

© 1978

BARBARA A. JONES

ALL RIGHTS RESERVED

AN EXAMINATION OF THE RELATIONSHIP OF RISK-TAKING
VERSUS CAUTIOUSNESS IN DECISION-MAKING AMONG
SELECT DEANS, FACULTY, AND STUDENTS IN
OKLAHOMA JUNIOR COLLEGES

By

Barbara A. Jones

Bachelor of Arts in Education
Northeastern Oklahoma State University
Tahlequah, Oklahoma
1964

Master of Teaching
Northeastern Oklahoma State University
Tahlequah, Oklahoma
1967

Submitted to the Faculty of the Graduate College
of the Oklahoma State University
in partial fulfillment of the requirements
for the Degree of
DOCTOR OF EDUCATION
December, 1978

Thesis
1978D
J76e
Cop. 2



AN EXAMINATION OF THE RELATIONSHIP OF RISK-TAKING
VERSUS CAUTIOUSNESS IN DECISION-MAKING AMONG
SELECT DEANS, FACULTY, AND STUDENTS IN
OKLAHOMA JUNIOR COLLEGES

Thesis Approved:

Thomas A. Simon

Thesis Adviser

Carl R. Hulse

Shon D. Juhata

Ralph A. Brann

Norman N. Duncan

Dean of the Graduate College

1032380

ACKNOWLEDGMENTS

The writer wishes to express sincere thanks to:

Dr. Thomas Karman who very patiently and very helpfully served as chairman of the doctoral committee, and to committee members: Dr. William Davis, Dr. John Creswell, and Dr. Thomas Johnsten; and

Iris McPherson, Oklahoma State University Computer Center, for her patience and for her helpfulness in the computerizing of the data.

Also, thank you:

Dr. Daniel Hansen . . . who helped when it was needed most . . .

Dr. Ruth Arrington . . . a friend who cared, listened, and encouraged . . .

Dr. Mercedier Cunningham . . . a friend who gave a helping hand . . .

Jodie Cherrington . . . a friend who never even knew she helped . . .

Paula Keller . . . the typist who made everything look right . . .

and . . .

A SPECIAL THANK YOU TO:

MOM, DAD AND GRANNY FAIN WHO SAID, "IT CAN BE DONE. . . ."

TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION	1
Background and Need for the Study	2
Statement of the Problem	4
Purpose of the Study	4
Research Questions and Hypotheses	5
Research Question 1	5
Research Question 2	5
Research Question 3	6
Research Question 4	6
Definitions of Selected Terms	6
II. REVIEW OF THE LITERATURE	9
Introduction	9
Age and Risk-Taking in Decision-Making	9
Summary of the Review of the Literature	18
III. PROCEDURE AND METHODOLOGY	20
Introduction	20
Statement of the Problem	20
Assumptions	20
Limitations	21
Selection of the Subjects	21
Deans of Instruction	21
Faculty	22
Students	22
Description of the Instrument	22
Method for Data Collection	24
Statistical Procedures	25
Research Question 1	25
Research Question 2	26
Research Question 3	27
Research Question 4	27
IV. PRESENTATION AND ANALYSIS OF DATA	29
Introduction	29
Research Question 1	29
Hypothesis 1.1	30
Hypothesis 1.2	30

Chapter	Page
Hypothesis 1.3	30
Hypothesis 1.4	33
Research Question 2	33
Research Question 3	37
Hypothesis 3.1	39
Hypothesis 3.2	39
Research Question 4	39
Summary	42
V. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	45
Summary of the Study	45
Subjects Participating in the Study	45
Summary of the Findings	45
Research Question 1	45
Research Question 2	47
Research Question 3	47
Research Question 4	48
Conclusions	48
Recommendations	51
A SELECTED BIBLIOGRAPHY	54
APPENDIX A - QUESTIONNAIRE	56
APPENDIX B - COVER LETTERS	64
APPENDIX C - DEMOGRAPHIC DATA SHEETS	68
APPENDIX D - RESPONSE RATE BY AGE	72
APPENDIX E - RESPONSE RATE BY YEARS OF EXPERIENCE	75
APPENDIX F - RESPONSE RATE BY SEX	77

LIST OF TABLES

Table	Page
I. Comparison of Age and Risk-Taking in Decision-Making Among Deans of Oklahoma Junior Colleges	31
II. Comparison of Age and Risk-Taking in Decision-Making Among Faculty of Oklahoma Junior Colleges	32
III. Comparison of Age and Risk-Taking in Decision-Making Among Urban Students Attending an Oklahoma Junior College	34
IV. Comparison of Age and Risk-Taking in Decision-Making Among Semi-Rural Students Attending an Oklahoma Junior College	35
V. Comparison of Risk-Taking in Decision-Making Among Deans, Faculty, Urban Students and Semi-Rural Students of Oklahoma Junior Colleges	36
VI. Risk-Taking Among Deans, Faculty, Urban Students, and Semi-Rural Students in Oklahoma Junior Colleges	38
VII. Comparison of Risk-Taking in Decision-Making and Years of Experience Among Deans of Oklahoma Junior Colleges	40
VIII. Comparison of Risk-Taking in Decision-Making and Years of Experience Among Faculty of Oklahoma Junior Colleges	41
IX. Comparison of Risk-Taking in Decision-Making Between Urban and Semi-Rural Students in Two Oklahoma Junior Colleges	43

LIST OF FIGURES

Figure	Page
1. Dean Response Rate by Age	73
2. Faculty Response Rate by Age	73
3. Urban Student Response Rate by Age	74
4. Semi-Rural Student Response Rate by Age	74
5. Response Rate by Years of Experience	76
6. Response Rate by Sex	78

CHAPTER I

INTRODUCTION

Leadership is not a new term within the educational environment. However, there appears to be a growing concern with this abstract concept, not as an isolated theory unto itself, but rather as it is related to the specific individual fulfilling a presumably leadership role. As recently as 1975, Bowles and Davenport stated:

There is no question but that the demands for quality leaders are greater today than at any other time in history. Inevitably, questions must be asked that relate to why some are impelled to be leaders and others not, the specific qualities of leaders, the sources of these qualities, and the development of the abilities associated with leader behavior.¹

The inevitable question thus becomes, "What is leadership?" The need for effective leadership may be more readily comprehensible, however, than the attempt to describe just what effective leadership is.

There are three approaches to the study of leadership: (1) The Trait Theory,² which emphasizes personality traits common to all leaders; (2) The Contingency Theory,³ which emphasizes characteristics of specific situations in which a leader functions; and (3) The Great

¹Arnold W. Bowles and James A. Davenport, Introduction to Educational Leadership (New York, 1975), p. 248.

²F. A. Woods, The Influence of Monarchs (New York, 1913).

³F. E. Fiedler, A Theory of Leadership Effectiveness (New York, 1967), pp. 133-153.

Man (Person) Theory,⁴ which emphasizes leaders as born, not made.

Nevertheless, what is leadership? Upon reflection, leadership seems undeniably related to decision-making.

It has been said that administration is the critical organizational process making possible production, procurement, and the rest; that leadership is the heart of administration; and that decision-making is the key to leadership.⁵

Decision-making can be defined as the selection of one alternative and/or solution from several alternatives and/or solutions. Thus, one could suggest, as did Gore and Silander, "that decision-making is the key to leadership."⁶

Background and Need for the Study

Decision-making has become synonymous with the work of John Dewey, for Dewey's concept of reflective thinking has become a timeless piece of knowledge. Undoubtedly, his sequence of decision-making phases is probably the best known of all theories of rational decision-making.⁷ Dewey presents the decision-making process in the following steps:

- (1) Defining and limiting the problem;
- (2) Analyzing evidence for causes and effects of the problem;
- (3) Proposing solutions for the problem;
- (4) Evaluating and analyzing all solutions;

⁴Ralph M. Stogdill, Handbook of Leadership: A Survey of Theory and Research (New York, 1974), p. 17.

⁵William J. Gore and F. S. Silander, "A Bibliographical Essay on Decision-Making," Administrative Science Quarterly, Vol. 4 (June, 1959), p. 97.

⁶Ibid.

⁷Orville G. Brim, Jr., et al., Personality and Decision Processes (Stanford, California, 1962), p. 9.

- (5) Deciding upon ways to put the chosen solution into operation.⁸

To understand Dewey's process of decision-making it is important to recognize that decision-making is a process of cognition. In that cognition is "the process by which knowledge is acquired: perception, memory, thinking, and imagery,"⁹ it seems quite possible that individuals could have their own unique method of cognitive processing which could effect their decision-making. This notion is supported by the work of the so-called "cognitive style theorists" who focus upon the effects of systematic individual variations in cognitive processing. Cognitive style is defined as individual variations in cognitive processing.¹⁰

In summary, according to cognitive style theory: (1) individuals systematically differ in their cognitive processing; (2) one of these individual differences is that of risk-taking versus cautiousness; (3) this difference in processing affects variation in individual behavior with respect to behaviors which are subject to cognitive control; (4) inasmuch as decision-making is primarily a cognitive process, it is hypothesized that decision-making behavior may vary depending upon the degree to which an individual is willing to take risks.

The need for this study is prompted by the existence of little research related to the cognitive dimension of risk-taking versus

⁸Larry A. Samovar and Jack Mills, Oral Communication: Message and Response (Dubuque, Iowa, 1968), p. 209.

⁹Gerald S. Lesser (ed.), Psychology and Educational Practice (Glenview, Illinois, 1971), p. 243.

¹⁰Ibid., p. 244.

cautiousness. Furthermore, no research was found that explained the relationship of risk-taking and cautiousness in decision-making in higher education leadership roles. Risk-taking in decision-making implies the willingness to take risks in the selection of the final alternative or solution, or in other words, it "implies that low probability-high payoff alternatives are preferred over high probability-low payoff alternatives."¹¹ Cautiousness, on the other hand, is the unwillingness to take risks in the selection of the final alternative or solution, which implies that high probability-low payoff alternatives are preferred over low probability-high payoff alternatives.¹²

Statement of the Problem

The study reported here was designed to determine: (1) whether age is related to an individual's risk-taking ability; (2) whether deans, faculty and students differed in risk-taking ability; (3) whether risk-taking ability was related to the number of years an individual has held a position; and (4) whether students attending an urban junior college differed in risk-taking when compared with students attending a semi-rural junior college.

Purpose of the Study

The purpose of the study was twofold: (1) to investigate the validity of the research methodology used in measuring risk-taking

¹¹Ibid., p. 244.

¹²Ibid.

and caution; and (2) to develop a research base which attempts to understand risk-taking versus cautiousness in decision-making in higher education leadership roles.

Research Questions and Hypotheses

Research Question 1

Is age related to an individual's risk-taking ability?

Hypothesis 1.1. When deans of junior colleges in Oklahoma are categorized by age, no statistically significant relationship will be found between age and risk-taking ability.

Hypothesis 1.2. When faculty of junior colleges in Oklahoma are categorized by age, no statistically significant relationship will be found between age and risk-taking ability.

Hypothesis 1.3. When students attending an urban junior college are categorized by age, no statistically significant relationship will be found between age and risk-taking ability.

Hypothesis 1.4. When students attending a semi-rural junior college are categorized by age, no statistically significant relationship will be found between age and risk-taking ability.

Research Question 2

Do deans, faculty, and students differ in risk-taking ability?

Hypothesis 2.1. When deans, faculty, and students are compared regarding risk-taking ability, there will be no statistically significant difference among any of the groups.

Research Question 3

Is one's risk-taking ability related to the number of years the person has held a position within a junior college in Oklahoma?

Hypothesis 3.1. When deans of junior colleges in Oklahoma are categorized by years of experience in the deanship, no statistically significant relationship will be found between risk-taking ability and years of experience.

Hypothesis 3.2. When faculty of junior colleges in Oklahoma are categorized by years of experience as faculty members, no statistically significant relationship will be found between risk-taking ability and years of experience.

Research Question 4

Do students attending a large, urban junior college display a stronger tendency toward risk-taking than students attending a small, semi-rural junior college?

Hypothesis 4.1. When students attending a large, urban junior college are compared on risk-taking ability with students attending a small, semi-rural junior college, no statistically significant difference will be found.

Definitions of Selected Terms

Decision-Making - a cognitive process whereby one selects an alternative and/or solution from several alternatives and/or solutions.

Leadership - "The process of influencing the activities of an individual or group in an effort toward goal achievement in a given situation."¹³

Cognition - "The process by which knowledge is acquired: perception, memory, thinking, and imagery."¹⁴

Cognitive Style - An individual variation in cognitive processing.

Cognitive styles can be most directly defined as individual variation in modes of perceiving, remembering, and thinking, or as distinctive ways of apprehending, storing, transforming, and utilizing information. It may be noted that abilities also involve the foregoing properties, but a difference in emphasis should be noted: abilities concern level of skill--the more and less of performance--whereas cognitive styles give greater weight to the manner and form of cognition.¹⁵

Risk-Taking - A willingness to take risks in decision making.

"Implies that low probability-high payoff alternatives are preferred over high probability-low payoff alternatives."¹⁶

Cautiousness - An unwillingness to take risks in decision-making.

Implies that high probability-low payoff alternatives are preferred over low probability-high payoff alternatives.¹⁷

Junior College - Institutions offering a two-year Associate Degree as opposed to a four-year Bachelor's Degree.

Large Junior College - A two-year institution with an enrollment of 7,000 students or more.

¹³Paul Hersey and Kenneth Blanchard, Management of Organizational Behavior, 2nd ed. (New Jersey, 1972), p. 68.

¹⁴Lesser, p. 244.

¹⁵Ibid.

¹⁶Ibid., p. 286.

¹⁷Ibid.

Small Junior College - A two-year institution with an enrollment of 2,000 students or less.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

In this chapter literature investigating age as related to risk-taking and cautiousness in decision-making is reviewed. The possibility that such a relationship exists was suggested by Hoch and Zubin:

Perhaps the single most useful fact to know about an individual is his chronological age. This one fact can lead to more predictions and generalizations about behavior than probably any other single item of information. . . .¹

Age and Risk-Taking in Decision-Making²

Wallach and Kogan have been credited with conducting the first experimental study which examined adult-age differences in aspects of judgment and decision-making.³ In their study, a total of 511 persons categorized into four age groups were involved in the experiment:

¹Paul H. Hoch and Joseph Zubin (eds.), Psychopathology of Aging (New York, 1961), p. 203.

²The review of literature is limited to the variable of age as related to risk-taking and cautiousness because no research studies pertaining to the other factors were found.

³Michael A. Wallach and Nathan Kogan, "Aspects of Judgment and Decision-Making: Interrelationships and Changes With Age," Behavioral Science, Vol. 6 (1961), pp. 23-35.

89 were older women, 132 were younger women, 65 were older men, and 225 were younger men. The mean age for older men was 70.2 (S.D. = 7.3), with the mean age for older women being 69.5 (S.D. = 7.7). The mean age for the younger men and women was 20.

Wallach and Kogan employed four measures of judgment and decision-making: an extremity of judgment index requiring the subjects' judgment about the likelihood (so many chances out of 100) of the occurrence of various events; a measure of confidence index requiring subjects to indicate their certainty of the item they marked under the extremity of judgment; a deterrence of failure index requiring the subjects to indicate their willingness to take risks in decisions; and a subjective probability of failure index requiring the subjects' perception of their ability to perform a task. The conclusions reached in the study were: (1) with high self-confidence, extremity of both older men's and women's judgment was less than their younger counterparts; (2) confidence in judgment was less for older males than for younger males; and (3) the degree of deterrence of failure was greater for older men and women than for their younger adult counterparts.⁴

Kogan and Wallach also researched "Age Changes in Values and Attitudes."⁵ The focus of this study was upon the effects of value and attitude changes in respect to aging. In an attempt to examine differences in value and attitude between the young and the old, Kogan and Wallach utilized the semantic differential method with 268 subjects

⁴Ibid., pp. 29-35.

⁵Nathan Kogan and Michael Wallach, "Age Changes in Values and Attitudes," Journal of Gerontology, Vol. 16 (1961), pp. 272-280.

involved in the study. Of the 268 subjects, 71 were young women (age range or mean age not given), 66 were young men (age range or mean age not given), 76 were older women (age range 47 to 85, mean age = 70.5, S.D. = 7.2), and 55 were older men (age range 55 to 85, mean age = 71.1, S.D. = 6.8).

The subjects were presented with 28 concepts involving:

. . . work, family life, future, baby, older people, foreigner, love, middle age, Negro, elderly, my mother, American, leisure time, my father, old age, sex, death, authority, myself, youth, retirement, life, generosity, vigor, the ideal person, imagination, good looks, and risk . . .⁶

The subjects responded to these concepts by using the semantic differential which presents positive reaction to negative reaction on scales (i.e., fair-unfair, strong-weak, active-passive) with respect to each concept. By using the semantic differential, Kogan and Wallach were "able to examine both absolute differences between age groups in general extremity of concept evaluation, as well as relative difference between age groups in the evaluation of one or another concept in particular."⁷

The results of the study involving the positive to negative reactions on the semantic differential revealed that older subjects of each sex were more negatively disposed toward the 28 concepts.⁸ The mean evaluative score for males was more negative for older subjects for 22 of the 28 concepts (a sign test for the direction of difference yielded

⁶Ibid., p. 275.

⁷Ibid., p. 274.

⁸Ibid., p. 276.

a z value of 2.83, $p < .01$). The mean evaluative score for females also proved more negative for older subjects for 24 of the 28 concepts (a sign test for the direction of difference yielded a z value of 3.58, $p < .01$).

In considering the above results, Kogan and Wallach concluded that "whether this over-all difference is a reflection of the particular concept content, of age-linked response set effects, or a combination of both, cannot be readily determined from the data."⁹

In 1961, Kogan and Wallach conducted a study to determine whether an individual's feelings of his or her age (subjective age) and cautiousness were related with respect to the personality trait of anxiety.¹⁰ The sample consisted of 69 older women who were volunteer members of a non-profit gerontological research center, with ages ranging from 51 to 86, with the mean age being 69.3 (S.D. = 7.5). The degree of caution or risk was measured by Kogan and Wallach's "Choice Dilemma Questionnaire," which has been the most predominantly used method for the study of adult-age and cautiousness; the degree of anxiety was measured by the Minnesota Multiphasic Personality Inventory (MMPI).

Results of the study revealed that low anxious elderly women exhibit cautiousness consistent with their self-perception of age status.¹¹ The

⁹Ibid.

¹⁰Morris A. Okun, "Adult Age and Cautiousness in Decisions," Human Development, Vol. 19 (1976), p. 223.

¹¹Nathan Kogan and Michael Wollach, "The Effect of Anxiety on Relations Between Subjective Age and Caution in an Older Sample," Psychopathology of Aging (New York, 1961), pp. 123-134.

study found a significant correlation existed between adult-age and high degrees of caution.¹² The results of the investigation clearly indicated that the hypothesized relationship between subjective age and caution in decision-making was confirmed only for subjects of low anxiety.¹³

Botwinick researched risk or caution in old age by sampling 23 men selected from an aging center with ages ranging from 67 to 86 (mean age = 75), 24 women selected from an aging center with ages ranging from 67 to 84 (mean age = 76), 63 men with ages ranging from 18 to 32 (mean age = 20), and 48 women with ages ranging from 18 to 35 (mean age = 21).¹⁴ This study used a modified form of the "Choice Dilemma Questionnaire" (which appears in Appendix A) developed by Kogan and Wallach in their 1961 study, with some twelve additional "life situations" which involved aged central characters being interspersed with twelve "life situations" involving the young central characters as earlier developed by Kogan and Wallach. Thus, the questionnaire consisted of a total of 24 "life situations," 12 with younger central characters and 12 with older central characters.

Botwinick's study was designed to investigate whether elderly subjects were relatively more cautious than younger subjects when the problems involve needs, values, and attitudes of the aged. As a result of the study, it was found that older subjects of both sexes were significantly more cautious than younger subjects in decision-making.¹⁵

¹²Ibid., p. 129.

¹³Ibid., p. 132.

¹⁴Jack Botwinick, "Cautiousness in Advanced Age," Journal of Gerontology, Vol. 21 (1966), pp. 347-353.

¹⁵Ibid., p. 352.

Botwinick later conducted a study which sampled 126 white male and female volunteers regarding their "Disinclination to Venture Response Versus Cautiousness in Responding."¹⁶ The subjects were men and women of two age categories and two education categories. One educationally determined group consisted of persons with 13-15 years of formal schooling, while the other group held 16 or more years of schooling. The age groupings of the subjects involved: (a) elderly subjects ranging in age from 65 to 88; and (b) "younger subjects" ranging in age from 18 to 27, with the mean being 19-20 for those with 13 to 15 years of formal schooling and 23-24 years for those having more than 16 years of schooling. Botwinick attempted in this study to propose that the cautiousness of older subjects in decision-making in comparison with younger subjects is "more a matter of a reluctance to be involved with problems of risk than of cautiousness in the decision-process."¹⁷

Botwinick once again used the "Choice Dilemma Questionnaire" consisting of the 24 "life situations" developed by Kogan and Wallach involving a younger central character plus the 12 situations developed by Botwinick involving an aged central character. As before, the subject had to make a choice for the central character by marking whether the probability of success was sufficiently high to justify selecting the more risky course of action.

¹⁶Jack Botwinick, "Disinclination to Venture Response Versus Cautiousness in Responding: Age Differences," The Journal of Genetic Psychology, Vol. 115 (1969), pp. 55-62.

¹⁷Ibid., p. 55.

In contrast with the earlier studies mentioned (Kogan and Wallach and Botwinick), the study discussed here did not allow the subjects the option of avoiding a risky alternative no matter what the probabilities of its success. Thus,

results of the present study in comparison with the two previous studies, would provide information regarding the role of the option scored as 10: i.e., the option not to choose the risky course regardless of the probabilities. A failure to demonstrate age differences without this option, when twice before age differences were demonstrated with it, would be taken as evidence of an interest in avoiding risky situations rather than a cautiousness as such.¹⁸

The results of this study were in conflict with the two earlier mentioned studies which found that elderly subjects were not more cautious than younger subjects. Using an analysis of variance comparing the 12 "life situations" of the young central character, a statistically significant age difference was found in support of the young subjects being more, not less, cautious. The mean difference between the older and younger subjects was small (5.31 versus 4.85).

Vroom and Pahl examined the relationship between age and risk-taking among 1,484 male managers employed in over 200 corporations.¹⁹ The ages ranged from 22 to 58 with the mean age being 39.34 (S.D. = 6.79). Once again, a modification of the Kogan and Wallach "Choice Dilemma Questionnaire" was used (researchers used only five of the original 12 "life situations").

¹⁸Ibid., p. 57.

¹⁹Victor H. Vroom and Bernd Pahl, "Relationship Between Age and Risk-Taking Among Managers," Journal of Applied Psychology, Vol. 55, No. 5 (1971), pp. 399-405.

A significant positive relationship between adult-age and increased degrees of cautiousness was found.²⁰ Correlations between age and mean response on four of the five items were all significant at the .05 level of confidence.²¹

Chaubey researched the effect of age on expectancy of success and on risk-taking behavior through the use of a ball and glass game and a grain sorting task which involved degrees of risk.²² Fifty-seven subjects in three different age groups were involved in the study (i.e., 15 boys with ages ranging from 10 to 15, 22 adults with ages ranging from 20 to 30, and 16 adults with ages 45 and over).

The study found "a significant effect of age on the expectancies as well as on the risk-taking behavior of the three age groups"²³ "Thus, the study found that a relationship existed between increased age and increased cautiousness.

. . . boys and adults tended to perceive their success on different tasks as easier than did older adults. They consistently assigned higher probability values to the alternatives of the games than did the older adults.²⁴

Okun and Siegler, in an article entitled "Relation Between Preference for Intermediate Risk and Adult Age in Men: A Cross-Cultural Validation," found that older men tended to (a) avoid intermediate risk and (b) avoid any increased level of difficulty

²⁰Ibid., p. 401.

²¹Ibid., p. 402.

²²N. P. Chaubey, "Effect of Age on Expectancy of Success and on Risk-Taking Behavior," Journal of Personality and Social Psychology, Vol. 29 (1974), pp. 774-778.

²³Ibid., p. 774.

²⁴Ibid., p. 777.

following a success²⁵ in taking a verbal ability test comprised of 60 items divided into six ascending levels of difficulty. Okun and Siegler suggested that, "the older male's cautiousness (i.e., avoidance of risk-levels commensurate with his ability) can be conceived of as a mechanism by which he insulates his ego from potential insult."²⁶

Okun and Elias examined "Cautiousness in Adulthood as a Function of Age and Payoff Structure"²⁷ by sampling 18 young adults (mean age = 21.50, S.D. = 2.23) and 18 older adults (mean age = 68.17, S.D. = 3.13) who participated in the verbal ability test which was used by Okun and Siegler.

Unlike earlier work, the present study does not indicate that older adults are more cautious than young adults. . . . Thus, it appears that older adults select lower risk alternatives only when there is no incentive to do otherwise.²⁸

The study further concluded:

. . . for both age groups, risk-taking is a function of payoff structure. The data clearly questions [sic] the generalization that the elderly are more cautious than younger adults and suggests that risk should not be considered independently of payoff.²⁹

Okun has speculated that adult-age differences in cautiousness should vary according to "(a) cultural, (b) physiological, (c) rational,

²⁵Morris Okun and Ilene C. Siegler, "Relation Between Preference for Intermediate Risk and Adult Age in Men: A Cross Cultural Validation," Developmental Psychology, Vol. 12 (1976), p. 566.

²⁶Ibid.

²⁷Morris A. Okun and Chenin S. Elias, "Cautiousness in Adulthood as a Function of Age and Payoff Structure," Journal of Gerontology, Vol. 32 (1977), p. 451.

²⁸Ibid., p. 454.

²⁹Ibid., p. 451.

(d) motivational, and (e) generational"³⁰ differences. However, no studies were presented which substantiated that position. Okun defined each of the five areas as follows: (a) cultural--suggesting that youth rather than old age is more valued in Western culture, perhaps causing within older people a tendency to withdraw from society; (b) physiological--suggesting a slowing down of bodily processes due to aging of the nervous system; (c) rational--suggesting that with aging a person realizes his or her limitations and begins to practice more caution in undertaking tasks; (d) motivational--suggesting that motivation levels decrease with age, creating a tendency toward cautiousness, and (e) generational--suggesting that needs and values change from time to time in society, thus caution created in people who lived during the Depression may not be present in generations that lived after the Depression.

Summary of the Review of the Literature

Chapter II has reviewed the literature investigating age as related to risk-taking and cautiousness in decision-making. Few, if any, definitive statements can be made concerning this relationship. However, research in this domain is a rather recent undertaking and has been underway for apparently less than twenty years.

The majority of the studies presented in this review (Kogan and Wallach, 1961--3 studies; Botwinick, 1966; Vroom and Pahl, 1974;

³⁰Morris A. Okun, "Adult Age and Cautiousness in Decision," Human Development, Vol. 19 (1976), p. 221.

Chaubey, 1974; and Okun and Seigler, 1976) found older subjects to have lower risk-taking tendencies (or to be more cautious) than their younger counterparts.

However, some studies (Botwinick, 1969 and Okun and Elias, 1977), found no statistical difference in the level of risk-taking between older and younger subjects. Hence, the evidence is conflicting.

While "it is possible to generate several hypotheses concerning why adult-age differences in cautiousness should occur including (a) cultural, (b) physiological, (c) rational, (d) motivational, and (e) generational,"³¹ there appear to be many variables yet to be researched which could help explain why an individual might be more risky or more cautious. For example, the situation involved may affect one's tendency to be more or less risky; the pay-off structure, if any, may affect one's riskiness; personality characteristics such as anxiety, high self-esteem, low self-esteem, fear of failure, to name a few, could be variables modifying one's level of risk; and finally, the sex of an individual may be a variable as to the level of risk-taking.

Thus, in conclusion,

In order to adequately understand age-related differences in risk-taking behavior, researchers will have to consider simultaneously situational, organismic, task and cognitive processing variables.³²

³¹Ibid.

³²Ibid., p. 231.

CHAPTER III

PROCEDURE AND METHODOLOGY

Introduction

The purpose of this chapter is to state the problem, the assumptions, the limitations, the selection of subjects, the description of the instrument, the method for collecting data, and the statistical procedures used.

Statement of the Problem

This study was designed to determine: (1) whether age is related to an individual's risk-taking ability; (2) whether deans, faculty, and students differ in risk-taking ability; (3) whether risk-taking ability is related to the number of years an individual has held a position; and (4) whether students attending a large, urban junior college differ in risk-taking ability from students attending a small, semi-rural junior college.

Assumptions

The following assumptions were made:

- (1) The dean of instruction is in a leadership position and hence is involved with decision-making.
- (2) The respondents answered truthfully to the items contained in the questionnaire.

Limitations

The following limitations were observed:

- (1) The study was limited to deans of instruction in state-supported and private junior colleges in Oklahoma.
- (2) The study was limited to faculty members in state-supported and private junior colleges in Oklahoma.
- (3) The study was limited to students in one large (over 7,000 students) junior college and one small (2,000 or less) semi-rural junior college in Oklahoma.
- (4) The results of the study can be generalized only to similar populations.

Selection of the Subjects

Subjects involved in the study were: (1) deans of instruction from state-supported and private junior colleges in Oklahoma; (2) faculty members from state-supported and private junior colleges in Oklahoma; (3) students from one large (over 7,000 students), urban junior college and students from one small (2,000 or less), semi-rural state-supported junior college in Oklahoma.

Deans of Instruction

When this study was conducted in January of 1978, there were seventeen deans of instruction in both the state-supported and private junior colleges in Oklahoma. Fourteen dean responses were completed and returned for use in the study.

Faculty

Faculty members for the study were randomly selected from faculty listings in all seventeen junior college catalogs. Twelve faculty members from each institution were randomly selected in alphabetical order by use of the numbers 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, and 23. A total of 100 completed and usable faculty responses were used in the study.

Students

Students were cluster sampled from two junior colleges in Oklahoma. Eighty-five students were sampled from freshman political science classes in a large (over 7,000 students), urban junior college in Oklahoma and seventy-five students were sampled from a small (2,000 or less), semi-rural junior college in Oklahoma. Thus, a total of 160 students participated in the study.

Description of the Instrument

The instrument used in this study was the "Choice Dilemma Questionnaire" developed by Kogan and Wallach. The questionnaire¹ contains twelve "life situations" concerning a wide range of issues--e.g., the possibility of large financial gains, the possibility of greatly improving one's physical condition, the possibility of death, the possibility of adding substantially to one's prestige, the possibility of losing money, and the possibility of losing face.

¹See Appendix A for questionnaire.

The person responding to the items in the questionnaire was asked to select for each of the twelve "life situations" either a more cautious or a more risky course of action, with the risky selection providing a much greater "pay-off" if successful. An example of a "life situation" on the questionnaire appears in Appendix A. It can be seen from the example in Appendix A that each subject completing the questionnaire had to select the probability level which he or she would risk for success. The probabilities from which the subjects selected were: 1, 3, 5, 7, and 9 chances of success out of 10, with an additional alternative (scored as 10) in which the respondent refused to opt for a risky alternative no matter how high the chance of success. A mean score was computed for each respondent with a larger score indicating greater caution in decision-making and a smaller score indicating greater riskiness in decision-making.

The "Choice Dilemma Questionnaire," developed by Kogan and Wallach, has been the predominant questionnaire used in the study of adult-age and risk-taking.² The reliability of the instrument was established through a test-retest pilot study. Eighty-five students for the pilot test were cluster sampled from freshman political science classes in an urban junior college in Oklahoma. The interval between tests was four weeks. As a result of the pilot test, all items were significantly correlated (beyond the .01 level) with the total test score, which indicated that each item contributed to the measurement of the overall risk-taking construct. The reliability of the "Choice Dilemma Procedure"

²Morris A. Okun, "Adult Age and Cautiousness in Decision," Human Development, Vol. 19 (1976), p. 222.

was .84, which is significant beyond the .001 level. Given these figures and the frequent use of the questionnaire, the instrument was determined to be reliable.

Method for Data Collection

On January 20, 1978, 217 "Choice Dilemma Questionnaires," explanatory cover letters,³ demographic data sheets,⁴ and stamped, self-addressed envelopes were mailed to the seventeen deans in all the state supported and private junior colleges in Oklahoma and to 200 faculty members in all seventeen state-supported and private junior colleges in Oklahoma.

By February 10, 1978, fourteen of the seventeen deans returned the questionnaires, for a response rate of 88 percent, and 132 of the 200 faculty members had responded, for a response rate of 61 percent.

On February 17, 1978, the three remaining deans were contacted by follow-up telephone calls, but none completed the questionnaire. Thus, a total of fourteen out of seventeen deans responded (88 percent) and were included in the study.

Of the 132 (61 percent) faculty responses, a total of 100 questionnaires were completed and usable. No follow-up letter was sent to faculty.

In July of 1977, a "Choice Dilemma Questionnaire" and a demographic data sheet were administered to eighty-five students who were cluster sampled from freshman political science classes in a large (over 7,000 students) urban junior college in Oklahoma.

³See Appendix B for cover letters.

⁴See Appendix C for demographic data sheets.

In February of 1978, a "Choice Dilemma Questionnaire" and a demographic data sheet were administered to seventy-five students who were cluster sampled from the spring, 1978, course offerings of a small (2,000 or less students) semi-rural junior college in Oklahoma. Thus, there was a total of 160 students participating in the study.

A grand total of subjects (deans, faculty and students) equalled 274.

Statistical Procedures

The responses from deans, faculty, urban students, and semi-rural students (N = 274) were coded, tabulated on data sheets, and key-punched at the Oklahoma State University Computer Center. The statistical procedures were verified by a professor of statistics at Northeastern Oklahoma State University and by the author of this study.

The statistical procedures used in the study were as follows.

Research Question 1

Is age related to an individual's risk-taking ability?

Hypothesis 1.1. When deans of junior colleges in Oklahoma are categorized by age, no statistically significant relationship will be found between age and risk-taking ability. A one-way analysis of variance between age and risk-taking for deans was used to test hypothesis 1.1.

Hypothesis 1.2. When faculty of junior colleges in Oklahoma are categorized by age, no statistically significant relationship will be

found between age and risk-taking ability. A one-way analysis of variance between age and risk-taking for faculty was used to test hypothesis 1.2.

Hypothesis 1.3. When students attending an urban junior college are categorized by age, no statistically significant relationship will be found between age and risk-taking ability. A one-way analysis of variance between age and risk-taking for urban students was used to test hypothesis 1.3.

Hypothesis 1.4. When students attending a semi-rural junior college are categorized by age, no statistically significant relationship will be found between age and risk-taking ability. A one-way analysis of variance between age and risk-taking for semi-rural students was used to test hypothesis 1.4.

Research Question 2

Do deans, faculty, and students differ in risk-taking ability?

Hypothesis 2.1. When deans, faculty, and students are compared regarding risk-taking ability, there will be no statistically significant difference among any of the groups. A one-way analysis of variance was used to compare the risk-taking levels of deans, faculty, and students. A Scheffé Multiple Comparison Test was then computed to find where the significant differences were among the deans, faculty, and students.

Research Question 3

Is one's risk-taking ability related to the number of years the person has held a position within a junior college in Oklahoma?

Hypothesis 3.1. When deans of junior colleges in Oklahoma are categorized by years of experience in the deanship, no statistically significant relationship will be found between risk-taking ability and years of experience. A one-way analysis of variance between risk-taking ability and years of experience for deans was used to test hypothesis 3.1.

Hypothesis 3.2. When faculty of junior colleges in Oklahoma are categorized by years of experience as faculty members, no statistically significant relationship will be found between risk-taking ability and years of experience. A one-way analysis of variance between risk-taking ability and years of experience for faculty was used to test hypothesis 3.2.

Research Question 4

Do students from a large, urban junior college display a stronger tendency toward risk-taking than students attending a small, semi-rural junior college?

Hypothesis 4.1. When students attending a large, urban junior college are compared with students attending a small, semi-rural junior college, no statistically significant difference will be found between risk-taking and the school the students attend. A t-test showing the

significant differences in the means of urban students and semi-rural students was used to test hypothesis 4.1.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Introduction

The presentation and analysis of data for this research are reported as they relate to each of the research questions under study. The .05 level of significance was used to accept or reject the hypotheses.

Research Question 1

Is age related to an individual's risk-taking ability?

- H_{1.1}: When deans of junior colleges in Oklahoma are categorized by age, no statistically significant relationship will be found between age and risk-taking ability.
- H_{1.2}: When faculty of junior colleges in Oklahoma are categorized by age, no statistically significant relationship will be found between age and risk-taking ability.
- H_{1.3}: When students attending an urban junior college in Oklahoma are categorized by age, no statistically significant relationship will be found between age and risk-taking ability.
- H_{1.4}: When students attending a semi-rural junior college in Oklahoma are categorized by age, no statistically significant relationship will be found between age and risk-taking ability.

To investigate the first research question, a one-way analysis of variance was used to compare risk-taking ability and age among deans, faculty, urban students, and semi-rural students in junior colleges. No significant statistical differences were found for the four (4) hypotheses under study in research question 1. Each of the four (4) hypotheses will be presented as follows.

Hypothesis 1.1

When deans of junior colleges in Oklahoma are categorized by age, no statistically significant relationship will be found between age and risk-taking ability. Based on statistical analysis, the results for hypothesis 1.1 indicated an observed F score of 1.16 (see Table I) which was below the .05 level of significance equalling 3.71. The analysis showed no statistically significant relationship between age and risk-taking in deans of junior colleges in Oklahoma.

Hypothesis 1.2

When faculty of junior colleges in Oklahoma are categorized by age, no statistically significant relationship will be found between age and risk-taking ability. Based on statistical analysis, results for hypothesis 1.2 indicated an observed F score of 0.21 (see Table II), which was below the .05 level of significance equalling 2.68. The analysis showed no statistically significant relationship between age and risk-taking in faculty of junior colleges in Oklahoma.

Hypothesis 1.3

When students attending an urban junior college are categorized by

TABLE I
 COMPARISON OF AGE AND RISK-TAKING IN DECISION-MAKING
 AMONG DEANS OF OKLAHOMA JUNIOR COLLEGES
 (HYPOTHESIS 1.1)

Age Groupings and Mean Scores for Deans			Analysis of Variance Table				
Age Groupings	N	Means*	Source	DF	Sum of Squares	Mean Squares	Observed F Score
39 and lower	2	70.5	Age Groups	3	909.8	303.2	1.16**
40-44	3	71	Error	10	2617.2	261.7	
45-49	4	77	Totals	13	3526.9		
50 and over	<u>5</u>	91.7					
	<u>14</u>						

*The higher mean scores indicate greater cautiousness in decision-making (maximum score = 120). The lower mean scores indicate greater riskiness in decision-making (minimum score = 12).

**No statistically significant relationship at the .05 level of confidence

TABLE II
 COMPARISON OF AGE AND RISK-TAKING IN DECISION-MAKING
 AMONG FACULTY OF OKLAHOMA JUNIOR COLLEGES
 (HYPOTHESIS 1.2)

Age Groupings and Mean Scores for Faculty			Analysis of Variance Table				
Age Groupings	N	Means*	Source	DF	Sum of Squares	Mean Squares	Observed F Score
35 and lower	45	66.7	Age Groups	3	136.9	45.6	0.21**
36-45	33	68.7	Error	96	20797.8	216.6	
46-56	17	66.8	Totals	99	20934.8		
57 and over	<u>5</u> 100	64.2					

*The higher mean scores indicate greater cautiousness in decision-making (maximum score = 120). The lower mean scores indicate greater riskiness in decision-making (minimum score = 12).

**No statistically significant relationship at the .05 level of confidence

age, no statistically significant relationship will be found between age and risk-taking ability. Based on statistical analysis, the results for hypothesis 1.3 indicated an observed F score of 0.04 (See Table III), which was below the .05 level of significance equalling 3.07. The analysis showed no statistically significant relationship between age and risk-taking in urban students in a large, urban junior college in Oklahoma.

Hypothesis 1.4

When students attending a semi-rural junior college are categorized by age, no statistically significant relationship will be found between age and risk-taking ability. Based on statistical analysis, the results for hypothesis 1.4 indicated an observed F score of 1.06 (see Table IV), which was below the .05 level of significance equalling 3.07. The analysis showed no statistically significant relationship between age and risk-taking ability in semi-rural students in a small, semi-rural junior college in Oklahoma.

Research Question 2

Do deans, faculty and students differ in risk-taking ability?

H_{2.1}: When deans, faculty and students are compared regarding their risk-taking ability, there will be no significant statistical difference among any of the groups.

To investigate the second research question, a one-way analysis of variance was used to compare the risk-taking ability among deans, faculty, urban students, and semi-rural students. The statistical results for hypothesis 2.1 indicated an observed F score of 3.49 (see Table V),

TABLE III

COMPARISON OF AGE AND RISK-TAKING IN DECISION-MAKING AMONG
 URBAN STUDENTS ATTENDING AN OKLAHOMA JUNIOR COLLEGE
 (HYPOTHESIS 1.3)

Age Groupings and Mean Scores for Urban Students			Analysis of Variance Table				
Age Groupings	N	Means*	Source	DF	Sum of Squares	Mean Squares	Observed F Score
30 and less	74	67.5	Age Groups	2	15.4	7.7	0.04**
31-42	10	68.7	Error	82	17130.6	208.9	
43-55	<u>1</u> 85	66	Totals	84	17146.0		

*The higher mean scores indicate greater cautiousness in decision-making (maximum score = 120). The lower mean scores indicate greater riskiness in decision-making (minimum score = 12).

**No statistically significant relationship at the .05 level of confidence

TABLE IV

COMPARISON OF AGE AND RISK-TAKING IN DECISION-MAKING AMONG
SEMI-RURAL STUDENTS ATTENDING AN OKLAHOMA JUNIOR COLLEGE
(HYPOTHESIS 1.4)

Age Groupings and Mean Scores for Semi-Rural Students			Analysis of Variance Table				
Age Groupings	N	Means*	Source	DF	Sum of Squares	Mean Squares	Observed F Score
30 and less	62	71.3	Age Groups	2	469.8	234.9	1.06**
31-42	8	78.9	Error	72	15942.8	221.4	
43-55	<u>5</u>	76	Totals	74	16412.6		
	<u>75</u>						

*The higher mean scores indicate greater cautiousness in decision-making (maximum score = 120). The lower mean scores indicate greater riskiness in decision-making (minimum score = 12).

**No statistically significant relationship at the .05 level of confidence

TABLE V

COMPARISON OF RISK-TAKING IN DECISION-MAKING AMONG
DEANS, FACULTY, URBAN STUDENTS AND SEMI-RURAL
STUDENTS OF OKLAHOMA JUNIOR COLLEGES
(HYPOTHESIS 2.1)

Mean Scores for Deans, Faculty, Urban, and Semi-Rural Students			Analysis of Variance Table				
Classifications	N	Means*	Source	DF	Sum of Squares	Mean Squares	Observed F Score
Deans	14	77.1	Risk-Taking	3	2250.4	750.1	3.49**
Faculty	100	67.3	Error	270	58020.2	214.9	
Urban Students	85	67.6	Total	273	60270.6		
Semi-Rural Students	<u>75</u> 274	72.5					

*The higher mean scores indicate greater cautiousness in decision-making (maximum score = 120). The lower mean scores indicate greater riskiness in decision-making (minimum score = 12).

**A significant statistical difference at the .05 level of confidence

which was above the .05 level of significance which equalled 2.16. The analysis showed a significant statistical difference among the risk-taking means for deans, faculty, urban students and semi-rural students.

With a statistically significant difference among the risk-taking means for deans, faculty, urban students and semi-rural students, the Scheffé Multiple Range Comparison Test, at the .05 level of significance, was then used to determine where the differences among the groups lay (see Table VI). Table VI is used to display the following differences in the groups:

- (1) Deans were significantly more cautious than faculty members.
- (2) Deans were significantly more cautious than urban students.
- (3) Semi-rural students were significantly more cautious than faculty members.
- (4) Semi-rural students were significantly more cautious than urban students.

Research Question 3

Is one's risk-taking ability related to the number of years the person has held a position within a junior college in Oklahoma?

- H_{3.1}: When deans of junior colleges in Oklahoma are categorized by years of experience in the deanship, no statistically significant relationship will be found between risk-taking ability and years of experience.
- H_{3.2}: When faculty of junior colleges in Oklahoma are categorized by years of experience as faculty members, no statistically significant relationship will be found between risk-taking ability and years of experience.

TABLE VI
 RISK-TAKING AMONG DEANS, FACULTY, URBAN STUDENTS, AND
 SEMI-RURAL STUDENTS IN OKLAHOMA JUNIOR COLLEGES
 (HYPOTHESIS 2.1)

Scheffe Groupings	Classification	N	Means*
Group 1 = More Cautious	Deans and	14	77.1
	Semi-Rural Students	75	72.5
Group 2 = More Risky	Urban Students and	85	67.6
	Faculty	<u>100</u>	67.3
		274	

- *Summary -
1. Deans as more cautious than faculty members
 2. Deans as more cautious than urban students
 3. Semi-rural students as more cautious than faculty members
 4. Semi-rural students as more cautious than urban students

To investigate the third research question a one-way analysis of variance was used to test hypothesis 3.1 and 3.2 to compare risk-taking ability and years of experience. Each hypothesis under research question 3 will be presented as follows.

Hypothesis 3.1

When deans of junior colleges in Oklahoma are categorized by years of experience in the deanship, no statistically significant relationship will be found between risk-taking ability and years of experience. Based on statistical analysis, the results for hypothesis 3.1 indicated an observed F score of 2.04 (see Table VII), which was below the .05 level of significance which equalled 3.18. The analysis showed no statistically significant difference between risk-taking and years of experience among deans.

Hypothesis 3.2

When faculty of junior colleges in Oklahoma are categorized by years of experience as faculty members, no statistically significant relationship will be found between risk-taking ability and years of experience. The statistical results for hypothesis 3.2 indicated an observed F score of 1.56 (See Table VIII), which was below the .05 level of significance which equalled 2.30. The analysis showed no significant statistical difference based on the variables of risk-taking and years of experience for faculty.

Research Question 4

Do students from a large, urban junior college display a stronger

TABLE VII

COMPARISON OF RISK-TAKING IN DECISION-MAKING AND
YEARS OF EXPERIENCE AMONG DEANS OF
OKLAHOMA JUNIOR COLLEGES
(HYPOTHESIS 3.1)

Years of Experience and Risk-Taking Mean Scores for Deans			Analysis of Variance Table				
Years of Experience	N	Means*	Source	DF	Sum of Squares	Mean Squares	Observed F Score
1 yr. or less	1	60	Risk-Taking	4	1675.9	419	2.04**
2-3 years	0	0	Error	9	1851	205.7	
4-5 years	4	78	Totals	13	3526.9		
6-7 years	1	81					
8-9 years	4	92					
10 yrs. or more	$\frac{4}{14}$	66					

*The higher mean scores indicate greater cautiousness in decision-making (maximum score = 120). The lower mean scores indicate greater riskiness in decision-making (minimum score = 12).

**No statistically significant relationship at the .05 level of confidence

TABLE VIII

COMPARISON OF RISK-TAKING IN DECISION-MAKING AND
YEARS OF EXPERIENCE AMONG FACULTY OF
OKLAHOMA JUNIOR COLLEGES
(HYPOTHESIS 3.2)

Years of Experience and Risk-Taking Mean Scores for Faculty			Analysis of Variance Table				
Years of Experience	N	Means*	Source	DF	Sum of Squares	Mean Squares	Observed F Score
1 yr. or less	8	71.9	Risk-Taking	5	1606.9	321.3	1.56**
2-3 years	21	66.3	Error	94	19327.9	205.6	
4-5 years	19	60.8	Totals	99	20934.8		
6-7 years	10	67.8					
8-9 years	17	65.9					
10 yrs. or more	<u>25</u>	72.1					
	100						

*The higher mean scores indicate greater cautiousness in decision-making (maximum score = 120). The lower mean scores indicate greater riskiness in decision-making (minimum score = 12).

**No statistically significant relationship at the .05 level of confidence

tendency toward risk-taking than students attending a small, semi-rural junior college?

H_{4.1}: When students attending a large, urban junior college are compared with students attending a small, semi-rural junior college, no statistically significant difference will be found between risk-taking ability and the school the students attend.

To investigate the fourth research question, a t-test was used to compare risk-taking levels between urban students and semi-rural students. The statistical results for hypothesis 4.1 indicated a t-score of 2.09 (see Table IX), which was above the .05 level of significance, which equalled 1.65. The results showed a statistically significant difference existed between urban and semi-rural students, with urban students being more risky in decision-making than semi-rural students.

Summary

A summary of the statistical findings is as follows: no statistically significant differences were found between age and risk-taking in decision-making among deans, faculty and students; however, a significant statistical difference was found in the risk-taking levels of deans, faculty and students indicating deans were significantly more cautious than faculty, deans were significantly more cautious than urban students, semi-rural students were significantly more cautious than faculty, and semi-rural students were significantly more cautious than urban students; no statistically significant differences were found between years of experience and risk-taking in decision making among deans and faculty; a significant statistical

TABLE IX

COMPARISON OF RISK-TAKING IN DECISION-MAKING
 BETWEEN URBAN AND SEMI-RURAL STUDENTS
 IN TWO OKLAHOMA JUNIOR COLLEGES

Classification	N	Mean	Standard Deviation	Standard Error	t-Score
Urban Students	85	67.6	14.29	1.55	
Semi-Rural Students	<u>75</u>	72.5	14.99	1.72	
	160				2.09*

*Significant difference at the .05 level of confidence

difference was found in risk-taking in decision-making among urban students in comparison with semi-rural students, with the semi-rural students displaying greater caution.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary of the Study

The purpose of this study was to examine the relationship of risk-taking versus cautiousness in decision-making among select deans, faculty and students in Oklahoma junior colleges. This summary of the study will include: (1) the number of subjects participating in the study, (2) the research questions, (3) the hypotheses, (4) the statistical analysis, and (5) the results of the analysis.

Subjects Participating in the Study

Subjects involved in the study were: (1) fourteen deans of instruction from state-supported and private junior colleges in Oklahoma; (2) 100 faculty members randomly selected from all seventeen state-supported and private junior colleges in Oklahoma; and (3) eighty-five students from one large (over 7,000), urban, state-supported junior college in Oklahoma and seventy-five students from one small (2,000 or less), semi-rural, state-supported junior college in Oklahoma.

Summary of the Findings

Research Question 1

Is age related to an individual's risk-taking ability?

Hypothesis 1.1. When deans of junior colleges in Oklahoma are categorized by age, no statistically significant relationship will be found between age and risk-taking ability. A one-way analysis of variance between age and risk-taking for deans was used to test hypothesis 1.1. No statistically significant relationship was found between age and risk-taking in deans of junior colleges in Oklahoma.

Hypothesis 1.2. When faculty of junior colleges in Oklahoma are categorized by age, no statistically significant relationship will be found between age and risk-taking ability. A one-way analysis of variance between age and risk-taking for faculty was used to test hypothesis 1.2. No statistically significant relationship was found between age and risk-taking in faculty members of junior colleges in Oklahoma.

Hypothesis 1.3. When students attending an urban junior college are categorized by age, no statistically significant relationship will be found between age and risk-taking ability. A one-way analysis of variance between age and risk-taking for urban students was used to test hypothesis 1.3. No statistically significant relationship was found between age and risk-taking in urban students attending a junior college in Oklahoma.

Hypothesis 1.4. When students attending a semi-rural junior college are categorized by age, no statistically significant relationship will be found between age and risk-taking ability. A one-way analysis of variance between age and risk-taking for semi-rural students was used to test hypothesis 1.4. No statistically significant relationship was found between age and risk-taking in semi-rural students attending a semi-rural junior college in Oklahoma.

Research Question 2

Do deans, faculty and students differ in risk-taking ability?

Hypothesis 2.1. When deans, faculty and students are compared regarding risk-taking ability, there will be no significant statistical difference among any of the groups. A one-way analysis of variance was used to compare the risk-taking levels of deans, faculty and students. A Scheffé Multiple Comparison Test was then computed to find where the significant differences were among the deans, faculty and students.

A statistically significant difference was found among the risk-taking means for deans, faculty and students. The Scheffé Test produced the following differences: (1) deans were more cautious than faculty members; (2) deans were more cautious than urban students; (3) semi-rural students were more cautious than faculty members; and (4) semi-rural students were more cautious than urban students.

Research Question 3

Is one's risk-taking ability related to the number of years the person has held a position within a junior college in Oklahoma?

Hypothesis 3.1. When deans of junior colleges in Oklahoma are categorized by years of experience in the deanship, no statistically significant relationship will be found between risk-taking ability and years of experience. A one-way analysis of variance between risk-taking ability and years of experience for deans was used to test hypothesis 3.1. No statistically significant relationship was found between risk-taking ability and years of experience among deans in

junior colleges in Oklahoma.

Hypothesis 3.2. When faculty of junior colleges in Oklahoma are categorized by years of experience as faculty members, no statistically significant relationship will be found between risk-taking ability and years of experience. A one-way analysis of variance between risk-taking ability and years of experience for faculty was used to test hypothesis 3.1. No statistically significant relationship was found between risk-taking ability and years of experience among faculty members in junior colleges in Oklahoma.

Research Question 4

Do students from a large, urban junior college display a stronger tendency toward risk-taking than students attending a small, semi-rural junior college?

Hypothesis 4.1. When students attending a large, urban junior college are compared with students attending a small, semi-rural junior college, no statistically significant difference will be found between risk-taking and the school the students attend. A t-test showing the significant differences in the means of urban students and semi-rural students was used to test hypothesis 4.1. A statistically significant difference was found in the risk-taking levels of urban students in comparison with semi-rural students. Urban students were found to be more risky in decision-making than semi-rural students.

Conclusions

When the responses provided by the subjects were analyzed according

to age in comparison to risk-taking in decision-making, no statistically significant differences were found among deans, faculty, and students.

These findings were supportive of studies conducted by Botwinick¹ and Okun and Elias² which determined that older adults were no more cautious than younger adults. Botwinick concluded that older subjects tended to prefer the avoidance of risky situations rather than displaying cautiousness as such.³ Okun and Elias concluded that age should not be considered independently of pay-off,⁴ which suggested that risk was a definite function of "pay-off structure," rather than being a result of caution as such.

The findings of the study reported here in respect to age were in contradiction with research done by Wallach and Kogan (1961), Botwinick (1966), Vroom and Pahl (1974), Chaubey (1974), and Okun and Seigler (1976), each of which concluded that older subjects were more cautious (or less risky) than their younger counterparts.

Thus, based on the above research, few, if any, definitive statements can be made concerning age in relationship to risk-taking and caution in decision-making.

When the responses provided by the subjects were analyzed according to risk-taking levels, a statistically significant difference was found

¹Jack Botwinick, "Disinclination to Venture Response Versus Cautiousness in Responding: Age Differences," The Journal of Genetic Psychology, Vol. 115 (1969), pp. 55-62.

²Morris A. Okun and Chenin S. Elias, "Cautiousness in Adulthood as a Function of Age and Payoff Structure," Journal of Gerontology, Vol. 32 (1977), p. 451.

³Botwinick.

⁴Okun and Elias, p. 57.

when comparing deans, faculty, urban students and semi-rural students.

The results were as follows:

- ~~(1)~~ Deans were significantly more cautious than faculty.
- (2) Deans were significantly more cautious than urban students.
- (3) Semi-rural students were significantly more cautious than faculty members.
- (4) Semi-rural students were significantly more cautious than urban students.

When the responses of deans and faculty were analyzed according to years of experience in comparison with risk-taking in decision-making, no statistically significant differences were found.

When responses of urban students and semi-rural students were compared for risk-taking in decision-making, a statistically significant difference was found with semi-rural students displaying significantly greater caution than urban students.

Based on the findings of this study, the following conclusions can be made:

- ✓(1) Age was not related to risk-taking among deans, faculty, ✓
urban students and semi-rural students.
- (2) Risk-taking levels did differ significantly among deans, faculty, urban students and semi-rural students with
 - ~~(a)~~ Deans being more cautious than faculty members,
 - (b) Deans being more cautious than urban students,
 - (c) Semi-rural students being more cautious than faculty members, and
 - (d) Semi-rural students being more cautious than urban students.

- (3) Risk-taking was not related to the number of years that deans and faculty held a position within a junior college.

Recommendations

Based on the findings of the present study, the following recommendations are made:

- (1) Since no statistically significant differences in risk-taking were found when deans were categorized by age, the variables of sex and number of years of formal education should be researched in respect to risk-taking.
- (2) Since no statistically significant differences in risk-taking were found when faculty were categorized by age, the variables of sex and number of years of formal education need to be researched in respect to risk-taking.
- (3) Since no statistically significant differences in risk-taking were found when urban students were categorized by age, the variables of sex and classification (i.e., freshman, sophomore, junior, senior) need to be researched in respect to risk-taking.
- (4) Since no statistically significant differences in risk-taking were found when semi-rural students were categorized by age, the variables of sex and classification (i.e., freshman, sophomore, junior, senior) need to be researched in respect to risk-taking.
- (5) Since no statistically significant differences in risk-taking and years of experience were found among deans, the variables of sex and number of years of formal education need to be

researched in respect to risk-taking.

- (6) Since no statistically significant differences in risk-taking and years of experience were found among faculty, the variables of sex and number of years of formal education need to be researched in respect to risk-taking.
- (7) With a statistically significant difference found in risk-taking among deans in comparison to faculty (with faculty showing greater risk-taking), further research is needed to determine the reason(s) for the greater risk-taking among faculty.
- (8) With a statistically significant difference found in risk-taking among deans in comparison to urban students (with urban students showing greater risk-taking), further research is needed to determine the reason(s) for the greater risk-taking among urban students.
- (9) With a statistically significant difference found in risk-taking among semi-rural students in comparison to faculty (with faculty showing greater risk-taking), further research is needed to determine the reason(s) for the greater risk taking among faculty.
- (10) With a statistically significant difference found in risk-taking among semi-rural students in comparison with urban students (with urban students showing greater risk-taking), further research is needed to determine the reason(s) for the greater risk-taking among urban students.

The basic question for future research seems to be, "Why are deans more cautious in decision-making than faculty?" This question must be asked due to the conflicting evidence shown in the review of the literature concerning the variable of age in relationship to decision-making. The question must further be asked due to the results of the present study which showed no statistically significant relationship between years of experience and risk-taking in decision-making among deans. Only after further testing of the variables of sex and years of formal education (in addition to age and years of experience) would enough evidence be collected to consider the following question: "Does the deanship role itself create the tendency toward cautiousness in decision-making?"

It might be suggested that perhaps the deanship role could be the creator of a tendency toward cautiousness in decision-making among deans. Only by the further testing of all conceivable variables (age, years of experience, sex, and years of formal education), could the researcher deduce that it is the deanship role itself which creates the tendency toward cautiousness in decision-making. This speculation could be tested by administering the "Choice Dilemma Questionnaire" to those previously tested faculty members who later become deans of junior colleges in Oklahoma.

Apparently research investigating risk-taking and caution among deans in junior colleges has not been considered previously. It is recommended that other research be conducted which will explore individual variations in cognitive styles in relationship to leadership positions in higher education.

A SELECTED BIBLIOGRAPHY

- Botwinick, Jack. "Cautiousness in Advanced Age." Journal of Gerontology, Vol. 21 (1966), 347-353.
- Botwinick, Jack. "Disinclination to Venture Response Versus Cautiousness in Responding: Age Differences." The Journal of Genetic Psychology, Vol. 115 (1969), 55-62.
- Bowles, Arnold W. and James A. Davenport. Introduction to Educational Leadership. New York: Harper and Row, 1975.
- Brim, Orville G., Jr. Personality and Decision Processes. Stanford, California: Stanford University Press, 1962.
- Chaubey, N. P. "Effect of Age on Expectancy of Success and on Risk-Taking Behavior." Journal of Personality and Social Psychology, Vol. 29 (1974), 774-778.
- Fiedler, F. E. A Theory of Leadership Effectiveness. New York: McGraw-Hill, 1967.
- Gore, William J. and F. S. Silander. "A Bibliographical Essay on Decision-Making." Administrative Science Quarterly, Vol. 4 (June, 1959), 97.
- Hersey, Paul and Kenneth Blanchard. Management of Organizational Behavior, 2nd Ed. New Jersey: Prentice-Hall, Inc., 1972.
- Hoch, Paul H. and Joseph Zubin (Eds.). Psychology of Aging. New York: Grune and Stratton, 1961.
- Kogan, Nathan and Michael Wallach. "Age Changes in Values and Attitudes." Journal of Gerontology, Vol. 16 (1961), 272-280.
- Lesser, Gerald S. (Ed.). Psychology and Educational Practice. Glenview, Illinois: Scott Foresman Company, 1971.
- Okun, Morris A. "Adult Age and Cautiousness in Decisions." Human Development, Vol. 19 (1976), 223.
- Okun, Morris A. and Chenin S. Elias. "Cautiousness in Adulthood as a Function of Age and Payoff Structure." Journal of Gerontology, Vol. 32 (1977), 451.

- Okun, Morris and Ilene C. Siegler. "Relation Between Preference for Intermediate Risk and Adult Age in Men: A Cross Cultural Validation." Developmental Psychology, Vol. 12 (1976), 566.
- Samovar, Larry A. and Jack Mills. Oral Communication: Message and Response. Dubuque, Iowa: Wm. C. Brown Company Publishers, 1968.
- Stogdill, Ralph M. Handbook of Leadership: A Survey of Theory and Research. New York: Free Press, 1974.
- Vroom, Victor H. and Bernd Pahl. "Relationship Between Age and Risk-Taking Among Managers." Journal of Applied Psychology, Vol. 55, No. 5 (1971), 399-405.
- Wallach, Michael A. and Nathan Kogan. "Aspects of Judgment and Decision-Making: Interrelationships and Changes With Age." Behavioral Science, Vol. 6 (1961), 23-35.
- Woods, F. A. The Influence of Monarchs. New York: The MacMillan Company, 1913.

APPENDIX A

QUESTIONNAIRE

CHOICE DILEMMAS PROCEDURE

On the following pages, you will find a series of situations that are likely to occur in everyday life. The central person in each situation is faced with a choice between two alternative courses of action, which we might call X and Y. Alternative X is more desirable and attractive than alternative Y, but the probability of attaining or achieving X is less than that of attaining or achieving Y.

For each situation on the following pages, you will be asked to indicate the minimum odds of success you would demand before recommending that the more attractive or desirable alternative, X, be chosen.

Read each situation carefully before giving your judgment. Try to place yourself in the position of the central person in each of the situations. There are twelve situations in all. Please do not omit any of them.

1. Mr. A, an electrical engineer, who is married and has one child, has been working for a large electronics corporation since graduating from college five years ago. He is assured of a lifetime job with a modest, though adequate, salary, and liberal pension benefits upon retirement. On the other hand, it is very unlikely that his salary will increase much before he retires. While attending a convention, Mr. A is offered a job with a small, newly founded company which has a highly uncertain future. The new job would pay more to start and would offer the possibility of a share in the ownership if the company survived the competition of the larger firms.

Imagine that you are advising Mr. A. Listed below are several probabilities or odds of the new company's proving financially sound.

Please check the lowest probability that you would consider acceptable to make it worthwhile for Mr. A to take the new job.

The chances are 1 in 10 that the company will prove financially sound.

The chances are 3 in 10 that the company will prove financially sound.

The chances are 5 in 10 that the company will prove financially sound.

The chances are 7 in 10 that the company will prove financially sound.

The chances are 9 in 10 that the company will prove financially sound.

Place a check here if you think Mr. A should not take the new job no matter what the probabilities.

2. Mr. B, a 45-year-old accountant, has recently been informed by his physician that he has developed a severe heart ailment. The disease would be sufficiently serious to force Mr. B to change

many of his strongest life habits--reducing his work load, drastically changing his diet, giving up favorite leisure-time pursuits. The physician suggests that a delicate medical operation could be attempted which, if successful, would completely relieve the heart condition. But its success could not be assured, and in fact, the operation might prove fatal.

Imagine that you are advising Mr. B. Listed below are several probabilities or odds that the operation will prove successful.

Please check the lowest probability that you would consider acceptable for the operation to be performed.

- Place a check here if you think Mr. B should not have the operation no matter what the probabilities.
- The chances are 9 in 10 that the operation will be a success.
- The chances are 7 in 10 that the operation will be a success.
- The chances are 5 in 10 that the operation will be a success.
- The chances are 3 in 10 that the operation will be a success.
- The chances are 1 in 10 that the operation will be a success.

3. Mr. C, a married man with two children, has a steady job that pays him about \$6000 per year. He can easily afford the necessities of life, but few of the luxuries. Mr. C's father, who died recently, carried a \$4000 life insurance policy. Mr. C would like to invest this money in stocks. He is well aware of the secure "blue-chip" stocks and bonds that would pay approximately 6% on his investment. On the other hand, Mr. C has heard that the stocks of a relatively unknown Company X might double their present value if a new product currently in production is favorably received by the buying public. However, if the product is unfavorably received, the stocks would decline in value.

Imagine that you are advising Mr. C. Listed below are several probabilities or odds that Company X stocks will double their value.

Please check the lowest probability that you would consider acceptable for Mr. C to invest in Company X stocks.

- The chances are 1 in 10 that the stocks will double their value.
- The chances are 3 in 10 that the stocks will double their value.
- The chances are 5 in 10 that the stocks will double their value.
- The chances are 7 in 10 that the stocks will double their value.
- The chances are 9 in 10 that the stocks will double their value.
- Place a check here if you think Mr. C should not invest in Company X stocks, no matter what the probabilities.

4. Mr. D is the captain of College X's football team. College X is playing its traditional rival, College Y, in the final game of the season. The game is in its final seconds, and Mr. D's team College X, is behind in the score. College X has time to run one more play. Mr. D, the captain, must decide whether it would be best to settle for a tie score with a play which would be almost certain to work or, on the other hand, should he try a more complicated and risky

play which would bring victory if it succeeded, but defeat if not.

Imagine that you are advising Mr. D. Listed below are several probabilities or odds that the risky play will work.

Please check the lowest probability that you would consider acceptable for the risky play to be attempted.

- Place a check here if you think Mr. D should not attempt the risky play no matter what the probabilities.
- The chances are 9 in 10 that the risky play will work.
- The chances are 7 in 10 that the risky play will work.
- The chances are 5 in 10 that the risky play will work.
- The chances are 3 in 10 that the risky play will work.
- The chances are 1 in 10 that the risky play will work.

5. Mr. E is president of a light metals corporation in the United States. The corporation is quite prosperous, and has strongly considered the possibilities of business expansion by building an additional plant in a new location. The choice is between building another plant in the U.S., where there would be a moderate return on the initial investment, or building a plant in a foreign country. Lower labor costs and easy access to raw materials in that country would mean a much higher return on the initial investment. On the other hand, there is a history of political instability and revolution in the foreign country under consideration. In fact, the leader of a small minority party is committed to nationalizing, that is, taking over, all foreign investments.

Imagine that you are advising Mr. E. Listed below are several probabilities or odds of continued political stability in the foreign country under consideration.

Please check the lowest probability that you would consider acceptable for Mr. E's corporation to build a plant in that country.

- The chances are 1 in 10 that the foreign country will remain politically stable.
- The chances are 3 in 10 that the foreign country will remain politically stable.
- The chances are 5 in 10 that the foreign country will remain politically stable.
- The chances are 7 in 10 that the foreign country will remain politically stable.
- The chances are 9 in 10 that the foreign country will remain politically stable.
- Place a check here if you think Mr. E's corporation should not build a plant in the foreign country, no matter what the probabilities.

6. Mr. F is currently a college senior who is very eager to pursue graduate study in chemistry leading to the Doctor of Philosophy degree. He has been accepted by both University X and University Y. While a degree from University X would signify outstanding training in his field, the standards are so very rigorous that only a fraction of the

degree candidates actually receive the degree. University Y, on the other hand, has much less of a reputation in chemistry, but almost everyone admitted is awarded the Doctor of Philosophy degree, though the degree has much less prestige than the corresponding degree from University X.

Imagine that you are advising Mr. F. Listed below are several probabilities or odds that Mr. F would be awarded a degree at University X, the one with the greater prestige.

Please check the lowest probability that you would consider acceptable to make it worthwhile for Mr. F to enroll in University X rather than University Y.

- Place a check here if you think Mr. F should not enroll in University X, no matter what the probabilities.
- The chances are 9 in 10 that Mr. F would receive a degree from University X.
- The chances are 7 in 10 that Mr. F would receive a degree from University X.
- The chances are 5 in 10 that Mr. F would receive a degree from University X.
- The chances are 3 in 10 that Mr. F would receive a degree from University X.
- The chances are 1 in 10 that Mr. F would receive a degree from University X.

7. Mr. G, a competent chess player, is participating in a national chess tournament. In an early match he draws the top-favored player in the tournament as his opponent. Mr. G has been given a relatively low ranking in view of his performance in previous tournaments. During the course of his play with the top-favored man, Mr. G notes the possibility of a deceptive though risky maneuver which might bring him a quick victory. At the same time, if the attempted maneuver should fail Mr. G would be left in an exposed position and defeat would almost certainly follow.

Imagine that you are advising Mr. G. Listed below are several probabilities or odds that Mr. G's deceptive play would succeed.

Please check the lowest probability that you would consider acceptable for the risky play in question to be attempted.

- The chances are 1 in 10 that the play would succeed.
- The chances are 3 in 10 that the play would succeed.
- The chances are 5 in 10 that the play would succeed.
- The chances are 7 in 10 that the play would succeed.
- The chances are 9 in 10 that the play would succeed.
- Place a check here if you think Mr. G should not attempt the risky play, no matter what the probabilities.

8. Mr. H, a college senior, has studied the piano since childhood. He has won amateur prizes and given small recitals, suggesting that Mr. H has considerable musical talent. As graduation approaches, Mr. H

has the choice of going to medical school to become a physician, a profession which would bring certain prestige and financial rewards; or entering a conservatory of music for advanced training with a well-known pianist. Mr. H realizes that even upon completion of his piano studies, which would take many more years and a lot of money, success as a concert pianist would not be assured.

Imagine that you are advising Mr. H. Listed below are several probabilities or odds that Mr. H would succeed as a concert pianist.

Please check the lowest probability that you would consider acceptable for Mr. H to continue with his musical training.

Place a check here if you think Mr. H should not pursue his musical training.

The chances are 9 in 10 that Mr. H would succeed as a concert pianist.

The chances are 7 in 10 that Mr. H would succeed as a concert pianist.

The chances are 5 in 10 that Mr. H would succeed as a concert pianist.

The chances are 3 in 10 that Mr. H would succeed as a concert pianist.

The chances are 1 in 10 that Mr. H would succeed as a concert pianist.

9. Mr. J is an American captured by the enemy in World War II and placed in a prisoner-of-war camp. Conditions in the camp are quite bad, with long hours of hard physical labor and a barely sufficient diet. After spending several months in this camp, Mr. J notes the possibility of escape concealing himself in a supply truck that shuttles in and out of the camp. Of course, there is no guarantee that the escape would prove successful. Recapture by the enemy could well mean execution.

Imagine that you are advising Mr. J. Listed below are several probabilities or odds of a successful escape from the prisoner-of-war camp.

Please check the lowest probability that you would consider acceptable for an escape to be attempted.

The chances are 1 in 10 that the escape would succeed.

The chances are 3 in 10 that the escape would succeed.

The chances are 5 in 10 that the escape would succeed.

The chances are 7 in 10 that the escape would succeed.

The chances are 9 in 10 that the escape would succeed.

Place a check here if you think Mr. J should not try to escape no matter what the probabilities.

10. Mr. K is a successful business man who has participated in a number of civic activities of considerable value to the community. Mr. K has been approached by the leaders of his political party as a possible congressional candidate in the next election. Mr. K's party

is a minority party in the district, though the party has won occasional elections in the past. Mr. K would like to hold political office, but to do so would involve a serious financial sacrifice, since the party has insufficient campaign funds. He would also have to endure the attacks of his political opponents in a hot campaign.

Imagine that you are advising Mr. K. Listed below are several probabilities or odds of Mr. K's winning the election in his district.

Please check the lowest probability that you would consider acceptable to make it worthwhile for Mr. K to run for political office.

- Place a check here if you think Mr. K should not run for political office no matter what the probabilities.
- The chances are 9 in 10 that Mr. K would win the election.
- The chances are 7 in 10 that Mr. K would win the election.
- The chances are 5 in 10 that Mr. K would win the election.
- The chances are 3 in 10 that Mr. K would win the election.
- The chances are 1 in 10 that Mr. K would win the election.

11. Mr. L, a married 30-year-old research physicist, has been given a five-year appointment by a major university laboratory. As he contemplates the next five years, he realizes that he might work on a difficult, long-term problem which, if a solution could be found, would resolve basic scientific issues in the field and bring high scientific honors. If no solution were found, however, Mr. L would have little to show for his five years in the laboratory, and this would make it hard for him to get a good job afterwards. On the other hand, he could, as most of his professional associates are doing, work on a series of short-term problems where solutions would be found to the difficult, long-term problem that Mr. L has in mind.

Imagine that you are advising Mr. L. Listed below are several probabilities or odds that a solution would be found to the difficult, long-term problem that Mr. L has in mind.

Please check the lowest probability that you would consider acceptable to make it worthwhile for Mr. L to work on the more difficult long-term problem.

- The chances are 1 in 10 that Mr. L would solve the long-term problem.
- The chances are 3 in 10 that Mr. L would solve the long-term problem.
- The chances are 5 in 10 that Mr. L would solve the long-term problem.
- The chances are 7 in 10 that Mr. L would solve the long-term problem.
- The chances are 9 in 10 that Mr. L would solve the long-term problem.
- Place a check here if you think Mr. L should not choose the long-term, difficult problem, no matter what the probabilities.

12. Mr. M is contemplating marriage to Miss T, a girl whom he has known for a little more than a year. Recently, however, a number of arguments have occurred between them, suggesting some sharp differences of opinion in the way each views certain matters. Indeed, they

decide to seek professional advice from a marriage counselor as to whether it would be wise for them to marry. On the basis of these meetings with a marriage counselor, they realize that a happy marriage, while possible, would not be assured.

Imagine that you are advising Mr. M and Miss T. Listed below are several probabilities that their marriage would prove to be a happy and successful one.

Please check the lowest probability that you would consider acceptable for Mr. M and Miss T to get married.

- Place a check here if you think Mr. M and Miss T should not marry, no matter what the probabilities.
- The chances are 9 in 10 that the marriage would be happy and successful.
- The chances are 7 in 10 that the marriage would be happy and successful.
- The chances are 5 in 10 that the marriage would be happy and successful.
- The chances are 3 in 10 that the marriage would be happy and successful.
- The chances are 1 in 10 that the marriage would be happy and successful.

APPENDIX B

COVER LETTERS

Oklahoma State University

DEPARTMENT OF ADMINISTRATION AND HIGHER EDUCATION

STATIONER, OKLAHOMA STATE
UNIVERSITY, 1978
105 SOUTH EAST AVE.

January 20, 1978

To Faculty Member:

Although academic deans in junior colleges are key officials in the administrative decision-making process, there is essentially no research which has examined the deanship and decision-making.

In that deans usually emerge from the ranks of faculty, you as well as other faculty members from Oklahoma two-year institutions are being asked to participate in a study being conducted through the Department of Educational Administration and Higher Education at Oklahoma State University.

We would greatly appreciate it if you would complete the attached questionnaire, which is the "Choice Dilemmas Procedure" and which is designed to assess one's level of risk-taking in decision-making. It should require no more than fifteen (15) minutes of your time. The "Choice Dilemmas Procedure" was developed by Dr. Nathan Kogan and Dr. Michael Wallach (1964).

Please be assured that your anonymity will be preserved both as an individual and as a faculty member of your institution when the results are released. It will be most appreciated if the information is returned in the enclosed stamped, self-addressed envelope by FRIDAY, FEBRUARY 10, 1978.

We believe the results of the study will have considerable value and are willing to share the results with you if you wish. If so, please include your name and address on a separate slip of paper when you return the information.

Your co-operation in making this study possible is very much appreciated.

Sincerely,

Thomas A. Karman,
Department Head

Barbara A. Jones,
Research Assistant



Oklahoma State University

DEPARTMENT OF ADMINISTRATION AND HIGHER EDUCATION

STILLWATER, OKLAHOMA 74074
 GUNDSEREN HALL
 ROOM 6711, TEL. 645

January 20, 1978

To

Although academic deans in junior colleges are key officials in the administrative decision-making process, there is essentially no research which has examined the deanship and decision-making. In order to remedy this situation at least in part, you as well as other deans of Oklahoma two-year institutions are being asked to participate in a study being conducted through the Department Of Educational Administration and Higher Education at Oklahoma State University.

We would greatly appreciate it if you would complete the attached questionnaire, which is the "Choice Dilemmas Procedure" and which is designed to assess one's level of risk-taking in decision-making. It should require no more than fifteen (15) minutes of your time. The "Choice Dilemmas Procedure" was developed by Dr. Nathan Kogan and Dr. Michael A. Wallach (1964).

Please be assured that your anonymity will be preserved both as an individual and as an official of your institution when the results are released. It will be most appreciated if the information is returned in the enclosed stamped, self-addressed envelope by FRIDAY, FEBRUARY 10, 1978.

We believe the results of the study will have considerable value and are willing to share the results with you if you wish. If so, please include your name and address on a separate slip of paper when you return the questionnaire.

Your co-operation in making this study possible is very much appreciated.

Sincerely,

Thomas A. Karman,
 Department Head

Barbara A. Jones,
 Research Assistant



Oklahoma State University

DEPARTMENT OF ADMINISTRATION AND HIGHER EDUCATION

STEWART OKLAHOMA 74074
GENDEREN HALL
405 472 6211, EXT. 6245

Dear Student:

You and other selected students at
are being asked to participate in a study which is designed to in-
vestigate risk-taking levels of persons associated with two-year
colleges. For the research to be successful, we depend on your
co-operation and hope you will complete the attached questionnaire.
It should take no more than fifteen minutes of your time.

Please know that no information will be released about you as
an individual. Also please know that there are no "right" or
"wrong" responses. We simply need to have your own individual re-
sponse.

Thank you for your help!

Sincerely,

Thomas A. Karman
Department Head

Barbara A. Jones
Research Assistant

PLEASE PROVIDE THE FOLLOWING INFORMATION BEFORE BEGINNING QUESTIONNAIRE:

_____ AGE _____ SEX

HOW DO YOU EVALUATE YOURSELF AS A DECISION-MAKER? (Check One Below)

_____ VERY RISKY _____ CAUTIOUS
_____ RISKY _____ VERY CAUTIOUS
_____ SOMETIMES RISKY

NOTE: RISKY IS DEFINED AS the willingness to take risks in the
selection of the final alternative or solution, or in other
words, the implication that low probability-high payoff al-
ternatives are preferred over high probability-low payoff
alternatives.

CAUTIOUS IS DEFINED AS the unwillingness to take risks in
the selection of the final alternative or solution, or in
other words, the implication that high probability-low
payoff alternatives are preferred over low probability-
high payoff alternatives.

PLEASE PROCEED ON TO THE QUESTIONNAIRE AND THANK YOU FOR YOUR CO-OPERATION!

APPENDIX C

DEMOGRAPHIC DATA SHEETS

Oklahoma State University

DEPARTMENT OF ADMINISTRATION AND HIGHER EDUCATION

STATE OF OKLAHOMA 74074
 CONSERVATION
 BOX 376 HEALING SPRINGS

January 20, 1978

PLEASE PROVIDE THE FOLLOWING INFORMATION BEFORE BEGINNING THE QUESTIONNAIRE:

_____ AGE _____ SEX

HOW MANY YEARS HAVE YOU SPENT AS A DEAN?

_____ less than 1 year _____ 6 to 7 years
 to 1 year
 _____ 2 to 3 years _____ 8 to 9 years
 _____ 4 to 5 years _____ 10 years or
 more

HOW DO YOU EVALUATE YOURSELF AS A DECISION-MAKER? (Check One Below)

_____ VERY RISKY _____ CAUTIOUS
 _____ RISKY _____ VERY CAUTIOUS
 _____ SOMETIMES RISKY

NOTE: RISKY IS DEFINED AS: the willingness to take risks in the selection of the final alternative or solution, or in other words, the implication that low probability-high payoff alternatives are preferred over high probability-low payoff alternatives.

CAUTIOUS IS DEFINED AS: the unwillingness to take risks in the selection of the final alternative or solution, or in other words, the implication that high probability-low payoff alternatives are preferred over low probability-high payoff alternatives.

PLEASE PROCEED ON TO THE ATTACHED QUESTIONNAIRE
 AND
 THANK YOU VERY MUCH FOR YOUR CO-OPERATION!

III III

Oklahoma State University

DEPARTMENT OF ADMINISTRATION AND HIGHER EDUCATION

STILLWATER, OKLAHOMA 74074
 C. ANDERSON, D.D.
 (405) 521-6111, EXT. 6311

January 20, 1978

PLEASE PROVIDE THE FOLLOWING INFORMATION BEFORE BEGINNING THE QUESTIONNAIRE:

_____ AGE _____ SEX

HOW MANY YEARS HAVE YOU SPENT AS A FACULTY MEMBER AT A TWO-YEAR INSTITUTION?

_____ less than 1 year to 1 year	_____ 6 to 7 years
_____ 2 to 3 years	_____ 8 to 9 years
_____ 4 to 5 years	_____ 10 years or more

HOW DO YOU EVALUATE YOURSELF AS A DECISION-MAKER? (Check One Below)

_____ VERY RISKY	_____ CAUTIOUS
_____ RISKY	_____ VERY CAUTIOUS
_____ SOMETIMES RISKY	

NOTE: RISKY IS DEFINED AS: the willingness to take risks in the selection of the final alternative or solution, or in other words, the implication that low probability-high payoff alternatives are preferred over high probability-low payoff alternatives.

CAUTIOUS IS DEFINED AS: the unwillingness to take risks in the selection of the final alternative or solution, or in other words, the implication that high probability-low payoff alternatives are preferred over low probability-high payoff alternatives.

PLEASE PROCEED ON TO THE ATTACHED QUESTIONNAIRE
 AND
 THANK YOU VERY MUCH FOR YOUR CO-OPERATION!



Oklahoma State University

DEPARTMENT OF ADMINISTRATION AND HIGHER EDUCATION

SHILWATER, OKLAHOMA 74074
GUNDERSEN HALL
(405) 422-6111, EXT. 6245

Dear Student:

You and other selected students at are being asked to participate in a study which is designed to investigate risk-taking levels of persons associated with two-year colleges. For the research to be successful, we depend on your co-operation and hope you will complete the attached questionnaire. It should take no more than fifteen minutes of your time.

Please know that no information will be released about you as an individual. Also please know that there are no "right" or "wrong" responses. We simply need to have your own individual response.

Thank you for your help!

Sincerely,

Thomas A. Karman
Department Head

Barbara A. Jones
Research Assistant

PLEASE PROVIDE THE FOLLOWING INFORMATION BEFORE BEGINNING QUESTIONNAIRE:

_____ AGE _____ SEX

HOW DO YOU EVALUATE YOURSELF AS A DECISION-MAKER? (Check One Below)

_____ VERY RISKY _____ CAUTIOUS
_____ RISKY _____ VERY CAUTIOUS
_____ SOMETIMES RISKY

NOTE: RISKY IS DEFINED AS the willingness to take risks in the selection of the final alternative or solution, or in other words, the implication that low probability-high payoff alternatives are preferred over high probability-low payoff alternatives.

CAUTIOUS IS DEFINED AS the unwillingness to take risks in the selection of the final alternative or solution, or in other words, the implication that high probability-low payoff alternatives are preferred over low probability-high payoff alternatives.

PLEASE PROCEED ON TO THE QUESTIONNAIRE AND THANK YOU FOR YOUR CO-OPERATION!

APPENDIX D

RESPONSE RATE BY AGE

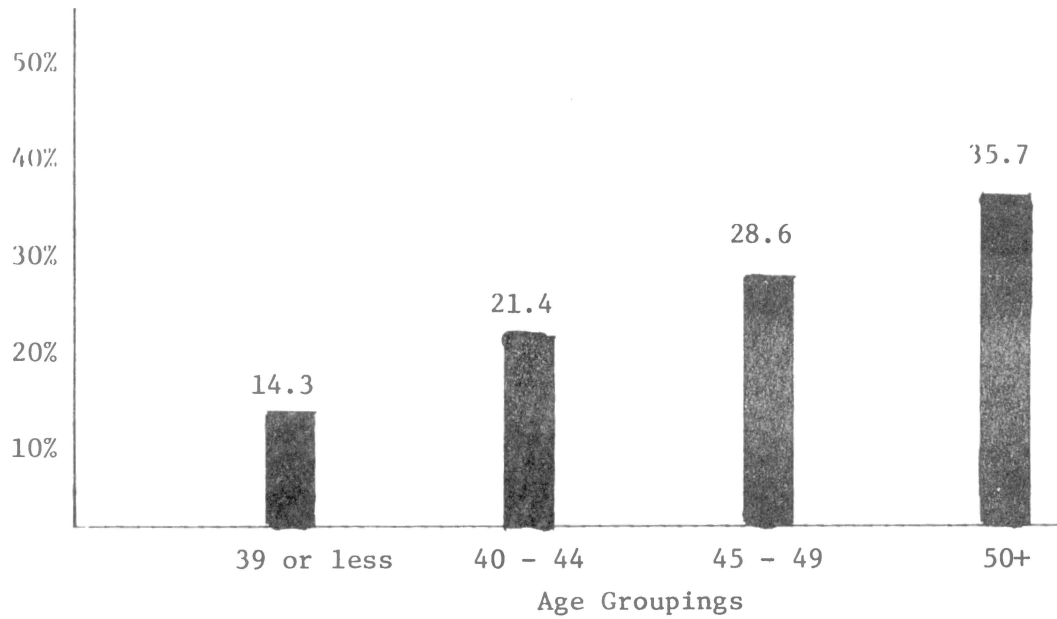


Figure 1. Dean Response Rate by Age

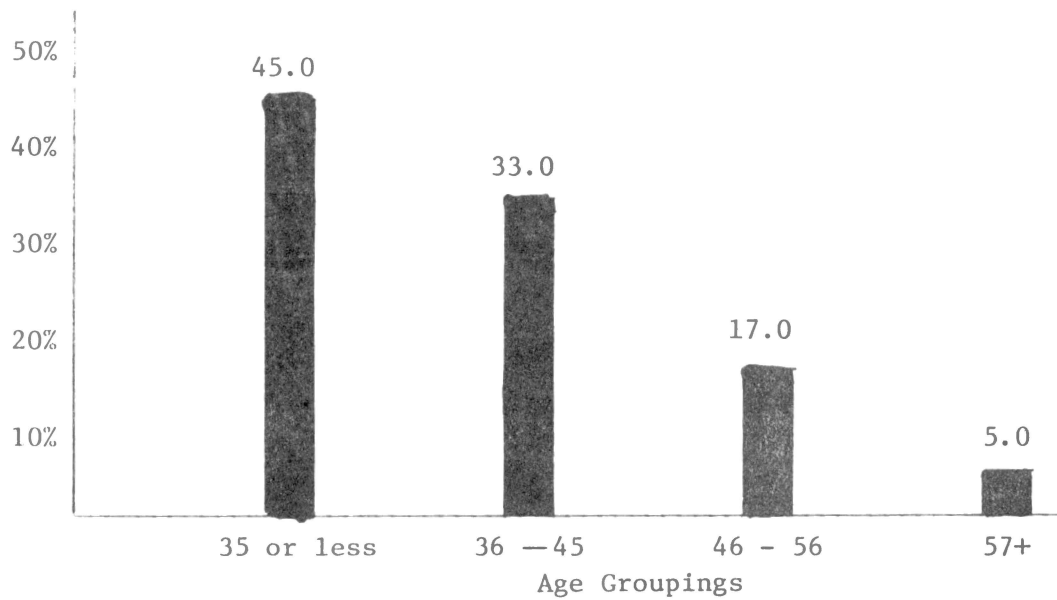


Figure 2. Faculty Response Rate by Age

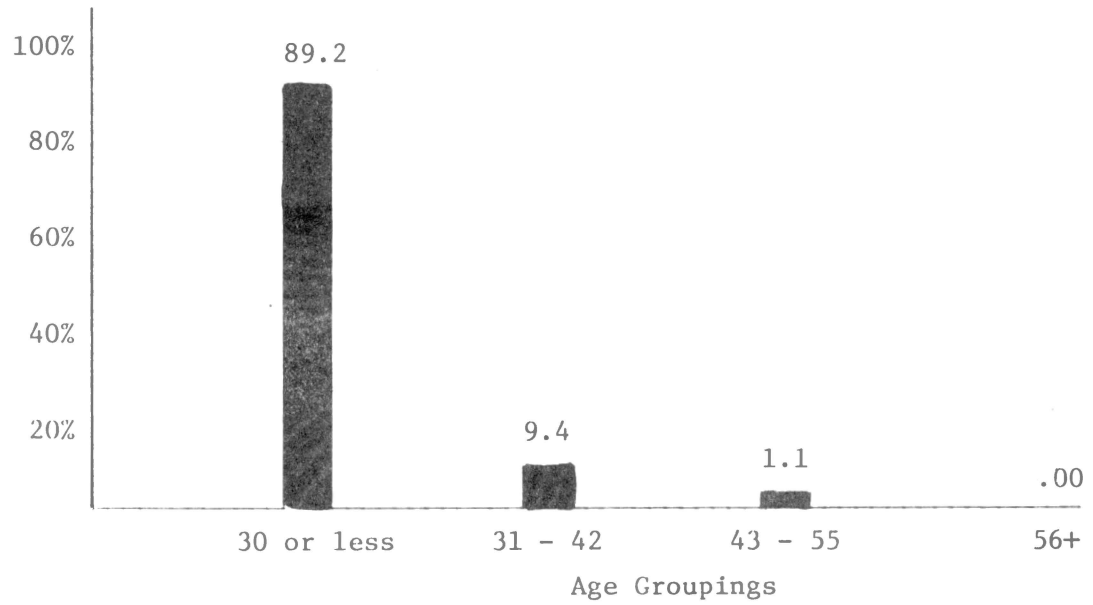


Figure 3. Urban Student Response Rate by Age

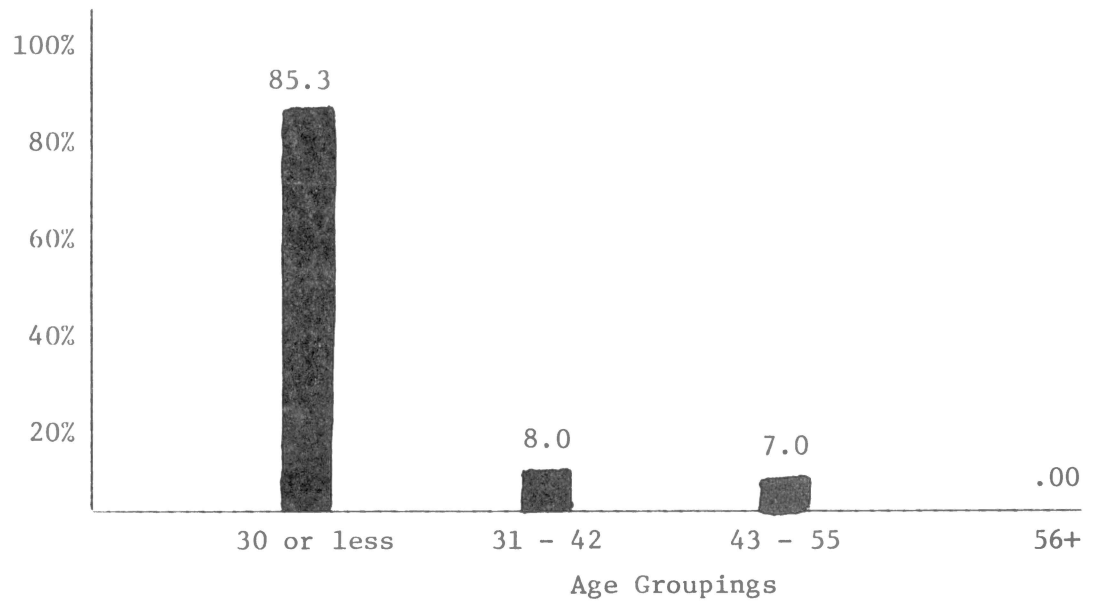


Figure 4. Semi-Rural Student Response Rate by Age

APPENDIX E

RESPONSE RATE BY YEARS OF EXPERIENCE

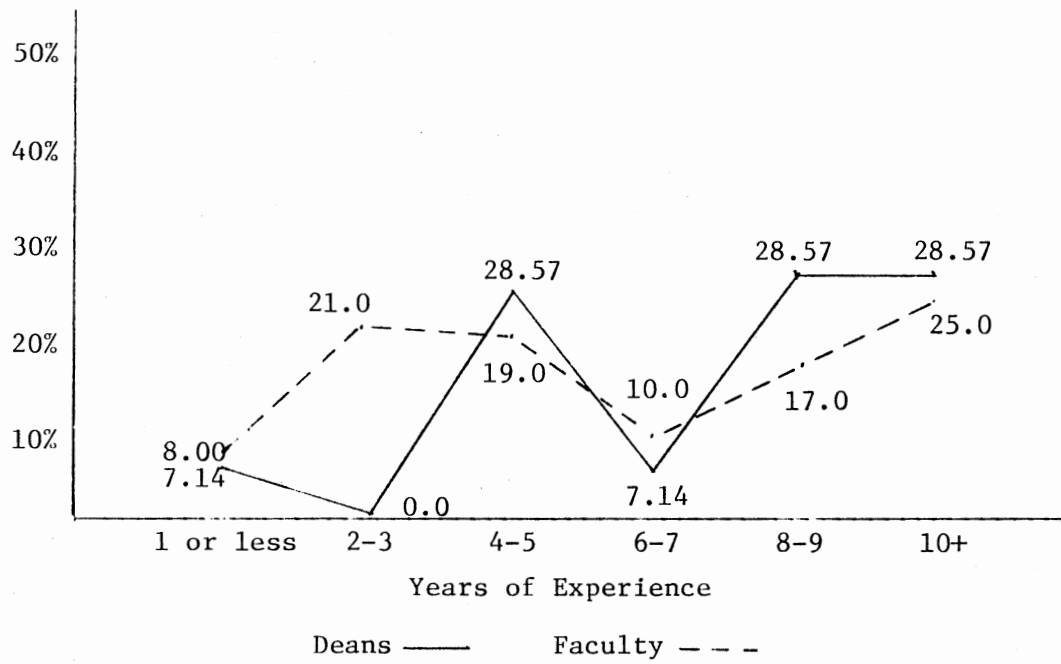


Figure 5. Response Rate by Years of Experience

APPENDIX F

RESPONSE RATE BY SEX

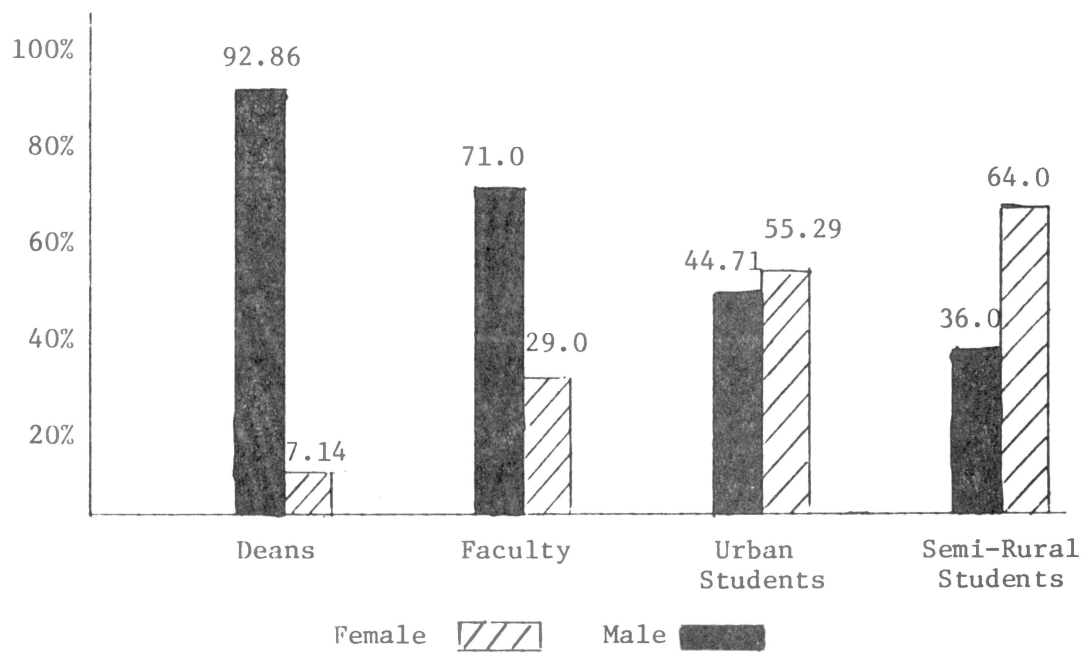


Figure 6. Response Rate by Sex

VITA 2

Barbara A. Jones

Candidate for the Degree of
Doctor of Education

Thesis: AN EXAMINATION OF THE RELATIONSHIP OF RISK-TAKING VERSUS
CAUTIOUSNESS IN DECISION-MAKING AMONG SELECT DEANS, FACULTY,
AND STUDENTS IN OKLAHOMA JUNIOR COLLEGES

Major Field: Higher Education

Biographical Data:

Personal: Born in Tahlequah, Oklahoma, October 9, 1943, the daughter of Mr. and Mrs. Homer C. Jones.

Education: Graduated from Tahlequah High School, Tahlequah, Oklahoma, in 1961; received the Bachelor of Arts in Education degree from Northeastern Oklahoma State University, Tahlequah, Oklahoma, in 1964; received the Master of Teaching degree from Northeastern Oklahoma State University, Tahlequah, Oklahoma, in 1967; completed the requirements for the Doctor of Education degree at Oklahoma State University, Stillwater, Oklahoma, with a major in Higher Education, December, 1978.

Professional Experience: Tulsa Public Schools, teacher of elementary speech, 1964 to 1967; University of Arts and Science of Oklahoma, Chickasha, Oklahoma, instructor of speech and English, 1967 to 1970; Tulsa Junior College, Chairman of the Communications Division, 1970 to 1976; Graduate Assistant and doctoral student, Oklahoma State University in the Department of Higher Education and Administration, 1976 to 1977; School Planner for the Eastern Oklahoma Development District, Muskogee, Oklahoma, 1977 to 1978; Northeastern Oklahoma State University, Tahlequah, Oklahoma, Instructor of English, Fall, 1978.

Professional Organizations: Phi Delta Kappa, Oklahoma College Personnel Association, American Association of University Women.