

AN ANALYSIS OF SELECTED CHARACTERISTICS IN BEGINNING  
BUSINESS STUDENTS: YOUNG ADULT INMATES  
AND MALE COLLEGE FRESHMEN

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A Thesis  
Presented to  
the Faculty of the Department of Business Education  
Morehead State University

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In Partial Fulfillment  
of the Requirements for the Degree  
Master of Business Education

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by  
Richard Godfrey Crowe, Jr.

May 1970

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Accepted by the faculty of the School of Applied Sciences and Technology, Morehead State University, in partial fulfillment of the requirements for the Master of Business Education degree.

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293972

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Morehead State University, 1970

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The problem of this study was to determine and analyze selected characteristics that existed in 15 young adult prison inmates enrolled in a beginning collegiate business course as compared to 15 students enrolled in a similar beginning business course at Morehead State University. The characteristics measured included (1) cultural characteristics, (2) academic aspirations, (3) personality characteristics, and (4) predicted academic success in a college curriculum.

Instruments used included (1) student questionnaires developed by the writer, (2) the Sixteen Personality Factor Questionnaire, and (3) a formula for predicting academic success at Illinois Wesleyan University.

Cultural differences were found between the two groups. The inmates were found to be (1) from larger families, (2) from larger home towns, (3) older, and (4) from large urban centers outside Kentucky.

Both groups reported aspirations of completing college. The majority of regular students sought bachelor degrees while the inmates were interested in pursuing bachelor degrees and one- and two-year degrees.

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The regular students and inmates were found to have similar personalities. A similarity coefficient ( $r_p$ ) of .81 was obtained for the two groups on the results of the 16PF. Individual personality factor differences existed at significant levels, however. The inmates were found to be (1) more assertive, (2) more shrewd, (3) more self-assured, (4) more experimenting, (5) more self-sufficient, and (6) more relaxed than the regular business students.

Both groups projected similar coefficient scores when compared to two peer groups. One peer group contained Pennsylvania State University students. The similarity coefficients were MSU=.56 and FYC=.67. The second peer group contained male convicts who were mostly petty offenders. The similarity coefficients for this group were MSU=.86 and FYC=.81.

It was determined that both groups of students projected similar personality characteristics when compared to individuals in selected business occupations as measured by the 16PF. Similar coefficients were obtained for both groups for the careers of (1) clerks (MSU=.20, FYC=.22), (2) executives (MSU=.52, FYC=.55), and (3) salesmen (MSU=.46, FYC=.52).

In addition, both student groups projected similar grade point averages for completion of a college curriculum.

Accepted by:

George J. Montgomery, Chairman  
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## Chapter 1

### INTRODUCTION

A growing number of United States citizens have come to realize that a penal system which provides no more than minimal education opportunities for its clients is doing little to improve society. The penal system that does no more than place a convicted individual in relative isolation for a specified period of time is merely helping to increase our growing crime rate. It is now believed that 75 percent of all major crimes are committed by approximately 25 percent of known criminals.<sup>1</sup> The major problem in crime control is recidivism--the return to prison of previously released inmates for conviction of an additional crime. Society is in danger of increasing recidivism when individuals are sentenced to confinement in institutions that offer no opportunities for maximizing potential employment skills and knowledges of an inmate. Individuals released from these institutions often encounter great frustration when they attempt to lead a rehabilitated pattern of life without having received necessary employment skills; they may return to a life of crime to escape their frustration.

The convict who has had an opportunity to improve his skills and knowledges through vocational or collegiate education has a greater chance to succeed in leading a rehabilitated life.

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<sup>1</sup>Opinion expressed by James Caldwell, Chairman, Louisville and Jefferson County Crime Commission in a speech to members of Crusade vs. Crime, Inc., Louisville, Kentucky, November 4, 1969.

Our society needs to utilize the talents of these individuals to their fullest so that all citizens may receive the benefits of a progressive penal system.<sup>2</sup>

#### STATEMENT OF THE PROBLEM

The problem of this study was to determine and analyze selected characteristics that existed in 15 young adult prison inmates enrolled in a beginning collegiate business course as compared to 15 students enrolled in a similar beginning business course at Morehead State University. The sub-problems were:

1. to determine the cultural characteristics of young adult prison inmates and male college students enrolled in an initial business course.
2. to determine the academic aspirations of the two groups.
3. to identify and analyze the personality characteristics of the two groups.
4. to compare the personality characteristics of both groups with those of selected business occupations.
5. to predict the academic success of the two groups in a college curriculum.

#### NEED FOR THE STUDY

Institutions of higher education have long provided educational opportunities for inmates incarcerated in state or federal prisons.

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<sup>2</sup>The Challenge of Crime In a Free Society, Report by the President's Commission on Law Enforcement and Administrative Justice, United States Government Printing Office, Washington, D.C., 1967.

These opportunities have generally been offered through correspondence courses. Such courses provide an opportunity for qualified convicts to earn college credit as a part of their rehabilitation program. The success of correspondence courses is limited, however, because the instructor and student may never meet to exchange relevant dialogue. Instead, the instructor and the student must facilitate communication through formalized written lessons. Recently several institutions of higher education have offered courses through their extension services to inmates in various penitentiaries.<sup>3</sup> Extension courses are usually taught inside the penal institution by regular college instructors. As more colleges and universities contribute resources to similar rehabilitation efforts, it has become advisable that degree-granting institutions develop special programs to prepare teachers specifically for this task. The 1970 version of the Education Professions Development Act (EPDA) made certain federal funds available for the purpose of training educational personnel for teaching in penal institutions.<sup>4</sup>

Many studies have been completed concerning the inmate and his environment. Still needed, however, was research comparing the inmate with college students. Results from this study may be used by instructors for preparation of material specifically for the inmate rather

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<sup>3</sup>Herman Priven and Abraham Alcibes, "Education and Training for Criminal Justice: A Directory of Programs in Universities and Agencies (1965-1967)," United States Office of Health, Education and Welfare, (ERIC Document #ED 026 565, 1968).

<sup>4</sup>Opinion expressed by Dr. Robert Poppendieck, Chief of Field Services, Education Program Development Office, United States Office of Education, Washington, D.C., in an address ("EPDA Plans for 1970") at Morehead (Kentucky) State University, March 12, 1970.

than for all students. Efficient instruction is needed to prepare the inmates for the world of work. It is most important that inmates receive the greatest amount of instruction possible per hour of class time so they may maximize their educational opportunities.

#### LIMITATION OF THE PROBLEM

The inmate population representing the experimental group was limited to 15 male inmates incarcerated at the Federal Youth Center near Ashland, Kentucky. These individuals had earned either a high school diploma or GED certificate. They then were eligible to enroll in an Introduction to Business course offered through University extension.

The student group representing the control group consisted of 15 randomly selected freshmen male students enrolled in Introduction to Business at Morehead State University during the fall semester of 1969.

Data were limited to information obtained from (1) the Sixteen Personality Factor Questionnaire (16PF), a standardized test instrument; (2) student questionnaires prepared by the writer; and (3) a formula for predicting academic success in a college curriculum developed for Illinois Wesleyan University.

#### DEFINITION OF TERMS

##### Inmate

An inmate is a young male adult incarcerated in the Federal Youth Center near Ashland, Kentucky. The offender had broken a federal

law and may have been sentenced from any state east of the Mississippi River. The greatest number of inmates at Ashland were reported to be from Ohio, Pennsylvania, and Kentucky. The majority of inmates had been convicted of automobile theft and transportation of these stolen vehicles across a state line (Dyer Act).

### Project Newgate

Project Newgate is an academic program for inmates conducted by Morehead State University through a grant received from the Office of Economic Opportunity. Project admission requirements are (1) a minimum I.Q. of 90, and (2) a minimum of 7.5 years of formal education.

### Sixteen Personality Factor Questionnaire

The Sixteen Personality Factor Questionnaire (16PF) is the standardized test instrument used in this study to determine personality traits in a group of young adult male inmates and male college freshmen enrolled in an introductory business course. This questionnaire is a personality-measuring instrument validated with respect to the primary personality factors relevant to general psychological research. The measured factors are described in Table 1 (pages 6-7). Bipolar descriptions are presented with reliability (consistency: split-half) coefficients for factor measurement on Form A plus Form B. For example, Factor B is described as General Intelligence (bright) vs. Mental Defect (dull). A reliability coefficient of 0.86 (1.00=perfect) is reported for the comparison of the long forms of the test (Test A and B).

Table 1

## Factor Description and Reliability Coefficient for the Sixteen Personality Factor Questionnaire (16PF)

Factor	Bipolar Description	Reliability Coefficient
A	Cyclothymia (warm, sociable) vs. Schizothymia (aloof, stiff)	0.90
B	General Intelligence (bright) vs. Mental Defect (dull)	0.86
C	Emotional Stability or Ego Strength vs. Dissatisfied Emotionally (mature, calm) (Emotional, immature, unstable)	0.93
E	Dominance or Ascendance vs. Submission ("milk-toast"; mild) (competitive and aggressive)	0.91
F	Surgency (enthusiastic, happy-go-lucky) vs. Desurgency (glum, sober, serious)	0.84
G	Character or Super-Ego Strength vs. Lack of Rigid, Internal Standards (conscientious, persistent) (casual, undependable)	0.85
H	Parrhia (adventurous, thick skinned) vs. Threctia (sly, timid)	0.83
I	Præmia (sensitive, effeminate) vs. Harriā (tough, realistic)	0.76

Table 1 ( continued)

Factor	Bipolar Description	Reliability Coefficient
L	Protension (paranoid tendency) vs. Relaxed Security (accepting, adaptable)	0.77
M	Autia (bohemian introverted, absent minded) vs. Proxernia (practical, concerned with facts)	0.88
N	Shrewdness (sophisticated, polished) vs. Naivete (simple, unpretentious)	0.79
O	Guilt Proneness (timid, insecure) vs. Confident Adequacy (confident, self-secure)	0.85
Q <sub>1</sub>	Radicalism vs. Conservatism of Temperament	0.71
Q <sub>2</sub>	Self-Sufficiency vs. Group Dependency (self-sufficient, resourceful) (sociably group dependent)	0.76
Q <sub>3</sub>	High Self-Sentiment Formation vs. Poor Self-Sentiment Formation (controlled, exacting will power) (uncontrolled, lax)	0.76
Q <sub>4</sub>	High Ergic Tension (tense, excitable) vs. Low Ergic Tension (composed)	0.88



## Stens

The sten table is used as the basis for equating test results on the 16PF. The sten table takes the raw score mean of the total population as the cutting point between sten 5 and sten 6, i.e., exactly at 5.5. Any raw score falling between this mean (at 5.5) and a point one half a standard deviation downward translates to a sten point of 5; and one falling within half a sigma upward of this point gets 6. Thus, the range of what would essentially be called average, "normal scores," namely, a one sigma range centered on the mean, is represented between scores of 5 and 6. Only when stens of 4 and 7 are discussed does one consider a person definitely departing from the average.<sup>5</sup> A difference of greater than one sten score was considered to be significant in comparing beginning business students with other groups in this study. These differences were indicated by underlining the experimental group scores considered to be significant for the comparison figures shown throughout this study.

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<sup>5</sup>Raymond B. Cathell and Herbert W. Eber, "Handbook for the Sixteen Personality Factor Questionnaire," (Champaign, Illinois: The Institute for Personality and Ability Testing, 1957), p. 7.

## Chapter 2

### REVIEW OF THE LITERATURE

Related literature involved two dimensions: (1) prison environment in the United States, and (2) the use of personality data for teaching within a prison environment.

#### PRISON ENVIRONMENT IN THE UNITED STATES

Clemmer described in detail the effect of prison environment on inmates in a state correctional institution. He coined the term prisonization as a means of describing, "...the taking on, in greater or lesser degree, of the folkways, mores, customs, and general culture of the penitentiary."<sup>6</sup> As a result, the prisonization process caused prisoners to gain a greater appreciation of criminal values in proportion to the length of their confinement.

Wheeler supported Clemmer's research in the prison socialization process. During the period of time Clemmer was completing his research Wheeler explained that:

...prisons were pretty much alike, classification between institutions was weak, and the processes Clemmer noted could be assumed to be relatively constant across a range of institutions. Current correctional systems increasingly depart from this image, and it is likely that both type of clientele

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<sup>6</sup>Donald Clemmer, The Prison Community, (New York: Rinehart and Company, 1940), p. 279.

and institutional program exert an effect on socialization processes.<sup>7</sup>

In summation, Wheeler added:

...adult maximum security prisons tend to get a very large proportion of inmates who are defiant at the time of entrance, but the advanced age of initial conformists may mean that they are less susceptible to influence from the inmate culture. Juvenile institutions are likely to receive a large number of offenders whose frames of reference are not solidified, and who may thus be more susceptible to peer-groups influence.<sup>8</sup>

In 1968, Atchley and McCabe attempted to replicate Clemmer's original work. They found no sustaining evidence for Clemmer's explanations of prisonization. Their assumption, based on available research, was that there may be less prisonization in a reformatory than in a state maximum security institution. While some long standing theories crumbled, the authors stated that: "...we know that prisonization is present in prisons, but our old explanations for it appear to be rather weak, or at least not universally applicable."<sup>9</sup>

Also in 1968, Heggen found the following in developing a curriculum to serve students confined at the Utah State Industrial School:

...based on established occupation aptitude patterns and other extenuating factors, the type of vocational education curriculum which was suggested for the Utah State Industrial School was a general vocational

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<sup>7</sup>Stanton Wheeler, "Socialization in Correctional Communities," American Sociological Review, Vol. 26, No. 5. (October, 1961) p. 709.

<sup>8</sup>Ibid., p. 710.

<sup>9</sup>Robert C. Atchley and M. Patrick Mc Cabe, "Socialization in Correctional Communities: A Replication," American Sociological Review, Vol. 33, No. 5, (October, 1968), p. 785.

curriculum with stress on vocational guidance and a well defined work experience program.<sup>10</sup>

It would appear that the same results may be applicable to an older group of college business students. Certainly, further research is necessary before curriculum planners can determine precisely what type of educational approach business teachers might use to assist incarcerated prisoners to become productive members of society.

#### PERSONALITY DATA: A TOOL FOR TEACHING IN A PRISON ENVIRONMENT

The usefulness of personalistic psychology as a means of communicating with an individual was noted by Allport when he stated:

The logical culmination of interest in the individual is the creation of a personalistic psychology. The chief tenet of this school of thought is that every mental function is embedded in a personal life. In no concrete sense is there such a thing as intelligence, space perception, color discrimination or choice reaction; there are only people who are capable of performing such activities and of having such experiences. It is improper to speak of the growth of skill, of vocabulary, or of knowledge; there is no growth excepting in the person; it is as part of his development that skill is enhanced; that vocabulary and knowledge are extended. Nor can motives ever be studied apart from their personal setting, they represent always the striving of a total organism toward its objective.<sup>11</sup>

It is observed that Allport was commenting on the promotion of individual growth. He recognized that education dealt with the total personality rather than a mere portion, i.e., the brain.

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<sup>10</sup>James Richard Heggen, "A Study of Aptitudes and Achievements of Students Confined at the Utah State Industrial School for the Purposes of Determining Occupational Aptitudes Patterns to be Used as Guidelines for Formulating a Vocational Education Curriculum," Utah State University, (1968), (abstract).

<sup>11</sup>Gordon W. Allport, Personality, A Psychological Interpretation, (New York: Henry Holt and Company, 1937), p. 18.

Holland found that the best indicator of college success was neither high school nor college grades. He urged that admission to college and job placement be awarded on the basis of other criteria. These findings are:

The implications of the present investigation, which are consistent with our growing knowledge of creativity, argue against the uncritical use of high school and college grades as predictors of post-college achievement and as unqualified criteria for selecting persons for admissions, scholarships, fellowships, or jobs. Similarly the prediction of college grades appears to be increasingly dubious research enterprise. It seems preferable to develop more valid criteria of independent achievement and creativity, even though colleges may not recognize and reward these tendencies. To continue the prediction of college grades only reinforces their somewhat specious validity and delays the development of more adequate criteria and the subsequent re-examination of educational goals and practices.<sup>12</sup>

The use of personality factors, rather than grade point average, may be a better indicator of probable academic success for inmates than for college students. A great percentage of the young adult inmates have not completed formal high school programs. They have either dropped out of the secondary school prior to prison sentencing or they have been taken out of the school to serve a prison sentence.

The value of personality factor data is very important to the instructor. Bruner indicated that the teacher of any individual must have a genuine understanding of the student in order to communicate effectively. He reported that:

Normal adult human beings not only use the minimal cues provided by split-second presentation of stimuli, but use them as a platform from which to leap to highly predictable conclusions. Much of perception involves going beyond the information given through reliance on a model of the world

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<sup>12</sup>J. L. Holland, "The Prediction of College Grades from Personality and Aptitude Variables," Journal of Educational Psychology, (1960), p. 251.

of events that makes possible interpolation, extrapolation, and prediction. Readiness in perception reflects not only the structure of the stimulus--its redundant features, to use a less ambiguous term--but also the likelihood of occurrence of events in a given context.<sup>13</sup>

According to research, it is possible to predict academic success based upon the results of personality factor tests. Holmes has done this in the liberal arts program at Illinois Wesleyan University using the 16PF.<sup>14</sup> The Massachusetts General's School of Nursing reports that they are two and a half times more accurate in predicting grade point average based on personality factors than they had been in using high school grades and board scores. Smith developed the series of personality tests administered in the Massachusetts program. Smith indicates that:

"...results show that students who make maximum use of their intellectual ability are the ones who score highest on our measures of responsibility, dependability, self-reliance, resourcefulness, desire to learn, determination to succeed and other allied traits."<sup>15</sup>

Smith notes the importance of predictive ability as it relates to one's desire to educate more of the disadvantaged. "The mechanism by which some underprivileged students are accepted and others rejected is far from perfect."<sup>16</sup>

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<sup>13</sup>Jerome S. Bruner, Toward a Theory of Instruction, (Cambridge, Massachusetts: Harvard University Press, 1966), p. 2.

<sup>14</sup>IPAT Information Bulletin #4, 1960.

<sup>15</sup>"Prediction-by-Personality," College Management, (January, 1970), p. 8.

<sup>16</sup>Ibid., p. 8.

## SUMMARY

The literature cited indicates that personality data can serve as a valuable guide to teachers in preparing instruction plans for all students. This information may be especially useful to college instructors who teach young adult inmates. It has been determined that prisonization, a product of penal confinement, was found less often in juvenile institutions than in institutions housing older inmates. It would seem that young male inmates have the greatest opportunity to utilize advanced educational opportunities. These opportunities may be either vocational training or college instruction designed to increase employment potential after release from prison.

Important advantages were noted for the utilization of personality information by a professor who teaches an inmate population. The advantages included: (1) improving the ability to motivate the group, (2) improving selection procedures for identification of capable students, and (3) increasing the instructor's ability to communicate.

Previous research indicated that educational programs for inmates should be coupled with a strong guidance component to provide them with an indication of their potential while still in a classroom situation.

## Chapter 3

### PROCEDURES

### HYPOTHESES

The hypotheses of this study are:

1. Important differences will be found in the cultural characteristics of young adult inmates and male college students enrolled in an initial business course.

2. Both groups of business students will have aspirations of completing additional academic work in business.

3. Both groups of business students will have similar personalities based upon the results of a standardized test, the 16PF.

4. Both groups of students will project similar personality traits when compared to personalities for successful members of selected business occupations as measured by the 16PF.

5. Both groups of business students will project similar grade point averages for completion of a college curriculum.

### TECHNIQUES

Initially the research design for this study was to identify 15 inmates to serve as the experimental group. This group consisted of all Project Newgate participants enrolled in a college business course, Introduction to Business, during the fall of 1969.



The second step was to identify subjects for the control group. All males enrolled in the four sections of Introduction to Business, at Morehead State University, were identified. A group of 15 participants was selected by random sampling to serve as the control group for this study. The control group was selected from a total of 64 males who had completed the researcher's student questionnaire during the week of December 8-12, 1969 (see Appendix A). The table of random numbers contained five columns of numbers from which columns four and five were used for the purposes of this study. The investigator selected the starting number by dropping a pencil on the table and beginning at the number closest to the point of this instrument.

The third step in the study was to administer student questionnaires to the experimental group (see Appendix B).

Data collected from the questionnaires were analyzed and formulated into tables from which cultural characteristics were determined. The cultural characteristic profiles provided comparative information for the two groups of students. A map of the United States was utilized to plot the various home towns of the two groups as an additional means of comparing these characteristics.

The Sixteen Personality Factor Questionnaire was administered to the participants to determine similarity between the control and experimental groups. The control group was administered the 16PF in either the Department of Guidance and Counseling or in the Testing Center of Morehead State University. The testing was completed on an

individual basis.<sup>17</sup> The experimental group completed the test instrument at the Federal Youth Center in a group situation. All tests were scored by personnel from the Morehead State University Testing Center.

Success grid patterns based on personality factors were available from the test manufacturer for various business occupations and peer groups. Success grid patterns for the occupations of (1) clerks (male: bank, insurance, higher grades); (2) executives and directors (business managerial), and (3) salesmen, were compared with the test subjects.

These comparisons were made to determine the suitability of the beginning business students for three selected business occupations as measured by the 16PF. In addition, both groups were compared with a group of older male inmates (N=249) convicted for petty offenses. The groups were then compared with a large group of undergraduate college students (N=1128).

The final step was to predict the academic success of the subjects based on the results of the 16PF.

#### ANALYSIS OF DATA

The first step in the analysis of the results of the Sixteen Personality Factor Questionnaire was to determine the statistical mean

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<sup>17</sup>Frank Sandage, Director of Operation Talent Search, a Morehead State University project funded by the United States Office of Education, was instrumental in providing professional testing assistance during the course of this study.

for both the experimental and control groups. The formula used was:

$$\bar{X} = \frac{\sum X}{N}$$

The symbol  $\bar{X}$  represents the mean of a set of scores on variable  $X$ ; the summation sign  $\sum$  indicates the operation of addition; and  $N$  represents the total number of cases.

Next, the pattern similarity coefficient ( $r_p$ ) was determined for the experimental group in relation to the control group. Both groups of students were then analyzed to find similarity between selected business occupations and peer groups. The method of matching a group to another group is as follows: Subtract the group's mean factor sten scores from the mean sten scores for the occupation score presented in student population stens in the Handbook for the Sixteen Personality Factor Questionnaire (pp. 21-30).<sup>18</sup> Scores for the 16 differences were written down, each carried to one decimal place, without indicating the sign of the difference. A table of squares was used to accumulate the squares of the 16 numbers (each was carried to two decimal places). The 16 squares were summed and plotted on the nomograph for  $r_p$  (appendix D) to find the value on the base line corresponding to the sum ( $\sum d^2$ ). This score was marked on the nomograph at the curve marked  $N=16$  (because there are 16 factor scores). The  $r_p$  value was found to the left of this level. From this procedure a pattern similarity coefficient ( $r_p$ ) emerged between +1.0 and -1.0 which has roughly the same meaning as a correlation coefficient (1.0=perfect). Thus, an  $r_p$  of 0 means no better agreement

<sup>18</sup>Cathell and Eber, op.cit., pp. 21-30.

than chance. An agreement of +0.3 or better between the profile of a group and that of a given occupation may be accepted as an indication of favorable adjustment to the occupation, while an  $r_p$  of +0.5 or more definitely places him with those who are typical of the occupation.<sup>19</sup>

The final step in the analysis of data was to predict the academic success of both groups on the collegiate level. Holmes has refined a formula for predicting academic success in the general college curriculum at Illinois Wesleyan University. Holmes' formula was used in this study as a basis for comparing predicted success. His basic method compared 16PF profiles of juniors and seniors (survivors) in college against profiles for freshmen (survivors plus non-survivors). The prediction equation which emerged was:

Success in a General

$$\begin{aligned} \text{College Curriculum} = & - .2 A + .6 B + .3 C - .2 F \\ & + .2 G + .1 I - .2 L - .2 M \\ & - .1 O = .1 Q_1 + .4 Q_3 - .2 Q_4 \end{aligned}$$

The result of applying the above formula to individual personality factors was a predicted grade point average (GPA) for students.<sup>20</sup>

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<sup>19</sup>Cathell and Eber, op. cit., p. 31.

<sup>20</sup>Bulletin #4, op.cit.

## Chapter 4

### THE RESULTS

#### STUDENT BACKGROUNDS

One of the hypotheses of this study stated there would be important differences in the cultural environments of the two groups of students. The following data shows these differences:

Number  
of  
Siblings

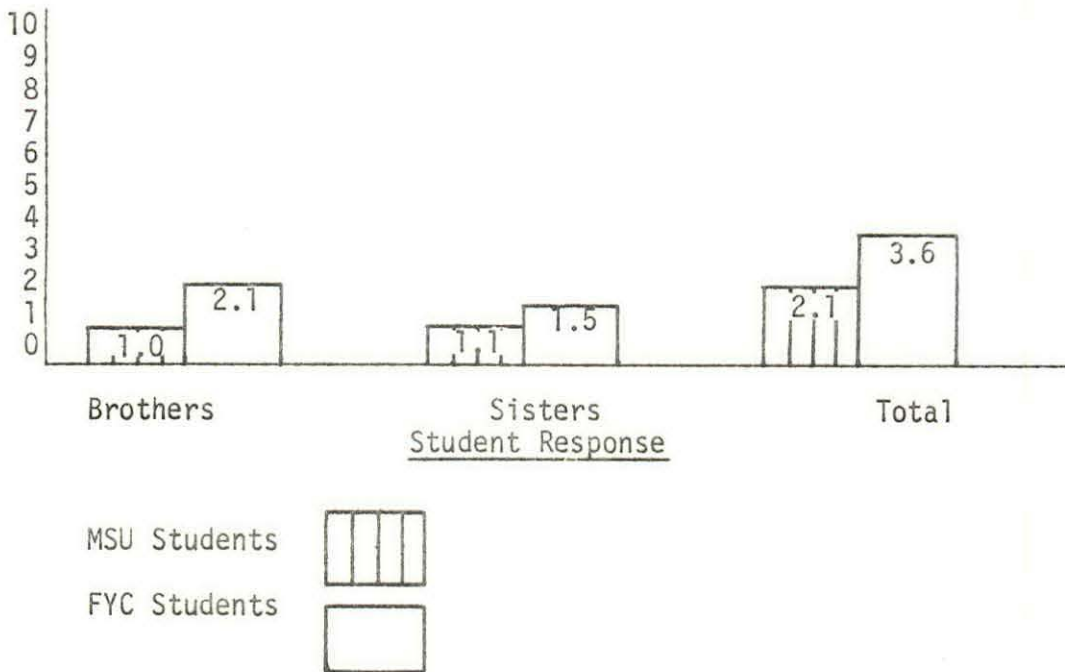


Figure 1

Mean Number of Siblings of  
Beginning Business  
Students

Figure 1, page 20, indicates the mean number of siblings for the inmate and regular groups of beginning business students.

The inmate respondents reported that they were reared in larger families than were the University business students. Each inmate had a mean number of 2.1 brothers and 1.5 sisters or a 3.6 combination. In comparison, the regular freshman student group reported a mean number of brothers of 1.0 and sisters of 1.1 or 2.1 siblings.

Figure 2, page 22, indicates the mean age of the two groups of business students. The inmate population was older than the male freshman group.

The mean age of the regular Morehead State University (MSU) freshmen in business was 18.9 years. The average age of students enrolled by extension at the Federal Youth Center (FYC) was 20.6 years. A difference of 1.7 years existed.

Mean Age

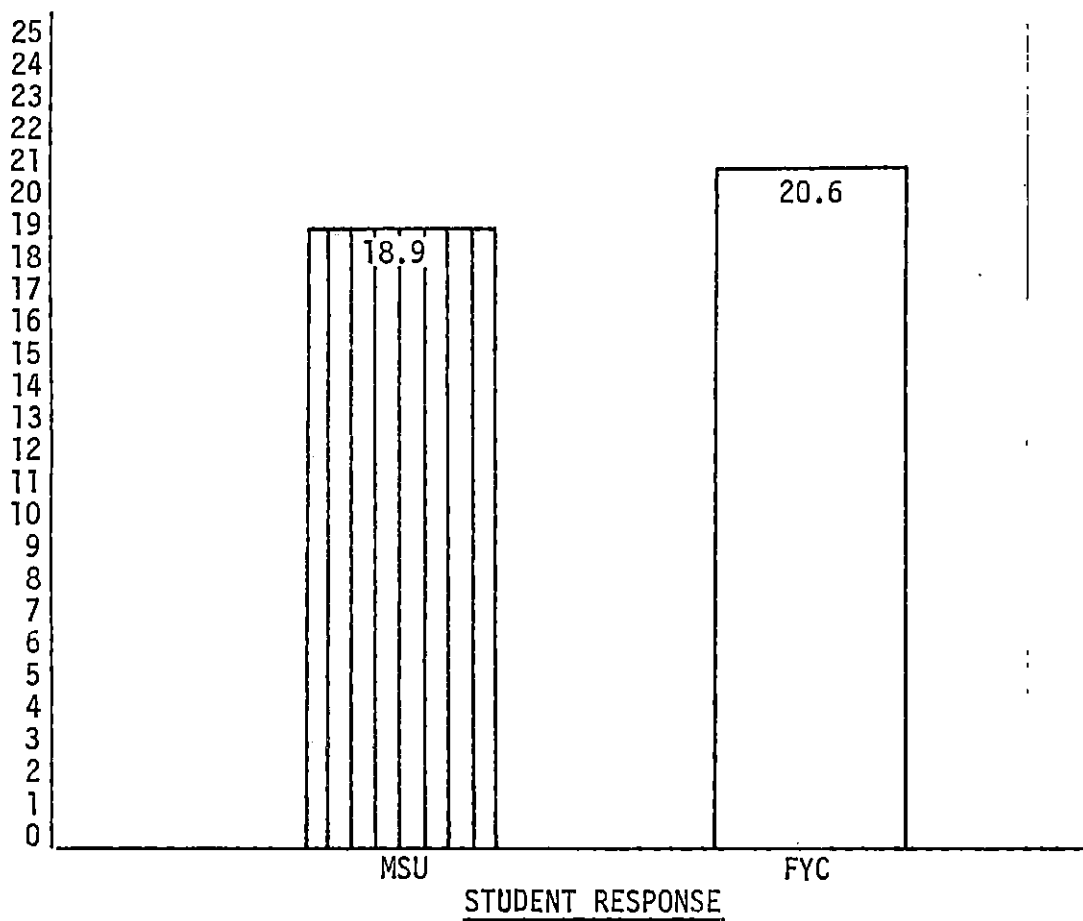


Figure 2

Mean Age (Nearest Birthday)  
of Beginning Business  
Students

Table 2  
Occupation of Fathers  
of Beginning Business  
Students

Occupation Title	Frequency	
	MSU	FYC
Accountant (including CPA)	1	2
Automobile Dealer (owner)	1	0
Automobile Service Station (owner)	0	1
Bricklayer	1	0
Construction Worker (including laborer and driller)	2	4
Cook	1	0
Electrician	0	1
Farmer	1	0
Gas Company Employee	4	0
Machinist	1	1
Merchant	1	0
No Father	2	3
Retired From Employment	0	2
Steel Inspector	0	1
TOTAL	15	15

It was determined that the occupation of the father was similar for all beginning business students. As indicated in Table 2, the greatest number of fathers were employed in construction (FYC:4) and as gas company employees (MSU:4). These two occupation titles were considered to be similar in terms of status, rate of compensations, and skills required for preparation.



Table 3  
Occupation of Mothers of  
Beginning Business  
Students

Occupation Title	Frequency	
	MSU	FYC
Housewife	1	6
None Reported	11	5
Nurse	0	2
Nurse's Aide	0	1
Police Secretary	1	0
Store Clerk	1	0
Teacher	0	1
Telephone Operator	1	0
TOTAL	15	15

The reported occupations of mothers was not conclusive as a large number of students did not respond to this question. However, the number of reported employed mothers was comparable. As indicated in Table 3, no occupation outside the home was reported more than twice for either group.

Figure 3, page 25, indicates important differences in the size of the home town in which each beginning business student was reared.

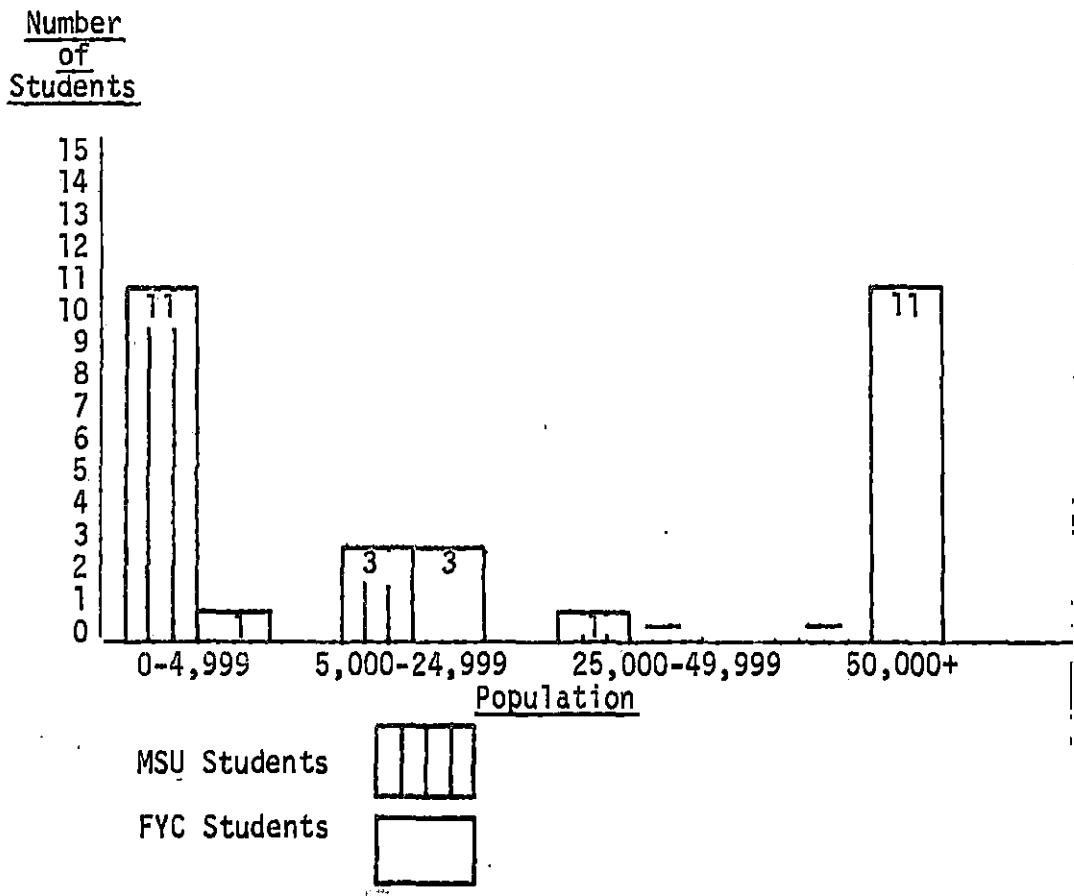


Figure 3  
Size of Home Town of Beginning Business Students

The majority of regular University students reported that they were reared in a rural area while most of the inmate group indicated they grew up in an urban setting. Figure 3 shows a total of 11 regular students reared in a community of 0-4,999 citizens. The majority of the inmate population, 11 students, had been reared in a home town of 50,000 or more citizens.

Figure 4, on the following page, indicates the geographic location of the home town of each of the beginning business students. Important

MOREHEAD STATE UNIVERSITY  
JOHNSON CAMDEN LIBRARY  
MORRISTOWN, KENTUCKY



Figure 4

Geographic Location of Home Towns for Beginning Business Students

differences are evident in Figure 4, as the majority of regular business students came from the eastern Kentucky region in which Morehead State University is located. The inmate student group reported 15 different home town locations throughout the eastern United States. The majority of inmates were from large urban areas (Figure 3, page 25) outside Kentucky.

ACADEMIC GOALS OF THE STUDENTS

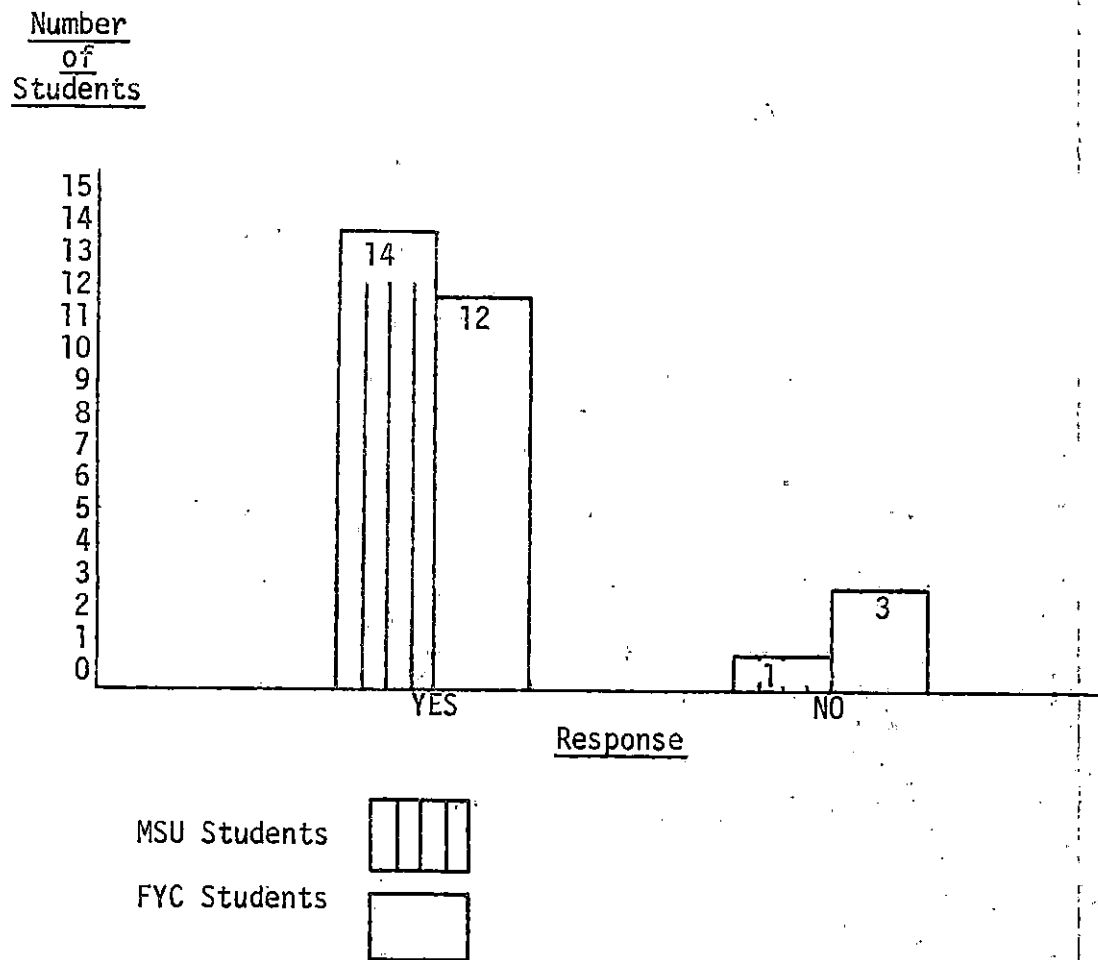


Figure 5

Number of Beginning Business Students  
 Planning to Continue Their  
 Study of Business Subjects

Figure 5, page 27, indicates the number of beginning business students who planned to continue an academic program in business.

Both groups of students were asked if they planned to continue their study of business subjects after completion of the Introduction to Business course. Introduction to Business is a survey course designed to help students determine their interest in seeking additional academic preparation in business. The majority of students in both groups reported that they planned to continue their study of business. Fourteen regular students and 12 inmates indicated they would enroll in other business courses. For the control group this meant seeking additional courses at Morehead State University or another institution to which they might transfer. However, for 12 individuals in the experimental group this indicated an interest in enrolling in future business courses through Project Newgate or in a college or university following their release from the Federal Youth Center.

Table 4

Academic Objective of Beginning  
Business Students Who Plan  
To Continue Their Study  
of Business Subjects

Academic Objective	Frequency	
	MSU	FYC
One-year program in business	1	4
Two-year program in business	0	2
Minor in business	0	2
Major in business	11	3
Area of concentration in business	2	1
TOTAL	14	12

Differences in the academic objectives of the two groups are presented in Table 4 on page 28.

Of those regular freshmen students planning to continue their study of business subjects, 11 indicated that they planned to obtain an academic major in business. Table 4 indicates that the inmates were more uncertain about their academic objectives than were the regular student group.

Table 5, below, indicates the career objectives for both groups of beginning business students as indicated on the students' questionnaire.

Table 5  
Career Objective of Beginning Business  
Students Who Plan to Continue  
Their Study of Business  
Subjects

Career Objective Work Area	Frequency	
	MSU	FYC
Accounting	1	2
Business Education	1	0
Data Processing	1	2
Field Outside Business	0	0
Management	3	1
Marketing	2	1
Risk Management	0	0
Undecided	6	6
TOTAL	14	12

Those students who planned to continue their study of business either indicated a variety of interests or were undecided as to a chosen career. Six students in each group were undecided.

Three Morehead State University freshmen were interested in a career in management. Two regular University students indicated that marketing was their field of interest. The inmate students showed interest in accounting and data processing with two students indicating an interest in each of these fields.

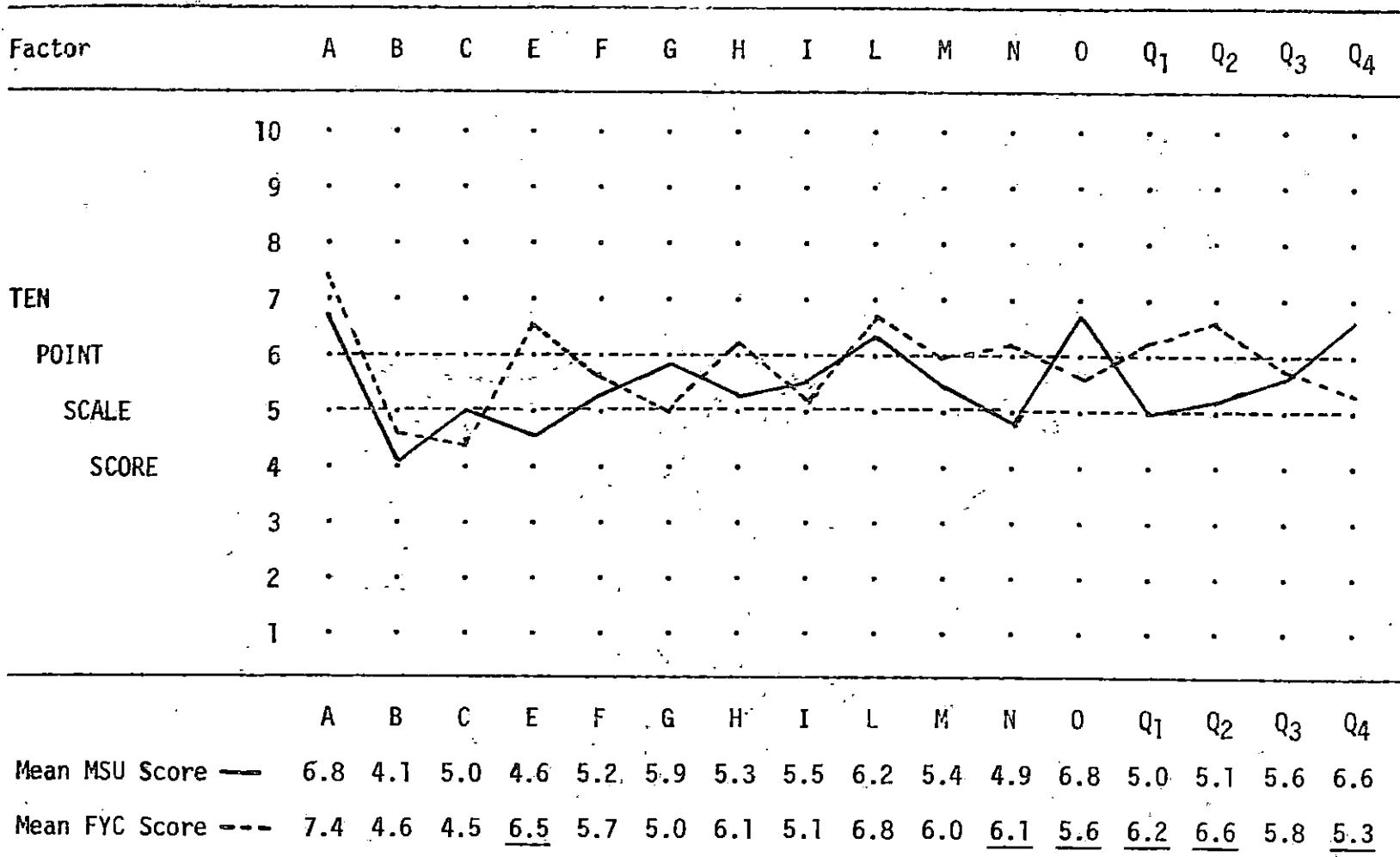
### PERSONALITY TEST RESULTS

#### Comparison of the Beginning Business Students

The Sixteen Personality Factor Questionnaire (16PF) was administered to the experimental and control groups for the purpose of determining similarities between the groups.

Results of the 16PF are presented below. The test results indicated that a great deal of similarity existed.

Figure 6, on the following page, represents the group test results for both the inmates and regular college students. As Figure 6 shows, there were differences between the two groups on individual personality factors. For instance, (1) Factor E indicated that the inmates were more assertive than the regular college students who were determined to be somewhat humble. Additional differences of greater than one sten (standard ten score) were noted for (2) Factor N, Shrewd versus Forthright; (3) Factor O, Apprehensive versus Self-Assured; (4) Factor Q<sub>1</sub>, Experimenting versus Conservative; (5) Factor Q<sub>2</sub>, Self-Sufficient versus Group-Dependent; and (6) Factor Q<sub>4</sub>, Tense versus Relaxed. Table 1, page 6, contains the bipolar description for each of the personality factors. For example, Factor C is described as Emotional Stability or Ego Strength (mature, calm) versus Dissatisfied Emotionally



Underlined Values Are Significantly Different from the Control Group

Figure 6

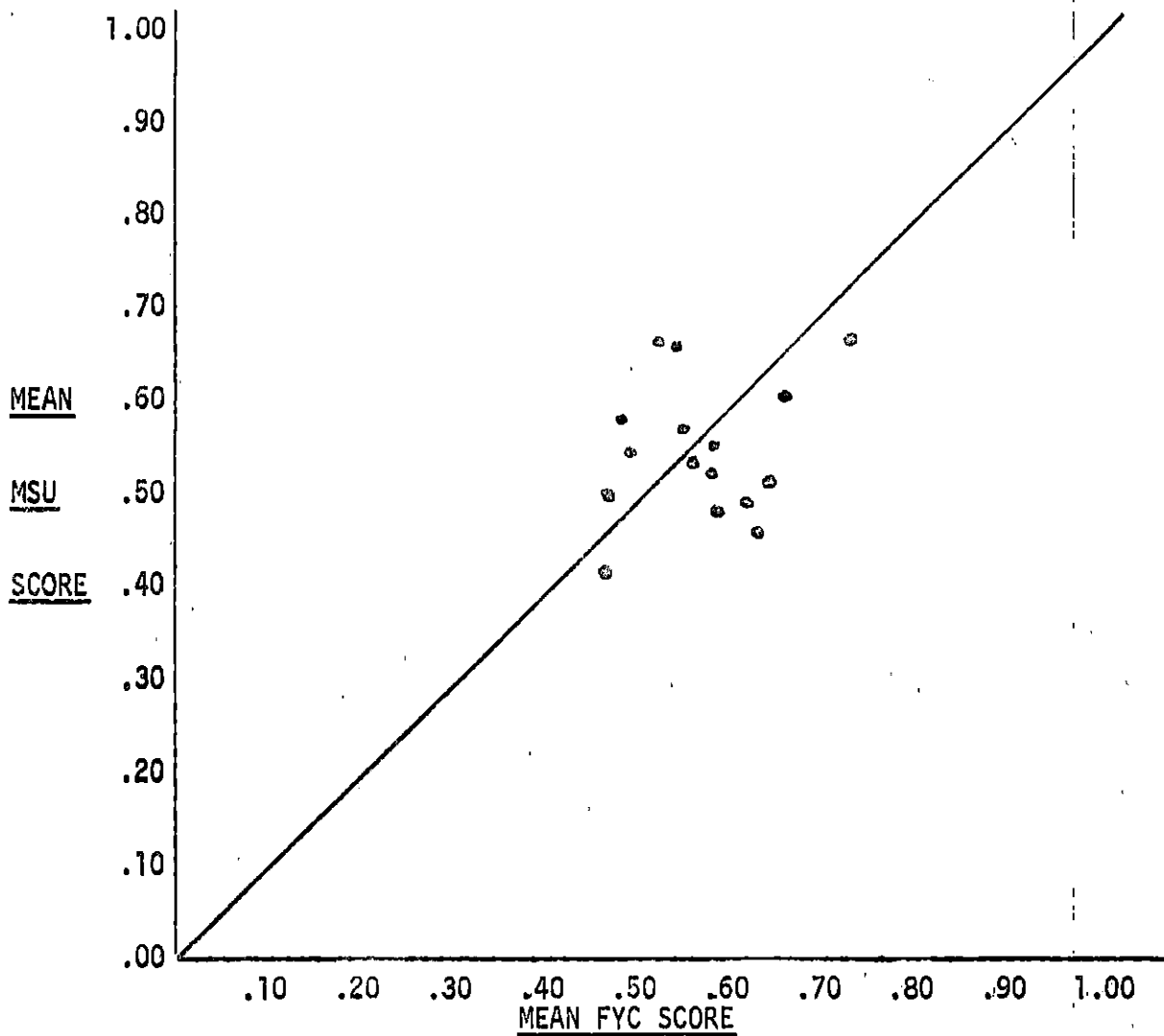
Mean Test Results for Morehead State University and  
Federal Youth Center Beginning Business Students  
on the 16PF



(emotional, immature, unstable). Results indicated that the Federal Youth Center students were (1) more assertive, (2) more shrewd, (3) more self-assured, (4) more experimenting, (5) more self-sufficient, and (6) more relaxed than the regular freshmen business students. However, little difference was found between the groups when the similarity coefficient ( $r_p$ ) was applied to the combined personality test results. The evidence indicated that a great deal of similarity existed between the personalities of the two groups of students.

Using the regular college students as the control group and comparing the experimental group's score to that of the control group resulted in a coefficient ( $r_p$ ) of .81 (1.00=perfect). The similarity is presented graphically in Figure 7, page 33.

As the linear graph in Figure 7 shows, a great deal of similarity existed between the personalities of the two groups. The linear graph is designed to indicate similarity when the points are close to the slanted line representing perfect ( $r_p=1.0$ ) relationship. These test results indicated that the inmates and regular college students would be comparable in the college classroom, as measured by the Sixteen Personality Factor Questionnaire.



Similarity Coefficient ( $r_p$ ) = .81

Figure 7

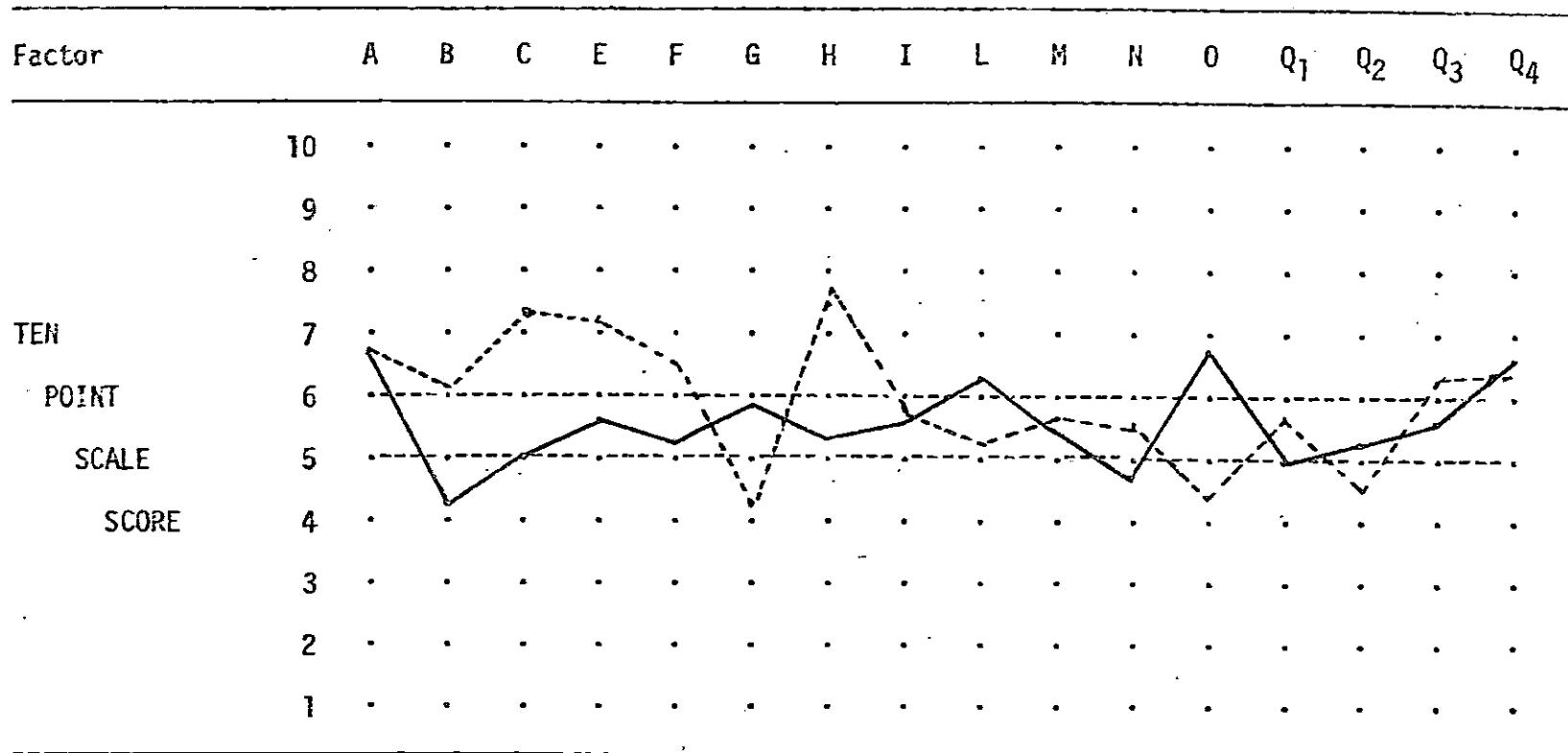
Linear Graph Comparing the Personalities  
of Morehead State University and  
Federal Youth Center Beginning  
Business Students as  
Measured by the  
16PF

Comparison with Other  
Undergraduate College Students

Figure 8, page 35, and Figure 9, page 36, indicate the results of the personality factor test for the control (Figure 8) and experimental (Figure 9) groups as compared to test results obtained on a larger sample of undergraduate college students from Pennsylvania State University.

The results of the 16PF shown in Figure 8 indicate that eight individual factors had a variance of greater than one sten. These differences were recorded for (1) Factor B, More Intelligent versus Less Intelligent; (2) Factor C, Emotionally Stable versus Affected By Feelings; (3) Factor E, Assertive versus Humble; (4) Factor F, Happy-Go-Lucky versus Sober; (5) Factor G, Conscientious versus Expedient; (6) Factor H, Venturesome versus Shy; (7) Factor L, Suspicious versus Trusting; and (8) Factor O, Apprehensive versus Self-Assured. The larger population of undergraduate college students was found to be (1) more intelligent, (2) more emotionally stable, (3) more assertive, (4) more happy-go-lucky, and (5) more venturesome than Morehead State University freshmen in business. The Morehead freshmen were found to be (1) more conscientious, (2) more suspicious, and (3) more apprehensive than the larger group of freshmen and upper classmen.

Figure 9, page 36, indicates that six areas of difference were found between the inmates and Pennsylvania State University students. The six factors having a difference of greater than one sten were (1) Factor B, More Intelligent versus Less Intelligent; (2) Factor C, Emotionally Stable versus Affected By Feelings; (3) Factor H, Venturesome versus Shy; (4) Factor L, Suspicious versus Trusting; (5) Factor O, Apprehensive versus Self-Assured; and



Underlined Values Are Significantly Different from the Control Group

Figure 8

Mean Test Results for Morehead State University  
 Students as Compared to Undergraduate  
 College Students (N=1128) on the  
 16PF

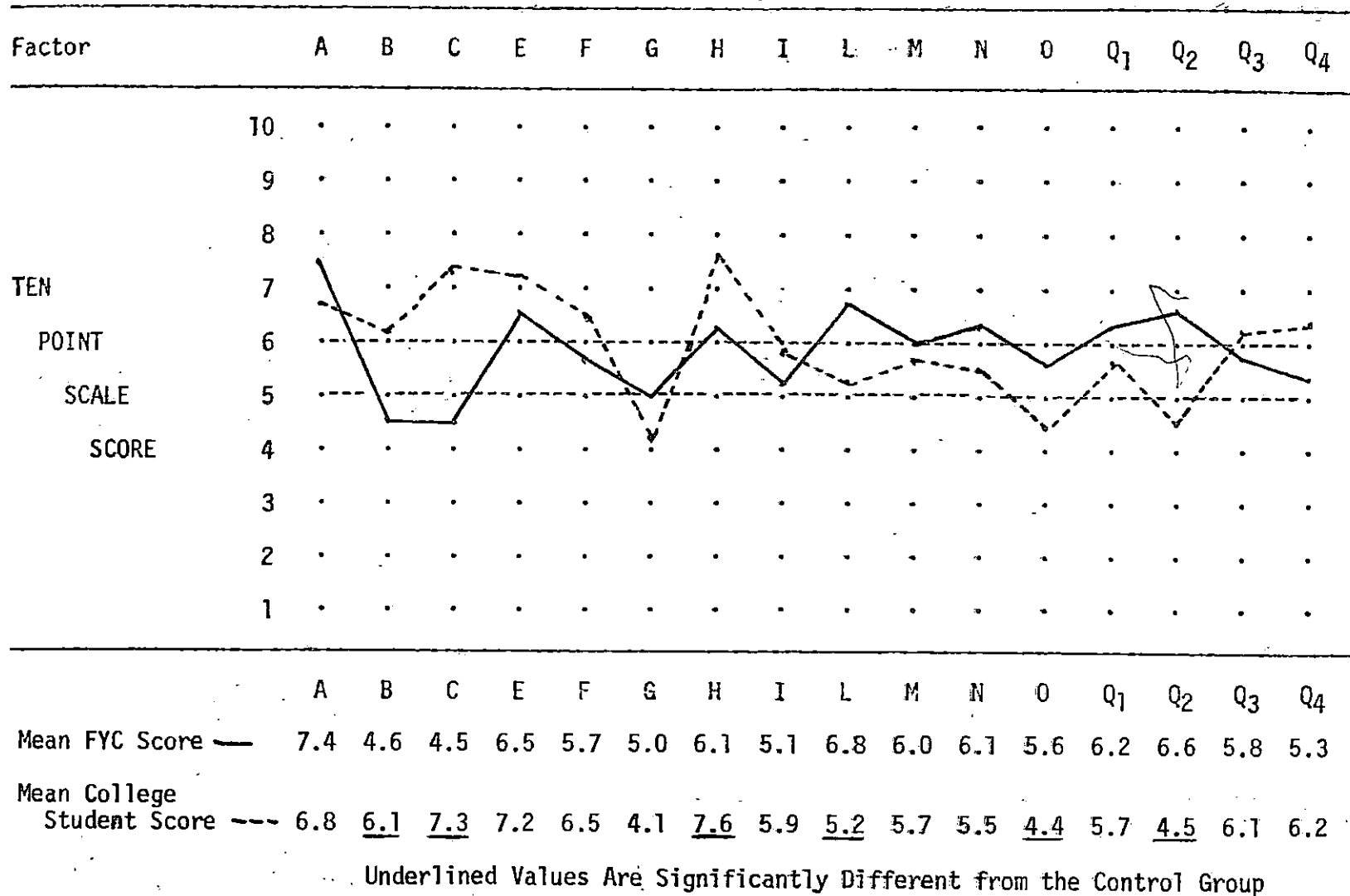


Figure 9

Mean Test Results for Federal Youth Center  
 Students as Compared to Undergraduate  
 College Students (N=1128) on the  
 16PF

(6) Factor Q<sub>2</sub>, Self-Sufficient versus Group-Dependent. The Pennsylvania State University students were determined to be (1) more intelligent (2) more emotionally stable, and (3) more venturesome than the inmates. The Federal Youth Center students were found to be (1) more suspicious, (2) more apprehensive, and (3) more self-sufficient than the larger group of college students.

The older group of inmates had two less areas of difference with Pennsylvania State University students than did the Morehead State University freshmen.

When the similarity coefficient ( $r_p$ ) was applied to both groups of beginning business students in relation to the Pennsylvania State University students, only average coefficients were found.

As shown in Figure 10, page 38, the Morehead State University freshmen had a .56 coefficient with the larger group of students. The inmate group had a slightly higher correlation, .67, with the Pennsylvania State University students.

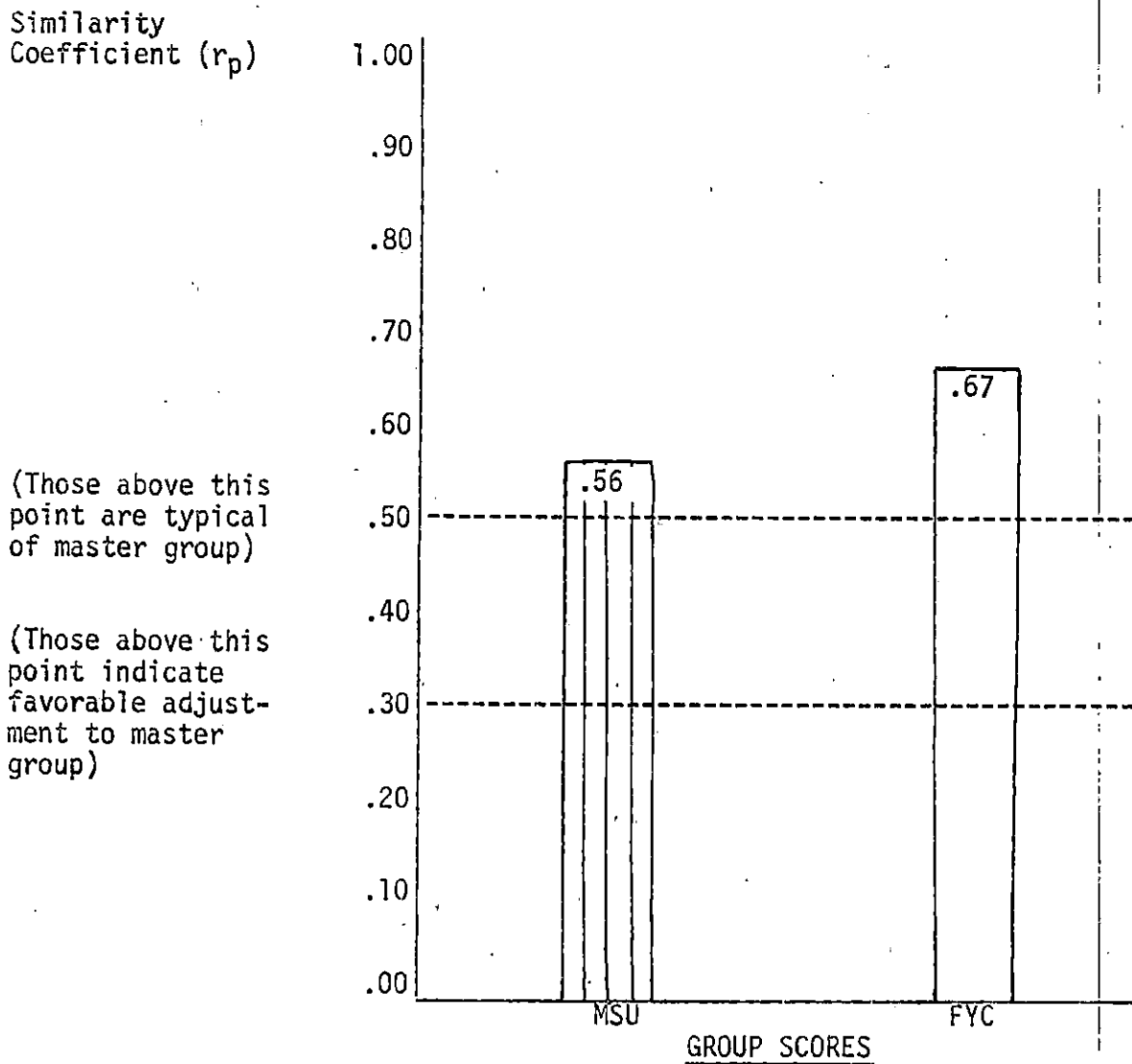


Figure 10

Similarity Coefficient ( $r_p$ ) for Beginning Business Students in Relation to Pennsylvania State University Students

### Comparison With Other Inmates

Figure 11, page 40, presents a comparison of 16PF test results for the 249 male convicts and the regular University freshmen. As shown in Figure 11, differences of greater than one sten were found for six of the 16 personality factors. The areas of difference were (1) Factor A, Outgoing versus Reserved; (2) Factor C, Emotionally Stable versus Affected By Feelings; (3) Factor G, Conscientious versus Expedient; (4) Factor I, Tender-Minded versus Tough-Minded; (5) Factor M, Imaginative versus Practical; and (6) Factor Q<sub>2</sub>, Self-Sufficient versus Group-Dependent. The regular University students were (1) more outgoing, (2) more emotionally stable, and (3) more conscientious than the older group of petty convicts. The convicts were (1) more tender-minded, (2) more imaginative, and (3) more self-sufficient than the regular freshmen business students.

Figure 12, on page 41, exemplifies the differences in personality factors that existed between the experimental group and another group of 249 male convicts, mostly petty offenders.<sup>21</sup> Differences of greater than one sten were found for five of the 16 personality factors. The areas of difference were (1) Factor A, Outgoing versus Reserved; (2) Factor E, Assertive versus Humble; (3) Factor I, Tender-Minded versus Tough-Minded; (4) Factor Q<sub>1</sub>, Experimenting versus Conservative; and (5) Factor Q<sub>4</sub>, Tense versus Relaxed (more detailed information about each factor is available in Table 1, page 6). The Federal Youth Center students were: (1) more outgoing, (2) more assertive, and (3) more

<sup>21</sup> IPAT Information Bulletin #6, 1960.



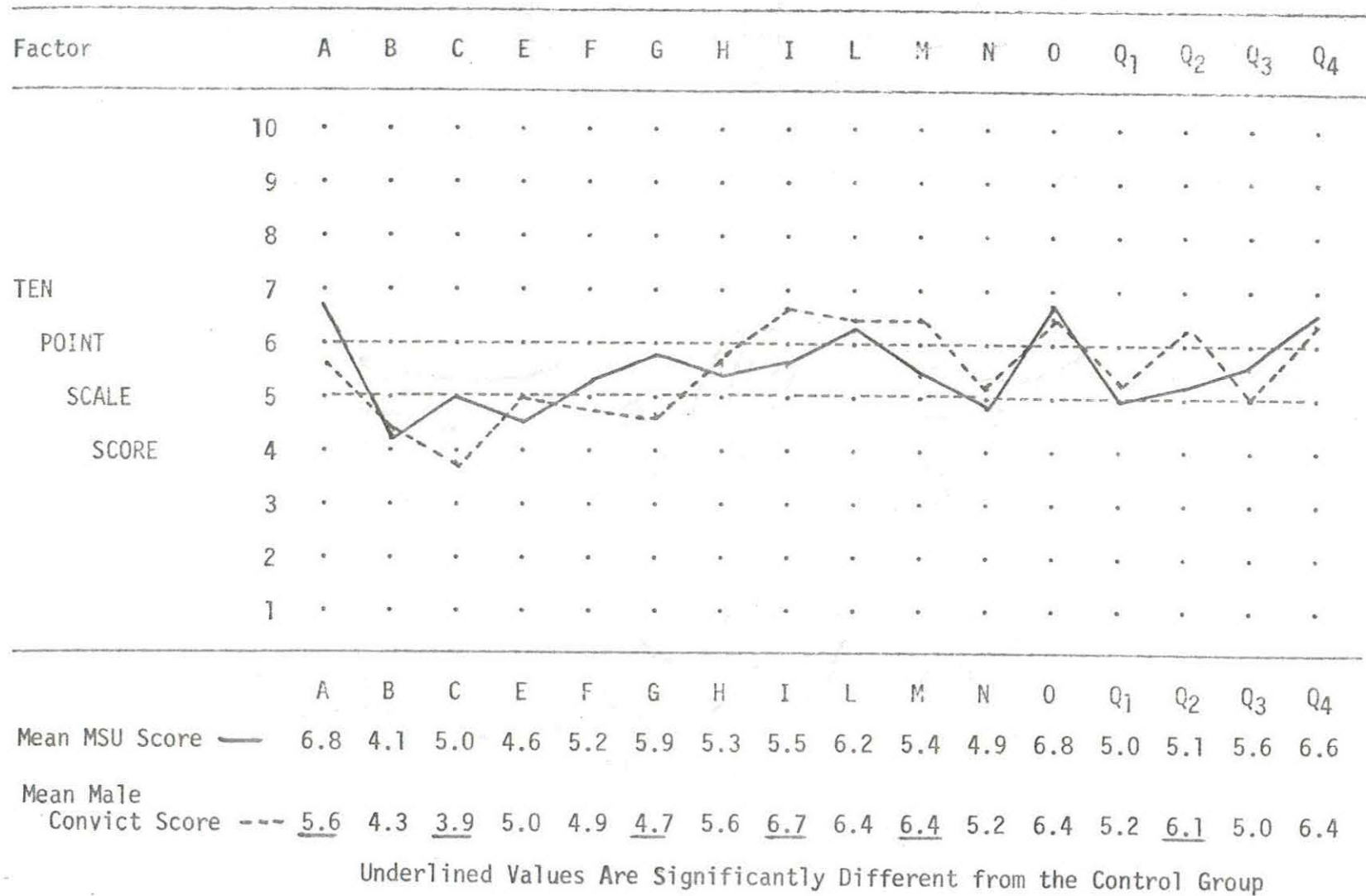


Figure 11

Mean Test Results for Morehead State University Students  
as Compared to 249 Male Convicts, Mostly Petty  
Offenders on the 16PF

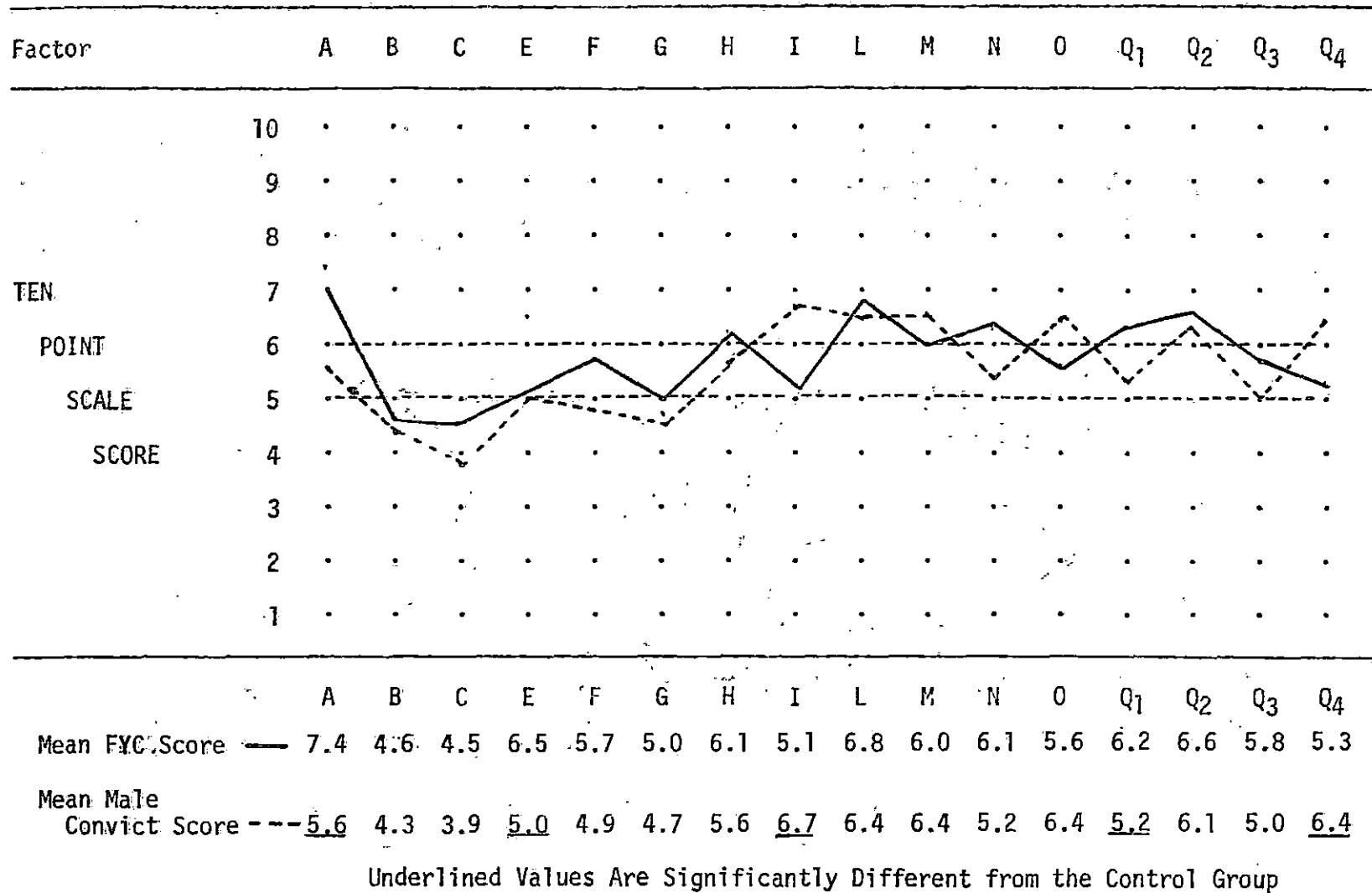


Figure 12

Mean Test Results for Federal Youth Center Students  
as Compared to 249 Male Convicts, Mostly  
Petty Offenders on the 16PF

experimenting than the older group of petty offenders. The older convicts were found to be (1) more tender-minded and (2) more tense than Federal Youth Center students.

Although there were obvious deviations on individual personality factors for the control and experimental groups in relation to the older convict group, a relatively high similarity coefficient ( $r_p$ ) was obtained.

Figure 13, on the following page, indicates that both the control and experimental groups were found to have a coefficient above the .50 level when compared to 249 convicts. The control group had a similarity coefficient of .86 while the Federal Youth Center students had a similarity coefficient ( $r_p$ ) of .81 in relation to the personalities of an older group of male convicts.

Similarity Coefficient ( $r_p$ )

(Those above this point are typical of master group)

(Those above this point indicate favorable adjustment to master group)

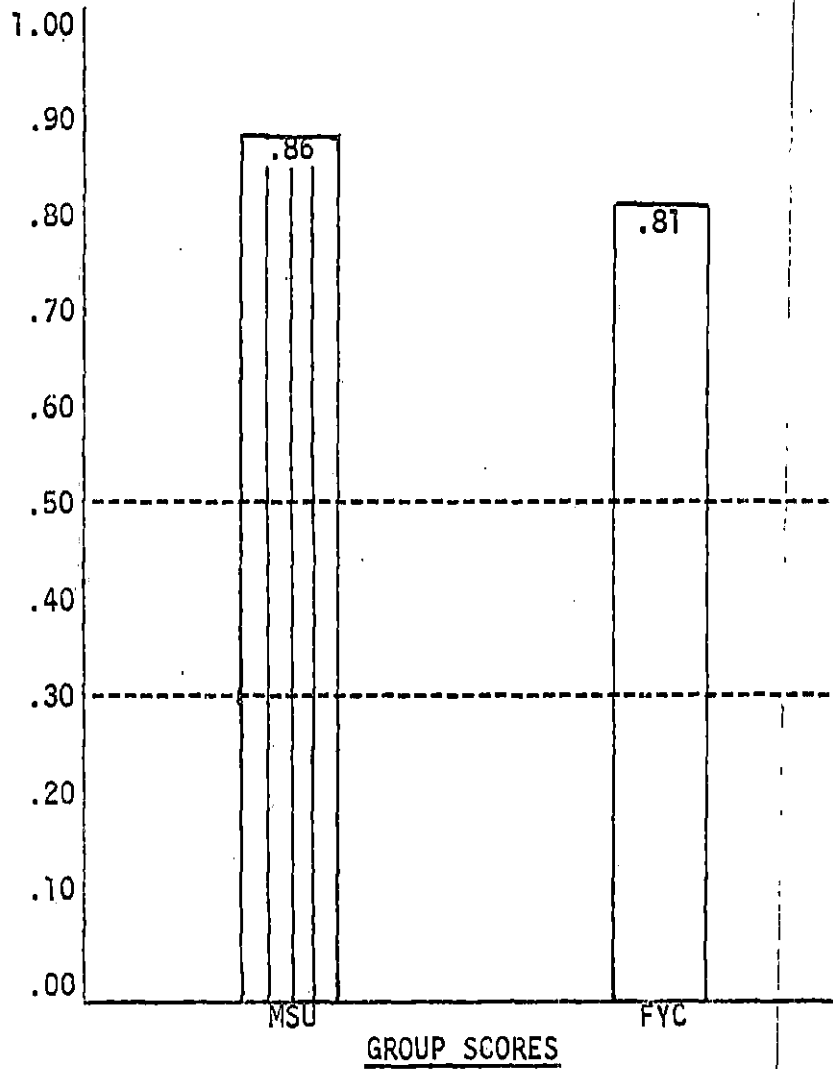


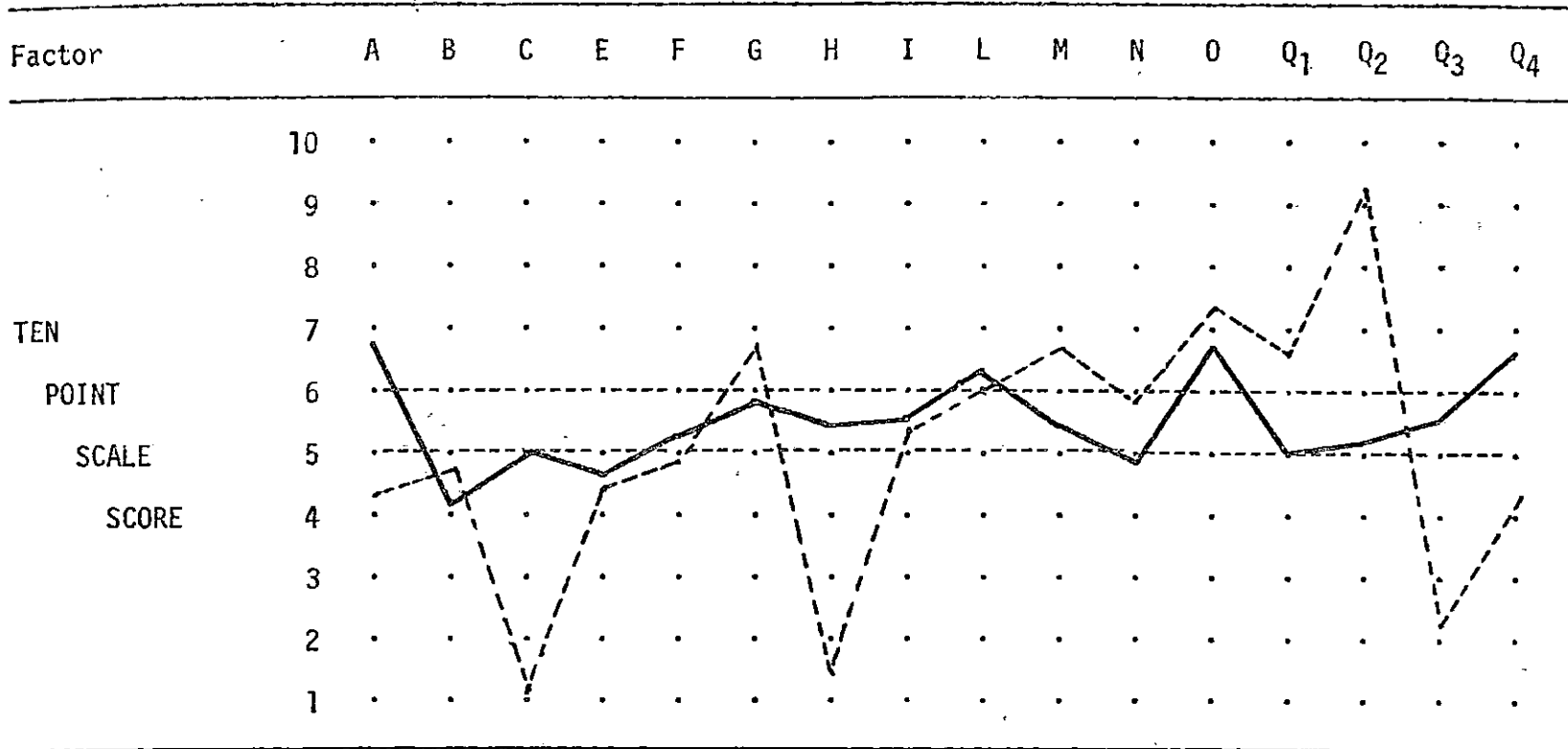
Figure 13

Similarity Coefficient ( $r_p$ ) for Beginning Business Students in Relation to 249 Male Convicts, Mostly Petty Offenders

### Comparison with Business Clerks

Figure 14, page 45, represents a comparison of 16PF test results for 12 business clerks (male: bank, insurance, higher grades) and the regular University freshmen. Differences of greater than one sten were found for nine of the 16 personality factors. The areas of difference were (1) Factor A, Outgoing versus Reserved; (2) Factor C, Emotionally Stable versus Affected By Feelings; (3) Factor H, Venturesome versus Shy; (4) Factor M, Imaginative versus Practical; (5) Factor N, Shrewd versus Forthright; (6) Factor Q<sub>1</sub>, Experimenting versus Conservative; (7) Factor Q<sub>2</sub>, Self-Sufficient versus Group Dependent; (8) Factor Q<sub>3</sub>, Controlled versus Undisciplined Self-Conflict; (9) Factor Q<sub>4</sub>, Tense versus Relaxed. The regular University students were (1) more outgoing, (2) more emotionally stable, (3) more venturesome, (4) more controlled, and (5) more tense than the group of clerks. The clerks were (1) more imaginative, (2) more shrewd, (3) more experimenting, (4) and more self-sufficient than the regular freshmen business students.

Figure 15, page 46, presents a comparison of 16PF test results for the 12 clerks (male: bank, insurance, higher grades) and the Federal Youth Center students. As indicated in Figure 15, differences of greater than one sten were found for nine of the 16 personality factors. The areas of difference were (1) Factor A, Outgoing versus Reserved; (2) Factor C, Emotionally Stable versus Affected by Feelings; (3) Factor E, Assertive versus Humble; (4) Factor G, Conscientious versus Expedient; (5) Factor H, Venturesome versus Shy; (6) Factor O,

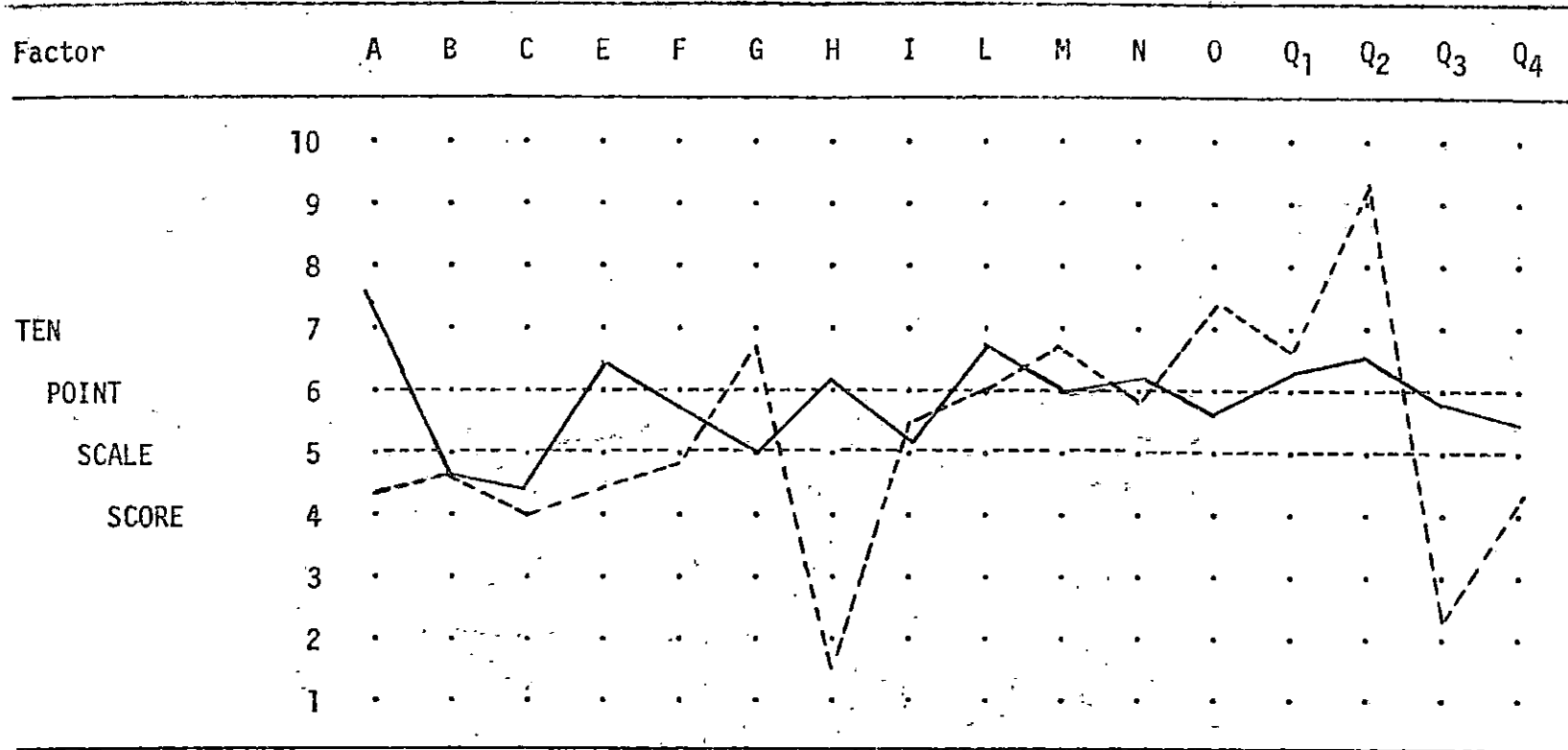


	A	B	C	E	F	G	H	I	L	M	N	O	Q1	Q2	Q3	Q4
Mean MSU Score —	6.8	4.1	5.0	4.6	5.2	5.9	5.3	5.5	6.2	5.4	4.9	6.8	5.0	5.1	5.6	6.6
Mean Clerk Score ---	<u>4.3</u>	4.6	<u>1.1</u>	4.4	4.9	6.8	<u>1.5</u>	5.4	6.0	<u>6.7</u>	<u>5.9</u>	7.3	<u>6.8</u>	<u>9.3</u>	<u>2.1</u>	<u>4.3</u>

Underlined Values Are Significantly Different from the Control Group

Figure 14

Mean Test Results for Morehead State University Students  
 as Compared to 12 Clerks (Male: Bank,  
 Insurance, Higher Grades)  
 on the 16PF



	A	B	C	E	F	G	H	I	L	M	N	O	Q <sub>1</sub>	Q <sub>2</sub>	Q <sub>3</sub>	Q <sub>4</sub>
Mean FYC Score —	7.4	4.6	4.5	6.5	5.7	5.0	6.1	5.1	6.8	6.0	6.1	5.6	6.2	6.6	5.8	5.3
Mean Clerk Score ---	<u>4.3</u>	4.6	<u>1.1</u>	<u>4.4</u>	4.9	<u>6.8</u>	<u>1.5</u>	5.4	6.0	6.7	5.9	<u>7.3</u>	6.8	<u>9.3</u>	<u>2.1</u>	<u>4.3</u>

Underlined Values Are Significantly Different from the Control Group

Figure 15

Mean Test Results for Federal Youth Center Students  
 as Compared to 12 Clerks (Male: Bank,  
 Insurance, Higher Grades)  
 on the 16PF

Apprehensive versus Self-Assured; (7) Factor Q<sub>2</sub>, Self-Sufficient versus Group-Dependent; (8) Factor Q<sub>3</sub>, Controlled versus Undisciplined Self-Conflict; and (9) Factor Q<sub>4</sub>, Tense versus Relaxed. The Federal Youth Center students were shown to be (1) more outgoing, (2) more emotionally stable, (3) more assertive, (4) more venturesome, (5) more controlled, and (6) more tense than the group of clerks. The clerks were found to be (1) more conscientious, (2) more apprehensive, and (3) more self-sufficient than the Federal Youth Center students.

There were obvious deviations on several of the individual personality factors in relation to the 12 clerks resulting in a low similarity coefficient ( $r_p$ ). Figure 16, page 48, indicates both the control and experimental groups correlate below the coefficient of .30 when compared to the business occupation of clerk. The control group had a coefficient of .20 and the experimental group had a coefficient of .22 in relation to the personalities of the group of clerks.

#### Comparison with Executives and Directors

Figure 17, page 49, shows a comparison of 16PF test results for 63 Executives and Directors (business managerial) and the Morehead State University students. As determined in Figure 17, differences of greater than one sten were found for nine of the 16 personality factors. The areas of difference were (1) Factor A, Outgoing versus Reserved; (2) Factor B, More Intelligent versus Less Intelligent; (3) Factor G, Conscientious versus Expedient; (4) Factor H, Venturesome versus Shy; (5) Factor N, Shrewd versus Forthright; (6) Factor Q<sub>1</sub>, Experimenting versus Conservative; (7) Factor Q<sub>2</sub>, Self-Sufficient versus



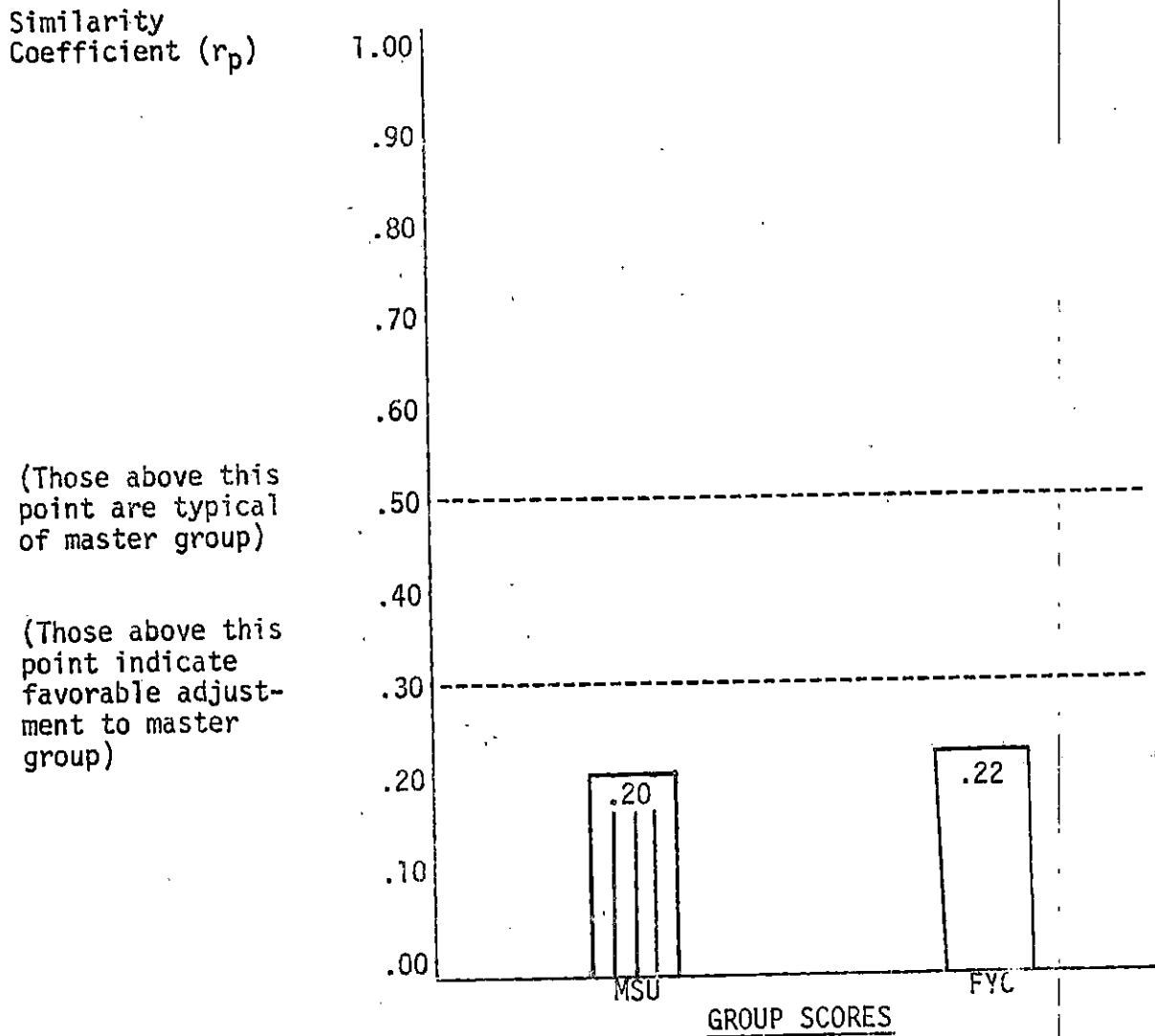


Figure 16

Similarity Coefficient ( $r_p$ ) for Beginning Business Students in Relation to 12 Clerks (Male: Bank, Insurance, Higher Grades) on the 16PF

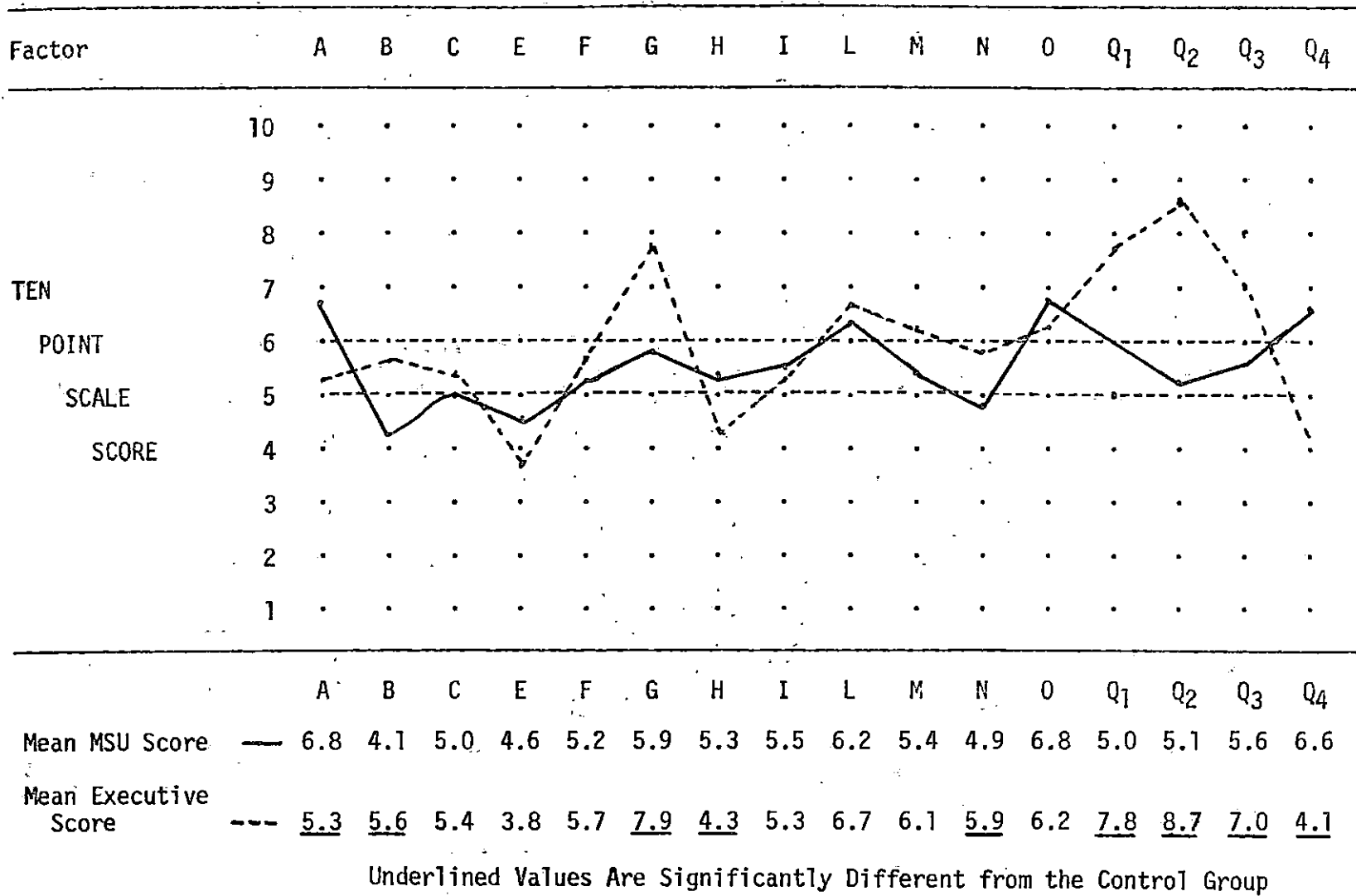


Figure 17

Test Results for Morehead State University Students  
as Compared to 63 Executives and Directors  
(Business Managerial) on the 16PF

Group-Dependent; (8) Factor Q<sub>3</sub>, Controlled versus Undisciplined Self-Conflict; and (9) Factor Q<sub>4</sub>, Tense versus Relaxed. The results indicate the executives to be (1) more intelligent, (2) more conscientious, (3) more shrewd, (4) more experimenting, (5) more self-sufficient, and (6) more controlled than the Morehead State University students. The University students were found to be (1) more outgoing, (2) more venturesome, and (3) more tense than the group of executives.

Figure 18, page 51, represents a comparison of 16PF test results for the 63 Executives and Directors (business managerial) and the Federal Youth Center students. Differences of greater than one step were found for nine of the 16 personality factors. These were (1) Factor A, Outgoing versus Reserved; (2) Factor B, More Intelligent versus Less Intelligent; (3) Factor E, Assertive versus Humble; (4) Factor G, Conscientious versus Expedient; (5) Factor H, Venturesome versus Shy; (6) Factor Q<sub>1</sub>, Experimenting versus Conservative; (7) Factor Q<sub>2</sub>, Self-Sufficient versus Group-Dependent; (8) Factor Q<sub>3</sub>, Controlled versus Undisciplined Self-Conflict; and (9) Factor Q<sub>4</sub>, Tense versus Relaxed. The executive group was found to be (1) more intelligent, (2) more conscientious, and (3) more self-sufficient than the Federal Youth Center students. The Federal Youth Center students were shown to be (1) more outgoing, (2) more assertive, (3) more venturesome, and (4) more tense than the executive group.

Figure 19, page 52, shows that the control and experimental groups correlate above the coefficient of .50 when compared to the group of executives. The control group had a coefficient of .52 and the experimental group a coefficient of .55 in relation to the personalities of the group of executives.

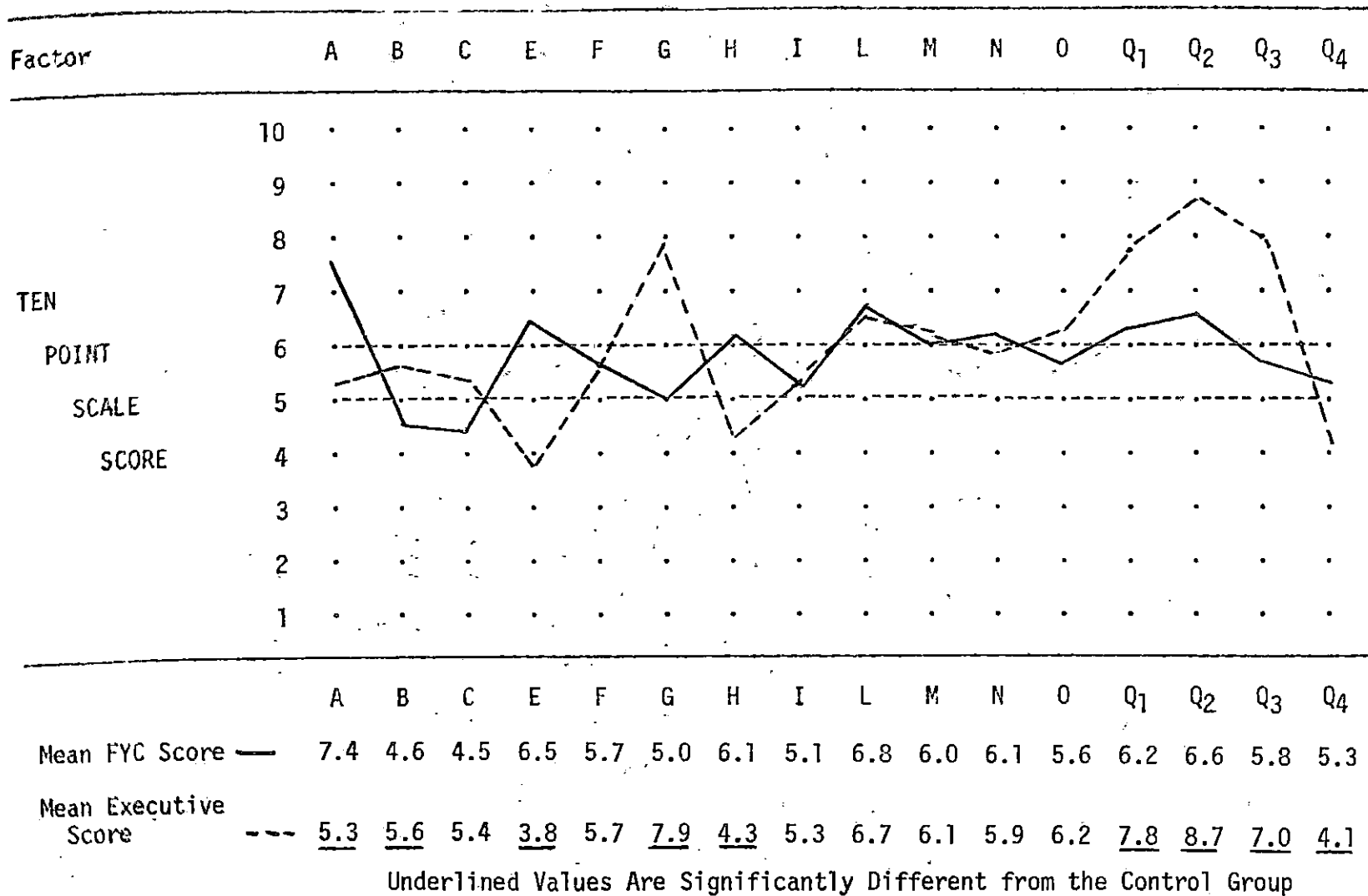


Figure 18

Mean Test Results for Federal Youth Center Students  
as Compared to 63 Executives and Directors  
(Business Managerial) on the 16PF

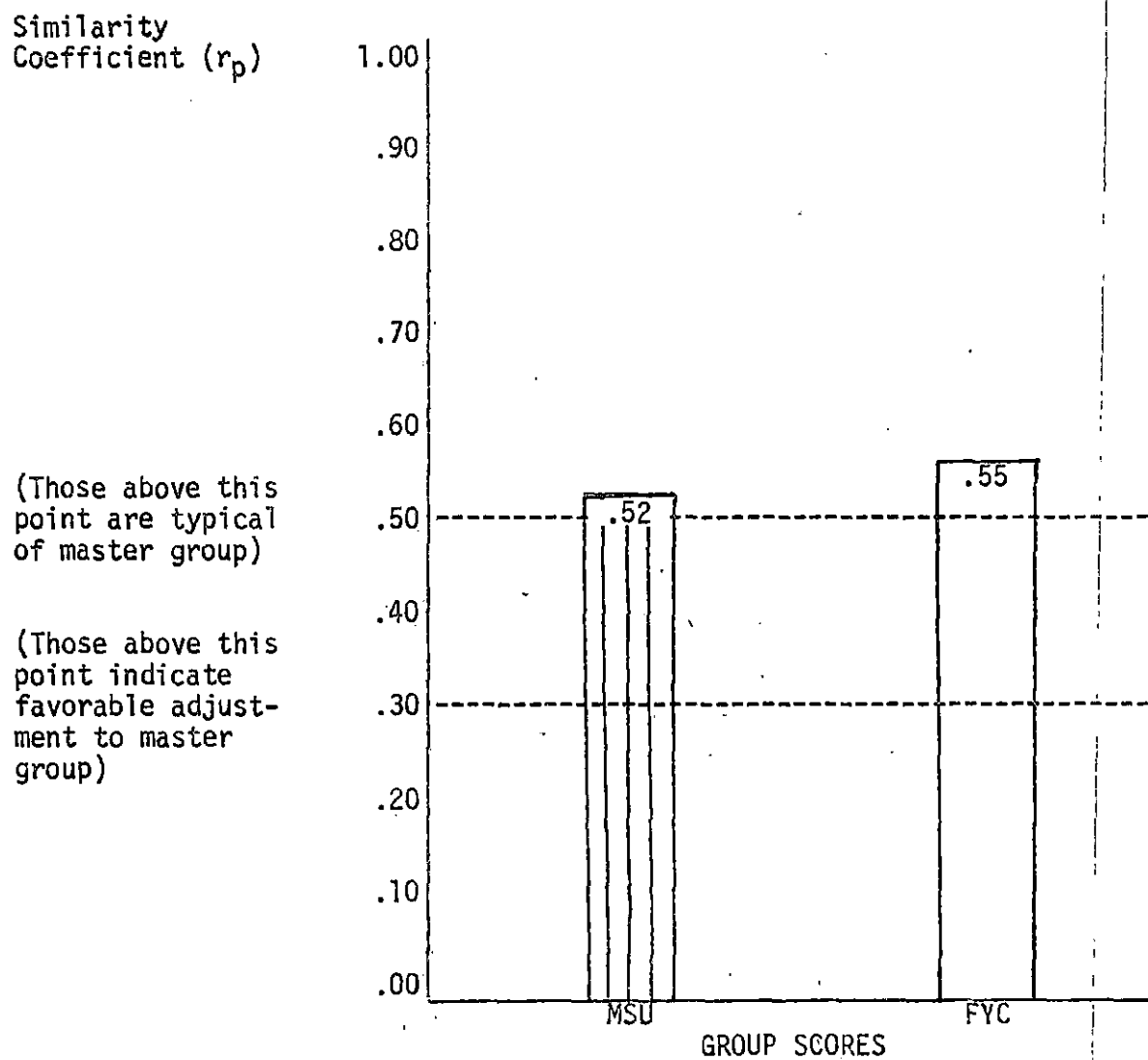


Figure 19

Similarity Coefficient ( $r_p$ ) for Beginning Business Students in Relation to 63 Executives and Directors (Business Managerial) on the 16PF

### Comparison with Salesmen

Figure 20, page 54, presents a comparison of 16PF test results for 35 salesmen and the control group. Differences of greater than one sten were present in eight of the 16 personality factors. These were (1) Factor A, Outgoing versus Reserved; (2) Factor E, Assertive versus Humble; (3) Factor H, Venturesome versus Shy; (4) Factor L, Suspicious versus Trusting; (5) Factor M, Imaginative versus Practical; (6) Factor O, Apprehensive versus Self-Assured; (7) Factor Q<sub>1</sub>, Experimenting versus Conservative; and (8) Factor Q<sub>4</sub>, Tense versus Relaxed. The control group was (1) more outgoing, (2) more suspicious, (3) more imaginative, (4) more apprehensive, and (5) more tense than the group of salesmen. The salesmen were shown to be (1) more assertive, (2) more venturesome, and (3) more experimenting than the control group.

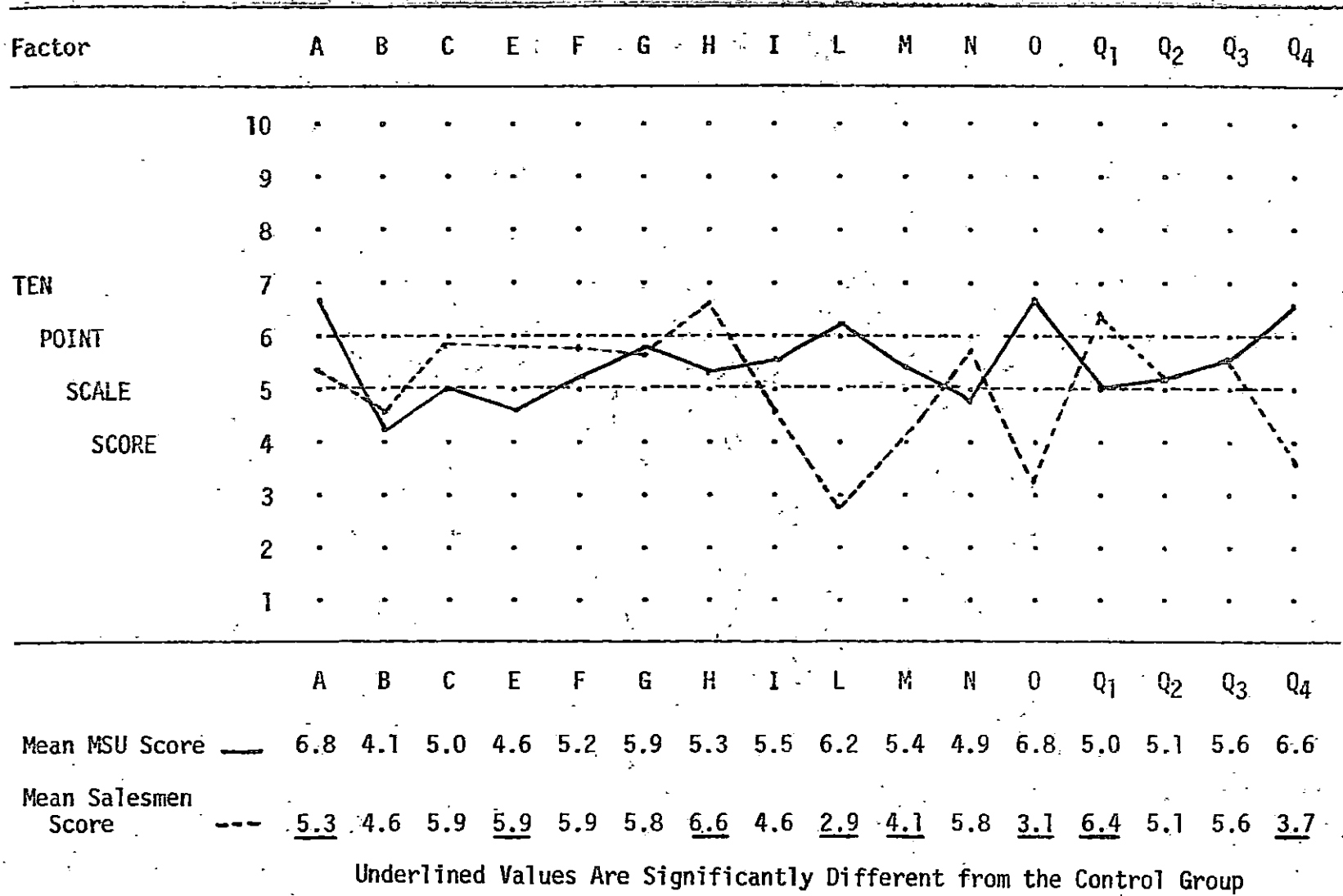


Figure 20

Mean Test Results for Morehead State University Students  
as Compared to 35 Salesmen on the 16PF

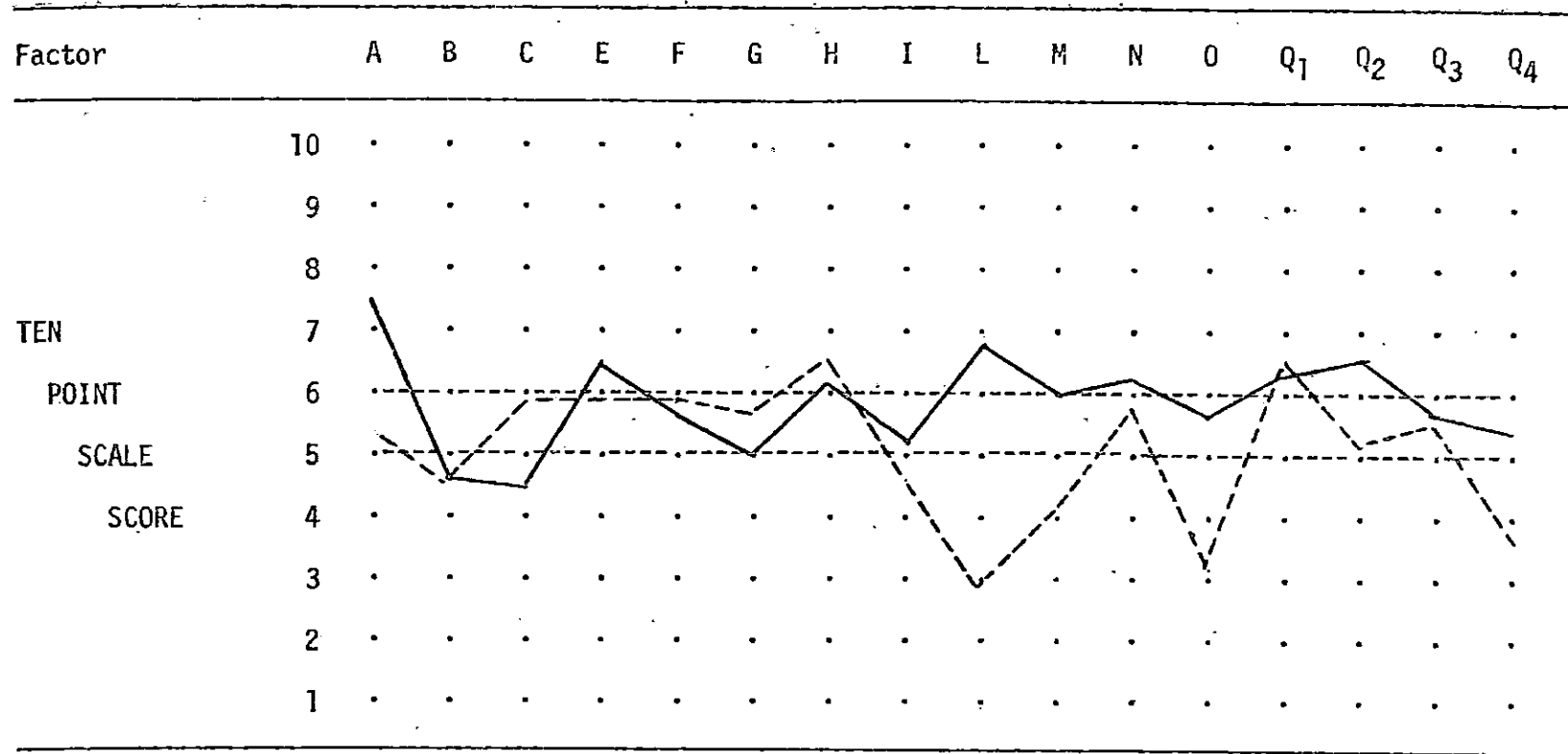
Figure 21, page 56, shows a comparison of 16PF test results for the 36 salesmen and the experimental group. Differences of greater than one sten appeared in seven of the 16 personality factors. The areas of difference were (1) Factor A, Outgoing versus Reserved; (2) Factor C, Emotionally Stable versus Affected By Feeling; (3) Factor L, Suspicious versus Trusting; (4) Factor M, Imaginative versus Practical; (5) Factor O, Apprehensive versus Self-Assured; (6) Factor Q<sub>2</sub>, Self-Sufficient versus Group-Dependent; and (7) Factor Q<sub>4</sub>, Tense versus Relaxed. The experimental group was found to be (1) more outgoing, (2) more suspicious, (3) more imaginative, (4) more apprehensive, (5) more self-sufficient, and (6) more tense than the group of salesmen. The salesmen were shown to be more emotionally stable than the experimental group.

As indicated in Figure 22, page 57, many deviations on individual personality factors were present when the control and experimental groups were compared to 35 salesmen. These deviations resulted in a similarity coefficient ( $r_p$ ) for the control group below the .50 coefficient while the experimental group correlated above the .50 coefficient when compared to the 35 salesmen. The control group correlated at a coefficient of .46 and the experimental group correlated at .52 in relation to the salesmen.

#### PREDICTING ACADEMIC SUCCESS

The predicted academic success of the two groups of beginning business students was relatively similar. The predictions were based





	A	B	C	E	F	G	H	I	L	M	N	O	Q <sub>1</sub>	Q <sub>2</sub>	Q <sub>3</sub>	Q <sub>4</sub>
Mean FYC Score —	7.4	4.6	4.5	6.5	5.7	5.0	6.1	5.1	6.8	6.0	6.1	5.6	6.2	6.6	5.8	5.3
Mean Salesmen Score ---	<u>5.3</u>	4.6	<u>5.9</u>	5.9	5.9	5.8	6.6	4.6	<u>2.9</u>	<u>4.1</u>	5.8	<u>3.1</u>	6.4	<u>5.1</u>	5.6	<u>3.7</u>

Underlined Values Are Significantly Different from the Control Group

Figure 21

Mean Test Results for Federal Youth Center Students  
as Compared to 35 Salesmen on the 16PF

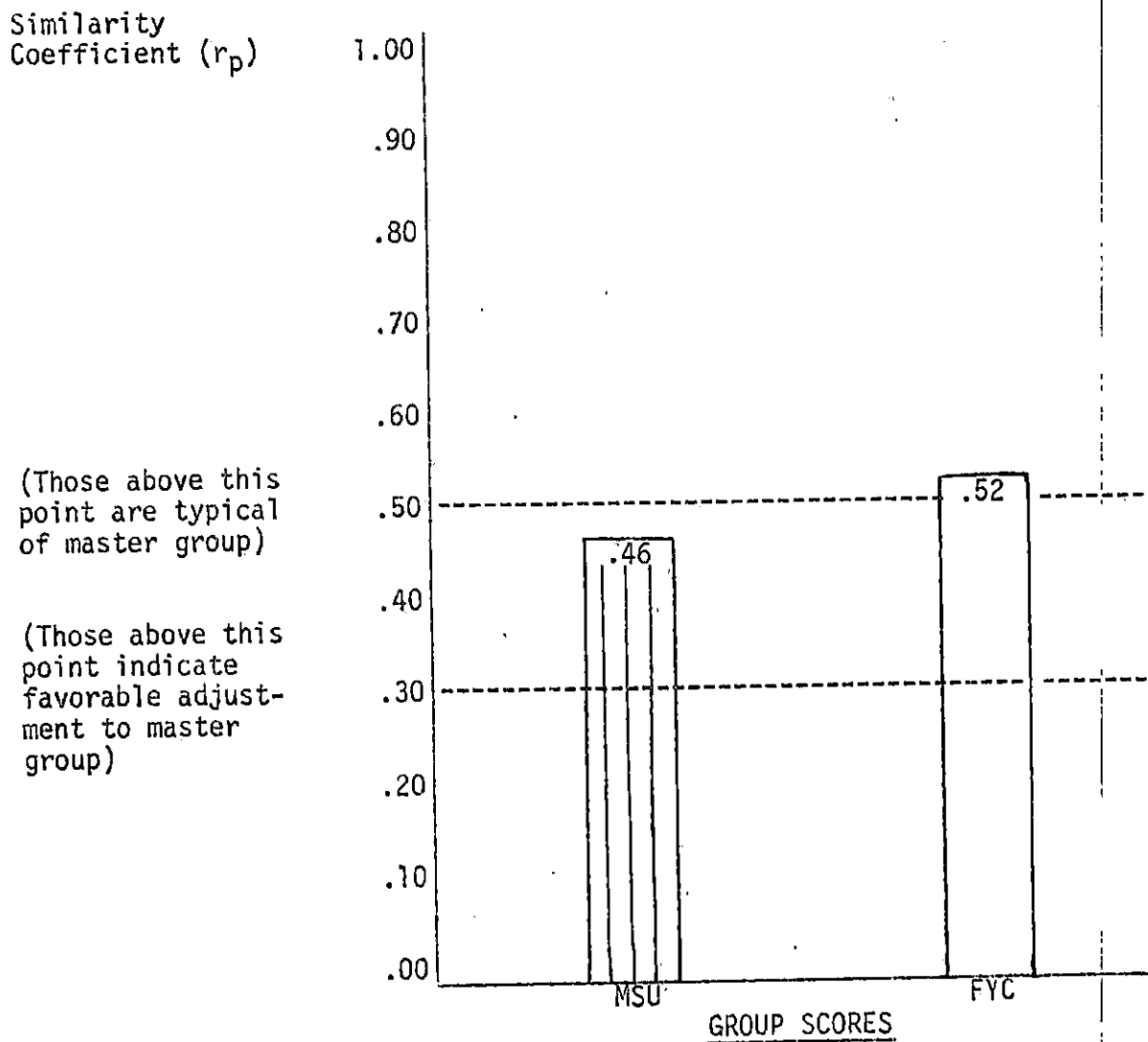


Figure 22

Similarity Coefficient ( $r_p$ ) for Beginning Business Students in Relation to 35 Salesmen

upon a formula developed by Holmes of Illinois Wesleyan University for predicting academic success in a general college curriculum (mainly liberal arts) on results of the 16PF. He found that 12 of the 16 personality factors influenced the predicted grade point average. The results of these predictions indicated that the Federal Youth Center student group would earn a 1.76 GPA (4.00 scale) as compared to a 1.71 GPA for the regular University students. The predicted grade point averages were determined as follows:

Whereas Academic Success in a General College Curriculum

$$\begin{aligned} \text{(mainly liberal arts)} = & - .2 A + .6 B + .3 C - .2 F + .2 G + .1 I \\ & - .2 L - .2 M - .1 O + .1 Q_1 + .4 Q_3 \\ & - .2 Q_4. \end{aligned}$$

then

$$\begin{aligned} \underline{\text{FYC G.P.A.}} = & - .2 (7.4) + .6 (4.6) + .3 (4.5) - .2 (5.7) \\ & + .2 (5.0) + .1 (5.1) - .2 (6.8) - .2 (6.0) \\ & - .1 (5.6) + .1 (6.2) + .4 (5.8) - .2 (5.3) \\ = & - 1.48 + 2.76 + 1.35 - 1.14 + 1.00 + .51 - 1.36 \\ & - 1.20 - .56 + .62 + 2.32 - 1.06 \\ = & 8.56 - 6.80 = \underline{1.76} \end{aligned}$$

and

$$\begin{aligned} \underline{\text{MSU G.P.A.}} = & - .2 (6.8) + .6 (4.1) + .3 (5.0) - .2 (5.2) \\ & + .2 (5.9) + .1 (5.5) - .2 (6.2) - .2 (5.4) \\ & - .1 (6.8) + .1 (5.0) + .4 (5.6) - .2 (6.6) \\ = & - 1.36 + 2.46 + 1.50 - 1.04 + 1.18 + .55 - 1.24 \\ & - 1.08 - .68 + .50 + 2.24 - 1.32 \\ = & 8.43 - 6.72 = \underline{1.71} \end{aligned}$$

## Chapter 5

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### SUMMARY

The problem of this study was to determine and analyze selected characteristics that existed in 15 young adult prison inmates enrolled in a beginning collegiate business course as compared to 15 students enrolled in a similar beginning business course at Morehead State University. The sub-problems were:

1. to determine the cultural characteristics of young adult prison inmates and male college students enrolled in an initial business course.
2. to determine the academic aspirations of the two groups of students.
3. to identify and analyze the personality characteristics of the two groups of students.
4. to compare the personality characteristics with those of selected business occupations.
5. to predict the academic success of the two groups of students in a college curriculum.

The following procedures were utilized in completing this study. All male inmates (15) enrolled in the course Introduction to Business through University extension were identified as the experimental group.

The inmates were compared to a randomly selected control group consisting of regular male University students (15) enrolled in Introduction to Business during the fall of 1969. The two groups of students were then administered student questionnaires to determine their cultural characteristics and academic aspirations. Both groups of students were then administered the Sixteen Personality Factor Questionnaire (16PF) to measure and compare their personalities. These test results were compared to peer groups and business occupation groups as a means of additional comparison. The final procedure was to apply a formula for predicting academic success at the collegiate level based on the 16PF. The formula provided a predicted grade point average for a four-year general college curriculum.

#### CONCLUSIONS

Important differences were found in the cultural characteristics of young adult inmates and male college students enrolled in an initial business course. The differences were determined to be in the following areas:

1. The Federal Youth Center students came from larger families than did the Morehead State University students.
2. The Federal Youth Center students came from larger home towns than did the regular student group.
3. The Federal Youth Center students were found to be an older group than was the Morehead State University group of students.
4. The Federal Youth Center students were reared in large urban centers outside Kentucky. The regular University students had been

domiciled in the eastern Kentucky hills region served by Morehead State University.

Similarities were found between the two groups concerning their father's occupation. The majority of fathers in both groups were classified as blue-collar workers.

Both groups of beginning business students had aspirations of completing additional academic work in business. The University freshmen were almost unanimous in selecting a four-year degree program in business. The inmates selected many variations of the college degree, including one- and two-year programs.

A large portion of the Federal Youth Center students indicated uncertainty as to a specific career objective. However, they were equal to the number (six) within the control group who indicated that they, too, were undecided upon a career objective.

Both the control and experimental groups were found to have similar personalities based upon the results of the Sixteen Personality Factor Questionnaire (16PF). Although many variances occurred between the groups on individual personality factors, a close mathematical proximity was obtained. The similarity coefficient ( $r_p$ ) between the control and experimental group indicated that the groups were very similar. By utilizing the similarity coefficient method provided by the test manufacturer, a .81 coefficient was obtained between the two groups. However, significant differences of greater than one sten were found on several individual personality factors when the two groups were compared. On this basis the Federal Youth Center students were found to be (1) more assertive, (2) more shrewd, (3) more self-assured, (4) more experimenting,

(5) more self-sufficient, and (6) more relaxed than the regular freshmen business students.

Both groups projected similar coefficient scores when compared to two peer groups. One peer group contained Pennsylvania State University students. The similarity coefficients were  $MSU=.56$  and  $FYC=.67$ . The second peer group contained male convicts who were mostly petty offenders. The similarity coefficients for this group were  $MSU=.86$  and  $FYC=.81$ .

The results of this study seem to indicate that young men are rather consistent in their personalities. Differences seem to arise, however, when cultural standards are allowed to deteriorate because of family and community differentials.

It was determined that both groups of students projected similar personality characteristics when compared to individuals in selected business occupations as measured by the 16PF. Similar coefficients were obtained for both groups for the careers of (1) clerks ( $MSU=.20$ ,  $FYC=.22$ ), (2) executives ( $MSU=.52$ ,  $FYC=.55$ ), and (3) salesmen ( $MSU=.46$ ,  $FYC=.52$ ).

Both groups of business students projected similar grade point averages for completion of a college curriculum. The formula used to determine the projected academic success of the two groups was for Illinois Wesleyan University and did not reflect the apparent differences between Morehead State University and Illinois Wesleyan University, i.e., public versus private support and student backgrounds. Nevertheless, the projected GPA for the inmates was 1.76 (4.0 scale) and 1.71 for the regular University students. The results of the 16PF indicated that both groups could expect par achievement in a college classroom.

## RECOMMENDATIONS

The following recommendations are made based on the results of this study:

1. Literature cited in this study indicated that prisons should provide post-secondary educational opportunities for inmates so they will become better able to obtain employment and lead a rehabilitated life after release. The young adult inmates who participated in this study were found to have similar personalities to those of regular university beginning business students. Both groups of students predicted similar grade point averages for a four-year general college curriculum.

Differences were noted, however, in the cultural characteristics of the two groups. These differences may have been instrumental in determining that one group would attend college and the other group would be convicted of committing crimes.

Thus, these findings indicate that additional college level courses should be provided for prison inmates. It is the writer's assumption that education is paramount to other needs of the inmate in the rehabilitation process. The inmates selected for these classes should be considered on the basis of (1) their ability to complete successfully the academic requirements and (2) their potential contribution to society.

2. On the basis of the cultural differences found between the two groups of beginning business students, it would appear that college instructors should consider inmates who meet entrance requirements for



their classes as having good academic potential. These students will generally be at a disadvantage to other students who have had more educational experiences. Professors should consider these disadvantages when planning instructional programs for the inmates.

3. In considering these cultural differences and the resulting lack of knowledge about various occupations which are associated with disadvantaged environments, it appears that inmates should receive intensive vocational counseling in addition to course offerings, so they may identify satisfying employment opportunities after release.

4. The majority of individuals in both groups of beginning business students were found to be undecided about their academic and occupational interests. Because Introduction to Business is an exploratory course designed to inform students about the many academic and occupational possibilities within the field of business, it would appear that an additional step needs to be taken by the instructor in this course. Students enrolled in Introduction to Business or another beginning course should be encouraged to complete a personality questionnaire and an occupational inventory questionnaire. The results of these tests will assist the student in determining goals and interests and serve as the basis for future academic work. In the course Introduction to Business, the instructor might be advised to require that these tests be completed by the student while studying the unit on personnel management. Such a practice would seem to be a natural outgrowth of the course objectives and would instill additional student interest in the class.

5. Because this study used a small sample (15 in each group) of subjects in comparing business students, it seems appropriate that an additional study be completed using a larger population of test subjects to further substantiate these findings.

6. Another important consideration for additional study is the long-range value of college instruction in the rehabilitation process. A follow-up study on the two groups would be revealing as to the gains made by these particular students. This information would be very valuable in determining the effect of education in the rehabilitation process. Such a study might also examine teaching methods used in an effort to identify the most productive methods in terms of inmate success after release.

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APPENDIXES



## APPENDIX A

## Questionnaire #1

MALE STUDENT ONLY

Morehead State University Students

Please Complete Questionnaire (Print)

1. Name: \_\_\_\_\_
2. M.S.U. Address: \_\_\_\_\_
3. Home Address: \_\_\_\_\_
4. Home Town Population: \_\_\_\_\_
5. Parents Occupation: \_\_\_\_\_
6. Number of: brothers? \_\_\_\_\_ sisters: \_\_\_\_\_
7. Is this your first semester of college work? (Circle one) YES NO
8. Do you plan to continue your study of business subjects after this course? (Check one) YES NO
9. If yes, do you want to pursue a:  
(Check one)
  - \_\_\_\_\_ one-year program in business
  - \_\_\_\_\_ two-year program in business
  - \_\_\_\_\_ major in business
  - \_\_\_\_\_ minor in business
  - \_\_\_\_\_ area of concentration in business
10. What is your career objective in business.  
(Check one)
  - \_\_\_\_\_ Marketing
  - \_\_\_\_\_ Accounting
  - \_\_\_\_\_ Management
  - \_\_\_\_\_ Risk-Management
  - \_\_\_\_\_ Business Education
  - \_\_\_\_\_ Data Processing
  - \_\_\_\_\_ Field Other than Business
  - \_\_\_\_\_ Undecided
11. If selected, would you assist in completing a research project this semester? (Circle one) YES NO

## APPENDIX B

## Questionnaire #2

Federal Youth Center Students

Please Complete Questionnaire (Print)

1. Name: \_\_\_\_\_
2. Home Address: \_\_\_\_\_
3. Home Town Population: \_\_\_\_\_
4. Parents Occupation: \_\_\_\_\_
5. Number of: brothers? \_\_\_\_\_ sisters? \_\_\_\_\_
6. Do you plan to continue your study of business subjects after this course? (Circle one) YES NO
7. If yes, do you want to pursue a:  
(Check one)
  - \_\_\_\_\_ one-year program in business
  - \_\_\_\_\_ two-year program in business
  - \_\_\_\_\_ major in business
  - \_\_\_\_\_ minor in business
  - \_\_\_\_\_ area of concentration in business
8. What is your career objective in business?  
(Check one)
  - \_\_\_\_\_ Marketing
  - \_\_\_\_\_ Accounting
  - \_\_\_\_\_ Management
  - \_\_\_\_\_ Risk-Management
  - \_\_\_\_\_ Business Education
  - \_\_\_\_\_ Data Processing
  - \_\_\_\_\_ Field Other than Business
  - \_\_\_\_\_ Undecided
9. What grade level have you attained?  
(Check one)
  - \_\_\_\_\_ I am working on my G.E.D.
  - \_\_\_\_\_ I have earned a G.E.D.
  - \_\_\_\_\_ I have earned a high school diploma
  - \_\_\_\_\_ I have some college credit
  - \_\_\_\_\_ I have no G.E.D. or high school diploma

## APPENDIX C

**Nomograph and Table for Rapid Calculation of the  
Profile Similarity Coefficient,  $r_p$**

**1) Using 16 Factor Scores, in Stens**

Subtract the given profile from the criterion profile, obtaining 16 "d" values. Square and sum these,

$\Sigma d^2$	10	20	30	50	70	90	120	150	200	250	300	350	400	420
$r_p$	.85	.72	.61	.42	.27	.15	.01	-.10	-.24	-.34	-.42	-.48	-.53	-.55

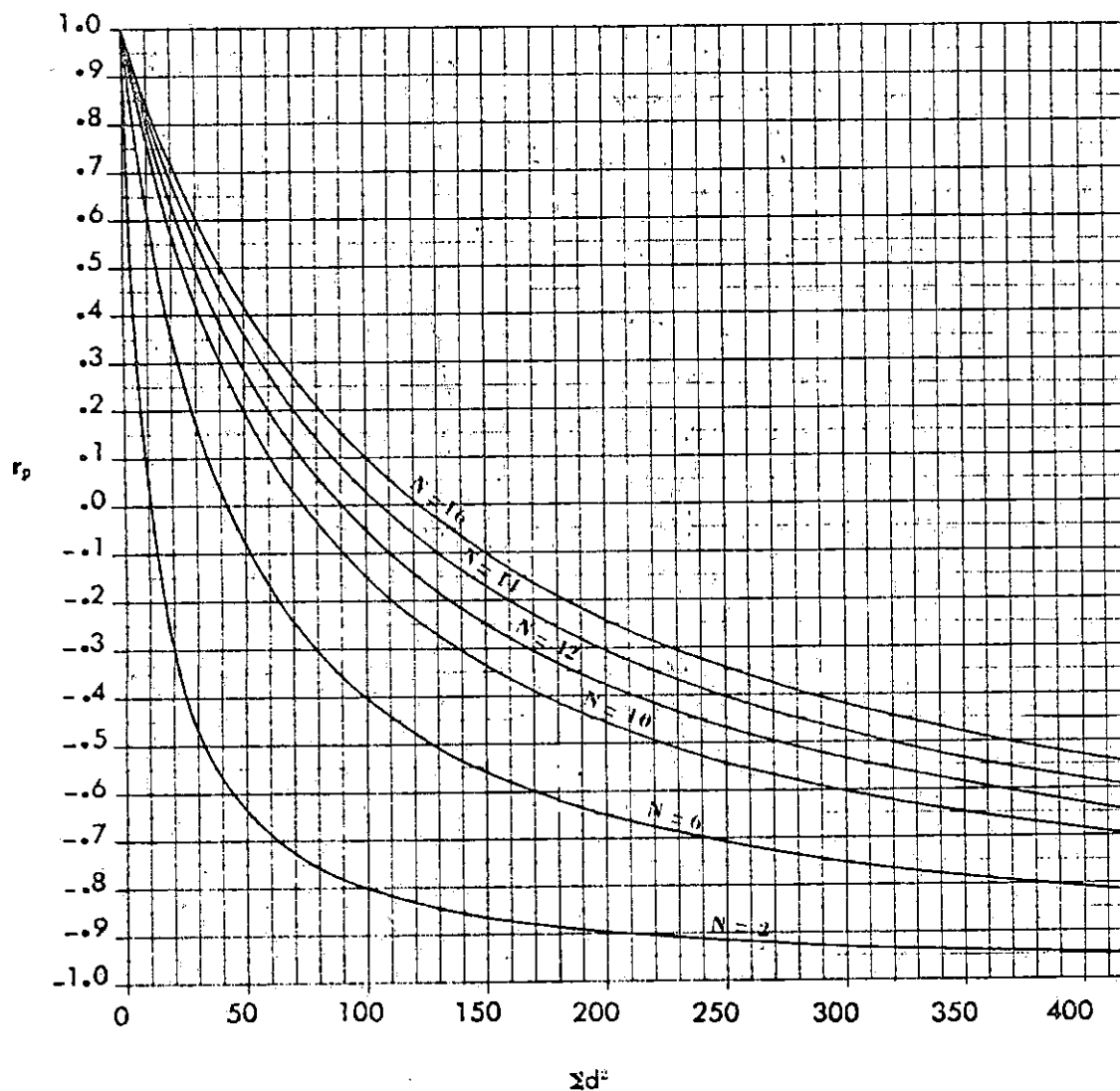
An  $r_p$  of 0 means only the resemblance to be expected by chance, i.e., no systematic resemblance, and a value of 1.0 means perfect agreement.  $r_p$  follows roughly the same distribution as  $r$ . It is superior in that it does not ignore **absolute** differences in the levels of the patterns.

and enter the following table at the  $\Sigma d^2$  row. The value below the  $\Sigma d^2$  value is the required  $r_p$ . Interpolate between values when necessary.

**2) Using from 2 to 16 Factor Scores**

Work out  $\Sigma d^2$  as before, and find this value on the base line of the nomograph. Go up vertically from this point until the curve for the number of factors concerned is reached. On a level with this cutting point, at the left, is the  $r_p$  value. (See Section 8 for an example using this nomograph.)

**Table 15. Nomograph for Rapid Calculation of  $r_p$ .**



МОРСКОЕ КРАТКОЕ  
КОМПОНОВАНИЕ ТИПОВ  
МОДЕЛЕЙ С/ЛП - ПИЛАНЕТЫ

8  
57  
8  
57