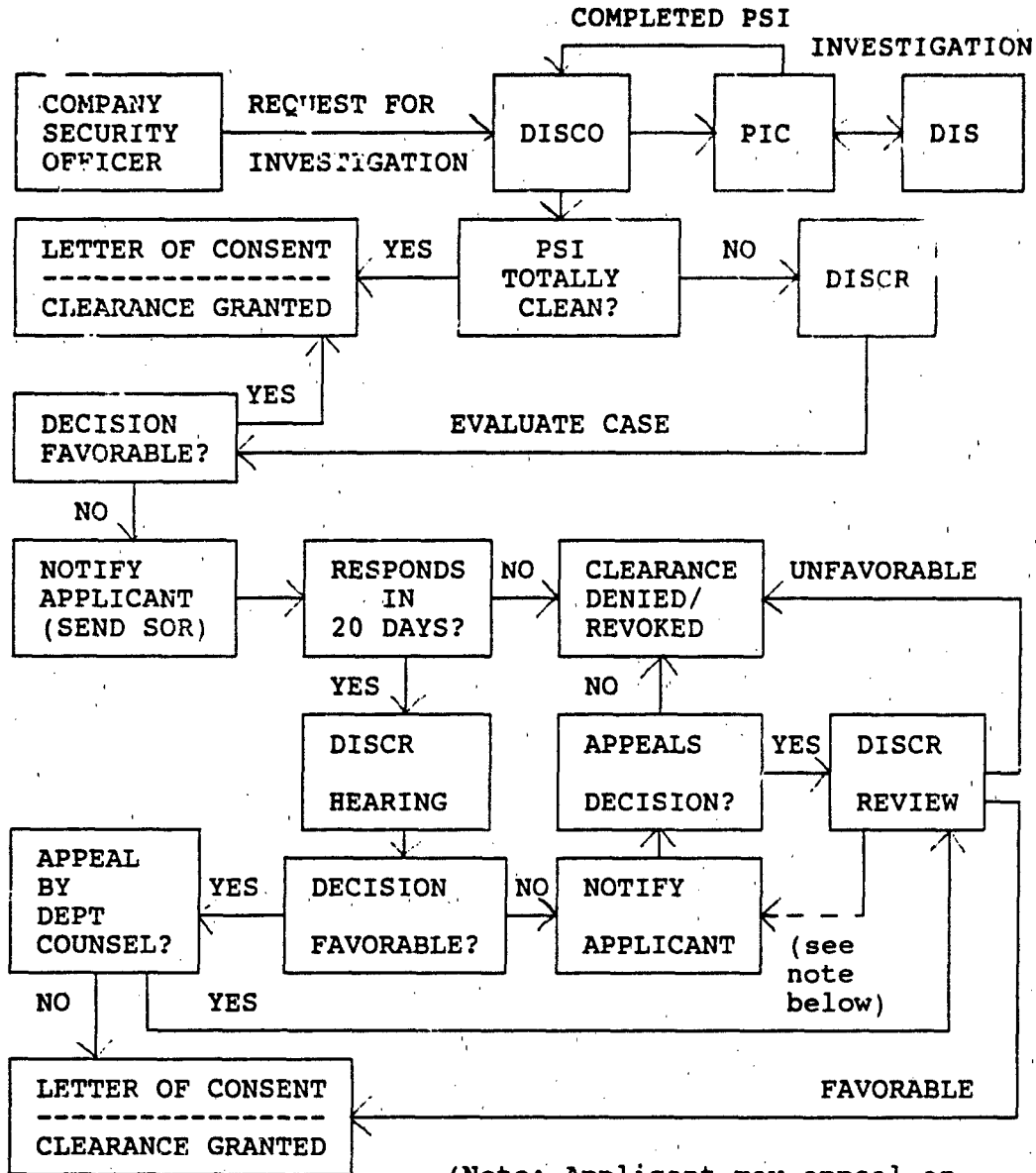


Exhibit 1.

**Organizational Chart for DOD Agencies Involved
in the Industrial Security Clearance Process**



(Note: Applicant may appeal an unfavorable decision resulting from appeal by department counsel)

Exhibit 2.

DOD Industrial Security Clearance Process
(adapted from Appendix C in Reference 31)

responsible for processing and issuing all industrial security clearances, a request for investigation on behalf of an employee needing a clearance. Included is the personnel security questionnaire (PSQ), which is filled out by the employee and covers such areas as present and former residences and places of employment, education, and credit references. The level of clearance requested is also noted on the request for investigation, thereby determining, as explained earlier, the depth of investigation performed.

Step 2 - PIC Initiates the Investigation. DISCO will forward the PSQ to PIC in Baltimore, MD, which will then initiate a PSI, investigating the applicant's background in accordance with the level of clearance requested. "Scoping" is the term used at PIC to refer to assessing the level of investigative effort required. Through scoping, case controllers identify "issue" cases, those cases exceeding established thresholds or containing enough derogatory information, in the case controller's judgment, to warrant further investigation.

Step 2A - DIS Conducts the Investigation. The investigative leads and requirements are submitted to Special Agents in the field. In addition, a National Agency Check is conducted by PIC personnel.

Step 3 - Nature of Investigative Results. If the investigative results are favorable, then DISCO will issue a letter of consent (LOC) approving the issuance of the

clearance. If the investigative results are unfavorable, then the case is forwarded to DISCR for adjudication.

Step 4 - DISCR Evaluates Questionable Cases. First, adjudicators called personnel security specialists at one of DISCR's two personnel security divisions (PSD) in Columbus, OH, will examine the case. If they grant the clearance, they will notify DISCO to issue the clearance. If they cannot grant the clearance, then the case is forwarded to personnel security specialists at DISCR's PSD in Arlington, VA. If the clearance still cannot be granted, then a statement of reasons (SOR) explaining why the clearance cannot be granted is forwarded to the applicant.

Step 5 - Applicant Response to SOR. An applicant who is denied a clearance and wishes to contest it must submit within 20 days of receipt of the SOR a written answer under oath (notarized) admitting or denying each allegation in the SOR. If no response is received within 20 days of issuance of the SOR, then the decision to revoke or deny the clearance is final. If a response is received within 20 days, then another type of DISCR adjudicator, called an administrative judge, will rule on the case.

Step 6 - Administrative Judge Convenes a Hearing. The applicant may request to appear at a hearing, with or without an attorney or personal representative. The applicant may also cross-examine witnesses. Alternatively, the applicant may waive the hearing and request that the administrative

judge issue an "administrative determination." In either case, "department counsel," or staff attorneys at DISCR, represent DOD. The administrative judge's decision, whether favorable or unfavorable, is final if not appealed by either party. Otherwise, the case is reviewed again.

Step 7 - Response to Administrative Judge's Determination.

The applicant or department counsel may file a notice to appeal the case within 20 days from issuance of the administrative judge's determination (the actual appeal itself may be submitted within 60 days from issuance of the determination). Either party appealing must state in writing the issues in question. No new evidence or testimony is considered on appeal. If the appeal board--a panel of DISCR staff attorneys designated to rule in cases that are appealed--affirms the administrative judge's decision, then the determination, whether favorable or unfavorable to the applicant, is final. If the appeal board disagrees with the administrative judge's decision--due to either error in procedure or the "arbitrary or capricious" nature of the ruling--then it must "remand" (return) the case to the administrative judge for review. The administrative judge will either affirm or reverse his or her initial decision. If an initially favorable decision is reversed by the administrative judge unfavorably for the applicant upon appeal by government counsel, then the applicant may appeal it (see

dotted line in Exhibit 2). A given case may be appealed or remanded several times before a final determination is made.

IV. METHODOLOGY

A. DATA SOURCE

Eleven "Index to Cases" volumes, listing all cases adjudicated by DISCR administrative judges from 4 July 1967 through 31 December 1989, were obtained from DISCR. The indexes include the following information for each case: (1) an identifying case number, (2) letters of criteria or issues involved in the case (e.g., "L" for financial, "M" for alcohol abuse), (3) the date of determination, and (4) a brief synopsis of the case. A list was compiled of all cases in the eleven volumes encoded with an "L" for "excessive indebtedness, recurring financial difficulties, or unexplained affluence," [Ref. 1:p. 7] whether or not other issues were indicated. There were a total of 368 such cases involving financial issues. It should be noted, however, that many of the 368 cases on the list also involved nonfinancial issues. The redacted versions of the 368 case summaries were then retrieved and photocopied at DISCR in Arlington, VA. Table I shows the breakdown of the 368 financial cases by volume and year under the heading "All Financial."

To help isolate *financial* criteria used in adjudicating the cases, cases involving nonfinancial issues were excluded from this study. One exception involved the criterion "I" for "poor judgment, unreliability or untrustworthiness."

TABLE I
BREAKDOWN OF FINANCIAL CASES BY INDEX VOLUME AND YEAR

Index Volume	Year	Type of Financial Case		
		All Financial	All L, LI	L, LI Chosen for Study
I	1967 - 1975	61	33	
II	1976 - 1982	25	16	
III	1983 - 1984	29	22	
IV	1985	14	8	
V	1986	11	3	
VI	1986	24	13	13
VII	1987	2	0	
VIII	1987	29	17	17
IX	1988	0	0	
X	1989	94	39	39
XI	1989	79	26	26
Totals		368	177	95

[Ref. 1:p. 6] Since most adjudicators considered the presence of financial difficulty indicative of unreliability or untrustworthiness, nearly all financial cases were encoded "I" in addition to "L." Consequently, to obtain a meaningful population size, cases encoded "LI" were included for study along with "L" cases. Of the 368 financial cases, 177 were encoded "L" or "LI." Table I shows the distribution of these 177 cases by volume and year under the heading "All L, LI."

One final restriction was imposed to obtain the group of financial cases ultimately examined in this study. Due to major changes in adjudicative policy and procedure introduced by DOD Directive 5220.6 dated 12 August 1985 [Ref. 1], only those "L" and "LI" cases adjudicated under the new directive were used. In other words, only those 95 cases encoded "L" or "LI" in DISCR "Index to Cases" volumes VI, VIII, X, and XI--adjudicated in 1986, 1987, 1988, and 1989 respectively--were chosen for study. Aside from producing a manageable population size, several advantages resulted from the foregoing restriction. First, price level adjustments were considered unnecessary, due to the recency of the cases. (The total increase in the Consumer Price Index-Urban from 1985 through 1989 was 14.5 percent.) [Ref. 52:p. 1] Second, complications presented by cases involving "split" decisions were avoided. For most cases adjudicated prior to 1985, clearances were granted by classification level (e.g., confidential, secret). In contrast, for cases adjudicated

after 1984, the classification level of the clearance was that requested by the employer. Consequently, all 95 cases included for study were adjudicated under the same guidelines, thereby enhancing case comparability.

Table I shows the distribution of the 95 financial cases chosen for study by volume and year. Cases which commenced adjudication during 1988 or 1989 and for which final determinations were available in 1990 were included for study. Three cases had to be excluded because their adjudications were still in progress and final determinations were unavailable. The final group of 92 cases studied comprised 97 percent of the 95 cases in the population chosen for study, 52 percent of the 177 "L" and "LI" cases adjudicated between 1967 and 1989, and 25 percent of all financial cases adjudicated between 1967 and 1989, including those also involving nonfinancial issues. Obviously, the 92 cases chosen for study are a major percentage of, and should therefore provide useful insight into, all financial cases.

Finally, in order to obtain some measurement of index accuracy of coded criteria, a computer-generated random sample of cases was obtained equal to about 4 percent of the cases in each of the above volumes. The redacted versions of these random case summaries were retrieved and photocopied at DISCR in Arlington, VA.

B. DATA ELEMENTS

As previously noted, the purpose of this study is to determine empirically which financial factors are related to adjudicative outcome. Consequently, the approach was to analyze all of the financial data reported in the case summaries. This approach resulted in the following ten major financial data elements and their subelements:

1. Indebtedness
 - a. Length of time outstanding
 - b. Degree of applicant control over indebtedness
 - c. Total number of debts
 - d. Total dollar amount of debts
2. Insufficient Funds (NSF) Checks
 - a. Recency of occurrence
 - b. Total number of NSF checks
 - c. Total amount of NSF checks
3. Bankruptcy
 - a. Recency of occurrence
 - b. Number of personal vice business bankruptcies
 - c. Number of personal reorganizations (chapter 13 of the federal bankruptcy code) vice personal discharge of debt (chapter 7 of the federal bankruptcy code) bankruptcies
 - d. Total number of bankruptcies
 - e. Degree of applicant control over bankruptcies
 - f. Number of debts incurred since last bankruptcy
 - g. Amount of debt incurred since last bankruptcy
4. Judgments, Repossessions and Liens
 - a. Number of repossessions
 - b. Number of foreclosures
 - c. Number of judgments
 - d. Number of liens
 - e. Number of garnishments
 - f. Total number of the items in 4(a) through 4(e)

5. Financial Frauds

- a. Total number of frauds (i.e., forged checks, welfare frauds, embezzlement)

6. Applicant attitude/intent to pay

- a. Attitude displayed by applicant in person, or indicated in writing, towards his or her debt and stated intent to pay

7. Applicant payment efforts

- a. Applicant began to pay debts only after receipt of SOR
- b. Evidence of rehabilitation, such as contacting creditors, setting up and adhering to payment plans
- c. Adherence to chapter 13 bankruptcy payment plan

8. Applicant income/expenses

- a. Relationship of monthly expenses to monthly income (equal, less, greater)
- b. Dollar amount of difference between monthly expenses and monthly income

9. Tax Filings

- a. Number of federal tax non-filings (i.e., failure to file federal tax returns)
- b. Number of state tax non-filings (i.e., failure to file state tax returns)
- c. Total number of federal and state tax non-filings

10. Type Debt

- a. Percent of total amount of debt due to each of the following eight areas: consumer, housing, education, medical, utility, business, child support/alimony, tax
- b. Percent of total number of debts due to each of the eight areas in 10(a)

In addition to the aforementioned financial items, the following elements were included for analysis for the reasons cited next to each:

1. Applicant age: Immaturity due to youthful age was sometimes a mitigating factor.
2. Administrative judge: Every person has his or her own attitudes and perceptions (Administrative judges are kept anonymous in this study, however.)
3. Access level: Credit checks are routinely done for top secret, but not confidential or secret clearance applicants; consequently, the probability of finding derogatory financial information is greater for top secret applicants.
4. Stability: Employment and character stability, evidenced by length of employment and letters of reference, are used by administrative judges to help determine general reliability and predict future stability in financial matters.
5. Legal counsel: An applicant who retains an attorney may be better able to present his or her case for a favorable ruling.
6. Case outcome: The final outcome is needed to determine the effects of all the foregoing items on adjudicative decisions.

All the foregoing items were identified and assigned computer spaces and code names in a computer codebook, as shown in Appendix A. All other items in the codebook were included for informational purposes to help determine the profile of the average applicant denied a clearance for financial reasons. Note that the financial adjudicative policy factors (listed in Appendix E) cited in each case by the administrative judge in reaching his or her determination were also encoded. The purpose for this was to link the

financial items and thresholds with the policy factors considered relevant.

C. DATA COLLECTION

The data elements identified above were encoded from each case onto data input sheets, an example of which is shown in Appendix F. The data were then stored on disk on an IBM mainframe for later analysis. Most data elements were easily found due to their numerical nature. In some cases, however, the data were either not included or deleted along with other identifying information when the cases were redacted. Obviously, such information could not be entered into the database.

The SOR, which states the reasons for denial of clearance and is attached to or incorporated within each case summary, contained most of the pertinent financial information, including types, amounts, and recency of delinquent debts and bankruptcies. The body of the summary, however, sometimes noted revisions (i.e., amendments, deletions, or adjustments) to the SOR. Examples of revisions include the deletion of a debt not actually owed by the applicant, a correcting adjustment--either higher or lower--of a given debt amount, and an amendment to the SOR to include another delinquent debt owed by the applicant. Figures entered into the database reflect such revisions.

Reductions in an applicant's account balances due to payments made between the date of SOR issuance and the hearing

date were, however, not incorporated into the figures entered in the database. Such considerations as progress in making payments and whether payments were made incident to issuance of the SOR are data elements entered elsewhere in the database. The goal was to reflect in the database figures as nearly as possible the original financial situation causing denial of clearance as outlined in the SOR, adjusted for any errors or amendments thereto. Most SOR adjustments were minor. The date of SOR issuance was used to calculate periods of time, such as how long debts were outstanding and duration of employment.

While most financial information contained in the case summaries tended to be objective and numerical in nature, other types of information considered by the administrative judge in adjudicating the case were more subjective and tended to reflect the judgment of the administrative judge. Examples include whether or not mitigating circumstances were involved in the incurrence of debt; whether or not the applicant displayed an intent to honor his or her financial obligations; and whether or not the applicant made significant efforts to contact creditors and set up payment plans. Both objective and subjective types of information were extracted from the case summaries to the extent possible.

With regard to the random sample, a two step approach was used to obtain the data needed to estimate index accuracy. First, the criteria (e.g., "L," "I," "N") assigned to each

selected case in the corresponding index were recorded. Second, the criteria actually addressed in each of these cases were recorded. Data analysis is discussed next.

D. METHODS OF DATA ANALYSIS

1. Random Sample

To assess the accuracy of the index case criteria coding, each randomly selected case was examined to determine whether its code in the index accurately reflected issues involved in the case. Any discrepancies between the two were noted. A case was considered to be coded incorrectly in the index if too many, too few, or incorrect criteria were listed.

2. Financial Cases

This thesis was primarily conducted to identify those financial factors and thresholds thereof that best distinguish between applicants who are granted and those who are denied clearances. Frequency distributions, t-tests, and measures of association were all used to identify those financial factors most significant in determining adjudicative outcome and to determine their degree of statistical significance.

Frequency distributions were used to highlight those factors most likely to distinguish between clearance approvals and denials. For example, failure to contact creditors or establish payment plans was involved in most cases in which clearance was denied but occurred in few cases in which clearance was granted. Consequently, the factor "systematic efforts to satisfy creditors" was further investigated to

determine more precisely its degree of significance as an adjudicative factor.

T-tests were used to test hypotheses for numerical factors. For example, the mean dollar amount of total delinquent debt was computed for the following two groups: (1) cases in which clearance was denied and (2) cases in which clearance was granted. A t-test was then performed to determine whether the difference between the two means was significant enough to conclude that the dollar amount of total delinquent debt was a major adjudicative factor in determining case outcome, as opposed to have simply occurred by chance as a result of the sample selected. T-tests were used for the following three types of data: (1) ordinal (i.e., ranked data), (2) interval (i.e., equally stepped data such as temperature where each degree is an equal measure), and (3) ratio (i.e., interval level data with an absolute zero starting point such as age).

Measures of association were used to determine the degree of correlation between each financial factor and case outcome. The higher the measure of association, the greater the likelihood that the particular financial factor influenced case outcome. Measures of association used in this study included phi (for 2 x 2 tables), Cramer's V and contingency coefficient (for tables larger than 2 x 2), lambda (for nominal level data), and biserial r (for data of a continuous nature--ordinal, interval, or ratio).

V. RESULTS AND ANALYSIS

This chapter presents the results of analyzing both (1) the random sample and (2) the financial cases chosen for study.

A. RANDOM SAMPLE

The random sample was obtained in order to determine the degree of index accuracy. A high degree of accuracy would indicate that the indexes were reliable in providing the desired population of financial cases. Table II shows the number of errors and error rate for cases involving all types of criteria in the random sample by volume and year. Table III shows the number of errors and error rate for only financial cases in the random sample by volume and year.

Several observations may be made concerning the statistics presented in the tables. First, note in Table II the downward trend in the coding error rate for all cases in the random sample, from a high of over 30 percent in 1986 to less than three percent in 1989. Such a rapid improvement in coding accuracy is, indeed, impressive! Second, while Table III shows a low overall coding error rate (less than three percent) for all financial cases in the random sample, note the exceptionally low overall coding error rate of less than one percent for cases involving only criterion "L" or both "L" and "I" (listed under the heading "L, LI Error Rate").

TABLE II
INDEX CODING ERRORS (ALL TYPES) FOR RANDOM SAMPLE

Volume	Year	Number of Cases	Number of Errors	Error Rate
VI	1986	23	7	30.4%
VIII	1987	36	4	11.1
X	1988	14	0	0.0
XI	1989	<u>36</u>	<u>1</u>	<u>2.8</u>
Totals		<u>109</u>	<u>12</u>	<u>11.0%</u>

TABLE III
INDEX CODING ERRORS (ONLY FINANCIAL) FOR RANDOM SAMPLE

Volume	Year	Number of Random Cases	Number of all Financial Errors	Number of only L, LI Errors	Finan- cial Error Rate	L, LI Error Rate
VI	1986	23	2	0	8.7%	0.0%
VIII	1987	36	1	1	2.8	2.8
X	1988	14	0	0	0.0	0.0
XI	1989	<u>36</u>	<u>0</u>	<u>0</u>	<u>0.0</u>	<u>0.0</u>
Totals		<u>109</u>	<u>3</u>	<u>1</u>	<u>2.8%</u>	<u>0.9%</u>

This latter finding is significant because only "L" and "LI" cases were chosen for study in this thesis. Such a low coding error rate provides high assurance that (1) the indexes were reliable in providing the desired "L" and "LI" cases and (2) the results of this study may be taken to fairly represent the chosen "L" and "LI" financial case population.

B. FINANCIAL CASES

This section presents the results of analyzing the "L" and "LI" financial cases chosen for study in two subsections: (1) major financial factors and (2) significant financial thresholds.

1. Major Financial Factors

Ten financial factors correlated very highly with case outcome. These factors are listed in Table IV by their abbreviated codebook names, along with their full names and brief descriptions of their meanings. Table V shows only a representative sample of the high correlation values these factors produced, since each factor scored very high on every measure of association used in this study. The low p-values, mostly below .001, provide a further indication that the factors are, indeed, correlated with case outcome. As noted at the bottom of Table V, a factor with an absolute correlation value between .35 and .65, which applies to most factors in the table, has limited ability to predict the

TABLE IV

TEN FINANCIAL FACTORS MOST HIGHLY CORRELATED WITH CASE OUTCOME

Short Name	Long Name	Brief Description
FACTS1	Adjudication policy factor 1 supporting granting of clearance	Applicant made systematic efforts to satisfy creditors
FACTS2	Adjudication policy factor 2 supporting granting of clearance	Applicant showed favorable change in financial habits
FACTS3	Adjudication policy factor 3 supporting granting of clearance	Applicant had stable employment record and favorable references
FACTA7	Adjudication policy factor 7 against granting of clearance	Applicant indifferent to financial obligations
TOTFACTS	Total factors supporting clearance	Total number of adjudication policy factors (up to five) supporting clearance cited by administrative judge
TOTFACTA	Total factors against clearance	Total number of adjudication policy factors (up to eight) against clearance cited by administrative judge
REHAB	Rehabilitation of applicant	Applicant did or did not contact creditors and adhere to payment plans
REFS	Letters of reference and character witnesses	Applicant did or did not produce proof of his or her character
CONDET	Applicant control over indebtedness	Cause of indebtedness was or was not within control of applicant
WHYDET	Mitigating cause for debt, if applicable	Debt caused by illness, divorce, unemployment, etc.

TABLE V
CORRELATION VALUES FOR THE TEN MAJOR FINANCIAL FACTORS

Financial Factor	Biserial ^{1,3} (p-value)	Cramer's $V^{2,3}$ (p-value)	Lambda ^{2,3}
FACTS1	.3271 (.001)	.3271 (.002)	.3095
FACTS2	.5813 (.000)	.5813 (.000)	.5714
FACTS3	.4441 (.000)	.4441 (.000)	.4285
FACTA7	-.4029 (.000)	.4029 (.000)	.3809
TOTFACTS	.4528 (.000)	.5716 (.000)	.5116
TOTFACTA	-.4167 (.000)	.4400 (.006)	.3255
REHAB	.4846 (.000)	.4845 (.000)	.3414
REFS	.6086 (.000)	.6085 (.000)	.5000
CONDET	.5519 (.000)	.5519 (.000)	.5238
WHYDET	.4952 (.000)	.5619 (.001)	.5000

¹ Value is between 0 and 1 if financial factor is positively related to case outcome (presence of factor influences approval of clearance) or between 0 and -1 if negatively related (presence of factor influences denial of clearance).

² Value ranges from 0 to 1. A large value indicates a high degree, but not the type (positive or negative), of association.

³ Absolute values between approximately .35 and .65 indicate factor has limited predictive value used singly, but can yield useful predictive value when combined with other factors of similar or higher value [Ref. 54:p. 624].

outcome by itself, but can be very predictive when combined with other factors of similar or higher value [Ref. 54:p. 624]. The adjudication policy factors referred to in both Tables IV and V, and outlined in their entirety in Appendix E of this thesis, are those which must be considered by adjudicators in determining the applicant's degree of financial responsibility [Ref 1:p. 7].

As a matter of comparison, the next six financial factors most highly correlated with case outcome had absolute correlation values mostly between .20 and .35, and p-values above .02. Correlations at this level are considered of limited value in many practical prediction situations [Ref. 54:p. 624]. The remaining 37 factors had correlation values mainly below .20 and p-values above .06. Correlations at this level are considered by some to be of very limited or no value in most prediction settings [Ref. 54:p. 624].

A cross correlation matrix depicting the extent to which the variables presented in Table V are intercorrelated with each other is presented in Table VI. The total number of factors supporting granting a clearance (TOTFACTS) was highly correlated with adjudication policy factors 1, 2, and 3 supporting granting a clearance (FACTS1, FACTS2, AND FACTS3, respectively). The adjudication factor reflecting that the applicant had a stable employment record and favorable references (FACTS3) was highly correlated with the variable indicating whether or not the applicant produced proof of his

TABLE VI
CROSS CORRELATION MATRIX*

	FACTS2	FACTS3	FACTA7	TOTFACTS	TOTFACTA
FACTS1	.4233 n=86 P=.000	.1964 n=86 P=.035	-.2531 n=86 P=.009	.6497 n=86 P=.000	-.2698 n=86 P=.006
FACTS2		.3429 n=86 P=.001	-.1985 n=86 P=.033	.7110 n=86 P=.000	-.1941 n=86 P=.037
FACTS3			-.0782 n=86 P=.237	.6802 n=86 P=.000	.0403 n=86 P=.356
FACTA7				-.2620 n=86 P=.007	.6103 n=86 P=.000
TOTFACTS					.0534 n=92 P=.307
TOTFACTA					
REHAB					
REFS					
CONDET					

* coefficient/number of cases/1-tailed significance level

-continued TABLE VI
CROSS CORRELATION MATRIX*

	REHAB	REFS	CONDET	WHYDET
FACTS1	.2940 n=84 P=.003	.0000 n=32 P=.500	.1742 n=81 P=.060	.0161 n=82 P=.443
FACTS2	.2189 n=84 P=.023	.3228 n=84 P=.036	.2897 n=81 P=.004	.2461 n=82 P=.013
FACTS3	.1994 n=84 P=.034	.7091 n=32 P=.000	.3686 n=81 P=.000	.3088 n=82 P=.002
FACTA7	-.3876 n=84 P=.000	-.1273 n=32 P=.244	-.2780 n=81 P=.006	-.2281 n=82 P=.020
TOTFACTS	.2885 n=90 P=.003	.3038 n=34 P=.040	.4213 n=87 P=.000	.1718 n=88 P=.055
TOTFACTA	-.3192 n=90 P=.001	-.1450 n=34 P=.207	-.2809 n=87 P=.004	-.2320 n=88 P=.015
REHAB		.4464 n=34 P=.004	.2979 n=86 P=.003	.3202 n=86 P=.001
REFS			.3228 n=32 P=.036	.2405 n=32 P=.092
CONDET				.7108 n=85 P=.000

* coefficient/number of cases/1-tailed significance level

or her character (REFS). In addition, the variable reflecting whether or not the cause of the applicant's indebtedness was within that person's control (CONDET) was highly correlated with the cause of the applicant's indebtedness (WHYDET). Given the overlapping nature of these variables, the aforementioned high correlations are not surprising.

Table VII summarizes the type of relationship that exists between each of the ten major financial factors and case outcome. Also included are amplifying comments which use percentages to quantify each relationship. The actual relationships reflect those which would be intuitively expected.

In order to further highlight the main financial influences on case adjudication, Table VIII shows how the ten major factors were grouped into the following four main categories: (1) effort (applicant attitude toward, and efforts made to resolve, his or her debt), (2) cause (degree to which the cause of debt was within the control of the applicant), (3) general (number of general adjudication policy factors applied to the case by the administrative judge), and (4) stability (evidence of a stable employment record and favorable character references). Note in Table VIII that financial factor FACTA7 (indifference of applicant toward his or her debt) was grouped into Category 1 (effort in resolving debt), because applicants who are indifferent toward their debt are unlikely to take steps to resolve it. In other

TABLE VII

RELATIONSHIPS BETWEEN TEN FINANCIAL FACTORS AND CASE OUTCOME

Factor	Relationship with Case Outcome	Comments
FACTS1	Clearance approval more likely if applicant made systematic efforts to satisfy creditors.	Almost 70% who made efforts were approved.
FACTS2	Clearance approval more likely if applicant showed favorable change in financial habits.	Almost 80% who showed change were approved.
FACTS3	Clearance approval more likely if applicant had stable employment/favorable references.	70% with stable employment/good refs approved.
FACTA7	Clearance denial more likely if applicant was indifferent to financial obligations.	75% of indifferent applicants were denied.
TOTFACTS	Clearance approval more likely as total number of policy factors supporting clearance applicable to case increased (maximum value TOTFACTS = 5).	80% approved if TOTFACTS $\geq$ 3; 75% denied if TOTFACTS $\leq$ 2.
TOTFACTA	Clearance denial more likely as total number of policy factors against clearance applicable to case increased (maximum value TOTFACTA = 8).	90% denied if TOTFACTA $\geq$ 5; 73% approved if TOTFACTA $\leq$ 2.
REHAB	Clearance approval more likely if applicant contacted creditors and adhered to payment plans.	92% of rehabilitated applicants approved.
REFS	Clearance approval more likely if applicant produced reference letters or character witnesses.	Almost 70% who had references were approved.
CONDET	Clearance approval more likely if indebtedness due to factors beyond applicant's control.	Almost 85% with debt beyond their control approved.
WHYDET	Clearance approval more likely for certain types of mitigating circumstances than for others.	Clearance approved in all six cases involving business failure.

TABLE VIII
GROUPING OF TEN FINANCIAL FACTORS INTO FOUR MAJOR CATEGORIES

Category	Category Description	Financial Factor
1. Effort	Efforts made by applicant to resolve debt.	1. FACTS1 (systematic efforts to satisfy creditors) 2. FACTS2 (favorable change in financial habits) 3. FACTA7 (indifference of applicant toward his or her debt) 4. REHAB (contacted creditors/ adhered to pay plans)
2. Cause	Degree to which cause of debt was within control of applicant.	1. CONDET (control applicant had over indebtedness) 2. WHYDET (mitigating cause for debt, if applicable)
3. General	General adjudication policy factors applied to case by administrative judge	1. TOTFACTS (total number of factors supporting clearance) 2. TOTFACTA (total number of factors against clearance)
4. Stability	Evidence of a stable employment record and favorable character references.	1. FACTS3 (stable employment record and favorable references) 2. REFS (applicant produced letters of reference or character witnesses)

words, an applicant may seem concerned about his or her debt, but still not do anything about it.

The outstanding feature one observes in examining the ten major financial factors and four main categories in Table VIII is their non-numerical nature. In other words, no factors involve only numerical financial data, such as number or dollar amount of debts, number of bankruptcies, and the like. The two factors, TOTFACTA and TOTFACTS, in Category 3 involve such numerical financial data only to the extent their consideration by administrative judges is required by the financial adjudication policy outlined in reference 1 and Appendix E. Specific policy factors involving numerical financial data were not highly correlated with case outcome and so were not individually represented in the list of top ten financial factors or their four major categories. An example of such a factor was FACTA5, "unfavorable judgments, liens, or repossessions." As will be seen in the next section, however, some important numerical thresholds were observed which helped to distinguish between cases in which clearance was approved and denied.

2. Significant Financial Thresholds

As previously mentioned, none of the major factors highly correlated with case outcome were numerical in nature. There were, however, several significant financial thresholds observed in this study. First, all six applicants with 13 or

more delinquent debts were denied clearances. The six applicants--of whom two had 14 debts, three had 21 debts, and one had 25 debts--represented 14 percent of the 43 applicants denied clearances and almost seven percent of all 92 applicants. Note that it does not apply in the reverse that all applicants with less than 13 debts were approved for clearance.

Second, nine out of ten applicants with less than \$1879 of debt were granted clearances. The nine applicants represented over 18 percent of the 49 applicants granted clearances and almost ten percent of all 92 applicants. In other words, almost no applicant with less than \$1879 of debt was denied a clearance. The only exception was one applicant denied a clearance who had no debt, but four bankruptcies. The high number of bankruptcies, all of which were personal, was most likely controlling in the decision due to its extreme nature, since no other applicant in the entire group of 92 had more than two bankruptcies.

Third, the two applicants with only business bankruptcies were both approved for clearance. One applicant had one business bankruptcy; the other had two. Of course, the small number of applicants involved makes it hard to generalize. However, this finding, when considered with the finding in Table VII that clearance was approved in all six cases involving business failure as a mitigating circumstance, suggests that debt and bankruptcy, when due to business

failure, are weighed less heavily against the applicant by administrative judges when adjudicating cases.

Finally, the rather striking homogeneity of the two groups of applicants (those granted clearances in one group and those denied clearances in the other) in terms of age and sex is worthy of note. The average ages of applicants who were approved for clearance and those who were denied were 38.6 and 38.5 years, respectively. The percentages of men who were approved for clearance and those who were denied were 75.5 and 74.4, respectively. The percentages of women who were approved for clearance and those who were denied were 24.5 and 25.6, respectively. Obviously, an applicant's age and sex had little influence on case outcome.

VI. SUMMARY

This chapter presents answers to the research questions, conclusions of the study, recommendations, and areas for further research.

A. ANSWERS TO RESEARCH QUESTIONS

This section will provide answers to the research questions posed by this thesis in chapter 1. The depth and extent of answers will necessarily be limited by the results obtained from the study. Each question will be restated and then answered.

1. *What financial criteria are used by DISCR in granting or denying security clearances to industrial applicants?* This study identified ten major financial factors most highly correlated with case outcome. The factors were then grouped into four main categories. The four categories, with the factors in each indicated in parentheses, are as follows: (1) efforts by the applicant to resolve his or her debt (evidenced by systematic efforts to satisfy creditors, a favorable change in financial habits, the attitude of the applicant toward his or her debt, and contacting creditors and adhering to payment plans), (2) degree of control over the cause of debt by the applicant (evidenced by whether the debt was caused by factors within the applicant's control and presence of any mitigating

circumstances), (3) number of applicable adjudication policy factors applied to the case by the administrative judge (evidenced by total number of factors supporting clearance and total number of factors against clearance), and (4) employment and character stability (evidenced by a stable employment record and favorable character references).

2. Do the actual factors used differ from those outlined in DOD Directive 5220.6 [Ref. 1 and Appendix E]? If yes, how? Do the results of this study suggest the revision of current adjudicative practice to conform to the guidelines or revision of the guidelines themselves? This study indicates that administrative judges apply all of the policy factors outlined in DOD Directive 5220.6 in adjudication. For example, as shown in Table IX, each of the ten financial factors identified in this study as most highly correlated with case outcome is represented by an identical or similar policy factor in DOD Directive 5220.6. The existence of such a one-to-one correspondence is not surprising, since many of the factors in this study were based on policy factors in the directive. Note that the two factors, TOTFACTS and TOTFACTA, together incorporate all of the policy factors outlined in the DOD Directive. Also, the finding in this study that all applicants with only business bankruptcies or whose debt was due to business failure were granted clearances suggests the application of Mitigating Factor 5, "business-related bankruptcy," in case adjudication by administrative judges.

TABLE IX
TEN MAIN FINANCIAL FACTORS AND THEIR
CORRESPONDING POLICY FACTORS IN DOD DIRECTIVE 5220.6

Financial Factor	Type Factor	Corresponding Policy Factor in Directive	Type Factor
1. FACTS1	Non-numerical	1. Mitigating Factor 1	Non-numerical
(systematic efforts to satisfy creditors)			
2. FACTS2	Non-numerical	2. Mitigating Factor 2	Non-numerical
(favorable change in financial habits)			
3. FACTS3	Non-numerical	3. Mitigating Factor 3	Non-numerical
(stable employment record and favorable references)			
4. FACTA7	Non-numerical	4. Negative Factor 7	Non-numerical
(applicant's indifference toward financial obligations)			
5. REHAB	Non-numerical	5. Mitigating Factor 1	Non-numerical
(contacted creditors/ adhered to pay plans)		(systematic efforts to satisfy creditors)	
6. CONDET	Non-numerical	6. Mitigating Factor 4	Non-numerical
(debt caused by circumstances beyond applicant's control)			
7. WHYDET	Non-numerical	7. Mitigating Factor 4	Non-numerical
(type of mitigating circumstance)		(debt caused by circumstances beyond applicant's control)	

-continued TABLE IX
TEN MAIN FINANCIAL FACTORS AND THEIR
CORRESPONDING POLICY FACTORS IN DOD DIRECTIVE 5220.6

Financial Factor	Type Factor	Corresponding Policy Factor in Directive	Type Factor
8. REFS	Non-numerical	Mitigating Factor 3	Non-numerical
	(favorable character references)	(stable employment record and favorable references)	
9. TOTFACTS	Numerical and Non-numerical	Mitigating Factor 1 (applicant made efforts)	Non-numerical
		Mitigating Factor 2 (favorable habit changes)	Non-numerical
		Mitigating Factor 3 (stable job/character)	Non-numerical
		Mitigating Factor 4 (cause beyond control)	Non-numerical
		Mitigating Factor 5 (business bankruptcy)	Numerical
10. TOTFACTA	Numerical and Non-numerical	Negative Factor 1 (history of bad debts)	Numerical
		Negative Factor 2 (debt after bankruptcy)	Numerical
		Negative Factor 3 (cause within control)	Non-numerical
		Negative Factor 4 (history of NSF checks)	Numerical
		Negative Factor 5 (judgments, liens, repos)	Numerical
		Negative Factor 6 (deceit, embezzlement)	Numerical
		Negative Factor 7 (applicant indifference)	Non-numerical
		Negative Factor 8 (expenses exceed income)	Numerical

As indicated in Table IX, however, most factors are non-numerical in nature (e.g., do not involve amounts of debt, numbers of debts or repossessions, etc.). The results of this study do not indicate why numerical factors are not highly correlated with case outcome nor what action, if any, should be taken to revise adjudicative practice and/or guidelines. It is not surprising that the narrative, global statements cited by the adjudicators as the primary reasons for clearance outcome were generally more highly correlated with outcome than specific numerical variables, especially given the skewed distribution of many of these numerical variables. Further research is needed to determine how administrative judges apply numerical policy factors in adjudication and to what degree numerical financial factors should be applied in adjudication.

3. *Do the results of this study suggest certain financial issues which are unproductive in terms of their impact on adjudicative outcomes? For example, are there financial issues that, even under a worst case scenario, would not result in adjudicators denying a clearance?* This study suggests several ways in which DIS investigators could more effectively focus their research efforts. First, they might wish to concentrate their attention more on those financial areas most heavily weighted by DISCR administrative judges in adjudication. Such areas would include the following four financial categories identified in this study as most highly

correlated with case outcome: efforts to resolve debt, cause of debt, employment and character stability, and the general financial policy factors outlined in DOD Directive 5220.6. Second, investigators may wish to particularly focus their research on non-numerical financial factors (e.g., the applicant's attitude toward, efforts to resolve, and control over the cause of his or her debt), which were weighted more heavily by administrative judges in adjudication than numerical financial factors (e.g., number of debts or foreclosures, amount of debt).

4. *Can the results of this study be used by DISCR to improve the processing and adjudication of cases?* DISCR adjudicators should note that applicants whose debts or bankruptcies were due solely to business failure, regardless of the numbers or amounts involved, were generally approved for clearances. In addition, all applicants with less than \$1870 of debt were approved for clearance, except for one who had four personal bankruptcies. Adjudicators may wish to approve such cases for clearance at a lower adjudicative level so that they may concentrate their efforts instead on cases of a more complicated nature with a less certain adjudicative outcome.

Another alternative would be to set the dollar threshold for issue cases at \$1000 or \$1500. Cases involving a total amount of debt less than the established threshold, with no other complicating financial or nonfinancial issues, could

then be immediately approved for clearance by DISCO without requiring any further investigation by DIS or adjudication by DISCR. The investigative and adjudicative time and effort saved could then be spent on other more demanding cases.

5. Can the database established as a result of this study be further utilized to examine other relevant areas of research, such as automated credit scoring? The database established by this study could easily be used for other research. For example, one could obtain information on the criteria applied by credit agencies or lending institutions in determining the creditworthiness of a given applicant. Such criteria could then be applied to the database, and the results compared with the case outcomes observed in this study. It would be interesting to see how the private and governmental sectors compare in determining credit risk and security risk, respectively. In other words, one could determine whether the federal government grants clearances to applicants who would be denied credit in the private sector, or vice versa, based on the same financial information. One limitation of the database at this time is the absence of all identifying case information (e.g., applicant name, address) due to the use of redacted cases. Consequently, obtaining credit and financial reports on the same 92 applicants used in this study for purposes of further research would be difficult. PIC may be able to provide some credit reports, however, if furnished with some specific case information.

B. CONCLUSIONS

The four main financial influences in case adjudication were an applicant's (1) efforts to resolve his or her debt, (2) degree of control over the cause of debt, (3) number of applicable adjudication policy factors as outlined in DOD Directive 5220.6 [Ref 1: encl (3)], and (4) employment and character stability. The aforementioned four financial areas, and the ten financial factors which comprise them, were mainly non-numerical in nature (e.g., applicant effort or stability) vice numerical (e.g., number or dollar amount of debt). In other words, the underlying cause of debt and subsequent handling thereof by the applicant were more influential than the type, number or dollar amount of debt in determining case outcome. Applicants whose debts were due to circumstances beyond their control and who made good faith efforts to resolve their debts were more likely to be granted clearances than applicants whose debts were due to carelessness or financial mismanagement and who made little or no attempt to resolve their debts.

Applicants whose debt or bankruptcy was due to business failure or whose total amount of debt was less than \$1870 were generally approved for clearance.

Adjudicators were found to determine case outcome in accordance with established adjudication policy, as evidenced by the fact that each of the financial factors most highly

correlated with case outcome was represented by an identical or similar policy factor listed in DOD Directive 5220.6.

C. RECOMMENDATIONS

The following five recommendations are suggested on the basis of the results of this study.

1. Set the dollar threshold for issue cases at \$1000 or \$1500. Cases involving a total amount of debt less than the established threshold, with no other complicating financial matters, could then be immediately approved for clearance by DISCO without requiring any further investigation by DIS or adjudication at DISCR. Nine out of ten applicants with less than \$1870 of debt were granted clearances. The nine applicants represented about ten percent of all 92 applicants studied in this thesis. Consequently, adjudicative effort for the 92 applicants could have been reduced by 10 percent if a threshold of \$1870 were applied at the time of their initial processing. Seven of the nine approved applicants had total debt of less than \$1000. Consequently, establishing an even dollar threshold of \$1000 or \$1500 would have reduced adjudicative effort by a still sizeable seven percent. The one applicant with less than \$1870 of debt who was denied a clearance had four personal bankruptcies. Even with a higher dollar threshold in place, such an applicant would most likely have been further adjudicated as an issue case due to his more complicated financial situation involving so many

bankruptcies. For example, none of the other 91 applicants had more than two bankruptcies of any kind.

2. *Determine the extent to which adjudicators should consider numerical factors in adjudication.* This study found that non-numerical factors (e.g., applicant attitude or stability) were more highly correlated with case outcome than numerical factors (e.g., amount or number of debts). Such a finding suggests that numerical factors may not be weighted as heavily or consistently as non-numerical factors in adjudication. Adjudicative agencies may wish to consider whether such a situation is or is not desirable and act accordingly. For example, they may wish to revise current adjudicative practice to emphasize the application of numerical factors. Additionally or alternatively, they may wish to revise current adjudicative guidelines by establishing approximate thresholds for each of the numerical factors to help clarify and improve consistency in their application.

3. *Focus the research efforts of DIS investigators more on those financial areas and factors most highly correlated with case outcome.* Adjudicators would likely be most interested in receiving information on those financial areas which they weight most heavily in case adjudication. Such areas would be those found in this study to be most highly correlated with case outcome. For example, DIS investigators may wish to focus their research efforts on information related to the four main financial influences on case outcome,

which were the applicant's (1) efforts to resolve his or her debt, (2) degree of control over the cause of debt, (3) number of applicable financial adjudication policy factors as outlined in DOD Directive 5220.6 [Ref. 1:encl (3)], and (4) employment and character stability. They may also wish to particularly research whether debt or bankruptcy was due to business failure, in which case most applicants were approved. Providing such information most desired by administrative judges would help speed the processing of cases with a minimum of delays.

4. *Encourage adjudicators to grant clearances at a lower level in cases involving low amounts of debt or business failure which would most likely be approved at a higher level.* This study has shown that applicants with a total amount of debt less than \$1870 or with debt or bankruptcy due to business failure were generally approved for clearance. All cases were adjudicated by a DISCR administrative judge after first being adjudicated at several lower DISCR levels. Approving such cases at lower levels, where possible, would allow administrative judges and adjudicators at higher levels to focus their efforts on those cases more deserving of attention.

5. *Clarify the non-numerical factors most highly correlated with case outcome.* Imprecision and personal judgment are inherent in determining the degree of seriousness of the non-numerical factors involved. For example, one

administrative judge may determine that employment was a strong mitigating factor in a given case, while another administrative judge may conclude that it was not. In this study, of the fifteen cases citing unemployment as a mitigating factor, eleven were approved for clearance and four were not. Other financial issues may certainly have influenced the final case outcomes. Yet, clarification of the mitigating factor "unemployment" would surely help adjudicators to apply the factor more consistently. For example, is the mitigating factor "unemployment" weighted as heavily for an applicant who is fired from or quits his or her job as an applicant who is laid-off? How much effort must an applicant be making to find a job to be considered bona fide "unemployed" vice "temporarily out of the job market?" Similarly, how many years must an applicant be employed at one job to be considered "stable?" What are considered "systematic" efforts to satisfy creditors? Answers to the foregoing types of questions for the various non-numerical factors would provide adjudicators helpful guidance in adjudication.

D. AREAS FOR FURTHER RESEARCH

While this thesis identified ten financial factors highly correlated with case outcome, additional research into the nature of these factors could prove useful. Their non-numerical nature makes imprecision and personal judgment

inherent in their determination. For example, the attitude of an applicant was a major financial factor in determining case outcome. One might try to determine what criteria administrative judges apply in discerning the attitude of a given applicant. Similarly, the systematic efforts an applicant made to satisfy creditors was also a major financial factor in case outcome. One could try to determine what actions by the applicant constitute "systematic" efforts to resolve debt.

In addition, future cases could be analyzed using the empirical approach in this study to determine the degree to which the results are reproducible. Discriminant functions could be developed in order to predict at a lower adjudicative level the probable case outcome at a higher level.

One limitation of this study was that only financial information contained in the redacted case summaries was analyzed. Additional financial information could, however, be obtained from each applicant's original credit reports filed at PIC in order to determine the relationship between the financial information contained therein and adjudicative outcome. The results of such research could help verify or refute the results of this study. The information contained in the credit reports has the added advantages of being objective and uniform for each case. Such additional information could easily be added to the database established from this study.

Also, financial cases involving other issues, such as psychological illness and drug abuse, were not included for study. Such cases could be analyzed to determine how the presence of these other issues affects adjudicative outcome for financial cases. In addition, there are hundreds of cases which do not involve financial issues at all. Many further research studies are possible to determine the relationships between these other issues, such as alcohol abuse and criminal conduct, and adjudicative outcome. One could also examine the time spent in each phase of the adjudicative process. This type of information could help DISCR determine whether or not to revise internal processing procedures or guidelines.

While this study analyzed only those cases adjudicated on or after August 12, 1985, earlier cases could be analyzed to determine how changes in adjudicative procedure as established by the various DOD Directives 5220.6 affected adjudicative outcome through time. The present study did not analyze any cases that were not adjudicated by an administrative judge. The analysis of such cases could also help to confirm or refute the results of this study.

Finally, this study only examined industrial cases adjudicated at DISCR. If there were a way to obtain information on clearances adjudicated at the other CAFs for civil service and military personnel, then studies could be conducted comparing the financial criteria used to adjudicate cases at the various CAFs.

APPENDIX A

COMPUTER DATABASE CODEBOOK

Name
Line
Space

Item

Part I. Case Identification

CASE
line 1
1-6

OSD case no.

example: 810202 for 81-0202

VOLUME
line 1
8-9

Volume number and year adjudicated

- 1 - Volume I - 1963-1975
2 - Volume II - 1976-1982
3 - Volume III - 1983-1984
4 - Volume IV - 1985
5 - Volume V - 1986
6 - Volume VI - 1986
7 - Volume VII - 1987
8 - Volume VIII- 1987
9 - Volume IX - 1988
10 - Volume X - 1988
11 - Volume XI - 1989

Part II. Adjudication Information

DOD
line 1
11

Governing DoD Directive 5220.6

- 1 - DoD Directive 5220.6 dated December 7, 1966
2 - " " April 4, 1975
3 - " " December 20, 1976
4 - " " August 12, 1985

CRITA
line 1
13

Criterion A: Sabotage, espionage, treason, etc.

- 1 - Criterion A not assigned to case
2 - Criterion A resolved in favor of applicant
3 - Criterion A resolved against applicant

Name
Line
Space Item

CRITH Criterion B: Association with saboteur, spy,
line 1 traitor.
15
1 - Criterion B not assigned to case
2 - Criterion B resolved in favor of applicant
3 - Criterion B resolved against applicant

CRITC Criterion C: Advocate/use force to overthrow U.S.
line 1 Government.
17
1 - Criterion C not assigned to case
2 - Criterion C resolved in favor of applicant
3 - Criterion C resolved against applicant

CRITD Criterion D: Knowing membership in subversive
line 1 groups.
19
1 - Criterion D not assigned to case
2 - Criterion D resolved in favor of applicant
3 - Criterion D resolved against applicant

CRITE Criterion E: Unauthorized disclosure of classified
line 1 information.
21
1 - Criterion E not assigned to case
2 - Criterion E resolved in favor of applicant
3 - Criterion E resolved against applicant

CRITF Criterion F: Allegiance to a foreign government.
line 1
23
1 - Criterion F not assigned to case
2 - Criterion F resolved in favor of applicant
3 - Criterion F resolved against applicant

CRITG Criterion G: Violation of security regulations.
line 1
25
1 - Criterion G not assigned to case
2 - Criterion G resolved in favor of applicant
3 - Criterion G resolved against applicant

CRITH Criterion H: Criminal/sexually perverse acts.
line 1
27
1 - Criterion H not assigned to case
2 - Criterion H resolved in favor of applicant
3 - Criterion H resolved against applicant

Name
Line
Space

Item

CRITI
line 1
29

Criterion I: Acts of omission indicating poor judgment.

- 1 - Criterion I not assigned to case
- 2 - Criterion I resolved in favor of applicant
- 3 - Criterion I resolved against applicant

CRITJ
line 1
31

Criterion J: Any illness causing impaired judgment.

- 1 - Criterion J not assigned to case
- 2 - Criterion J resolved in favor of applicant
- 3 - Criterion J resolved against applicant

CRITK
line 1
33

Criterion K: Vulnerability to coercion or influence.

- 1 - Criterion K not assigned to case
- 2 - Criterion K resolved in favor of applicant
- 3 - Criterion K resolved against applicant

CRITL
line 1
35

Criterion L: Excessive debt, financial difficulties.

- 1 - Criterion L not assigned to case
- 2 - Criterion L resolved in favor of applicant
- 3 - Criterion L resolved against applicant

CRITM
line 1
37

Criterion M: Habitual use of intoxicants to excess.

- 1 - Criterion M not assigned to case
- 2 - Criterion M resolved in favor of applicant
- 3 - Criterion M resolved against applicant

CRITN
line 1
39

Criterion N: Illegal possession, use, or sale of drugs.

- 1 - Criterion N not assigned to case
- 2 - Criterion N resolved in favor of applicant
- 3 - Criterion N resolved against applicant

CRITO
line 1
41

Criterion O: Falsification/omission of material facts.

- 1 - Criterion O not assigned to case
- 2 - Criterion O resolved in favor of applicant
- 3 - Criterion O resolved against applicant

Name Line Space	Item
CRITP line 1 43	Criterion P: Refusal to provide information to gov. 1 - Criterion P not assigned to case 2 - Criterion P resolved in favor of applicant 3 - Criterion P resolved against applicant
NCRITT line 1 45	Number of criteria assigned Code numeral from 1 through 9
DSORI line 1 47-54	SOR issue date MM,DD,YY - month, day, last two digits of year
DSORA line 1 56-63	Date of applicant response to SOR MM,DD,YY - month, day, last two digits of year
DHR line 1 65-72	Hearing date (or date all documentation received for an administrative determination) MM,DD,YY - month, day, last two digits of year
DDETHR line 2 1-8	Hearing determination date MM,DD,YY - month, day, last two digits of year
EXAM line 2 10-11	Administrative Judge each judge assigned unique two digit number (names kept anonymous)
AREP line 2 13	Applicant representation 1 - pro se (applicant representing self) 2 - represented by legal counsel/representative 3 - administrative determination (no hearing)
DETHR line 2 15	Hearing determination 1 - clearance granted (any kind) 2 - clearance granted (confidential) 3 - clearance granted (secret) 4 - clearance granted (top secret) 5 - clearance denied/revoked

Name
Line
Space Item

Note: Alternatives 2, 3, and 4 above apply mainly to cases adjudicated before 1984, in which clearances were granted authorizing access only up to a specified level in so called "split decisions".

DETA1 Appeal determination (first appeal)

line 2

17

- 1 - not applicable
- 2 - hearing determination affirmed
- 3 - hearing determination reversed
- 4 - order for remand to administrative judge for redetermination
- 5 - appeal in process

NOTE: Alternative "3" above does not apply to cases adjudicated under DoD Directive 5220.6 dated August 12, 1985, which directs that appeal boards may only affirm or remand, but not reverse, the determinations of administrative judges.

DDETA1 Appeal determination date (first appeal)

line 2

19-26

MM,DD,YY - month, day, last two digits of year

PARTAL Appealing party (first appeal)

line 2

28

- 1 - case appealed by government
- 2 - case appealed by applicant

DETR Remand determination

line 2

30

- 1 - not applicable
- 2 - hearing determination affirmed
- 3 - hearing determination reversed
- 4 - remand in process

DDETR Remand determination date

line 2

32-39

MM,DD,YY - month, day, last two digits of year

DETA2 Appeal determination (second appeal)

line 2

41

- 1 - not applicable
- 2 - hearing determination affirmed
- 3 - hearing determination reversed
- 4 - appeal in process

Name
Line
Space Item

PART2 Appealing party (second appeal)
line 2
43 1 - case appealed by government
 2 - case appealed by applicant

DDETA2 Appeal determination date (second appeal)
line 2
45-52 MM,DD,YY - month, day, last two digits of year

DETFIN Final case determination after all adjudication
line 2 complete
54
 1 - clearance granted (any kind)
 2 - clearance granted (confidential)
 3 - clearance granted (secret)
 4 - clearance granted (top secret)
 5 - clearance denied/revoked
 6 - adjudication in progress

CHELD Clearance held at time of application
line 2
56 1 - unknown
 2 - none
 3 - company confidential
 4 - confidential
 5 - secret
 6 - top secret

CSUS Clearance suspended pending outcome
line 2
58 1 - no
 2 - yes
 3 - not applicable
 4 - unknown

CREQ Clearance requested
line 2
60 1 - confidential
 2 - secret
 3 - top secret
 4 - unspecified
 5 - additional special clearance

Name
Line
Space Item

Part III. Applicant Information

SEX Applicant sex
line 2
62 1 - female
 2 - male

AGE Applicant age on first hearing date
line 2
64-65 XX - age in years

MAR Marital status
line 2
67 1 - single
 2 - married
 3 - divorced

NCHILD Number of dependents other than spouse
line 2
69-70 XX - number of dependents

EDUC Education
line 2
72-73 1 - did not graduate high school
 2 - high school graduate
 3 - some college - did not graduate
 4 - bachelor's degree
 5 - some master's level work - did not graduate
 6 - master's degree
 7 - some doctoral level work - did not graduate
 8 - doctoral degree
 9 - some law school - did not graduate
 10 - law school graduate
 11 - some medical school - did not graduate
 12 - medical school graduate
 13 - associate's degree

SUP Most recent job held was supervisory in nature
line 2
75 1 - unknown
 2 - yes
 3 - no

Name
Line
Space Item

JOB Type employment at most recent job position
line 3
1-2 1 - security guard/police
 2 - scientist (engineer, chemist, physicist)
 3 - instructor/teacher/trainer
 4 - attorney
 5 - general manager
 6 - systems analyst/computer programmer
 7 - staff technician (inspector, staff
 specialist, purchasing agent)
 8 - maintenance technician (plumber,
 electrician, mechanic, machine operator)
 9 - driver/mover
 10 - defense contractor employee (unspecified)
 11 - business owner
 12 - clerical (administrative assistant, typist,
 secretary, clerk)
 13 - controller/accountant
 14 - board of directors/corporate officer

Part IV. Adjudication Policy Factors - Financial

FACTA1 Administrative judge cited Factor 1 (History of bad
line 3 debts and unmanageable indebtedness) against
4 clearance

- 1 - no
- 2 - yes

FACTA2 Administrative judge cited Factor 2 (Recent
line 3 bankruptcy with continuing financial problems)
6 against clearance

- 1 - no
- 2 - yes

FACTA3 Administrative judge cited Factor 3 (Indebtedness
line 3 aggravated or caused by gambling, alcohol, drug
8 abuse, or mental or emotional defects) against
 clearance

- 1 - no
- 2 - yes

Name
Line
Space

Item

FACTA4 Administrative judge cited Factor 4 (History or
line 3 pattern of writing bad checks) against clearance
10

1 - no
2 - yes

FACTA5 Administrative judge cited Factor 5 (Unfavorable
line 3 judgments, liens, or repossessions) against
12 clearance

1 - no
2 - yes

FACTA6 Administrative judge cited Factor 6 (Deceit or
line 3 deception, embezzlement, or change of address
14 without advising creditors) against clearance

1 - no
2 - yes

FACTA7 Administrative judge cited Factor 7 (Applicant's
line 3 indifference to financial obligations or a stated
16 intention not to meet these obligations in the
future) against clearance

1 - no
2 - yes

FACTA8 Administrative judge cited Factor 8 (Financial
line 3 mismanagement or irresponsible expenditures that
18 exceed income or other assets) against clearance

1 - no
2 - yes

FACTS1 Administrative judge cited Factor 1 (Systematic
line 3 efforts to satisfy creditors) supporting clearance
20

1 - no
2 - yes

FACTS2 Administrative judge cited Factor 2 (Favorable
line 3 change in financial habits) supporting clearance
22

1 - no
2 - yes

Name
Line
Space

Item

FACTS3 Administrative judge cited Factor 3 (Stable
line 3 employment record and favorable references)
24 supporting clearance

1 - no
2 - yes

FACTS4 Administrative judge cited Factor 4 (Circumstances
line 3 beyond the applicant's control contributed to
26 indebtedness) supporting clearance

1 - no
2 - yes

FACTS5 Administrative judge cited Factor 5 (business-
line 3 related bankruptcy) supporting clearance
28

1 - no
2 - yes

Part V. Indebtedness

NDET1M Number of debts delinquent 1 or more, but less than
line 3 3, months
30-31

NDET3M Number of debts delinquent 3 or more, but less than
line 3 6, months
33-34

NDET6M Number of debts delinquent 6 or more, but less than
line 3 12, months
36-37

NDET1Y Number of debts delinquent 1 or more, but less than
line 3 3, years
39-40

NDET3Y Number of debts delinquent 3 or more, but less than
line 3 5, years
42-43

NDET5Y Number of debts delinquent 5 or more years
line 3
45-46

Name
Line
Space Item

CONDET Applicant's control over cause of indebtedness
line 3

48

- 1 - indebtedness caused or aggravated by factors within applicant's control (gambling, alcohol, drugs, lavish lifestyle, carelessness, immaturity, poor financial management)
- 2 - indebtedness due to factors beyond applicant's control (divorce, unemployment, illness, business failure)

WHYDET Nature of mitigating circumstance, if applicable
line 3

49

- 0 - not applicable
- 1 - illness (applicant or family member)
- 2 - divorce
- 3 - business failure
- 4 - unemployment
- 5 - spousal spending
- 6 - taking in orphans or children of relatives
- 7 - victim of swindle
- 8 - supporting family while attending college
- 9 - pending dispute over amount due

NDETT Total number of delinquent debts
line 3
50-52

DOLDET Total dollar amount of delinquent debts
line 3

54-64

Code \$123,456,789.00 as 12345678900

(all subsequent dollar amounts coded this way)

Part VI. Bankruptcy

NBK1M Number of bankruptcies in past year
line 3

66

NBK1Y Number of bankruptcies more than one but less than
line 3 three years old

68

Name
Line
Space

Item

NBK3Y Number of bankruptcies more than three but less
line 3 than five years old
70

NBK5Y Number of bankruptcies more than five years old
line 3
72

CONBK Applicant control over bankruptcy
line 3
74

- 1 - bankruptcy aggravated by factors within
 applicant's control (gambling, alcohol,
 drugs, lavish lifestyle)
- 2 - bankruptcy due to factors beyond
 applicant's control (divorce, unemployment,
 illness, business)
- 3 - bankruptcy due to carelessness/poor
 management

NBKT Total number of bankruptcies
line 4
1

NBK7 Number of personal chapter 7 bankruptcies
line 4 (discharge of debts)
3

NBK13 Number of personal chapter 13 bankruptcies
line 4 (reorganization)
5

NBK11 Number of business chapter 11 bankruptcies
line 4
7

PERBUS Percent of bankruptcies that were business-related
line 4
9-12

Code 33.3% : 333 or 100.0% as 1000

(all subsequent percentages coded this way)

PERPER Percent of personal bankruptcies that were chapter
line 4 13 bankruptcies (reorganization)
14-17

Name Line Space	Item
-----------------------	------

NLAS line 4 19-20	Number of debts incurred since last bankruptcy
-------------------------	--

DOLLAS line 4 22-32	Amount of debt incurred since last bankruptcy
---------------------------	---

Part VII. Insufficient Funds Checks

NSUF1M line 4 34-35	Number of insufficient funds checks issued more than 1, but less than 3, months ago
---------------------------	---

NSUF3M line 4 37-38	Number of insufficient funds checks issued more than 3, but less than 6, months ago
---------------------------	---

NSUF6M line 4 40-41	Number of insufficient funds checks issued more than 6, but less than 12, months ago
---------------------------	--

NSUF1Y line 4 43-44	Number of insufficient funds checks issued more than 1, but less than 3, years ago
---------------------------	--

NSUF3Y line 4 46-47	Number of insufficient funds checks issued more than 3, but less than 5, years ago
---------------------------	--

NSUF5Y line 4 49-50	Number of insufficient funds checks issued more than 5 years ago
---------------------------	--

NSUFT line 4 52-54	Total number of insufficient funds checks issued
--------------------------	--

DOLSUF line 4 56-66	Total amount of insufficient funds checks issued
---------------------------	--

Name Line Space	Item
-----------------------	------

Part VIII. Judgments, Repossessions, Liens

NREPO line 4 68-69	Number of repossessions
--------------------------	-------------------------

NJUDG line 4 71-72	Number of judgments
--------------------------	---------------------

NLIEN line 4 74-75	Number of liens
--------------------------	-----------------

NGARN line 5 1-2	Number of garnishments
------------------------	------------------------

NFORE line 5 4-5	Number of foreclosures
------------------------	------------------------

NFIVE line 5 7-8	Total number of repossessions, judgments, liens, garnishments, and foreclosures
------------------------	---

IX. Financial Frauds

NFRAUD line 5 10-11	Number of financial frauds (phony checks, welfare, unemployment compensation, embezzlement, deceit)
---------------------------	---

X. Applicant Attitude/Intent

ATT line 5 13	Applicant displayed positive demeanor/attitude towards indebtedness and intent to pay
---------------------	---

- 1 - not mentioned or applicable
- 2 - displayed negative demeanor/attitude toward debt or indifference or no intent to pay
- 3 - displayed positive demeanor/attitude toward debt with intent to pay
- 4 - intends to pay by filing bankruptcy

Name
Line
Space Item

XI. Applicant Payment Efforts

PAYSOR Applicant did not begin to contact creditors or pay
line 5 delinquent debts until after issuance of statement
15 of reasons (SOR)

- 1 - no
- 2 - yes

REHAB Evidence of rehabilitation, improved financial
line 5 habits before issuance of SOR
17

- 1 - applicant did not contact creditors or
adhere to payment plans
- 2 - applicant contacted creditors, set up and
adhered to payment plans or resumed regular
payments

DISBK Chapter 13 bankruptcy was dismissed for nonpayment
line 5 of court-ordered costs
19

- 1 - no
- 2 - yes
- 3 - not applicable

XII. Applicant Income/Expenses

RELATE Current relationship of monthly expenses to monthly
line 5 disposable income (disposable income equals gross
21 income minus taxes)

- 1 - monthly expenses exceeded monthly
disposable income
- 2 - monthly disposable income exceeded monthly
expenses
- 3 - monthly expenses equal monthly disposable
income

DOLXIN Amount by which monthly expenses exceeded monthly
line 5 disposable income
23-33

DOLINX Amount by which monthly disposable income exceeds
line 5 monthly expenses (result is discretionary income)
35-45

Name
Line
Space

Item

DOLIN Current monthly disposable income
line 5
47-57

DOLX Current monthly fixed expenses/payments
line 5
59-69

DOLGRO Current monthly gross income
line 6
1-11

XIII. Evidence of Stability

LONG1 Employment longevity at current/most recent job
line 6
13-16 YYMM - number of years, number of months
 (MM < 12)

example: applicant worked 1 and 1/2 years
code 0106

LONG2 Employment longevity at second most recent job
line 6
18-21

REFS Applicant produced letters of reference or
line 6 character witnesses on his or her behalf
23

- 1 - no
- 2 - yes
- 3 - unknown

XIV. Tax Filings

FED Number of federal tax non-filings
line 6
25-26

STATE Number of state tax non-filings
line 6
28-29

Name Line Space	Item
-----------------------	------

FEDSTA line 6 31-32	Total number of federal/state tax non-filings
---------------------------	---

XV. Type Debt

DOLCON line 6 34-44	Dollar amount of delinquent consumer debt (i.e. department stores, charge cards, automobile, bank accounts)
---------------------------	---

DOLHOM line 6 46-56	Dollar amount of delinquent housing debt (i.e. rent, mortgage)
---------------------------	---

DOLMED line 6 58-68	Dollar amount of delinquent medical debt (i.e. medical, dental)
---------------------------	--

DOLEDU line 7 1-11	Dollar amount of delinquent education debt (i.e. loan, tuition)
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DOLUTL line 7 13-23	Dollar amount of delinquent utility debt (i.e. gas, electric, water, telephone)
---------------------------	--

DOLTAX line 7 25-35	Dollar amount of overdue federal/state/local taxes
---------------------------	--

DOLKID line 7 37-47	Dollar amount of delinquent child support/alimony debts
---------------------------	--

DOLBUS line 7 49-59	Dollar amount of delinquent business debt
---------------------------	---

NCON line 7 61-62	Number of delinquent consumer debts
-------------------------	-------------------------------------

NHOM line 7 64-65	Number of delinquent housing debts
-------------------------	------------------------------------

Name Line Space	Item
NMED line 7 67-68	Number of delinquent medical debts
NEDU line 7 70-71	Number of delinquent education debts
NUTL line 7 73-74	Number of delinquent utility debts
NTAX line 8 1-2	Number of delinquent tax debts
NKID line 8 4-5	Number of delinquent child support/alimony debts
NBUS line 8 7-8	Number of delinquent business debts
PDCON line 8 10-13	Percent total dollar of debt due to consumer debt
PDHOM line 8 15-18	Percent total dollar of debt due to housing debt
PDMED line 8 20-23	Percent total dollar of debt due to medical debt
PDEDU line 8 25-28	Percent total dollar of debt due to education debt
PDUTL line 8 30-33	Percent total dollar of debt due to utility debt
PDTAX line 8 35-38	Percent total dollar of debt due to tax debt

Name Line Space	Item
PDKID line 8 40-43	Percent total dollar of debt due to child support/alimony debt
PDBUS line 8 45-48	Percent total dollar of debt due to business debt
PNCON line 8 50-53	Percent total number of debts due to consumer debt
PNHOM line 8 55-58	Percent total number of debts due to housing debt
PNMED line 8 60-63	Percent total number of debts due to medical debt
PNEDU line 8 65-68	Percent total number of debts due to education debt
PNUTL line 8 70-73	Percent total number of debts due to utility debt
PNTAX line 9 1-4	Percent total number of debts due to tax debt
PNKID line 9 6-9	Percent total number of debts due to child support/alimony debt
PNBUS line 9 11-14	Percent total number of debts due to business debt

APPENDIX B

DEFINITION OF TERMS

Some of the frequently used terms in this thesis have particular meanings within the context of the security environment in general or the security clearance process in particular. These are defined here.

1. **Access** - The ability and opportunity to obtain knowledge or possession of classified information. [Ref. 53:p. 11]
2. **Adjudication** - The determination, based on specific criteria and past behavior, of the probability of an applicant's future behavior having an adverse effect on national security for the purpose of deciding whether the applicant should or should not be granted a security clearance. [Ref. 9:p. 56]
3. **Adjudication Policy** - Specific factors listed in DOD Directive 5220.6 which adjudicators must consider in adjudicating a particular type of case. For example, judgments, liens, and repossessions must be considered in financial cases. [Ref. 1:p. 3-1] (See "factor")
4. **Adjudicator** - DISCR official who determines, based on specific criteria and past behavior, the probability of an applicant's future behavior having an adverse effect on national security for the purpose of deciding whether the applicant should or should not be granted a security clearance. Individual may be a personnel security specialist, administrative judge, or member of appeal board. [Ref.9:p. 56]
5. **Administrative Determination** - A determination issued without a hearing.
6. **Administrative Judge** - DISCR official who issues determinations that either grant or deny security clearances.
7. **Appeal Board** - A panel of DISCR staff attorneys designated to review determinations which are appealed. The board will issue either a final determination

affirming the administrative judge's determination or an order for remand referring the determination back to the administrative judge for redetermination (review), further investigation, or to permit additional evidence and/or testimony into the record for consideration. [Ref. 1]

8. **Applicant** - A person in private industry who requires a security clearance for access to classified information. [Ref. 1:p. 3]

9. **Bench Decision** - An examination of testimony and evidence by an administrative judge without a jury for the purpose of making a determination.

10. **Bench Trial** - A hearing without a jury convened by an administrative judge for the purpose of making a determination.

11. **Classified Information** - Official information which has been determined to require, in the interest of national security, protection against disclosure and which has been so designated. [Ref. 53:p. 12]

12. **Clearance** - An authorization for a person to have access to classified information provided his or her duties so require.

13. **Compromise** - A security violation which has resulted in confirmed or suspected exposure of classified information or material to an unauthorized person. [Ref. 53:p. 12]

14. **Confidential** - The designation applied to information or material the unauthorized disclosure of which could reasonably be expected to cause identifiable damage to the national security. [Ref. 9:p. 56]

15. **Counsel** - Attorney retained by applicant to represent applicant in all proceedings.

16. **Criteria** - Those factors, and levels or thresholds thereof, used to adjudicate cases. Also refers to broad areas of conduct outlined in DOD Directive 5220.6, each of which is associated with a letter used to label cases involving that criterion. Examples include mental illness ("J"), financial irresponsibility ("L"), and unreliability ("I"). (This thesis examines the financial criteria used to adjudicate financial criterion "L" cases.) [Ref. 1:pp. 5-7]

17. **Defense Industrial Security Clearance Office (DISCO)** - The office responsible for initiating investigations, issuing clearances and maintaining clearance records for DOD contractor (industrial) personnel. [Ref. 9:p. 56]

18. **Defense Investigative Service (DIS)** - DOD component responsible for, among other things, conducting personnel security investigations for DOD military, civilian and contractor (industrial) personnel. [Ref.9:p. 56]

19. **Department Counsel** - DISCR attorneys who represent the Department of Defense in all proceedings in an applicant's case. [Ref. 1:p. 1-2]

20. **Determination** - A decision by an administrative judge to grant or deny a security clearance to a particular applicant, either with ("hearing determination") or without ("administrative determination") a hearing.

21. **Directorate for Industrial Security Clearance Review (DISCR)** - The office responsible for adjudicating those industrial cases that DISCO could not approve for clearance. [Ref. 1:p. 2]

22. **Factor** - Quantitative and/or qualitative aspects of a case used in its adjudication. DOD Directive 5220.6 specifies some general and specific factors which adjudicators must consider in clearance determinations. Examples of general factors, which apply to all types of cases, are: frequency of the conduct, motivation of the applicant, and probability of recurrence [Ref. 1:p. 5]. Specific factors, termed "adjudication policy", apply only to certain types of cases. (See "adjudication policy").

23. **Factor against clearance** - A factor which supports the denial or revocation of a clearance. (See "factor")

24. **Factor for clearance** - A mitigating factor which supports the granting of a clearance. (See "factor")

25. **Final determination** - Determination of an administrative judge which is not appealed, or if appealed, is affirmed by the appeal board.

26. **Hearing** - A proceeding convened and conducted by an administrative judge for the purpose of determining an applicant's eligibility for clearance.

27. **Hearing Determination** - A determination issued after a hearing.

28. **Industrial Applicant** - Same as "applicant."

29. **Industry** - Private firms that require access to classified information in order to provide goods and services to DOD.

30. **Mitigating Circumstance/Factor** - Same as "factor for clearance".

31. **Order for Remand** - Decision made by an appeal board to refer a determination back to the administrative judge who issued it for the purpose of redetermination (review), further investigation, or to permit the admittance of additional evidence or testimony into the case record.

32. **Personnel Investigations Center (PIC)** - Branch of DIS tasked with performing personnel security investigations.

33. **Personnel Security Clearance** - Same as "clearance".

34. **Personnel Security Specialist** - A type of DISCR adjudicator in one of three personnel security divisions (PSD) who may grant clearances or issue a statement of reasons as to why a clearance cannot be granted.

35. **Redetermination** - Review by administrative judge of his or her own initial determination which was remanded by the appeal board. The administrative judge will either affirm the initial determination or issue a new determination.

36. **Remand** - To refer a determination back to the administrative judge who issued it for the purpose of redetermination (review), further investigation, or to permit the admittance of additional evidence or testimony into the case record. Appeal boards have the authority to remand cases.

37. **Secret** - The designation applied to information or material the unauthorized disclosure of which could reasonably be expected to cause serious damage to the national security. [Ref. 9:p. 57]

38. **Security Clearance** - Same as "clearance".

39. **Statement of Reasons (SOR)** - A statement issued by DISCR setting forth the reasons an applicant's security clearance may be denied, suspended, or revoked.

40. **Top Secret** - The designation applied to information or material the unauthorized disclosure of which could reasonably be expected to cause exceptionally grave damage to the national security. [Ref. 9:p. 58]

APPENDIX C

LIST OF ACRONYMS

1. **BI** - Background Investigation
2. **CAF** - Central Adjudication Facility
3. **DIS** - Defense Investigative Service
4. **DISCO** - Defense Industrial Security Clearance Office
5. **DISCR** - Directorate for Industrial Security Clearance Review
6. **DOD** - Department of Defense
7. **FY** - Fiscal Year
8. **GAO** - Government Accounting Office
9. **LOC** - Letter of Consent
10. **NAC** - National Agency Check
11. **NSF** - Insufficient Funds
12. **PERSEREC** - Personnel Security Research and Education Center
13. **PIC** - Personnel Investigations Center
14. **PSD** - Personnel Security Division
15. **PSI** - Personnel Security Investigation
16. **PSQ** - Personnel Security Questionnaire
17. **SOR** - Statement of Reasons

APPENDIX D

CATEGORIES OF ADJUDICATION CRITERIA

A. Commission of any act of sabotage, espionage, treason, terrorism, anarchy, sedition, or attempts thereat or preparation therefor, or conspiring with or aiding or abetting another to commit or attempt to commit any such act.

B. Establishing or continuing a sympathetic association with a saboteur, spy, traitor, seditionist, anarchist, terrorist, revolutionist, or with an espionage or other secret agent or similar representative of a foreign nation whose interests may be inimical to the interests of the United States, or with any person who advocates the use of force or violence to overthrow the Government of the United States or to alter the form of Government of the United States by unconstitutional means.

C. Advocacy or use of force or violence to overthrow the Government of the United States or to alter the form of government of the United States by unconstitutional means.

D. Knowing membership with the specific intent of furthering the aims of, or adherence to and active participation in any foreign or domestic organization, association, movement, group or combination of persons (hereafter referred to as organizations) which unlawfully advocates or practices the commission of acts of force or violence to prevent others from exercising their rights under the Constitution or laws of the United States or of any State or which seeks to overthrow the Government of the United States or any State or subdivision thereof by unlawful means.

E. Unauthorized disclosure to any person of classified information, or of other information, disclosure of which is prohibited by Statute, Executive Order or Regulation.

F. Performing or attempting to perform one's duties, or otherwise acting, so as to serve the interests of another government in preference to the interests of the United States.

G. Disregard of public law, Statutes, Executive Orders or Regulations including violation of security regulations or practices.

N. Criminal or dishonest conduct or acts of sexual perversion.

I. Acts of omission or commission that indicate poor judgment, unreliability or untrustworthiness.

J. Any illness, including any mental condition, which, in the opinion of competent medical authority, may cause significant defect in judgment or reliability with due regard to the transient or continuing effect of the illness and the medical findings in such case.

K. Vulnerability to coercion, influence, or pressure that may cause conduct contrary to the national interest. This may be (1) the presence of immediate family members or other persons to whom the applicant is bonded by affection or obligation in a nation (or areas under its domination) whose interests may be inimical to those of the United States, or (2) any other circumstances that could cause the applicant to be vulnerable.

L. Excessive indebtedness, recurring financial difficulties, or unexplained affluence.

M. Habitual or episodic use of intoxicants to excess.

N. Illegal or improper use, possession, transfer, sale or addiction to any controlled or psychoactive substance, narcotic, cannabis or other dangerous drug.

O. Any knowing and willful falsification, cover-up, concealment, misrepresentation, or omission of a material fact from any written or oral statement, document, form or other representation or device used by the Department of Defense or any other Federal agency.

P. Failing or refusing to answer or to authorize others to answer questions or provide information required by a congressional committee, court or agency in the course of an official inquiry whenever such answers or information concern relevant and material matters pertinent to an evaluation of the individual's trustworthiness, reliability, and judgment.

Reproduced from [Ref. 1:pp. 5-7]

APPENDIX E
FINANCIAL ADJUDICATION POLICY

Basis: Failure to meet just and avoidable financial obligations voluntarily incurred.

Factors Which May be Considered in Determining Whether to Deny or Revoke Clearance:

1. History of bad debts and unmanageable indebtedness.
2. Recent bankruptcy with continuing financial problems.
3. Indebtedness aggravated or caused by gambling, alcohol, drug abuse, or mental or emotional defects.
4. A history or pattern of writing checks not covered by sufficient funds.
5. Unfavorable judgments, liens, or repossessions.
6. Deceit or deception, embezzlement, or change of address without advising creditors.
7. Applicant's indifference to financial obligations or a stated intention not to meet these obligations in the future.
8. Financial mismanagement or irresponsible expenditures that exceed income or other assets.

Mitigating Factors:

1. Systematic efforts to satisfy creditors.
2. Favorable change in financial habits.
3. Stable employment record and favorable references.
4. Circumstances beyond the individual's control contributing to indebtedness; e.g., major illness, debilitation, decrease or cutoff of income, and indebtedness due to court order.
5. Business-related bankruptcy.

Reproduced from [Ref. 1:encl (3)]

APPENDIX F

COMPUTER INPUT SHEETS

Line 1 Part I

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1 2 3 4 5 6
CASE

Part II

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8 9
VOLUME

--

11
DOD

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13
CRITA

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15
CRITB

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17
CRITC

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19
CRITD

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21
CRITE

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23
CRITF

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25
CRITG

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27
CRITH

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29
CRITI

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31
CRITJ

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33
CRITK

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35
CRITL

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37
CRITM

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39
CRITN

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41
CRITO

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43
CRITP

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45
NCRITT

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47 48 49 50 51 52 53 54
DSORI

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56 57 58 59 60 61 62 63
DSORA

Line 2

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65 66 67 68 69 70 71 72
DHR

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1 2 3 4 5 6 7 8
DDETHR

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10 11
EXAM

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13
AREP

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15
DETHR

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17
DETA1

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19 20 21 22 23 24 25 26
DDETA1

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28 30
PARTA1 DETR

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32 33 34 35 36 37 38 39
DDETR

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41 43
DETA2 PARTA2

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45	46	47	48	49	50	51	52	54	56	58	60
DDETA2								DETFIN CHELD CSUS CREQ			

Part III

62	64	65	67	69	70	72	73
SEX	AGE		MAR	NDEP		EDUC	
							75
							SUP

Line 3

Part IV

1	2	4	6	8	10	12
JOB		FACTA1	FACTA2	FACTA3	FACTA4	FACTA5
						14
						FACTA6

Part V

16	18	20	22	24	26	28	30	31
FACTA7	FACTA8	FACTS1	FACTS2	FACTS3	FACTS4	FACTS5	NDET1M	

33	34	36	37	39	40	42	43
NDET3M	NDET6M	NDET1Y	NDET3Y	NDET5Y	CONDET	WHYDET	

50	51	52	54	55	56	57	58	59	60	61	62
NDETT			DOLDDET								

Part VI

Line 4

66	68	70	72	74	1	3	5
NBK1M	NBK1Y	NBK3Y	NBK5Y	CONBK	NBKT	NBK7	NBK13

7	9	10	11	12	14	15	16	17	19	20
NBK11	PERBUS				PERPER				NLAS	

Part VII

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22 23 24 25 26 27 28 29 30 31 32

DOLLAS

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34 35

NSUF1M

--	--

37 38

NSUF3M

--	--

40 41

NSUF6M

--	--

43 44

NSUF1Y

--	--

46 47

NSUF3Y

--	--

49 50

NSUF5Y

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52 53 54

NSUFT

Part VIII

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56 57 58 59 60 61 62 63 64 65 66

DOLSUF

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68 69

NREFO

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71 72

NJUDG

Line 5

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74 75

NLIEN

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1 2

NGARN

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4 5

NFORE

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7 8

NFIVE

Part IX

Part X

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10 11

NFRAUD

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13

ATT

Part XI

Part XII

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15

PAYSOR

--

17

REHAB

--

19

DISBK

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21

RELATE

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23 24 25 26 27 28 29 30 31 32 33

DOLXIN

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35 36 37 38 39 40 41 42 43 44 45

DOLINX

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47 48 49 50 51 52 53 54 55 56 57

DOLIN

Line 6

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59 60 61 62 63 64 65 66 67 68 69

DOLX

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1 2 3 4 5 6 7 8 9 10 11

DOLGRO

Part XIII

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13 14 15 16

LONG1

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18 19 20 21

LONG2

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23

REFS

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25 26

FED

Part XV

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28 29
STATE

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31 32
FEDSTA

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34 35 36 37 38 39 40 41 42 43 44
DOLCON

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46 47 48 49 50

DOLHOM

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51 52 53 54 55 56 58 59 60 61

DOLMED

Line 7

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1 2 3 4 5 6 7 8 9 10 11

DOLEDU

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13 14 15 16 17 18 19 20 21 22 23

DOLUTIL

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25 26 27 28 29 30 31 32 33 34 35

DOLTAX

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37 38 39 40 41 42 43 44 45 46 47

DOLKID

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49 50 51 52 53 54 55 56 57 58 59

DOLBUS

--	--

61 62
NCON

--	--

64 65
NHOM

--	--

67 68
NMED

Line 8

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70 71
NEDU

--	--

73 74
NUTL

--	--

1 2
NTAX

--	--

4 5
NKID

--	--

7 8
NBUS

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10 11 12 13
PDCON

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15 16 17 18
PDHOM

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20 21 22 23
PDMED

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25 26 27 28
PDEDU

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30 31 32 33
PDUTL

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35 36 37 38
PDTAX

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40 41 42 43
PDKID

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45 46 47 48
PDBUS

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50 51 52 53
PNCON

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55 56 57 58
PNHOM

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60 61 62 63
PNMED

--	--	--	--

65 66 67 68
PNEDU

Line 9

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70 71 72 73
PNUTL

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1 2 3 4
PNTAX

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6 7 8 9
PNKID

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11 12 13 14
PNBUS

LIST OF REFERENCES

1. U.S. Department of Defense, DOD Directive 5220.6, *Defense Industrial Personnel Security Clearance Review Program*, Washington, DC, 12 August 1985.
2. U.S. Department of Defense, DOD Security Review Commission, *Keeping The Nation's Secrets: A Report to the Secretary of Defense*, Government Printing Office, Washington, DC, November 1985.
3. U.S. Department of Defense, Defense Personnel Security Research and Education Center, Unclassified Letter: 65HT/1059RES to Defense Investigative Service, Subject: Financial Criteria Used by DISCR for Denying a Clearance; Research Proposal, 26 December 1989.
4. U.S. Department of Defense, Defense Personnel Security Research and Education Center, Report PERS-TN-87-007, *Personnel Security and Reliability: Psychological Research Issues*, by M. F. Wiskoff, Monterey, CA, October 1987.
5. U.S. Congress, 100th, 1st sess., House, Select Committee on Intelligence, *United States Counterintelligence and Security Concerns--1986*, Government Printing Office, Washington, DC, 1987.
6. U.S. Congress, 98th, 1st sess., Senate, Committee on Governmental Affairs, *National Security Decision Directive 84*, Government Printing Office, Washington, DC, 1984.
7. U.S. Congress, 101st, 1st sess., House, Committee on Post Office and Civil Service, Subcommittee on Civil Service, *Proposed Changes to Security Clearance Programs*, Government Printing Office, Washington, DC, 1989.
8. U.S. Congress, 101st, 2nd sess., Senate, Select Committee on Intelligence, S. 2726, *Counterintelligence Improvements Act of 1990 (proposed)*, Washington, DC, July 1990.
9. U.S. General Accounting Office, The Comptroller General, Report GGD-81-105, *Report to the Congress of the United States: Faster Processing of DOD Personnel Security Clearances Could Avoid Millions in Losses*, Government Printing Office, Washington, DC, 15 September 1981.

10. U.S. Department of Defense, DOD Industrial Security Review Committee, *A Report to the Deputy Undersecretary of Defense for Policy*, Washington, DC, 10 December 1984.
11. U.S. Congress, 99th, 1st sess., Senate, Committee on Governmental Affairs, Subcommittee on Investigations, *Federal Government Security Clearance Programs*, Government Printing Office, Washington, DC, 1985.
12. Burris, G. W., Major, USAF, *Reliability in the Air Force's Personnel Security Program*, Student Report, Air Command and Staff College, Air University, Maxwell Air Force Base, AL, April 1986.
13. U.S. General Accounting Office, National Security and International Affairs Division, Report GAO/NSIAD-89-21, *Security Investigations: State Department Employee Investigation Practices Can Be Improved*, Washington, DC, November 1988.
14. U.S. General Accounting Office, National Security and International Affairs Division, Report GAO/NSIAD-89-86, *State Department: Security Issues Related to Selected Employees*, Washington, DC, December 1988.
15. U.S. General Accounting Office; Resources, Community, and Economic Development Division; Report GAO/RCED-89-34, *Nuclear Security: DOE Actions to Improve the Personnel Clearance Program*, Washington, DC, November 1988.
16. U.S. General Accounting Office; Resources, Community, and Economic Development Division; Report GAO/RCED-89-41, *Nuclear Regulation: NRC's Security Clearance Program Can Be Strengthened*, Washington, DC, December 1988.
17. U.S. General Accounting Office, Report GAO/T-RCED-89-14, *Testimony: Weaknesses in NRC's Security Clearance Program*, Washington, DC, 15 March 1989.
18. U.S. Congress, 100th, 2nd sess., House, Permanent Select Committee on Intelligence, *U.S. Counterintelligence and Security Concerns: A Status Report, Personnel and Information Security*, Government Printing Office, Washington, DC, 1988.
19. U.S. Department of Defense, Defense Investigative Service, *DIS*, 1990.
20. U.S. General Accounting Office, National Security and International Affairs Division, Report GAO/NSIAD 87-170BR, *National Security: DOD Clearance Reduction and Related Issues*, Washington, DC, September 1987.

21. O'Brien, T. J., "The Changing Face of DOD Security," *Security Management*, July 1988.
22. Bodzin, M. B., *A Literature Survey of Private Sector Methods of Determining Personal Financial Responsibility*, Master's Thesis, Naval Postgraduate School, Monterey, CA, September 1988.
23. U.S. Department of Defense, Defense Investigative Service, Dis Manual 20-1-M, *Manual for Personnel Security Investigations*, Washington, DC, December 1988.
24. Sewell, C., "The Proof is in the Past," *Security Management*, November 1986.
25. Peters, R. B., "In Hiring, When is a Risk a Risk?" *Security Management*, August 1985.
26. U.S. Department of Defense, Defense Personnel Security Research and Education Center, Report PERS-TR-90-006, *Investigative Report Writing: A Field Study*, by J. E. Suchan, Monterey, CA, December 1989.
27. Personnel Decisions Research Institutes, Inc., Report 160, *The Investigative Interview: A Review of Practice and Related Research*, by M. Bosshardt, D. Dubois, C. Paullin, and G. Carter, Minneapolis, MN, November 1988.
28. HumRRO International, Inc., Report 87-02, *Determination of Training Requirements--Personnel Security Specialists (Adjudicators)*, by J. Marshall-Mies, Alexandria, VA, June 1987.
29. HumRRho International, Inc., *Job/Task Analysis for DOD Adjudicators--Phase A: Job Tasks for DOD Adjudicators*, by J. M. Marshall-Mies, K. Rigg, and F. Harding, Arlington, VA, September 1989.
30. HumRRho International, Inc., Report 87-04, *Personnel Security Adjudicators: Results of a Semi-Structured Interview*, by J. P. Ziemak and J. H. Laurence, Alexandria, VA, August 1987.
31. U.S. Department of Defense, Defense Personnel Security Research and Education Center, Report PERS-TR-88-004, *Due Process in Matters of Clearance Denial and Revocation: A Review of the Case Law* by John Norton Moore, Esq., Ronald L. Plessner, Esq., and Emilio Jaksetic, Esq., by E. V. Haag and R. Denk, April 1988.

32. Executive Order 10865, *Safeguarding Classified Information Within Industry*, Eisenhower, Dwight D., Washington, DC, 24 February 1960.
33. Novak, V., "Suspect," *Common Cause*, May-June 1989.
34. Edelhertz, H., "White-Collar and Professional Crime: The Challenge for the 1980's," *American Behavioral Scientist*, v. 27, September-October 1983.
35. Britton, H., "The Serious Threats of White Collar Crime," *Vital Speeches of the Day*, v. 47, 1 June 1981.
36. Bologna, J., "Why Employees Steal--CPAs and DPers Views," *Security Management*, September 1980.
37. Bequai, A., "The Industrial Spy," *Security Management*, August 1985.
38. McGowan, W., "The Great White-Collar Crime Coverup," *Business and Society Review*, Spring 1983.
39. Fotheringham, A., "For This is the Law--and the Profits," *Macleans*, v. 93, 7 April 1980.
40. Kuhn, R. A., "Secrets of Successful Screening," *Security Management*, September 1988.
41. U.S. Department of Defense, Defense Personnel Security Research and Education Center, Report PERS-TR-87-004, *A Survey of Economic Models of Criminal Behavior*, by W. J. Haga, October 1987.
42. Tersine, R. J., and Russell, R. S., "Internal Theft: The Multi-Billion-Dollar Disappearing Act," *Business Horizons*, v. 24, November-December 1981.
43. Walls, Jr., J. D., "Putting a Premium on Honesty," *Security Management*, September 1988.
44. McNamara, Francis J., *U.S. Counterintelligence Today*, The Nathan Hale Institute, 1985.
45. Department of Defense Security Institute, *Security Awareness News*, Richmond, VA, November 1989.
46. Department of Defense Security Institute, *Recent Espionage Cases: Summaries and Sources*, Richmond, VA, February 1988.

47. Department of Defense Security Institute, *Security Awareness News*, Richmond, VA, April 1990.

48. Department of Defense Security Institute, *Security Awareness News*, Richmond, VA, May 1990.

49. U.S. Department of Defense, Defense Personnel Security Research and Education Center, Report PERS-TR-87-003, *Personnel Security Prescreening: An Application of the Armed Services Applicant Profile (ASAP)*, by K. S. Crawford and T. Trent, Monterey, CA, October 1987.

50. McDaniel, M. A., "Biographical Constructs for Predicting Employee Suitability," *Journal of Applied Psychology*, v. 74, June 1989.

51. U.S. Department of Defense, Department of Defense Directive 5200.2-R, *Personnel Security Program Regulation*, Washington, DC, January 1987.

52. U.S. Department of Labor, Bureau of Labor Statistics, *CPI Detailed Report*, December 1989, February 1990.

53. Teates, J. F., *An Exploratory Analysis of Misconduct Behavior within the Radioman Rate and its Potential Effect on Security*, Master's Thesis, Naval Postgraduate School, Monterey, CA, June 1986.

54. Bordens, K. S., *Research Design and Methods*, Mayfield Publishing, Mountain View, CA, 1988.

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