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I am submitting herewith a dissertation written by Richard Frank Bynum entitled "Perceived Role and Function of the Disability Adjudicator in the Assessment of Medical Information." I recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Education, with a major in Health Education.

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PERCEIVED ROLE AND FUNCTION OF THE DISABILITY ADJUDICATOR IN THE ASSESSMENT OF MEDICAL INFORMATION

A Dissertation

Presented for the

Doctor of Education

Degree

The University of Tennessee, Knoxville

Richard Frank Bynum

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ABSTRACT

The purpose of this study was to determine if a majority of state agency Disability Adjudicators perceive their job to include the interpretation of medical information, the application of medical criteria, and the development of medical information. These activities are essential for the proper disposition of disability claims filed under Title II and Title XVI of the Social Security Act. However, it has never been clearly resolved whether or not adjudicators perform these job functions independently, without the assistance of anyone else.

The method chosen to resolve this issue was to survey as many of the Disability Adjudicators as possible who actually process disability claims. A questionnaire was developed by the investigator in accordance with the requirements for processing disability claims as set forth by the Social Security Administration. A pilot study was conducted to evaluate the clarity and usability of the questionnaire, and to assess the effectiveness of the data gathering procedures. The target population consisted of only those adjudicators who had more than six months work experience and who were actively involved in case processing procedures.

Currently, there are 54 separate agencies that employ Disability Adjudicators who under contractual agreement with

the Secretary of Health, Education, and Welfare process disability claims filed under the Social Security Act. Each agency administrator was contacted by telephone or letter to secure permission and support for this study. Subsequently, 3,497 questionnaires were sent to the 51 agencies who agreed to participate, and 2,735 questionnaires were returned for a response rate of 78.2 percent.

From the findings, the following conclusions were made:

1. A majority of Disability Adjudicators employed by state agencies indicated they interpret medical information and apply medical criteria independently over 50 percent of the time.

2. The amount of time spent by adjudicators interpreting medical information and applying medical criteria was not associated with the number of years work experience they had.

3. A majority of Disability Adjudicators employed by state agencies said they develop medical information to properly document disability claims 90 percent or more of the time independently, without the help of anyone else.

4. The amount of time spent developing medical evidence was not associated with the number of years work experience or the type of adjudicator.

5. The adjudicators' perception of developing and interpreting medical information, and applying medical criteria was not associated with the employing state agency.

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CHAPTER I

INTRODUCTION

The Social Security Act was passed into law in 1935 and provided monthly retirement benefits for persons reaching retirement age, or in case of the wage earner's death, payments would be made to the dependent survivors (39:5-6). However, an individual's retirement benefits or those benefits that may be payable to a worker's family upon his death, could be reduced or perhaps lost entirely due to the lack of earnings during periods of long term disability. Consequently, in 1954 Congress amended Title II of the Social Security Act to include a waiver of premium provision. Under the Social Security Amendment this was termed a "disability freeze," and provided protection of an individual's retirement benefits during periods of long term disability (35: Section 021). Subsequent amendments to the Social Security Act provided for monthly cash benefit payments to be paid to those persons who were found unable to work because of a disability. The Social Security Act was again amended in 1972 (39:98) and under Title XVI the state-administered Old Age Assistance, Aid to the Blind, and Aid to the Permanently and Totally Disabled public assistance programs were replaced by the Supplemental Security Income Program.

The adjudication of disability claims filed under Title II and Title XVI of the Social Security Act is administered through a federal-state cooperative structure. Currently, there are 54 state and territorial agencies that have entered into contractual agreement with the Secretary of the Department of Health, Education, and Welfare to provide claims adjudication services. Each respective agency processes claims of citizens who reside within its jurisdiction at the time of application. Likewise, each contracting agency is responsible for managing and supervising its personnel and organizing sufficient resources necessary to adjudicate these claims in an equitable and timely manner. Financial resources are totally provided for by the federal government (43:17).

Individuals who consider themselves disabled, or eligible for benefits under Title II or Title XVI of the Social Security Act, as amended, may file a claim for these benefits at the local Social Security District Office. After preliminary claims preparation procedures are completed these claims are then forwarded to the respective contracting state agency for adjudication.

Although every contracting state agency is administratively structured somewhat differently, the decisions are made by an adjudicative team consisting of a duly qualified Physician and a Disability Adjudicator, in accordance with guidelines and standards set forth by the Bureau of

Disability Insurance, Social Security Administration (38:15). Uniform application of these guides and standards is necessary to insure equal treatment to all the citizens of this country (47:130).

I. PURPOSE OF THE STUDY

The major purpose of this study was to determine if state agency adjudicators perceived their job functions to include the interpretation of medical information, the application of medical criteria, and the performance of medical development procedures necessary to document disability claims.

II. STATEMENT OF THE PROBLEM

In keeping with the major purpose of this study, resolution of the following more specifically stated problems was accomplished:

1. Do state agency Disability Adjudicators perceive their job to include the interpretation of medical information and application of medical criteria without help from anyone else.
2. Do state agency Disability Adjudicators perceive their job to include the development of medical information without the help of anyone else.

III. NEED FOR THE STUDY

The eligibility criteria for disability benefits under Title II and Title XVI of the Social Security Act is stipulated as follows:

> . . . inability to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than 12 months (39:31).

The basic requirement for eligibility rests upon the issue of whether or not a medically determinable impairment exists, and if so, to what extent does it prevent the individual from engaging in substantial and gainful work activity. Application of the eligibility criteria is carried out by the adjudicative team within the contracting state agencies.

Evaluations generally involve three basic types of activity: information collection, criteria application, and decision making (14:2). More specifically, the adjudicative team performs the following sequence of activities:

1. Reviews the disability claim, identifies relevant issues, and decides if the file contains sufficient evidence to resolve these issues.
2. Where needed, institutes procedures to secure additional medical, vocational, and other forms of documentation to resolve pertinent issues.

3. Utilizes existing standards and guidelines in determining eligibility for benefits.
4. Determines whether or not the claimant would benefit from vocational rehabilitation services.

It is apparent that the development and assessment of medical information and the application of criteria involving medical factors is basic to the disability determination process.

The physician is a very important member of the adjudicative team and logically would assume much of the responsibility for buiding those claims processing procedures concerned with analyzing and evaluating medical data. There is strong evidence, however, to suggest that the adjudicator is also involved in analyzing and evaluating medical data. For example, the third edition of the Dictionary of Occupational Titles describes the adjudicator's job as follows:

> Adjudicates claims for disability benefits filed under the Federal Social Security Act, on basis of provisions of the Act and on pertinent regulations and standards: Analyzes and evaluates medical, psychiatric, vocational, and other evidence submitted by claimant or others, for consistency, validity, and sufficiency. Confers with medical and other consultants to resolve complex problems. Authorizes, when necessary, consultations in the fields of medicine, psychiatry, psychology, and vocational guidance to obtain additional evidence. Interviews employers, relatives, friends, staff members of institutions and social agencies, and others to obtain nonmedical evidence concerning manifestations of the disability, work performance, daily activities, and other pertinent information. Evaluates evidence and determines capacity of claimant to engage in substantial gainful activity. Prepares written report to document case. Assesses vocational rehabilitation potential of claimant for

> referral to appropriate rehabilitation agency. Reevaluates evidence and procures additional information, when necessary, in cases at the appellate level or in cases requiring investigation of claimant's continuing entitlement to benefits (40:776).

This job description appears to support the contention that the adjudicator is involved to some extent in the specific claims processing activities of developing and interpreting medical information and applying medical criteria. Furthermore, the Bureau of Disability Insurance, Social Security Administration, has made available some training materials to the contracting state agencies indicating that the purpose of these materials was "to provide staff members who are neither physicians nor vocational experts with background information and a general understanding of the medical and vocational aspects of disability evaluation" (32:iii). However, the exact duties and responsibilities of the adjudicator are not clearly identified in any official publication from the Social Security Administration. There is, however, a description of the duties and responsibilities of the physician, as well as other specialists (35:Section 425). Consequently, the extent to which adjudicators are working with medical data has never been clearly defined. Also, if adjudicators are engaging in this type of activity and this is considered to be an acceptable procedure, then measures should be taken to insure that they possess the requisite knowledge and skills necessary to carry out their job functions properly.

The individual citizen of this country has no choice in deciding whether or not to participate in the Social Security Disability Insurance Program. This is a compulsory program, and the workers' wages are taxed automatically to support its operation (39:23). In view of this, the taxpayers should expect, and receive, no less than the highest possible level of professional expertise from those involved in the claims adjudication process. Proper and equitable determinations of eligibility are just as important to those who are still working and supporting this program with their tax dollars as it is to those who have filed a claim for benefits and are entitled under the law.

In order to insure professional expertise, adequate training and appropriate educational opportunities should be provided, and perhaps criteria developed to certify that adjudicators possess the necessary knowledge and skills to perform their job functions properly. At the present time, there are no uniform training programs, educational opportunities are limited, and there exists no certification criteria or procedures to insure professional expertise. If we are to institute some of these measures and expand appropriate educational resources, we must have a better understanding of the adjudicator's role and function in the disability claims determination process. This knowledge will allow delineation of specific competencies necessary to perform the job with subsequent development of appropriate training

materials, more meaningful educational opportunities, and perhaps provide valuable assistance in the development of certification criteria.

IV. HYPOTHESES

On the basis of a review of the literature and personal observation, the following Null and Alternative Hypotheses were proposed.

Null Hypothesis. A majority of state agency Disability Adjudicators surveyed do not perceive their job to include the interpretation of medical information and application of medical criteria without the help of anyone else.

Alternative Hypothesis. A majority of state agency Disability Adjudicators surveyed perceive their job to include the interpretation of medical information and application of medical criteria without the help of anyone else.

Null Hypothesis. A majority of state agency Disability Adjudicators surveyed do not perceive their job to include the development of medical information without the help of anyone else.

Alternative Hypothesis. A majority of state agency Disability Adjudicators surveyed perceive their job to include the development of medical information without the help of anyone else.

V. SCOPE OF THE STUDY

This study was not concerned with how well the state agency adjudicators performed the job functions of assessing and developing medical information, nor was this study concerned with whether or not these job functions should be performed by the adjudicator. However, the information gathered for this study would certainly provide a basis upon which these issues may be dealt with. This study was concerned with assessing how the majority of disability adjudicators employed by the contracting state agencies perceive their job function in relation to obtaining and utilizing medical information.

VI. LIMITATIONS OF THE STUDY

This research dealt only with those disability adjudicators who were permitted to participate in this study by the state agency supervisor. Consequently, there is some chance that the data obtained may not be representative of those adjudicators who were not permitted to complete the questionnaire. Therefore, the results obtained are only applicable to those state agencies who participated in this study.

VII. BASIC ASSUMPTIONS

It is recognized that the survey questionnaire is only capable of assessing the state agency adjudicator's perceived role and function in the claims adjudication process. It is further recognized that there may be some disparity between how adjudicators perceive their role and function and how they actually perform their job. However, it is assumed that this disparity, if present, will not materially affect the overall purpose or outcome of this study. It would be possible to have each respondent complete the questionnaire and then closely observe their work activities over a given period of time to determine whether or not a disparity exists between what the perceived role and function is and what they are actually doing. This procedure would obviously require a great amount of time and resources and would necessarily limit the number of examiners that could be observed or surveyed in this study. Consequently, it is assumed that equally reliable data may be obtained through a larger sampling of state agency adjudicators and that any disparity that may exist between the adjudicator's perception and actual practice would not materially influence the outcome of the study.

It is also assumed that the responses obtained were representative of how the adjudicators actually perceived their job functions rather than how they, or someone else, thought they should be functioning.

VIII. DEFINITION OF TERMS

Adjudication team. Every disability determination made in the contracting state agency is signed by two people employed by that agency: a Physician and a Disability Examiner.

Application of medical criteria. The Bureau of Disability Insurance, Social Security Administration has provided the contracting state agencies with operational guidelines which are used in determining eligibility for awarding or denying benefits. These guidelines stipulate the medical criteria that are to be applied in this decision-making process.

Contracting state agency. The adjudication of claims filed under Title II and Title XVI of the Social Security Act is carried out by official agencies located in various states and territorial possessions. These agencies provide adjudicative services under contractual agreement with the Secretary of Health, Education, and Welfare.

Development of medical information. Frequently in the claims adjudication process the medical evidence submitted by the applicant in support of their claim is insufficient to determine eligibility for benefits. Consequently, additional medical information may be obtained from a variety of sources such as the applicant's attending physician, a hospital or clinic, a psychologist or psychiatrist, a

physician specializing in a particular branch of medicine, etc.

Disability Adjudicator. This is a generic job title that is considered much more appropriate than the title Disability Examiner, since this person does not actually examine people but rather evaluates data, applies rules of evidence, and renders decisions. The Adjudicator is the non-medical member of the adjudicative team (see Disability Examiner).

Disability Examiner. This is a job title used by the Bureau of Disability Insurance, Social Security Administration, and by some contracting state agencies to denote the non-medical member of the adjudicative team. This title is synonymous with the state agency Disability Adjudicator (see Disability Adjudicator).

Interpretation of medical information. This phrase is used to denote the analysis, synthesis, and evaluation of medical data which are important to the adjudication process.

Quality Assurance. This is a staff position that exists in all contracting state agencies whose primary function is to aid management in maintaining equitable and timely adjudication of disability claims.

Social Security District Office. There are approximately 1,000 local Social Security District Offices located throughout the United States. These are the offices where the public goes to apply for benefits, obtain their Social

Security number, and acquire needed information (34:43).

Vocational Specialist. A staff position found in most contracting state agencies that provides special expertise in assessing vocational factors in those cases where this is required.

IX. ORGANIZATION OF THE STUDY

This study is presented in six chapters. Chapter I includes an introduction, purpose of the study, statement of the problem, need for the study, hypotheses, delimitations, limitations, basic assumptions, and definition of terms. Chapter II consists of a review of related literature in four main areas: The federal-state administrative and organizational structure, the state agency disability adjudicator, application of adjudicative criteria, and the development and use of questionnaires. Chapter III outlines and explains the methods and procedures utilized to conduct this study. Chapter IV contains an analysis and interpretation of the data collected in this study. Chapter V presents a summary of this study along with the findings, conclusions, and recommendations. Chapter VI is an epilogue.

CHAPTER II

REVIEW OF RELATED LITERATURE

The review of literature focused on four major areas. At the conclusion of each major area the findings and conclusions were summarized.

The first major area was concerned with the administrative and organizational framework within which disability decisions are made. Exploration of the federal-state relationship was necessary to better understand the milieu in which disability claims are adjudicated. The second major area was concerned with examining the specific job duties, and requisite knowledge and skills of the lay disability adjudicator. Primary attention was given to whether or not adjudicators were involved in the interpretation of medical information, application of medical criteria and development of medical information to document disability claims. The third major area described the adjudicative criteria and the application of this criteria in processing disability claims. The fourth major area was concerned with the development and the use of questionnaires since this was the method used to collect the data for this study.

I. THE FEDERAL-STATE ADMINISTRATIVE AND ORGANIZATIONAL STRUCTURE

The Social Security Disability Insurance Program is administered through a federal-state cooperative mechanism. In 1954, when the disability benefit provisions were enacted, Congress stipulated that the program should be administered at the local level. As a result, the Department of Health, Education, and Welfare has entered into contractual agreement with 54 separate agencies to adjudicate the major portion of these claims (35:Section 402). This operational structure was considered to be the most advantageous for several reasons:

> By and large, determinations of disability will be made by state agencies administering plans approved under the Vocational Rehabilitation Act. This would serve the dual purpose of encouraging rehabilitation contacts by disabled persons and would offer the advantages of the medical and vocational case development undertaken routinely by the rehabilitation agencies. These agencies have well-established relationships with the medical profession and would remove the major load of case development from the department.
>
> By agreement, the state agencies will apply the standards developed for evaluating severity of impairments for purposes of the freeze. This will promote equal treatment of all disabled individuals under the Old Age and Survivors Insurance System in all states. The cost to these agencies for their services in making disability determinations will be met out of the Trust Fund (41:23-24).

It is apparent, therefore, that this operational framework was considered most advantageous since it would utilize existing state agencies that were already working

with the nation's handicapped, and with their expertise insure uniform application of the eligibility criteria.

Section 221 of the Social Security Act stipulates that the Secretary of the Department of Health, Education, and Welfare shall enter into contractual agreement with the state agencies or agencies administering a state plan approved under the Vocational Rehabilitation Act, or any other appropriate state agency for the purposes of rendering disability determinations on claims filed under the Social Security Act, as amended (44:175). This contractual agreement stipulates the general responsibilities of the contracting agencies as follows:

1. The state agencies will determine eligibility for disability benefits on claims filed by individuals who reside within that state according to standards established in the Social Security Act, Regulations and such standards as may be promulgated by the Secretary of Health, Education, and Welfare;
2. Comply with the specified standards of personnel practices including those provided in Executive Order 12246 and Executive Order 11375 and in its plan under the Vocational Rehabilitation Acts;
3. Provide the necessary facilities;
4. Make reports and maintain records as may be required by the Secretary of Health, Education,

and Welfare, and the Social Security Administration, Bureau of Disability Insurance; and

5. Adopt policies and procedures to insure confidentiality of information obtained in connection with the disability determination process carried out under the agreement (35:Part IV).

The Secretary of Health, Education, and Welfare agrees to assume the following responsibilities pursuant to this agreement:

1. Promulgation of standards and adjudicative guidelines to insure prompt and orderly claims processing and equality in treatment of individuals within and among the various states;
2. Review state agency operations and provide direction and assistance as may be necessary to protect the interest of the Disability Insurance Program; and
3. Provide funding for state agency expenditures in accordance with guidelines of the agreement (35:Part IV).

To administer the provisions set forth in the Social Security Act, as amended, the contracting state agencies derive the authority to make disability determinations pursuant to these federal-state contractual agreements (35: Section 103). The actual case processing, therefore, involves a cooperative working arrangement between the federal Social

Security Administration and the respective 54 contracting agencies throughout this country.

Applications for disability benefits are filed in the local Social Security District Office or branch office. These local offices then assist the claimant in securing certain basic types of documentary information and then prepare a case file which is forwarded to the respective contracting state agency. The state agency then assumes the responsibility of making a decision as to whether or not the claimant is eligible for benefits in accordance with the definition of disability provided for in the Social Security Regulations (35:Section 103). In addition to determining eligibility the state agency also has the responsibility of concluding whether or not the claimant might benefit for vocational rehabilitation services and, if so, submit a formal referral to the respective agency (35: Section 026). Once completing the disability determination and assessing rehabilitation potential, the file is then forwarded to the Social Security Administration where it may be reviewed for correctness, and then processed for payment or notification of ineligibility.

In summary, the existing federal-state administrative and organizational structure is designed to achieve several major objectives:

1. By entering into contractual agreement with state agencies already operating under an approved state

plan under the Vocational Rehabilitation Act, the disability determination process is greatly assisted since the contracting agencies already have a working relationship with the medical community and existing expertise in working with handicapped citizens.

2. It was the major concern and the intent of Congress that individuals applying for disability benefits also have the opportunity to benefit from vocational rehabilitation services.
3. The contracting agencies are responsible for providing the facilities and personnel necessary to process disability determinations filed under the Social Security Act, as amended.
4. The federal Social Security Administration is responsible for providing the financial support necessary for the contracting agencies to carry out their duties, and to promulgate rules and regulations for the contracting agencies to use as guides in the adjudication of disability claims.

II. THE STATE AGENCY DISABILITY ADJUDICATOR

The adjudication of disability claims under the Social Security Act, as amended, generally involves the same three basic activites of evaluation as noted by Frutchey:

information collection, criteria application, and decision making (14:2). As pointed out by Nagi (19:1574), these activities are very closely interrelated. Although the claims adjudication process may be stated in simple terms, it involves a wide variety of duties and requires a diversity of job knowledge and skills.

Rosse (26:235) stated that in his opinion the adjudicator's function is of a quasi-judicial nature, being responsible for reviewing and evaluating evidence of a medical and non-medical nature. He further indicated that the disability adjudicator should have a thorough knowledge in the area of medicine and psychiatry to the extent that he is able to abstract evidence which is pertinent and relevant to the claims adjudication process (26:237).

A survey of state agency adjudicators was carried out by Rosse, Marra, and Novis (27:30) in an attempt to identify and define the functions of this position, the knowledge required, and the prerequisite course areas. Less than 90 questionnaires were completed from seven separate state agencies. The procedures necessary to assess medical information were noted to be:

1. Evaluates evidence for sufficiency to determine if an immediate finding can be made or if additional evidence is required.
2. Secures additional medical evidence to confirm or refute existing evidence.

3. Recognizes manifestations of physical and mental disabilities and their relationship to vocational adjustment.

Likewise, the types of knowledge necessary to assess medical information were identified as:

1. Knowledge of how handicaps affect the personality in relation to emotional and vocational adjustment.
2. Knowledge of methods and techniques used in analysis of medical, psychological, and occupational data in terms of job requirements.

Interestingly, the majority of the respondents felt that courses of study in the area of medical information were most important (27:30). Although this survey provides some indication that adjudicators may very well be involved in assessing medical information, the data were not specific enough to conclusively demonstrate that the job functions included interpreting medical information, applying medical criteria or making independent decisions about the medical development of disability claims.

The same situation occurred in a nationwide survey of adjudicators conducted by DeRoo (8:11) who found that disability examiners perceived their role as "evaluators and interpretators" of medical, psychological, and vocational information related to the applicant's work potential. In terms of the requisite body of knowledge, the following

areas were rated in descending order of importance:

1. Medical aspects of disability
2. Psychological aspects of disability
3. Occupational analysis
4. Vocational rehabilitation
5. English composition
6. Social Security Law
7. Regional socio-economic conditions (8:12).

Here again, the data obtained do not allow one to conclude with confidence that adjudicators are in fact playing an important role in the independent assessment of medical information.

Proctor conducted a study in an effort to obtain a more accurate picture of the job functions of the disability adjudicator. A diversity of job titles and areas of specialization among 25 state agencies who completed their questionnaire was noted. Although no attempt was made to formulate a composite job description, the following common work functions were reported:

> Examines and analyzes applications for Social Security Disability Insurance Benefits; evaluates sufficiency of supporting medical and non-medical information; initiates correspondence to various sources; initiates purchase of independent medical examinations; may refer clients to Vocational Rehabilitation Counselor for assistance; determines whether or not an individual is disabled under the law, and prepares a document to this effect; prepares determinations of continuance or cessation of disability; reconsiders initial denials upon application of wage earner; assists Hearing Examiners, Appeals Council or Courts by authorizing pertinent additional medical examinations; and makes field trips to physicians and wage earners (22:6).

This survey also suggests that adjudicators are involved in assessing medical information, but the exact nature and level of independent function was not delineated.

Due to the diversity of duties and responsibilities of the disability examiner across the country, and in view of the many changes that have occurred since the Program was initiated in 1954, an ad hoc Committee under the co-sponsorship of the Social Security Administration and the National Association of Disability Examiners was convened to develop a representative job description of the disability adjudicator. The basic job description derived by this ad hoc committee included:

> Professional disability examiners employed by D.D.S.'s are expected to make appropriate judgments as to the extent and effects of disability and vocational rehabilitation potential of applicants. Disability examiners are required to obtain, review, analyze, and evaluate medical, psychological and vocational evidence and related personal information to complete such determinations (15:2).

It was also noted by this ad hoc committee that the required knowledge, skills and abilities included "lay medical knowledge, sufficient to request and/or evaluate medical information, and therapies in determining the degree of physical and mental limitations resulting from impairments" (15:12). Further, this job description stipulated that medical knowledge sufficient to interpret medical evidence relating to such areas as anatomy, physiology and laboratory tests were necessary requisites for the disability

adjudicator (15:13). Although this job description was prepared by representatives from the profession and from the federal Social Security Administration it has not received official sanction from any federal or state agency, nor has there been any research to document the extent to which this job description accurately describes the role and function of examiners within these contracting agencies.

Kerce surveyed 199 supervisors and 718 examiners concerning their perceptions regarding specialization of work function and the need for specialized training. It was noted that 72 percent of the supervisors and 66 percent of the examiners felt that evaluating medical data was an important part of their job function. It was also indicated by 72 percent of the supervisors and 59 percent of the examiners that medical development of claims was an important part of their job. Training in these respective areas was considered to be important (16:25).

In view of the diversity of the reported job duties, requisite knowledge and skills of the disability adjudicator, an attempt was made to survey the federal regulations and materials supplied to the state agencies by the federal government, notably the Disability Insurance State Manual. There was no precise job description offered in any of these materials although it was noted that individuals making disability determinations on initial claims "are responsible for the complete review of all pertinent evidence and facts,

requesting additional development and, in concert with the state agency physician" make a final determination as to whether the claimant is eligible for benefits (37:FAL 318, p. 6). The Disability Insurance State Manual describes the necessity for full professional evaluation of all cases. This administration guideline indicates that each state agency should have sufficient medical consultant time available to insure the full professional evaluation of cases and to assist disability examiners, as necessary, in the adjudication of cases. It further stipulates that "the medical consultant and the examiner may need to judge collectively" whether or not additional medical information is necessary to properly document the file (35:Section 425.421).

Interestingly, a job description is provided in the Disability Insurance State Manual for a quality assurance supervisor. Requisite knowledge, skills and abilities stipulated under this job description include knowledge about physical and mental impairments and their vocational implications, along with a skilled ability in reading and analyzing documents and reports, and an ability to identify deficiencies in evidence or in the interpretation of evidence (36:FAL 107, Appendix A, p. 2).

In summary, it is quite apparent that the literature pertaining to the disability adjudicator's job duties, requisite knowledge and skills presents a somewhat diverse picture. Although no formal job description for the

disability adjudicator exists in the Disability Insurance State Manual, or other official publication, there is strong evidence to suggest that adjudicators and their supervisors perceive their job to include the interpretation of medical information, the application of medical criteria and the development of medical information to document claims. Although several studies have alluded to the necessity of disability adjudicators having some level of expertise in the assessment of medical information, there is no clear indication as to the degree to which this expertise is needed, nor is there sufficient data to clearly support the conclusion that the assessment of medical information is in fact a common and meaningful part of the adjudicator's duties and responsibilities.

III. APPLICATION OF ADJUDICATIVE CRITERIA

In accordance with the contractual agreement between the Secretary of Health, Education, and Welfare, and the state agencies, the Secretary authorized the Social Security Administration, Bureau of Disability Insurance to prepare and maintain adjudicative standards and quidelines to insure uniformity and timeliness in processing disability claims (47:130). State agency operational procedures and adjudicative guides are set forth in the Disability Insurance State Manual expressly for that purpose. The manual, in addition to describing the broad requirements and objectives of the

disability program, "also furnishes guides, policies and procedures which are applicable on a nationwide basis and which assure equality of treatment for all individuals who file applications under the disability provisions of the law" (35:TL No. 2). Uniform application of the eligibility criteria among the 54 contracting state agencies is therefore dependent upon the existence of clearly stated adjudicative standards and guidelines, and the contracting agencies' ability to apply these guides in a consistent and uniform manner.

The uniform application of adjudicative criteria and equal treatment of all individuals who apply for benefits under Title II and Title XVI of the Social Security Act are fundamental neceessities to the proper administration of this program. Concern for uniformity in the administration of this program was emphasized in the 1956 House of Representatives report which stated:

> . . . it is also understood and expected that the Secretary of Health, Education and Welfare will fully utilize his authority to review and revise determinations of state agencies in order to assure uniform administration of the disability benefits and to protect Federal Disability Insurance Trust Fund from unwarranted costs (42:26).

There is recent evidence to suggest, however, that the goal of uniformity is not being achieved to the degree desired. A study conducted by the General Accounting Office found a significant lack of agreement among ten state agencies on the disposition of 221 sample claims "where some states

approved a claim, others denied it, and still others said there was insufficient documentation upon which to render a decision" (1:12). Several weaknesses were said to exist in the administration of the disability insurance program which could adversely affect the uniformity of decisions. They included inadequate criteria and guidelines, inconsistent training programs and ineffective quality assurance activities (1:12-13).

The adjudicative criteria and guidelines set forth by the Social Security Administration have been the subject of some criticism. The House Committee on Ways and Means indicated in a Committee Staff Report on the Disability Insurance Program that "the definition of disability is phrased in broad language and the legislative reports which accompanied the enactment of the definition in 1954 and 1956 supplied few guidelines for its interpretation" (43:45). It was also stated that "the definition of disability is so subjective that widely varying interpretations at different levels of administrative review, or even at the same level, should be expected" (43:6). In addition, Dixon feels that the critical problem in the Social Security disability program centers around the "inexactness of statutory standards, the lack of clarity and precision in the rule-making procedures, and the interrelationship of the standards problem with the administrative process" (9:701).

Thirty-one of the state agencies recently reported that they were aware of the lack of uniformity that exists and offered several reasons for this noted disparity. The most frequently mentioned reason was that the claims adjudication process involves a great deal of judgmental leeway. Another reason mentioned was the variance in the "adjudicative skills of the examiners" (43:37).

The Social Security Administration recognizes that application of the guides as set forth in the Disability Insurance State Manual requires some independent judgment. In describing the use of the guides the manual states:

> The guides set forth in this part of the manual constitute general principles for application in making disability determinations. Within the framework of these guides, disability determinations will be made by the exercise of sound professional judgment, on the basis of all the evidence in file (35:Section 302).
>
> . . . Furthermore, the guides relating to the development of evidence and disability evaluation take into account the professional competence of those who make disability determinations and the high degree of professional judgment inherent in the adjudication process (35:TL No. 2).

Variation in the application of adjudicative criteria and in the state agency quality assurance procedures was also suggested in a report by the Bureau of Disability Insurance that analyzed state agency deficiencies covering the period January through June of 1975. This report indicated a marked variation in the amount of deficiencies identified on a post-adjudicative review of disability claims, and suggested that some agencies are more consistent than others

in criteria application, claims processing, and review procedures (3:19).

A review of the literature concerning the claims adjudicative criteria and the application of that criteria supports the following conclusions:

1. The Social Security Administration has the responsibility for promulgating guides and regulations which the contracting state agencies should use in case adjudication. The purpose of these guides is to insure uniform application of criteria and equitable treatment of all individuals who apply for benefits.
2. There is sufficient evidence to suggest that some agencies are having varying degrees of success in applying adjudicative criteria.
3. One of the reasons offered for the observed variance in criteria application has to do with existing disability adjudicator expertise and a lack of uniform training among the contracting agencies.

If these conclusions are correct, then it follows that a better understanding of the exact scope and nature of the adjudicator's job with respect to the interpretation of medical information, application of medical criteria, and medical development of claims is necessary prior to the development of meaningful training materials and programs.

While there is strong evidence to suggest that adjudicators are involved to some extent in the gathering and assessing of medical information and in applying medical criteria, the exact nature of medical knowledge and skills required remains unknown.

IV. THE DEVELOPMENT AND USE OF QUESTIONNAIRES

A great deal of criticism has been levied against the use of questionnaires. However, in spite of this criticism the mail questionnaire technique continues to be a popular research procedure. Benson has identified several advantages, as well as disadvantages, in the use of mail questionnaires (2:235). The advantages include the ability to survey individuals who are widely dispersed within a population and also cover a widely scattered geographic area. In addition, the cost of conducting a mail survey would be considerably less than the cost of other types of surveys such as a personal interview. Consequently, more individuals may be included in the survey at a lower cost, thereby obtaining a better sample. Also, if an interview technique is used there is always the possibility of intentional or unintentional biasing of the answers on the part of the interviewer. This limitation is minimized with properly designed mail questionnaires. Disadvantages in using the mail questionnaire include the difficulty one is faced with in obtaining an accurate cross-section of the population mainly because the

poor, less educated individual fails to return questionnaires. In addition, a proportionately greater number of replies may come from those individuals who may be biased in one direction or another. Also, only a limited number of questions may be asked on the questionnaire for if it is too long there is a tendancy for people not to return them. Informational questions attempting to determine areas of ignorance would obviously not be very successful and also the value of a particular sequence of questions is destroyed on the mail ballot. It is also difficult to get full and complete opinions or reactions from the respondents as one might be able to obtain during a personal interview. In spite of these disadvantages, Benson has concluded that in some instances:

> Mail surveys can prove valuable in many research problems, if their limitations are known and their results properly understood and correctly interpreted . . ., however, in such instances much depends on the subject to be covered, and the homogeneity of the group to be surveyed (2:241).

It is apparent therefore that consideration must be given to these limitations since the validity of the responses may be seriously affected. Longworth felt that the validity of a study is in question when the frequency of returns "is less than ten percent of for that matter, less than fifty percent . . ." (18:311). Likewise, Robinson and Agisim concluded that when replies to questionnaires reach 70 percent or better, it would appear that non-repliers may have little effect on the results (25:423).

Several factors govern who is most likely to respond on a questionnaire. Donald observed that the higher the degree of personal involvement of the respondents in terms of active participation, knowledge and understanding of an organization or loyalty to it, the greater the number of responses might be obtained (10:113). Suchman and McCandless concluded from their research that two main factors were found to influence the returns of mail questionnaires (34: 769):

1. Interest and familiarity with the topic under investigation--the more interest the greater the returns.
2. Education of the respondent--the better educated the greater the returns.

This was also confirmed by Edgerton, Britt, and Norman who noted "that interest in the subject under investigation or ties to the questionnaire sponsor are related to high percentage of returns on the part of the respondents" (11:444). Similarly, Reuss found in a study involving college students that those individuals with a high intelligence score, some loyalty or ties to the questionnaire sponsor, and a rural background demonstrated a greater tendency to respond (23:438). Likewise, Franzer and Lazarsfeld concluded from their research that "mail questionnaires are answered more often by people who, due to their educational and occupational background, more easily express

themselves in writing and by people who are more interested in the topic under discussion" (13:294).

Clausen and Ford pointed out several sources of bias in using a mail questionnaire (7:505). They indicated that a conscious or unconscious slanting of responses because of attitudes toward the agency or organization sponsoring the survey may result in bias. There may also be bias due to imperfect design of the questionnaire, bias arising from late reports, an unrepresentative selection of the data, or unrepresentative selection of the sample. Wallace (48:51) felt that the mail questionnaire failed to include a proper representation of habitual non-repliers who, presumably, are less educated and who possibly possess similar distinctive traits. He therefore concluded that the responses could never truly be called "representative" of the universe being sampled. However, it is also noted by Pace that whether or not a person returns a questionnaire depends upon "interest; conscientiousness, habits of promptness; time available; pleasurable association with the source of the questionnaire; sufficient lack of embarrassment with one's present status to be willing to report that status" (20:388). It was further noted by Franzen and Lazarsfeld that valid samples could be obtained providing those being surveyed represented comparatively homogeneous groups (13:293).

Robin concluded after a review of the literature concerning the differences between respondents and

non-respondents that the differences seemed to appear in investigations "concerned with opinions, values, and psychological characteristics; while differences between responders and non-responders fail to appear where the questionnaire deals with consumer preference and behavior" (24:25).

In regard to questionnaire construction, Robinson and Agisim feel that the basic maxim to remember is "make it easy to fill out" (25:419). Seitz also identifies four important points to consider when designing a questionnaire (28:18-19).

1. Use a checklist wherever possible.
2. Make the sequence of questions logical making it unnecessary for the respondent to interrupt his chain of thought by jumping from one subject to another.
3. Eliminate ambiguous questions. Do not ask questions that can have several possible answers when only one answer is being sought.
4. Avoid leading questions.

Robinson and Agisim concluded that a carefully planned and carefully laid out survey questionnaire should include the following points:

1. Thorough understanding of the product or field being researched.

2. Composing a questionnaire that is attractive, easy to fill out, and of interest to all receiving it.
3. Pre-testing to guard against respondent's misunderstanding
4. Determining the kind of premium, enclosure, or inducement which will pull the maximum response.
5. Develop the right kind of letter to go along with the inquiry.
6. Follow through the original mailing with a follow-up reminder.

Sletto also suggested that pretesting the questionnaire is of great importance in ensuring reliability and validity (29:200). He recommends giving the questionnaire to a trial group on two different occasions and then comparing the replies. The possibility of detecting those questions that may produce the least reliable responses may be greatly increased. Levine and Gordon also recommended that "pretesting should focus on the range of data and the inclusiveness of the categories of the questions as well as on the clarity and meaningfulness of the individual questions" (17:575).

Slocum, Empey, and Swanson concluded from their review of the literature and observations that motivation to respond can be increased by conscious effort on the part of the researcher to:

1. Establish an image of social utility of the survey in terms of the value system of the society, group, and/or community under study.
2. Emphasize the special role of each respondent and the importance of their contribution to the success of the survey (30:222).

In summary, it is apparent that considerable research has been carried out to determine the usefulness of the mail questionnaire and to identify some important variables that may influence the results of a survey using this procedure. Although some of the findings appear to be contradictory, the following conclusions are considered to be of special importance:

1. The greater the homogeneity of the group being surveyed the greater the number of responses.
2. The greater the educational background, the greater the number of responses.
3. The more personalized and the more closely related to the interests of the perspective respondent, the greater the return might be.
4. There appears to be less differences between responders and non-responders when the questionnaire deals with behavior.
5. Pretesting the questionnaire is important in eliminating possible sources of bias.

6. It is important to demonstrate to the perspective respondent the importance of their contribution in completing the questionnaire.
7. The easier it is to fill the questionnaire out and return it, the greater the number of responses.

CHAPTER III

METHODOLOGY AND DESIGN

This chapter describes the methods and procedures utilized to investigate the stated hypotheses. It is divided into five major sections: (1) selection of subjects, (2) development of the survey questionnaire, (3) study procedures, (4) method of data analysis, and (5) a summary.

I. SELECTION OF SUBJECTS

This survey was directed toward the adjudicator who processes disability claims filed under Title II and Title XVI of the Social Security Act. Since these adjudicators are employed by separate state agencies throughout the country, each agency administrator was contacted individually to obtain approval and assistance in carrying out this survey. Therefore, the study population consisted of all adjudicators under the supervision of those administrators who gave their approval to participate. In each of these state agencies an attempt was made to obtain responses from 100 percent of the adjudicative staff who had six or more months of work experience and who were directly involved in case processing activities. This included adjudicators employed in all areas of specialization and the first line

supervisory staff. Those state agency employees who were excluded from this study were the physicians, the administrative and staff personnel not involved in the case adjudication process, the clerical support personnel, and those adjudicators with six months or less work experience.

Although no research has been done to determine exactly how long it takes the average adjudicator to acquire the knowledge and skills necessary for the job, many state agencies require a six month training or probationary period. It is recognized that even those adjudicators who have six months or more work experience still may not have acquired all the requisite knowledge and skills and, therefore, are not representative of the desired population. However, most agencies will terminate those individuals within the first six months that do not demonstrate the capacity to do the work, and who have not acquired most of the basic knowledge and skills necessary for satisfactory job performance. On this basis, it was determined that only those adjudicators who had at least six months or more work experience should be included in this survey.

II. DEVELOPMENT OF THE SURVEY QUESTIONNAIRE

The Bureau of Disability Insurance, Social Security Administration has provided the contracting state agencies with adjudicative guidelines and criteria that outline a sequential analysis process for determining who is eligible

and who is not eligible for benefits. This sequential analysis process describes a series of key issues that need to be resolved in each case (35:DIL 3-I, II, III). The specific questions on the survey instrument correspond to those key issues in so far as they relate to the development and interpretation of medical information and the application of medical criteria. In addition, the specific questions on the survey instrument may be grouped according to the two major areas of investigation. The major areas and the questions are presented in Table 1.

TABLE 1. Questionnaire Items and Corresponding Major Areas of Investigation.

Major Areas of Investigation	Questionnaire Item
1. Interpretation and application of medical information	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11
2. Medical development	13, 14, 15, 16

The demographic data asked for on the cover sheet of the questionnaire were chosen on the basis of prior research. Specialization of job function was investigated by Bynum who, after surveying 1,312 adjudicators, found the following six major areas of specialization to be most prevalent: initial claims adjudicator, reconsideration claims

adjudicator, continuing disability claims adjudicator, vocational specialist, quality review specialist, and supervisor. It was noted that about one-half of all respondents worked in one of these specialty areas on a full-time basis while a significant group of others performed a variety of duties, particularly those adjudicators employed in smaller state agencies (5:12).

Since all those adjudicators who work with initial, reconsideration, and continuing disability claims perform essentially the same work functions as they relate to the development and interpretation of medical data, these specialty areas were grouped together. This left the remaining specialty areas of vocational specialist, quality review specialist, and supervisor. Additional data concerning the total years of work experience in claims adjudication were obtained in order to determine if these variables are related to the adjudicator's perception of job function.

III. STUDY PROCEDURES

A preliminary study was carried out to determine how well the questionnaire was constructed and to assess the distribution and collection procedures. This was accomplished with the cooperation of the Puerto Rico agency. The following procedures were utilized in this preliminary survey:

1. The state agency administrator was contacted to obtain approval and support for the survey.

2. An individual employed by that state agency was designated as a study coordinator.
3. The study coordinator determined the number of adjudicators that were employed in each of the specialty areas who had more than six months work experience. This represented the total number of questionnaires that would be needed.
4. The total number of questionnaires and cover letters were sent to the study coordinator.
5. The study coordinator distributed the cover letter and questionnaires to the adjudicative staff, subsequently collected the completed questionnaires, and returned them.

A total of 56 adjudicators comprised the target population of the Puerto Rico state agency. A total of 46 questionnaires were returned which represents an 82 percent response rate, thus providing some evidence that the distribution and collection procedures were satisfactory. The completed questionnaires were analyzed to determine construct validity and appropriate revisions of the survey instrument were made. The final questionnaire was then formulated (see Appendix A) and the distribution and collection procedures followed in the preliminary study were utilized.

Each state agency administrator was contacted individually by telephone or letter to elicit their cooperation and support in conducting this study. If the

administrator gave permission for the adjudicative staff to participate in this study, a person employed by that agency was selected to act as a study coordinator. The study coordinator was then contacted and provided instructions in the distribution and collection of questionnaires (see Appendix B).

The study coordinator was asked to determine the total number of adjudicators in each specialty area for the respective state agency. These data were compared with the number of respondents from each respective state agency to determine the percent of response for that state agency. This procedure insured anonymity and at the same time provided a method of determining what percent of adjudicators had responded. Any follow-up with the individual adjudicators that was done to secure completed questionnaires from non-respondents was carried out by the agency study coordinator.

In those situations where the state agency administrator wanted to preview the questionnaire prior to deciding if they would allow their employees to participate, a copy of the questionnaire and a letter of explanation (see Appendix C) was sent. May, 1977 through June, 1977 was selected as an appropriate period of time for this survey as this precedes the usual summer vacation time which might reduce the number of possible respondents.

IV. METHOD OF DATA ANALYSIS

The purpose of this study was to determine if the majority of disability adjudicators perceive their work functions to include activities involving the interpretation, application, and development of medical information. This type of research is descriptive in nature (46:196).

Each of the basic activities necessary for disability claims adjudication, as they relate to the utilization of medical information, was identified and formulated into a question. State agency Disability Adjudicators were then asked to respond yes or no to these questions, thereby indicating whether or not they perceive their work functions to include the identified activities. Frequency and percentage distributions were utilized to analyze the responses, and chi-square was used to assess independence of data. This provided the basis for testing the major null hypotheses.

In applying chi-square to test independence, Ferguson indicated that:

> The expected cell frequencies are those we should expect to obtain if the two variables are independent of each other, given the marginal totals of the rows and columns. Chi square provides a measure of the discrepancy between the observed cell frequencies and those expected on the basis of independence. If the value of chi square is considered significant at some accepted level, usually either the 5 or the 1 percent level, we reject the null hypothesis that no differences exist between the observed and expected values. We then accept the alternative hypothesis that the two variables are associated (12:183).

Utilization of a chi-square procedure is further supported by the fact that the data are only nominal (6:9). Popham indicates that when dealing with nominal data "few alternatives to x^2 analysis exist" (21:292).

The formula for calculating a chi-square value is as follows:

$$x^2 = \Sigma \frac{(O-E)^2}{E}$$

where O = the frequency of observations in any particular category; and

E = the frequency of observations expected under the probability model in any particular category (6:132).

The degrees of freedom necessary to interpret chi-square values are determined by multiplying the number of rows minus one times the number of columns minus one (12: 184). A table showing the distribution of chi-square may then be consulted to determine if the calculated value is significant, and the level of probability at which it is significant (6:144).

In view of the possibility that the Disability Adjudicator's perception of job function may be dependent on the area of primary work function (i.e., Disability Examiner, Vocational Specialist, Quality Assurance, and Supervisor) or the number of years work experience (i.e., over six months but less than three years, three to five

years, and over five years), responses to each question one through sixteen, except for number twelve were examined for each of these variables. Frequency and percentage distributions will depict how the different categories of adjudicators responded, and chi-square values calculated to assess independence.

Questions twelve and seventeen were designed to determine the approximate percent of time adjudicators independently develop and interpret medical information, and apply medical criteria. To measure the degree of association between the four major types of adjudicators and their estimate of what percent of time they perform those activities without the help of anyone, Spearman's rho will be utilized. This statistical procedure measures the degree of association between two variables (21:313). The degree of association between responses given and the three categories of years work experience will also be assessed in the same manner.

In calculating Spearman's rho the following formula may be used:

$$r_s = 1 - \frac{6\Sigma d^2}{n^3-n}$$

where n = the number of subjects

Σd^2 = the sum of the squared differences between subject's ranks (21:314).

A Spearman coefficient near +1.00 reflects a strong positive relationship while a coefficient near -1.00 reflects a strong negative relationship. Furthermore, a coefficient which is close to zero reflects little or no relationship (21:315).

The statistical significance of Spearman's rho can be ascertained with the use of appropriate tables when the n is less than 10. However, when n is 10 or greater the significance of a Spearman coefficient may be tested by calculating the t value and then consulting a t table where df = n-2. The following formula is used for this purpose:

$$t = r_s \sqrt{\frac{n-r}{1-r_s 2}} \qquad (21:315)$$

Considering the diversity of work functions performed by Disability Adjudicators among different state agencies as noted by Proctor (22:6), the possibility exists that the way in which adjudicators respond to the questions may in some way be associated with the employing state agency. Therefore, Gutman's coefficient of predictability, or lambda (λ), will be utilized to assess the responses to questions one through sixteen, excluding number twelve. According to Champion, lambda "measures the degree to which one variable may be accurately predicted with a knowledge of the other. Being able to predict one variable from a knowledge of the other is one way of looking at association between variables" (6:210-211).

There are two ways to calculate lambda, symmetrical and asymmetrical. The former is useful as an index of mutual predictability between two variables, whereas asymmetrical calculations will indicate the direction of predictability (6:212).

The formula for calculating symmetrical lambda is as follows:

$$\lambda = \frac{\Sigma fr + \Sigma fc - (Fr + Fc)}{2N - (Fr + Fc)}$$

where fr = the largest frequency occurring in a row;

fc = the largest frequency occurring in a column;

Fr = the largest marginal frequency occurring among the rows;

Fc = the largest marginal frequency occurring among the columns; and

N = the number of observations (6:211).

The formula for calculating asymmetrical lambda is somewhat different:

$$\lambda = \frac{\Sigma fi - Fd}{N - Fd}$$

where fi = the largest frequency occurring within each subclass of the independent variable;

Fd = the largest frequency found within the dependent variable totals; and

N = the total number of observations (6:212).

Both symmetrical and asymmetrical lambda will be calculated for the responses to each question. The employing state agency will be treated as the independent variable in calculating asymmetrical lambda.

V. SUMMARY

The target population of this study included all state agency Disability Adjudicators with more than six months work experience who were involved in processing Social Security disability claims. The survey instrument posed questions which were devised in accordance with the basic requirements of claims adjudication as outlined by the Bureau of Disability Insurance, Social Security Administration, and focused on those work activities related to the interpretation, application, and development of medical information.

A pilot study was carried out to assess the construction and clarity of the questionnaire and to evaluate the data gathering procedures. Personal contact via the telephone, a commitment of support for the study by the state agency administrator, and the identification of a local study coordinator within the state agency were important components of the data gathering procedures. The method of data analysis includes frequency and percentage distribution with utilization of chi-square to test independence of responses. Spearman's rho will be used to measure the

degree of association between the responses and the variables of primary work function and years work experience. Finally, lambda will be used to determine the relationship between the responses and the employing state agency.

CHAPTER IV

ANALYSIS AND INTERPRETATION OF DATA

This chapter presents the findings of a nationwide survey of state agency Disability Adjudicators. Analysis and interpretation of the data will be presented in the following sections: (1) demographic characteristics, (2) response rate and the total population, (3) interpretation of medical information and application of medical criteria, (4) medical development procedures, (5) amount of time disability adjudicators use medical information independently, (6) employing state agency and adjudicator response, and (7) summary.

I. DEMOGRAPHIC CHARACTERISTICS

After the initial pilot study was carried out the distribution of questionnaires and collection of data began in May of 1977 and was completed by the following August. A total of 3,471 questionnaires were sent to 51 state agencies who had agreed to participate in this study. A total of 2,735 questionnaires or 78.2 percent were returned from 50 state agencies.

Adjudicators were asked to identify their primary work function in one of the following categories: Disability

Examiner (all types of claims), Vocational Specialist, Quality Assurance, and Supervisor. The number and percent of respondents by primary work function were presented in Table 2.

TABLE 2. Number and Percent of Respondents by Primary Work Function.

Variable	Respondents Number	Percent
Disability Examiner	2081	76.1
Vocational Specialist	50	1.9
Quality Assurance	187	6.8
Supervisor	355	13.0
Gave No Indication of Primary Work Function	62	2.2
TOTAL	2735	100

By far the largest number of respondents, 2,081 or 76.1 percent, were Disability Examiners. The next largest group of respondents were Supervisors, with 355 or 13.0 percent, followed by Quality Assurance with 187 or 6.8 percent. The smallest group was the Vocational Specialist with 50 or 1.9 percent. According to a statistical report from the Bureau of Disability Insurance, Social Security Administration, the proportion of adjudicators noted in each variable category above corresponds to the total population (33:1). It should also be noted that there were 62

respondents who failed to indicate their primary work function.

Similar data were obtained for three categories of work experience: (1) adjudicators who had more than six months work experience but less than three years, (2) those who had three to five years experience, and (3) those who had over five years experience. Table 3 contains these data.

TABLE 3. Number and Percent of Respondents by Years of Work Experience.

Variable	Respondents Number	Percent
Over Six Months but Less Than Three Years	656	24.0
Three to Five Years	1410	51.6
Over Five Years	605	22.1
Gave No Indication of Years Work Experience	64	2.3
TOTAL	2735	100

Adjudicators with three to five years work experience represented the largest group of respondents with 1,410 or 51.6 percent of the sample. The number of respondents with more than six months work experience but less than three years was 656 or 24.0 percent. This group represented almost the same proportion of the sample as the over five years work experience group which consisted of 605 or 22.1

percent of the respondents. Almost the same number of respondents who failed to indicate their primary work function also failed to indicate their years of work experience.

II. RESPONSE RATE AND THE TOTAL POPULATION

One of the initial goals of this study was to obtain responses from a majority of all Disability Adjudicators employed by the 54 contracting state agencies. In order to determine if a majority of adjudicators participated in this study, the total number of adjudicators that exist should be compared with the total number of respondents. However, it would be extremely difficult, if not impossible, to pinpoint the exact number of adjudicators employed in 54 separate state agencies at any one point in time since this would vary from day to day depending on many factors, such as, terminations, transfers, leave of absences due to sickness or vacations, etc. At best, only an approximation may be made as to how much of the total population is represented by the 2,735 completed questionnaires. However, two sources of data provide some idea as to the approximate number of adjudicators that were employed during the time the data were collected.

At the time of initial contact, and subsequent follow-up with the state agency, the total number of adjudicators employed by that agency who had more than six months work

experience and who were involved in casework activities was obtained. This information was used to determine the total number of questionnaires sent to a given agency and provided some indication of the adjudicator population of those agencies that participated in this study. Table 4 depicts the participating state agency, the corresponding number of questionnaires sent which represents the target adjudicator population for that agency, the number of questionnaires returned, and the percent of response.

A total of 3,497 questionnaires were sent to the state agencies with 2,735 questionnaires being completed and returned. This resulted in a response rate of 78.2 percent. These data support the contention that a majority of Disability Adjudicators from the participating state agencies are represented in this study.

It is noted, however, that four of the contracting state agencies are not represented in this study and the California state agency only allowed a small portion of their adjudicative staff to complete questionnaires. To resolve the issue of how many Disability Adjudicators were employed during the time the data were collected, reference is made to a statistical report for a 52 week period ending in September of 1977. This report shows there were 4,322 Disability Adjudicators employed in all 54 state agencies during that period of time (33:1). It is possible, however, that not all 4,322 adjudicators represent the target population since

TABLE 4. The Contracting State Agency and Disability Adjudicator Participation.

Name of Participating State Agency	Number of Questionnaires Sent	Number of Completed Questionnaires	Percent of Response
Alabama	94	80	85
Arkansas	57	52	91
Arizona	38	36	95
California	*75	72	96
Colorado	49	38	78
Connecticut	49	45	92
District of Columbia	18	18	100
Delaware	9	9	100
Florida	159	122	77
Georgia	150	94	63
Guam	1	1	100
Hawaii	9	9	100
Iowa	36	33	92
Idaho	13	12	92
Illinois	166	127	77
Indiana	120	72	60
Kansas	37	27	73
Kentucky	105	83	79
Louisiana	101	81	80
Massachusetts	115	66	57
Maine	22	15	68
Michigan	148	125	84
Minnesota	43	34	79
Missouri	93	88	95
Mississippi	72	37	51
Montana	14	11	79
North Carolina	125	119	95
North Dakota	5	5	100
Nebraska	24	24	100
Nevada	14	0	0
New Hampshire	15	8	53
New Jersey	145	106	73
New Mexico	26	19	73
Ohio	168	121	72
Oklahoma	35	32	91
Oregon	47	38	81
Pennsylvania	333	250	75
Puerto Rico	56	46	82

TABLE 4. (Continued)

Name of Participating State Agency	Number of Questionnaires Sent	Number of Completed Questionnaires	Percent of Response
Rhode Island	20	17	85
South Carolina	62	57	92
South Dakota	13	6	46
Tennessee	103	73	71
Texas	200	162	81
Utah	17	17	100
Virginia	109	93	85
Vermont	11	10	91
Washington	60	47	78
Wisconsin	65	47	72
West Virginia	47	47	100
Wyoming	4	4	100
TOTAL Response Rate	3497	2735	78.2

*California only agreed to a sampling of fifteen questionnaires for each of the five area offices.

it is unknown how many of this number did not have at least six months work experience and how many were not directly involved in casework activities. On the other hand, assuming all 4,322 adjudicators do represent the total population then it is still reasonable to conclude that a majority of adjudicators, 63.2 percent, participated in this study.

III. INTERPRETATION OF MEDICAL INFORMATION AND APPLICATION OF MEDICAL CRITERIA

One of the major areas of investigation centers around the adjudicator's involvement in the interpretation of medical information and the application of medical criteria. The basic job functions relative to utilizing medical information in this manner provided the basis for questions one through eleven on the questionnaire (see Appendix A). Adjudicators were asked to respond yes or no to these questions, thereby indicating whether or not they perceive themselves to be independently performing the identified job functions. A chi-square value was calculated for the responses to each question to test for independence. On the basis of these data, the first major hypothesis was tested. Table 5 shows how adjudicators responded to questions one through eleven and the corresponding chi-square values.

A clear majority of respondents answered yes to all eleven questions. Likewise, all chi-square values were

TABLE 5. Responses to Questions Concerning the Interpretation of Medical Information and the Application of Medical Criteria.

Question	YES Responses N & %	NO Responses N & %	UNANSWERED Responses N & %	Level of Significance[a]
1. Determine whether a laboratory test or procedure is normal or abnormal.	N 2384 %(87.2)	314 (11.5)	37 (1.7)	P .001
2. Compare clinical signs and symptoms with claimant's alleged medical condition(s).	N 2563 %(93.7)	145 (5.3)	27 (1.0)	P .001
3. Compare clinical signs, symptoms, and laboratory findings with the diagnosis given in a medical report.	N 2506 %(91.6)	202 (7.4)	27 (1.0)	P .001
4. Determine the presence or absence of "objective" evidence of pathology associated with symptoms and allegation.	N 2468 %(90.2)	231 (8.4)	36 (1.3)	P .001
5. Decide if a claimant's condition meets the "Listing of Impairments."	N 2502 %(91.5)	198 (7.2)	35 (1.3)	P .001
6. Decide if a claimant's condition equals the "Listing of Impairments."	N 2046 %(74.8)	642 (23.5)	47 (1.7)	P .001

TABLE 5. (Continued)

Question	YES Responses N & %	NO Responses N & %	UNANSWERED Responses N & %	Level of Significance[a]
7. Determine a claimant's physical and mental residual functional capacity to engage in work related activities.	N 1690 %(61.8)	982 (35.9)	63 (2.3)	P < .001
8. Determine if a medical condition is likely to improve, with or without treatment.	N 1827 %(66.8)	859 (31.4)	49 (1.8)	P < .001
9. Determine if a medical condition is improving, or has responded to treatment.	N 2295 %(83.9)	409 (15.0)	31 (1.1)	P < .001
10. Determine when a medical condition occurred or became severe enough to prevent substantial gainful activity (i.e., establish onset).	N 2367 %(86.5)	330 (12.1)	38 (1.4)	P < .001
11. Determine the medical diary date.	N 2495 %(91.2)	203 (7.4)	37 (1.4)	P < .001

[a]Chi-square df = 1 (unanswered responses were not included in calculation of chi-square).

significant beyond the .001 level, thus supporting rejection of the null hypothesis that a majority of state agency Disability Adjudicators surveyed do not perceive their job to include the interpretation of medical information and application of medical criteria without the help of anyone else.

The affirmative responses ranged from a low of 61.8 percent on question number seven to a high of 93.7 percent on question number two. Five of the eleven questions received a yes response from 90 percent or more of the adjudicators surveyed and on seven out of the eleven questions, adjudicators responded yes 80 percent or more of the time. Only two questions, number seven and number eight, was answered yes by less than 70 percent of the adjudicators surveyed. Question number seven not only received the lowest number of yes responses, but the highest percent of no responses (35.9 percent) and the largest percentage of unanswered responses (2.3 percent).

In order to assess whether or not the responses were independent, or associated with the four types of primary work positions (Disability Examiner, Vocational Specialist, Quality Assurance, and Supervisor) a frequency distribution and chi-square value was calculated for the responses of each variable. The responses to questions one through eleven are presented in Table 6.

TABLE 6. Responses to Questions One through Eleven by Primary Work Position.

Question	Primary Work Position		YES Response	NO Response	TOTAL Response	Level of Significance[a]
No. 1	Disability Examiner	N	1806	253	2059	P < .001
		%	(87.7)	(12.3)		
	Vocational Specialist	N	35	12	47	P < .001
		%	(74.5)	(25.5)		
	Quality Assurance	N	169	16	185	P < .001
		%	(91.4)	(8.6)		
	Supervisor	N	323	25	348	P < .001
		%	(92.8)	(7.2)		
No. 2	Disability Examiner	N	1956	108	2064	P < .001
		%	(94.8)	(5.2)		
	Vocational Specialist	N	42	7	49	P < .001
		%	(85.7)	(14.3)		
	Quality Assurance	N	181	5	186	P < .001
		%	(97.3)	(2.7)		
	Supervisor	N	331	19	350	P < .001
		%	(94.6)	(5.4)		
No. 3	Disability Examiner	N	1911	155	2066	P < .001
		%	(92.5)	(7.5)		
	Vocational Specialist	N	39	9	48	P < .001
		%	(81.3)	(18.7)		
	Quality Assurance	N	178	8	186	P < .001
		%	(95.7)	(4.3)		
	Supervisor	N	328	22	350	P < .001
		%	(93.7)	(6.3)		

TABLE 6. (Continued)

Question	Primary Work Position		YES Response	NO Response	TOTAL Response	Level of Significance[a]
No. 4	Disability Examiner	N	1871	184	2055	P < .001
		%	(91.0)	(8.9)		
	Vocational Specialist	N	41	8	49	P < .001
		%	(83.7)	(16.3)		
	Quality Assurance	N	180	6	186	P < .001
		%	(96.8)	(3.2)		
	Supervisor	N	324	26	350	P < .001
		%	(92.6)	(7.4)		
No. 5	Disability Examiner	N	1908	152	2060	P < .001
		%	(92.6)	(7.3)		
	Vocational Specialist	N	42	7	49	P < .001
		%	(85.7)	(14.3)		
	Quality Assurance	N	177	8	185	P < .001
		%	(95.7)	(4.3)		
	Supervisor	N	323	25	348	P < .001
		%	(92.8)	(7.2)		
No. 6	Disability Examiner	N	1549	500	2049	P < .001
		%	(75.6)	(24.4)		
	Vocational Specialist	N	36	12	48	P < .001
		%	(75.0)	(25.0)		
	Quality Assurance	N	142	42	184	P < .001
		%	(77.2)	(22.8)		
	Supervisor	N	272	76	348	P < .001
		%	(78.2)	(21.8)		

TABLE 6. (Continued)

Question	Primary Work Position		YES Response	NO Response	TOTAL Response	Level of Significance[a]
No. 7	Disability Examiner	N	1273	764	2037	P < .001
		%	(62.5)	(37.5)		
	Vocational Specialist	N	29	20	49	
		%	(59.2)	(40.8)		
	Quality Assurance	N	126	56	182	P < .001
		%	(69.2)	(30.8)		
	Supervisor	N	223	122	345	P < .001
		%	(64.6)	(35.4)		
No. 8	Disability Examiner	N	1357	686	2043	P < .001
		%	(66.4)	(33.6)		
	Vocational Specialist	N	36	13	49	P < .01
		%	(73.5)	(26.5)		
	Quality Assurance	N	145	41	186	P < .001
		%	(78.0)	(22.0)		
	Supervisor	N	247	104	351	P < .001
		%	(70.4)	(29.6)		
No. 9	Disability Examiner	N	1761	301	2062	P < .001
		%	(85.4)	(14.6)		
	Vocational Specialist	N	38	11	49	P < .001
		%	(77.6)	(22.4)		
	Quality Assurance	N	160	26	186	P < .001
		%	(86.0)	(14.0)		
	Supervisor	N	290	60	350	P < .001
		%	(82.9)	(17.1)		

TABLE 6. (Continued)

Question	Primary Work Position		YES Response	NO Response	TOTAL Response	Level of Significance[a]
No. 10	Disability Examiner	N	1805	252	2057	P .001
		%	(87.7)	(12.3)		
	Vocational Specialist	N	38	11	49	P .001
		%	(77.6)	(22.4)		
	Quality Assurance	N	175	12	187	P .001
		%	(93.6)	(6.4)		
	Supervisor	N	302	44	346	P .001
		%	(87.3)	(12.7)		
No. 11	Disability Examiner	N	1910	149	2059	P .001
		%	(92.8)	(7.2)		
	Vocational Specialist	N	35	13	48	P .01
		%	(72.9)	(27.1)		
	Quality Assurance	N	174	12	186	P .001
		%	(93.5)	(6.5)		
	Supervisor	N	324	23	347	P .001
		%	(93.4)	(6.6)		

[a]Chi-square df = 1.

All of the chi-square values were found to be significant at the .001 level except for the Vocational Specialist responses to questions number seven, eight, and eleven. It was noted, however, that the chi-square values for the Vocational Specialist responses to questions eight and eleven were significant at the .01 level. Only the Vocational Specialist responses to question number seven were not significant beyond the .01 level. This supports the contention that the responses given to questions one through eleven are significant and not what might be expected by chance, except for the responses given by the vocational specialist to question number seven.

Similarly, the variable of years work experience was also examined utilizing a frequency and percentage distribution of the responses to questions one through eleven. The responses were tabulated according to three groups of work experience, over six months but less than three years, three to five years, and over five years. A chi-square value was then calculated to test the independence of responses. These data are presented in Table 7.

The chi-square values for all eleven questions were significant beyond the .001 level. These data provide a basis for rejecting the null hypothesis that no differences exist in the responses and support the contention that the responses are indeed significant. Therefore, it is reasonable to conclude that the responses given to all eleven

TABLE 7. Responses to Questions One through Eleven by Years of Work Experience.

Question	Years Work Experience		YES Response	NO Response	TOTAL Response	Level of Significance[a]
No. 1	6 mo., less 3 years	N	534	112	646	P < .001
		%	(82.7)	(17.3)		
	3 to 5 years	N	1261	134	1395	P < .001
		%	(90.4)	(9.6)		
	Over 5 years	N	551	45	596	P < .001
		%	(92.4)	(7.6)		
No. 2	6 mo., less 3 years	N	594	54	648	P < .001
		%	(91.7)	(8.3)		
	3 to 5 years	N	1342	56	1398	P < .001
		%	(96.0)	(4.0)		
	Over 5 years	N	577	23	600	P < .001
		%	(96.2)	(3.8)		
No. 3	6 mo., less 3 years	N	582	66	648	P < .001
		%	(89.8)	(10.2)		
	3 to 5 years	N	1301	98	1399	P < .001
		%	(93.0)	(7.0)		
	Over 5 years	N	574	24	598	P < .001
		%	(96.0)	(4.0)		
No. 4	6 mo., less 3 years	N	561	84	645	P < .001
		%	(87.0)	(13.0)		
	3 to 5 years	N	1307	86	1393	P < .001
		%	(93.8)	(6.2)		
	Over 5 years	N	557	42	599	P < .001
		%	(93.0)	(7.0)		

TABLE 7. (Continued)

Question	Years Work Experience		YES Response	NO Response	TOTAL Response	Level of Significance[a]
No. 5	6 mo., less 3 years	N	584	61	645	P < .001
		%	(90.5)	(9.5)		
	3 to 5 years	N	1311	85	1396	P < .001
		%	(93.9)	(6.1)		
	Over 5 years	N	558	40	598	P < .001
		%	(93.3)	(6.7)		
No. 6	6 mo., less 3 years	N	450	191	641	P < .001
		%	(70.2)	(29.8)		
	3 to 5 years	N	1091	300	1391	P < .001
		%	(78.4)	(21.6)		
	Over 5 years	N	477	118	595	P < .001
		%	(80.2)	(19.8)		
No. 7	6 mo., less 3 years	N	368	268	636	P < .001
		%	(57.9)	(42.1)		
	3 to 5 years	N	888	497	1385	P < .001
		%	(64.1)	(35.9)		
	Over 5 years	N	406	185	591	P < .001
		%	(68.7)	(31.3)		
No. 8	6 mo., less 3 years	N	368	273	641	P < .001
		%	(57.4)	(42.6)		
	3 to 5 years	N	976	413	1389	P < .001
		%	(70.3)	(29.7)		
	Over 5 years	N	456	137	593	P < .001
		%	(76.9)	(23.1)		

TABLE 7. (Continued)

Question	Years Work Experience		YES Response	NO Response	TOTAL Reaponse	Level of Significance[a]
No. 9	6 mo., less 3 years	N	520	132	652	P < .001
		%	(79.8)	(20.2)		
	3 to 5 years	N	1218	175	1393	P < .001
		%	(87.4)	(12.6)		
	Over 5 years	N	510	86	596	P < .001
		%	(85.6)	(14.4)		
No. 10	6 mo., less 3 years	N	543	102	645	P < .001
		%	(84.2)	(15.8)		
	3 to 5 years	N	1246	150	1396	P < .001
		%	(89.3)	(10.7)		
	Over 5 years	N	535	58	593	P < .001
		%	(90.2)	(9.8)		
No. 11	6 mo., less 3 years	N	572	74	646	P < .001
		%	(88.5)	(11.5)		
	3 to 5 years	N	1321	75	1396	P < .001
		%	(94.6)	(5.4)		
	Over 5 years	N	557	39	596	P < .001
		%	(93.5)	(6.5)		

[a]Chi-square df = 1.

questions by the three groups of adjudicators with similar years work experience are real, and not what you would expect to find by mere chance, thus supporting the conclusion that there was relatively little difference in the way adjudicators with similar years work experience responded.

IV. MEDICAL DEVELOPMENT PROCEDURES

The second major area of investigation was concerned with the adjudicators perceived involvement in medical development procedures. The basic activities necessary for medical documentation of disability claims are reflected by questions 13 through 16 (see Appendix A). Adjudicators were asked to respond yes or no to each of these questions. Table 8 presents the number and percent of responses obtained.

The responses to all four questions appear relatively homogeneous. It is noted that 90.5 percent of the respondents answered yes to both questions 13 and 14. Question number 15 was answered yes by 83.8 percent and question number 16 received the largest percent of yes responses with 95.4 percent.

By far, the largest majority of respondents indicated that they perceived their job to include the performance of those tasks involving medical development procedures. Chi-square values were noted to be significant at or above the .001 level for the responses to all questions 13 through 16.

TABLE 8. Responses to Questions Concerning the Development of Medical Information.

Question		YES Response	NO Response	UNANSWERED Response	Level of Significance[a]
13. Decide if a consultative examination is needed.	N	2474	288	33	P < .001
	%	(90.5)	(8.3)	(1.2)	
14. Decide what type of consultative examination is needed, such as a psychiatric, orthopedic, neurological, internist, etc.	N	2475	232	28	P < .001
	%	(90.5)	(8.5)	(1.0)	
15. Decide what type of additional medical evidence is needed, such as specific lab procedures, clinical signs, symptoms, etc.	N	2293	408	34	P < .001
	%	(83.8)	(14.9)	(1.2)	
16. Decide what medical source should be contacted for additional medical information.	N	2610	104	21	P < .001
	%	(95.4)	(3.8)	(0.8)	

[a]Chi-square df = 1.

On the basis of these data, the second major null hypothesis that a majority of state agency Disability Adjudicators surveyed do not perceive their job to include the development of medical information without the help of anyone else may be rejected.

It was noted that question number 15 received the highest number of negative responses with 408 or 14.9 percent. Similarly, the lowest number of no responses was noted for question number 16 with 104 or 3.8 percent. The no responses were almost identical for questions 13 and 14 with 228 or 8.3 percent and 232 or 8.5, respectively. The unanswered responses ranged as low as 21 or 0.8 percent on question 16 to a high of 34 or 1.2 percent on question 15.

To test independence of responses by type of adjudicator a contingency table with the four variables, Disability Examiner, Vocational Specialist, Quality Assurance, and Supervisor was constructed. Chi-square values were then calculated for the responses given by each category of adjudicator for questions 13 through 16. These data are presented in Table 9.

All of chi-square values were noted to be significant at or above the .001 level for the responses to each of the questions 13 through 16. These data support rejection of the null hypothesis that the responses are independent, and tend to support the alternative hypothesis that the responses are indeed significantly associated with each type of adjudicator.

TABLE 9. Responses to Questions Thirteen through Sixteen by Type of Disability Adjudicator.

Question	Type of Adjudicator		YES Responses	NO Responses	TOTAL Responses	Level of Significance[a]
No. 13	Disability Examiner	N	1891	168	2059	P < .001
		%	(91.8)	(8.2)		
	Vocational Specialist	N	39	9	48	P < .001
		%	(81.3)	(18.7)		
	Quality Assurance	N	166	19	185	P < .001
		%	(89.7)	(10.3)		
	Supervisor	N	328	23	351	P < .001
		%	(93.4)	(6.6)		
No. 14	Disability Examiner	N	1903	161	2064	P < .001
		%	(92.2)	(7.8)		
	Vocational Specialist	N	39	10	49	P < .001
		%	(79.6)	(20.4)		
	Quality Assurance	N	164	21	185	P < .001
		%	(88.6)	(11.4)		
	Supervisor	N	321	30	351	P < .001
		%	(91.5)	(8.5)		

TABLE 9. (Continued)

Question	Type of Adjudicator		YES Responses	NO Responses	TOTAL Responses	Level of Significance[a]
No. 15	Disability Examiner	N	1739	322	2061	P < .001
		%	(84.4)	(15.6)		
	Vocational Specialist	N	36	12	48	P < .001
		%	(75.0)	(25.0)		
	Quality Assurance	N	162	23	185	P < .001
		%	(87.6)	(12.4)		
	Supervisor	N	309	40	349	P < .001
		%	(88.5)	(11.5)		
No. 16	Disability Examiner	N	2019	51	2070	P < .001
		%	(97.5)	(2.5)		
	Vocational Specialist	N	40	9	49	P < .001
		%	(81.6)	(18.4)		
	Quality Assurance	N	169	17	186	P < .001
		%	(90.9)	(9.1)		
	Supervisor	N	329	20	349	P < .001
		%	(94.3)	(5.7)		

[a]Chi-square df = 1.

In order to determine independence of responses given by adjudicators according to three major categories of years work experience, a contingency table was constructed and chi-square values calculated for the responses of each group to questions 13 through 16. These data are presented in Table 10.

All of the chi-square values were noted to be significant at or above the .001 level. This supports rejection of the null hypothesis that the data are independent, and suggests that a significant number of adjudicators from all groups of years work experience perceived their job to include activities involving the development of medical information without the help of anyone else.

V. AMOUNT OF TIME DISABILITY ADJUDICATORS USE MEDICAL INFORMATION INDEPENDENTLY

After demonstrating that a majority of the adjudicators surveyed do perceive their job to include interpreting medical information, applying medical criteria, and developing medical information necessary for processing disability claims, the next area of investigation would be to determine how much of the time adjudicators feel they perform these job functions independently, without the help of anyone else. Two items on the questionnaire were constructed to elicit this information. Question 12 was concerned with how much of the time adjudicators interpreted medical information and

TABLE 10. Responses to Questions Thirteen through Sixteen by Years of Work Experience.

Question	Years Work Experience		YES Responses	NO Responses	TOTAL Responses	Level of Significance[a]
No. 13	6 mo., less three years	N	585	61	646	P < .001
		%	(90.6)	(9.4)		
	3 to 5 years	N	1293	102	1395	P < .001
		%	(92.7)	(7.3)		
	Over 5 years	N	555	44	599	P < .001
		%	(92.7)	(7.3)		
No. 14	6 mo., less 3 years	N	582	67	649	P < .001
		%	(89.7)	(10.3)		
	3 to 5 years	N	1298	100	1398	P < .001
		%	(92.8)	(7.2)		
	Over 5 years	N	550	49	599	P < .001
		%	(91.8)	(8.2)		
No. 15	6 mo., less 3 years	N	536	113	649	P < .001
		%	(82.6)	(17.4)		
	3 to 5 years	N	1198	196	1394	P < .001
		%	(85.9)	(14.1)		
	Over 5 years	N	526	70	596	P < .001
		%	(88.3)	(11.7)		

TABLE 10. (Continued)

Question	Years Work Experience		YES Responses	NO Responses	TOTAL Responses	Level of Significance[a]
No. 16	6 mo., less 3 years	N	631	21	652	P < .001
		%	(96.8)	(3.2)		
	3 to 5 years	N	1360	39	1399	P < .001
		%	(97.2)	(2.8)		
	Over 5 years	N	568	32	600	P < .001
		%	(94.7)	(5.3)		

[a]Chi-square df = 1.

applied medical criteria, and question 16 dealt with how much time adjudicators engaged in developing medical information without assistance.

Question Twelve

Item number 12 on the questionnaire requested adjudicators to approximate the percent of time they were independently engaged in the activities illustrated by questions one through eleven. A total of 2,551 adjudicators responded while 184 adjudicators neglected to do so. These data are illustrated with a bar graph in Figure 1.

The largest group of respondents, 989 or 38.8 percent, indicated that they performed the functions identified by questions one through eleven approximately 90 percent of the time without the assistance of anyone else. The second and third largest group of adjudicators said they engage in these activities 80 percent and 70 percent of the time, respectively. A total of 2,325 or 91.1 percent of the respondents indicated they independently interpret medical information and apply medical criteria approximately 50 percent or more of the time. Likewise, a total of 226 or 8.9 percent of the respondents said they perform these activities independently less than 50 percent of the time. It should also be noted that 103 or 4.0 percent of the respondents said they perform these activities independently 100 percent of the time.

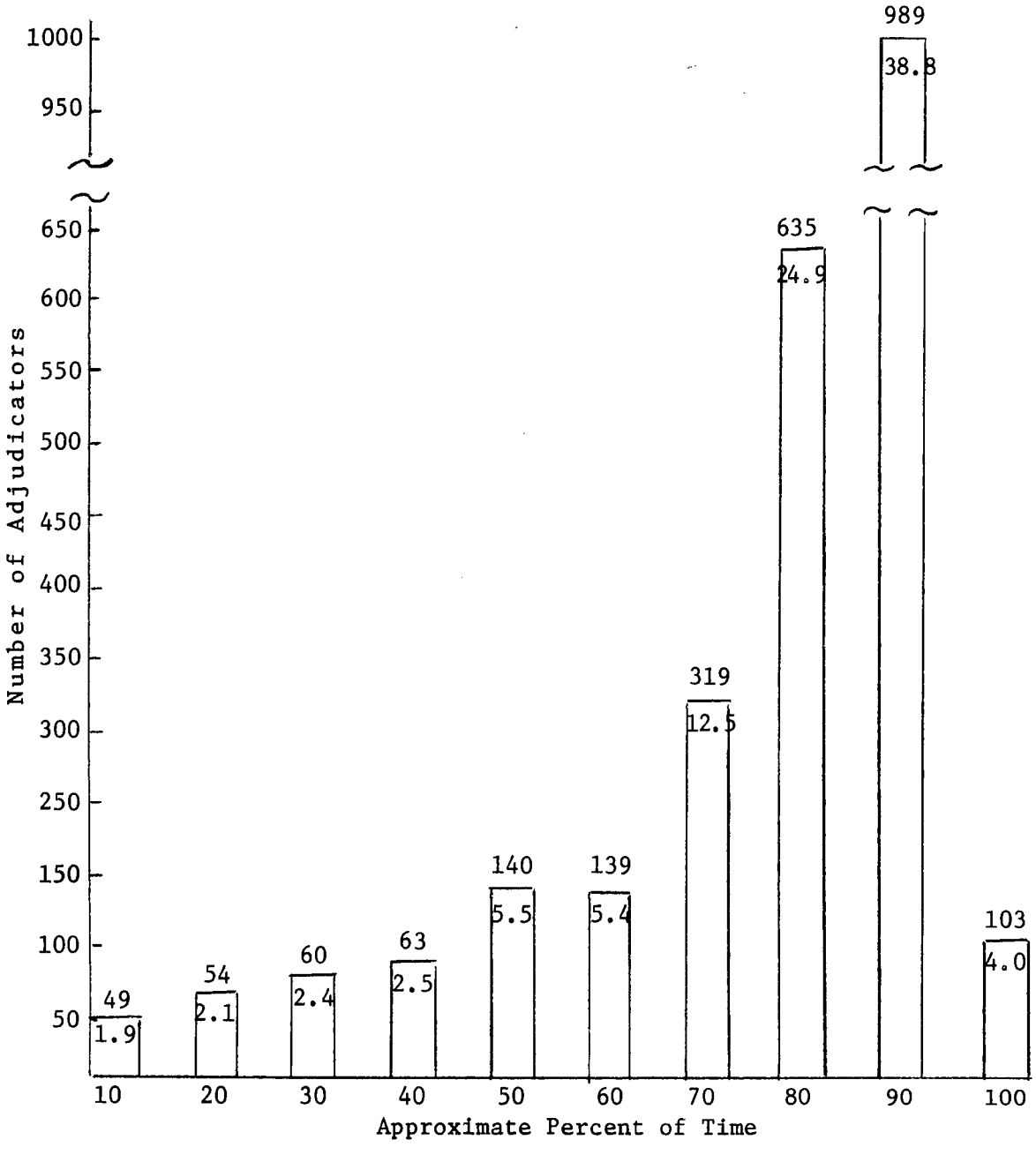


FIGURE 1. Approximate percent of time adjudicators interpret medical information and apply medical criteria without the help of anyone else (activities depicted by questions one through eleven).

NOTE: Top numbers represent number of responses; lower figures represent percent of responses.

To determine if there was any variation in the way the different types of adjudicators responded to question 12 a frequency and percent distribution of the responses was tabulated for each category. The response patterns may then be compared to see what differences exist, if any. These data are presented in Table 11.

The response rate for all four types of adjudicators was noted to be relatively similar. Well over half of the respondents in each category indicated they interpret medical information and apply medical criteria 80 percent or more of the time. Conversely, only 10 percent or less of the respondents in each category, except for supervisors, said they function independently 40 percent or less of the time. However, there appears to be somewhat of a curvilinear relationship between the variable of supervisor and percent of time they work independently. A Spearman's rank-order-correlation coefficient was calculated to measure the overall degree of association between the types of adjudicators and their estimate of what percent of time they interpret and apply medical information independently. This computation revealed a Spearman correlation coefficient of 0.0186, which was not found to be significant even at the .10 level. This suggests that no conclusions can be safely made concerning the presence or absence of association between the different types of adjudicators and the percent of time they work independently.

TABLE 11. Approximate Percent of Time the Different Types of Disability Adjudicators Perceive Their Job to Include the Interpretation of Medical Information and Application of Medical Criteria Without the Help of Anyone Else.

Types of Adjudicators		APPROXIMATE PERCENT OF TIME 10	20	30	40	50	60	70	80	90	100	Total
Disability Examiner	N	22	27	44	54	113	119	263	509	736	76	1963
	%	1.1	1.3	2.1	2.6	5.4	5.7	12.6	24.5	35.4	3.7	100.0
Vocational Specialist	N	1	2	2	0	2	1	2	7	22	3	42
	%	2.0	4.0	4.0	0.0	4.0	2.0	4.0	14.0	44.0	6.0	100.0
Quality Assurance	N	1	4	1	3	9	10	18	48	81	7	182
	%	0.5	2.1	0.5	1.6	4.8	5.3	9.6	25.7	43.3	3.7	100.0
Supervisor	N	24	21	12	4	14	6	23	63	130	15	312
	%	6.8	5.9	3.4	1.1	3.9	1.7	6.5	17.7	36.6	4.2	100.0
TOTAL	N	48	54	59	61	138	136	306	627	909	101	2499
	%	1.9	2.2	2.4	2.5	5.5	5.4	12.2	25.1	38.8	4.0	100.0

NOTE: Spearman's Correlation Coefficient = 0.0186.

In the event that the estimate of how much time adjudicators worked independently may be associated with their years of work experience a frequency and percent distribution of responses to question number 12 by the categories of years work experience was constricted. These data are presented in Table 12.

The response rate for all three groups generally followed a similar pattern. Over half of the respondents in each category said they interpret medical information and apply medical criteria independently at least 80 percent or more of the time. However, the response pattern for the over five years work experience group was noted to be somewhat more curvilinear than for the other two groups. A Spearman's correlation coefficient between the three categories of years work experience and the approximate percent of time adjudicators interpret medical information and apply medical criteria independently was 0.1061. The correlation was noted to be significant at the .001 level. Consequently, the estimate of how much time they work independently was not associated with the variable of years work experience.

Question Seventeen

Item 17 on the questionnaire asked adjudicators to estimate the approximate percent of time they independently performed the work functions described by questions 13 through 16. Out of the 2,735 questionnaires returned, 2,588

TABLE 12. Approximate Percent of Time Disability Adjudicators by Years of Work Experience Perceive Their Job to Include the Interpretation of Medical Information and the Application of Medical Criteria Without the Help of Anyone Else.

Years of Work Experience		APPROXIMATE PERCENT OF TIME										
		10	20	30	40	50	60	70	80	90	100	Total
Over six months but less than three years	N	6	6	17	23	35	48	123	168	174	13	613
	%	1.0	1.0	2.8	3.8	5.7	7.8	20.0	27.4	28.4	2.1	100.0
Three to five years	N	10	21	18	24	74	70	150	341	557	61	1326
	%	0.8	1.6	1.4	1.8	5.5	5.3	11.3	25.7	42.0	4.6	100.0
Over five years	N	30	23	17	13	24	16	42	115	248	29	557
	%	5.4	4.1	3.1	2.3	4.3	2.9	7.5	20.7	44.5	5.2	100.0
TOTAL	N	46	50	52	60	133	134	315	624	979	103	2496
	%	1.8	2.0	2.1	2.4	5.3	5.4	12.6	25.0	39.2	4.1	100.0

NOTE: Spearman's Correlation Coefficient = 0.1061.

adjudicators responded to this question while 147 gave no response. The number and percent of respondents are illustrated in Figure 2.

The largest number of respondents, 1,148 or 44.4 percent, said they performed medical development activities independently approximately 90 percent of the time. Over half of the respondents, 554 or 60.1 percent, indicated they perform medical development independently. In addition, 373 or 14.4 percent, adjudicators indicated they engage in these activities 100 percent of the time without the help of anyone else. The remaining 661 or 25.5 percent respondents said they perform these activities independently 70 percent or less of the time.

To examine the possibility that differences may exist in the way Disability Examiners, Vocational Specialists, Quality Assurance, and Supervisors perceive their job in regard to developing medical information a frequency and percent distribution of the responses to question 17 for each of these groups was tabulated. These data are presented in Table 13.

Examination of the data shows that over half of the adjudicators in each category indicated that they develop medical information without assistance 90 percent or more of the time. The pattern of responses were somewhat different at the lower end of the scale and appeared to be irregular for all types of adjudicators who independently performed

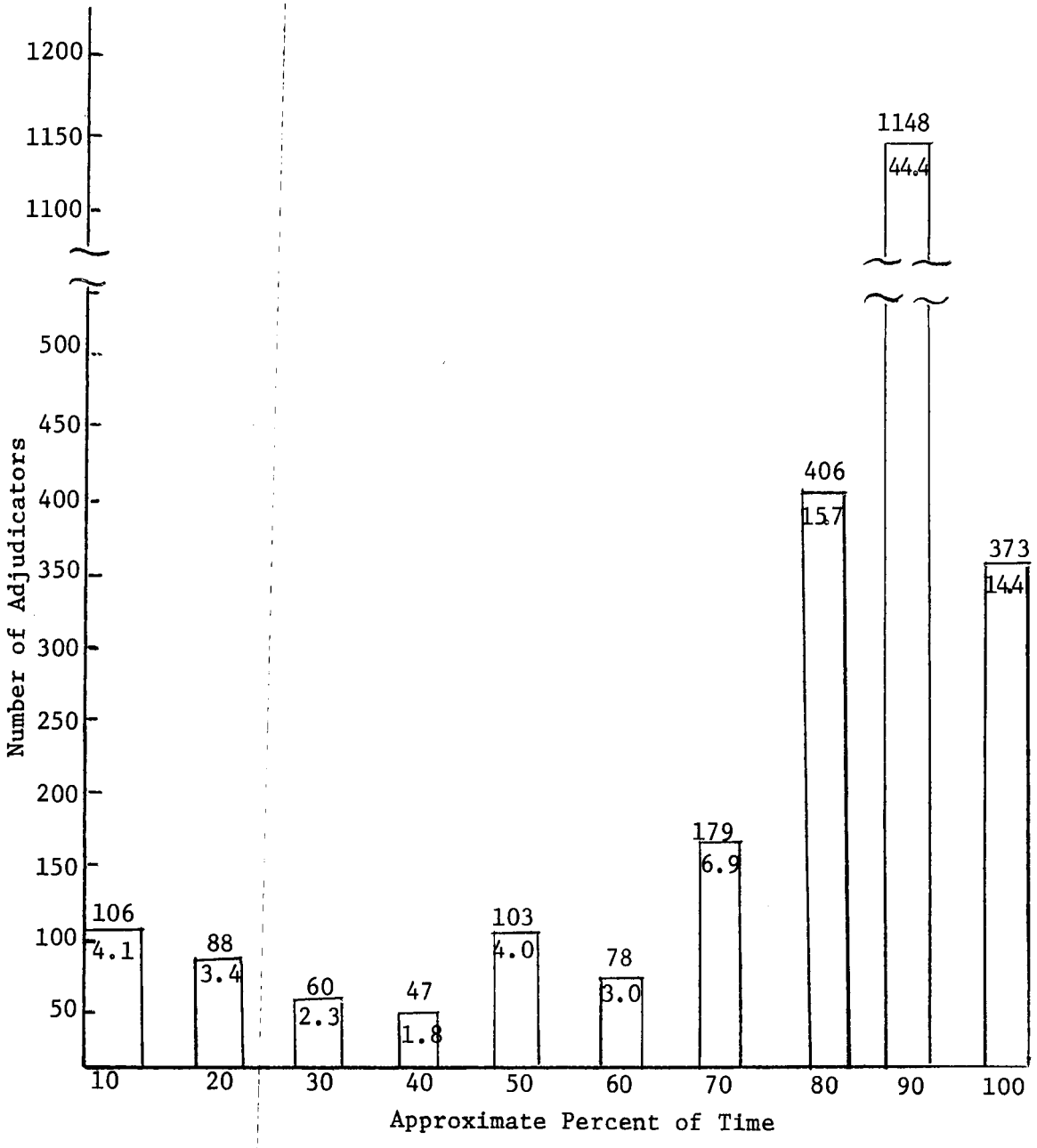


FIGURE 2. Approximate percent of time adjudicators develop medical evidence without the help of anyone else (activities depicted by questions thirteen through sixteen).

NOTE: Top numbers represent number of responses; lower figures represent percent of responses.

TABLE 13. Approximate Percent of Time the Different Types of Disability Adjudicators Perceive Their Job to Include Medical Development Activities Without the Help of Anyone Else.

Primary Work Function		APPROXIMATE PERCENT OF TIME										
		10	20	30	40	50	60	70	80	90	100	Total
Disability Examiner	N	61	56	43	37	84	65	147	332	889	283	1997
	%	3.1	2.8	2.2	1.8	4.2	3.3	7.4	16.6	44.5	14.1	100.0
Vocational Specialist	N	4	1	0	0	4	1	1	2	20	7	40
	%	10.0	2.5	0.0	0.0	10.0	2.5	2.5	5.0	50.0	17.5	100.0
Quality Assurance	N	5	5	6	3	5	6	14	30	85	19	178
	%	2.8	2.8	3.3	1.7	2.8	3.3	7.9	16.9	47.8	10.7	100.0
Supervisor	N	35	23	11	4	8	3	16	33	135	52	320
	%	10.9	7.2	3.4	1.3	2.5	0.9	5.0	10.3	42.2	16.3	100.0
TOTAL	N	105	85	60	44	101	75	178	397	1129	361	2535
	%	4.2	3.3	2.4	1.7	4.0	3.0	7.0	15.7	44.5	14.2	100.0

NOTE: Spearman's Correlation Coefficient = -0.0256.

these functions 70 percent or less of the time. A Spearman correlation coefficient between the variables presented in Table 13 was -0.0256. This was significant at the .10 level and suggests that the approximate amount of time adjudicators develop medical information independently is not associated with the different types of adjudicators.

In order to determine how adjudicators with different years work experience perceive the amount of time they spend independently developing medical information a frequency and percent distribution of the responses to question 17 was constructed. These data are presented in Table 14.

The pattern of responses was noted to be similar in that over half of the respondents in all three categories of years work experience said they independently develop medical information 90 percent or more of the time. Response patterns for the two smallest categories, over six months but less than three years and over five years, tended to be somewhat more curvilinear than the three to five year group. The Spearman correlation coefficient was 0.0529 which was significant at the .01 level. This suggests little or no relationship between the amount of time spent independently developing medical information and the number of years work experience.

A correlation coefficient was calculated for the collective responses to question twelve and seventeen for the variables type of adjudicator and years work experience.

TABLE 14. Approximate Percent of Time Disability Adjudicators by Years of Work Experience Perceive Their Job to Include the Development of Medical Information Without the Help of Anyone Else.

Years of Work Experience		APPROXIMATE PERCENT OF TIME										
		10	20	30	40	50	60	70	80	90	100	Total
Over six months but less than three years	N	15	19	9	18	35	34	62	122	248	69	631
	%	2.4	3.0	1.4	2.9	5.6	5.4	9.8	19.3	39.3	10.9	100.0
Three to five years	N	44	31	30	19	41	35	83	205	647	208	1343
	%	3.3	2.3	2.2	1.4	3.1	2.6	6.2	15.3	48.2	15.4	100.0
Over five years	N	42	34	18	6	21	8	27	68	243	94	561
	%	7.5	6.1	3.2	1.1	3.7	1.4	4.8	12.1	43.3	16.8	100.0
TOTAL	N	101	84	57	43	97	77	172	395	1138	371	2535
	%	4.0	3.3	2.2	1.7	3.8	3.0	6.8	15.6	44.9	14.6	100.0

NOTE: Spearman's Correlation Coefficient = 0.0529.

A Spearman's coefficient of 0.04870 was obtained which was significant at the .001 level. This suggests a lack of association in the responses between the type of adjudicator and years work experience. Likewise, a Spearman's coefficient between the responses on question 12 and question 17 was 0.6533. This was significant at the .001 level and strongly suggests that there is an association between the responses obtained on both questions.

VI. EMPLOYING STATE AGENCY AND ADJUDICATOR RESPONSE

In view of the variance of work functions found by Proctor the association between responses and the employing state agency was examined (22:6). Contingency tables were constructed for the yes and no responses to each question one through sixteen, excluding number twelve, and reflects how adjudicators from their respective state agencies answered the questions. These tables are presented in Appendix D. Symmetric and asymmetric lambda were calculated for each contingency table and these values are presented in Table 15.

The difference between symmetric and asymmetric lambda is that symmetric lambda is "an index of association or mutual predictability between two variables," whereas asymmetric lambda is used to predict the direction of association between the independent and dependent variable (6:212).

TABLE 15. Summary of Symmetric and Asymmetric Values of Appendix D.

Question No.	Symmetric Lambda	Asymmetric Lambda
1	0.00000	0.00000
2	0.00345	0.00690
3	0.00300	0.00495
4	0.00410	0.00433
5	0.00226	0.00000
6	0.03470	0.12773
7	0.08888	0.26477
8	0.01516	0.05821
9	0.00384	0.00000
10	0.00252	0.00303
11	0.00415	0.00493
12	0.00000	0.00000
13	0.00483	0.00000
14	0.00140	0.00245
15	0.00156	0.00000

All of the symmetric lambda values for the responses to questions one through sixteen, excluding twelve, are very close to zero suggesting the absence of mutual predictability. These data support the conclusion that the responses given were not dependent upon the employing state agency, or vice versa.

In calculating asymmetrical lambda the state agencies were treated as the independent variable and the responses were treated as the dependent variable. All of the asymmetric lambda values are noted to be close to zero suggesting that there is little chance of predicting how an adjudicator might respond by knowing what agency they were employed by.

VII. SUMMARY

Chapter IV was divided into six separate subsections and presented an analysis and interpretation of the data obtained in this study. Section I described the demographic characteristics of the respondents. Frequency and percentage distributions of the respondents by number of years work experience and primary work function were illustrated.

Section II described the relationship between the study sample and the total population. A comparison was made of the response rate to the total adjudicator population.

Section III presented and analyzed data which allowed rejection of the null hypothesis that a majority of state

agency Disability Adjudicators surveyed do not perceive their job to include the interpretation of medical information and the application of medical criteria without the help of anyone else. Although the percentage of responses varied depending upon the specific type of activity involved, a clear majority of adjudicators surveyed perceive their job to include interpreting medical information and applying medical criteria.

Section IV presented data which supported rejection of the second major null hypothesis that a majority of Disability Adjudicators surveyed do not perceive their job to include the development of medical information without the help of anyone else. Over 83 percent of the respondents indicated that independent medical development activities were perceived to be a part of their job.

Section V examined the responses obtained with the variables of primary work function and number of years work experience. Similar response patterns were observed in that a majority of adjudicators in all categories worked independently over half of the time, and there was no observed association between the estimate of time adjudicators work independently and the different types of adjudicators or years of work experience.

Section VI examined the degree of association between how adjudicators responded to questions one through sixteen,

excluding number twelve, and the employing state agency. The data clearly indicated that no significant association existed between these variables.

The seventh and final section of this chapter is the summary.

CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

I. SUMMARY

Purpose of the Study

The major purpose of this study was to determine if a majority of Disability Adjudicators perceive their job function to include the interpretation of medical information, the application of medical criteria, and the development of medical information independently. These activities must be performed by someone for the proper disposition of disability claims filed under Title II and Title XVI of the Social Security Act. What here-to-fore has not been clearly resolved is whether or not Disability Adjudicators actually perform these functions independently, without the assistance of any other member of the adjudicative team. The method chosen in this study to resolve this question was to ask as many of the Disability Adjudicators as possible who are actually processing disability claims if in fact they independently interpret medical information, apply medical criteria, and develop medical information.

Importance of Study

Establishment of the presence and severity of a medically determinable impairment is fundamental to the adjudication process of disability claims filed under the Social Security Act (39:31). There are several basic job tasks that must be performed in order to establish the presence and severity of a physical or mental impairment and these job tasks must be performed by one or both members of the adjudicative team, the state agency physician, or the adjudicator. The duties, responsibilities, and job functions of the state agency physician have been recognized to include these tasks. However, it has never been clearly resolved whether or not adjudicators are also performing these same work functions.

If Disability Adjudicators are indeed performing these work functions then it is of the utmost importance to insure their professional expertise and capabilities in this area. State agency physicians are required to have a Doctor of Medicine Degree which certifies their ability to interpret medical information, apply medical criteria, and develop medical information. However, not one contracting state agency requires a medical degree or certification of formal medical training from a recognized training or educational institution prior to hiring a Disability Adjudicator (31:4). The formulation of appropriate hiring practices, certification procedures and training or educational requirements

may be predicated upon whether or not Disability Adjudicators are indeed performing work functions that require specialized medical knowledge and the ability to apply that knowledge. This research provides necessary data upon which this issue may be resolved, and offers a foundation for constructing adequate hiring and educational or training requirements. In addition national certification criteria may also be formulated which will reflect the job knowledge and skills necessary to adjudicate disability claims.

Procedure Followed

This study involved a majority of Disability Adjudicators employed by State agencies throughout the United States and its territorial possessions who under contractual agreement with the Department of Health, Education, and Welfare, process disability claims filed under Title II and Title XVI of the Social Security Act. The target population was further defined to include only those Disability Adjudicators with more than six months work experience who were directly involved in case processing work. While the exact number of Disability Adjudicators that would comprise this category would be difficult to determine, sufficiently reliable data indicate that no more than 4,322 adjudicators could have existed during the time this study was carried out (33:1). Although it is unknown how many of the 4,322 adjudicators may not have had at least six months work experience, or how many might not have been directly involved

in processing disability claims, a total of 2,735 adjudicators did complete and return the questionnaires. This would support the contention that a majority of the adjudicator population is represented in this study.

The survey questionnaire was constructed by the investigator in accordance with the requirements of sequential analysis of disability claims as outlined by the Bureau of Disability Insurance, Social Security Administration (35:DIL 3-I, II, III). A pilot study involving the Puerto Rico agency was then carried out to evaluate the clarity and usability of the questionnaire, and to assess the effectiveness of the data gathering procedures. As a result, several changes were made in the questionnaire and the data gathering procedures were finalized. The 53 remaining state agencies were then contacted by letter or telephone to solicit their participation in this study. Subsequently, a total of 3,471 questionnaires were sent to the 51 state agencies who agreed to take part in this study.

II. FINDINGS

The findings of this research are summarized as follows:

1. The largest group of respondents, 2,081 or 76.1 percent were Disability Examiners.

2. The smallest group of respondents, 50 or 1.9 percent, were Vocational Specialists.

3. Most of the respondents, 1,415 or 51.6 percent, had three to five years work experience.

4. There were almost as many respondents who had over five years work experience as those who had over six months but less than three years work experience.

5. Out of a total possible adjudicator population of 4,322, 63.2 percent or 2,735 adjudicators participated in this study.

6. A total of 3,471 questionnaires were sent to 51 state agencies and 2,735 questionnaires were completed and returned from 50 state agencies resulting in an overall response rate of 78.8 percent.

7. A majority of respondents perceived their job to include the interpretation of medical information and the application of medical criteria.

8. Over 90 percent of the respondents indicated they independently compare clinical signs and symptoms with the claimant's alleged medical condition(s); compare clinical signs, symptoms, and laboratory findings with the diagnosis given in a medical report; decide if a claimant's condition meets the Listing of Impairments; determine the medical diary date; and determine the presence or absence of objective evidence of pathology associated with symptoms and allegations.

9. More than 80 percent of the respondents indicated they independently determine whether a laboratory test or procedure is normal or abnormal; determine when a medical

condition occurred or became severe enough to prevent substantial gainful activity (i.e., establish onset); and determine if a medical condition is improving, or has responded to treatment.

10. Almost 75 percent of the respondents indicated they decide if a claimant's condition equals the Listing of Impairments.

11. Approximately two-thirds of the respondents indicated they independently determine if a medical condition is likely to improve, with or without treatment.

12. Slightly more than 61 percent of the respondents indicated they independently determine a claimant's physical and mental residual functional capacity to engage in work related activities.

13. Better than 90 percent of the respondents indicated they interpret medical information and apply medical criteria without the help of anyone else approximately 50 percent or more of the time.

14. Four percent of the respondents indicated they interpret medical information and apply medical criteria 100 percent of the time without the help of anyone else.

15. The vast majority of adjudicators surveyed perceive their job to include developing medical information as an integral part of their work.

16. Better than 95 percent of the respondents indicated they decide what medical source should be

contacted for additional medical information.

17. More than 90 percent of the respondents indicated they independently decide if a consultative examination is needed and what type of consultative examination should be purchased.

18. A majority (83.8 percent) of the respondents indicated they independently decide what type of additional medical information is needed to document a disability claim.

19. Almost three-fourths of the respondents indicated they develop medical information without the help of anyone else 80 percent or more of the time.

20. Approximately one-seventh of the respondents indicated they develop medical information independently 100 percent of the time.

21. The adjudicators responses to all questions were found to be significant above the .001 level which strongly suggests that the responses are real, and truly represent how adjudicators perceive their job.

22. The estimate of how much time adjudicators spend interpreting medical information or applying medical criteria was not directly associated with the type of adjudicator or the number of years work experience.

23. The estimate of how much time adjudicators spend developing medical information was not directly associated with the years of work experience or the type of adjudicator.

24. The responses given to all questions were not dependent upon, or associated with the employing state agency.

III. CONCLUSIONS

Based upon the findings, the following conclusions were drawn:

1. A majority of all types of Disability Adjudicators employed by state agencies interpret medical information and apply medical criteria in processing disability claims filed under Title II and Title XVI of the Social SEcurity Act and do so independently over half of the time.

2. A majority of all types of Disability Adjudicators employed by state agencies independently develop medical information to properly document disability claims filed under Title II and Title XVI of the Social Security Act over 50 percent of the time.

3. The amount of time spent by adjudicators interpreting medical information and applying medical criteria was not associated with the number of years work experience.

4. The amount of time spent developing medical information was not associated with the type of adjudicator or the number of years work experience.

5. The adjudicators perception of developing and interpreting medical information, and applying medical criteria was not associated with the employing state agency.

IV. RECOMMENDATIONS

The following recommendations are based upon the findings and conclusions of this study as well as the investigator's knowledge of the subject:

1. The results of this study should be made available to the Social Security Administration and the administrative staff of the contracting state agencies.

2. Utilizing the basic job functions depicted by the questions on the survey instrument, a complete and comprehensive list of specific educational objectives should be derived which would provide the basis for developing appropriate training programs and materials.

3. Design and validate reliable measuring instruments to assess the adjudicators requisite knowledge and ability to apply that knowledge in developing and interpreting medical information and applying medical criteria.

4. Additional research should be conducted to determine how effective adjudicators develop and interpret medical information and apply medical criteria.

5. Additional research should be conducted to determine if the adjudicators expertise, or lack of it, materially affect the disability decision or outcome of a claim.

6. This study attempted to show that adjudicators do perform job functions that require specialized knowledge and skills in dealing with medical information and criteria.

This fact must be openly recognized before steps can be taken to insure that adjudicators are properly trained for their job. It is, therefore, recommended that an official statement be obtained from the administration of all contracting state agencies and the Social Security Administration concerning their acceptance or rejection of the job functions identified in this study that are currently being performed by a majority of the adjudicators in this country.

CHAPTER VI

EPILOGUE

In 1954, Congress amended the Social Security Act and established the Disability Insurance Benefit program. The basic provisions have been enlarged and liberalized since that time and today represent the largest income maintenance program in the United States. Since Congress legislated into existence a compulsory disability program that is funded by social security taxes and tax monies from the general revenue the citizens of this country do not have a choice in deciding whether they want to participate or not. Furthermore, the citizens who pay taxes and support this program are dependent upon the Social Security Administration, the contracting state agencies, and ultimately the adjudicative team to properly process disability claims. In effect, the public is placed in the position of trusting that the decisions rendered by these adjudicators are equitable and consistent with both the letter and intent of the law. This involves the concept of "public trust" (4:107).

This concept of public trust is relevant to other professions in our society, such as lawyers and doctors. For example, society has recognized that physicians have special knowledge and skill that the general public does not

have. A sick person seeks the advice and help of a physician because they possess this specialized knowledge and skill. Society has established laws prohibiting individuals from practicing medicine unless they have proven themselves to possess the requisite knowledge and skills. In return, the physician has agreed to adhere to ethical practices, and all activities are directed toward the patient's best interests. Although Disability Adjudicators do not undergo licensing or certification procedures as do physicians, lawyers, and others, the concept is nevertheless the same. The citizens who support the Social Security program with their tax money do not have a choice of who will process their claims. Therefore, they deserve assurance that well qualified people are handling their claims.

Administratively, two signatures appear on every decision made by the adjudicative team. One signature is that of a duly qualified physician and the other is that of a lay person, the adjudicator. This is a legal document, and although it is signed by a physician due to the vast number of disability claims processed and the limited number of physicians employed by the contracting state agencies, it is apparent that the adjudicator is involved to some extent in working with medical information. However, the exact nature and extent of this involvement has never been here-to-fore clearly resolved since the beginning of the program in 1954.

Before physicians are hired by the state agency they must provide credentials of their medical training. However, there are no uniform or recognized standards for hiring adjudicators. One survey showed that some state agencies do not even require a college degree as a prerequisite for employment as an adjudicator (31:3). Furthermore, many of these agencies that required a college degree did not specify what kind of degree was necessary. It was found that adjudicators were employed with Bachelor degrees ranging from Spanish Education or Music to Public School Administration (31:3). The acquisition of necessary skills and abilities to work as an adjudicator are for many people only acquired through in-service training, and research has shown that a uniform training program for adjudicators does not exist in this country (31:6). What is even more disturbing is that some of the employing state agencies have a training program of less than 30 days (31:6). It is therefore questionable that all adjudicators uniformly possess the knowledge and skills necessary to develop and interpret medical information and apply medical criteria. To better understand the magnitude of the problem it must be recognized many of the citizens who apply for benefits are destitute, do not have any income because they are unable to work, and are totally dependent upon receiving income maintenance to sustain themselves and their dependents. Consequently, the disability decision is crucial for these people, and should

be handled in the most expeditious manner possible and with the highest possible level of expertise to avoid any unnecessary human suffering. Furthermore, purely from a monetary point of view the amount of money authorized by each adjudicator is astronomical. It has been estimated that each disability decision represents a potential expenditure of up to 24,000 dollars (4:109). Assuming, that the average adjudicator processes approximately 80 claims per month of which about 50 or so are allowed, this means that every month, each and every adjudicator participates in decisions involving over one million dollars of the tax payers money. The amount of money involved is incredibly large, and when one considers the lack of uniform hiring requirements or training and the absence of any certification procedures to insure adjudicator competency, it becomes even more difficult to comprehend.

This study has shown that a majority of Disability Adjudicators who process claims filed under Title II and Title XVI of the Social Security Act perceive their job to include the development and interpretation of medical information and the application of medical criteria independently, without assistance, and they do this a major portion of the time. This fact has never been officially recognized or sanctioned by the Social Security Administration. Since the utilization of medical information is fundamental to adjudicating disability claims it follows that steps should be

taken to insure that those who process these claims possess the necessary knowledge and skills to do the job right. One possible alternative would be to have only duly qualified physicians adjudicating these claims. However, the cost would be tremendous, and it is highly unlikely that enough physicians could be hired to do this work regardless of the cost. Furthermore, society needs all available physicians treating people rather than processing disability claims, and the use of physicians in this manner would be exceedingly wasteful and unnecessary.

The logical alternative would be to make sure that Disability Adjudicators are appropriately trained and have the skills necessary to do the job. This could be accomplished by establishing appropriate educational and training programs which would provide adjudicators with the basic skills necessary to do all aspects of the job, including the utilization of medical information. Individuals being employed by state agencies should be sent to these programs or be required to show evidence that they have had appropriate educational or training experiences prior to being hired. In addition, national certification procedures should be instituted to guarantee that adjudicators possess the requisite knowledge and skills.

If the citizens of this country do not have a choice of paying taxes to support the Social Security Disability Benefit Program, then they should be given every assurance

that their claims are being processed in the most efficient and professional manner possible. This necessarily requires well trained and competent adjudicators. The time has come, if not well overdue, to take steps which will insure that those who participate in the adjudication process are competent and qualified to do so. Toward this end, additional research is necessary to develop specific instructional objectives based upon the key tasks as outlined in this study which reflect the demands of the job. Based upon this information, valid and reliable testing instruments should then be developed and used to measure adjudicator competency in the same manner as other professionals in our society are certified, thus providing some measure of assurance that those who hold the "public trust" are qualified to do so.

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APPENDICES

APPENDIX A

INTRODUCTORY LETTER AND

QUESTIONNAIRE

Dear Adjudicator:

Your assistance in completing the enclosed short questionnaire will contribute toward a better understanding of the complexity and skill required in the adjudication of disability claims. This survey is intended to determine the extent to which you are involved in the interpretation and application of medical information, and will provide a better foundation upon which professional growth and recognition may be established.

The following steps should take no more than 5 minutes of your time:

1. Please check all of the appropriate blanks on the questionnaire and circle the approximate percent of time you perform the described work functions.

2. Return the completed questionnaire to the study coordinator in your agency.

The information obtained will be treated in a confidential manner and you are asked not to put your name on the questionnaire.

Sincerely,

Richard Bynum, Asst. Coordinator
Disability Examiner Education Program
THE UNIVERSITY OF TENNESSEE
Knoxville, Tennessee

Enclosure

QUESTIONNAIRE

I. Please check the appropriate blanks:

_____ Female

_____ Male

Total years of work experience in claims adjudication:

_____ Over 6 months but less than 3 years

_____ 3 to 5 years

_____ Over 5 years

"Primary" work position at present time:

_____ Disability Examiner (all types of claims)

_____ Vocational Specialist

_____ Quality Assurance

_____ Supervisor

State Agency _____

_____

II. Please indicate whether or not you perform the following case processing functions independently, without the help of anyone else in your agency.

1. Determine whether a laboratory test or procedure is normal or abnormal — Yes___ No___

2. Compare clinical signs and symptoms with claimant's alleged medical condition(s). — Yes___ No___

3. Compare clinical signs, symptoms, and laboratory findings with the diagnosis given in a medical report. — Yes___ No___

4. Determine the presence or absence of "objective" evidence of pathology associated with symptoms and allegation. — Yes___ No___

5. Decide if a claimant's condition meets the "Listings of Impairments." — Yes___ No___

6. Decide if a claimant's condition equals the "Listings of Impairments." — Yes___ No___

7. Determine a claimant's physical and mental residual functional capacity to engage in work related activities. Yes___No___

8. Determine if a medical condition is likely to improve, with or without treatment. Yes___No___

9. Determine if a medical condition is improving, or has responded to treatment. Yes___No___

10. Determine when a medical condition occurred or became severe enough to prevent substantial gainful activity (i.e., establish onset). Yes___No___

11. Determine the medical diary date. Yes___No___

12. Approximately what percent of the time do you perform the work functions listed above (questions 1-11) independently, without the help of anyone else?

100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0%

13. Decide if a consultative examination is needed. Yes___No___

14. Decide what type of consultative examination is needed, such as a phychiatric, orthopedic, neurological, internist, etc. Yes___No___

15. Decide what type of additional medical evidence is needed, such as specific lab procedures, clinical signs, symptoms, etc. Yes___No___

16. Decide which medical source should be contacted for additional medical information. Yes___No___

17. Approximately what percent of the time do you perform the work functions listed above (questions 13-16) independently, without the help of anyone else? Yes___No___

100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0%

18. To the best of your knowledge, indicate the approximate percent of cases that someone checks on the medical decision you make (those activities described above).

100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0%

APPENDIX B

INSTRUCTIONS TO THE STATE AGENCY STUDY COORDINATOR

Dear (Name of Individual):

Thank you for agreeing to represent your state agency as a "Study Coordinator." Your assistance in this research project is greatly needed and appreciated.

The purpose of this study is to determine the extent to which Adjudicators (Examiners) are involved in the assessment of medical information. The results of this survey will provide a better understanding of the level of complexity and the requisite skills of this growing profession. This information will also provide a better foundation upon which professional growth and recognition may be established.

Please complete the following procedures described below:

1. Identify the number of individuals employed in each job or position in your agency. This should include all the "Professional" staff, excluding only the physicians.

2. Distribute a copy of the cover letter and the questionnaire to every member of your professional staff, <u>except the physicians</u>.

3. Hold the survey questionnaire for those who are temporarily absent but will return within two weeks.

4. Collect the completed questionnaires and return to:

   Richard Bynum
   Disability Examiner Education Program
   804 Volunteer Blvd.
   Temple Court Building
   Knoxville, Tennessee 37916

5. Additional copies of the cover letter and questionnaire may be made in your agency, or they will be sent to you upon request.

In order to obtain complete and valid information it is very important that practically all of the agency staff complete the questionnaire. Any thing you can do toward this end will greatly contribute to the success of this study. Thank you again for your help and if you have any questions, please call me.

Sincerely,

Richard Bynum, Asst. Coordinator
Disability Examiner Education
Program
THE UNIVERSITY OF TENNESSEE
Knoxville, Tennessee 37916

APPENDIX C

LETTER OF EXPLANATION TO STATE AGENCY ADMINISTRATOR

Dear (Name of State Agency Administrator):

Pursuant to your request, I am sending you a copy of the cover letter and questionnaire for your review. The purpose of this study is to getermine the extent to which state agency adjudicators perceive their job to include the development and assessment of medical information and the application of medical criteria. The results of this survey will provide us with a much better understanding of how adjudicators view their job functions and will greatly assist in the identification of competencies necessary for proper job performance. This study will be limited to those adjudicators and supervisors who have at least six months work experience in the agency.

After you have had an opportunity to review these materials please let me know at your earliest convenience if you and your staff wish to participate in this study. I greatly appreciate your consideration in this matter and I shall look forward to hearing from you.

Sincerely,

Richard Bynum
Assistant Coordinator
Disability Examiner Education Program
THE UNIVERSITY OF TENNESSEE
Knoxville, Tennessee 37916

APPENDIX D

RESPONSES TO QUESTIONS BY

STATE AGENCY

TABLE 16. Responses to Question Number One by State Agency.

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Alabama	74	3.1	93.7	2.7	5	1.6	6.3	0.2	79	2.9
Arkansas	48	2.0	92.3	1.8	4	1.3	7.7	0.1	52	1.9
Arizona	34	1.4	94.4	1.3	2	0.6	5.6	0.1	36	1.3
California	58	2.4	81.7	2.1	13	4.1	18.3	0.5	71	2.6
Colorado	28	1.2	73.7	1.0	10	3.2	26.3	0.4	38	1.4
Connecticut	44	1.8	97.8	1.6	1	0.3	2.2	0.2	45	1.7
District of Col.	18	0.8	100.0	0.7	0	0.0	0.0	0.0	18	0.7
Delaware	9	0.4	100.0	0.3	0	0.0	0.0	0.0	9	0.3
Florida	106	4.4	88.3	3.9	14	4.5	11.7	0.5	120	4.4
Georgia	78	3.3	85.7	2.9	13	4.1	14.3	0.5	91	3.4
Guam	1	0.0	100.0	0.0	0	0.0	0.0	0.0	1	0.0
Hawaii	8	0.3	88.9	0.3	1	0.3	11.1	0.0	9	0.3
Iowa	29	1.2	87.9	1.1	4	1.3	12.1	0.1	33	1.2
Idaho	12	0.5	100.0	0.4	0	0.0	0.0	0.0	12	0.4
Illinois	115	4.8	92.0	4.3	10	3.2	8.0	0.4	125	4.6
Indiana	68	2.9	94.4	2.5	4	1.3	5.6	0.1	72	2.7
Kansas	26	1.1	96.3	1.0	1	0.3	3.7	0.0	27	1.0
Kentucky	65	2.7	80.2	2.4	16	5.1	19.8	0.6	81	3.0
Louisiana	70	2.9	87.5	2.6	10	3.2	12.5	0.4	80	3.0

TABLE 16. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total %
Massachusetts	54	2.3	83.1	2.0	11	3.5	16.9	0.4	65	2.4
Maine	11	0.5	73.3	0.4	4	1.3	26.7	0.1	15	0.6
Michigan	122	5.1	97.6	4.5	3	1.0	2.4	0.1	125	4.6
Minnesota	30	1.3	88.2	1.1	4	1.3	11.8	0.1	34	1.3
Missouri	66	2.8	75.0	2.4	22	7.0	25.0	0.8	88	3.3
Mississippi	29	1.2	87.9	1.1	4	1.3	12.1	0.1	33	1.2
Montana	11	0.5	100.0	0.4	0	0.0	0.0	0.0	11	0.4
North Carolina	113	4.7	95.0	4.2	6	1.9	5.0	0.2	119	4.4
North Dakota	4	0.2	80.0	0.1	1	0.3	20.0	0.0	5	0.2
Nebraska	19	0.8	79.2	0.7	5	1.6	20.8	0.2	24	0.9
New Hampshire	4	0.2	50.0	0.1	4	1.3	50.0	0.1	8	0.3
New Jersey	80	3.4	77.7	3.0	23	7.3	22.3	0.9	103	3.8
New Mexico	19	0.8	100.0	0.7	0	0.0	0.0	0.0	19	0.7
Ohio	118	4.9	97.5	4.4	3	1.0	2.5	0.1	121	4.5
Oklahoma	26	1.1	81.3	1.0	6	1.9	18.8	0.2	32	1.2
Oregon	32	1.3	86.5	1.2	5	1.6	13.5	0.2	37	1.4
Pennsylvania	224	9.4	90.7	8.3	23	7.3	9.3	0.9	247	9.2
Puerto Rico	44	1.8	100.0	1.6	0	0.0	0.0	0.0	44	1.6
Rhode Island	16	0.7	94.1	0.6	1	0.3	5.9	0.0	17	0.6
South Carolina	52	2.2	92.9	1.9	4	1.3	7.1	0.1	56	2.1
South Dakota	5	0.2	83.3	0.2	1	0.3	16.7	0.0	6	0.2

TABLE 16. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Tennessee	57	2.4	79.2	2.1	15	4.8	20.8	0.6	72	2.7
Texas	143	6.0	88.8	5.3	18	5.7	11.2	0.7	161	6.0
Utah	13	0.5	81.3	0.5	3	1.0	18.8	0.1	16	0.6
Virginia	73	3.1	79.3	2.7	19	6.1	20.7	0.7	92	3.4
Vermont	9	0.4	90.0	0.3	1	0.3	10.0	0.0	10	0.4
Washington	35	1.5	81.4	1.3	8	2.5	18.6	0.3	43	1.6
Wisconsin	42	1.8	89.4	1.6	5	1.6	10.6	0.2	47	1.7
West Virginia	38	1.6	84.4	1.4	7	2.2	15.6	0.3	45	1.7
Wyoming	4	0.2	100.0	0.1	0	0.0	0.0	0.0	4	1.0
ROW TOTAL (N)	2,384				314				2,698	
(%)	88.4				11.6				100.0	

NOTE: Symmetric lambda = 0.00000; Asymmetric lambda = 0.00000.

TABLE 17. Responses to Question Number Two by State Agency.

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Alabama	75	2.9	94.9	2.8	4	2.8	5.1	0.1	79	2.9
Arkansas	48	1.9	92.3	1.8	4	2.8	7.7	0.1	52	1.9
Arizona	33	1.3	91.7	1.2	3	2.1	8.3	0.1	36	1.3
California	67	2.6	93.1	2.5	5	3.4	6.9	0.2	72	2.7
Colorado	36	1.4	94.7	1.3	2	1.4	5.3	0.1	38	1.4
Connecticut	45	1.8	100.0	1.7	0	0.0	0.0	0.0	45	1.7
Dist. of Columbia	18	0.7	100.0	0.7	0	0.0	0.0	0.0	18	0.7
Delaware	9	0.4	100.0	0.3	0	0.0	0.0	0.0	9	0.3
Florida	115	4.5	94.3	4.2	7	4.8	5.7	0.3	122	4.5
Georgia	87	3.4	94.6	3.2	5	3.4	5.4	0.2	92	3.4
Guam	0	0.0	0.0	0.0	1	0.7	100.0	0.0	1	0.0
Hawaii	9	0.4	100.0	0.3	0	0.0	0.0	0.0	9	0.3
Iowa	30	1.2	90.9	1.1	3	2.1	9.1	0.1	33	1.2
Idaho	12	0.5	100.0	0.4	1	0.0	0.0	0.0	12	0.4
Illinois	116	4.5	92.8	4.3	9	6.2	7.2	0.3	125	4.6
Indiana	72	2.8	100.0	2.7	0	0.0	0.0	0.0	72	2.7
Kansas	26	1.0	96.3	1.0	1	0.7	3.7	0.0	27	1.0
Kentucky	77	3.0	93.9	2.8	5	3.4	6.1	0.2	82	3.0
Louisiana	75	2.9	92.6	2.8	6	4.1	7.4	0.2	81	3.0

TABLE 17. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Massachusetts	60	2.3	90.9	2.2	6	4.1	9.1	0.2	66	2.4
Maine	14	0.5	93.3	0.5	1	0.7	6.7	0.0	15	0.6
Michigan	123	4.8	98.4	4.5	2	1.4	1.6	0.1	125	4.6
Minnesota	32	1.2	94.1	1.2	2	1.4	5.9	0.1	34	1.3
Missouri	76	3.0	86.4	2.8	12	8.3	13.6	0.4	88	3.2
Mississippi	35	1.4	100.0	1.3	0	0.0	0.0	0.0	35	1.3
Montana	11	0.4	100.0	0.4	0	0.0	0.0	0.0	11	0.4
North Carolina	115	4.5	96.6	4.2	4	2.8	3.4	0.1	119	4.4
North Dakota	5	0.2	100.0	0.2	0	0.0	0.0	0.0	5	0.2
Nebraska	23	0.9	95.8	0.8	1	0.7	4.2	0.0	24	0.9
New Hampshire	7	0.3	87.5	0.3	1	0.7	12.5	0.0	8	0.3
New Jersey	93	3.6	91.2	3.4	9	6.2	8.8	0.3	102	3.8
New Mexico	19	0.7	100.0	0.7	0	0.0	0.0	0.0	19	0.7
Ohio	118	4.6	97.5	4.4	3	2.1	2.5	0.1	121	4.5
Oklahoma	31	1.2	96.9	1.1	1	0.7	3.1	0.0	32	1.2
Oregon	35	1.4	94.6	1.3	2	1.4	5.4	0.1	37	1.4
Pennsylvania	243	9.5	98.4	9.0	4	2.8	1.6	0.1	247	9.1
Puerto Rico	44	1.7	100.0	1.6	0	0.0	0.0	0.0	44	1.6
Rhode Island	15	0.6	88.2	0.6	2	1.4	11.8	0.1	17	0.6
South Carolina	55	2.1	96.5	2.0	2	1.4	3.5	0.1	57	2.1
South Dakota	6	0.2	100.0	0.2	0	0.0	0.0	0.0	6	0.2

TABLE 17. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Tennessee	62	2.4	87.3	2.3	9	6.2	12.7	0.3	71	2.6
Texas	157	6.1	96.9	5.8	5	3.4	3.1	0.2	162	6.0
Utah	15	0.6	93.8	0.6	1	0.7	6.3	0.0	16	0.6
Virginia	82	3.2	88.2	3.0	11	7.6	11.8	0.4	93	3.4
Vermont	9	0.4	90.0	0.3	1	0.7	10.0	0.0	10	0.4
Washington	37	1.4	88.1	1.4	5	3.4	11.9	0.2	42	1.6
Wisconsin	43	1.7	91.5	1.6	4	2.8	8.5	0.1	47	1.7
West Virginia	44	1.7	95.7	1.6	2	1.4	4.3	0.1	46	1.7
Wyoming	4	0.2	100.0	0.1	0	0.0	0.0	0.0	4	0.1
ROW TOTAL (N)	2,563				145				2,708	
(%)	94.6				5.4				100.0	

NOTE: Symmetric lambda = 0.00345; Asymmetric lambda = 0.00690.

TABLE 18. Responses to Question Number Three by State Agency.

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Alabama	73	2.9	92.4	2.7	6	3.0	7.6	0.2	79	2.9
Arkansas	50	2.0	96.2	1.8	2	1.0	3.8	0.1	52	1.9
Arizona	33	1.3	91.7	1.2	3	1.5	8.3	0.1	36	1.3
California	65	2.6	90.3	2.4	7	3.5	9.7	0.3	72	2.7
Colorado	32	1.3	84.2	1.2	6	3.0	15.8	0.2	38	1.4
Connecticut	41	1.6	91.1	1.5	4	2.0	8.9	0.1	45	1.7
Dist. of Columbia	18	0.7	100.0	0.7	0	0.0	0.0	0.0	18	0.7
Delaware	9	0.4	100.0	0.3	0	0.0	0.0	0.0	9	0.3
Florida	114	4.5	93.4	4.2	8	4.0	6.6	0.3	122	4.5
Georgia	83	3.3	91.2	3.1	8	4.0	8.8	0.3	91	3.4
Guam	0	0.0	0.0	0.0	1	0.5	100.0	0.0	1	0.0
Hawaii	9	0.4	100.0	0.3	0	0.0	0.0	0.0	9	0.3
Iowa	30	1.2	90.9	1.1	3	1.5	9.1	0.1	33	1.2
Idaho	12	0.5	100.0	0.4	0	0.0	0.0	0.0	12	0.4
Illinois	117	4.7	93.6	4.3	8	4.0	6.4	0.3	125	4.6
Indiana	72	2.9	100.0	2.7	0	0.0	0.0	0.0	72	2.7
Kansas	26	1.0	96.3	1.0	1	0.5	3.7	0.0	27	1.0
Kentucky	75	3.0	92.6	2.8	6	3.0	7.4	0.2	81	3.0
Louisiana	76	3.0	93.8	2.8	5	2.5	6.2	0.2	81	3.0

TABLE 18. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Massachusetts	56	2.2	86.2	2.1	9	4.5	13.8	0.3	65	2.4
Maine	13	0.5	86.7	0.5	2	1.0	13.3	0.1	15	0.6
Michigan	120	4.8	96.0	4.4	5	2.5	4.0	0.2	125	46
Minnesota	31	1.2	91.2	1.1	3	1.5	8.8	0.1	34	1.3
Missouri	76	3.0	86.4	2.8	12	5.9	13.6	0.4	88	3.2
Mississippi	35	1.4	97.2	1.3	1	0.5	2.8	0.0	36	1.3
Montana	10	0.4	90.9	0.4	1	0.5	9.1	0.0	11	0.4
North Carolina	114	4.5	95.8	4.2	5	2.5	4.2	0.2	119	4.4
North Dakota	5	0.2	100.0	0.2	0	0.0	0.0	0.0	5	0.2
Nebraska	22	0.9	91.7	0.8	2	1.0	8.3	0.1	24	0.9
New Hampshire	7	0.3	87.5	0.3	1	0.5	12.5	0.0	8	0.3
New Jersey	95	3.8	92.2	3.5	8	4.0	7.8	0.3	103	3.8
New Mexico	17	0.7	89.5	0.6	2	1.0	10.5	0.1	19	0.7
Ohio	118	4.7	97.5	4.4	3	1.5	2.5	0.1	121	4.5
Oklahoma	30	1.2	93.8	1.1	2	1.0	6.3	0.1	32	1.2
Oregon	34	1.4	91.9	1.3	3	1.5	8.1	0.1	37	1.4
Pennsylvania	235	9.4	95.1	8.7	12	5.9	4.9	0.4	247	9.1
Puerto Rico	44	1.8	100.0	1.6	0	0.0	0.0	0.0	44	1.6
Rhode Island	15	0.6	88.2	0.6	2	1.0	11.8	0.1	17	0.6
South Carolina	50	2.0	87.7	1.8	7	3.5	12.3	0.3	57	2.1
South Dakota	5	0.2	83.3	0.2	1	0.5	16.7	0.0	6	0.2

TABLE 18. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Tennessee	63	2.5	87.5	2.3	9	4.5	12.5	0.3	72	2.7
Texas	151	6.0	93.8	5.6	10	5.0	6.2	0.4	161	5.9
Utah	13	0.5	81.3	0.5	3	1.5	18.8	0.1	16	0.6
Virginia	74	3.0	79.6	2.7	19	9.4	20.4	0.7	93	3.4
Vermont	9	0.4	90.0	0.3	1	0.5	10.0	0.0	10	0.4
Washington	37	1.5	84.1	1.4	7	3.5	15.9	0.3	44	1.6
Wisconsin	43	1.7	93.5	1.6	3	1.5	6.5	0.1	46	1.7
West Virginia	45	1.8	97.8	1.7	1	0.5	2.2	0.0	46	1.7
Wyoming	4	0.2	100.0	0.1	0	0.0	0.0	0.0	4	0.1
ROW TOTAL (N)	2,506				202				2,708	
(%)	92.5				7.5				100.0	

NOTE: Symmetric lambda = 0.00300; Asymmetric lambda = 0.00495.

TABLE 19. Responses to Question Number Four by State Agency.

	Responses									
	YES				NO					
State Agency	Count	Row %	Column %	Total %	Count	Row %	Column %	Total %	Column (N)	Total (%)
Alabama	69	2.8	88.5	2.6	9	3.9	11.5	0.3	78	2.9
Arkansas	50	2.0	96.2	1.9	2	0.9	3.8	0.1	52	1.9
Arizona	33	1.3	91.7	1.2	3	1.3	8.3	0.1	36	1.3
California	64	2.6	88.9	2.4	8	3.5	11.1	0.3	72	2.7
Colorado	33	1.3	86.8	1.2	5	2.2	13.2	0.2	38	1.4
Connecticut	42	1.7	93.3	1.6	3	1.3	6.7	0.1	45	1.7
Dist. of Columbia	16	0.6	94.1	0.6	1	0.4	5.9	0.0	17	0.6
Delaware	9	0.4	100.0	0.3	0	0.0	0.0	0.0	9	0.3
Florida	112	4.5	91.8	4.1	10	4.3	8.2	0.4	122	4.5
Georgia	86	3.5	95.6	3.2	4	1.7	4.4	0.1	90	3.3
Guam	0	0.0	0.0	0.0	1	0.4	100.0	0.0	1	0.0
Hawaii	7	0.3	77.8	0.3	2	0.9	22.2	0.1	9	0.3
Iowa	31	1.3	93.9	1.1	2	0.9	6.1	0.1	33	1.2
Idaho	11	0.4	91.7	0.4	1	0.4	8.3	0.0	12	0.4
Illinois	114	4.6	91.9	4.2	10	4.3	8.1	0.4	124	4.6
Indiana	71	2.9	98.6	2.6	1	0.4	1.4	0.0	72	2.7
Kansas	22	0.9	81.5	0.8	5	2.2	18.5	0.2	27	1.0
Kentucky	71	2.9	87.7	2.6	10	4.3	12.3	0.4	81	3.0
Louisiana	75	3.0	92.6	2.8	6	2.6	7.4	0.2	81	3.0

TABLE 19. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Massachusetts	59	2.4	92.2	2.2	5	2.2	7.8	0.2	64	2.4
Maine	13	0.5	86.7	0.5	2	0.9	13.3	0.1	15	0.6
Michigan	117	4.7	93.6	4.3	8	3.5	6.4	0.3	125	4.6
Minnesota	33	1.3	97.1	1.2	1	0.4	2.9	0.0	34	1.3
Missouri	71	2.9	80.7	2.6	17	7.4	19.3	0.6	88	3.3
Mississippi	34	1.4	94.4	1.3	2	0.9	5.6	0.1	36	1.3
Montana	10	0.4	90.9	0.4	1	0.4	9.1	0.0	11	0.4
North Carolina	111	4.5	94.1	4.1	7	3.0	5.9	0.3	118	4.4
North Dakota	5	0.2	100.0	0.2	0	0.0	0.0	0.0	5	0.2
Nebraska	19	0.8	79.2	0.7	5	2.2	20.8	0.2	24	0.9
New Hampshire	6	0.2	75.0	0.2	2	0.9	25.0	0.1	8	0.3
New Jersey	93	3.8	90.3	3.4	10	4.3	9.7	0.4	103	3.8
New Mexico	17	0.7	89.5	0.6	2	0.9	10.5	0.1	19	0.7
Ohio	117	4.7	96.7	4.3	4	1.7	3.3	0.1	121	4.5
Oklahoma	29	1.2	93.5	1.1	2	0.9	6.5	0.1	31	1.1
Oregon	33	1.3	89.2	1.2	4	1.7	10.8	0.1	37	1.4
Pennsylvania	237	9.6	96.0	8.8	10	4.3	4.0	0.4	247	9.2
Puerto Rico	44	1.8	100.0	1.6	0	0.0	0.0	0.0	44	1.6
Rhode Island	16	0.6	94.1	0.6	1	0.4	5.9	0.0	17	0.6
South Carolina	52	2.1	92.9	1.9	4	1.7	7.1	0.1	56	2.1
South Dakota	6	0.2	100.0	0.2	0	0.0	0.0	0.0	6	0.2

TABLE 19. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Tennessee	60	2.4	84.5	2.2	11	4.8	15.5	0.4	71	2.6
Texas	149	6.0	92.5	5.5	12	5.2	7.5	0.4	161	6.0
Utah	14	0.6	87.5	0.5	2	0.9	12.5	0.1	16	0.6
Virginia	72	2.9	78.3	2.7	20	8.7	21.7	0.7	92	3.4
Vermont	9	0.4	90.0	0.3	1	0.4	10.0	0.0	10	0.4
Washington	37	1.5	84.1	1.4	7	3.0	15.9	0.3	44	1.6
Wisconsin	44	1.8	93.6	1.6	3	1.3	6.4	0.1	47	1.7
West Virginia	41	1.7	89.1	1.5	5	2.2	10.9	0.2	46	1.7
Wyoming	4	0.2	100.0	0.1	0	0.0	0.0	0.0	4	0.1
ROW TOTAL (N)	2,468				231				2,699	
(%)	91.4				8.6				100.0	

NOTE: Symmetric lambda = 0.00410; Asymmetric lambda = 0.00433.

TABLE 20. Responses to Question Number Five by State Agency.

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Alabama	74	3.0	92.5	2.7	6	3.0	7.5	0.2	80	3.0
Arkansas	48	1.9	92.3	1.8	4	2.0	7.7	0.1	52	1.9
Arizona	33	1.3	91.7	1.2	3	1.5	8.3	0.1	36	1.3
California	59	2.4	81.9	2.2	13	6.6	18.1	0.5	72	2.7
Colorado	34	1.4	89.5	1.3	4	2.0	10.5	0.1	38	1.4
Connecticut	42	1.7	93.3	1.6	3	1.5	6.7	0.1	45	1.7
Dist. of Columbia	18	0.7	100.0	0.7	0	0.0	0.0	0.0	18	0.7
Delaware	9	0.4	100.0	0.3	0	0.0	0.0	0.0	9	0.3
Florida	114	4.6	93.4	4.2	8	4.0	6.6	0.3	122	4.5
Georgia	85	3.4	92.4	3.1	7	3.5	7.6	0.3	92	3.4
Guam	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
Hawaii	7	0.3	77.8	0.3	2	1.0	22.2	0.1	9	0.3
Iowa	31	1.2	93.9	1.1	2	1.0	6.1	0.1	33	1.2
Idaho	12	0.5	100.0	0.4	0	0.0	0.0	0.0	12	0.4
Illinois	117	4.7	93.6	4.3	8	4.0	6.4	0.3	125	4.6
Indiana	72	2.9	100.0	2.7	0	0.0	0.0	0.0	72	2.7
Kansas	26	1.0	96.3	1.0	1	0.5	3.7	0.0	27	1.0
Kentucky	77	3.1	96.3	2.9	3	1.5	3.8	0.1	80	3.0
Louisiana	76	3.0	93.8	2.8	5	2.5	6.2	0.2	81	3.0

TABLE 20. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Massachusetts	61	2.4	92.4	2.3	5	2.5	7.6	0.2	66	2.4
Maine	11	0.4	73.3	0.4	4	2.0	26.7	0.1	15	0.6
Michigan	120	4.8	96.8	4.4	4	2.0	3.2	0.1	124	4.6
Minnesota	32	1.3	94.1	1.2	2	1.0	5.9	0.1	34	1.3
Missouri	73	2.9	83.9	2.7	14	7.1	16.1	0.5	87	3.2
Mississippi	33	1.3	94.3	1.2	2	1.0	5.7	0.1	35	1.3
Montana	10	0.4	90.9	0.4	1	0.5	9.1	0.0	11	0.4
North Carolina	115	4.6	97.5	4.3	3	1.5	2.5	0.1	118	4.4
North Dakota	5	0.2	100.0	0.2	0	0.0	0.0	0.0	5	0.2
Nebraska	23	0.9	95.8	0.9	1	0.5	4.2	0.0	24	0.9
New Hampshire	4	0.2	50.0	0.1	4	2.0	50.0	0.1	8	0.3
New Jersey	94	3.8	91.3	3.5	9	4.5	8.7	0.3	103	3.8
New Mexico	18	0.7	94.7	0.7	1	0.5	5.3	0.0	19	0.7
Ohio	117	4.7	96.7	4.3	4	2.0	3.3	0.1	121	4.5
Oklahoma	28	1.1	87.5	1.0	4	2.0	12.5	0.1	32	1.2
Oregon	34	1.4	91.9	1.3	3	1.5	8.1	0.1	37	1.4
Pennsylvania	235	9.4	95.1	8.7	12	6.1	4.9	0.4	247	9.1
Puerto Rico	44	1.8	100.0	1.6	0	0.0	0.0	0.0	44	1.6
Rhode Island	16	0.6	94.1	0.6	1	0.5	5.9	0.0	17	0.6
South Carolina	54	2.2	94.7	2.0	3	1.5	5.3	0.1	57	2.1
South Dakota	6	0.2	100.0	0.2	0	0.0	0.0	0.0	6	0.2

TABLE 20. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Tennessee	61	2.4	87.1	2.3	9	4.5	12.9	0.3	70	2.6
Texas	152	6.1	94.4	5.6	9	4.5	5.6	0.3	161	6.0
Utah	15	0.6	93.8	0.6	1	0.5	6.3	0.0	16	0.6
Virginia	72	2.9	80.0	2.7	18	9.1	20.0	0.7	90	3.3
Vermont	9	0.4	90.0	0.3	1	0.5	10.0	0.0	10	0.4
Washington	37	1.5	86.0	1.4	6	3.0	14.0	0.2	43	1.6
Wisconsin	43	1.7	91.5	1.6	4	2.0	8.5	0.1	47	1.7
West Virginia	42	1.7	91.3	1.6	4	2.0	8.7	0.1	46	1.7
Wyoming	4	0.2	100.0	0.1	0	0.0	0.0	0.0	4	0.1
ROW TOTAL (N)	2,502				198				2,700	
(%)	92.7				7.3				100.0	

NOTE: Symmetric lambda = 0.00226; Asymmetric lambda = 0.00000.

TABLE 21. Responses to Question Number Six by State Agency.

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Alabama	61	3.0	77.2	2.3	18	2.8	22.8	0.7	79	2.9
Arkansas	43	2.1	82.7	1.6	9	1.4	17.3	0.3	52	1.9
Arizona	18	0.9	50.0	0.7	18	2.8	50.0	0.7	36	1.3
California	45	2.2	62.5	1.7	27	4.2	37.5	1.0	72	2.7
Colorado	23	1.1	60.5	0.9	15	2.3	39.5	0.6	38	1.4
Connecticut	28	1.4	62.2	1.0	17	2.6	37.8	0.6	45	1.7
Dist. of Columbia	18	0.9	100.0	0.7	0	0.0	0.0	0.0	18	0.7
Delaware	6	0.3	66.7	0.2	3	3.5	33.3	0.1	9	0.3
Florida	85	4.2	70.2	3.2	36	5.6	29.8	1.3	121	4.5
Georgia	73	3.6	83.0	2.7	15	2.3	17.0	0.6	88	3.3
Guam	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
Hawaii	2	0.1	22.2	0.1	7	1.1	77.8	0.3	9	0.3
Iowa	21	1.0	63.6	0.8	12	1.9	36.4	0.4	33	1.2
Idaho	12	0.6	100.0	0.4	0	0.0	0.0	0.0	12	0.4
Illinois	113	5.5	90.4	4.2	12	1.9	9.6	0.4	125	4.7
Indiana	71	3.5	98.6	2.6	1	0.2	1.4	0.0	72	2.7
Kansas	19	0.9	70.4	0.7	8	1.2	29.6	0.3	27	1.0
Kentucky	70	3.4	87.5	2.6	10	1.6	12.5	0.4	80	3.0
Louisiana	66	3.2	81.5	2.5	15	2.3	18.5	0.6	81	3.0

TABLE 21. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Massachusetts	60	2.9	90.9	2.2	6	0.9	9.1	0.2	66	2.5
Maine	7	0.3	46.7	0.3	8	1.2	53.3	0.3	15	0.6
Michigan	96	4.7	76.8	3.6	29	4.5	23.2	1.1	125	4.7
Minnesota	29	1.4	85.3	1.1	5	0.8	14.7	0.2	34	1.3
Missouri	54	2.6	61.4	2.0	34	5.3	38.6	1.3	88	3.3
Mississippi	24	1.2	70.6	0.9	10	1.6	29.4	0.4	34	1.3
Montana	10	0.5	90.9	0.4	1	0.2	9.1	0.0	11	0.4
North Carolina	100	4.9	86.2	3.7	16	2.5	13.8	0.6	116	4.3
North Dakota	5	0.2	100.0	0.2	0	0.0	0.0	0.0	5	0.2
Nebraska	8	0.4	33.3	0.3	16	2.5	66.7	0.6	24	0.9
New Hampshire	4	0.2	50.0	0.1	4	0.6	50.0	0.1	8	0.3
New Jersey	93	4.5	90.3	3.5	10	1.6	9.7	0.4	103	3.8
New Mexico	17	0.8	89.5	0.6	2	0.3	10.5	0.1	19	0.7
Ohio	108	5.3	89.3	4.0	13	2.0	10.7	0.5	121	4.5
Oklahoma	29	1.4	90.6	1.1	3	0.5	9.4	0.1	32	1.2
Oregon	29	1.4	80.6	1.1	7	1.1	19.4	0.3	36	1.3
Pennsylvania	214	10.5	87.0	8.0	32	5.0	13.0	1.2	246	9.2
Puerto Rico	44	2.2	100.0	1.6	0	0.0	0.0	0.0	44	1.6
Rhode Island	4	0.2	23.5	0.1	13	2.0	76.5	0.5	17	0.6
South Carolina	39	1.9	68.4	1.5	18	2.8	31.6	0.7	57	2.1
South Dakota	6	0.3	100.0	0.2	0	0.0	0.0	0.0	6	0.2

TABLE 21. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Tennessee	13	0.6	18.6	0.5	57	8.9	81.4	2.1	70	2.6
Texas	121	5.9	75.6	4.5	39	6.1	24.4	1.5	160	6.0
Utah	6	0.3	37.5	0.2	10	1.6	62.5	0.4	16	0.6
Virginia	40	2.0	44.0	1.5	51	7.9	56.0	1.9	91	3.4
Vermont	9	0.4	90.0	0.3	1	0.2	10.0	0.0	10	0.4
Washington	31	1.5	73.8	1.2	11	1.7	26.2	0.4	42	1.6
Wisconsin	40	2.0	87.0	1.5	6	0.9	13.0	0.2	46	1.7
West Virginia	28	1.4	62.2	1.0	17	2.6	37.8	0.6	45	1.7
Wyoming	4	0.2	100.0	0.1	0	0.0	0.0	0.0	4	0.1
ROW TOTAL (N)	2,046				642				2,688	
(%)	76.1				23.9				100.0	

NOTE: Symmetric lambda = 0.03470; Asymmetric lambda = 0.12773.

TABLE 22. Responses to Question Number Seven by State Agency.

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Alabama	50	3.0	64.9	1.9	27	2.7	35.1	1.0	77	2.9
Arkansas	34	2.0	65.4	1.3	18	1.8	34.6	0.7	52	1.9
Arizona	15	0.9	41.7	0.6	21	2.1	58.3	0.8	36	1.3
California	47	2.8	65.3	1.8	25	2.5	34.7	0.9	72	2.7
Colorado	21	1.2	55.3	0.8	17	1.7	44.7	0.6	38	1.4
Connecticut	16	0.9	35.6	0.6	29	3.0	64.4	1.1	45	1.7
Dist. of Columbia	18	1.1	100.0	0.7	0	0.0	0.0	0.0	18	0.7
Delaware	6	0.4	66.7	0.2	3	0.3	33.3	0.1	9	0.3
Florida	66	3.9	55.0	2.5	54	5.5	45.0	2.0	120	4.5
Georgia	40	2.4	46.0	1.5	47	4.8	54.0	1.8	87	3.3
Guam	1	0.1	100.0	0.0	0	0.0	0.0	0.0	1	0.0
Hawaii	2	0.1	22.2	0.1	7	0.7	77.8	0.3	9	0.3
Iowa	6	0.4	18.2	0.2	27	2.7	81.8	1.0	33	1.2
Idaho	12	0.7	100.0	0.4	0	0.0	0.0	0.0	12	0.4
Illinois	40	2.4	32.0	1.5	85	8.7	68.0	3.2	125	4.7
Indiana	63	3.7	87.5	2.4	9	0.9	12.5	0.3	72	2.7
Kansas	10	0.6	37.0	0.4	17	1.7	63.0	0.6	27	1.0
Kentucky	56	3.3	70.9	2.1	23	2.3	29.1	0.9	79	3.0
Louisiana	68	4.0	84.0	2.5	13	1.3	16.0	0.5	81	3.0

TABLE 22. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Massachusetts	38	2.2	57.6	1.4	28	2.9	42.4	1.0	66	2.5
Maine	8	0.5	61.5	0.3	5	0.5	38.5	0.2	13	0.5
Michigan	108	6.4	86.4	4.0	17	1.7	13.6	0.6	125	4.7
Minnesota	28	1.7	82.4	1.0	6	0.6	17.6	0.2	34	1.3
Missouri	32	1.9	36.8	1.2	55	5.6	63.2	2.1	87	3.3
Mississippi	10	0.6	28.6	0.4	25	2.5	71.4	0.9	35	1.3
Montana	10	0.6	90.9	0.4	1	0.1	9.1	0.0	11	0.4
North Carolina	84	5.0	71.2	3.1	34	3.5	28.8	1.3	118	4.4
North Dakota	0	0.0	0.0	0.0	5	0.5	100.0	0.2	5	0.2
Nebraska	11	0.7	45.8	0.4	13	1.3	54.2	0.5	24	0.9
New Hampshire	5	0.3	62.5	0.2	3	0.3	37.5	0.1	8	0.3
New Jersey	73	4.3	73.0	2.7	27	2.7	27.0	1.0	100	3.7
New Mexico	14	0.8	73.7	0.5	5	0.5	26.3	0.2	19	0.7
Ohio	93	5.5	77.5	3.5	27	2.7	22.5	1.0	120	4.5
Oklahoma	30	1.8	93.8	1.1	2	0.2	6.3	0.1	32	1.2
Oregon	32	1.9	86.5	1.2	5	0.5	13.5	0.2	37	1.4
Pennsylvania	203	12.0	82.9	7.6	42	4.3	17.1	1.6	245	9.2
Puerto Rico	44	2.6	100.0	1.6	0	0.0	0.0	0.0	44	1.6
Rhode Island	14	0.8	87.5	0.5	2	0.2	12.5	0.1	16	0.6
South Carolina	40	2.4	71.4	1.5	16	1.6	28.6	0.6	56	2.1
South Dakota	5	0.3	83.3	0.2	1	0.1	16.7	0.0	6	0.2

TABLE 22. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Tennessee	12	0.7	16.9	0.4	59	6.0	83.1	2.2	71	2.7
Texas	97	5.7	62.2	3.6	59	6.0	37.8	2.2	156	5.8
Utah	7	0.4	41.2	0.3	10	1.0	58.8	0.4	17	0.6
Virginia	14	0.8	15.7	0.5	75	7.6	84.3	2.8	89	3.3
Vermont	9	0.5	90.0	0.3	1	0.1	10.0	0.0	10	0.4
Washington	31	1.8	75.6	1.2	10	1.0	24.4	0.4	41	1.5
Wisconsin	37	2.2	80.4	1.4	9	0.9	19.6	0.3	46	1.7
West Virginia	26	1.5	59.1	1.0	18	1.8	40.9	0.7	44	1.6
Wyoming	4	0.2	100.0	0.1	0	0.0	0.0	0.0	4	0.1
ROW TOTAL (N)	1,690				982				2,672	
(%)	63.2				36.8				100.0	

NOTE: Symmetric lambda = 0.08888; Asymmetric lambda = 0.26477.

TABLE 23. Responses to Question Number Eight by State Agency.

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Alabama	54	3.0	69.2	2.0	24	2.8	30.8	0.9	78	2.9
Arkansas	40	2.2	76.9	1.5	12	1.4	23.1	0.4	52	1.9
Arizona	22	1.2	61.1	0.8	14	1.6	38.9	0.5	36	1.3
California	42	2.3	58.3	1.6	30	3.5	41.7	1.1	72	2.7
Colorado	26	1.4	68.4	1.0	12	1.4	31.6	0.4	38	1.4
Connecticut	28	1.5	62.2	1.0	17	2.0	37.8	0.6	45	1.7
Dist. of Columbia	15	0.8	88.2	0.6	2	0.2	11.8	0.1	17	0.6
Delaware	5	0.3	55.6	0.2	4	0.5	44.4	0.1	9	0.3
Florida	80	4.4	65.6	3.0	42	4.9	34.4	1.6	122	4.5
Georgia	55	3.0	60.4	2.0	36	4.2	39.6	1.3	91	3.4
Guam	0	0.0	0.0	0.0	1	0.1	100.0	0.0	1	0.0
Hawaii	4	0.2	44.4	0.1	5	0.6	55.6	0.2	9	0.3
Iowa	13	0.7	39.4	0.5	20	2.3	60.6	0.7	33	1.2
Idaho	12	0.7	100.0	0.4	0	0.0	0.0	0.0	12	0.4
Illinois	100	5.5	80.6	3.7	24	2.8	19.4	0.9	124	4.6
Indiana	65	3.6	90.3	2.4	7	0.8	9.7	0.3	72	2.7
Kansas	19	1.0	70.4	0.7	9	0.9	29.6	0.3	27	1.0
Kentucky	55	3.0	68.8	2.0	25	2.9	31.3	0.9	80	3.0
Louisiana	52	2.8	64.2	1.9	29	3.4	35.8	1.1	81	3.0

TABLE 23. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Massachusetts	39	2.1	60.0	1.5	26	3.0	40.0	1.0	65	2.4
Maine	5	0.3	35.7	0.2	9	1.0	64.3	0.3	14	0.5
Michigan	106	5.8	85.5	3.9	18	2.1	14.5	0.7	124	4.6
Minnesota	28	1.5	82.4	1.0	6	0.7	17.6	0.2	34	1.3
Missouri	45	2.5	51.1	1.7	43	5.0	48.9	1.6	88	3.3
Mississippi	27	1.5	77.1	1.0	8	0.9	22.9	0.3	35	1.3
Montana	9	0.5	81.8	0.3	2	0.2	18.2	0.1	11	0.4
North Carolina	76	4.2	65.5	2.8	40	4.7	34.5	1.5	116	4.3
North Dakota	5	0.3	100.0	0.2	0	0.0	0.0	0.0	5	0.2
Nebraska	12	0.7	52.2	0.4	11	1.3	47.8	0.4	23	0.9
New Hampshire	4	0.2	50.0	0.1	4	0.5	50.0	0.1	8	0.3
New Jersey	60	3.3	58.8	2.2	42	4.9	41.2	1.6	102	3.8
New Mexico	14	0.8	73.7	0.5	5	0.6	26.3	0.2	19	0.7
Ohio	96	5.3	80.0	3.6	24	2.8	20.0	0.9	120	4.5
Oklahoma	25	1.4	78.1	0.9	7	0.8	21.9	0.3	32	1.2
Oregon	29	1.6	78.4	1.1	8	0.9	21.6	0.3	37	1.4
Pennsylvania	178	9.7	72.1	6.6	69	8.0	27.9	2.6	247	9.2
Puerto Rico	46	2.5	100.0	1.7	0	0.0	0.0	0.0	46	1.7
Rhode Island	10	0.5	58.8	0.4	7	0.8	41.2	0.3	17	0.6
South Carolina	32	1.8	57.1	1.2	24	2.8	42.9	0.9	56	2.1
South Dakota	4	0.2	66.7	0.1	2	0.2	33.3	0.1	6	0.2

TABLE 23. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Tennessee	29	1.6	41.4	1.1	41	4.8	58.6	1.5	70	2.6
Texas	119	6.5	75.3	4.4	39	4.5	24.7	1.5	158	5.9
Utah	5	0.3	31.3	0.2	11	1.3	68.8	0.4	16	0.6
Virginia	36	2.0	39.6	1.3	55	6.4	60.4	2.0	91	3.4
Vermont	9	0.5	90.0	0.3	1	0.1	10.0	0.0	10	0.4
Washington	27	1.5	62.8	1.0	16	1.9	37.2	0.6	43	1.6
Wisconsin	33	1.8	75.0	1.2	11	1.3	25.0	0.4	44	1.6
West Virginia	29	1.6	63.0	1.1	17	2.0	37.0	0.6	46	1.7
Wyoming	3	0.2	75.0	0.1	1	0.1	25.0	0.0	4	0.1
ROW TOTAL (N)	1,827				859				2,686	
(%)	68.0				32.0				100.0	

NOTE: Symmetric lambda = 0.01516; Asymmetric lambda = 0.05821.

TABLE 24. Responses to Question Number Nine by State Agency.

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Alabama	61	2.7	78.2	2.3	17	4.2	21.8	0.6	78	2.9
Arkansas	51	2.2	98.1	1.9	1	0.2	1.9	0.0	52	1.9
Arizona	29	1.3	80.6	1.1	7	1.7	19.4	0.3	36	1.3
California	62	2.7	86.1	2.3	10	2.4	13.9	0.4	72	2.7
Colorado	33	1.4	86.8	1.2	5	1.2	13.2	0.2	38	1.4
Connecticut	38	1.7	84.4	1.4	7	1.7	15.6	0.3	45	1.7
Dist. of Columbia	16	0.7	94.1	0.6	1	0.2	5.9	0.0	17	0.6
Delaware	8	0.3	88.9	0.3	1	0.2	11.1	0.0	9	0.3
Florida	106	4.6	86.9	3.9	16	3.9	13.1	0.6	122	4.5
Georgia	79	3.4	84.9	2.9	14	3.4	15.1	0.5	93	3.4
Guam	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
Hawaii	6	0.3	66.7	0.2	3	0.7	33.3	0.1	9	0.3
Iowa	20	0.9	60.6	0.7	13	3.2	39.4	0.5	33	1.2
Idaho	12	0.5	100.0	0.4	0	0.0	0.0	0.0	12	0.4
Illinois	105	4.6	84.0	3.9	20	4.9	16.0	0.7	125	4.6
Indiana	69	3.0	95.8	2.6	3	0.7	4.2	0.1	72	2.7
Kansas	25	1.1	92.6	0.9	2	0.5	7.4	0.1	27	1.0
Kentucky	70	3.1	86.4	2.6	11	2.7	13.6	0.4	81	3.0
Louisiana	66	2.9	81.5	2.4	15	3.7	18.5	0.6	81	3.0

TABLE 24. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Massachusetts	52	2.3	78.8	1.9	14	3.4	21.2	0.5	66	2.4
Maine	8	0.3	53.3	0.3	7	1.7	46.7	0.3	15	0.6
Michigan	115	5.0	92.0	43	10	2.4	8.0	0.4	125	4.6
Minnesota	32	1.4	94.1	1.2	2	0.5	5.9	0.1	34	1.3
Missouri	64	2.8	72.7	2.4	24	5.9	27.3	0.9	88	3.3
Mississippi	30	1.3	83.3	1.1	6	1.5	16.7	0.2	36	1.3
Montana	9	0.4	81.8	0.3	2	0.5	18.2	0.1	11	0.4
North Carolina	111	4.8	94.1	4.1	7	1.7	5.9	0.3	118	4.4
North Dakota	5	0.2	100.0	0.2	0	0.0	0.0	0.0	5	0.2
Nebraska	18	0.8	78.3	0.7	5	1.2	21.7	0.2	23	0.9
New Hampshire	5	0.2	62.5	0.2	3	0.7	37.5	0.1	8	0.3
New Jersey	80	3.5	76.9	3.0	24	5.9	23.1	0.9	104	3.8
New Mexico	17	0.7	89.5	0.6	2	0.5	10.5	0.1	19	0.7
Ohio	109	4.7	90.1	4.0	12	2.9	9.9	0.4	121	4.5
Oklahoma	29	1.3	90.6	1.1	3	0.7	9.4	0.1	32	1.2
Oregon	35	1.5	94.6	1.3	2	0.5	5.4	0.1	37	1.4
Pennsylvania	220	9.6	89.8	8.1	25	6.1	10.2	0.9	245	9.1
Puerto Rico	46	2.0	100.0	1.7	0	0.0	0.0	0.0	46	1.7
Rhode Island	16	0.7	94.1	0.6	1	0.2	5.9	0.0	17	0.6
South Carolina	48	2.1	85.7	1.8	8	2.0	14.3	0.3	56	2.1
South Dakota	5	0.2	83.3	0.2	1	0.2	16.7	0.0	6	0.2

TABLE 24. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Tennessee	48	2.1	67.6	1.8	23	5.6	32.4	0.9	71	2.6
Texas	146	6.4	90.7	5.4	15	3.7	9.3	0.6	161	6.0
Utah	11	0.5	68.8	0.4	5	1.2	31.3	0.2	16	0.6
Virginia	56	2.4	60.9	2.1	36	8.8	39.1	1.3	92	3.4
Vermont	9	0.4	90.0	0.3	1	0.2	10.0	0.0	10	0.4
Washington	34	1.5	79.1	1.3	9	2.2	20.9	0.3	43	1.6
Wisconsin	40	1.7	87.0	1.5	6	1.5	13.0	0.2	46	1.7
West Virginia	37	1.6	78.7	1.4	10	2.4	21.3	0.4	47	1.7
Wyoming	4	0.2	100.0	0.1	0	0.0	0.0	0.0	4	0.1
ROW TOTAL (N)	2,295				409				2,704	
(%)	84.9				15.1				100.0	

NOTE: Symmetric lambda = 0.00384; Asymmetric lambda = 0.00000.

TABLE 25. Responses to Question Number Ten by State Agency.

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Alabama	67	2.8	85.9	2.5	11	3.3	14.1	0.4	78	2.9
Arkansas	45	1.9	86.5	1.7	7	2.1	13.5	0.3	52	1.9
Arizona	31	1.3	86.1	1.1	5	1.5	13.9	0.2	36	1.3
California	58	2.5	81.7	2.2	13	3.9	18.3	0.5	71	2.6
Colorado	29	1.2	78.4	1.1	8	2.4	21.6	0.3	37	1.4
Connecticut	38	1.6	86.4	1.4	6	1.8	13.6	0.2	44	1.6
Dist. of Columbia	18	0.8	100.0	0.7	0	0.0	0.0	0.0	18	0.7
Delaware	9	0.4	100.0	0.3	0	0.0	0.0	0.0	9	0.3
Florida	102	4.3	83.6	3.8	20	6.1	16.4	0.7	122	4.5
Georgia	77	3.3	85.6	2.9	13	3.9	14.4	0.5	90	3.3
Guam	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
Hawaii	4	0.2	44.4	0.1	5	1.5	55.6	0.2	9	0.3
Iowa	21	0.9	63.6	0.8	12	3.6	36.4	0.4	33	1.2
Idaho	12	0.5	100.0	0.4	0	0.0	0.0	0.0	12	0.4
Illinois	114	4.8	91.2	4.2	11	3.3	8.8	0.4	125	4.6
Indiana	70	3.0	97.2	2.6	2	0.6	2.8	0.1	72	2.7
Kansas	25	1.1	92.6	0.9	2	0.6	7.4	0.1	27	1.0
Kentucky	73	3.1	91.3	2.7	7	2.1	8.8	0.3	80	3.0
Louisiana	68	2.9	85.0	2.5	12	3.6	15.0	0.4	80	3.0

TABLE 25. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Massachusetts	55	2.3	83.3	2.0	11	3.3	16.7	0.4	66	2.4
Maine	14	0.6	93.3	0.5	1	0.3	6.7	0.0	15	0.6
Michigan	117	4.9	95.1	4.3	6	1.8	4.9	0.2	123	4.6
Minnesota	31	1.3	91.2	1.1	3	0.9	8.8	0.1	34	1.3
Missouri	67	2.8	76.1	2.5	21	6.4	23.9	0.8	88	3.3
Mississippi	34	1.4	94.4	1.3	2	0.6	5.6	0.1	36	1.3
Montana	9	0.4	81.8	0.3	2	0.6	18.2	0.1	11	0.4
North Carolina	112	4.7	94.1	4.2	7	2.1	5.9	0.3	119	4.4
North Dakota	5	0.2	100.0	0.2	0	0.0	0.0	0.0	5	0.2
Nebraska	17	0.7	73.9	0.6	6	1.8	26.1	0.2	23	0.9
New Hampshire	4	0.2	50.0	0.1	4	1.2	50.0	0.1	8	0.3
New Jersey	98	4.1	94.2	3.6	6	1.8	5.8	0.2	104	3.9
New Mexico	17	0.7	89.5	0.6	2	0.6	10.5	0.1	19	0.7
Ohio	116	4.9	95.9	4.3	5	1.5	4.1	0.2	121	4.5
Oklahoma	30	1.3	93.8	1.1	2	0.6	6.3	0.1	32	1.2
Oregon	34	1.4	91.9	1.3	3	0.9	8.1	0.1	37	1.4
Pennsylvania	231	9.8	93.5	8.6	16	4.8	6.5	0.6	247	9.2
Puerto Rico	46	1.9	100.0	1.7	0	0.0	0.0	0.0	46	1.7
Rhode Island	17	0.7	100.0	0.6	0	0.0	0.0	0.0	17	0.6
South Carolina	44	1.9	77.2	1.6	13	3.9	22.8	0.5	57	2.1
South Dakota	6	0.3	100.0	0.2	0	0.0	0.0	0.0	6	0.2

TABLE 25. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Tennessee	48	2.0	68.6	1.8	22	6.7	31.4	0.8	70	2.6
Texas	143	6.0	88.8	5.3	18	5.5	11.2	0.7	161	6.0
Utah	10	0.4	62.5	0.4	6	1.8	37.5	0.2	16	0.6
Virginia	74	3.1	80.4	2.7	18	5.5	19.6	0.7	92	3.4
Vermont	9	0.4	90.0	0.3	1	0.3	10.0	0.0	10	0.4
Washington	32	1.4	76.2	1.2	10	3.0	23.8	0.4	42	1.6
Wisconsin	41	1.7	89.1	1.5	5	1.5	10.9	0.2	46	1.7
West Virginia	41	1.7	87.2	1.5	6	1.8	12.8	0.2	47	1.7
Wyoming	4	0.2	100.0	0.1	0	0.0	0.0	0.0	4	0.1
ROW TOTAL (N)	2,367				330				2,697	
(%)	87.8				12.2				100.0	

NOTE: Symmetric lambda = 0.00252; Asymmetric lambda = 0.00303.

TABLE 26. Responses to Question Number Eleven by State Agency.

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Alabama	74	3.0	94.9	2.7	4	2.0	5.1	0.1	78	2.9
Arkansas	49	2.0	94.2	1.8	3	1.5	5.8	0.1	52	1.9
Arizona	27	1.1	75.0	1.0	9	4.4	25.0	0.3	36	1.3
California	62	2.5	86.1	2.3	10	4.9	13.9	0.4	72	2.7
Colorado	34	1.4	89.5	1.3	4	2.0	10.5	0.1	38	1.4
Connecticut	45	1.8	100.0	1.7	0	0.0	0.0	0.0	45	1.7
Dist. of Columbia	18	0.7	100.0	0.7	0	0.0	0.0	0.0	18	0.7
Delaware	9	0.4	100.0	0.3	0	0.0	0.0	0.0	9	0.3
Florida	114	4.6	94.2	4.2	7	3.4	5.8	0.3	121	4.5
Georgia	88	3.5	94.6	3.3	5	2.5	5.4	0.2	93	3.4
Guam	1	0.0	100.0	0.0	0	0.0	0.0	0.0	1	0.0
Hawaii	5	0.2	55.6	0.2	4	2.0	44.4	0.1	9	0.3
Iowa	33	1.3	100.0	1.2	0	0.0	0.0	0.0	33	1.2
Idaho	12	0.5	100.0	0.4	0	0.0	0.0	0.0	12	0.4
Illinois	116	4.6	92.8	4.3	9	4.4	7.2	0.3	125	4.6
Indiana	72	2.9	100.0	2.7	0	0.0	0.0	0.0	72	2.7
Kansas	27	1.1	100.0	1.0	0	0.0	0.0	0.0	27	1.0
Kentucky	74	3.0	92.5	2.7	6	3.0	7.5	0.2	80	3.0
Louisiana	74	3.0	92.5	2.7	6	3.0	7.5	0.2	80	3.0

TABLE 26. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Massachusetts	50	2.0	76.9	1.9	15	7.4	23.1	0.6	65	2.4
Maine	13	0.5	86.7	0.5	2	1.0	13.3	0.1	15	0.6
Michigan	119	4.8	96.7	4.4	4	2.0	3.3	0.1	123	4.6
Minnesota	31	1.2	91.2	1.1	3	1.5	8.8	0.1	34	1.3
Missouri	74	3.0	86.0	2.7	12	5.9	14.0	0.4	86	3.2
Mississippi	35	1.4	97.2	1.3	1	0.5	2.8	0.0	36	1.3
Montana	11	0.4	100.0	0.4	0	0.0	0.0	0.0	11	0.4
North Carolina	108	4.3	93.1	1.3	8	3.9	6.9	0.3	116	4.3
North Dakota	2	0.1	40.0	4.0	3	1.5	60.0	0.1	5	0.2
Nebraska	22	0.9	95.7	0.8	1	0.5	4.3	0.0	23	0.9
New Hampshire	6	0.2	75.0	0.2	2	1.0	25.0	0.1	8	0.3
New Jersey	96	3.8	91.4	3.6	9	4.4	8.6	0.3	105	3.9
New Mexico	19	0.8	100.0	0.7	0	0.0	0.0	0.0	19	0.7
Ohio	119	4.8	98.3	4.4	2	1.0	1.7	0.1	121	4.5
Oklahoma	29	1.2	90.6	1.1	3	1.5	9.4	0.1	32	1.2
Oregon	29	1.2	80.6	1.1	7	3.4	19.4	0.3	36	1.3
Pennsylvania	243	9.7	98.0	9.0	5	2.5	2.0	0.2	248	9.2
Puerto Rico	45	1.8	97.8	1.7	1	0.5	2.2	0.0	46	1.7
Rhode Island	16	0.6	94.1	0.6	1	0.5	5.9	0.0	17	0.6
South Carolina	46	1.8	82.1	1.7	10	4.9	17.9	0.4	56	2.1
South Dakota	6	0.2	100.0	0.2	0	0.0	0.0	0.0	6	0.2

TABLE 26. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Tennessee	63	2.5	88.7	2.3	8	3.9	11.3	0.3	71	2.6
Texas	151	6.1	94.4	5.6	9	4.4	5.6	0.3	160	5.9
Utah	16	0.6	100.0	0.6	0	0.0	0.0	0.0	16	0.6
Virginia	78	3.1	84.8	2.9	14	6.9	15.2	0.5	92	3.4
Vermont	10	0.4	100.0	0.4	0	0.0	0.0	0.0	10	0.4
Washington	36	1.4	81.8	1.3	8	3.9	18.2	0.3	44	1.6
Wisconsin	43	1.7	91.5	1.6	4	2.0	8.5	0.1	47	1.7
West Virginia	42	1.7	93.3	1.6	3	1.5	6.7	0.1	45	1.7
Wyoming	3	0.1	75.0	0.1	1	0.5	25.0	0.0	4	0.1
ROW TOTAL (N)	2,495				203				2,698	
(%)	92.5				7.5				100.0	

NOTE: Symmetric lambda = 0.00415; Asymmetric lambda = 0.00493.

TABLE 27. Responses to Question Number Thirteen by State Agency.

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Alabama	75	3.0	96.2	2.8	3	1.3	3.8	0.1	78	2.9
Arkansas	48	1.9	92.3	1.8	4	1.8	7.7	0.1	52	1.9
Arizona	33	1.3	91.7	1.2	3	1.3	8.3	0.1	36	1.3
California	66	2.7	91.7	2.4	6	2.6	8.3	0.2	72	2.7
Colorado	36	1.5	94.7	1.3	2	0.9	5.3	0.1	38	1.4
Connecticut	41	1.7	91.1	1.5	4	1.8	8.9	0.1	45	1.7
Dist. of Columbia	16	0.6	94.1	0.6	1	0.4	5.9	0.0	17	0.6
Delaware	9	0.4	100.0	0.3	0	0.0	0.0	0.0	9	0.3
Florida	117	4.7	95.9	4.3	5	2.2	4.1	0.2	122	4.5
Georgia	85	3.4	92.4	3.1	7	3.1	7.6	0.3	92	3.4
Guam	1	0.0	100.0	0.0	0	0.0	0.0	0.0	1	0.0
Hawaii	5	0.2	55.6	0.2	4	1.8	44.4	0.1	9	0.3
Iowa	32	1.3	97.0	1.2	1	0.4	3.0	0.0	33	1.2
Idaho	11	0.4	91.7	0.4	1	0.4	8.3	0.0	12	0.4
Illinois	118	4.8	93.7	4.4	8	3.5	6.3	0.3	126	4.7
Indiana	70	2.8	97.2	2.6	2	0.9	2.8	0.1	72	2.7
Kansas	23	0.9	85.2	0.9	4	1.8	14.8	0.1	27	1.0
Kentucky	78	3.2	96.3	2.9	3	1.3	3.7	0.1	81	3.0
Louisiana	74	3.0	91.4	2.7	7	3.1	8.6	0.3	81	3.0

TABLE 27. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Massachusetts	60	2.4	92.3	2.2	5	2.2	7.7	0.2	65	2.4
Maine	15	0.6	100.0	0.6	0	0.0	0.0	0.0	15	0.6
Michigan	121	4.9	97.6	4.5	3	1.3	2.4	0.1	124	4.6
Minnesota	29	1.2	85.3	1.1	5	2.2	14.7	0.2	34	1.3
Missouri	73	3.0	83.0	2.7	15	6.6	17.0	0.6	88	3.3
Mississippi	31	1.3	86.1	1.1	5	2.2	13.9	0.2	36	1.3
Montana	10	0.4	90.9	0.4	1	0.4	9.1	0.0	11	0.4
North Carolina	110	4.4	94.0	4.1	7	3.1	6.0	0.3	117	4.3
North Dakota	5	0.2	100.0	0.2	0	0.0	0.0	0.0	5	0.2
Nebraska	20	0.8	83.3	0.7	4	1.8	16.7	0.1	24	0.9
New Hampshire	4	0.2	50.0	0.1	4	1.8	50.0	0.1	8	0.3
New Jersey	98	4.0	94.2	3.6	6	2.6	5.8	0.2	104	3.8
New Mexico	19	0.8	100.0	0.7	0	0.0	0.0	0.0	19	0.7
Ohio	118	4.8	97.5	4.4	3	1.3	2.5	0.1	121	4.5
Oklahoma	30	1.2	93.8	1.1	2	0.9	6.3	0.1	32	1.2
Oregon	31	1.3	83.8	1.1	6	2.6	16.2	0.2	37	1.4
Pennsylvania	217	8.8	87.9	8.0	30	13.2	12.1	1.1	247	9.1
Puerto Rico	45	1.8	100.0	1.7	0	0.0	0.0	0.0	45	1.7
Rhode Island	14	0.6	82.4	0.5	3	1.3	17.6	0.1	17	0.6
South Carolina	54	2.2	94.7	2.0	3	1.3	5.3	0.1	57	2.1
South Dakota	6	0.2	100.0	0.2	0	0.0	0.0	0.0	6	0.2

TABLE 27. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Tennessee	58	2.3	82.9	2.1	12	5.3	17.1	0.4	70	2.6
Texas	141	5.7	88.7	5.2	18	7.9	11.3	0.7	159	5.9
Utah	12	0.5	75.0	0.4	4	1.8	25.0	0.1	16	0.6
Virginia	81	3.3	88.0	3.0	11	4.8	12.0	0.4	92	3.4
Vermont	9	0.4	90.0	0.3	1	0.4	10.0	0.0	10	0.4
Washington	35	1.4	79.5	1.3	9	3.9	20.5	0.3	44	1.6
Wisconsin	44	1.8	93.6	1.6	3	1.3	6.4	0.1	47	1.7
West Virginia	42	1.7	93.3	1.6	3	1.3	6.7	0.1	45	1.7
Wyoming	4	0.2	100.0	0.1	0	0.0	0.0	0.0	4	0.1
ROW TOTAL (N)	2,474				228				2,702	
(%)	91.6				8.4				100.0	

NOTE: Symmetric lambda = 0.00000; Asymmetric lambda = 0.00000.

TABLE 28. Responses to Question Number Fourteen by State Agency.

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Alabama	73	2.9	93.6	2.7	5	2.2	6.4	0.2	78	2.9
Arkansas	49	2.0	94.2	1.8	3	1.3	5.8	0.1	52	1.9
Arizona	31	1.3	86.1	1.1	5	2.2	13.9	0.2	36	1.3
California	65	2.6	90.3	2.4	7	3.0	9.7	0.3	72	2.7
Colorado	37	1.5	97.4	1.4	1	0.4	2.6	0.0	38	1.4
Connecticut	40	1.6	88.9	1.5	5	2.2	11.1	0.2	45	1.7
Dist. of Columbia	17	0.7	94.4	0.6	1	0.4	5.6	0.0	18	0.7
Delaware	9	0.4	100.0	0.3	0	0.0	0.0	0.0	9	0.3
Florida	112	4.5	91.8	4.1	10	4.3	8.2	0.4	122	4.5
Georgia	86	3.5	92.5	3.2	7	3.0	7.5	0.3	93	3.4
Guam	1	0.0	100.0	0.0	0	0.0	0.0	0.0	1	0.0
Hawaii	6	0.2	66.7	0.2	3	1.3	33.3	0.1	9	0.3
Iowa	31	1.3	93.9	1.1	2	0.9	6.1	0.1	33	1.2
Idaho	12	0.5	100.0	0.4	0	0.0	0.0	0.0	12	0.4
Illinois	119	4.8	94.4	4.4	7	3.0	5.6	0.3	126	4.7
Indiana	71	2.9	98.6	2.6	1	0.4	1.4	0.0	72	2.7
Kansas	24	1.0	88.9	0.9	3	1.3	11.1	0.1	27	1.0
Kentucky	81	3.3	100.0	3.0	0	0.0	0.0	0.0	81	3.0
Louisiana	72	2.9	88.9	2.7	9	3.9	11.1	0.3	81	3.0

TABLE 28. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Massachusetts	40	1.6	61.5	1.5	25	10.8	38.5	0.9	65	2.4
Maine	15	0.6	100.0	0.6	0	0.0	0.0	0.0	15	0.6
Michigan	123	5.0	99.2	4.5	1	0.4	0.8	0.0	124	4.6
Minnesota	32	1.3	94.1	1.2	2	0.9	5.9	0.1	34	1.3
Missouri	73	2.9	83.0	2.7	15	6.5	17.0	0.6	88	3.3
Mississippi	22	0.9	61.1	0.8	14	6.0	38.9	0.5	36	1.3
Montana	10	0.4	90.9	0.4	1	0.4	9.1	0.0	11	0.4
North Carolina	114	4.6	95.8	4.2	5	2.2	4.2	0.2	119	4.4
North Dakota	5	0.2	100.0	0.2	0	0.0	0.0	0.0	5	0.2
Nebraska	20	0.8	83.3	0.7	4	1.7	16.7	0.1	24	0.9
New Hampshire	5	0.2	62.5	0.2	3	1.3	37.5	0.1	8	0.3
New Jersey	99	4.0	95.2	3.7	5	2.2	4.8	0.2	104	3.8
New Mexico	19	0.8	100.0	0.7	0	0.0	0.0	0.0	19	0.7
Ohio	119	4.8	98.3	4.4	2	0.9	1.7	0.1	121	4.5
Oklahoma	29	1.2	93.5	1.1	2	0.9	6.5	0.1	31	1.1
Oregon	29	1.2	78.4	1.1	8	3.4	21.6	0.3	37	1.4
Pennsylvania	236	9.5	95.2	8.7	12	5.2	4.8	0.4	248	9.2
Puerto Rico	45	1.8	100.0	1.7	0	0.0	0.0	0.0	45	1.7
Rhode Island	14	0.6	82.4	0.5	3	1.3	17.6	0.1	17	0.6
South Carolina	54	2.2	94.7	2.0	3	1.3	5.3	0.1	57	2.1
South Dakota	6	0.2	100.0	0.2	0	0.0	0.0	0.0	6	0.2

TABLE 28. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Tennessee	63	2.5	88.7	2.3	8	3.4	11.3	0.3	71	2.6
Texas	145	5.9	90.6	5.4	15	6.5	9.4	0.6	160	5.9
Utah	12	0.5	75.0	0.4	4	1.7	25.0	0.1	16	0.6
Virginia	81	3.3	89.0	3.0	10	4.3	11.0	0.4	91	3.4
Vermont	8	0.3	80.0	0.3	2	0.9	20.0	0.1	10	0.4
Washington	31	1.3	70.5	1.1	13	5.6	29.5	0.5	44	1.6
Wisconsin	43	1.7	91.5	1.6	4	1.7	8.5	0.1	47	1.7
West Virginia	43	1.7	95.6	1.6	2	0.9	4.4	0.1	45	1.7
Wyoming	4	0.2	100.0	0.1	0	0.0	0.0	0.0	4	0.1
ROW TOTAL (N)	2,475				232				2,707	
(%)	91.4				8.6				100.0	

NOTE: Symmetric lambda = 0.00483; Asymmetric lambda = 0.00000.

TABLE 29. Responses to Question Number Fifteen by State Agency.

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Alabama	67	2.9	85.9	2.5	11	2.7	14.1	0.4	78	2.9
Arkansas	48	2.1	92.3	1.8	4	1.0	7.7	0.1	52	1.9
Arizona	31	1.4	86.1	1.1	5	1.2	13.9	0.2	36	1.3
California	55	2.4	76.4	2.0	17	4.2	23.6	0.6	72	2.7
Colorado	26	1.1	68.4	1.0	12	2.9	31.6	0.4	38	1.4
Connecticut	34	1.5	75.6	1.3	11	2.7	24.4	0.4	45	1.7
Dist. of Columbia	14	0.6	77.8	0.5	4	1.0	22.2	0.1	18	0.7
Delaware	7	0.3	77.8	0.3	2	0.5	22.2	0.1	9	0.3
Florida	100	4.4	82.6	3.7	21	5.1	17.4	0.8	121	4.5
Georgia	81	3.5	88.0	3.0	11	2.7	12.0	0.4	92	3.4
Guam	1	0.0	100.0	0.0	0	0.0	0.0	0.0	1	0.0
Hawaii	4	0.2	44.4	0.1	5	1.2	55.6	0.2	9	0.3
Iowa	30	1.3	90.9	1.1	3	0.7	9.1	0.1	33	1.2
Idaho	11	0.5	91.7	0.4	1	0.2	8.3	0.0	12	0.4
Illinois	113	4.9	89.7	4.2	13	3.2	10.3	0.5	126	4.7
Indiana	70	3.1	97.2	2.6	2	0.5	2.8	0.1	72	2.7
Kansas	23	1.0	85.2	0.9	4	1.0	14.8	0.1	27	1.0
Kentucky	69	3.0	85.2	2.6	12	2.9	14.8	0.4	81	3.0
Louisiana	67	2.9	82.7	2.5	14	3.4	17.3	0.5	81	3.0

TABLE 29. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Massachusetts	41	1.8	63.1	1.5	24	5.9	36.9	0.9	65	2.4
Maine	12	0.5	80.0	0.4	3	0.7	20.0	0.1	15	0.6
Michigan	121	5.3	97.6	4.5	3	0.7	2.4	0.1	124	4.6
Minnesota	30	1.3	88.2	1.1	4	1.0	11.8	0.1	34	1.3
Missouri	63	2.7	71.6	2.3	25	6.1	28.4	0.9	88	3.3
Mississippi	19	0.8	52.8	0.7	17	4.2	47.2	0.6	36	1.3
Montana	10	0.4	90.9	0.4	1	0.2	9.1	0.0	11	0.4
North Carolina	112	4.9	94.1	4.1	7	1.7	5.9	0.3	119	4.4
North Dakota	5	0.2	100.0	0.2	0	0.0	0.0	0.0	5	0.2
Nebraska	19	0.8	82.6	0.7	4	1.0	17.4	0.1	23	0.9
New Hampshire	5	0.2	62.5	0.2	3	0.7	37.5	0.1	8	0.3
New Jersey	86	3.8	82.7	3.2	18	4.4	17.3	0.7	104	3.9
New Mexico	17	0.7	89.5	0.6	2	0.5	10.5	0.1	19	0.7
Ohio	115	5.0	95.0	4.3	6	1.5	5.0	0.2	121	4.5
Oklahoma	30	1.3	93.8	1.1	2	0.5	6.3	0.1	32	1.2
Oregon	28	1.2	75.7	1.0	9	2.2	24.3	0.3	37	1.4
Pennsylvania	226	9.9	91.1	8.4	22	5.4	8.9	0.8	248	9.2
Puerto Rico	44	1.9	100.0	1.6	0	0.0	0.0	0.0	44	1.6
Rhode Island	12	0.5	70.6	0.4	5	1.2	29.4	0.2	17	0.6
South Carolina	50	2.2	87.7	1.9	7	1.7	12.3	0.3	57	2.1
South Dakota	4	0.2	66.7	0.1	2	0.5	33.3	0.1	6	0.2

TABLE 29. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Tennessee	57	2.5	81.4	2.1	13	3.2	18.6	0.5	70	2.6
Texas	143	6.2	89.4	5.3	17	4.2	10.6	0.6	160	5.9
Utah	10	0.4	62.5	0.4	6	1.5	37.5	0.2	16	0.6
Virginia	65	2.8	72.2	2.4	25	6.1	27.8	0.9	90	3.3
Vermont	8	0.3	80.0	0.3	2	0.5	20.0	0.1	10	0.4
Washington	27	1.2	62.8	1.0	16	3.9	37.2	0.6	43	1.6
Wisconsin	43	1.9	91.5	1.6	4	1.0	8.5	0.1	47	1.7
West Virginia	37	1.6	82.2	1.4	8	2.0	17.8	0.3	45	1.7
Wyoming	3	0.1	75.0	0.1	1	0.2	25.0	0.0	4	0.1
ROW TOTAL (N)	2,293				408				2,701	
(%)	84.9				15.1				100.0	

NOTE: Symmetric lambda = 0.00140; Asymmetric lambda = 0.00245.

TABLE 30. Responses to Question Number Sixteen by State Agency.

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Alabama	78	3.0	98.7	2.9	1	1.0	1.3	0.0	79	2.9
Arkansas	51	2.0	98.1	1.9	1	1.0	1.9	0.0	52	1.9
Arizona	34	1.3	94.4	1.3	2	1.9	5.6	0.1	36	1.3
California	70	2.7	97.2	2.6	2	1.9	2.8	0.1	72	2.7
Colorado	37	1.4	97.4	1.4	1	1.0	2.6	0.0	38	1.4
Connecticut	44	1.7	97.8	1.6	1	1.0	2.2	0.0	45	1.7
Dist. of Columbia	16	0.6	88.9	0.6	2	1.9	11.1	0.1	18	0.7
Delaware	9	0.3	100.0	0.3	0	0.0	0.0	0.0	9	0.3
Florida	120	4.6	98.4	4.4	2	1.9	1.6	0.1	122	4.5
Georgia	90	3.4	96.8	3.3	3	2.9	3.2	0.1	93	3.4
Guam	1	0.0	100.0	0.0	0	0.0	0.0	0.0	1	0.0
Hawaii	9	0.3	100.0	0.3	0	0.0	0.0	0.0	9	0.3
Iowa	32	1.2	97.0	1.2	1	1.0	3.0	0.0	33	1.2
Idaho	12	0.5	100.0	0.4	0	0.0	0.0	0.0	12	0.4
Illinois	119	4.6	94.4	4.4	7	6.7	5.6	0.3	126	4.6
Indiana	71	2.7	98.6	2.6	1	1.0	1.4	0.0	72	2.7
Kansas	26	1.0	96.3	1.0	1	1.0	3.7	0.0	27	1.0
Kentucky	78	3.0	96.3	2.9	3	2.9	3.7	0.1	81	3.0
Louisiana	80	3.1	98.8	2.9	1	1.0	1.2	0.0	81	3.0

TABLE 30. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Massachusetts	63	2.4	96.9	2.3	2	1.9	3.1	0.1	65	2.4
Maine	12	0.5	80.0	0.4	3	2.9	20.0	0.1	15	0.6
Michigan	120	4.6	96.8	4.4	4	3.8	3.2	0.1	124	4.6
Minnesota	28	1.1	82.4	1.0	6	5.8	17.6	0.2	34	1.3
Missouri	85	3.3	96.6	3.1	3	2.9	3.4	0.1	88	3.2
Mississippi	31	1.2	86.1	1.1	5	4.8	13.9	0.2	36	1.3
Montana	10	0.4	90.9	0.4	1	1.0	9.1	0.0	11	0.4
North Carolina	114	4.4	97.4	4.2	3	2.9	2.6	0.1	117	4.3
North Dakota	5	0.2	100.0	0.2	0	0.0	0.0	0.0	5	0.2
Nebraska	20	0.8	83.3	0.7	4	3.8	16.7	0.1	24	0.9
New Hampshire	6	0.2	75.0	0.2	2	1.9	25.0	0.1	8	0.3
New Jersey	102	3.9	98.1	3.8	2	1.9	1.9	0.1	104	3.8
New Mexico	19	0.7	100.0	0.7	0	0.0	0.0	0.0	19	0.7
Ohio	120	4.6	99.2	4.4	1	1.0	0.8	0.0	121	4.5
Oklahoma	31	1.2	96.9	1.1	1	1.0	3.1	0.0	32	1.2
Oregon	34	1.3	91.9	1.3	3	2.9	8.1	0.1	37	1.4
Pennsylvania	244	9.3	98.4	9.0	4	3.8	1.6	0.1	248	9.1
Puerto Rico	44	1.7	100.0	1.6	0	0.0	0.0	0.0	44	1.6
Rhode Island	17	0.7	100.0	0.6	0	0.0	0.0	0.0	17	0.6
South Carolina	57	2.2	100.0	2.1	0	0.0	0.0	0.0	57	2.1
South Dakota	6	0.2	100.0	0.2	0	0.0	0.0	0.0	6	0.2

TABLE 30. (Continued)

State Agency	Responses: YES Count	YES Row %	YES Column %	YES Total %	NO Count	NO Row %	NO Column %	NO Total %	Column (N)	Total (%)
Tennessee	64	2.5	90.1	2.4	7	6.7	9.9	0.3	71	2.6
Texas	155	5.9	96.3	5.7	6	5.8	3.7	0.2	161	5.9
Utah	17	0.7	100.0	0.6	0	0.0	0.0	0.0	17	0.6
Virginia	85	3.3	91.4	3.1	8	7.7	8.6	0.3	93	3.4
Vermont	8	0.3	80.0	0.3	2	1.9	20.0	0.1	10	0.4
Washington	43	1.6	93.5	1.6	3	2.9	6.5	0.1	46	1.7
Wisconsin	45	1.7	95.7	1.7	2	1.9	4.3	0.1	47	1.7
West Virginia	44	1.7	93.6	1.6	3	2.9	6.4	0.1	47	1.7
Wyoming	4	0.2	100.0	0.1	0	0.0	0.0	0.0	4	0.1
ROW TOTAL (N)	2,610				104				2,714	
(%)	96.2				3.8				100.0	

NOTE: Symmetric lambda = 0.00156; Asymmetric lambda = 0.00000.

VITA

Richard Frank Bynum was born in Chicago, Illinois, on November 21, 1935. He graduated from high school in June, 1954 and entered Florida State University in 1955. In June of 1960 he graduated with a Bachelor of Science in Health Education and subsequently worked for the Florida State Board of Health as a Health Field Officer.

In 1961 he began working as a Disability Adjudicator for the Florida State Department of Vocational Rehabilitation, Bureau of Disability Determinations. In 1969 he received a Master of Science degree in Vocational Rehabilitation Counseling.

In 1971 he went to The University of Tennessee to develop graduate level courses for the Disability Examiner Education Program. The courses were developed under the sponsorship of the Social Security Administration and were approved by The University of Tennessee Graduate Curriculum Committee in 1972. Since 1972 he has taught these courses on The University of Tennessee, Knoxville campus.

In June of 1978 he received the Doctor of Education degree with a major in Health Education and collateral areas in Curriculum and Instruction and in Vocational Rehabilitation.