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## ABSTRACT

### A CONCURRENT VALIDITY STUDY OF COUNSELOR PERFORMANCE ON THE C.R.C.C.\* FIELD REVIEW UTILIZING DEMOGRAPHIC INFORMATION

By

Roger Livingston

Since the Spring of 1970 there has been considerable discussion and activity in the field of rehabilitation counseling to establish professional standards and a criteria by which the public can evaluate individuals that provide rehabilitation services. The original impetus for this came from both the National Rehabilitation Counseling Association (NRCA) and American Rehabilitation Counseling Association (ARCA) and eventually resulted in the formation of the Commission on Rehabilitation Counselor Certification (CRCC). To this group of twelve individuals fell the responsibility of establishing professional standards for eligibility for Certification as a Rehabilitation Counselor. Incorporated in January 1974 the Commission on Rehabilitation Counselor Certification has since developed a Field Review examination. A demographic questionnaire was also

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\*The data base used in this research is owned by the Commission on Rehabilitation Counselor Certification.

developed and these two instruments have provided a wealth of information to describe certification applicants.

The need for this type of information was considered to be imperative if the field of rehabilitation counseling was to continue to be a leader in providing a highly professional service delivery and if the qualifications of rehabilitation counselors was to be standardized.

The Field Review examination contained 120 multiple choice questions that were primarily practice based in the following content areas: (a) rehabilitation philosophy, history and structure, (b) medical aspects of disability, (c) psychosocial aspects of disability, (d) occupational information, (e) counseling theory and techniques, (f) community organization and resources, (g) placement processes and job development, (h) the psychology of personal and vocational adjustment, (i) evaluation and assessment, and (j) the ability to use research findings and professional publications.

The demographic questionnaire addressed such areas as: (a) ratings of training, (b) desired job activity versus preferred job activity, (c) professional activities (conventions attended, professional journals read and recent training), (d) years experience in counseling, (e) graduate and undergraduate training, (f) frequency and helpfulness of in-service training, (g) job satisfaction, and numerous other areas.

The subjects of this research were 3,982 individuals who volunteered to apply for certification as Rehabilitation Counselors and completed the process in July and October 1975. This figure represented more than one-third of all of the nearly 10,000 individuals that have been certified at this time.

The Field Review Examination results and the Demographic questionnaire were utilized in this research to clarify and identify relationships between individual characteristics of applicants for certification as rehabilitation counselors and their performance on a practice based field examination and to establish the concurrent validity of these instruments.

Twelve statistically significant variables were identified on which the validity of these instruments could be based. The correlation coefficients found were low (less than .20) but these coefficients were considerably larger than their standard errors. Very rarely could the degree of correlation found occur by random sampling in a population where two variables are actually uncorrelated.

Additional findings of this research were that:

(1) supervisors attended more State, Regional, and National meetings than do counselors, (2) years of experience as a counselor had a minimal relationship to field review examination scores, (3) generally, counselors were engaged in the activities they desired for the percentage of time per week that they desired with one notable exception, that



being paper work, (4) individuals with Master's degrees in Rehabilitation Counseling generally scored higher on the field review than individuals with M.A.'s in all other fields combined; (5) counselor educators scored significantly higher on the field review than any other group, (6) there was no practical or meaningful evidence to support the notion of a relationship between ratings of training and field review sub-test performance, and (7) error in predicting field review scores through the use of demographic variables could only be reduced by approximately 14 percent through the use of multiple regression analysis.

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PERFORMANCE ON THE C.R.C.C. FIELD  
REVIEW UTILIZING DEMOGRAPHIC  
INFORMATION

By

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A DISSERTATION

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To my wife, Nancy, and  
my sons, Troy and Todd

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## TABLE OF CONTENTS

	Page
LIST OF TABLES . . . . .	vii
LIST OF FIGURES. . . . .	x
 Chapter	
I. INTRODUCTION . . . . .	1
Introductory Statement . . . . .	1
Statement of the Problem. . . . .	2
Need for the Study. . . . .	4
Questions to be Addressed by this Study . . . . .	7
Definition of Terms . . . . .	8
Summary . . . . .	9
II. SURVEY OF THE LITERATURE . . . . .	11
Introductory Statement . . . . .	11
Certification . . . . .	11
Biographical Information. . . . .	17
Reliability and Validity of Self- reports. . . . .	21
III. METHODOLOGY. . . . .	24
Selection of Research Participants . . . . .	24
Development of Experimental Materials . . . . .	24
Instrumentation. . . . .	26
Introductory Statement. . . . .	26
Demographic Questionnaire. . . . .	27
Field Review Examination . . . . .	28
Reliability. . . . .	34
Validity. . . . .	38
Hypotheses . . . . .	65
Statistical Analyses . . . . .	67

Chapter	Page
IV. RESULTS. . . . .	68
Introductory Statement . . . . .	68
Results of Analyses . . . . .	68
Summary of Results . . . . .	119
V. DISCUSSION. . . . .	121
Introductory Statement . . . . .	121
Results and Implications Regarding the Validity of the Fiew Review. . . . .	121
The Effects of Professional Activities and Training on Field Review Performance . . . . .	123
Limitations of the Research . . . . .	126
Implications for Future Research. . . . .	126
Conclusions. . . . .	127
APPENDICES	
Appendix .	
A. Standards for Eligibility for Certification. . . . .	130
B. Demographic Questionnaire. . . . .	140
C. Reliability Analyses--July and October 1975 Field Review . . . . .	152
D. Correlation Analyses Demographic Variables by Field Review Scores . . . . .	162
E. Cross Tabulations--Area of Practice by State, Regional and National Meetings Attended. . . . .	168
BIBLIOGRAPHY . . . . .	177

## LIST OF TABLES

Table	Page
3.0 July and October Field Review Sub-test Categories and Number of Items in Each by Test Form. . . . .	32
3.1 t-test Analysis Between July and October Demographic Variables. . . . .	42
3.2 Common Significant Correlation Coefficients . .	46
3.3 July Multiple Regression Analysis Summary. . .	50
3.4 July Cross Validation Regression Analysis Summary . . . . .	53
3.5 October Multiple Regression Analysis Summary. .	56
3.6 October Cross Validation Regression Analysis Summary . . . . .	60
3.7 Common Variables and Regression Weights in Regression Analysis . . . . .	63
3.8 Common Variables and Regression Weights in Regression Analysis for Total Groups. . . .	64
4.0 Chi-Square Analysis--July. Area of Practice by State, Regional, and National Meetings Attended . . . . .	71
4.1 Chi-Square Analysis--October. Area of Practice by State, Regional, and National Meetings Attended . . . . .	73
4.2 Chi-Square Analysis--July and October. Area of Practice by State, Regional, and National Meetings Attended . . . . .	75



Table	Page
4.3 One-way ANOVA--July and October--Total Score by Years of Experience. . . . .	77
4.4 Personal Counseling: Work Activity vs. Preferred Work Activity . . . . .	80
4.5 Vocational Counseling: Work Activity vs. Preferred Work Activity . . . . .	83
4.6 Contact with Other Agencies: Work Activity vs. Preferred Work Activity . . . . .	85
4.7 Case Finding: Work Activity vs. Preferred Work Activity. . . . .	87
4.8 Job Development: Work Activity vs. Preferred Work Activity. . . . .	89
4.9 Job Placement: Work Activity vs. Preferred Work Activity. . . . .	91
4.10 Administrative Work: Work Activity Preferred Work Activity. . . . .	93
4.11 Research and Evaluation: Work Activity vs. Preferred Work Activity . . . . .	95
4.12 Program Development: Work Activity vs. Preferred Work Activity . . . . .	97
4.13 Paper Work: Work Activity vs. Preferred Work Activity. . . . .	99
4.14 Multiple Handicapped: Work Activity vs. Preferred Work Activity . . . . .	101
4.15 t-test--Current Mean Percentage of Time Spent vs. Desired Mean Percentage of Time . . . . .	103
4.16 Correlations Between Ratings of Training and Field Review Sub-test Performance . . . . .	105
4.17 One-way ANOVA--Field Review Scores by Hours of Individual Supervision--July and October . . . . .	107

Table	Page
4.18 One-way ANOVA--Field Review Score by Hours of Group Supervision--July and October. . . .	110
4.19 One-way ANOVA--Field Review Scores by Graduate Major. . . . .	112
4.20 One-way ANOVA--Field Review Scores by Area of Specialization in Practice. . . . .	114
4.21 One-way ANOVA--Field Review Scores by Helpfulness of In-Service Training . . . .	117

## LIST OF FIGURES

Figure	Page
3.0 Typical Demographic Profile of Certification Candidates--July and October 1975. . . .	35

## CHAPTER I

### INTRODUCTION

#### Introductory Statement

The field of rehabilitation counseling has had a number of different emphases, since its inception in the 1920s, primarily because of legislation which has had a direct impact on the role and function of the counselor as well as the type of academic training received.

Rehabilitation is a generic term under which a wide range of activities are subsumed. It deals with restoring an individual to a "normal" or optimum state of health or constructive activity. The techniques to accomplish this restoration are extensive and include such activities as medical treatment and physical and psychological therapy, to mention a few.

The rehabilitation counseling profession is made up of individuals who are trained to function in a counseling relationship with a wide range of handicapped clients. Their counseling facilitates the activities which lead to rehabilitation. Within this group are individuals trained specifically in rehabilitation counseling as well as individuals trained in social work or psychology. Despite

this variety of training backgrounds each qualify for rehabilitation positions because of existing patterns of service and the wide range of activities encompassed by the field of rehabilitation counseling. The Rehabilitation Act of 1973, and the 1974 Amendments, mandates that these individuals provide services to the severely disabled prior to any other disabled individuals that have applied. In previous legislation the priority of selection of clients concentrated on the disadvantaged and resulted in agencies tending to deny service to the severely disabled as being non-feasible for service. The present focus on the severely disabled has resulted in counselors being faced with a new emphasis and challenge in their case loads.

Shifting program priorities and requirements of federal legislation present a quandry as related to the training of rehabilitation counselors and their specific role and function as rehabilitation professionals. Of broader concern is a method of determining who the qualified individuals are who can provide "Vocational Rehabilitation Services" so that there "is restoration of the handicapped to the fullest physical, mental, social, vocational and economic usefulness of which they are capable" (National Council of Rehabilitation, 1958).

#### Statement of the Problem

The concern of two professional associations--  
National Rehabilitation Counseling Association (NRCA) and

American Rehabilitation Counseling Association (ARCA) has led to the formation of a Commission to establish standards and administer an examination for rehabilitation counselors to become certified. This certification is a major step toward providing the general public with a criterion upon which one can evaluate the qualifications of individuals in rehabilitation counseling and can serve to identify and clarify training requirements for the certified counselor. The activity and discussion toward certification of these two groups began in the Spring of 1970 primarily because of a need for professional standards to be developed for the practice of rehabilitation counseling. Combined with these factors is recent legislation, The Rehabilitation Act of 1973 and the 1974 Amendments, which placed a new emphasis on continuing education for the rehabilitation counselor. The emphasis is a renewed one but continuing education, including in-service training, has been a required part of each state plan since the 1954 Amendment to the Vocational Rehabilitation Act. The current legislation has led to the formation of twelve Rehabilitation Continuing Education programs that are to establish a mechanism to:

1. train newly employed and inexperienced rehabilitation counseling personnel of state vocational rehabilitation agencies in the basic knowledge and skills of rehabilitation counseling in the public program;
2. train newly employed state agency staff at the administrative, supervisory, professional, sub-professional, or clerical levels in order to develop skills for effective agency performance;

3. provide training opportunities for experienced state agency personnel at all levels of state agency practice to upgrade their skills and develop mastery of new program developments dealing with significant issues, priorities, and legislative thrust of the state/federal vocational rehabilitation program;
4. develop and conduct training programs for staff of private rehabilitation agencies and facilities which participate closely with state rehabilitation agencies in the delivery of vocational rehabilitation services; and
5. assist the state vocational rehabilitation agencies in planning and conducting ongoing staff development programs.

This legislation and the concern of both ARCA and NRCA suggests that an examination of current and previous education and training programs as well as professional activities of the counselors is a logical and necessary step.

The divergence in background of rehabilitation counselors, shifting requirements of federal legislation, concern of professional organizations and consumer groups and varying in-service programs as well as professional activities of the counselor were all considered in constructing materials related to certification. These factors present a formidable challenge which must be responded to immediately if rehabilitation counseling is to continue the development of its professional stature.

#### Need for the Study

The enactment of the Vocational Rehabilitation Act of 1954 (Public Law 83-565) made available training grants which provided incentive for many universities and colleges to begin graduate rehabilitation counseling education (RCE)

programs. Numerous conferences on rehabilitation counselor education and research studies on the role and function of the rehabilitation counselor were conducted to aid in the development of curriculum guidelines. The guidelines which resulted were not inclusive and specific courses and content became the responsibility of administrators of RCE programs. In a recent study by the Council on Rehabilitation Education (CORE) to establish an accreditation procedure for master's level rehabilitation counseling programs a difference was found with respect to the emphasis placed on the various aspects of rehabilitation counselor training (Wright, Reagles & Scorzelli, 1973).

In addition to providing training grants for rehabilitation counselor education, the Vocational Rehabilitation Act of 1954 required that in-service training be a part of each state plan. In-service training involves special courses or workshops, given to state agency employees in connection with their work to help them develop skills. This continued training appears to be a must because an estimated 30 percent or less of rehabilitation counselors are fully qualified by academic training and experience (Muthard & Miller, 1966) to perform the functions of a rehabilitation counselor. This factor, complicated by the fact that in-service training is known to vary in both quantity and quality (McAlees & Corthell, 1972) suggests that clarification of in-service training needs is necessary.



An adjunct to in-service training involves other professionalizing activities such as the number of journals read and professional meetings attended. There appears to be considerable variability in this area according to personal observation and a study conducted by Hagan, Haug and Sussman (1975).

A recent article in the Journal of Rehabilitation, "RRCEP's Director Discuss Continuing Education" suggests wide variation in the implementation of guidelines for RRCEP's which were discussed at length previously.

The present study cannot change what has happened in the past in the training of rehabilitation counselors nor can it change the quality of services rendered to clients. A major step can be taken in influencing academic and in-service training as well as professional activities if (1) counselor characteristics and professional experiences that influence their performance on the examination created by the Commission on Rehabilitation Counselor Certification (CRCC) are identified, and (2) counselor perceptions of their academic training and its relationship to their performance on this examination are clarified and identified.

The certification procedure for rehabilitation counselors, during the grandpersoning period, has generated considerable data on approximately 4,000 of the 8,000 applicants. These data are in the form of both demographic characteristics and examination scores. Fortunately with

the increasing availability of computers and useful practical tools that have grown out of statistical theory such as multiple regression analysis, a technology does exist for examining a large population and a complexity of variables such as those with which this study is faced.

This study, because of its large population will also provide a more definitive picture of rehabilitation counselor characteristics than those conducted by Muthard and Salomone (1969) and Hagan, Haug and Sussman (1975). It is anticipated that this study will aid in meeting the mandates of the Rehabilitation Act of 1973 as related to the continuing education of rehabilitation personnel and will, hopefully, reinforce the "Statement of Policy on the Professional Preparation of Rehabilitation Counselors" prepared by the American Rehabilitation Counseling Association in 1974.

#### Questions to be Addressed by this Study

The following questions serve to focus the major research intent of this study:

1. Can an additive combination of predictor variables, e.g., training, academic and in-service training, and professional activities, be identified to predict certification field review scores?
2. How do "years of experience" as a counselor influence performance on the certification field review?

3. How do the individuals' daily working activities differ from what they would like it to be?
4. How do the number of hours of supervision in practicum influence field review scores?
5. How do individuals with different M.A. majors perform on the certification field review?
6. How do individuals with different areas of specialization on their current job perform on the certification field review?
7. How do individuals' perceived training inadequacies relate to their performance on the certification field review sub-tests?

#### Definition of Terms

Definitions of key terms used in this research will follow to provide a common understanding of the terms.

1. Commission on Rehabilitation Counselor Certification (CRCC). McAlees (1975) indicates that, "the commission consists of five appointees from ARCA, five appointees from NRCA, and one each from the Council of Rehabilitation Educators, Council of State Administrators of Vocational Rehabilitation, International Association of Rehabilitation Facilities, National Association of Non-White Rehabilitation Workers, Council of Rehabilitation Counselor Education, and a representative from a national consumer organization" (p. 160).

2. Field Review. A practice-based examination which emphasizes the application of knowledge in managing clients rather than on isolated bits of factual information. Items were written by a committee of commission members. An item pool exists from which items are drawn for each form on each administration.

3. Demographic Form. A questionnaire containing 64 items in areas such as education, job characteristics and satisfaction, and also inquiring into family background. The information is provided by each subject thus making it biographical in nature.

4. American Rehabilitation Counseling Association (ARCA). A division of the American Personnel and Guidance Association (APGA) that is dedicated to the development of rehabilitation counseling as a profession.

5. National Rehabilitation Counseling Association (NRCA). A professional division of the National Rehabilitation (NRA) that is dedicated to lifting the professionalism of rehabilitation counseling practice for serving disabled people and is involved in the professional development of all persons involved in the practice of rehabilitation counseling.

### Summary

The field of rehabilitation counseling and particularly rehabilitation counselor educators and administrators are faced with a complex problem of providing

relevant academic and in-service training programs to current and future counselors. The shifting requirements of federal legislation further complicate these problems. These factors plus diversity in academic programs, rehabilitation continuing education programs and in-service training programs make it difficult to identify those individuals best qualified to provide services to the handicapped individuals who seek services from private and public rehabilitation agencies and facilities.

A certification procedure for rehabilitation counselors has been established which may provide a mechanism to standardize the qualifications of rehabilitation counseling professionals. Through the use of self-reported demographic information and field review scores this study will attempt to identify relevant characteristics of individuals and training factors that influence rehabilitation counselor performance on the field review. Identification of these factors will hopefully lead to cohesiveness in the overall training of rehabilitation professionals thus making certification a viable means of identifying them. Certification should also provide some assurance to the consumer of rehabilitation services of a highly professional service delivery.

## CHAPTER II

### SURVEY OF THE LITERATURE

#### Introductory Statement

In accord with the focus of this study which is to identify characteristics of rehabilitation counselors through the use of self-reported demographic information and the relationship between these data and certification field review scores, three areas of relevant research literature were surveyed. The first concerned certification of professionals, particularly rehabilitation counselors. The second concerned the use of biographical information in descriptive and predictive studies, and the third deals with the use of self-reported inventories such as biographical forms.

#### Certification

Selden (1972) as director of a project entitled, "The Study of Accreditation of Selected Health Educational Programs" enumerated four definitions of certification and related concepts which should lead to a clarification of the screening activities utilized in recognizing and controlling professional organizations. The four definitions are as follows:

Accreditation is the process by which an agency or organization evaluates and recognizes a program of study or an institution as meeting certain predetermined qualifications or standards.

Certification is the process by which a non-governmental agency or association grants recognition to an individual who has met certain predetermined qualifications specified by that agency or association.

Licensure is the process by which an agency of government grants permission to persons meeting predetermined qualifications to engage in a given occupation and/or use a particular title, or grants permissions to institutions to perform specified functions.

Registration is the process by which qualified individuals are listed on an official roster maintained by a governmental or non-governmental agency. (Selden, 1972, p. 39)

It is obvious by these definitions that there is a strong relationship among the four concepts. In many professional and governmental certification, licensure, or registration procedures it is required that individuals have been graduated from an accredited program of study.

Certification, licensure and registration for individuals to practice in a variety of areas is not new. Medical specialties, for example, have met licensure requirements for nearly a century, in this country, but for the social sciences the process is relatively new. In medical specialties such as Urology and Otolaryngology Certification involves a very small and specific population. A minimal amount of demographic information is collected and it is obtained on the application blank for certification rather than on a separate questionnaire. For

certification within their specialties they must demonstrate competence on a lengthy and highly technical written examination (Natress, 1976).

Implicit in certification, licensure or registration is the notion of control. Members of a profession, any profession, feel that they are best qualified to judge the competency of fellow members and that they can provide some protection, to the public, from unscrupulous and inadequate practitioners (Selden, 1972). Selden (1972) states, "the basic assumption behind control is that only the members of the profession know what would be best for the profession and what would be best for society, and that they could best decide, if there ever should be a conflict between these two interests" (p. 40).

The Secretary of the Department of Health, Education, and Welfare in a report to the United States Congress (June 1971) on Licensure and Related Health Personnel Credentialing addressed the issue of control:

Only a few years ago, issues such as licensing, certification, and accreditation were generally thought to be the concern of only the professional individuals and organizations that were affected by them. The public policy aspects of these issues were not often perceived by decisions-makers long accustomed to the guild traditions that have characterized attitudes in this area. Today, these matters are not immune from public criticism; and the responsibility of both public and private leadership is to fuse health-manpowering credentialing with the public interest. (Selden, 1972, p. 40).

Concerned individuals within the field of rehabilitation counseling had taken notice of public and



professional demands for credibility within the profession prior to the aforementioned address.

In the Spring of 1970 G. D. Carnes, of the University of Texas†Austin, was appointed chairman of a Joint Certification Committee composed of members of ARCA and NRCA. This committee evolved as a result of concern, for the professional status and future of rehabilitation counseling. The task was monumental but their efforts resulted in a certification philosophy (Appendix A) which spelled out problems as well as how certification could be established. They also formulated plans for a national attitude survey on the subject of certification.

The members of NRCA took part in the proposed national survey. The response was minimal, 200 respondents, but somewhat paralleled the recommendations of the Joint NRCA-ARCA Certification Committee (Parker, 1972). The results indicated that:

the respondents clearly agreed that Rehabilitation--Counselor Certification was needed, although only 55% thought there was substantial interest among Rehabilitation Counselors to support a certification program. A majority (69.7%) felt unionization was not a reasonable alternative to certification. A majority also agreed that certification standards should strongly influence university Rehabilitation Counselor Program content and state rehabilitation agencies' employment practices, and that some special recognition needs be given to those who might not meet the standards for professional Rehabilitation Counselor Certification. Finally, the majority of respondents indicated that those individuals with less than a Bachelor's Degree should not receive certification as a professional Rehabilitation Counselor regardless of experience (Parker, 1972, p. 176).

Evolving from the Joint ARCA-NRCA Committee on Certification was the Commission on Rehabilitation Counselor Certification which was incorporated in January 1974 and chaired by Daniel C. McAlees, of the University of Northern Colorado. Early tasks of the Commission included securing bids on a contract to develop evaluation instruments and procedures for the certification process, final drafts of Standards of Eligibility for certification and the issue of the grandpersoning process.

The work of the Commission has continued with Standards for Eligibility for certification being completed (Appendix A) and the grandfathering certification period taking place between July 1, 1974, and October 21, 1975. Also during this time a field review examination was formulated and tested for item difficulty and reliability. Certification by Examination began in April 1976 with a somewhat modified set of Standards of Eligibility (Appendix A).

Certification of rehabilitation counselors has become a reality over this six year period with individuals speaking for and against the process. Thoreson (1971) felt that the work of the Carnes committee was "a good provisional measure to solve immediate crisis, namely the press of legislatures and employing agencies. But for the future, we should look more to the nature of the professional rather than the training that produced past success" (p. 83). Miller (1971) regarding certification stated,

"Now, wait, let me see, uh, is that really what I want . . ." (p. 85). On the other hand, McAlees (1975) feels that the "intent of certification is to establish a national professional scale which any interested group, agency, or individual may use as a measure" and "aside from establishing a good measure of professional qualifications for the counselor, certification will further the public interest and the confidence of other professions and clients" (p. 163).

Rehabilitation counseling has taken steps through this certification process to become a leader as it moves into the 1980s. In a recent study by Jones (1976) it was reported that more than one-half of the state supervisors, in his study, in the field of guidance did not anticipate the licensure of counselors in the foreseeable future. Controversy abounds on the issue of licensure and certification. Both American Psychological Association and American Personnel and Guidance Association are currently in the investigative phase of licensure on a national basis with certification for certain levels or areas of expertise (Guidepost, 1975b). Both groups are also active in encouraging state legislation in the area of Licensure (Jones, 1976).

Rehabilitation counseling, certified rehabilitation counselors and the Commission on Rehabilitation Counselor Certification hopefully will have significant impact and input on these problems so that issues regarding licensure

and certification will be resolved to the benefit of the counselor and the public at large.

### Biographical Information

Demographic information has been collected through the use of biographical information forms by personnel men and psychologists since the beginning of industrial and personnel research. This utilization continues today in such diverse areas as rehabilitation counselor certification and in the determination of the posthospital employment and readmission of psychiatric patients (Lorei & Gurel, 1972; 1973).

Biographical items appear to have a number of advantages over the usual trait descriptive items. They are easier to write unambiguously, they invite less falsification and they have been more valid in predicting such criteria as vocational success (Nunnally, 1959).

Biographical inventories have had considerable use because "it surveys experience more economically than the interview . . . it lends itself to quantitative treatment" (Super, 1951). Furthermore, Henry (1965) asserts, "Invariably biographical information has been found to be the best single predictor of future behavior . . . of a total or complex nature . . ." (p. i). The notion that the best predictor of future performance is past performance has also been proposed by Super (1951) and Owens (1968; 1971) in their research with biographical information.

The use of bio-data forms has been quite diverse and pervasive. Bozarth (1966) in an extensive review of the literature on biographical information forms reported:

The forerunner of the biographical data form is the weighted application blank, which has been applied to office jobs (Kirchner & Dunnette, 1957), sales clerks (Mozel & Wade, 1951), clerical work (Kreidt & Gadel, 1953) and seasonal employees (Dunnette, 1955). Combined data, including biographical questionnaires, have ranged in use from the selection of service station managers (Soar, 1956) to the selection of salesman in manufacturing (Obmann, 1941). Prediger (1956), however, concludes that biographical data has little to offer to the prediction of persistence with college males when ability and achievement are controlled. Nevertheless, most research suggests that biographical forms are a predictor of success.

As is suggested by Bozarth's review the results obtained through the use of biographical information for prediction are somewhat diverse. For example, Scolloy (1956) was able to make accurate predictions regarding salary increases and Cline (1963) was successful in predicting high school science success utilizing biographical information. Abe (1965) also reported success in identifying individuals most likely to achieve with biographical data.

Anastasia, Meade and Schneider (1960) found that the biographical data were more effective predictors of success than aptitude, achievement, personality or interest tests. Support for this study was found by Aiken (1964) where correlations in the upper 50's were found between grade point average and biographical inventory items.

Payne, Rapley and Wells (1973) utilized a biographical data inventory to estimate college academic achievement. They found "some support for past-history-being-the-best-predictor assumption . . ." (p. 156). They did not feel that their results were as outstanding as they hoped for but felt that the use of biographical data in college selection should be given serious consideration.

As in Bozarth's (1966) review not all of the results of studies using biographical data have been positive. Skinner (1961), for example, in a study on the relationship of biographical data to student teaching effectiveness concluded that the biographical information form:

. . . was not found to be a conclusive means of predicting effectiveness in student teaching. The measures of the biographical factors found to be related were low, varied in rejection of the hypotheses according to correlation techniques used, and isolated no corroborating factor from section to section.

Hilton and Myers (1967) also reported negative results when they found multiple correlations ranging from .57 to .64 against senior high school year criteria--standardized objective tests and rank in graduating class--with a biographical inventory, SCAT and STEP scores and a test of general information (Payne, Rapley & Wells, 1973).

Unequivocal results were found in studies by Lorei and Gurel (1972; 1973) in utilizing a biographical inventory to predict schizophrenics' posthospital employment and readmission. They concluded that the utility of historical

data as a predictor of behavior was confirmed but their attempt to predict readmission from historical data was unfruitful. In a replication of a study by Buell and Anthony (1973), Anthony and Buell (1974) obtained similar results. They concluded that these studies "uniformly indicate that the attempts to predict recidivism from demographic variables has been notably less consistent and account for less outcome variance than similar attempts which have used demographic data to predict posthospital employment" (p. 422).

In the field of rehabilitation, studies have been conducted by Bozarth (1966) and Bozarth, Muthard and Miller (1968) utilizing biographical items to differentiate rehabilitation counselor performance in counseling clients. The results of these studies were not encouraging in view of all of the positive results previously found but the authors suggest that further research should be conducted with biographical information forms.

In view of the positive results found in the majority of the studies and highly theoretical work conducted by Owens (1971) which strongly advocates their use in all phases of psychological work, the continued use of biographical information forms appears to be warranted.

Biographical information has been successful in prediction studies but because the data is self-reported there is often some question of its validity. A closer examination of this issue is undertaken in the next section.

### Reliability and Validity of Self-Reports

Research relevant to the validity and reliability of self-reported information runs the gamut from studies dealing with the validity of work history information obtained by interviews (Keating, Paterson & Stone, 1950; Schletzer, Dawis, England and Lofquist, 1961) to the reliability of self-recorded behaviors (Simkins, 1971).

In reviewing the literature related to the validity of work history information obtained by interview Engelkes (1968) reported that a study by Schletzer, Dawis, England and Lofquist (1961) found:

(1) the validity of work history information obtained by interview was not very high, (2) validity varied from the most valid item being the reason for leaving and hours worked, to the least valid being items concerned with pay, (3) time between leaving a job and the research interview was the most influential on validity, and (4) there were more upgrading types of invalidity than downgrading. The most important implication is that memory distortion is not random but tends toward more socially desirable conclusions and that memory produces invalidity. (p. 4)

Weiss and Dawis (1960) also conducted a study which strongly questions the validity of data obtained by interview. They collected certain types of information through a survey type interview and felt that ego involvement and possibly social desirability was operating thus varying the validity with the type of information sought.

In reporting and recording one's own behavior there appears to be a need to examine not only the reliability of the behavioral measures but also events related to the behavior because the reports may be a function of social



approval factors related to the individual requesting the data. This influence may result in inaccurate reporting of information (Simkins, 1971).

These studies strongly challenge the reliability and validity of self-reported information in an interview type situation. The prevalent factor that is influencing behavior appears to be one of social desirability in personal interaction. On the other hand, studies in which paper and pencil measures are utilized support the reliability and validity of self-reported information.

In studies by Bowen and Berdie (cited in Pohlman & Beggs, 1974), it was found that self-report methods of assessing cognitive variables, such as intelligence or academic ability were positively related to observed measures of the same variables. Berdie's study utilized college students and found correlations between self-claimed and test knowledge of famous people in three areas ranging from .47 to .74. Pohlman and Beggs (1974) reported that Bowen found self-estimates of ability to do school work correlated (.64) with high school grade point average.

Hamilton (1971) in assessing affective variables with self-report found that simple single item self-ratings of self-esteem, dominance and open-mindedness perform as well as other methods of measurement, such as peer nominations and empirically derived scales in terms of their convergent and discriminant validity.

In a study conducted by McMorris and Ambrosino (1973) they report:

. . . several recent investigations have studied the relationship between self-report and school-report data under naturally occurring conditions judged to produce stress, and even under conditions designed to increase stress (Baird, 1971; Hanna, Bligh & Lenke, 1970; Maxey & Ormsby, 1971; Walsh, 1967, 1968, & 1969), under such stressful conditions, one might hypothesize more falsification of self-report data. However, correlations between self-report and school-report data were in the .80 and .90's which compare reasonably with the reliability of school-report data. Similarly the self-report means were nearly identical to the school-report means. The above investigators also found that self-reported academic performance generally predicted future academic performance and in some studies, better than did test scores. (p. 13)

In their own study with college seniors, in a non-stress situation, the students provided accurate reports of past academic performance and the authors suggest that future investigators include at least a quick self-report measure in their set of predictors.

These studies tend to support that individuals report academic performance, using paper and pencil measures, accurately even under a variety of situations and that these self-reports provide good predictions of future academic performance. Given these results there is little reason to believe that accurate reports would not be given on biographical data, particularly data related to academic ratings and performance.

## CHAPTER III

### METHODOLOGY

#### Selection of Research Participants

The subjects of this research were 3,982 individuals that volunteered to apply for certification as Rehabilitation Counselors and completed the process in July and October 1975.

#### Development of Experimental Materials

In January 1975 a Research Committee was appointed by the Commission on Rehabilitation Certification to investigate the potential uses of the wealth of information available on those individuals seeking certification. Dr. James Engelkes, held a meeting in Chicago, Illinois, with another member of the committee, Dr. Mary Lunz, two consultants, Drs. Jerold Bozarth and William Mehrens, and two of Dr. Engelkes' graduate assistants to explore the uses of the demographic information and field review results. The outgrowth of this meeting was the development of an expanded demographic questionnaire containing 64 items (Appendix B).

In the construction of the demographic questionnaire a determination was made that 14 items from the original

questionnaire that had been used since the first field review, be incorporated into the revised format for continuity of data. With some revisions these 14 items became questions 5, 6, 9, 10, 11, 13, 35, 40, 41, 42, 43, 44, 50, and 54 of the revised demographic questionnaire. The "Studies in Continuing Education for Rehabilitation Counselors" (Miller, Roberts et al., 1971) provided insight into additional questions that could be incorporated into the questionnaire in the areas of educational, employment, supervisory, and socioeconomic information. Because of the large number of participants in this study it was felt that considerable data could also be obtained in the area of academic training. A listing of training needs in 54 areas being utilized by the Region V office of the Rehabilitation Services Administration (R.S.A.) was adapted to help in the formulation of questions 51 to 53 of the questionnaire, which provided data pertaining to training desired, training never used and ratings of their training in the 54 areas. Additional input was provided by Drs. Bozarth, Engelkes and Mehrens regarding content and format of the questionnaire. Due to the large number of individuals that were to respond to the questionnaire considerable emphasis was placed on formulating questions so that machine scoreable answer sheets could be used to facilitate subsequent statistical analysis. The complexity of the questionnaire also required that specific directions be formulated for responding to the questionnaire (Appendix B).

In Chapter II it was proposed that the continued use of biographical information forms was warranted. Results of the studies cited suggested that in the majority of cases prediction was possible with this form of information. It should be remembered though that the field review is a practice based examination and that "a higher premium was placed on the application of knowledge in managing clients rather than on isolated bits of factual information (McAlees, 1975, p. 162).

The demographic questionnaire was pilot tested in May 1975 on doctoral students in the Rehabilitation Counseling program at Michigan State University. These students provided data on the clarity of questions and the length of time necessary to complete the questionnaire.

### Instrumentation

#### Introductory Statement

Two instruments were utilized in this study to obtain the relevant information required. Each instrument will be reported separately providing an explanation of their construction and use in this research.

The demographic questionnaire is presented in Appendix B including the directions for completing it. Due to security reasons the field review is not included but an in depth explanation of its construction, reliability, and validity will be provided.

### Demographic Questionnaire

The construction of the demographic questionnaire was explained previously. With those thoughts in mind the questionnaire was administered for the first time in July 1975, to individuals taking the field review. They were asked to respond to the questions concurrently with taking the field review. The same procedure was followed during the October 1975 administration of the field review but it was necessary to modify the instructions for completing the questionnaire because of errors, such as improperly located and coded identification numbers, that were encountered in the July administration.

Of solace in utilizing the demographic questionnaire was the knowledge that in the event biographical information was not a predictor of field review performance, a wealth of information far superior, at least in numbers, to the data collected in the Muthard and Salomone (1969) and Hagan, Haug and Sussman (1975) studies would be available for descriptive purposes. These data, particularly in the area of academic and in-service training would provide direction for Rehabilitation Counselor Education and Continuing Education Programs. The information related to current and desired job activities would provide further insight into the role of the rehabilitation counselor thus again influencing all types of training programs.

### Field Review Examination

With the formation of the Commission on Rehabilitation Counselor Certification in 1973 one of the first tasks to be accomplished was the development of the field review examination. The Commission defined ten areas which it determined to be most relevant to the field of rehabilitation counseling. This decision was not an arbitrary one but one based on the training and experience of Commission members the composition of which has been explained earlier. They determined that to be certified as a rehabilitation counselor each individual had to demonstrate competence in the following areas on a written examination: (a) rehabilitation philosophy, history and structure; (b) medical aspects of disability; (c) psychosocial aspects of disability; (d) occupational information and the world of work; (e) counseling theory and techniques; (f) community organization and resources; (g) placement processes and job development; (h) the psychology of personal and vocational adjustment; (i) evaluation and assessment; and (j) the ability to use research findings and professional publications.

To accomplish the task of writing the examination questions the Commission appointed a task force composed of twelve members. This task force included Drs. Engelkes, English, Hansen, McAlees, and Taylor all of whom were directly involved in rehabilitation counselor training programs in major universities throughout the United States.

Mrs. Florence Curnutt, counselor of handicapped students, San Jose State University; William Joslin, Director, Council Workshop for Senior Citizens in New York City; Ms. Barbara Korn, Unit Supervisor, Epilepsy Foundation, New York, New York; George McCrowley a counselor with the Division of Vocational Rehabilitation (DVR), Chicago, Illinois; Ed Navis, a DVR counselor in Richmond, Virginia; Harold Rubin, a counselor in New York City; and Jim Stephens, Staff Development, DVR, Raleigh, North Carolina.

Each member of the task force was to formulate 60 multiple choice questions in their own specialty area as related to the ten areas defined by the Commission. The writers then exchanged their questions with another member of the task force so that ambiguities in content and form could be clarified. The original writer then received their own questions in return to examine changes and make any necessary corrections. The questions were then forwarded to Natresources Incorporated, which had become the administrative agent for the Commission, to be placed in an item pool from which the field review was to be constructed.

The field review was administered to 1,240 individuals in July 1974, 712 in October 1974, and 2,020 in March 1975. The field review questions were closely examined after each administration and those items which performed poorly, i.e., low discrimination index and index of difficulty interpreted from point biserial correlation



coefficients, were revised or excluded from the item pool of approximately 600 items. The field reviews administered in July and October 1975 had 3,982 individuals participating and are the focus in this study.

At this juncture definitive information regarding the July and October field review and the participants will be discussed prior to addressing the reliability and validity of the field review.

One of the essential characteristics of a test according to the Standards: For Educational and Psychological Tests is that "data gathered during the process of developing a test before it is in final form should be clearly distinguished from data pertaining to the test in final form" (American Psychological Association, 1974, p. 11). The field review scores used in this study are ones that should be considered as part of the development phase of the examination. Despite this short-coming these data should provide a basis for future studies and provide at least some indication as to the relationship between the field review scores and demographic information. This fact is substantiated, in part, by the administrative agent of the Commission. In personal communications with Dr. Mary Lunz, Director, Evaluation Division of Natresources Incorporated, she indicated that, from her perspective, the July Field Review performed better than any of the other field review examinations. It was her feeling that the poor test items had been eliminated from the test item pool and that,

overall, the field review functioned in accordance with the Commission standards. On the other hand, the October field review contained many new items which had low discrimination indexes and indexes of difficulty and she felt that many items would have to be rewritten or eliminated from the pool prior to Certification by Examination which began in April 1976. Obviously all attempts have been made to meet the standard as explicated above.

The July field review contained 150 multiple-choice items on essentially two parallel forms and the October review contained 120 multiple-choice questions on three essentially parallel forms. Table 3.0 reflects the sub-tests which made up both field reviews and the number of items comprising each sub-test is presented.

In the writing of the questions each writer was to indicate the areas to which they felt a question applied, e.g., counseling theory and counseling methods. Because a question could apply to more than one sub-test area there is considerable overlapping of questions which explains the large number of items per sub-test when in fact there are only 150 or 120 items in the entire examination. A computer program developed by Natresources which has the capability of combining items but still providing a singular score is used in scoring the examinations.

Another essential characteristic in discussing an assessment instrument such as the field review is that "the population upon which the psychometric properties of a test

**Table 3.0--July and October Field Review Sub-test Categories and Number of Items in Each by Test Form.**

Sub-test	July		October		
	Form I	Form II	Form I	Form II	Form III
Child	21	19	7	8	--
Adult	92	94	54	74	75
Aged	11	13	--	--	7
General	13	11	--	--	--
Physical Disability	50	50	36	33	33
Deviants	22	18	9	--	--
Emotional Disorder	13	18	15	11	19
Mental Retardation	14	16	--	12	11
Deaf	10	15	--	10	14
Blind	11	9	10	--	10
Neurologically Impaired	--	--	--	15	--
Other	--	--	14	13	14
Medical and Psycho-social Aspects of Disability	25	26	18	22	24
Occupational Information	20	17	14	19	14
Counseling Theory	16	15	12	15	22
Counseling Methods	16	16	18	15	19
Community Organization and Resources	16	20	--	--	--
Personal Vocational Adjustment	25	22	16	14	17
Evaluation and Assessment	17	13	11	11	9
Research Utilization	11	11	12	--	10
Rehabilitation Planning	22	20	12	14	13

Table 3.0--Continued.

Sub-test	July		October		
	Form I	Form II	Form I	Form II	Form III
Case Management	22	21	19	13	--
Information Dissemination	19	22	9	--	6
Vocational Counseling	17	16	--	21	11
Personality and Adjustment Counseling	16	24	20	23	35
Group Counseling	12	12	12	--	14
Job Development and Placement	12	10	15	14	9
Staff Development	--	--	6	--	--
Vocational and Psychological Assessment	15	10	--	15	16
Recall	19	17	12	15	23
Interpretation Skills	27	29	--	22	26
Problem Solving	104	104	84	73	61
Judgment	--	--	10	10	10
Total	150	150	120	120	120

were determined and for which normative data are available should be clearly and prominently described (Standards: For Educational and Psychological Tests, p. 21). For this reason a typical demographic profile of certification candidates in July and October is presented in Figure 3.0.

Reliability. Mitchell defines reliability as "the extent to which a test is consistent in measuring whatever it does measure; dependability, stability, trustworthiness, relative freedom from errors of measurement. Reliability is usually expressed by some form of reliability coefficient or by the standard error of measurement derived from it" (p. 6). A full treatment of measurement theory on reliability is beyond the scope of this study. The basic concepts of this subject can be found in Mehrens and Lehmann (1973). For those interested in a more theoretical treatise on reliability Magnusson (1967) or Gulliksen (1950) should be consulted.

In most instances, and in this one, it was not feasible to obtain more than a single measure of the individual's performance on the examination but it remains possible to obtain reliability estimates from a single set of test data.

The method used in obtaining the reliability of the field review was the split-half method. This method is generally considered as a measure of the internal consistency of a single instrument. The technique assumes that

Figure 3.0. Typical Demographic Profile of Certification Candidates in July and October 1975.

1. Male (64.8%)--married (65%)--probably 1st born (45%)
2. No physical defect (82.4%)
3. Who come from either a rural (28.8%), suburban (33.4%) or urban locale (37.4%)
4. 62% of their mothers are homemakers
5. 56% of their fathers and 62% of their mothers have completed at least a high school education
6. Their undergraduate major in either Psychology (30%), Sociology (16%), Social Science (10%), or Education (16%) and 61% have an undergraduate G.P.A. of 3.0 or below.
7. 72% majored in rehabilitation counseling or counseling and guidance in graduate school
8. 38% received no group supervision and 32% received no individual supervision in practicum
9. For those that did have a practicum--56% used audio tape and 34% used video tape for supervision
10. The majority of them earn between \$9,000 and \$17,000 per year
11. Their work setting population density is urban (63%)
12. They generally like (91%) and are satisfied (87%) with their jobs and have worked for only one organization in the past five years
13. They have either taken a class in a university (24%) or attended a workshop or institute (52%) in the last year
14. They probably read either Rehabilitation Counseling Bulletin (77%) or Journal of Rehabilitation (88%)
15. 56% have attended state meetings, 28% attended regional meetings and 18% attended national meetings in the last year

Figure 3.0. Continued.

16. 27% of them have 25 or more books in their personal library that are applicable to their jobs
17. 46% of them work in a rehabilitation agency providing rehabilitation services (counseling)
18. The primary funding source is state/federal VR agency
19. 83% have been rehabilitation counselors for one to eight years and 88% have up to eight years experience as a rehabilitation counselor in a DVR setting
20. 48% of them put in between one and four hours per month into in-service training activities and approximately one-half feel that the in-service does help them in performing their jobs
21. 28% feel that their supervisors help them with job related problems
22. Almost all of their clients make \$8,000 or less per year and 73% of their clients have not completed high school

the variance of the two halves are equal, and that errors of measurement are due to content sampling only, not stability over time.

Appendix C contains the scoring analysis of both the July and October field reviews. Form I and II of the July field review had reliability coefficients of .8346 and .8286 respectively. In October the coefficients were: .8590, .8204, and .8042 on Forms I, II, and III. The reliability coefficients for each sub-test are also reported but because our interest is in the total test score these data are of minimal concern.

As for the interpretation of these coefficients, Mehrens and Lehmann (1973) point out, "although there is no universal agreement, it is generally accepted that standardized tests used to assist in making decisions about individuals should have coefficients of at least .85" (p. 122). The field review is such an instrument in that it is to be used to make decisions as to whether or not an individual is to be certified as a rehabilitation counselor. Guilford (1956) points out that "all internal consistency formulas that depend upon a single administration of a test, probably underestimate the reliability of a test" (p. 455). With this thought in mind it appears that a statement can be safely made that both the July and October field reviews are reliable measurement instruments.

The Standards: For Educational and Psychological Tests (1974) point out that "reliability coefficients have



limited practical value for test users. The standard error of measurement ordinarily is more useful; it has greater stability across populations since it is relatively independent of range of talent, and it may be used to identify limits that have a defined probability of including the true score" (p. 50). The standard error of measurement is also provided in Appendix C. Since the field review is utilized for decisions relevant to certification of rehabilitation counselors this value should be consulted when making these decisions.

Validity. According to Mitchell,

validity is the extent to which a test does the job for which it is used. This definition is more satisfactory than the traditional "extent to which a test measures what it is supposed to measure," since the validity of a test is always specific to the purpose for which the test is used. The term validity, then, has different connotations for various types of tests and, thus, a different kind of validity evidence is appropriate for each.

The type of validity to be considered in this study is criterion-related validity. With this form of validity the measures are examined to determine the extent to which scores on one measure are in agreement with (concurrent validity) or predict (predictive validity) the criterion measure. The specific focus is on the concurrent validity of the field review scores and the variables that make up the demographic questionnaire. Generally speaking in concurrent validity, no significant time intervals elapse between administration of the test being validated and the

criterion measure, this is a procedural distinction as compared to predictive validity when the criterion data is collected at a later date. Such validity might be evidenced by the correlations between scores on a test and criterion measures which are valid but are less objective. Statements regarding concurrent validity generally indicate the extent to which one measure may be used to estimate an individual's present standing on the criterion.

Mehrens and Lehmann (1973) state that

one of the hardest tasks in a study of criterion-related validity is to obtain adequate criterion data. . . . Criterion measures, like all other measures, must have certain characteristics if they are to be considered adequate. First of all they should be relevant. That is, the criterion measurement should actually reflect the important aspects of the conceptual criterion. There is no point in obtaining a criterion measure that really does not reflect the criterion. The degree of relevance of the criterion measure is a value judgment, and not everyone will agree on any specific case. . . .  
 . . . A second desired characteristic of a criterion is that it be reliable . . . the reliability of the criterion affects criterion-related validity every bit as much as the reliability of the predictor. A third characteristic of the criterion measure is that it be free from bias or contamination (Brogden & Taylor, 1950). Criterion contamination occurs when the criterion score is influenced by the knowledge of the predictor score. (p. 127-27)

Each of the aforementioned factors will be dealt with in turn as related to the field review. First of all the relevancy, which is based not only on the definitions provided by the Commission as to what is relevant for a certified rehabilitation counselor to know but also the qualifications of the writers that formulated the field review questions. Not everyone would agree with this

judgment but both the Commissioners and the writers have considerable knowledge and expertise in the field of rehabilitation and in the writing and construction of test items. In addition, all item writers underwent a two day workshop conducted by Natresources, Incorporated to develop skill in item writing. For these reasons there is little doubt that the criterion measure, for the field review, is relevant.

Reliability was discussed at length previously consequently all one need to remember is that the reliability coefficients for the field review were within acceptable limits for this type of examination. The final characteristic of a criterion measure to be considered is that it is free of bias or contamination. The construction of the criterion instrument was explained previously and the writers were unaware that a study of this nature was to be conducted. Consequently criterion contamination could not occur because predictor variables had not been constructed at that point in time in which the field review was written.

The preceding facts support the notion that the field review fulfills the required characteristics, as proposed by Mehrens and Lehmann (1973), for a criterion measure to be considered adequate.

Probably the most frequent procedure used in reporting validity is the Pearson product moment correlation coefficient. Appendix D is a series of tables which

reflect the correlation coefficients ( $r$ ) for each of the demographic variables as related to the field review scores. The number of cases, means and standard deviations are also reported for each variable. Because the length (number of questions) varied between July and October separate coefficients are reported for each group. The values found by combining the July and October data are also presented but only for examination purposes because a correlation coefficient may be high or low for either July or October and when the two are combined the values become somewhat distorted.

Prior to examining these validity data the results of comparisons between the July and October populations applying for certification are presented to indicate any difference between these two groups could contribute to whatever differences occur in this study.

Table 3.1 presents only those variables on which significant differences were found between July and October testings. The number of cases, means, standard-deviations and standard error of the mean are reported. The SPSS program tests the equality of population variances to determine the appropriate t-test values to be considered. When a significant  $p$ . value is found in the F-test, separate variance estimate t-tests are appropriate. On the other hand, when non-significant differences are found in the population variance, pooled variance estimate t-tests are appropriate.

Table 3.1.--t-test Analysis Between July and October Demographic Variables.

	Cases	Mean	Standard Deviation	Standard Error	F Value	2-tail Prob.	Pooled Variance Estimate			Separate Variance Estimate		
							t Value	df	2-tail Prob.	t Value	df	2-tail Prob.
Q 1	1510 1933	.9450 .8929	.617 .607	.016 .014	1.03	.590	2.48	3441	.013	2.48	3215.96	.013
Q 3	399 454	6.2035 5.7577	2.999 3.165	.163 .149	1.11	.295	2.01	791	.045	2.02	747.90	.044
Q 14	1194 1657	.2864 .3247	.452 .468	.013 .012	1.07	2.68	-2.18	2849	.029	-2.19	2621.54	.028
Q 18	1511 1936	1.4507 1.3781	.916 .919	.024 .021	1.01	.936	2.30	3445	.021	2.31	3248.34	.021
Q 19	1508 1933	2.2135 1.9208	2.254 2.197	.058 .050	1.05	.413	3.84	3449	.000	3.83	3197.89	.000
Q 22	1511 1936	1.0715 .9959	.678 .618	.017 .016	1.06	3.67	3.20	3445	.001	3.21	3285.77	.001
Q 23	1509 1935	1.2876 1.2300	.640 .670	.016 .015	1.10	.142	2.55	3442	.011	2.57	3305.77	.010
Q 24	1510 1933	.7510 .6648	.715 .712	.018 .016	1.01	.871	3.52	3441	.000	3.52	3234.36	.000
Q 38	1459 1852	2.1439 1.9617	1.962 2.051	.051 .048	1.09	.162	2.59	3309	.010	2.60	3187.81	.009
Q 40	1500 1921	1.1100 1.3540	1.983 2.163	.051 .049	1.19	.006	-3.39	3419	.001	-3.43	3332.22	.001
Q 43	1441 1849	.9813 1.0481	.860 .877	.023 .020	1.04	.535	-2.19	3288	.029	-2.19	3122.07	.028
Q 58	371 487	2.7224 2.3737	2.295 2.186	.119 .099	1.10	.316	2.27	056	.024	2.25	776.00	.025
Q 61	299 394	4.1104 3.4822	3.355 3.412	.193 .172	1.05	.682	2.42	691	.016	2.43	648.89	.015

In Table 3.1 the table labels are Q. 1, 3, 14, 18, 19, 22, 23, 24, 38, 40, 43, 58, and 61 and refer to those specific questions in the demographic questionnaire. Because the questions have distinct categories for responses, in most cases, and because mean scores are being examined, the interpretations are somewhat ambiguous. Those that are interpretable suggest the following results: there were more married people in the July group than in October, fewer of them used audio tapes in practicum supervision and more of them had had formal training in the past calendar year. From the July group a larger number of individuals had attended State Meetings. The July group read Rehabilitation Counseling Bulletin, Journal of Rehabilitation, and the Journal of Applied Rehabilitation Counseling more often. The July group had more experience as counselors in D.V.R. settings and the organization they worked for were primarily funded by State/Federal Vocational Rehabilitation Agencies. The clients of the October group were slightly more educated. The Supervisors in the July group supervised more counselors and the July group had more client cases closed in the last year than the October group.

On Question 51 of the demographic questionnaire the October group rated their training higher in the following areas: Blind-Deaf, Case Management, Group Work, Job Retention, On-site-evaluations, Post-employment Services,

Psychological Test Administration, Recreation and Technical writing. The remaining 44 areas were found to be similar.

Question 52 results revealed that the July group had used the following aspects of their training less than the October group: Behavior Disorders, Disadvantaged, Employability Planning and Vocational Diagnostic Interviewing whereas the October group utilized Management Training and Orthopedically Handicapped Training less often.

The October group, on question 53, responded more frequently for more training in Accounting, Legislation affecting Rehabilitation, Sexual Dysfunction, and Time Management whereas the July group responded more frequently for additional Management Training.

Question 54 analysis revealed the following difference: the October group spent a larger percentage of their time in personal counseling and would want to spend even more time in this area. In assessing the areas that they felt competent to work in, the October group indicated "sometimes" or "more often" in all areas except contact with other agencies.

The October group, on question 55, rated "being in the right place at the right time" higher than the July group regarding its importance in being promoted.

With these differences in mind an examination of the validity data reveal that in July, of the 67 possible predictor variables there were 37 which were significant

at the .05 level. The remaining 30 variables revealed a non-significant relationship. October data revealed a total of 45 variables which were significant at the .05 level.

At this point the inclination might be to state that there are a significant number of variables that could be utilized to indicate that criterion validity exists. From a purely statistical perspective this is a true statement but other factors should be considered prior to making this affirmation.

A close examination of the correlation coefficients revealed that the highest correlation in either July or October was  $-.1672$  for the number of years as a counselor, as related to field review scores. In this singular instance if one applies the coefficient of determination one finds that only slightly over 2 percent of the variance is accounted for by this variable. The majority of the coefficients are less than  $.10$  which indicated from a practical perspective that there is very little relationship between the field review scores and the demographic questions.

To assume that there is no relationship between the field review scores and demographic questions would be in error. The standard error of  $r$  when the population  $\bar{r}$  is assumed to be zero is a  $.022$  which means that the obtained correlation  $-.1672$  is considerably larger than the standard error. Very rarely could this degree of correlation occur



by random sampling in a population where the two variables are actually uncorrelated thus one must way that almost certainly there is some correlation.

Closer examination of all variables revealed that there were twelve common variables (Table 3.2) in July and October where the correlation coefficients were considerably larger than their standard errors.

Table 3.2.--Common Significant Correlation Coefficients.\*

Variable	July	October
Sex	.15	.14
Fathers' Education	.09	.08
Mothers' Education	.12	.10
Undergraduate GPA	.11	.11
Individual Supervision	.09	.12
Rehabilitation Counseling Bulletin	-.09	-.10
Counselor Education and Supervision	-.14	-.15
Counseling Psychologist	-.11	-.09
Social Case Work	-.14	-.15
Books in Personal Library	.13	.16
Years Experience as a Counselor	-.08	-.09
Cases Closed	-.10	-.14

\*p = <.05

These data suggested that from a statistical perspective there were in fact twelve significant variables on which validity could be based. Obviously this is not near the potential number that might have been possible but then

again one, two, or twelve are more significant than finding no basis for criterion validity.

One of the research questions presented in Chapter I was: can an additive combination of predictor variables, e.g., training, academic and in-service, and professional activities, be identified to predict certification field review scores? To respond to this question the predictive validity of the demographic questionnaire and field review were examined. In this study the data were collected concurrently and the prime concern was that of concurrent validity as was previously discussed; another concern of this study was the usefulness of the demographic variables in predicting field review performance or vice versa. Such information would have significant impact on the training and professional activities of individuals preparing to become certified rehabilitation counselors.

Multiple regression analysis was the statistical technique used to answer the prediction question in this study. Computer programs allow this type of analysis to be conducted in a number of ways although there is no preferred technique recommended by statisticians (Kerlinger & Pedhazur, 1973; Tatsuoaka, 1969).

The multiple regression technique used was a forward (stepwise) analysis. In this process "independent variables are entered only if they meet certain statistical criteria." In this case a significance level of .05 was selected for a variable to be included. "The order of

inclusion is determined by the respective contribution of each variable to explain variance (Nie, Hull et al., 1975, p. 345). The intent, therefore, is to identify the best possible combination of variables upon which to base the prediction.

A forward (step-wise) analysis was calculated on the last three-fourths of each group and the stability of the regression weights (B) examined using standard regression analysis, on the first one-fourth of each group, using the significant variables found in the forward solution. This method involved examining the regression weights obtained in the regression analysis of the first one-fourth of each sample to determine if they fell within the 95 percent confidence interval generated in the step-wise analysis. In other words, a check was made to see whether the weights given to the several variables in the step-wise equation were more or less similar to the corresponding weights in the other equation (Tatsouka, 1969). A "double cross-validation" could have been conducted but was not for the following reasons: (1) the sample size was of such magnitude that there was little doubt that the regression weights obtained were stable, and (2) the Multiple R's were so small that there was really no need to double cross-validate.

The findings of these analysis for July and October will be presented and comparisons drawn to examine the commonalities of each group.

Table 3.3 is a summary of the forward (step-wise) multiple regression analysis of the last three-fourths of the July population. The analysis identified 13 variables which would be significant in predicting field review scores. In all cases, the following interpretations refer to averages found for the group in question. The variables with the negative regression weights (B) include four journals, Counselor Education and Supervision, Social Casework, Counseling Psychologist, and Rehabilitation Counseling Bulletin. The fifth negative regression weight had to do with the number of cases closed by the individual during the last year. Interpretively this suggests that if an individual does not read these journals and closes fewer cases that their score on the field review would be higher. The positive regression weights are somewhat more difficult to interpret but the following interpretation is proposed; if an individual is female and married, with a mother who had an education above the average, who has a higher than average number of books in their personal library related to their profession, read the Journal of Applied Rehabilitation Counseling and had audio tape supervision in practicum, had a higher salary, and had clients with above average income then the individual would also be expected to score higher on the field review. The Multiple R of .36751 is interpreted as follows: with the best linear combination of independent variables (the thirteen found) if an individual's raw scores were multiplied by the raw

Table 3.3.--July Multiple Regression Analysis Summary.\*

Coefficients and Confidence Intervals				
Variable	B	STD Error B	T	95.0 PCT Confidence Interval
COEDSUP	-3.0386953	1.0023599	-3.0315411	-5.0055937 , -1.0717969
BOOKS	.63728023	.14448104	4.4108225	.35376976 , .92079070
SEX	3.9915027	.82391317	4.7807399	2.3531796 , 5.6298257
SOCASWRK	-3.0273206	.89076565	-3.3985601	-4.7752412 , -1.2794000
COSLRY	1.3404461	.40905237	3.2769547	.53777586 , 2.1431163
COPSYT	-2.8528519	.85845893	-3.3232247	-4.5373781 , -1.1683258
MOTHRD	.76939128	.27793011	2.7682905	.22401803 , 1.3147645
RCB	-1.9159487	.56828594	-3.3714520	-3.0310778 , -.80081966
JARC	1.6988688	.54590794	3.1120060	.62765133 , 2.7700863
AUDIOTP	2.2985051	.87189953	2.6362041	.58760493 , 4.0094053
CLOSRES	-3.0008828	.11050801	-2.7155342	-.51693457 , -.83241994E-01
CLINCM	.71079596	.29841284	2.3819215	.12523012 , 1.2963618
MARTLSTA	1.7324196	.79991887	2.1657441	.16276473 , 3.3020745
CONSTANT	96.618187	1.8872993	51.193886	92.914801 , 100.32157

Table 3.3.--Continued.

Summary Table								
Step Entered	Variable	F to Enter or Remove	Significance	Multiple R	R Square	R Square Change	Simple R	Overall F
1	COEDSUP	28.73551	.000	.16374	.02681	.02681	-.16374	28.73551
2	BOOKS	20.09875	.000	.21267	.04523	.01842	.12055	24.68023
3	SEX	17.56917	.000	.24713	.06107	.01585	.13603	22.57151
4	SOCASWRK	18.97299	.000	.27910	.07790	.01682	-.14942	21.96415
5	COSLRY	11.65019	.001	.29685	.08812	.01022	.07107	20.08130
6	COPSYT	10.51125	.001	.31187	.09726	.00914	-.14476	18.63948
7	MOTHRED	8.23569	.004	.32307	.10438	.00711	.11689	17.26460
8	RCB	6.82360	.009	.33202	.11024	.00586	-.09922	16.04431
9	JARC	7.81656	.005	.34192	.11691	.00667	.03825	15.22395
10	AUDIOTP	6.61240	.010	.35002	.12252	.00561	.06604	14.43709
11	CLOSRES	4.83734	.028	.35582	.12661	.00409	-.09776	13.61310
12	CLINCM	5.37384	.021	.36212	.13113	.00452	.06221	12.97933
13	MARTSLA	4.69045	.031	.36751	.13507	.00393	.02503	12.38457

\*All variables  $p < .05$ .

regression weights and added together one would obtain a predicted score on the test for the individual and if a correlation were calculated between the predicted score and the score the individual actually received the correlation would be .36751 thus one is able to predict somewhat with this series of variables but with a coefficient this low one is not predicting a significant amount. The  $R^2$  Change column reflects the actual amount of variance accounted for by each variable as it is added to the regression equation. The  $R^2$  column indicates the amount of cumulative variance accounted for by each variable in the equation. The  $R^2$  for all thirteen variables is .13507 which means that this combination of variables reduced errors in prediction of July field review scores by 13.5 percent.

The regression weights (B) for the first one-fourth of the July data were then examined to determine if the values fell within the confidence intervals established in the step-wise analysis (Table 3.4). Nine of the thirteen variables were found to be within the confidence intervals consequently assurance is provided that these nine variables are relevant in prediction of the entire July population. Sex (Male/Female) was one of the four variables which fell outside of the confidence interval established. A closer examination of the data revealed that this variable is a stronger predictor ( $R^2$  Change - .04446) than was originally estimated. Counselor's salary is another variable which did not fall into the established confidence intervals.

Table 3.4.--July Cross Validation Regression Analysis Summary.

Coefficients and Confidence Intervals				
Variable	B	STD Error B	T	95.0 PCT Confidence Interval
COEDSUP	-1.4899626	1.7860027	-.83423330	-5.0029320 , 2.0230068
AUDIOTP	1.3734259	1.6127107	.85162576	-1.7986875 , 4.5455393
MOTHRED	.80362619	.4891039	1.6416938	-.15921391 , 1.7664663
MARTLSTA	2.7301065	1.4905165	1.8316513	-.20165772 , 5.6618706
CLOSRES	-.24211536	.20250574	-1.1955975	-.64043304 , .15620233
CLINCM	-.40931183	.56431140	-.72532972	-1.5192814 , .70065774
RCB	-1.6542389	1.0690176	-1.5474383	-3.7569379 , .44846020
SOCASWRK	-3.6381045	1.8748234	-1.9405052	-7.3257793 , .49570296E-01
BOOKS	.71168016	.27704930	2.5687852	.16673937 , 1.2566209
JARC	1.0499911	.96150846	1.0920248	-.84124332 , 2.9412255
SEX	6.0906813	1.4548678	4.1864155	3.2290361 , 8.9523265
COSLRY	.35236375	.69672521	.50574279	-1.0180565 , 1.7227840
COPSYT	.49928001	1.5668663	.31864876	-2.5826601 , 3.5812201
CONSTANT	98.259090	3.4732223	28.290470	91.427452 , 105.09073



Table 3.4.--Continued.

Summary Table						
Step 1 Entered	F to Enter or Remove	Signifi- cance	Multiple R	R Square	R Square Change	Simple R
COEDSUP	.69496	.405	.06823	.00465	.00465	-.06823
AUDIOTP	.72527	.395	.10039	.01008	.00542	.07202
MOTHRED	2.69516	.102	.15199	.02310	.01303	.11805
MARTSLA	3.35495	.068	.15741	.02478	.00168	.03434
CLOSRES	1.42945	.233	.10567	.03829	.01351	-.12568
CLINCM	.52619	.469	.19803	.03922	.00093	-.03210
RCB	2.39457	.123	.20167	.04067	.00146	-.06993
SOCASWRK	3.76556	.053	.21711	.04714	.00647	-.09798
BOOKS	6.59866	.011	.25973	.06746	.02032	.13820
JARC	1.19252	.276	.26493	.07019	.00272	.04458
SEX	17.52607	.000	.33860	.11465	.04446	.20049
COSLRY	.25578	.613	.33970	.11539	.00075	.03229
COPSYT	.10154	.750	.34009	.11566	.00026	-.00467
						3.43057

There appear to be two reasons which might account for this occurrence. First, the standard error of B was larger in the analysis of the stability of the regression weights (B) consequently the weight (B) may in actuality be large enough to fall within the confidence intervals. Secondly, an examination of the inter-item correlations revealed strong relationships between counselor's salary and the Counseling Psychologist journal (.21370) and client income (.19057) in the equation; consequently the problem of multicollinearity may exist. When multicollinearity exists estimates of the regression coefficients from sample to sample fluctuate markedly which may have occurred in this case (Nie, Hull et al., 1975). Multicollinearity may also account for Client Income and the Counseling Psychologist not falling within the established confidence intervals. A third possible explanation for the regression weights being lower on these three variables is that because the sample was not a random one that in fact there was a change in the sample which accounts for the lower regression weights. If a random sample had been drawn there is a possibility that the original weights obtained might have been more accurate in predicting the weights for the entire population.

Table 3.5 is a summary of the forward (step-wise) multiple regression analysis of the last three-fourths of the October population. The analysis identified 17 variables which would be significant in predicting field

Table 3.5.--October Multiple Regression Analysis Summary.\*

Coefficients and Confidence Intervals				
Variable	B	STD Error B	T	95.0 PCT Confidence Interval
SOCASWRK	-4.1449338	.74990617	-5.5272699	-5.6160496 , -2.6738179
BOOKS	.67299341	.11768150	5.7187698	.44213369 , .90358312
SEX	2.6137906	.64280768	4.0662093	1.3527734 , 3.8748078
COEDSUP	-2.5905028	.76916513	-3.3679411	-4.0993997 , -1.0816060
YRSVRCO	-.48247153	.15052472	-3.2052645	-.77776088 , -.18718219
UGMJR	2.2597355	.59455149	3.8007398	1.0933841 , 3.4260870
INSRVHLP	-1.1497235	.27004178	-4.2575763	-1.6794734 , -.61997351
RCNTRNG	2.5213992	.71991412	3.5023611	1.1091197 , 3.9336787
ORGANZ	-1.0219812	.32362886	-3.1578804	-1.6568548 , -.38710773
CLOSRES	-.26988677	.90827700E-01	-2.8723260	-.43906649 , -.82707044E-01
CLYRSED	1.0612037	.34627895	3.0645920	.38189677 , 1.7405107
VIDEOTP	-2.5511086	.68207134	-3.7402371	-3.8891506 , -1.2130665
AUDIOTP	2.0689280	.76799734	2.6939260	.56232204 , 3.5755339
REGMEET	-1.0797938	.39895940	-2.7065256	-1.8624458 , -.29714190
HRSINSER	.40304474	.14804422	2.7224618	.11262146 , .69346801
FATHER	-.24551756	.10991339	-2.2337365	-.46113832 , -.29896797E-01
COPSYT	-1.2615700	.64041551	-1.9699242	-2.5178944 , -.52455805E-01
CONSTANT	74.043924	1.2666765	58.455275	71.559043 , 76.528806

Table 3.5.--Continued.

Summary Table								
Step Entered	Variable	F to Enter or Remove	Signifi- cance	Multiple R	R Square	R Square Change	Simple R	Overall F
1	SOCASWRK	41.43974	.000	.17208	.02961	.02961	-.17208	41.43974
2	BOOKS	45.67096	.000	.24740	.06121	.03160	.16690	44.23693
3	SEX	33.25003	.000	.28927	.08368	.02247	.12675	41.27551
4	COEDSUP	22.17530	.000	.31374	.09843	.01475	-.15083	36.98387
5	YRSVRCO	21.32342	.000	.33527	.11241	.01398	-.16347	34.29555
6	UGMJR	13.18975	.000	.34782	.12098	.00857	.12105	31.03522
7	INSRVHLP	9.70929	.002	.35672	.12725	.00627	-.11297	28.15989
8	RCNTRNG	9.44464	.002	.36511	.13330	.00606	.07545	25.97439
9	ORGANZ	11.11708	.001	.37468	.14038	.00708	-.04632	24.49647
10	CLOSRES	8.79239	.003	.38203	.14595	.00557	-.13080	23.05332
11	CLYRSED	9.09270	.003	.38945	.15167	.00572	.09637	21.90990
12	VIDEOTP	7.35816	.007	.39532	.15628	.00461	-.09240	20.79199
13	AUDIOTP	7.66357	.006	.40132	.16106	.00478	.04931	19.87705
14	REGMEET	6.78032	.009	.40653	.16527	.00421	-.07901	10.02084
15	HRSINSER	6.98998	.008	.41181	.16958	.00432	.03874	18.29784
16	FATHER	5.14452	.024	.41564	.17275	.00317	-.06786	17.52866
17	COPSYT	3.88060	.049	.41850	.17514	.00239	-.06985	16.76122

\*All variables  $p < .05$ .

review scores. The variables with negative regression weights (B) include: (1) three journals, Counselor Education and Supervision, Counseling Psychologist, and Social Casework, (2) the number of years as a counselor in a Division of Vocational Rehabilitation (DVR) setting, (3) the extent to which their total current in-service training program helped them in performing their job, (4) the number of counseling organizations they have been employed by in the last five years, (5) the number of cases closed by the individual in the last year, (6) the use of video tape in practicum supervision, (7) attendance at a regional professional meeting, and (8) whether their father had a blue-collar or white-collar occupation. Interpretively this means that if an individual does not read these journals, has spent minimal time as a counselor in a DVR setting, feels that their in-service training program is rarely helpful, have worked for only a few organizations in the last five years, closes fewer cases, did not have video tape supervision in practicum, did not attend a regional professional meeting and if their father had a white collar occupation, that their score on the field review would be higher. For the positive regression weights the following interpretation, based on averages for the variables, is proposed; if an individual is female, has a higher than average number of books in their personal library related to their profession, had a social science undergraduate major, has had recent training in a workshop

or university, has a higher than average number of hours of in-service training per month, had audio tape supervision in practicum and has clients that have an above average educational background, then the individuals score on the field review would be higher. The Multiple R is interpreted as follows: with the best linear combination of independent variables (the 17 identified) if an individual's raw scores were multiplied by the raw regression weights (B) and added together one would obtain a predicted score on the test for the individual and if a correlation were calculated between the predicted score and the score for the individual actually received the correlation would be .41850. The  $R^2$  Change column is interpreted the same as in the July data. The  $R^2$  for all 17 variables is .17514 which means that this combination of variables reduces the error in prediction of the field review scores by 17.5 percent.

For the October data (Table 3.6) the regression weights (B) were also examined to determine if the values fell within the confidence intervals established in the step-wise analysis. Nine of the seventeen variables were within the confidence intervals; consequently one has some assurance that these nine variables are relevant in prediction for the entire October population. Three of the remaining eight variables, Social Casework journal, years as a counselor in a DVR setting, and audio tape supervision appear to be stronger predictors than originally estimated. The remaining five variables, Counseling Psychologist

Table 3.6.--October Cross Validation Regression Analysis Summary.

Coefficients and Confidence Intervals				
Variable	B	STD Error B	T	95.0 PCT Confidence Interval
SOCASWRK	-2.1174180	1.6647110	-1.2719433	-5.3894660 , 1.1546299
YRSVRCO	-.85339531	.33978855	-2.5115482	-1.5212617 , -.18552897
INSRVHLF	-.85529627	.50225078	-1.7029267	-1.8424879 , .13189531
AUDIOTP	4.5672611	1.4567268	3.1352901	1.7040133 , 7.4305088
FATHER	.13796515	.21092200	.65410506	-.27660947 , .55253977
UGMJR	1.2307123	1.1526051	1.0677658	-1.0347736 , 3.4961981
RCNTRNG	.97926820	1.5104062	.64238891	-1.9984884 , 3.9390248
REGMEET	-.98592846E-01	.68418362	-.14410290	-1.4433798 , 1.2461941
CLYRSED	-.22531109	.63357779	-.35561709	-1.4706305 , 1.0200083
ORGANZ	-1.1796793	.64573431	-1.8268803	-2.4488928 , .89534200E-01
SEX	3.6324605	1.2148030	2.9901641	1.2447224 , 6.0201986
CLOSRES	-.28222770	.17554667	-1.6077075	-.62727086 , .62815458E-01
COEDSUP	-2.1693387	1.3852959	-1.5659750	-4.8921866 , .55350914
BOOKS	.84224989	.22654487	3.7178061	.39696798 , 1.2875318
HRSINSER	.16408652	.28993723	.58594537	-.38633650 , .71450954
COPSYT	-2.7792502	1.2444369	-2.2333395	-5.2252348 , -.33326558
VIDEOTP	-2.3181615	1.3201325	-1.7560068	-4.0129283 , .27660525
CONSTANT	72.272699	2.5465555	28.280571	67.267355 , 77.278044

Table 3.6.--Continued.

Summary Table							
Step 1 Entered	F to Enter or Remove	Signifi- cance	Multiple R	R Square	R Square Change	Simple R	Overall F
SOCASWRK	1.61784	.204	.10725	.01150	.01150	-.10725	5.16254
YRSVRCO	6.30787	.012	.22299	.04972	.03822	-.19586	
INSRVHLP	2.89996	.089	.24631	.06067	.01094	-.10020	
AUDIOTP	9.83004	.002	.27141	.07366	.01299	.12441	
FATHER	.42785	.513	.27184	.07390	.00023	.01310	
UGMJR	1.14012	.286	.28080	.07885	.00495	.08636	
RCNTRNG	.41266	.521	.28577	.08167	.00282	.06462	
REGMEET	.02077	.885	.28610	.08185	.00019	-.03400	
CLYRSED	.12646	.722	.28614	.08188	.00002	-.00256	
ORGANZ	3.33749	.068	.29793	.08876	.00688	-.06990	
SEX	8.94108	.003	.32691	.10687	.01811	.18480	
CLOSRES	2.58472	.109	.34659	.12012	.01325	-.16177	
COEDSUP	2.45228	.118	.35916	.12900	.00887	-.16251	
BOOKS	13.82208	.000	.39318	.15459	.02560	.15250	
HRSINSER	.34333	.558	.39368	.15498	.00039	-.00331	
COPSYT	4.98781	.026	.40559	.16450	.00952	-.14466	
VIDEOTP	3.08356	.080	.41291	.17049	.00599	-.04845	



journal, Fathers' occupation, Regional professional meeting attendance, client years of education, and recent training contribute a minimal amount to the total  $R^2$ ; consequently multicollinearity may exist between these variables thus the estimates of the regression coefficients fluctuate from sample to sample. Another possible explanation for the failure to obtain similar regression weights (B) is, again, that the sample, which was not a random one, may have actually changed thus establishing false estimates in the original regression analysis.

Ferguson (1966) points out that if two variables have a

fairly high correlation with the criterion and low correlations with each other, both measure different aspects of the criterion and both will contribute substantially to prediction. If two variables have a high correlation with each other, they are measures of much the same thing, and the inclusion of both, instead of either one or the other, will contribute little to the prediction achieved (p. 402).

The problem of minimal contribution of variables due to multicollinearity appears to exist in both the July and October regression analysis. This problem is faced by all researchers utilizing multiple regression analysis and it can affect attempts to check the stability of regression weights (B).

In examining both the July and October regression analysis the following seven variables (Table 3.7) are noted to be common to both groups.

Table 3.7.--Common Variables and Regression Weights in Regression Analysis.

	July	October
Social Casework	-3.0273205	-4.1449338
Counselor Education and Supervision	-3.0386953	-2.5905028
Books in Personal Library	.6372802	.6729934
Sex	3.9915027	2.6137906
Closures of Cases	- .3000883	- .2608867
Counseling Psychologist	-2.8528519	-1.2615700
Audio Tape Supervision	2.2985051	2.0689280

These variables which are common to both groups provide a stable but small relationship between field review scores and demographic questions which should hold for individuals seeking certification in the future.

Of interest at this point is the fact that six of the seven common variables found in the regression analysis were also common factors when concurrent validity was discussed.

The failure to find similar regression weights (B) on all variables suggested that in order to determine the best combination of variables for prediction that a forward (step-wise) regression analysis be calculated on the total populations of both July and October. By comparing the two total groups and extracting the common variables and their regression weights the best combination of variables

should be established. Table 3.8 depicts the results of these analyses.

Table 3.8.--Common Variables and Regression Weights in Regression Analysis for Total Groups.

	July	October
Sex	4.0425772	2.4925511
Social Casework	-3.3070307	-3.8373819
Books in Personal Library	.6747398	.6559818
Counselor Education and Supervision	-2.7048720	-2.4153188
Rehabilitation Counseling Bulletin	-2.8101812	-1.4846328
Undergraduate G.P.A.	.4292511	.3344882
Counseling Psychologist	-2.0913130	-1.5214585
Audio Tape Supervision	2.0305117	2.7605060
Closures of Cases	- .2206703	- .24503167

An examination of Table 3.8 reveals that the seven variables reported in Table 3.7 are included but two additional variables, undergraduate grade point average, and Rehabilitation Counseling Bulletin, were also identified. In the July analysis the Multiple R (.36621) and  $R^2$  (.13411) were somewhat smaller than in the original analysis. The October group had an increased Multiple R (.42414) and  $R^2$  (.17990).

These analyses suggest that the best linear combination of variables that are common to both groups which should hold for comparison purposes for individuals seeking certification in the future are those contained in Table 3.8.

In concluding this section on validity it should be pointed out that the case for validity is not strong. The correlation coefficients found were statistically significant but from a practical perspective their usefulness remains to be seen. The regression analysis with the minimal amount of variance accounted for by each variable also requires future testing to determine its significance.

There does appear, however, to be two reasons to consider these instruments as valid. First, the basis for criterion validity has been established as a result of these analyses, despite the weaknesses found. A second basis for validity is slightly more complex because if one accepts the fact that the instruments have face validity then by definition one must assume that the Commission and the writers of all the questions have created a "valid measure of that and only that universe of individual behavior patterns for which the items constitute a representative sample." Mosier (1947) states that "if one is prepared to infer such a universe and consider that universe rather than one defined in any other way, such a concept of, validity by definition, may be useful" (Mehrens and Ebel, 1967, p. 202).

### Hypotheses

Based on the research questions proposed in Chapter I the following hypotheses were investigated in this study.

1. There is a difference in the number of professional activities (State, Regional, and National Meetings) engaged in between individuals in different areas of specialization.
2. There is a direct relationship between field review scores and years of experience as a counselor.
3. There is a difference between individuals' daily working activity and what they would like it to be.
4. There is a direct relationship between counselor's perceived training adequacies and their knowledge, in specific areas, as indicated by their performance on the field review sub-tests.
5. There is a direct relationship between field review scores and the number of hours of practicum supervision.
6. Individuals with Master's degrees in Rehabilitation Counseling will score significantly higher on the field review than individuals with Master's degrees in other fields.
7. There is a difference in the field review scores of individuals with different areas of specialization in their current job.
8. Individuals who rate their current in-service training programs as very helpful to them in performing their job will score higher on the field

review than those who feel the program is rarely helpful.

9. There is a combination of demographic variables that can be used to predict field review scores.

### Statistical Analysis

There were a variety of analyses utilized in this study. Cross-tabulations were used to examine preliminarily the more complex variables such as, area of specialization and meetings attended because there were nine and eight sub-categories, respectively, for these two variables. Because of the non-linear relationship between variables (nominal data) a chi-square analysis was used to test for significant differences.

In examining relationships between variables the Pearson product moment correlation coefficient was used. In some instances, to further examine relationships a one-way analysis of variance was utilized.

The techniques used for prediction was a forward (step-wise) multiple regression analysis which was discussed at length previously.

The computer programs used for these analyses were all part of the "Statistical Package for the Social Sciences (SPSS)" and the analyses were computed at Michigan State University on the CDC 6500 computer.

## CHAPTER IV

### RESULTS

#### Introductory Statement

The focus of this chapter is on the relationship and differences in counselor performance on the field review. Four different types of analyses were conducted and are reported in this chapter.

The most significant factor to keep in mind in this chapter is that since the number of subjects is large, significance (differences and relationships) from a statistical perspective, can be found easily.

#### Results of Analyses

This section is organized around each of the nine hypotheses in Chapter III. Each hypothesis is restated and summary cross-tabulations, chi-square, and/or one-way analysis of variance tables are presented for each variable of concern to that hypothesis.

Hypothesis 1: There is a difference in the number of professional activities (State, Regional, and National Meetings) engaged in between individuals' different areas of specialization.

Each of the Tables to be discussed for Hypothesis 1 relate the individuals' area of practice (Q. 35 of the demographic questionnaire) to attendance at State, Regional, and National Meetings. The most frequently attended State meeting is the National Rehabilitation Association (NRA) and the largest group attending are those involved in direct services to clients (counseling), but on a percentage basis supervisors at one of the three levels attend more meetings; that is, 40.3 percent of the administrators, 31.0 percent of the supervisors of services at the top agency level and 31.8 percent of the supervisors of services at the middle agency level attend State Meetings as compared to 26.1 percent of the counselors (Appendix E). The data related to Regional Meetings reflected only slightly lower percentages for each of the four groups (Appendix E). National Meetings attendance tables (Appendix E) reveal that even still a smaller percentage attend. With an 8 row by 10 column array accurate statistical interpretation presents a problem. However, chi-square values are reported for each group and reveal that there are significant differences. The most notable finding is that 44.3 percent of all groups do not attend State Meetings, 72.6 percent do not attend Regional Meetings, and an overwhelming 82.0 percent do not attend National Meetings.

To examine these data more closely the number of categories was collapsed. On one dimension, supervisors at all levels were combined and counselors with varying



specializations were combined. On the other dimension, meetings were collapsed to examine attendance and non-attendance. The results of the chi-square analysis are all significant and reveal that in all cases supervisors attend more meetings, of all three types, than do the counselors (Tables 4.0-4.2). These data support hypothesis 1.

Hypothesis 2: There is a relationship between field review scores and years of experience as a counselor.

The relationship between field review scores and years of experience as a counselor was examined and revealed a negative relationship. Appendix D contains correlation coefficients on these variables as follows:  $-.0803$  for July,  $-.0940$  for October, and a  $-.0412$  when the data for both groups are combined. This result is contrary to what would be expected based on the Commission's premise that the field review is a practice-based examination that puts a premium on the application of knowledge in managing clients.

In an attempt to clarify the nature of the relationship a one-way analysis of variance was calculated (Table 4.3). The negative relationship is due to the fact that in both July and October the group scoring the lowest were the individuals with the most years experience. Also adding to this negative relationship was the fact that the next two lowest scoring groups were also at the high end of

**Table 4.0.--Chi-Square Analysis--July. Area of Practice  
(Q 35) by State, Regional, and National  
Meetings Attended.**

State Meetings				
	Count Row Pct Col Pct Tot Pct			Row Total
		0	1	
Practice	0	174 37.3 24.4 10.1	292 62.7 28.8 16.9	466 27.0
	1	540 42.8 75.6 31.2	723 57.2 71.2 41.8	1263 73.0
Column Total		714 41.3	1015 58.7	1729 100.0

Corrected Chi Square = 3.89891 with 1 Degree of Freedom.  
Significance = .0483

Regional Meetings				
	Count Row Pct Col Pct Tot Pct			Row Total
		0	1	
Practice	0	320 68.7 25.5 18.5	146 31.3 30.5 8.4	466 26.9
	1	933 73.8 74.5 53.9	332 26.2 69.5 19.2	1265 73.1
Column Total		1253 72.4	478 27.6	1731 100.0

Corrected Chi Square = 4.15528 with 1 Degree of Freedom.  
Significance = .0415

Table 4.0.--Continued.

National Meetings				
Practice	Count			
	Row Pct			Row
	Col Pct			Total
	Tot Pct	0	1	
	0	348	118	466
		74.7	25.3	27.0
		24.9	35.3	
		20.1	6.8	
	1	1047	216	1263
		82.9	17.1	73.0
	75.1	64.7		
	60.6	12.5		
	Column	1395	334	1729
	Total	80.7	19.3	100.0

Corrected Chi Square = 14.23374 with 1 Degree of Freedom.  
Significance = .0002

**Table 4.1.--Chi-Square Analysis--October. Area of Practice (Q 35) by State, Regional, and National Meetings Attended.**

State Meetings				
	Count Row Pct Col Pct Tot Pct			Row Total
		0	1	
Practice	0	238 39.8 22.6 10.6	360 60.2 30.0 16.0	598 26.6
	1	813 49.2 77.4 36.1	840 50.8 70.0 37.3	1653 73.4
Column Total		1051 46.7	1200 53.3	2251 100.0

Corrected Chi Square = 15.16127 with 1 Degree of Freedom.  
Significance = .0001

Regional Meetings				
	Count Row Pct Col Pct Tot Pct			Row Total
		0	1	
Practice	0	403 67.5 24.5 17.9	194 32.5 31.7 8.6	597 26.5
	1	1239 74.8 75.5 55.0	418 25.2 68.3 18.5	1657 73.5
Column Total		1642 72.8	612 27.2	2254 100.0

Corrected Chi Square = 11.36096 with 1 Degree of Freedom.  
Significance = .0008

Table 4.1.--Continued.

National Meetings				
Practice	Count			Row
	Row Pct			Total
	Col Pct	0	1	
	Tot Pct			
	0	455 76.1 24.3 20.2	143 23.9 37.1 6.3	598 26.5
	1	1414 85.4 75.7 62.7	242 14.6 62.9 10.7	1656 73.5
	Column Total	1869 82.9	385 17.1	2254 100.0

Corrected Chi Square = 26.17406 with 1 Degree of Freedom.  
 Significance = .0000

**Table 4.2.--Chi-Square Analysis--July and October. Combined Area of Practice (Q 35) by State, Regional, and National Meetings Attended.**

State Meetings				
Practice	Count			Row Total
	Row Pct			
	Col Pct	0	1	
	Tot Pct			
	0	412	652	1064
		38.7	61.3	26.7
		23.3	29.4	
		10.4	16.4	
	1	1353	1563	2916
		46.4	53.6	
	76.7	70.6		
	34.0	39.3		
	Column	1765	2215	3980
	Total	44.3	55.7	100.0

Corrected Chi Square = 18,30763 with 1 Degree of Freedom.  
Significance = .0000

Regional Meetings				
Practice	Count			Row Total
	Row Pct			
	Col Pct			
	Tot Pct	0	1	
	0	723	340	1063
		68.0	32.0	26.7
		25.0	31.2	
		18.1	8.5	
	1	2172	750	2922
		74.3	25.7	73.3
		75.0	68.8	
		54.5	18.8	
	Column	2895	1090	3985
	Total	72.6	27.4	100.0

Corrected Chi Square = 15.33931 with 1 Degree of Freedom.  
Significance = .0001

Table 4.2.--Continued.

National Meetings				
	Count			
	Row Pct	Col Pct	Tot Pct	Row Total
Practice	0		1	
	0		1	
	803	261	1064	
	75.5	24.5	26.7	
	24.6	36.3		
	20.2	6.6		
	1		2919	
	2461	458	2919	
	84.3	15.7	73.3	
	75.4	63.7		
	61.8	11.5		
Column	3264	719	3983	
Total	81.9	18.1	100.0	
Corrected Chi Square = 40.59434 with 1 Degree of Freedom.				
Significance = .0000				

**Table 4.3.--One-Way ANOVA--July and October--Total Score by Years of Experience**

July				
Years Experience	Count	Mean	Standard Deviation	Standard Error
Less than 1	6	107.000	18.5257	7.5631
1 - 2	121	109.0248	11.7036	1.0640
3 - 4	249	107.7631	13.2685	.8409
5 - 6	284	109.7394	10.7238	.6363
7 - 8	240	106.6375	13.9121	.8980
9 - 10	196	107.4745	11.5849	.8275
11 - 12	127	106.9685	13.3369	1.1835
13 - 14	59	106.3729	11.1028	1.4455
15 - 16	92	105.8261	14.1348	1.4737
17 or More	128	105.5156	13.5554	1.1981
Total	1502	107.5859	12.6615	.3267

  

Source	DF	Sum of Squares	Mean Squares	F Ratio
Between Groups	2	2764.5650	307.1739	1.927*
Within Groups	1492	237865.8557	159.4275	
Total	1501	240630.4208		



Table 4.3.--Continued.

October				
Years Experience	Count	Mean	Standard Deviation	Standard Error
Less than 1	8	75.8750	9.5236	3.3671
1 - 2	176	78.8011	12.4032	.9349
3 - 4	319	78.9279	11.6882	.6544
5 - 6	401	77.2594	12.5135	.6249
7 - 8	294	77.4456	11.7207	.6836
9 - 10	222	75.9775	11.5196	.7731
11 - 12	145	76.4690	11.7604	.9766
13 - 14	99	75.4040	12.2282	1.2290
15 - 16	108	75.6574	11.5695	1.1133
17 or More	158	75.2722	11.8669	.9441
Total	1930	77.1440	11.9879	.2729
Source	DF	Sum of Squares	Mean Squares	F Ratio
Between Groups	9	3003.5857	333.7317	.013*
Within Groups	1920	274214.3708	142.8200	
Total	1929	277217.9596		

\*p&lt;.05

the experience range. The F-ratio in this analysis was significant but subsequent Tukey post-hoc analysis were unable to detect a significant difference between groups.

The hypothesis of a relationship existing is affirmed but in a direction contrary to what might be expected.

Hypothesis 3: There is a difference between individuals' daily working activity and what they would like it to be.

Individuals taking the field review and responding to the question regarding the percentage of time they spent in specific areas in their daily work activity versus the amount of time they would like to spend on a given activity provided responses ranging from zero percent to 99 percent of the time. For analysis purposes this variable was dichotomized into two groups, those spending no time or desiring to spend no time on a given activity and those that spend some time or desire to spend some percentage of their time in a given activity.

In the area of personal counseling the findings are that 15.2 percent of the individuals are not doing this in their daily activity and would prefer not to be doing it. Combining both July and October the findings are that 68.5 percent were doing what they desired in this area while 13.1 percent are counseling and prefer not to and 3.2 are not counseling enough of their time and would like to be doing more (Table 4.4).

Table 4.4.--Personal Counseling: Work Activity vs.  
Preferred Work Activity.

July				
	Count Row Pct Col Pct Tot Pct	Preferred		Row Total
		0	1	
Present	0	266 85.0 52.3 17.6	47 15.0 4.7 3.1	313 20.7
	1	243 20.3 47.7 16.1	955 79.7 95.3 63.2	1198 79.3
Column Total		509 33.7	1002 66.3	1511

Corrected Chi Square = 462.14958 with 1 Degree of Freedom.  
Significance = 0

October				
	Count Row Pct Col Pct Tot Pct	Preferred		Row Total
		0	1	
Present	0	273 80.8 55.0 13.4	65 19.2 4.2 3.2	338 16.6
	1	223 13.2 45.0 11.0	1472 86.8 95.8 72.4	1695 83.4
Column Total		496 24.4	1537 75.6	2033 100.0

Corrected Chi Square = 694.77615 with 1 Degree of Freedom.  
Significance = 0

Table 4.4.--Continued.

July-October Combined				
Present	Count	Preferred		Row
	Row Pct			Total
	Col Pct	0	1	
	Tot Pct			
	0	539 82.8 53.6 15.2	112 17.2 4.4 3.2	651 18.4
	1	466 16.1 46.4 13.1	2427 83.9 95.6 68.5	2893 81.6
	Column	1005	2539	3544
	Total	28.4	71.6	100.0

Corrected Chi Square = 1160.00939 with 1 Degree of Freedom.  
Significance = 0

On the question of contact with other agencies, only 1.9 percent would like to be spending more of their time doing this while 64.4 percent are doing what they prefer (Table 4.6).

In all other areas, vocational counseling (Table 4.5), case finding (Table 4.7), job development (Table 4.8), job placement (Table 4.9), administrative work (Table 4.10), research and evaluation (Table 4.11), program development (Table 4.12), Paper work (Table 4.13), and working with the multiple handicapped (Table 4.14), if one examines the diagonals (0,0) (1,1) of the chi-square analyses they reveal that those individuals seeking certification in both July and October are doing essentially what they desire to do.

To further clarify this hypothesis a t-test was calculated to determine if there was a significant difference in the mean percentage of time individuals spent in the thirteen specific areas versus the mean percentage of time they desired to spend in a given activity. Table 4.15 depicts the results of these analyses.

The first factor to be noted in this table is that there is a statistically significant difference between current and desired percentages of time on all variables except working with the multiple handicapped. The increases and decreases between the two amounts of time on all of the variables are minimal with the exception of Paper Work where in both July and October the individuals responding would prefer a reduction in this activity by approximately 16

**Table 4.5.--Vocational Counseling: Work Activity vs.  
Preferred Work Activity.**

July					
	Count Row Pct Col Pct Tot Pct	Preferred		Row Total	
		0	1		
Present	0	352	42	394	
		89.3	10.7	26.1	
		62.0	4.5		
		23.3	2.8		
	1	216	901	1117	
		19.3	80.7	73.9	
		38.0	95.5		
		14.3	59.6		
	Column Total		568 37.6	943 62.4	1511 100.0

Corrected Chi Square = 605.40975 with 1 Degree of Freedom.  
Significance = 0

October					
	Count	Preferred		Row	
	Row Pct			Total	
	Col Pct				
	Tot Pct	0	1		
Present	0	342	71	413	
		82.8	17.2	20.3	
		57.4	4.9		
		16.8	3.5		
	1	254	1366	1620	
		15.7	84.3	79.7	
		42.6	95.1		
		12.5	67.2		
	Column		596	1437	2033
	Total		29.3	70.7	100.0

Corrected Chi Square = 712.46059 with 1 Degree of Freedom.  
Significance = 0

Table 4.5.--Continued.

July-October Combined				
Present	Count	Preferred		Row
	Row Pct			Total
	Col Pct			
	Tot Pct	0	1	
	0	694	113	807
		86.0	14.0	22.8
		59.6	4.7	
		19.6	3.2	
	1	470	2267	2737
		17.2	82.8	77.2
		40.4	95.3	
		13.3	64.0	
	Column	1164	2380	3544
	Total	32.8	67.2	100.0
Corrected Chi Square = 1335.35577 with 1 Degree of Freedom.				
Significance = 0				

**Table 4.6.--Contact with Other Agencies: Work Activity  
vs. Preferred Work Activity.**

July				
	Count Row Pct Col Pct Tot Pct	Preferred		Row Total
		0	1	
Present	0	194 86.2 34.0 12.8	31 13.8 3.3 2.1	225 14.9
	1	376 29.2 66.0 24.9	910 70.8 96.7 60.2	1286 85.1
Column Total		570 37.7	941 62.3	1511 100.0

Corrected Chi Square = 262.26751 with 1 Degree of Freedom.  
Significance = 0

October				
	Count Row Pct Col Pct Tot Pct	Preferred		Row Total
		0	1	
Present	0	225 85.9 36.2 11.1	37 14.1 2.6 1.8	262 12.9
	1	397 22.4 63.8 19.5	1374 77.6 97.4 67.6	1771 87.1
Column Total		622 30.6	1411 69.4	2033 100.0

Corrected Chi Square = 429.88479 with 1 Degree of Freedom.  
Significance = 0



Table 4.6.--Continued.

July-October Combined					
	Count Row Pct Col Pct Tot Pct	Preferred		Row Total	
		0	1		
Present	0	419	68	487	
		86.0	14.0	13.7	
		35.2	2.9		
		11.8	1.9		
	1	773	2284	3057	
		25.3	74.7	86.3	
		64.8	97.1		
		21.8	64.4		
	Column Total		1192 33.6	2352 66.4	3544 100.0

Corrected Chi Square = 691.83756 with 1 Degree of Freedom.  
 Significance = 0

**Table 4.7.--Case Finding: Work Activity vs. Preferred Work Activity.**

July				
	Count Row Pct Col Pct Tot Pct	Preferred		Row Total
		0	1	
Present	0	867 94.7 77.3 57.4	49 5.3 12.6 3.2	916 60.7
	1	254 42.8 22.7 16.8	340 57.2 87.4 22.5	594 39.3
Column Total		1121 74.2	389 25.8	1510 100.0

Corrected Chi Square = 504.59197 with 1 Degree of Freedom.  
Significance = 0

October				
	Count Row Pct Col Pct Tot Pct	Preferred		Row Total
		0	1	
Present	0	1144 94.6 78.4 56.3	65 5.4 11.3 3.2	1209 59.5
	1	316 38.3 21.6 15.5	508 61.7 88.7 25.0	824 40.5
Column Total		1460 71.8	573 28.2	2033 100.0

Corrected Chi Square = 763.87943 with 1 Degree of Freedom.  
Significance = 0

Table 4.7.--Continued.

July-October Combined				
Present	Count	Preferred		Row
	Row Pct			Total
	Col Pct	0	1	
	Tot Pct			
	0	2011	114	2125
		94.6	5.4	60.0
		77.9	11.9	
		56.8	3.2	
	1	570	848	1418
		40.2	59.8	40.0
		22.1	88.1	
		16.1	23.9	
	Column	2581	962	3543
	Total	72.8	27.2	100.0
Corrected Chi Square = 1271.47069 with 1 Degree of Freedom.				
Significance = 0				

**Table 4.8.--Job Development: Work Activity vs. Preferred Work Activity.**

July				
	Count Row Pct Col Pct Tot Pct	Preferred		Row Total
		0	1	
Present	0	767 87.3 78.5 50.8	112 12.7 21.0 7.4	879 58.2
	1	210 33.2 21.5 13.9	422 66.8 79.0 27.9	632 41.8
Column Total		977 64.7	534 35.3	1511 100.0

Corrected Chi Square = 467.32814 with 1 Degree of Freedom.  
Significance = 0

October				
	Count Row Pct Col Pct Tot Pct	Preferred		Row Total
		0	1	
Present	0	1011 86.3 80.2 49.7	161 13.7 20.9 7.9	1172 57.6
	1	250 29.0 19.8 12.3	611 71.0 79.1 30.1	861 42.4
Column Total		1261 62.0	772 38.0	2033 100.0

Corrected Chi Square = 687.78835 with 1 Degree of Freedom.  
Significance = 0

Table 4.8.--Continued.

July-October Combined				
	Count Row Pct Col Pct Tot Pct	Preferred		Row Total
		0	1	
Present	0	1778	273	2051
		86.7	13.3	57.9
		79.4	20.9	
		50.2	7.7	
	1	460	1033	1493
		30.8	69.2	42.1
		20.6	79.1	
		13.0	29.9	
Column Total		2238 63.1	1306 36.9	3544 100.0
Corrected Chi Square = 1156.94510 with 1 Degree of Freedom. Significance = 0				

**Table 4.9.--Job Placement: Work Activity vs. Preferred Work Activity.**

July				
	Count Row Pct Col Pct Tot Pct	Preferred		Row Total
		0	1	
Present	0	703 90.9 74.9 46.5	70 9.1 12.2 4.6	773 51.2
	1	236 32.0 25.1 15.6	502 68.0 87.8 33.2	738 48.8
Column Total		939 62.1	572 37.9	1511 100.0

Corrected Chi Square = 555.50737 with 1 Degree of Freedom.  
Significance = 0

October				
	Count Row Pct Col Pct Tot Pct	Preferred		Row Total
		0	1	
Present	0	900 89.1 77.1 44.3	110 10.9 12.7 5.4	1010 49.7
	1	267 26.1 22.9 13.1	756 73.9 87.3 37.2	1023 50.3
Column Total		1167 57.4	866 42.6	2033 100.0

Corrected Chi Square = 822.61453 with 1 Degree of Freedom.  
Significance = 0

Table 4.9.--Continued.

July-October Combined				
Present	Count	Preferred		Row
	Row Pct			Total
	Col Pct	0	1	
	Tot Pct			
	0	1603	180	1783
		89.9	10.1	50.3
		76.1	12.5	
		45.2	5.1	
	1	503	1258	1761
		28.6	71.4	49.7
		23.9	87.5	
		14.2	35.5	
	Column	2106	1438	3544
	Total	59.4	40.6	100.0

Corrected Chi Square = 1380.04792 with 1 Degree of Freedom.  
Significance = 0

**Table 4.10.--Administrative Work: Work Activity vs.  
Preferred Work Activity.**

July				
Present	Count	Preferred		Row
	Row Pct			Total
	Col Pct	0	1	
	Tot Pct			
	0	575	49	624
		92.1	7.9	41.3
		64.5	7.9	
		38.1	3.2	
	1	317	569	886
		35.8	64.2	58.7
		35.5	92.1	
		21.0	37.7	
	Column	892	618	1510
	Total	59.1	40.9	100.0

Corrected Chi Square = 478.86206 with 1 Degree of Freedom.  
Significance = 0

October				
Present	Count	Preferred		Row
	Row Pct			Total
	Col Pct	0	1	
	Tot Pct			
	0	768	67	835
		92.0	8.0	41.1
		68.1	7.4	
		37.8	3.3	
	1	360	838	1198
		30.1	69.9	58.9
		31.9	92.6	
		17.7	41.2	
	Column	1128	905	2033
	Total	55.5	44.5	100.0

Corrected Chi Square = 761.45121 with 1 Degree of Freedom.  
Significance = 0



Total 4.10.--Continued.

July-October Combined					
	Count Row Pct Col Pct Tot Pct	Preferred		Row Total	
		0	1		
Present	0	575	49	624	
		92.1	7.9	41.3	
		64.5	7.9		
		38.1	3.2		
	1	317	569	886	
		35.8	64.2	58.7	
		35.5	92.1		
		21.0	37.7		
	Column Total		892 59.1	618 40.9	1510 100.0
	Corrected Chi Square = 478.86206 with 1 Degree of Freedom. Significance = 0				

**Table 4.11.--Research and Evaluation: Work Activity vs. Preferred Work Activity.**

July				
Present	Count	Preferred		Row
	Row Pct			Total
	Col Pct			
	Tot Pct	0	1	
	0	804	147	951
		84.5	15.5	63.0
		79.4	29.5	
		53.2	9.7	
	1	208	351	559
		37.2	62.8	37.0
		20.6	70.5	
		13.8	23.2	
	Column	1012	498	1510
	Total	67.0	33.0	100.0

Corrected Chi Square = 354.71750 with 1 Degree of Freedom.  
Significance = 0

October				
Present	Count	Preferred		Row
	Row Pct			Total
	Col Pct			
	Tot Pct	0	1	
	0	1065	226	1291
		82.5	17.5	63.5
		83.5	29.9	
		52.4	11.1	
	1	211	531	742
		28.4	71.6	36.5
		16.5	70.1	
		10.4	26.1	
	Column	1276	757	2033
	Total	62.8	37.2	100.0

Corrected Chi Square = 586.84944 with 1 Degree of Freedom.  
Significance = 0

Table 4.11.--Continued.

July-October Combined					
	Count Row Pct Col Pct Tot Pct	Preferred		Row Total	
		0	1		
Present	0	1869	373	2242	
		83.4	16.6	63.3	
		81.7	29.7		
		52.8	10.5		
	1	419	882	1301	
		32.2	67.8	36.7	
		18.3	70.3		
		11.8	24.9		
	Column Total		2288 64.6	1255 35.4	3543 100.0

Corrected Chi Square = 939.64519 with 1 Degree of Freedom.  
Significance = 0

Table 4.12.--Program Development: Work Activity vs.  
Preferred Work Activity.

July				
	Count Row Pct Col Pct Tot Pct	Preferred		Row Total
		0	1	
Present	0	600 80.5 72.0 39.7	145 19.5 21.4 9.6	745 49.3
	1	233 30.5 28.0 15.4	532 69.5 78.6 35.2	765 50.7
Column Total		833 55.2	677 44.8	1510 100.0
Corrected Chi Square = 380.69613 with 1 Degree of Freedom. Significance = 0				

October				
	Count Row Pct Col Pct Tot Pct	Preferred		Row Total
		0	1	
Present	0	787 81.5 76.7 38.7	179 18.5 17.8 8.8	966 47.5
	1	239 22.4 23.3 11.8	828 77.6 82.2 40.7	1067 52.5
Column Total		1026 50.5	1007 49.5	2033 100.0
Corrected Chi Square = 705.33496 with 1 Degree of Freedom. Significance = 0				

Table 4.12.--Continued.

July-October Combined				
Present	Count	Preferred		Row
	Row Pct			Total
	Col Pct			
	Tot Pct	0	1	
	0	1387	324	1711
		81.1	18.9	48.3
		74.6	19.2	
		39.1	9.1	
	1	472	1360	1832
		25.8	74.2	51.7
		25.4	80.8	
		13.3	38.4	
	Column	1859	1684	3543
	Total	52.5	47.5	100.0

Corrected Chi Square = 1082.62894 with 1 Degree of Freedom.  
Significance = 0

Table 4.13.--Paper Work: Work Activity vs. Preferred Work Activity.

July				
	Count Row Pct Col Pct Tot Pct	Preferred		Row Total
		0	1	
Present	0	123 96.1 18.0 8.1	5 3.9 .6 .3	128 8.5
	1	562 40.7 82.0 37.2	820 59.3 99.4 54.3	1382 91.5
Column Total		685 45.4	825 54.6	1510 100.0

Corrected Chi Square = 142.98664 with 1 Degree of Freedom.  
Significance = 0

October				
	Count Row Pct Col Pct Tot Pct	Preferred		Row Total
		0	1	
Present	0	173 95.6 21.8 8.5	8 4.4 .6 .4	181 8.9
	1	619 33.4 78.2 30.4	1233 66.6 99.4 60.6	1852 91.1
Column Total		792 39.0	1241 61.0	2033 100.0

Corrected Chi Square = 265.27061 with 1 Degree of Freedom.  
Significance = 0

Table 4.13.--Continued.

July-October Combined					
	Count	Preferred		Row Total	
	Row Pct				
	Col Pct				
	Tot Pct	0	1		
Present	0	296	13	309	
		95.8	4.2	8.7	
		20.0	.6		
		8.4	.4		
	1	1181	2053	3234	
		36.5	63.5	91.3	
		80.0	99.4		
		33.3	57.9		
	Column		1477	2066	3543
	Total		41.7	58.3	100.0

Corrected Chi Square = 405.22390 with 1 Degree of Freedom.  
Significance = 0

Table 4.14.--Multiple Handicapped: Work Activity vs.  
Preferred Work Activity.

July				
	Count Row Pct Col Pct Tot Pct	Preferred		Row Total
		0	1	
Present	0	936 95.3 84.2 62.0	46 4.7 11.5 3.0	982 65.0
	1	175 33.1 15.8 11.6	353 66.9 88.5 23.4	528 35.0
Column Total		1111 73.6	399 26.4	1510 100.0

Corrected Chi Square = 679.49265 with 1 Degree of Freedom.  
Significance = 0

October				
	Count Row Pct Col Pct Tot Pct	Preferred		Row Total
		0	1	
Present	0	1216 93.6 84.4 59.8	83 6.4 14.0 4.1	1299 63.9
	1	225 30.7 15.6 11.1	508 69.3 86.0 25.0	733 36.1
Column Total		1441 70.9	591 29.1	2032 100.0

Corrected Chi Square = 896.22122 with 1 Degree of Freedom.  
Significance = 0



Table 4.14.--Continued.

July-October Combined					
	Count	Preferred		Row Total	
	Row Pct				
	Col Pct				
	Tot Pct	0	1		
Present	0	2152	129	2281	
		94.3	5.7	64.4	
		84.3	13.0		
		60.8	3.6		
	1	400	861	1261	
		31.7	68.3	35.6	
		15.7	87.0		
		11.3	24.3		
	Column		2552	990	3542
	Total		72.0	28.0	100.0
Corrected Chi Square = 1578.32525 with 1 Degree of Freedom.					
Significance = 0					

Table 4.15.--t-tests--Current Mean Percentage of Time Spent Versus  
Desire Mean Percentage of Time.

	July		October	
	Current	Preferred	Current	Preferred
Personal Counseling	14.1202	18.0520*	15.9313	21.8386*
Vocational Counseling	13.8488	16.1641*	14.3569	17.3040*
Contact with Other Agencies	9.7664	7.7603*	9.4838	8.2086*
Case Finding	3.5250	2.4291*	3.1164	2.2699*
Job Development	3.2330	3.8960*	2.9361	3.8779*
Job Placement	3.9318	4.5051*	3.7919	4.8155*
Administrative Work	14.4912	9.3264*	14.0435	10.0881*
Research & Evaluation	4.4399	4.8493*	4.2233	5.0970*
Program Development	6.0196	7.3892	6.1289	7.7683*
Paper Work	23.1507	6.5676*	22.5519	6.5215*
Multiple Handicapped	3.6372	3.5264	3.5810	3.6911

\*p<.05.

percent. Another interesting fact that is not revealed by the table is that both of the Current columns sum to 100 percent whereas the Preferred columns sum to 84 percent and 91 percent respectively for July and October. The most obvious question is, what do the individuals desire to do for the balance of their weekly time? This is a question which will have to go unanswered for now.

The chi-square analyses and the t-tests provide statistical support for Hypothesis 3 but from a practical perspective the differences found are inconsequential and one could believe that overall counselors are doing what they desire to do most of the time.

Hypothesis 4: There is a direct relationship between counselors' perceived training adequacies and their knowledge, in specific areas, as indicated by their performance on the field review sub-tests.

There were ten specific areas that were examined in relation to this hypothesis. Field review sub-tests in the area of blind, deaf, group counseling, counseling theory, research and evaluation, job development and placement, neurologically impaired, mental retardation, community organization and resources and case management were paired with subjects' ratings of their training in these areas.

Table 4.16 depicts the correlations found. Five statistically significant relationships were found in July and six in October. This significance is due, in part, to the large number of subjects involved. From a practical

Table 4.16.--Correlations Between Ratings of Training and Field Review Sub-test Performance.

	July	October
Blind	-.02	.01
Deaf	.05*	.06*
Group Counseling	-.05	.01
Research and Evaluation	.13	.16*
Job Development and Placement	-.04	-.06*
Neurologically Impaired	--	.08*
Mental Retardation	.03	.02
Community Organization and Resources	.05	-.01
Case Management	-.05*	-.05*
Counseling Theory	.06*	.14*

\*p=.05

or meaningful perspective the relationships would appear to be significant. There is research and statistical evidence (Guilford, 1956; Borg & Gall, 1971) to suggest that the correlations must be higher than those presented to be of any practical significance.

Borg and Gall (1971), for example, do not discuss, at any length, correlations as are found in these results. For correlations in the range of .20 to .35 they feel that:

Correlations at this level show a very slight relationship between variables, although this relationship may be statistically significant. A correlation of .20 indicates that only 4 percent of the variance in the two measures that have been correlated is common to both. Correlations in this range may have limited meaning in exploratory research where relationships are being sought using crude measures. Correlations, at this level, however, are of no value in either individual or group prediction.  
(p. 359)

Given these facts and the correlations found this hypothesis is rejected. There is no practical or meaningful evidence to support the notion of a relationship between ratings of training and field review sub-test performance.

Hypothesis 5: There is a direct relationship between field review scores and the number of hours of practicum supervision.

The degree of relationship between these two variables was examined from two perspectives, individual and group supervision. In July individual practicum supervision correlated with field review scores .0867, and in October at .1209. In examining group supervision the correlations were .0110 for July and .1037 for October. Three of the four coefficients were statistically significant but as was previously mentioned the degree of relationship is minimal thus rendering it inconsequential.

To further clarify the relationships a one-way analysis of variance was calculated. Tukey post-hoc analysis revealed no significant difference between groups in July for individual supervision; however, in October a significant difference was found in that individuals with no individual supervision scored significantly lower than those individuals with between 12 and 20 hours of supervision and those with 36 or more hours (Table 4.17). For group supervision again in July no significant differences were found in the post-hoc analysis. In October, however,

Table 4.17.--One-Way ANOVA--Field Review Scores by Hours of Individual Supervision--July and October.

July					
Group (Hrs)	Count	Mean	Standard Deviation	Standard Error	
0	492	106.5752	12.4647	.5620	
1-3	101	106.8317	13.0239	1.2959	
4-7	108	106.7685	14.5837	1.4033	
8-11	127	107.2756	12.2239	1.0847	
12-15	122	108.5820	13.0167	1.1785	
16-20	110	106.1636	13.7036	1.7036	
21-25	43	107.3023	10.7228	1.6352	
26-30	39	109.7692	12.4910	2.0002	
31-35	36	108.6111	14.1830	2.3638	
36->	333	109.4925	11.7167	.6421	
Total	1511	107.5917			
	Ungrouped Data		12.6492	.3254	
Analysis of Variance					
Source	DF	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	9	2425.6170	269.5130	1.691	.087
Within Groups	1501	239179.4379	159.3467		
Total	1510	241605.0549			

Table 4.17.--Continued.

October					
Group (Hrs)	Count	Mean	Standard Deviation	Standard Error	
0	621	75.1111	12.4757	.5006	
1-3	132	76.7576	13.5810	1.1821	
4-7	158	76.8038	12.6509	1.0064	
8-11	155	77.2968	10.2318	.8218	
12-15	162	78.7593	10.4577	.8216	
16-20	125	79.1040	12.0435	1.0772	
21-25	50	77.3600	12.1366	1.7164	
26-30	57	77.1228	11.3831	1.5077	
31-35	62	75.8548	15.5593	1.9760	
36->	415	79.3711	10.4882	.5148	
Total	1937	77.1582			
		Ungrouped Data	11.9823	.2723	
Analysis of Variance					
Source	DF	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	9	5674.4593	630.4955	4.462	.000
Within Groups	1927	272286.3079	141.3006		
Total	1936	277960.7672			

differences were found between those individuals having no group supervision and those having from 21-25 hours of supervision in practicum (Table 4.18).

The hypothesis of a relationship between field review scores and number of hours of practicum supervision is not supported. Differences found in the ANOVA for October were significant but not in a linear form as was hypothesized.

Hypothesis 6: Individuals with Master's degrees in Rehabilitation Counseling will score higher on the field review than individuals with Master's degrees in other fields.

Table 4.19 presents the analysis of variance summary which compared Master's degrees in rehabilitation counseling with all other M.A. majors and indicates support for Hypothesis 6. However, subsequent Tukey post-hoc analyses were unable to detect where the differences actually existed.

Hypothesis 7: There is a difference in the field review scores of individuals with different areas of specialization in their current job.

Table 4.20 reveals that in July individuals in Counselor Education scored significantly higher than those in Disability Determination. In October, Counselor Educators again scored the highest but Supervisors of Services at the top and middle agency level were in the same range according to the Tukey post-hoc analysis. This



**Table 4.18.--One-Way ANOVA--Field Review Scores by Hours of Group Supervision--July and October.**

July					
Group (Hrs)	Count	Mean	Standard Deviation	Standard Error	
0	590	107.7932	12.0942	.4979	
1-3	88	106.6477	13.4840	1.4374	
4-7	91	107.1648	14.0200	1.4697	
8-11	95	105.3579	13.9314	1.4293	
12-15	106	109.9906	12.1604	1.1811	
16-20	81	105.9630	12.9706	1.4412	
21-25	43	107.1163	16.3579	2.4946	
26-30	70	105.5143	14.8994	1.7808	
31-35	45	107.5556	11.3429	1.6909	
36->	302	108.4536	11.6058	.6678	
Total	1511	107.5917			
	Ungrouped Data		12.6492	.3254	
Analysis of Variance					
Source	DF	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	9	1954.0976	217.1220	1.360	.202
Within Groups	1501	239650.9574	159.6609		
Total	1510	241605.0549			

Table 4.18.--Continued.

October					
Group (Hrs)	Count	Mean	Standard Deviation	Standard Error	
0	744	75.9059	12.0029	.4400	
1-3	112	76.3304	12.5643	1.1872	
4-7	115	76.2348	12.7226	1.1864	
8-11	120	76.5333	12.6677	1.1564	
12-15	128	78.5234	10.6490	.9412	
16-20	111	76.5676	12.2693	1.1741	
21-25	64	81.1094	9.6447	1.2056	
26-30	79	77.4684	12.9068	1.4521	
31-35	52	80.1154	11.9059	1.6511	
36->	412	78.7456	11.5007	.5666	
Total	1937	77.1528			
		Ungrouped Data	11.9823	.2723	
Analysis of Variance					
Source	DF	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	9	4167.9154	463.1017	3.259	.001
Within Groups	1927	273792.8518	142.0824		
Total	1936	277960.7672			

Table 4.19.--One-Way ANOVA--Field Review Scores by Graduate Major.

July					
Group	Count	Mean	Standard Deviation	Standard Error	
Rehabilitation	725	108.9379	12.1192	.4501	
Other	678	106.4897	12.8563	.4937	
Total	1403	107.7548			
		Ungrouped Data	12.5363	.3347	
Analysis of Variance					
Source	DF	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	1	2100.0204	2100.0204	13.481	.000
Within Groups	1401	218235.6346	155.7713		
Total	1402	220335.6550			

Table 4.19.--Continued.

October					
Group	Count	Mean	Standard Deviation	Standard Error	
Rehabilitation	955	78.5026	11.2460	.3639	
Other	876	76.3459	12.1753	.4114	
Total	1831	77.4708			
		Ungrouped Data	11.7461	.2745	
Analysis of Variance					
Source	DF	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	1	2125.2481	2125.2481	15.526	.000
Within Groups	1829	250362.9387	136.8851		
Total	1830	252488.1868			

Table 4.20.--One-Way ANOVA--Field Review Scores by Area of Specialization in Practice.

July					
Group	Count	Mean	Standard Deviation	Standard Error	
Administrators	115	107.4957	11.4726	1.0698	
Supervisor (Top)	61	111.3115	9.2205	1.1806	
Supervisor (Middle)	238	107.9118	13.4370	.8710	
Counselor	861	107.2125	12.6804	.4321	
Staff Development	30	111.4000	10.7434	1.9615	
Counselor Educators	41	112.9488	12.8315	2.0039	
Client Evalation	67	106.5821	13.9698	1.7067	
Disability Determination	24	100.9167	15.2627	3.1155	
Job Development	21	103.4762	12.0980	2.6400	
Other	53	108.5660	10.3227	1.4179	
Total	1511	107.5917			
		Ungrouped Data	12.6492	.3254	
Analysis of Variance					
Source	DF	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	9	3786.4823	420.7203	2.655	.000
Within Groups	1501	237818.5726	158.4401		
Total	1510	241605.0549			

Table 4.20.--Continued.

October					
Group	Count	Mean	Standard Deviation	Standard Error	
Administrators	161	76.5776	12.6237	.9949	
Supervisor (Top)	73	76.5616	10.8089	1.2651	
Supervisor (Middle)	279	77.3405	12.1075	.7249	
Counselor	1111	77.3843	11.6332	.3490	
Staff Development	33	75.9697	13.2441	2.3055	
Counselor Educators	54	79.8889	12.5423	1.7068	
Client Evaluation	77	76.4545	11.1610	1.2719	
Disability Determination	21	74.3810	14.1438	3.0864	
Job Development	29	69.4828	19.2810	3.5804	
Other	100	77.7800	11.3828	1.1383	
Total	1938	77.1584			
		Ungrouped Data	11.9817	.2722	
Analysis of Variance					
Source	DF	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	9	2542.8283	282.5365	1.977	.039
Within Groups	1928	275535.5396	142.9126		
Total	1937	278078.3679			

group did, however, score significantly higher than those in Job Development and Placement. As a result of these analyses support is provided for Hypothesis 7.

Hypothesis 8: Individuals who rate their current in-service training programs as very helpful to them in performing their jobs will score higher on the field review than those who feel the program is rarely helpful.

Table 4.21 reveals no significant differences between the groups, for July, however, those individuals indicating that their current in-service training was rarely helpful scored higher, on the average, than any other group. Similar results were found for October. Also, in October significant differences were found but in completely the opposite direction of what had been hypothesized. In other words, those who felt their current in-service program was almost always helpful scored significantly lower than those individuals indicating that it was rarely helpful. Given these results Hypothesis 8 is rejected.

Hypothesis 9: There is a combination of demographic variables that can be used to predict field review scores.

This hypothesis was dealt with at length in Chapter III. Briefly, thirteen predictor variables were found for July while seventeen were found for October. The multiple regression analysis only accounts for 13.5 percent

**Table 4.21.--One-Way ANOVA--Field Review Scores by Helpfulness In-service Training.**

July					
Group	Count	Mean	Standard Deviation	Standard Error	
Rarely	164	108.0183	11.0128	.8660	
Sometimes	547	107.9159	12.9220	.5525	
Frequently	342	107.9357	12.8111	.6927	
Generally	242	106.3140	12.7576	.8201	
Almost Always	172	106.7907	12.6737	.9664	
Total	1467	107.5358			
		Ungrouped Data	12.6401	.3300	
Analysis of Variance					
Source	DF	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	4	628.6123	157.1531	.984	.415
Within Groups	1462	233596.2589	159.7786		
Total	1456	234224.3712			



Table 4.21.--Continued.

October					
Group	Count	Mean	Standard Deviation	Standard Error	
Rarely	242	78.8264	11.1996	.7199	
Sometimes	626	78.2428	11.1799	.4468	
Frequently	442	76.8145	12.2210	.5813	
Generally	337	76.8516	12.0709	.6575	
Almost Always	233	74.0773	12.9579	.8489	
Total	1880	77.2165			
		Ungrouped Data	11.8941	.2743	
Analysis of Variance					
Source	DF	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	4	3699.1071	924.7768	6.615	.000
Within Groups	1875	262123.7818	139.7994		
Total	1879	265822.8888			

Of the variance in the July population and 17.5 percent for the October population. These findings plus the fact that cross validation within the July and October populations was not completely successful suggests that the demographic variables are of minimal significance in predicting field review performance.

### Summary of Results

1. There was a significant difference in meeting attendance of all three types between supervisors and counselors. That is, supervisors attend more State, Regional, and National Meetings than do counselors.
2. Minimal relationships were found between field review scores and years experiences as a counselor, counselors' perceived training inadequacies and sub-test performance, and field review scores and hours of practicum supervision.
3. On a percentage of time basis, counselors are engaged in the activities in which they desire to be involved.
4. Individuals with Master's degrees in Rehabilitation Counseling generally score higher on the field review than individuals with M.A.'s in all other fields combined.
5. Counselor Educators score significantly higher on the field review than any other group.

6. Error in predicting field review scores through the use of demographic variables can only be reduced by approximately 14 percent according to the multiple regression analysis.

## CHAPTER V

### DISCUSSION

#### Introductory Statement

This research was primarily focused on two basic questions. In general, these questions could be restated as:

1. Can the validity of the field review be established with concurrent measures of biographical variables?
2. How do professional activities (attendance at professional meetings and journal reading) and training (academic and in-service) relate to performance on the certification examination?

The research findings and implications that relate to these general questions will be discussed separately.

#### Results and Implications Regarding the Validity of the Field Review

The demographic questionnaire has provided a wealth of information to describe certification applicants. The differences in the July and October populations were minimal indicating that the 3,982 individuals were a homogeneous group.

The attempt to establish concurrent validity for the field review met with only minimal success. Only twelve variables were identified for the entire population and although the relationship between the field review performance and these twelve variables were statistically significant, from a practical perspective the degree of relationship was minimal.

There appear to be a number of possible explanations for the lack of validity found in this study. First, because the individuals seeking certification have different areas of specialization in their current job the question arises as whether or not the field review is more valid for one group than another? The ANOVA results in Table 4.20 suggested that this may be true and that the field review failed to be heterogeneous enough to accurately assess various specialty areas in the field of rehabilitation. Second, and possibly the most serious factor to consider is whether or not a paper and pencil examination such as the field review is a valid measure of a successful counselor. Optimally, a number of methods should be utilized, such as ratings by supervisors, case closure rates and the sustention of benefits for clients served, to mention a few.

A second factor to be considered is that individuals, because of the knowledge that they did not have to obtain a specific score to be certified, randomly responded to the field review thus providing an inaccurate

index of their ability as measured by the field review. Examination of the split-half reliabilities suggests that this is not true unless the subjects took painstaking efforts to distort systematically on all questions on the field review. A final factor to consider is that the field review requires skills other than the ability to apply knowledge from the field of rehabilitation to managing clients. In July, for example, Counselor Educators and Staff Development personnel had the highest average scores and again in October, Counselor Educators had the highest average scores. This suggests that knowledge of isolated bits of information rather than the application of this knowledge may be a factor in field review performance.

#### The Effect of Professional Activities and Training on Field Review Performance

In establishing the standards for eligibility for certification, during the grandpersoning period, the Commission required that applicants be members of a professional organization. Implicit in this requirement is that by virtue of being a member individuals will be subjected to professional journals and meetings of the organization. The results of this study show that very few applicants attended professional meetings and in one case it was found that attendance at Regional meetings had a negative relationship to field review performance. It was also found that reading certain journals, Social Casework, Counseling Psychologist, and Counselor Education and

Supervision, also had a negative effect or were negatively related to the field review. One must conclude from this that the field review contains a unique body of knowledge which is not affected by experience and knowledge gained from professional meetings and publications.

Recall that within the demographic questionnaire there were a series of questions related to academic training. Question 51 requested that the individual rate their training in 54 areas. These ratings were averaged to obtain an overall rating of the respondents' training. A new variable was thus created called "average" which was correlated with field review scores to determine the relationship between ratings of training and field review scores. It was found that in July the correlation was  $-.0445$  and in October  $-.0627$ . In part, then it appears that ratings in the specified areas of academic training are not related to field review performance. With in-service training it was found that those who indicated that their current in-service training was rarely helpful to them in performing their job scored the highest. The most logical explanation for this is that if they already know the material being presented in the in-service training that this training is rarely helpful to them.

In summary, it appears that professional activities may have a negative effect on field review performance. One explanation for this phenomena might be that the knowledge obtained at professional meetings and through

professional publications may be so specific that it has little effect on a broad range of skills. Another factor might be that the specific skills are so advanced over current practices that their value is clouded by a lack of familiarity by others in the profession. The lack of relationship between training (academic and in-service) to field review scores may be accounted for by three factors: (1) inaccurate perceptions in rating of training by participants, (2) the specific areas queried in the questionnaire have no relationship to the skills necessary to score satisfactorily on the field review, and (3) the questions within the field review are homogeneous thus discrimination between individuals was not accomplished.

The implications of these findings pose rather serious questions as related to Rehabilitation Counseling Education programs and the mandate for in-service/continuing education. If it does not matter that a counselor feels he/she was trained poorly in a given subject area and if in-service training rarely helps in job performance and that both of these factors are either non-related or negatively related to performance on the field review which is to certify individuals as Rehabilitation Counselors and provide them with credibility and stature in the profession then what is their value? These results would suggest that neither the quality or quantity of current forms of training (academic and in-service) has an impact on whether or not an individual is certified as a



Rehabilitation Counselor and that new and innovative curriculums and in-service programs are necessary to take the individual beyond the point they are in knowledge of the field of rehabilitation. Because the validity of the field review is in question these results are suspect. Further research on the field review examination with a close inspection of individual questions seems appropriate prior to harsh judgments that these results suggest.

#### Limitations of the Research

The most obvious limitation of this research is that all individuals taking part in the certification process did so on a voluntary basis. Furthermore, they were all aware that their performance on the field review and compliance (or lack of compliance) in responding to the field demographic questionnaire would not affect their being certified. This supports the notion, as was previously mentioned, that the population in the study was homogeneous consequently the results may not generalize to others seeking certification as rehabilitation counselors. Furthermore, most of the analyses of data were conducted on groups, that included supervisors, counselor educators, etc. and not on rehabilitation counselors alone.

#### Implications for Future Research

It is obvious that research in this area must continue. With Certification by Examination having begun in April 1976 the data pool upon which this study was

conducted can be added to which may help in clarifying the lack of relationships found in this research. In addition to this an examination of the questions in the field review must be undertaken to insure that in future certification examinations low intercorrelations among items exist so that the validity of the examination is increased. The entire training issue should also be examined in future research with specific recommendations being made to academic institutions and State and Regional offices based on the certification applicants' needs as specified in the demographic questionnaire. Additional criterion measures should be developed to assess certification applicants so that a variety of factors can be evaluated in determining the competency and level of performance of a counselor. A study such as this would also provide for an additional basis for the validity of the field review. The question of whether or not the field review is in fact practice based also needs to be assessed so that practice based validity, if in fact it exists, can be established.

### Conclusions

The primary goal of this research has been to clarify and identify relationships between individual characteristics of applicants for certification as rehabilitation counselors and their performance on a practice based field examination.

The accomplishment of this goal has led to specific findings that: (1) supervisors attend more State, Regional, and National meetings than do counselors, (2) years of experience as a counselor has a minimal relationship to field review examination scores, (3) generally, counselors are engaged in the activities they desire for the percentage of time per week that they desire with one notable exception, that being paper work, (4) individuals with Master's degrees in Rehabilitation Counseling generally score higher on the field review than individuals with M.A.'s in all other fields combined, (5) counselor educators score significantly higher on the field review than any other group, and (6) error in predicting field review scores through the use of demographic variables can only be reduced by approximately 14 percent through the use of multiple regression analysis.

The idea of certification of rehabilitation counselors appears to be a viable one. The efforts of the Commission on Rehabilitation Counselor Certification continue to provide input in the field of rehabilitation counseling and the efforts are leading to standardization of qualifications of rehabilitation counseling professionals. The certification of counselors by the Commission is providing the general public with a criterion upon which to evaluate the qualifications of the individuals to provide services.

The results of this study provide a definitive picture of rehabilitation counselor characteristics and they should have an impact on the field of rehabilitation--the educational and professional organizations and the counselors upon which this study was based.

## **APPENDICES**

## **APPENDIX A**

### **STANDARDS FOR ELIGIBILITY FOR CERTIFICATION**

## APPENDIX A

### STANDARDS FOR ELIGIBILITY FOR CERTIFICATION

#### Certification Philosophy and Conclusions

C. D. Carnes

Journal of Applied Rehabilitation  
Counseling

Spring 1972

1. Despite serious practical difficulties and questions regarding internal readiness, increasing external forces require that rehabilitation counseling develop professional standards and related certification procedures. Positively, it is felt that a minimum consensus now exists sufficient to justify standards and consequently stabilize the field along with assisting in future professional growth. Negatively, several state legislative efforts are under way with minimal professional consultation, many fragmented efforts to develop standards are ongoing with little coordination, and "deprofessionalization" threatens under the impact of increasing pressures for more services to more people.

2. The intent is not to certify that any individual is suitable for employment or attempt to impose personnel requirements upon any agency, but to establish a national professional scale regarding which any interested group, agency, or individual may use as a measure. However, it would be hoped that voluntary cooperation by a majority of rehabilitation counselors would, over time, exercise an increasing influence on the field and ultimately guide legislation, personnel practices and training programs.

3. Considering the realities of the field today, any national certification program must be broad-based professionally and involve representatives from several related and appropriate groups or areas. Management of

committee work activity suggests that broader circles of involved groups should expand only as concrete provisions are formulated thus providing a reality based feed-back capacity. Therefore, college educators, agency administrators, and federal officials should ultimately be solicited for reactions but only during the final stages of preparation.

4. Contemporary professional standards and certification for rehabilitation counseling clearly imply a structure of levels and alternative routes to the traditional academic model. It would be desirable that alternatives be equivalent to, not lesser than, optimum educational preparation but the value of experience and the use of examination (possibly unorthodox in character) must be taken into account.

5. During the development process a long range view toward the requirements of national accrediting groups which accredit specific professional certifying organizations must be taken to insure maximum acceptability at that point in time when, and if, this type of stature and recognition is desirable. This implies that individuals knowledgeable upon this subject should be involved at the earliest stages of preparation.

6. Professional rehabilitation counselor certification may be established by:

a. Graduation with a master's degree from an accredited rehabilitation counseling training program, the completion of which insures minimum content acquisition as specified below and two years of subsequent certified experience in rehabilitation case work.

b. Attainment of a master's degree in a related behavioral science (e.g., psychology, sociology, counseling and guidance, social work, etc.) along with three years of experience in rehabilitation case work and competency in the content areas specified below.

c. Attainment of a master's degree equivalency level by one of the following:

(1) Graduation with a bachelor's degree in rehabilitation along with four years of satisfactory experience in rehabilitation case work and competency in the content areas specified below.

7. Professional rehabilitation counselor certification requires demonstrated competency in each of the following content areas;

(a) Rehabilitation philosophy, history and structure. (b) Medical aspects of disability. (c) Psycho-social aspects of handicapping conditions. (d) Occupational information and the world of work as related to disability



and rehabilitation. (e) Counseling theory and techniques as related to disability and rehabilitation. (f) Community organization and resources. (g) Supervised practicum in rehabilitation counseling (an extended period of basic skill development under a qualified instructor). (h) The psychology of personal adjustment as related to disability and rehabilitation. (i) Evaluation and assessment. (j) Independent study (the ability to utilize research findings and professional publications).

It will be noted that this standard for the certified rehabilitation counselor agrees substantially with the ARCA position but provides for equivalent routes to certification beyond the traditional college model. This formulation does tie all content areas more closely to disability and rehabilitation as a differential field, and concerns itself more directly with issues related to skill and knowledge attainment than training needs and methods. Thus, the extent of total agreement is somewhat obscured by the differing emphases, styles and purposes. A careful reading will disclose that the same content areas constitute the heart of both drafts if a direct application to rehabilitation practice is envisioned.

Standards and Criteria for Rehabilitation  
Counselor Certification

Adopted By

The National Commission on Rehabilitation  
Counselor Certification

December 1973

Professional rehabilitation counselor certification may be established by:

(1) Graduation with a master's degree from an accredited rehabilitation counseling training program, which includes a supervised internship, the completion of which insures minimum content acquisition as specified, and one year of acceptable experience\* in rehabilitation counseling.

(2) Attainment of master's degree in rehabilitation counseling not including a supervised internship; or a master's degree in a related areas (as defined by the Commission) along with two years experience in rehabilitation counseling and competence in the content areas specified below.

(3) Attainment of a master's degree equivalency level by one of the following:

A. Graduation with a bachelor's degree in rehabilitation along with four years of acceptable experience in rehabilitation counseling and competence in the content area specified below.

B. Graduation with a bachelor's degree along with five years of acceptable experience in rehabilitation counseling and competence in the content areas specified below.

Professional rehabilitation counselor certification requires demonstrated competence in the following content areas:

- a. Rehabilitation philosophy, history, and structure
- b. Medical aspects of disability
- c. Psycho-social aspects of handicapped conditions
- d. Occupational information and the world of work
- e. Counseling theory and techniques
- f. Community organization and resources
- g. Placement processes and job development

- h. The psychology of personal and vocational adjustment
- i. Evaluation and assessment
- j. The ability to utilize research findings and professional publications

"Grandfathering" those members who meet the above criteria will be carried out by July, 1975, according to the time schedule established by the National Commission on Rehabilitation Counselor Certification. After that date all persons who qualify for certification will be required to pass a certification examination. Membership in ARCA, NRCA and/or an allied professional association, will be a prerequisite for "grandfathering."

For those not meeting the above criteria, an applicant who deems himself qualified to be a rehabilitation counselor and has five years experience or its equivalent, may apply to the National Commission and at the discretion of the Credential's Committee, may take the examination to be "grandfathered."

During the "grandfathering" period, all applicants meeting the criteria of the Commission will be required to take the certification examination, but will not be required to achieve a minimum specified score.

\*Acceptable experience in rehabilitation counseling is defined as: full-time employment acceptable to the Commission, in the use of rehabilitative counseling techniques; vocational evaluation; psychological assessment; social, medical, vocational psychiatric information; and rehabilitative methods in an agency (public or private), hospital or clinic, in which the applicant is under professional supervision, and has employed such methods and measures. By 1977, acceptable experience will require supervision by a person certified in rehabilitation counseling by the National Commission Rehabilitation Counseling Certification.

ADDENDUM

DECEMBER 1973

STANDARDS AND CRITERIA FOR REHABILITATION  
COUNSELOR CERTIFICATION

The Commission recognizes membership in the following professional organizations or their affiliated state chapters:

APA, divisions 17 or 22; APGA, divisions ACES, AMEG, ARCA, ASCA, NECA, NVGA, also any state Personnel & Guidance Association affiliation with ARCA, NRA, divisions NRCA, ASPED, NADE, VEWAA:

(NOTE: NRA alone is not sufficient)

New York State Rehabilitation Counseling Association--  
(NYSRCA) National Association of Social Workers (NASW)  
American Occupational Therapy (AOTA).

Puerto Rico--A.C.E.R.; C.Y.T.E.R.I.

Standard and Criteria for Rehabilitation  
Counselor Certification

July, 1975

To be eligible to participate in the Certification Examination, a candidate must meet one of the following requirements of EDUCATION combined with EXPERIENCE:

1. A Master's degree in Rehabilitation Counseling from a rehabilitation counselor training program, PLUS a supervised internship, PLUS one year of acceptable experience as defined below.<sup>1</sup>

OR

2. A Master's degree in Rehabilitation Counseling WITHOUT a supervised internship, PLUS two years of acceptable experience as defined below.<sup>1</sup>

OR

3. A Master's degree in a related area<sup>2</sup> PLUS two years of acceptable experience as defined below.<sup>1</sup>

OR

4. A Master's degree in an unrelated area<sup>2</sup> PLUS five years of acceptable experience as defined below.<sup>1</sup>

OR

5. A Bachelor's degree in Rehabilitation PLUS four years of acceptable experience as defined below.<sup>1</sup>

OR

6. A Bachelor's degree in any other area PLUS five years of acceptable experience as defined below.<sup>1</sup>

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<sup>1</sup>Acceptable experience in rehabilitation counseling is defined as: full-time employment acceptable to the Commission in the use of rehabilitative counseling techniques; vocational evaluation; psychological assessment; social, medical, vocational psychiatric information; and rehabilitative methods in an agency (public or private), hospital or clinic, in which the applicant is under professional supervision, and has employed such methods and measures. Effective January 1, 1977, experience submitted as meeting requirements must include at least one year under the supervision of a Certified Rehabilitation Counselor.

<sup>2</sup>The relatedness of a Master's degree to a Master's degree in Rehabilitation Counseling shall be determined by the Commission on the basis of the candidate's transcript.

### Code of Ethics

A rehabilitation counselor has a commitment to the effective functioning of all human beings; his emphasis is on facilitating the functioning or refunctioning of those persons who are at some disadvantage in the struggle to achieve viable goals. While fulfilling this commitment he interacts with many people, programs, institutions, demands, and concepts, and in many different types of relationships. In his endeavors he seeks to enhance the welfare of his clients and of all others whose welfare his professional roles and activities will affect. He recognizes that both action and inaction can be facilitating or debilitating and he accepts the responsibility for his action and inaction.

- The primary obligation of the rehabilitation counselor is to his client. In all his relationships he will protect the client's welfare and will diligently seek to assist the client towards his goal.
- The rehabilitation counselor recognizes that the client's family is typically a very important factor in the client's rehabilitation. He will strive to enlist the understanding and involvement of the family as a positive resource in promoting the client's rehabilitation plan and in enhancing his continued effective functioning.
- The rehabilitation counselor is obligated to protect the client-employer relationship by adequately apprising the latter of the client's capabilities and limitations. He will not participate in placing a client in a position that will result in damaging the interests and welfare of either or both the employer and the client.
- The rehabilitation counselor will relate to his colleagues in the profession so as to facilitate their ongoing technical effectiveness as professional persons.
- Typically, the implementation of a rehabilitation plan for a client is a multi-disciplinary effort. The rehabilitation counselor will conduct himself in his interdisciplinary relationship in such a way as to facilitate the contribution of all the specialists involved for maximum benefit of the client and to bring credit to his own profession.
- The rehabilitation counselor will be loyal to the agency that employs him and to the administrators and supervisors who supervise him. He will refrain from speaking, writing, or acting in such a way as to bring discredit on his agency.

- The rehabilitation counselor will regard his professional status as imposing on him the obligation to relate to the community (the public) at levels of responsibility and morality that are higher than are required for persons not classified as "professional." He will use his specialized knowledge, his special abilities, and his leadership position to promote understanding and the general welfare of handicapped persons in the community, and to promote acceptance of the viable concepts of rehabilitation and of rehabilitation counseling.
- In his relationships with other programs, agencies and institutions that will participate in the rehabilitation plan of the client, the rehabilitation counselor will follow procedures and insist on arrangements that will foster maximum mutual facilitation and effectiveness of services for the benefit of the client.
- The rehabilitation counselor is obligated to keep his technical competency at such a level that his clients receive the benefit of the highest quality of services the profession is capable of offering.
- The rehabilitation counselor is obligated to assist in the efforts to expand the knowledge needed to serve handicapped persons with increasing effectiveness.



**APPENDIX B**

**DEMOGRAPHIC QUESTIONNAIRE**

**DIRECTIONS FOR COMPLETION**

COMMISSION ON REHABILITATION COUNSELOR CERTIFICATION

DEMOGRAPHIC INFORMATION

SIGNATURE \_\_\_\_\_

APPLICATION ID # \_\_\_\_\_

Responses you are being requested to give are expected to provide a foundation from which a meaningful competency examination can be developed. This implies that there is a long road ahead in the development of an examination which will truly measure competency, and one which will be fair to the many different types of counselors who elect to participate in certification.

Certification has as its primary impetus the provision of assurance that professionals engaged in rehabilitation counseling will meet acceptable standards of quality in practice. For this reason the inquiry about your academic training is rather extensive. This is requested for two reasons, (1) to develop in-service programs that will hopefully rectify deficiencies felt by the rehabilitation counselor, and (2) to influence future curriculum offerings in rehabilitation counselor education programs so that deficiencies can be reduced. Thus the information you provide both in response to the questions in the Field Review and this questionnaire is CRITICAL FOR ACHIEVING THE FINAL GOAL.

It is important that we have all of the information requested below. Although we are requesting identification of you as an individual we are not concerned with your performance as an individual. The personal identification serves only to link the characteristics of sets of people to sets of responses on the examination. The demographic data on rehabilitation counselors, supervisors and counselor educators, as well as on your work milieu and certain perceptions held, will also have relevance for future research in rehabilitation counseling, counselor education programs and in-service training. We will put this information to use in answering questions such as the following:

1. What proportion of the persons taking this examination are in each rehabilitation subspecialty?
2. Do the field review questions sample adequately from the content and experience base of rehabilitation counselors?
3. What is the background, experience and education that rehabilitation counselors have?
4. Do rehabilitation counselors in different settings respond the same way to questions?

You can see from this that there is additional information we might seek. We hope that you will help provide a data base. The information will also be valuable after the grandfathering period is over, for the reasons mentioned above, so that we may then construct the best examination possible. We appreciate your cooperation in providing the necessary information for what we all consider a worthy cause.

# COMMISSION ON REHABILITATION COUNSELOR CERTIFICATION

520 North Michigan Avenue - Suite 1504

Chicago, Illinois 60611

(312) 644-4329

## INSTRUCTIONS FOR COMPLETING THE DEMOGRAPHIC QUESTIONNAIRE

**For** the October Field Review, the Demographic Questionnaire has been considerably **lengthened**. Please read these instructions carefully and follow them precisely. **All** participants should complete the Questionnaire before beginning the Field Review.

ALL PARTICIPANTS ANSWER QUESTIONS 1 through 55

SUPERVISORS ANSWER QUESTIONS 1 through 64

COUNSELOR EDUCATORS ANSWER QUESTIONS 1 through 55  
AND PAGE 9

**The** following pattern for recording answers to questions should be followed:

Questions 1 through 50 on the purple answer sheet;  
Questions 56 through 64 on the purple answer sheet;  
Questions 51 through 55 and Page 9 on the Questionnaire form.

1. Each participant should use one purple answer sheet and the #2 pencil provided for the Field Review.
2. The questions may have varying numbers of responses. You should indicate the appropriate box no matter how many responses are available.
3. Please print your LAST NAME in the space marked "Your Last Name", and below it blacken the corresponding letters. Your first name and middle initial should also be completed.
4. Fill in your application identification number using the last four boxes under the section entitled "Student Number" and below it blacken the corresponding numbers.

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5. In the box marked "Month/Day" indicate the month and day on which the Questionnaire is being completed and below it blacken the corresponding numbers.
6. Indicate your sex in the appropriate space.
7. Indicate your name and identification number on the first page of the Demographic Questionnaire.
8. The number of responses varies with each question. If "OTHER" is the selected response, mark the appropriate space on the answer sheet and then on the Questionnaire fill in the space behind "SPECIFY".
9. If some questions do not exactly fit your current life/work situation, please select the answer that is CLOSEST to your present situation.
10. Questions 16 and 17 refer to the TOTAL number of hours of supervision you received during Graduate School. In the event that you were not supervised or did not have a Practicum, mark "NONE" (Response #1) on the answer sheet.
11. Question 50 has a total of 14 possible responses. In the event that your response is 11 through 14, mark it in the Questionnaire booklet rather than on the answer sheet.
12. Questions 51, 52 and 53 are answered on the Questionnaire.
 

Question 51: place a check mark under the appropriate column;

Question 52: place a check mark after the areas in which you have NEVER worked;

Question 53: place a check mark after all areas in which you feel you need more training.
13. Question 54 asks that you check the areas that you feel competent to work in. All 11 items should be checked either YES, SOMETIMES, or NO. Also fill in the appropriate percentages which should add to 100%.

EXAMPLE:

	PERCENT OF TIME PER WEEK	I FEEL COMPETENT TO WORK IN THIS AREA (CHECK ONE)			PERCENTAGE OF TIME I WOULD PREFER TO SPEND IN EACH OF THE AREAS.
		YES	SOMETIMES	NO	
PERSONAL COUNSELING	20%	X			40%
VOCATIONAL COUNSELING	10%	X			20%
CONTACT WITH OTHER AGENCIES	5%		X		5%
CASE FINDING	10%		X		
JOB DEVELOPMENT				X	
JOB PLACEMENT	15%	X			10%
ADMINISTRATIVE WORK				X	
RESEARCH AND EVALUATION				X	
PROGRAM DEVELOPMENT	10%	X			10%
PAPER WORK	30%	X			5%
MULTIPLE HANDICAPPED			X		10%

14. Question 55 asks for a ranking using 1 through 5, so each numeral should be used only once.

EXAMPLE:

- 5 Being in the right place at the right time
- 2 Conforming and playing politics
- 4 Engaging in further training
- 1 Producing 26 Closures
- 3 Having an M.A. Degree in Rehabilitation Counseling

15. Page 9 Counselor Educators ONLY respond to the questions by placing a check mark in the appropriate columns.
16. Students or Counselor Educators should answer the Questionnaire based upon responsibilities from previous employment where applicable.

BEFORE YOU TURN IN YOUR QUESTIONNAIRE, PLEASE EXAMINE IT AND THE ANSWER SHEET TO INSURE THAT BOTH HAVE BEEN ANSWERED COMPLETELY AND ACCURATELY.

NAME: \_\_\_\_\_ APPLICATION I.D. NUMBER \_\_\_\_\_

1 - > MARITAL STATUS: 1.) SINGLE, 2.) MARRIED, 3.) SEPARATED OR DIVORCED, 4.) WIDOWED

2 - > HAVE YOU HAD, OR DO YOU CURRENTLY HAVE, ANY PHYSICAL DEFECT? 1.) YES, 2.) NO

3 - > IF YOU RESPONDED YES TO QUESTION 2 INDICATE THE DIFFICULTY YOU HAVE OR HAD:

- 1.) DEAF, 2.) BLIND, 3.) DEAF-BLIND, 4.) CEREBRAL PALSY, 5.) CARDIOVASCULAR DIFFICULTY,  
6.) NEURO-MUSCULAR DISABILITY, 7.) ALCOHOLISM, 8.) ORTHOPEDICALLY HANDICAPPED,  
9.) PSYCHOLOGICAL, 10.) OTHER -- SPECIFY \_\_\_\_\_.

4 - > INDICATE YOUR POSITION IN ORDER OF BIRTH:

- 1.) 1st, 2.) 2nd, 3.) 3rd, 4.) 4th, 5.) 5th CHILD OR MORE.

5 - > IN WHAT LOCALE DID YOU SPEND MOST OF YOUR FORMATIVE YEARS?

- 1.) RURAL: FARM, SMALL COMMUNITY (LESS THAN 5,000), 2.) SUBURBAN: OUTER CITY (5,000 - 50,000),  
3.) URBAN: CITY (50,000 AND MORE).

6. PLEASE INDICATE YOUR PRESENT SALARY RANGE:

- 1.) LESS THAN \$6,000, 2.) \$6,000 - 8,999, 3.) \$9,000 - 12,999, 4.) \$13,000 - 16,999,  
5.) \$17,000 - 19,999, 6.) OVER \$20,000

7. FATHER'S EDUCATION

- 1.) GRADE SCHOOL, 2.) SOME HIGH SCHOOL, 3.) COMPLETED HIGH SCHOOL, 4.) SOME COLLEGE,  
5.) COMPLETED COLLEGE, 6.) POST GRADUATE

8. MOTHER'S EDUCATION

- 1.) GRADE SCHOOL, 2.) SOME HIGH SCHOOL, 3.) COMPLETED HIGH SCHOOL, 4.) SOME COLLEGE,  
5.) COMPLETED COLLEGE, 6.) POST GRADUATE

9. PLEASE INDICATE THE PRIMARY OCCUPATION OF YOUR FATHER:

- 1.) PROFESSIONAL, 2.) TECHNICAL / MANAGERIAL, 3.) CLERICAL & SALES,  
4.) FARMING, FISHERY, FORESTRY AND RELATED OCCUPATIONS, 5.) MANUFACTURING, 6.) MACHINE TRADES,  
7.) BENCH WORK, 8.) CONSTRUCTION, 9.) MISCELLANEOUS (INCLUDES HOME MAKER).

-2-

**10. PLEASE INDICATE THE PRIMARY OCCUPATION OF YOUR MOTHER**

- 1.) PROFESSIONAL, 2.) TECHNICAL /MANAGERIAL, 3.) CLERICAL & SALES  
 4.) FARMING, FISHERY, FORESTRY AND RELATED OCCUPATIONS, 5.) MANUFACTURING, 6.) MACHINE TRADES,  
 7.) BENCH WORK, 8.) CONSTRUCTION, 9.) MISCELLANEOUS ( INCLUDES HOME MAKER ).

**11. UNDERGRADUATE MAJOR:**

- 1.) PSYCHOLOGY, 2.) SOCIOLOGY, 3.) SOCIAL SCIENCE, 4.) BIOLOGY, 5.) BUSINESS ADMINISTRATION  
 6.) ENGLISH, 7.) PRE-MED, 8.) EDUCATION, 9.) OTHER - SPECIFY \_\_\_\_\_.

**12. WHAT WAS YOUR UNDERGRADUATE GRADE POINT AVERAGE ( BASED ON A 4 - POINT SCALE ) ?**

- 1.) 2.00 - 2.20, 2.) 2.21 - 2.40, 3.) 2.41 - 2.60, 4.) 2.61 - 2.80, 5.) 2.81 - 3.00  
 6.) 3.01 - 3.20, 7.) 3.21 - 3.40, 8.) 3.41 - 3.60, 9.) 3.61 - 3.80, 10.) 3.81 - 4.00

**13. MAJOR FIELD IN GRADUATE SCHOOL ( M.A. LEVEL )**

- 1.) REHABILITATION COUNSELING, 2.) COUNSELING & GUIDANCE, 3.) CLINICAL PSYCHOLOGY, 4.) COUNSELING PSYCH.  
 5.) EDUCATIONAL PSYCH. 6.) SOCIAL WORK, 7.) HUMAN ECOLOGY, 8.) SPECIAL EDUCATION,  
 9.) OTHER - SPECIFY \_\_\_\_\_.

**14. - 17. IF YOU WERE INVOLVED IN A SUPERVISED PRACTICUM EXPERIENCE IN GRADUATE SCHOOL:**

14. WERE AUDIO TAPES USED IN SUPERVISION ? 1.) YES, 2.) NO

15. WERE VIDEO TAPES USED IN SUPERVISION ? 1.) YES, 2.) NO

16. NUMBER OF HOURS OF GROUP SUPERVISION IN PRACTICUM :

- 1.) NONE, 2.) 1 to 3, 3.) 4 to 7, 4.) 8 to 11, 5.) 12 to 15, 6.) 16 to 20,  
 7.) 21 to 25, 8.) 26 to 30, 9.) 31 to 35, 10.) 36 OR MORE.

17. NUMBER OF HOURS OF INDIVIDUAL SUPERVISION IN PRACTICUM :

- 1.) NONE, 2.) 1 to 3, 3.) 4 to 7, 4.) 8 to 11, 5.) 12 to 15, 6.) 16 to 20,  
 7.) 21 to 25, 8.) 26 to 30, 9.) 31 to 35, 10.) 36 OR MORE.

**18. WHAT FORMAL TRAINING HAVE YOU TAKEN IN THE PAST CALENDAR YEAR ?**

- 1.) NONE, 2.) CLASS WORK IN A COLLEGE OR UNIVERSITY, 3.) WORKSHOPS OR INSTITUTES,  
 4.) CORRESPONDENCE COURSE WORK, 5.) OTHER - SPECIFY \_\_\_\_\_.

-3-

19. — 21. WHICH PROFESSIONAL MEETINGS DID YOU ATTEND DURING THE LAST YEAR ?

19. STATE : 1.) NONE, 2.) APGA, 3.) ARCA, 4.) NRA, 5.) NRCA, 6.) APA, 7.) NASW, 8.) OTHER -SPECIFY \_\_\_\_\_

20. REGIONAL : 1.) NONE, 2.) APGA, 3.) ARCA, 4.) NRA, 5.) NRCA, 6.) APA, 7.) NASW, 8.) OTHER-SPECIFY \_\_\_\_\_

21. NATIONAL : 1.) NONE, 2.) APGA, 3.) ARCA, 4.) NRA, 5.) NRCA, 6.) APA, 7.) NASW, 8.) OTHER-SPECIFY \_\_\_\_\_

22. — 32. INDICATE THE EXTENT TO WHICH YOU READ THE FOLLOWING JOURNALS :

22. REHABILITATION COUNSELING BULLETIN 1.) NO 2.) SOMETIMES, 3.) ALWAYS

23. JOURNAL OF REHABILITATION 1.) NO 2.) SOMETIMES, 3.) ALWAYS

24. JOURNAL OF APPLIED REHABILITATION COUNSELING 1.) NO 2.) SOMETIMES, 3.) ALWAYS

25. REHABILITATION RECORD 1.) NO 2.) SOMETIMES, 3.) ALWAYS

26. PERSONNEL AND GUIDANCE JOURNAL 1.) NO 2.) SOMETIMES, 3.) ALWAYS

27. COUNSELOR EDUCATION AND SUPERVISION 1.) NO 2.) SOMETIMES, 3.) ALWAYS

28. JOURNAL OF COUNSELING PSYCHOLOGY 1.) NO 2.) SOMETIMES, 3.) ALWAYS

29. COUNSELING PSYCHOLOGIST 1.) NO 2.) SOMETIMES, 3.) ALWAYS

30. SOCIAL CASE WORK 1.) NO 2.) SOMETIMES, 3.) ALWAYS

31. OTHER - SPECIFY \_\_\_\_\_ 1.) NO 2.) SOMETIMES, 3.) ALWAYS

32. OTHER - SPECIFY \_\_\_\_\_ 1.) NO 2.) SOMETIMES, 3.) ALWAYS

33. HOW MANY BOOKS, WHICH ARE APPLICABLE TO YOUR JOB, DO YOU HAVE IN YOUR PERSONAL LIBRARY ?

1.) NONE, 2.) 1 to 3, 3.) 4 to 6, 4.) 7 to 9, 5.) 10 to 12, 6.) 13 to 15,

7.) 16 to 18, 8.) 19 to 21, 9.) 22 to 24, 10.) 25 OR MORE - SPECIFY \_\_\_\_\_.

34. HOW MANY COUNSELING ORGANIZATIONS HAVE YOU WORKED FOR IN THE LAST FIVE YEARS ?

1.) ONE, 2.) TWO, 3.) THREE, 4.) FOUR, 5.) FIVE OR MORE - SPECIFY \_\_\_\_\_.

35. AREA OF SPECIALIZATION IN PRACTICE. PLEASE INDICATE ONE CATEGORY WHICH BEST REPRESENTS YOUR WORK OR THE MAJORITY OF YOUR FUNCTIONS.

1.) ADMINISTRATION, 2.) SUPERVISION OF SERVICES AT TOP AGENCY LEVEL,

3.) SUPERVISION OF SERVICES AT MIDDLE AGENCY LEVEL, 4.) REHABILITATION SERVICES FOR CLIENTS (COUNSELING),

5.) STAFF DEVELOPMENT ACTIVITIES, 6.) REHABILITATION EDUCATION, 7.) CLIENT EVALUATION,

8.) DISABILITY DETERMINATION (OASI -SSI), 9.) JOB DEVELOPMENT AND PLACEMENT,

10.) OTHER : EXPLAIN \_\_\_\_\_



-4-

**36. YEARS OF EXPERIENCE IN ALL TYPES OF COUNSELING OR PERSONNEL WORK :**

- 1.) LESS THAN 1., 2.) 1 to 2, 3.) 3 to 4, 4.) 5 to 6, 5.) 7 to 8, 6.) 9 to 10,  
7.) 11 to 12, 8.) 13 to 14, 9.) 15 to 16, 10.) 17 OR MORE - SPECIFY \_\_\_\_\_

**37. YEARS OF EXPERIENCE AS A REHABILITATION COUNSELOR :**

- 1.) LESS THAN 1., 2.) 1 to 2, 3.) 3 to 4, 4.) 5 to 6, 5.) 7 to 8, 6.) 9 to 10,  
7.) 11 to 12, 8.) 13 to 14, 9.) 15 to 16, 10.) 17 OR MORE - SPECIFY- \_\_\_\_\_

**38. YEARS OF EXPERIENCE AS A REHABILITATION COUNSELOR IN A D.V.R. SETTING :**

- 1.) LESS THAN 1., 2.) 1 to 2, 3.) 3 to 4, 4.) 5 to 6, 5.) 7 to 8, 6.) 9 to 10,  
7.) 11 to 12, 8.) 13 to 14, 9.) 15 to 16, 10.) 17 OR MORE - SPECIFY \_\_\_\_\_

**39. HOW MANY CLIENTS HAVE BEEN CLOSED REHABILITATED BY YOU DURING THE YEAR ENDING JUNE 30,1975 ?**

- 1.) DOES NOT APPLY, 2.) 1 to 10, 3.) 11 to 15, 4.) 16 to 20, 5.) 21 to 25,  
6.) 26 to 30, 7.) 31 to 35, 8.) 36 to 40, 9.) 41 to 45, 10.) 46 OR MORE - SPECIFY \_\_\_\_\_

**40. WHAT IS THE PRIMARY SOURCE OF FUNDING IN YOUR ORGANIZATION ?**

- 1.) STATE / FEDERAL VR. AGENCY, 2.) FEDERAL PUBLIC AGENCY, 3.) STATE PUBLIC AGENCY,  
4.) REGIONAL (MULTI-STATE) PUBLIC AGENCY, 5.) COUNTY (OR MULTI-COUNTY) PUBLIC AGENCY,  
6.) MUNICIPAL PUBLIC AGENCY, 7.) PRIVATE AGENCY

**41. WHAT ARE THE CHARACTERISTICS OF THE POPULATION DENSITY OF YOUR WORK SETTING ?**

- 1.) RURAL : FARM, SMALL COMMUNITY ( LESS THAN 5,000 ), 2.) SUBURBAN : OUTER CITY ( 5,000 - 50,000 )  
3.) URBAN : CITY ( 50,000 AND MORE ).

**42. PLEASE INDICATE THE APPROXIMATE ANNUAL INCOME OF THE MAJORITY OF YOUR CLIENTS.**

- 1.) LESS THAN \$1,000, 2.) \$1,000 to 2,999, 3.) \$3,000 to 4,999, 4.) \$5,000 to 7,999,  
5.) \$8,000 to 10,999, 6.) \$11,000 OR MORE.

**43. PLEASE INDICATE THE NUMBER OF YEARS OF EDUCATION WHICH BEST DESCRIBES THE MAJORITY OF YOUR CLIENTS.**

- 1.) 8 YEARS; COMPLETED GRADE SCHOOL, 2.) 10 YEARS; COMPLETED 2 YEARS OF HIGH SCHOOL,  
3.) 12 YEARS; COMPLETED HIGH SCHOOL, 4.) 14 YEARS; COMPLETED 2 YEARS OF COLLEGE,  
5.) 16 YEARS; COMPLETED UNDERGRADUATE DEGREE, 6. 16+ YEARS; COMPLETED MORE THAN UNDERGRADUATE.

-5-

## 44. WHAT IS THE GEOGRAPHIC AREA OF YOUR EMPLOYMENT ?

- 1.) NORTHEAST ( CT, ME, MA, NH, NY, RI, VT ),      2.) MIDATLANTIC ( DE, DC, KY, MD, NJ, NC, PA, WV )  
 3.) SOUTHEAST ( AL, FL, GA, MS, SC, TN )      4.) MIDWEST ( IL, IN, MI, OH, WI )  
 5.) SOUTHWEST ( AZ, AR, LA, NM, OK, TX )      6.) PLAIN STATES ( IA, KS, MN, MO, NE, ND, SD )  
 7.) MOUNTAIN STATES ( CO, ID, MT, NV, UT, WY ) 8.) PACIFIC ( CA, OR, WA )  
 9.) CANADA, PUERTO RICO, AK, HI      10.) OTHER-SPECIFY \_\_\_\_\_

## 45. ON THE AVERAGE, APPROXIMATELY HOW MANY HOURS EACH MONTH DO YOU PUT INTO INSERVICE TRAINING ACTIVITIES ?

- 1.) NONE,   2.) 1 to 2,   3.) 3 to 4,   4.) 5 to 6,   5.) 7 to 8,   6.) 9 to 10,  
 7.) 11 to 12,   8.) 13 to 14,   9.) 15 to 16,   10.) 17 OR MORE. SPECIFY \_\_\_\_\_.

## 46. DESCRIBE THE EXTENT TO WHICH THE TOTAL CURRENT INSERVICE TRAINING PROGRAM HELPS YOU IN PERFORMING YOUR JOB :

- 1.) RARELY, 2.) SOMETIMES, 3.) FREQUENTLY, 4.) GENERALLY, 5.) ALMOST ALWAYS

## 47. TO WHAT EXTENT DOES YOUR SUPERVISOR HELP YOU WITH JOB-RELATED PROBLEMS ?

- 1.) RARELY, 2.) SOMETIMES, 3.) FREQUENTLY, 4.) GENERALLY, 5.) ALMOST ALWAYS

## 48. WHICH OF THESE STATEMENTS COMES NEAREST TO EXPRESSING THE WAY YOU FEEL ABOUT YOUR JOB ?

- 1.) I LIKE IT, 2.) I AM INDIFFERENT TO IT, 3.) I DISLIKE IT

## 49. HOW MUCH OF THE TIME DO YOU FEEL SATISFIED WITH YOUR JOB ?

- 1.) NEVER, 2.) SELDOM, 3.) OCCASIONALLY, 4.) ABOUT HALF OF THE TIME,  
 5.) A GOOD DEAL OF THE TIME, 6.) MOST OF THE TIME, 7.) ALL OF THE TIME

## 50. WHAT IS YOUR LOCAL EMPLOYMENT SETTING (MARK ONLY ONE)

- 1.) REHABILITATION FACILITY, 2.) REHABILITATION AGENCY,      3.) MENTAL HEALTH CENTER  
 4.) MENTAL RETARDATION CENTER, 5.) DRUG ABUSE CENTER,      6.) PENAL INSTITUTION OR COURTS,  
 7.) PUBLIC SCHOOL SETTING, 8.) INSTITUTION OF HIGHER EDUCATION, 9.) GENERAL HOSPITAL, MEDICAL CENTER.  
 10.) PRIVATE MEDICAL CENTER OR CLINIC, 11.) SOCIAL WELFARE AGENCY, 12.) PRIVATE PRACTICE,  
 13.) BUSINESS OR INDUSTRY, 14.) OTHER - SPECIFY \_\_\_\_\_.

-6-

51.\*INDICATE: 1.) NOT AT ALL, 2.) POORLY, 3.) ADEQUATELY, 4.) VERY WELL, 5.) EXCELLENT  
 52. - 53. #CHECK THE APPROPRIATE COLUMNS FOR EACH QUESTION.

	51.* HOW WELL DID YOUR TRAINING PREPARE YOU FOR WORK AS A REHABILITATION COUNSELOR.					52.# CHECK THOSE AREAS WHICH YOU HAVE NEVER USED IN ANY JOB.	53.# CHECK THOSE AREAS FOR WHICH YOU FEEL YOU NEED MORE TRAINING.
	1.	2.	3.	4.	5.		
ACCOUNTING							
ALCOHOLISM							
AUDIO-VISUAL EQUIPMENT USE							
BEHAVIOR DISORDERS							
BEHAVIOR MODIFICATION							
BLIND							
BLIND-DEAF							
CASE MANAGEMENT							
CASE RECORDS							
COMPETITIVE STANDARDS							
CONTRACT PROCUREMENT							
COUNSELING THEORIES							
CULTURAL DIFFERENCES							
DEAF							
DISADVANTAGED							
DRUGS							
EMPLOYABILITY PLANNING							
FAMILY TREATMENT							
FEDERAL / STATE STRUCTURE OF REHAB.							
GRANT PROPOSAL WRITING							
GROUP WORK							
HISTORY OF REHABILITATION							
INTERVIEWING							
JOB ANALYSIS							
JOB MODIFICATION							
JOB OBJECTIVES							
JOB RETENTION							
LEGISLATION AFFECTING REHAB.							
MANAGEMENT TRAINING							
MEDICAL FACTORS OF DISABILITY							
MENTALLY RETARDED							
MULTIPLE HANDICAPPED							
NEURO-MUSCULAR DISABILITIES							
OFFENDERS							
ON SITE EVALUATION							
ORTHOPEDICALLY HANDICAPPED							
PLACEMENT TECHNIQUES							
POST EMPLOYMENT SERVICES							
PSYCH. ADJ. TO PHY. DISABILITY							
PSYCH. TEST ADMINISTRATION							
PSYCH. TEST INTERPRETATION							
PUBLIC RELATIONS							
RECREATION							
SEXUAL DYSFUNCTION							
SOCIAL DIAGNOSIS							
STATISTICAL PROCEDURES							
SUSTENTION OF BENEFITS							
TECHNICAL WRITING							
TIME MANAGEMENT							
USE OF COMMUNITY RESOURCES							
VOCATIONAL DEVELOPMENT THEORIES							
VOCATIONAL DIAGNOSTIC INTERVIEWING							
WORK ADJUSTMENT							
WORK EVALUATION							

-7-

54. WITH RESPECT TO YOUR DAILY WORKING ACTIVITY, PLEASE INDICATE THE PERCENTAGE OF TIME DURING ONE 40 HOUR WEEK YOU SPEND WORKING IN THE FOLLOWING AREAS. (ROUND OFF EACH AREA TO THE NEAREST "TEN" AND INDICATE ONLY THOSE IN WHICH YOU REGULARLY WORK ---- PERCENTAGE MUST ADD TO 100%).

	PERCENT OF TIME PER WEEK	I FEEL COMPETENT TO WORK IN THIS AREA (CHECK ONE)			PERCENTAGE OF TIME I WOULD PREFER TO SPEND IN EACH OF THE AREAS.
		YES	SOMETIMES	NO	
PERSONAL COUNSELING					
VOCATIONAL COUNSELING					
CONTACT WITH OTHER AGENCIES					
CASE FINDING					
JOB DEVELOPMENT					
JOB PLACEMENT					
ADMINISTRATIVE WORK					
RESEARCH AND EVALUATION					
PROGRAM DEVELOPMENT					
PAPER WORK					
MULTIPLE HANDICAPPED					

55. IN BEING PROMOTED (OR GETTING A PAY INCREASE) IN YOUR AGENCY, HOW WOULD YOU RANK THE FOLLOWING ITEMS ("1" EQUALS MOST IMPORTANT....."5" EQUALS LEAST IMPORTANT).

\_\_\_\_\_ BEING IN THE RIGHT PLACE AT THE RIGHT TIME  
 \_\_\_\_\_ CONFORMING AND PLAYING POLITICS  
 \_\_\_\_\_ ENGAGING IN FURTHER TRAINING  
 \_\_\_\_\_ PRODUCING 26 CLOSURES  
 \_\_\_\_\_ HAVING AN M.A. DEGREE IN REHABILITATION COUNSELING

QUESTIONS 56 - 64 FOR SUPERVISORS ONLY

56. WHICH OF THE FOLLOWING DESCRIBES THE EXTENT TO WHICH THE CURRENT INSERVICE TRAINING PROGRAM FOR SUPERVISORS HELPS YOU IN PERFORMING YOUR JOB ?

1.) NO INSERVICE TRAINING PROGRAM OFFERED BY THE AGENCY FOR SUPERVISORS,  
 2.) ALMOST ALWAYS, 3.) GENERALLY, 4.) FREQUENTLY, 5.) SOMETIMES, 6.) RARELY

-8-

57. HOW MANY YEARS HAVE YOU WORKED AS A SUPERVISOR IN A STATE REHABILITATION AGENCY ?

- 1.) LESS THAN 1, 2.) 1 to 3, 3.) 4 to 6, 4.) 7 to 9, 5.) 10 to 12, 6.) 13 to 15  
7.) 16 to 18, 8.) 19 to 21, 9.) 22 to 24, 10.) MORE THAN 24 - SPECIFY \_\_\_\_\_.

58. HOW MANY COUNSELORS DO YOU SUPERVISE ?

- 1.) NONE, 2.) 1 to 3, 3.) 4 to 6, 4.) 7 to 9, 5.) 10 to 12, 6.) 13 to 15,  
7.) 16 to 18, 8.) 19 to 21, 9.) 22 to 24, 10.) MORE THAN 24 - SPECIFY \_\_\_\_\_

59. ON THE AVERAGE, IN AN ORDINARY MONTH, HOW MANY MEETINGS DOES EACH COUNSELOR HAVE WITH YOU FOR HELP WITH JOB-RELATED PROBLEMS ?

- 1.) NONE, 2.) 1 to 2, 3.) 3 to 4, 4.) 5 to 6, 5.) MORE THAN 7 - SPECIFY \_\_\_\_\_

60. ON THE AVERAGE, TO WHAT EXTENT DO YOU THINK YOUR CONSULTATION WITH YOUR COUNSELORS IS OF MAJOR HELP IN THEIR SOLVING JOB-RELATED PROBLEMS ?

- 1.) I DO NOT CONSULT WITH COUNSELORS, 2.) RARELY, 3.) SOMETIMES,  
4.) FREQUENTLY, 5.) GENERALLY, 6.) ALMOST ALWAYS

61. HOW MANY CLIENTS HAVE BEEN CLOSED REHABILITATED BY YOUR OFFICE DURING THE YEAR ENDING JUNE 30, 1975 ?

- 1.) 1 to 49, 2.) 50 to 99, 3.) 100 to 149, 4.) 150 to 199, 5.) 200 to 249, 6.) 250 to 300,  
7.) 301 to 349, 8.) 349 to 449, 9.) 450 to 550, 10.) 550 OR MORE - SPECIFY- \_\_\_\_\_

62. HOW MANY RESOURCE PEOPLE HAVE YOU USED FOR THE INSERVICE TRAINING OF YOUR COUNSELORS DURING THE PAST YEAR ?

- 1.) NONE, 2.) 1 to 2, 3.) 3 to 4, 4.) 5 to 6, 5.) 7 to 8, 6.) 9 to 10,  
7.) 11 to 12, 8.) 13 to 14, 9.) 15 to 16, 10.) 17 OR MORE - SPECIFY \_\_\_\_\_

63. WHAT INSERVICE TRAINING PROGRAMS ARE AVAILABLE TO COUNSELORS IN YOUR OFFICE ?

- 1.) NONE, 2.) CLASS WORK IN A COLLEGE OR UNIVERSITY, 3.) WORKSHOPS OR INSTITUTES,  
4.) CORRESPONDENCE COURSES, 5.) OTHER - SPECIFY \_\_\_\_\_.

64. DO YOU HAVE AN OFFICE LIBRARY THAT IS AVAILABLE TO COUNSELORS ?

- 1.) YES, 2.) NO

**APPENDIX C**

**RELIABILITY ANALYSES--JULY AND  
OCTOBER FIELD REVIEW**

Sub-Scale Analysis C.R.C.C. Field Review  
 July 1975--Form 1. (Test Statistics  
 Number of Subject = 883)

Test	Number Of Items	Mean Raw Scr	Percent Mean	Standard Deviation	Standard Err Mean	Skewness	Kurtosis	Reliability K - R 20
CHILD	21	15.133	72.06	2.568	0.0864	-0.5501	0.5604	0.4326
ADULT	92	67.122	72.96	8.250	0.2776	-0.9295	0.9561	0.7590
AGED	11	7.138	64.89	1.625	0.0547	-0.3717	0.3161	0.2345
GENRL	13	9.078	69.83	1.816	0.0611	-0.3667	-0.0778	0.2751
PHYDIS	50	35.890	71.78	5.170	0.1740	-0.8260	0.6878	0.6579
DEVIAN	22	15.434	70.15	2.608	0.0878	-0.4781	0.2134	0.4155
EMOT'L	13	9.385	72.19	1.909	0.0642	-0.4122	0.0843	0.3391
MENTAL	14	10.870	77.64	1.943	0.0654	-0.7881	0.6127	0.4219
DEAF	10	6.826	68.26	1.499	0.505	-0.2850	0.0015	0.1135
BLIND	11	8.216	74.69	1.563	0.0526	-0.6188	0.4968	0.2414
MEDASP	25	17.847	71.39	2.829	0.0952	-0.4348	0.0531	0.4340
OCCINF	20	13.448	67.24	2.509	0.0845	-0.7363	1.0700	0.4018
C-THER	16	11.135	69.59	2.126	0.0715	-0.5081	0.1929	0.3448
C-METH	16	12.651	79.07	1.985	0.0668	-0.6950	0.3549	0.3961
COMM	16	11.288	70.55	2.094	0.0705	-0.5578	0.5060	0.2892
PREVOC	25	17.805	71.22	3.048	0.1026	-0.6236	0.3243	0.5044
EVAL	17	12.982	76.36	2.080	0.0700	-0.7206	0.5738	0.3644
RESRCH	11	8.360	76.00	1.701	0.0572	-0.7390	0.5459	0.3877
REHAB	22	15.245	69.29	2.669	0.0898	-0.5376	0.3699	0.4070

## Sub-Scale Analysis--July--Form 1 (Continued)

Test	Number Of Items	Mean Raw Scr	Percent Mean	Standard Deviation	Standard Err Mean	Skewness	Kurtosis	Reliability K - R 20
CASEMG	22	16.172	73.51	2.517	0.0847	-0.3868	-0.0744	0.3740
INFDIS	19	13.237	69.67	2.281	0.0767	-0.4529	0.3905	0.3043
VOC CSL	17	12.393	72.90	2.388	0.0804	-0.6695	0.1857	0.4912
PERCLS	16	11.444	71.52	2.089	0.0703	-0.4831	0.3877	0.3668
GROUP	12	8.527	71.06	1.704	0.0573	-0.3889	-0.0980	0.2445
JOBDEV	12	8.667	72.23	1.861	0.0626	-0.5854	0.2846	0.3532
VOCASS	15	11.578	77.18	1.946	0.0655	-0.7383	0.6556	0.3615
RECALL	19	13.182	69.38	2.508	0.0844	-0.4480	0.0917	0.4187
INTERP	27	20.137	74.58	3.004	0.1011	-0.7394	0.8097	0.4975
PROSLV	104	74.701	71.83	9.301	0.3130	-0.9507	1.1906	0.7857
TOTAL	150	108.020	72.01	12.734	0.4285	-0.9931	1.1257	0.8348

## Hoyt Reliability

Source	DF	Sum of Squares	Mean Square	F	R and SE
Indiv.	882.	953.52335	1.0811	6.04748	0.8346
Items	149.	2247.21151	15.0820	84.36633	5.1610
Within	131418.	23493.26447	0.1788		
Total	132449.	26693.99932			



Sub-Scale Analysis C.R.C.C. Field Review  
 July--Form 2. (Test Statistics  
 Number of Subjects = 845)

Test	Number Of Items	Mean Raw Scr	Percent Mean	Standard Deviation	Standard Err Mean	Skewness	Kurtosis	Reliability K - R 20
CHILD	19	13.338	70.20	2.313	0.0796	-0.4934	0.4722	0.3212
ADULT	94	67.788	72.12	8.074	0.2777	-1.1834	2.2251	0.7621
AGED	13	8.753	67.33	1.924	0.0652	-0.3758	-0.1366	0.3291
GENRL	11	8.024	72.94	1.649	0.0567	-0.5749	0.2805	0.2670
PHYDIS	50	35.463	70.93	4.974	0.1711	-0.9825	1.9156	0.6486
DEVIAN	18	13.757	76.43	2.124	0.0731	-0.7968	1.0472	0.3705
EMOT'L	18	13.427	74.60	2.212	0.0761	-0.6335	0.6213	0.3718
MENTAL	16	12.044	75.27	2.085	0.0717	-0.7350	0.7116	0.3798
DEAF	15	10.111	67.41	1.848	0.0636	-0.5420	0.5714	0.2501
BLIND	9	5.775	64.17	1.245	0.0428	-0.4624	0.0878	-0.0070
MEDASP	26	17.317	66.60	2.878	0.0990	-0.5862	0.3438	0.4699
OCCINE	17	11.476	67.50	2.393	0.0823	-0.4232	-0.1805	0.4438
C-THER	15	10.850	72.33	2.000	0.0698	-0.5131	0.2507	0.3315
C-METH	16	11.983	74.90	1.880	0.0647	-0.5019	0.2001	0.2544
COMM	20	14.764	73.82	2.294	0.0789	-0.6736	0.9639	0.3334
PREVOC	22	15.729	71.50	2.556	0.0879	-0.7344	0.9400	0.4223
EVAL	13	9.398	72.29	1.836	0.0632	-0.5406	0.5177	0.3261
RESRCH	11	8.167	74.24	1.726	0.0594	-0.5683	-0.1357	0.3761
REHAB	20	14.938	74.69	2.365	0.0814	-0.6715	0.7247	0.3839

Sub-Scale Analysis--July--Form 2 (Continued)

Test	Number Of Items	Mean Raw Scr	Percent Mean	Standard Deviation	Standard Err Mean	Skewness	Kurtosis	Reliability K - R 20
CASEMG	21	13.201	62.86	2.043	0.0703	-0.3396	0.1772	0.1914
INFDIS	22	15.482	70.37	2.856	0.0983	-0.8983	1.5589	0.4999
VOCCSL	16	12.028	75.18	2.173	0.0748	-0.7887	0.5846	0.4383
PERCSL	24	17.695	73.73	2.607	0.0897	-0.7248	1.1398	0.3885
GROUP	12	8.437	70.31	1.848	0.0636	-0.6610	0.7527	0.3550
JOBDEV	10	7.205	72.05	1.712	0.0589	-0.4141	-0.3320	0.3742
VOCASS	10	6.864	68.64	1.482	0.0510	-0.5096	0.1117	0.2230
RECALL	17	12.469	73.34	2.292	0.0788	-0.5253	-0.1364	0.4512
INTERP	29	18.792	64.80	2.746	0.0945	-0.5472	0.5864	0.3306
PROSLV	104	76.231	73.30	9.176	0.3157	-1.2547	2.5050	0.7874
TOTAL	150	107.491	71.66	12.293	0.4229	-1.2818	2.5977	0.3289

Hoyt Reliability

Source	DF	Sum of Squares	Mean Square	F	R and SE
Indiv.	844.	850.21317	1.0074	5.83593	0.8286
Items	149.	3183.10448	21.3631	123.76248	5.0714
Within	125756.	21707.22517	0.1726		
Total	126749.	25740.54282			

Sub-Scale Analysis C.R.C.C. Field Review  
October--Form 1. (Test Statistics  
Number of Subjects - 755)

Test	Number of Items	Mean Raw Scr	Percent Mean	Standard Deviation	Standard Err Mean	Skewness	Kurtosis	Reliability K - R 20
CHILD	7	4.527	64.67	1.351	0.0492	-0.4297	0.0227	0.2547
ADULT	64	43.874	68.55	6.773	0.2465	-1.6107	4.4137	0.7517
PHYDIS	36	24.117	66.99	4.085	0.1487	-1.2276	2.8597	0.6305
DEVIAN	9	5.289	58.76	1.600	0.0582	-0.2014	-0.2407	0.2235
EMOT'L	15	9.751	65.01	2.255	0.0821	-0.6347	0.4328	0.4009
BLIND	10	7.830	78.30	1.637	0.0596	-1.3758	3.1818	0.4401
OTH-CD	14	8.432	60.23	2.358	0.0858	-0.4045	-0.0280	0.4957
MEDASP	18	11.350	63.05	2.422	0.0881	-0.4910	0.5482	0.3978
OCCINE	14	9.420	67.28	1.920	0.0699	-0.7763	1.3926	0.3355
C-THER	12	7.656	63.80	2.112	0.0769	-0.5211	0.4260	0.4443
C-METH	18	11.380	63.22	2.695	0.0981	-0.5426	0.3596	0.5105
PERVOC	16	11.058	69.11	2.177	0.0792	-0.8919	2.0353	0.3819
EVAL	11	8.138	73.98	1.774	0.0645	1.0500	1.8832	0.4699
RESRCH	12	7.336	61.14	1.953	0.0711	-0.5529	0.4987	0.4499
REHAB	13	8.728	67.14	2.121	0.0776	-0.7156	0.9293	0.4638
CASEMG	19	12.318	64.83	2.341	0.0852	-0.8785	2.1393	0.3921
INFDIS	9	5.756	63.96	1.627	0.0592	-0.4480	-0.0728	0.3395
PERCSL	20	13.819	69.09	2.909	0.1059	-0.8217	1.0340	0.5593
GROUP	12	6.874	57.28	2.106	0.0767	-0.3142	0.0598	0.4095

## Sub-Scale Analysis--October--Form 1 (Continued)

Test	Number Of Items	Mean Raw Scr	Percent Mean	Standard Deviation	Standard Err Mean	Skewness	Kurtosis	Reliability K - R 20
JOBDEV	15	9.399	62.66	2.094	0.0762	-0.7141	1.0793	0.3991
STAFF	6	3.551	59.18	1.348	0.0491	-0.2680	0.1714	0.3282
RECALL	12	8.225	68.54	1.956	0.0712	-0.6577	0.6242	0.4657
INTERP	14	8.203	58.59	2.015	0.0733	-0.5381	0.6315	0.3558
PROSLV	84	57.225	68.13	9.177	0.3340	-1.4969	3.9426	0.8163
JDGMNT	10	6.053	60.53	1.486	0.0541	-0.7383	1.5565	0.2455
TOTAL	120	79.706	66.42	12.444	0.4529	-1.6172	4.3739	0.8592

## Hoyt Reliability

Source	DF	Sum of Squares	Mean Square	F	R and SE
Indiv.	754.	972.94312	1.2904	7.09009	0.8590
Items	119.	2903.99201	24.4033	134.08630	4.6538
Within	89726.	16329.85516	0.1820		
Total	90599.	20206.79029			

Sub-Scale Analysis C.R.C.C. Field Review  
 October--Form 2. (Test Statistics  
 Number of Subjects = 726)

Test	Number Of Items	Mean Raw Scr	Percent Mean	Standard Deviation	Standard Err Mean	Skewness	Kurtosis	Reliability K - R 20
CHILD	8	4.679	58.49	1.465	0.0544	-0.2562	-0.0321	0.1297
ADULT	74	48.339	65.32	7.259	0.2694	-0.9309	1.7401	0.7342
PHYDIS	33	22.590	68.45	3.947	0.1465	-0.6639	0.8560	0.5941
EMOT'L	11	7.347	66.79	1.842	0.0684	-0.6372	0.6224	0.3741
MENTAL	12	8.625	71.88	1.700	0.0631	-0.7111	1.1530	0.2675
DEAF	10	6.196	61.96	1.486	0.0551	-0.3890	0.2253	0.2203
NEURO	15	8.456	56.37	2.173	0.0807	-0.2537	-0.2226	0.3388
OTH-CD	13	7.0003	61.49	1.643	0.0610	-0.4473	0.6131	0.1241
MEDASP	22	13.213	60.06	2.648	0.0983	-0.4372	0.1235	0.3866
OCCINF	19	13.103	68.96	2.471	0.0917	-0.5646	0.3555	0.4547
C-THER	15	9.523	63.49	2.454	0.0911	-0.6859	0.2616	0.5519
C-METH	15	9.514	63.43	2.176	0.0807	-0.4776	0.1622	0.4111
COMM	13	9.336	71.82	1.713	0.0636	-0.8771	2.2579	0.1989
PERVOC	14	9.448	67.48	2.189	0.0812	-0.6688	0.4389	0.4246
EVAL	11	7.463	67.84	1.654	0.0614	-0.4530	0.5290	0.2644
REHAB	14	9.329	66.64	1.966	0.0730	-0.4823	0.5627	0.3167
CASEMG	13	7.738	59.53	1.557	0.0578	-0.3766	0.2011	0.0269
VOC CSL	21	13.416	63.89	2.903	0.1077	-0.5420	0.4306	0.5336
PER CSL	23	14.854	64.58	3.229	0.1198	-0.6669	0.5046	0.5768

## Sub-Scale Analysis--October--Form 2 (Continued)

Test	Number Of Items	Mean Raw Scr	Percent Mean	Standard Deviation	Standard Err Mean	Skewness	Kurtosis	Reliability K - R 20
JOBDEV	14	10.474	74.81	1.954	0.0725	-0.7299	0.8384	0.3858
VOCASS	15	9.340	62.27	1.991	0.0739	-0.4357	0.8525	0.2242
RECALL	15	10.073	67.15	2.360	0.0876	-0.5378	0.1295	0.5294
INTERP	22	14.782	67.19	2.652	0.0984	-0.6317	0.6655	0.4524
PROSLV	73	49.456	67.75	7.015	0.2604	-1.0673	2.5646	0.7269
JDGMNT	10	4.817	48.17	1.688	0.0627	-0.0399	-0.3053	0.1948
TOTAL	120	79.128	65.94	11.136	0.4133	-1.1344	2.1980	0.8206

## Hoyt Reliability

Source	DF	Sum of Squares	Mean Square	F	R and SE
Indiv.	754.	749.26244	1.0335	5.56664	0.8204
Items	119.	2799.90342	23.5286	126.73410	4.7003
Within	86275.	16017.23568	0.1857		
Total	87119.	19566.40154			

Sub-Scale Analysis C.R.C.C. Field Review  
October--Form 3. (Test Statistics  
Number of Subjects - 701)

Test	Number Of Items	Mean Raw Scr	Percent Mean	Standard Deviation	Standard Err Mean	Skewness	Kurtosis	Reliability K - R 20
ADULT	75	46.136	61.51	7.403	0.2796	-0.8169	1.1181	0.7389
AGED	7	3.431	49.01	1.305	0.0493	-0.0919	-0.1739	0.0905
PHYDIS	33	19.867	60.20	3.604	0.1361	-0.4543	0.6287	0.5131
EMOT'L	19	12.599	66.31	2.475	0.0935	-0.4776	0.3298	0.4004
MENTAL	11	7.158	65.08	1.763	0.0666	-0.3423	-0.1683	0.3303
DEAF	14	6.016	42.97	1.867	0.0705	0.0432	-0.2849	0.1391
BLIND	10	5.292	52.92	1.652	0.0624	-0.2728	0.0098	0.3150
OTH-CD	14	8.648	61.77	2.051	0.0775	-0.1234	-0.0926	0.3464
MEDASP	24	13.260	55.25	2.651	0.1001	-0.3792	0.1906	0.3270
OCCINF	14	9.053	64.66	2.062	0.0779	-0.4149	-0.0870	0.4379
C-THER	22	12.133	55.15	3.126	0.1181	0.1690	-0.2642	0.5792
C-METH	19	12.157	63.98	2.529	0.0955	-0.5345	0.2637	0.4058
PERVOC	17	10.322	60.72	2.134	0.0806	-0.6175	1.1584	0.3070
EVAL	9	6.616	73.51	1.483	0.0560	-0.7292	0.7969	0.3004
RESRCH	10	5.949	59.49	1.903	0.0719	-0.1633	-0.5396	0.4748
REHAB	13	7.071	54.39	1.795	0.0678	-0.2470	-0.2215	0.2263
INFDIS	6	3.037	50.62	1.091	0.0412	-0.0405	-0.2489	0.1034
PERSCL	35	18.769	53.63	3.961	0.1496	-0.2057	0.0495	0.5570
GROUP	14	9.347	66.76	2.029	0.0766	-0.2817	0.1479	0.3580

Sub-Scale Analysis--October--Form 3 (Continued)

Test	Number Of Items	Mean Raw Scr	Percent Mean	Standard Deviation	Standard Err Mean	Skewness	Kurtosis	Reliability K - R 20
JOBDEV	9	5.981	66.46	1.592	0.0601	-0.4827	0.0438	0.3603
VOCASS	16	11.652	72.82	2.195	0.0829	-0.8521	1.1792	0.4203
RECALL	23	12.896	56.07	3.029	0.1144	-0.0301	-0.0713	0.5563
INTERP	26	15.137	58.22	3.491	0.1318	-0.2777	-0.0370	0.5832
PROSLV	61	40.769	66.83	5.933	0.2241	-1.0250	1.9018	0.6774
JDGMNT	10	3.819	38.19	1.511	0.0571	0.0830	-0.2661	0.0384
TOTAL	120	72.621	60.52	10.803	0.4080	-0.8164	1.1597	0.8045

Hoyt Reliability

Source	DF	Sum of Squares	Mean Square	F	R and SE
Indiv.	700.	680.81213	0.9726	5.10802	0.8042
Items	119.	3558.07255	29.8998	157.03317	4.7601
Within	83300.	15860.66642	0.1904		
Total	84119	20099.55110			



APPENDIX D

CORRELATION ANALYSIS DEMOGRAPHIC VARIABLES  
BY FIELD REVIEW SCORES

# APPENDIX D

## CORRELATION ANALYSIS DEMOGRAPHIC VARIABLES BY FIELD REVIEW SCORES

	Cases	Mean	Standard Deviation	r	
Total Score	1511	107.5917	12.6492		
	1938	77.1584	11.9817		
	3449	90.4912	19.4623		
<u>Demographic Variables</u>					
Sex	1498	.3391	.4736	.1518*	July
	1935	.3401	.4738	.1412*	October
	3433	.3396	.4737	.0912*	Total
Marital Status	1511	.6618	.4732	.0270	July
	1938	.6517	.4766	-.0270	October
	3449	.6561	.4751	.0065	Total
Physical Defect	1511	.1701	.3758	-.0698*	July
	1938	.1842	.3878	-.0493*	October
	3449	.1780	.3826	-.0510*	Total
Birth Position	1501	1.0300	1.2585	-.0753*	July
	1916	1.0235	1.2453	-.1058*	October
	3417	1.0263	1.2510	-.0559*	Total
Formative Years	1509	1.0557	.8149	.0163	July
	1929	1.0949	.8069	.0728*	October
	3438	1.0782	.8105	.0105	Total
Counselors' Salary	1505	2.8651	.0838	.0614*	July
	1932	2.8623	1.0124	.0138	October
	3437	2.8635	.9999	.0231	Total
Fathers' Education	1501	1.8961	1.6132	.0912*	July
	1925	1.9444	1.6299	.0814*	October
	3426	1.9232	1.6225	.0427*	Total
Mothers' Education	1502	1.9075	1.3457	.1167*	July
	1929	1.9554	1.3861	.1010*	October
	3431	1.9344	1.3686	.0545*	Total

## Correlation Analysis--Continued

Demographic Variables	Cases	Mean	Standard Deviation	r	
Fathers' Occupation	1511 1938 3449	1.3170 1.4334 1.3824	2.2436 2.3591 2.3096	-.0043 -.0098 -.0241	July October Total
Mothers' Occupation	1511 1938 3449	5.3077 5.3153 5.3120	3.4561 3.4480 3.4510	-.0524* -.0509* -.0334*	July October Total
Undergrad. Major	1511 1938 3449	.5586 .5650 .5622	.4967 .4959 .4962	.0384 .1114* .0444*	July October Total
Undergrad. G.P.A.	1499 1920 3419	4.1067 4.0818 4.0927	2.1778 2.2404 2.2129	.1093* .1208* .0771*	July October Total
Graduate Major	1511 1938 3449	.5513 .5480 .5494	.4975 .4978 .4976	.0786* .0616* .0462*	July October Total
Audio Tape Supervision	1511 1938 3449	.7737 .7224 .7449	.4186 .4479 .4360	.0677* .0696* .0885*	July October Total
Video Tape Supervision	1511 1938 3449	.5579 .5088 .5303	.4968 .5001 .4360	-.0282 -.0818* .0016	July October Total
Group Supervision	1511 1937 3448	3.4480 3.5261 3.4919	3.5329 3.6126 3.5993	.0110 .1037* .0307*	July October Total
Individual Supervision	1511 1937 3448	3.6744 3.6737 3.6740	3.5204 3.5143 3.5164	.0867* .1209* .0666*	July October Total
Recent Training	1511 1936 3447	.8088 .7872 .7932	.3995 .4094 .4051	.0180 .0714* .0428*	July October Total
State Meetings	1508 1933 3441	1.0073 .9131 .9544	.9234 .9212 .9232	.0100 -.0253 .0335*	July October Total
Regional Meetings	1510 1937 3447	.4748 .4419 .4563	.8118 .7740 .7908	-.0605* -.0677* -.0246	July October Total

## Correlation Analysis--Continued

Demographic Variables	Cases	Mean	Standard Deviation	r	
National Meetings	1508 1936 3444	.2633 .2531 .2575	.5933 .5911 .5920	.0153 .0059 .0130	July October Total
Rehab. Counsel. Bulletin	1511 1936 3447	1.0715 .9959 1.0290	.6781 .6977 .6901	-.0928* -.0976* -.0178	July October Total
Journal of Rehab.	1509 1935 3444	1.2876 1.2300 1.2552	.6397 .6702 .6575	.0217 -.0530* .0211	July October Total
Journal of Applied Rehab. Counsel.	1510 1933 3433	.7510 .6648 .7026	.7154 .7118 .7146	.0385 .0015 .0580*	July October Total
Rehab. Record	1510 1936 3446	.7510 .4370 .4536	.7154 .6110 .6167	.0358 -.0302 .0248	July October Total
P & G Journal	1510 1936 3446	.5106 .5455 .5302	.6620 .6895 .6777	-.0492* .0133 -.0289*	July October Total
Counselor Education	1509 1937 3446	.1650 .1637 .1642	.4168 .4331 .4259	-.1392* -.1547* -.0920	July October Total
Journal of Counseling Psychology	1510 1936 3446	.4503 .4700 .4614	.5903 .5964 .5937	-.0420 -.0354 -.0370*	July October Total
Counseling Psychologist	1511 1937 3448	.2515 .2700 .2619	.5085 .5131 .5111	-.1087* -.0898* -.0759*	July October Total
Social Case Work	1511 1935 3446	.1707 .1535 .1611	.4165 .3987 .4066	-.1365* -.1553* -.0760*	July October Total
Books in Personal Library	1508 1924 3432	5.7142 5.7396 5.7284	2.6780 2.6963 2.6879	.1284* .1623* .0880*	July October Total
Number of Organizations	1484 1892 3376	.6509 .6855 .6703	.8841 .9346 .9128	-.0027 -.0518* -.0336*	July October Total

## Correlation Analysis--Continued

Demographic Variables	Cases	Mean	Standard Deviation	r	
Area of Specialization	1511	2.6658	1.2315	.0424*	July
	1938	2.6465	1.2422	-.0364	October
	3449	2.6550	1.2374	.0053	Total
Years of Experience	1502	4.3103	2.3412	-.0803*	July
	1930	4.2238	2.3511	-.0940*	October
	3432	4.2617	2.3469	-.0412*	Total
Years Rehab. Counselor	1504	2.9608	1.8680	-.0702*	July
	1925	2.9018	1.8723	-.1208*	October
	3429	2.0277	1.8704	-.0496*	Total
Years Couns. Rehab. Setting	1459	2.1439	1.9619	-.0762*	July
	1852	1.9617	2.0507	-.1672*	October
	3311	2.0420	2.0138	-.0448*	Total
Cases Closed	1498	2.8778	3.4299	-.1048*	July
	1907	2.7357	3.4083	-.1397*	October
	3405	2.7982	3.4180	-.0602*	Total
Primary Funding Source	1511	1.6373	.6647	-.0381	July
	1938	1.5733	.7149	-.0477*	October
	3449	1.6013	.6940	-.0081	Total
Employment Population Density	1494	1.4960	.6805	.0226	July
	1921	1.5341	.6755	-.0614*	October
	3415	1.5174	.6779	.0059	Total
Annual Client Income	1461	1.9425	1.2538	.0383	July
	1877	1.9217	1.2176	-.0294	October
	3338	1.9308	1.2335	.0075	Total
Client Educational Level	1441	.9813	.8598	.0405*	July
	1849	1.0481	.8768	.0679*	October
	3290	1.0188	.8699	.0082	Total
Geographic Location	1507	2.8640	2.3831	.0506*	July
	1920	2.7354	2.4085	-.0144	October
	3427	2.7919	2.3979	.0300*	Total
Monthly Average In-Service	1502	2.7976	2.2968	.0424*	July
	1927	2.7634	2.2256	.0271	October
	3429	2.7784	2.2526	.0274	Total
In-Service Help on the Job	1467	1.8030	1.1900	-.0416	July
	1880	1.8367	1.2235	-.1100*	October
	3347	1.8219	1.2089	-.0608*	Total

## Correlation Analysis--Continued

Demographic Variables	Cases	Mean	Standard Deviation	r	
Supervisor Help--Job Problems	1485 1870 3355	1.7953 1.7711 1.7818	1.3322 1.3551 1.3449	-.0060 -.0049 .0035	July October Total
Feelings about Job	1511 1938 3449	1.8961 1.8947 1.8953	.3840 .4042 .3955	.0001 -.0349 -.0110	July October Total
Job Satisfaction	1506 1927 3433	4.2789 4.2444 4.2595	1.1280 1.1218 1.1245	-.0608* -.0865* -.0354*	July October Total
Local Employment Setting	1511 1938 3449	.7240 .7090 .7156	.4472 .4544 .4512	-.0286 -.0325 .0065	July October Total
<u>Dummy Variables</u>					
Average Rating of Training	1439 1875 3314	2.7656 2.8020 2.7862	.6199 .6522 .6386	-.0455* -.0627 -.0566*	July October Total
Rehab. Versus Other St. Meetings	1511 1938 3449	2.2091 1.9149 2.0438	2.2540 2.1946 2.2253	.0098 -.0191 .0472*	July October Total
Rehab. Versus Other Region. Mt's.	1511 1938 3449	1.0338 1.0088 1.0197	1.8864 1.9238 1.9073	-.0575* -.0439* -.0265	July October Total
Rehab. Versus Other National Mts.	1511 1938 3449	.6717 .6078 .6358	1.6999 1.6025 1.6459	.0221 .0414* .0354*	July October Total
Marrieds Non-Marrieds	1511 1938 3449	.0444 .8906 .9142	.6173 .6075 .6123	.0347 .0337 .0553*	July October Total
Physical Defect	1511 1938 3449	.8299 .8158 .8220	.3758 .3878 .3826	.0698* .0493* .0510*	July October Total
Father Blue Collar White Collar	1511 1938 3449	2.8915 2.8813 2.8858	2.6277 2.6800 2.6569	-.0460 -.0463* -.0276*	July October Total

## Correlation Analysis--Continued

Demographic Variables	Cases	Mean	Standard Deviation	r	
Mother	1511	5.5083	3.3144	-.0633*	July
Blue Collar	1938	5.4649	3.3594	-.0444*	October
White Collar	3449	5.4839	3.3393	-.0283*	Total
B.S.	1511	3.2455	3.1526	-.0405	July
Science	1938	3.1703	3.1737	-.1005	October
Versus Other	3449	3.2032	3.1642	-.0372	Total
MA Rehab.	1511	1.7445	2.8169	-.0434*	July
Counsel.	1938	1.7198	2.7665	-.0766*	October
Versus Other	3449	1.7306	2.7883	-.0354*	Total
Audio	1511	.2263	.4168	-.0677*	July
Supervision	1938	.2776	.4479	-.0696*	October
Recode	3449	.2551	.4360	-.0885*	Total
Video	1511	.4421	.4968	.0282	July
Supervision	1938	.4912	.5001	.0810*	October
Recode	3449	.4697	.4992	-.0016	Total
Training	1511	1.4507	.9164	.0078	July
None	1938	1.3767	.9193	.0587*	October
Versus Some	3449	1.4091	.9186	.0536*	Total
Funding	1511	1.1019	1.9781	.0425*	July
Federal-St.	1938	1.3421	2.1568	.0493*	October
Private	3449	1.2369	2.0835	-.0153	Total
Feelings	1511	.1039	.3840	-.0001	July
About Job	1938	.1053	.4042	.0349	October
(Recoded)	3449	.1047	.3955	.0110	Total
Area of	1511	3.0841	1.8415	-.0280	July
Specialization	1938	3.1512	1.9780	-.0123	October
(Recoded)	3449	3.1218	1.9194	-.0255	Total
Rehab.	1511	1.8716	2.3359	.0498*	July
Versus Other	1938	1.8106	2.22746	.0109	October
Job Settings	3449	1.8373	2.3015	.0283	Total

\*p = .05

**APPENDIX E**

**CROSS TABULATIONS--AREA OF PRACTICE  
BY STATE, REGIONAL AND NATIONAL  
MEETINGS ATTENDED**



CROSSTABS-JULY  
AREA OF PRACTICE (J 35) BY STATE MEETINGS ATTENDED

PRACTICE	COUNT ROW PCT COL PCT TOT PCT	STREET										ROW TOTAL
		HOME	APGA	ARCA	NRA	NRCA	APA	MASW	OTHER			
ADMINISTRATION	0	39 30.2 5.5 2.3	1 1.6 3.7 .1	2 2.3 8.6 .2	3 5.2 40.3 10.9 3.0	4 11 8.6 6.6	5 0 0 0	6 0 0 0	7 22 17.1 13.7 1.3	129 5.5		
SUPERVISION OF SERVICES AT TOP AGENCY LEVEL	1	29 40.8 4.1 1.7	1 1.4 1.9 .1	5 7.0 14.3 .3	22 31.0 4.6 1.3	3 4.2 1.2	3 4.2 8.1 .2	1 1.4 9.1 .1	7 9.9 4.3 .4	71 6.1		
SUPERVISION OF SERVICES AT MIDDLE AGENCY LEVEL	2	103 39.2 14.5 6.0	5 1.9 9.3 .3	5 1.9 14.3 .3	43 34.8 17.4 4.8	33 13.7 1.9	7 2.7 18.9 .4	3 2.7 27.3 .2	22 8.4 13.7 1.3	261 15.1		
REHABILITATION SERVICES FOR CLIENTS-COUNSELING	3	431 43.7 69.5 25.0	22 2.2 40.7 1.3	17 1.7 48.6 1.0	243 29.6 51.1 14.1	172 17.4 10.0	19 1.9 51.4 1.1	4 .4 36.4 .2	78 7.9 48.4 4.5	986 57.1		
STAFF DEVELOPMENT ACTIVITIES	4	22.9 1.5	2.9 1.9 .1	2.9 2.9 .1	13 37.1 2.7 .8	6 17.1 2.5 .3	2 5.4 5.1	3 9.1 1.2	3 8.9 1.2	35 2.0		
REHABILITATION EDUCATION	5	17 30.9 2.4 1.0	10 18.2 18.5 .6	2 3.6 5.1 .1	14 25.5 2.9 .8	4 7.3 1.7 .2	4 7.3 10.8 .2	0 0 0 0	4 7.3 2.2 .2	55 3.2		
CLIENT EVALUATION	6	36 49.6 5.1 2.1	3 4.1 5.6 .2	1 1.4 2.9 .1	19 25.7 4.0 1.1	4 5.4 1.7 .2	0 0 0 0	1 1.4 9.1 .1	10 13.5 6.2 .6	74 4.3		
DISABILITY DETERMINATION (ORST-551)	7	12 50.0 1.7 .7	1 4.2 1.9 .1	0 0 0 0	8 33.3 1.7 .5	1 4.2 1.1	0 0 0 0	0 0 0 0	2 8.3 1.2 .1	24 1.4		
JOB DEVELOPMENT AND PLACEMENT	8	11 40.7 1.5	2 7.4 3.7 .1	1 3.7 2.9 .1	8 29.6 1.7 .5	2 7.4 1.1	1 3.7 2.7 .1	0 0 0 0	2 7.4 1.2 .1	27 1.6		
OTHER	9	26 49.6 3.7 1.5	7 10.9 13.0 .4	0 0 0 0	14 21.9 2.8 .8	4 6.3 1.2 .2	1 1.6 2.7 .1	1 1.6 9.1 .1	11 17.2 6.8 .6	64 3.7		
COLUMN TOTAL		712 41.3	54 3.1	35 2.0	476 27.6	240 13.9	37 2.1	11 1.6	161 9.3	1726 100.0		

RAW CHI SQUARE = 167.0132 WITH 63 DEGREES OF FREEDOM. SIGNIFICANCE = .0000

## CRUSSTABS-OCTOBER

AREA OF PRACTICE (Q 35) BY STATE MEETINGS ATTENDED

PRACTICE	COUNT ROW PCT COL PCT TOT PCT	STATE										ROW TOTAL
		NONE	APCA	ARCA	NRA	NRCA	APA	NASW	OTHER			
ADMINISTRATION	0	5.8 40.0 6.6 3.1	10 5.9 10.2 6.4	2 1.2 3.3 1	3 5.9 34.7 8.9 2.6	4 8 4.7 5.4	5 2 11.6 1	6 3 1.0 18.0	7 1.0 9.0 8			170 7.6
SUPERVISION OF SERVICES AT TOP AGENCY LEVEL	1	3.4 38.2 3.3 1.5	7 7.9 7.1 3.1	2 2.2 3.9 1	25 28.1 3.9 1.1	5 5.6 3.6 2.2	2 2.2 11.6 1	2 2.2 12.5 1	12 13.5 6.9 6.5			89 4.0
SUPERVISION OF SERVICES AT MIDDLE AGENCY LEVEL	2	12.3 38.3 11.0 5.5	12 13.7 12.2 5	8 15.7 15.4	12 38.8 18.6 5.6	19 13.9 13.6 1	2 6 11.6 1	1 6.3 6.0	32 18.0 15.9 1.4			321 14.4
REHABILITATION SERVICES FOR CLIENTS-COUNSELING	3	6.57 51.1 63.3 29.5	46 3.6 46.9 2.1	32 2.5 62.7 1.4	350 27.2 52.6 15.7	94 7.3 67.1 4.2	6 5 35.3 3	5 31.2	96 7.5 47.8 4.3			1286 57.7
STAFF DEVELOPMENT ACTIVITIES	4	1.1 28.9 1.1 5	5 13.2 5.1 2	0 0 0 0	13 34.2 2.0 6	4 10.5 2.9 2	0 0 0 0	0 0 0 0	5 13.2 2.2 2			38 1.7
REHABILITATION SERVICES	5	2.3 34.3 2.2 1.0	11 16.4 11.2 5	4 6.8 7.2	22 32.3 3.3 1.0	1 1.5 1.0 0	2 3.0 11.6 1	0 0 0 0	4 6.0 2.2 2			67 3.0
CLIENT EVALUATION	6	4.0 44.9 3.9 1.8	2 2.2 2.0 1	0 0 0 0	31 34.8 4.7 1.4	2 2.2 1.4 1	2 2.2 11.6 1	1 1.1 6.0	11 12.4 15.5 5			89 4.0
DISABILITY DETERMINATION (QMSI-SS1)	7	1.4 66.7 1.3 6	0 0 0 0	0 0 0 0	5 23.8 3.8 2	1 4.8 5.0 0	0 0 0 0	0 0 0 0	1 4.8 5.0 0			21 .9
JOB DEVELOPMENT AND PLACEMENT	8	1.6 47.1 1.5 7	2 5.9 2.0 1	1 2.8 2.0	10 29.4 1.5 4	0 0 0 0	0 0 0 0	2 5.9 12.5 1	3 8.8 1.1 1			34 1.5
OTHER	9	5.2 46.8 5.0 2.3	3 3.7 3.1 1	2 1.8 3.9 1	27 24.1 4.1 1.2	6 5.3 4.3 3	1 5.9 5.0 0	2 12.8 12.5 1	18 17.0 9.5 9			112 5.0
COLUMN TOTAL		103.8 46.6	98 4.4	51 2.3	66.6 29.9	140 6.3	17 .8	16 .7	201 9.0			2227 100.0

RAW CHI SQUARE = 144.8092 WITH 63 DEGREES OF FREEDOM. SIGNIFICANCE = .0000

CROSS TABS--JULY & OCTOBER COMBINED  
AREA OF PRACTICE (J 35) BY STATE MEETINGS ATTENDED

PRACTICE	COUNT ROW PCT COL PCT TOT PCT	STREET										ROW TOTAL
		1	2	3	4	5	6	7	8	9	10	
ADMINISTRATION	0	107 35.6 6.1 2.7	12 4.0 7.9 3.3	111 37.1 9.7 2.6	19 6.4 5.0 5.5	2 .7 3.7 1.1	5 1.7 11.1 3.7	3 1.0 11.1 3.7	7 2.3 13.4 4.0	5 1.7 11.1 3.7	160 53.0 11.0 3.7	299 96.0 11.0 3.7
SUPERVISION OF SERVICES AT TOP AGENCY LEVEL	1	63 39.4 3.6 1.8	4 5.0 5.2 1.8	47 29.4 4.2 1.2	8 5.0 2.2 2.2	5 3.1 9.3 3.1	3 1.9 11.1 3.7	3 1.0 11.1 3.7	19 6.1 11.9 3.7	5 1.7 11.1 3.7	160 53.0 11.0 3.7	299 96.0 11.0 3.7
SUPERVISION OF SERVICES AT MIDDLE AGENCY LEVEL	2	326 38.8 12.9 12.7	17 2.9 11.4 1.4	306 35.6 18.1 5.2	58 6.8 13.3 1.3	9 1.5 16.7 5.2	7 2.3 14.6 4.0	14 4.6 11.1 3.7	54 17.7 14.9 4.0	16 5.1 11.1 3.7	583 188.0 11.0 3.7	1083 339.0 11.0 3.7
REHABILITATION SERVICES FOR CLIENTS-COUNSELING	3	1088 47.9 62.2 27.5	68 3.0 44.7 1.7	593 26.1 51.9 15.0	266 11.7 70.0 5.7	25 1.5 46.3 6.6	9 2.9 33.3 9.2	9 2.9 33.3 9.2	174 57.7 48.1 11.4	17 5.4 11.1 3.7	2272 57.5 11.0 3.7	5272 1641.0 11.0 3.7
STAFF DEVELOPMENT ACTIVITIES	4	19 26.0 1.1 .5	6 8.2 3.9 .2	26 35.6 2.3 .7	10 13.7 2.6 .3	2 2.7 3.7 1.1	1 1.4 3.7 1.1	1 1.4 3.7 1.1	8 2.3 11.1 3.7	1 .3 3.7 1.1	73 22.3 11.0 3.7	173 53.0 11.0 3.7
REHABILITATION EDUCATION	5	32 4.0 2.3 1.0	21 17.2 13.8 5.5	35 29.5 3.2 .9	4 4.1 1.3 .1	6 4.9 11.2 3.7	0 0.0 0.0 0.0	0 0.0 0.0 0.0	8 2.3 11.1 3.7	0 0.0 0.0 0.0	122 37.5 11.0 3.7	312 96.0 11.0 3.7
CLIENT EVALUATION	6	76 46.6 4.3 1.9	5 3.1 3.3 1.1	50 30.7 4.4 1.3	6 3.7 1.6 .2	2 2.7 3.7 1.1	2 1.4 3.7 1.1	2 1.4 3.7 1.1	21 6.1 12.9 3.7	2 .7 11.1 3.7	163 50.0 11.0 3.7	316 96.0 11.0 3.7
DISABILITY DETERMINATION (UNSL-SSI)	7	26 57.8 1.5 .7	1 2.7 1.0 .0	13 28.9 1.1 .3	2 4.1 1.3 .1	0 0.0 0.0 0.0	0 0.0 0.0 0.0	0 0.0 0.0 0.0	3 7.7 1.0 .3	0 0.0 0.0 0.0	45 13.5 11.0 3.7	145 43.0 11.0 3.7
JOB DEVELOPMENT AND PLACEMENT	8	27 44.3 1.5 .7	4 6.6 2.9 1.1	10 29.5 1.6 .5	2 3.7 1.3 .1	1 1.4 3.7 1.1	0 0.0 0.0 0.0	0 0.0 0.0 0.0	5 14.6 1.0 .3	2 5.4 11.1 3.7	61 18.0 11.0 3.7	161 48.0 11.0 3.7
OTHER	9	78 44.3 4.5 2.0	10 5.7 6.6 3.3	41 23.3 3.6 1.0	10 5.7 2.6 .3	2 1.4 3.7 1.1	2 1.4 3.7 1.1	3 7.7 1.0 .3	30 17.0 10.3 2.3	3 7.7 1.0 .3	176 52.0 11.0 3.7	376 111.0 11.0 3.7
COLUMN TOTAL		1750 44.3	152 3.8	1162 28.9	380 9.6	54 1.4	27 .7	27 .7	362 9.2	27 .7	3953 100.0	

RAW CHI SQUARE = 235.4747 WITH 63 DEGREES OF FREEDOM. SIGNIFICANCE = .0000

CROSSTABS-JULY  
AREA OF PRACTICE (Q 35) BY REGIONAL MEETINGS ATTENDED

PRACTICE	COUNT ROW COL TOT	REGMEEET NONE	APGA	ARCA	NRA	NRCA	APA	NASW	OTHER	ROW TOTAL
PRACTICE	0	0	1	2	3	4	5	6	7	129
ADMINISTRATION	1	50.9 6.1 4.4	1 4.2 1	0 0 0	20 21.3 12.3 1.6	12 9.3 9.7	1 7.7 1	0 0 0	11 8.5 15.6	7.5
SUPERVISION OF SERVICES AT TOP AGENCY LEVEL	1	50.4 4.0	2.8 8.1	4.2 25.0	11.5 4.8	1.4 8	1.4 7.7	2.8 25.2	1.4 1.4	7.1
SUPERVISION OF SERVICES AT MIDDLE AGENCY LEVEL	2	190 72.8 15.2 11.0	3 1.1 12.2	1 0.3 1	39 14.3 17.2 2.3	22 8.4 10.2 1.1	1 4.7 1	1 11.1	4.5 5.6	261 15.1
REHABILITATION SERVICES FOR CLIENTS-COUNSELING	3	749 75.8 43.3	7 29.2 4	6 50.0 3	111 11.2 48.9 6.4	69 7.0 57.0 4.0	6 6.2 46.3	3 3.3 3.2	37 3.7 52.1 2.1	988 57.2
STAFF DEVELOPMENT ACTIVITIES	4	60.0 1.2	0 0 0	0 0 0	5 2.3	3 8.6 2.2	1 7.7 1	1 11.1	4 1.4 5.2	35 2.0
REHABILITATION EDUCATION	5	31 56.4 2.5 1.8	3 5.5 12.2	1 1.8 8.3 1	11 20.0 4.8 0.6	4 7.3 3.2	2 3.6 15.4	0 0 0	3 5.3 4.2 2	55 3.2
CLIENT EVALUATION	6	52 70.3 3.0	2 8.3 1	0 0 0	10 13.5 4.6	3 4.2 2.2	0 0 0	2 22.2	5 6.8 7.3	74 4.3
DISABILITY DETERMINATION (DASI-SSI)	7	19 79.2 1.1	0 0 0	1 4.2 8.3 1	2 8.9 1	2 8.7 1.1	0 0 0	0 0 0	0 0 0	24 1.4
JOB DEVELOPMENT AND PLACEMENT	8	19 70.4 1.1	1 3.7 4.2 1	0 0 0	4 14.8 1.8 2	2 7.4 1.7 1	0 0 0	0 0 0	3 1.7 1.4 1	27 1.6
OTHER	9	44 68.8 3.5 2.5	5 7.8 20.3	0 0 0	6 9.4 2.6 3	3 4.7 2.2 5	1 1.6 7.7 1	0 0 0	5 7.8 7.3	64 3.7
COLUMN TOTAL		1251 72.4	24 1.4	12 1.7	227 13.1	121 7.0	13 8	9 5	71 4.1	1728 100.0

CROSS-TABS-OCTOBER  
AREA OF PRACTICE (4 35) BY REGIONAL MEETINGS ATTENDED

COUNT		REGIMENT										ROW TOTAL
ROW PCT	COL PCT	None	ARCA	NIVA	NRCA	NRPA	NRSA	OTHER	1			
PRACTICE	0	0	1	2	3	4	5	6	7	1		
		103	6	1	37	5	1	3	13	7		
		60.9	3.6	0.6	21.9	3.0	0.6	1.8	7.7	4.1		
ADMINISTRATION	0	4.6	10.5	4.0	12.5	6.0	6.0	27.3	10.7	1.0		
		51	4	2	17	5	1	2	7	1		
		3.1	4.5	2.0	19.1	5.6	1.7	2.2	7.9	1.0		
SUPERVISION OF SERVICES AT TOP AGENCY LEVEL	1	2.3	7.0	8.0	15.7	6.0	6.0	18.2	5.8	1.0		
		72.9	2.2	3	46	9	3	1	18	1		
		14.4	12.3	12.0	15.5	10.4	20.1	9.0	14.9	1.0		
DEVELOPMENT OF SERVICES AT MIDDLE AGENCY LEVEL	2	19.5	12.3	12.0	15.5	10.4	20.1	9.0	14.9	1.0		
		100.4	24	16	136	49	4	4	52	1		
		77.9	1.9	1.0	10.6	3.0	3	3	43.0	1		
REHABILITATION SERVICES FOR CLIENTS-COUNSELING	3	61.9	42.1	64.7	45.9	59.0	26.7	36.4	2.3	1		
		45.0	1.1	0	2	3	0	0	6	1		
		26	2.6	0	5.7	7.9	0	0	15.8	1		
STAFF DEVELOPMENT ACTIVITIES	4	1.6	1.8	0	1.1	3.6	0	0	5.9	1		
		68.4	2.6	0	5.7	7.9	0	0	15.8	1		
		1.2	1.8	0	1.1	3.6	0	0	5.9	1		
REHABILITATION EDUCATION	5	33	5	1	20	2	2	0	4	1		
		49.3	7.5	4.0	29.9	3.0	13.3	0	6.0	1		
		20.0	8.2	4.0	6.8	2.4	13.3	0	3.2	1		
CLIENT EVALUATION	6	1.5	0	0	0	0	0	0	0	1		
		65	1	1	17	1	0	0	4	1		
		73.0	1.1	1.0	19.1	1.2	0	0	4.5	1		
DISABILITY DETERMINATION (GAST-SSI)	7	2.9	0	0	0	0	0	0	0	1		
		45.7	4.8	0	4.8	1.2	0	0	0	1		
		1.1	1.8	0	0	1.2	0	0	0	1		
JOB DEVELOPMENT AND PLACEMENT	8	8	0	0	0	0	0	0	0	1		
		19	3	0	7	1	0	0	3	1		
		55.9	8.8	0	20.6	2.0	0	0	8.8	1		
OTHER	9	1.2	5.1	0	2.4	1.2	0	0	2.5	1		
		69	5	1	13	7	4	0	14	1		
		41.1	4.8	4.0	11.5	6.2	3.5	0	12.4	1		
COLUMN TOTAL	TOTAL	2.1	4.8	4.0	4.4	4.3	26.2	0	11.6	1		
		1522	57	25	246	83	15	11	121	1		
		72.7	2.6	1.1	13.3	3.7	.7	.5	5.4	1		

RAW CHI SQUARE = 157.2774 WITH 63 DEGREES OF FREEDOM. SIGNIFICANCE = .0000

CROSS-TABS-JULY & OCTOBER COMBINED  
AREA OF PRACTICE (J 35) BY REGIONAL MEETINGS ATTENDED

PRACTICE	COUNT ROW COL TOT	REGIONAL MEETINGS ATTENDED										ROW TOTAL
		NRRA	ARCA	NRCA	APCA	NRCA	APCA	NRCA	APCA	NRCA	APCA	
ADMINISTRATION	0	179 60.1 6.2 4.5	1 2.3 8.6 2.0	1 1.7 5.3 8.4	1 1.7 5.3 8.4	1 1.7 5.3 8.4	1 1.7 5.3 8.4	1 1.7 5.3 8.4	1 1.7 5.3 8.4	1 1.7 5.3 8.4	1 1.7 5.3 8.4	298 79.5
SUPERVISION OF SERVICES AT TOP AGENCY LEVEL	1	101 63.1 3.5 2.6	1 3.1 7.4 13.5	1 3.1 7.4 13.5	1 3.1 7.4 13.5	1 3.1 7.4 13.5	1 3.1 7.4 13.5	1 3.1 7.4 13.5	1 3.1 7.4 13.5	1 3.1 7.4 13.5	1 3.1 7.4 13.5	160 40.0
SUPERVISION OF SERVICES AT MIDDLE AGENCY LEVEL	2	729 14.8 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1502 1502
REHABILITATION SERVICES FOR CLIENTS-COUNSELING	3	1753 77.0 61.0 44.3	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	2277 57.5
STAFF DEVELOPMENT ACTIVITIES	4	644 1.6 1.2	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	73 1.3
REHABILITATION EDUCATION	5	522 2.2 1.6	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	122 3.1
CLIENT EVALUATION	6	117 71.8 4.1 3.0	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	163 4.1
DISABILITY DETERMINATION (CASE-501)	7	37 2.2 1.3 1.9	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	45 1.1
SUB DEVELOPMENT AND PLACEMENT	8	623 1.3 1.0	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	61 1.5
STAFF	9	113 63.6 2.0	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	1 1.9 12.3 10.7	177 4.5
COLUMN TOTAL		2873 72.4	81 2.0	204 5.2	28 0.7	523 13.2	28 0.7	523 13.2	28 0.7	523 13.2	28 0.7	3958 100.0

RAM CHI SQUARE = 218.46136 WITH 63 DEGREES OF FREEDOM. SIGNIFICANCE = .0000

CRUSSTABS-JULY  
AREA OF PRACTICE (J 35) BY NATIONAL MEETINGS ATTENDED

PRACTICE	COUNT ROW PCT COL PCT TOT PCT	NATMEET										ROW TOTAL
		NONE	APGA	ARCA	NRA	NRCA	APA	NASU	OTHER			
ADMINISTRATION	0	0	1	2	3	4	5	5	7	129	129	
		62.0	4.7	16.7	21.3	5.4	4.5	25.0	13.3	15.3		
		5.7	7.3		20.4	13.4						
		4.6			1.2							
SUPERVISION OF SERVICES AT TOP AGENCY LEVEL	1	4.8	5	2	3	3	2	1	7	71	71	
		67.6	7.0	2.0	4.2	4.2	2.0	25.0	9.9	8.0		
		3.4	6.0	33.3	2.2	8.3	9.1	1.0	0.4			
		2.0	.3	.1	.2	.2	.1	.1				
SUPERVISION OF SERVICES AT MIDDLE AGENCY LEVEL	2	21.6	3.1	1.4	1.3	6.3	4.5	1.0	9	261	261	
		82.8	9.6	16.7	7.3	2.7	4.5	25.0	3.4	11.5		
		15.5	.5	.1	1.1	.3	.1	.1	5			
REHABILITATION SERVICES FOR CLIENTS-COUNSELING	3	86.0	31	2	4.2	10	1.1	1	2.9	986	986	
		87.2	37.3	33.3	40.0	1.0	50.0	25.0	36.7	1.7		
		61.7	1.8	.1	2.4	.6	.6	.1				
		49.8										
STAFF DEVELOPMENT ACTIVITIES	4	25	2.7	0	3	0	1	0	4	35	35	
		71.4	5.4	0	8.6	0	2.9	0	11.5	1.2		
		1.8	2.1	0	2.2	0	.1	0				
		1.4	.1									
REHABILITATION EDUCATION	5	13	21	0	7	5	3	0	6	55	55	
		23.6	38.2	0	12.7	9.1	5.5	0	10.9	7.6		
		.9	25.3	0	6.4	3.3	13.2	0	.3			
		.8	1.2	0				0				
CLIENT EVALUATION	6	62	3	0	3	1	1	0	4	74	74	
		83.8	4.1	0	4.1	1.0	1.4	0	5.1	5.2		
		4.5	3.6	0	2.9	2.0	4.5	0				
		3.6	.2	0	.2	.1	.1	0				
DISABILITY DETERMINATION (OASI-SSI)	7	21	0	0	1	1	0	0	1	24	24	
		87.5	0	0	4.2	4.2	0	0	1.2	1.1		
		1.2	0	0	1.0	.1	.8	0				
JOB DEVELOPMENT AND PLACEMENT	8	22	1	0	2	0	1	0	1	27	27	
		81.5	3.7	0	7.9	0	3.5	0	3.7	1.1		
		1.5	1.2	0	1.1	0	.1	0	1.1			
		1.3	.1	0	.1	0	.1	0				
OTHER	9	4.6	6	0	2	3	1	0	6	64	64	
		71.9	9.4	0	3.1	4.3	1.6	0	9.4	7.6		
		3.3	7.3	0	1.9	3.2	4.5	0				
		2.7	.3	0	.1	.2	.1	0				
COLUMN TOTAL		1393	83	6	103	36	22	4	79	1726	1726	
		90.7	4.8	.3	6.0	2.1	1.3	.2	4.6		100.0	

RAW CHI SQUARE = 305.90218 WITH 63 DEGREES OF FREEDOM. SIGNIFICANCE = 0

RAW CHI SQUARE = 105.90218 WITH 63 DEGREES OF FREEDOM. SIGNIFICANCE = 0

CROSSTABS-OCTOBER  
AREA OF PRACTICE (Q 35) BY NATIONAL MEETINGS ATTENDED

PRACTICE	COUNT ROW PCT COL PCT	NATMEET										TOTAL
		I	I	I	I	I	I	I	I	I	I	
		NONE	AFCA	ARCA	NRA	NRCA	APA	NASU	OTHER	7		
ADMINISTRATION	0	0	14 8.2 61.6 4.7	0	0	0	0	0	0	0	17.6	
SUPERVISION OF SERVICES AT TOP AGENCY LEVEL	1	65 73.0 3.5 2.9	6 6.7 6.3 3	0	0	0	0	0	0	0	89 6.0	
SUPERVISION OF SERVICES AT MIDDLE AGENCY LEVEL	2	268 83.5 14.5 12.0	10 3.1 10.4 4.4	1 20.0 0	29 9.9 1.3	4 20.2	2 8.1	0	0	0	321 14.4	
REHABILITATION SERVICES FOR CLIENTS-COUNSELING	3	1144 88.8 51.9 1.3	41 3.2 42.7 1.8	0	48 32.9 2.2	9 45.4	6 25.3	1 50.0	39 4.7 1.7	0	1288 57.8	
STAFF DEVELOPMENT ACTIVITIES	4	27 71.1 1.5 1.2	1 2.6 1.0 0	0	6 15.8 4.1 3	1 5.0	0	0	0	0	38 1.7	
REHABILITATION EDUCATION	5	31 46.3 1.7 1.4	13 19.4 13.5 6	3 4.5 60.0 1	14 20.9 9.6 6	1 5.0	1 4.2	0	0	0	67 3.0	
CLIENT EVALUATION	6	77 86.5 4.2 3.5	3 3.6 3.1 1	0	1 1.7 0	1 5.0	4 16.2	0	0	0	89 4.0	
DISABILITY DETERMINATION (DASI-SSI)	7	19 90.5 1.0 1.9	0 0 0 0	0	2 9.5 1.4 1	0	0	0	0	0	21 .9	
JOB DEVELOPMENT AND PLACEMENT	8	28 82.4 1.5 1.1	8 8.8 3.1 1	0	3 8.8 2.1 1	0	0	0	0	0	34 1.5	
OTHER	9	45 75.2 4.6 3.8	5 4.4 5.2 2	1 20.0 0	10 8.8 6.4 4	0	3 12.5 1	0	0	0	113 5.1	
COLUMN TOTAL		1849 82.9	96 4.3	5 .2	145 6.5	20 .9	24 1.1	2 .1	88 3.9		2230 103.0	

RAW CHI SQUARE = 279.32971 WITH 63 DEGREES OF FREEDOM. SIGNIFICANCE = .0000



CROSSTABS-JULY & OCTOBER COMBINED  
AREA OF PRACTICE (Q 35) BY NATIONAL MEETINGS ATTENDED

	COUNT		NAT MEET		APGA	ARCA	NRA	NRCA	APA	NASJ	OTHER	ROW TOTAL
	ROW PCT	COL PCT	NONE	AT MEET								
PRACTICE ADMINISTRATION	0		185 61.9 5.7 4.7	0	29 6.7 11.2	1 .3 .3	47 15.7 18.9 1.2	10 3.3 17.9 3	5 2.0 13.2	6 2 33.1	28 9.4 16.8	299 79.6
SUPERVISION OF SERVICES AT TOP AGENCY LEVEL	1		113 70.6 3.5 2.9	0	11 6.9 8.3	2 .6 .1	10 6.3 4.3	4 2.5 1.1	5 1.6 10.4	1 .3 16.0	14 8.4 8.4	160 44.0
SUPERVISION OF SERVICES AT MIDDLE AGENCY LEVEL	2		484 83.2 14.9 12.2	0	18 3.1 10.5	2 .6 .1	48 16.3 1.2	10 3.3 17.9 3	3 .5 6.5	1 .3 16.0	16 5.6 9.6	582 16.7
REHABILITATION SERVICES FOR CLIENTS-COUNSELING	3		2004 89.1 61.8 50.7	0	72 3.2 40.2 1.9	2 .6 .1	90 36.1 2.3	19 3.8 33.9 5	17 3.7 37.0	2 .3 33.1	68 20.7 40.7	2274 57.5
STAFF DEVELOPMENT ACTIVITIES	4		52 71.2 1.6 1.3	0	3 4.1 1.7	0 .0 .0	9 12.3 3.6 .2	1 1.4 1.8 .0	1 1.6 2.0	0 .0 .0	7 9.6 2.2	73 1.8
REHABILITATION EDUCATION	5		36.1 1.1 1.1	0	34 27.9 19.8	3 2.5 27.1	21 17.2 8.5	6 4.9 10.2	4 3.7 8.7	0 .0 .0	10 12 6.3	122 33.1
CLIENT EVALUATION	6		139 85.3 4.3 3.5	0	6 3.7 3.2	0 .0 .0	4 2.6 1.1	2 3.6 1.1	5 3.9 10.9	0 .0 .0	7 4.3 2.2	163 44.1
DISABILITY DETERMINATION (UNSI-SSI)	7		40 89.9 1.2 1.0	0	0 0 0	0 .0 .0	3 6.7 1.2 .1	2 2.2 1.8 .0	0 .0 .0	0 .0 .0	1 2.6 .0	45 12.1
JOB DEVELOPMENT AND PLACEMENT	8		50 82.0 1.5 1.3	0	4 6.6 2.2	0 .0 .0	5 8.2 2.0 .1	0 .0 .0	1 1.6 2.0	0 .0 .0	1 1.6 .0	61 16.5
OTHER	9		131 74.0 9.0 3.3	0	11 6.2 6.3	1 .6 .0	12 6.8 4.3	3 5.4 1.1	4 2.7 6.7	0 .0 .0	15 9.5 9.4	177 44.5
COLUMN TOTAL			3242 82.0		179 4.5	11 .3	249 6.3	56 1.4	46 1.2	6 .2	167 4.2	3956 100.0

RAW CHI SQUARE = 474.94050 WITH 63 DEGREES OF FREEDOM. SIGNIFICANCE = 0

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