

INTERCORRELATION PATTERNS RELATING TO CAREER
ASPIRATION AMONG SOUTHERN APPALACHIAN YOUTH,

by

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Chapter I

INTRODUCTION

The founder of vocational guidance, Frank Parsons, (1909), proclaimed that young people need understanding of self, understanding of occupational requirements, and "true reasoning" between the two. In the years since, psychology has produced many theories of personality which have assisted young people with self-knowledge. Also, significant to this self-knowledge has been psychological testing, a branch of science, launched by English biologist Sir Francis Galton (Anastasi, 1968). Through psychological testing, an objective and standardized measurement of a sample of behavior can be obtained to contribute to an understanding of an individual as he is at a given time.

Along with personality theory and psychological testing, many contributions have been made in the area of occupational information and career development by such leaders as John Holland, Anne Roe, Robert Hoppock, Samuel Osipow, Eli Ginzberg, Gordon Allport, and Donald Super (Osipow, 1968). A psychological approach to careers as a separate field has been influenced most by Donald Super with his theory of vocational maturity (Gribbons and Lohnes, 1968).

Vocational maturity developed analogously to personality development (Bartlett, 1971). A student who developed a clear, realistic vocational goal was likely to be motivated to achieve that vocational goal. The failure to develop this goal resulted in a lack of direction. This lack of direction, according to Slotkin (1963-1964), was the principal unifying characteristic of dropouts who aimlessly drifted out of school and later in and out of jobs. Das (1963) further supported this conclusion with the statement that even potential dropouts were vocationally less mature than were potential persisters.

While problems relating to realism of career choice and persistence in formal high school education were evident throughout the United States (Das, 1963), they were severe in the southern Appalachian area (Stevic, 1967) where this current study was based. Youth who remained in this geographic area demonstrated significantly lower aspiration levels than those who left the area. Children in the area whose fathers were employed in the coal mines were even more closely tied to the family work group than those whose fathers were employed in other occupations (Lewis, 1970). Consideration of alternative career choices or continued formal education appeared to be lacking (Stevic, 1967).

"Like begets like" projected Thompson and Nelson (1963). The educational and vocational dropout has thus continued to be a generation-to-generation liability. It was noted, however, that

completing educational training with the dignity of academic success and with a world of work experience contributed to a confident, but realistic, self-image. According to Dewitt (1968), if this important segment of the individual's life has been rewarding, he is better prepared to make a contribution and to become an asset rather than a liability to his home and community life and thus, to society.

The justification for this additional research was that while other studies provided insight to prevailing problems relating to realism of career choice in southern Appalachia, critical questions regarding problem interrelations remained unanswered. It was hoped that this study could add to the investigation of these problems by incorporating a number of variables which have been characteristic of the students of this area and which have been considered individually or in groups of two or three within previous research. Some examples of research concerning these variables included studies of career choice realism by Gribbons and Lohnes (1968) and Slayton (1963), studies of career choice realism, dropout tendencies, sex, achievement and self-concept by Thompson and Nelson (1963), studies of career choice realism and general ability by Flores and Olsen (1967), and studies of dropout tendency and self-concept by Thornburg (1971). A pilot study was also conducted by the researcher to determine correlations between certain aptitudes and dropout tendencies. Based on the results from this pilot study and literature

survey, it was determined that by viewing a total composite of patterns, a more complete understanding of the problems facing the southern Appalachian student would be possible. Through this understanding of the unique high school student in Wyoming County, West Virginia, alternative methods might become apparent in order to make high school education and career development more meaningful for this student.

PROBLEM

The purpose of this study was to determine the nature, extent, and bases of several career orientation problems widely believed to be prevalent among youth in the southern Appalachian area of Wyoming County, West Virginia. Measurement of and determination of intercorrelation patterns among the chosen variables constituted the major data collection and processing emphasis of the study. These variables related to realism of career choice, tendencies to continue formal high school education, aptitudes, high school achievement, sex, self-concept, and socioeconomic level. While correlation, not causality, was emphasized, plausible causal relationships were sought.

Major research questions were:

1. How was realism of career choice related to tendency to persist in formal high school education? Specifically, was it the case

that the lack of realism was frequently associated with tendency to drop out?

2. How was career expectation level related to tendency to persist in formal high school education? Specifically, did those with tendency to drop out have low career expectations?

3. Was there evidence of female role stereotyping in low career choices?

4. To what extent was low socioeconomic level associated with failure to develop adequate self-concept, tendency to drop out of school, educational aspiration, and unsatisfactory high school achievement?

5. How was realism of career choice related to achievement? This question was interrelated with a consideration of aptitude level.

Answers to each of these questions were sought not only in terms of the basic variables of interest, but also in terms of interactions with other variables of the study. For example, each question was analyzed in terms of aptitude levels of the subjects.

LIMITATIONS

This study did not purport to answer questions beyond those mentioned above, nor assume that the answers are applicable to persons beyond the limits of this study. These limits included the geographic area of Wyoming County, West Virginia, and a time period

of one school year 1972-1973. The subjects were high school students who volunteered for testing under the West Virginia Employment Security Services, students in federal project Guidance Aide Trainee Experience (GATE), and students in a control group for Project GATE.

DEFINITIONS

Definitions which were significant to this study included the following:

1. Realism of career choice was based on a comparison between recommendations from the General Aptitude Test Battery (GATB) for each student and each student's career choice on the GATB Occupational Aptitude Patterns (OAP) Career Choice Checklist.
2. Socioeconomic level was based in this study on Anne Roe's (1956) typology designated by the occupational level of the father and/or mother of each student.
3. Project Guidance Aide Trainee Experience (GATE) was a Title III Elementary and Secondary Act federal project which was funded for Wyoming County, West Virginia, during 1972-1973. The data for this study were collected while the investigator was the director of Project GATE.

The Project GATE objectives included the following:

- a. To provide a ten-month secondary school Para-Professional

Guidance-Aide course for training in self-awareness, decision making, career awareness, career exploration, and career choice.

b. To provide career-guidance materials and service to the Mullens High School feeder schools as a part of the guidance aide experience-based activities.

c. To provide career materials and services to the Mullens area adult community as a part of the guidance aide experience-based activities.

d. To influence the total environment of the Mullens Community (Wyoming County, West Virginia). (For a more complete summary of Project GATE, see Appendix.)

4. High school achievement was determined in this study by each student's grade-point average during high school years.

CHAPTER DESCRIPTIONS

Brief descriptions of the chapter contents and summaries of the major conclusions which were developed in each chapter were as follows:

Chapter II contained a survey of the literature regarding the variables within this study. This information was presented in order to emphasize data which were relevant to the understanding of this particular study.

In Chapter III the design for this descriptive study was presented. It included information pertaining to the sample and sampling techniques, the data and their collection technique, the instruments with their reliability and validity status, and the statistical methods utilized for analyzing the data.

Chapter IV included a completed analysis of all data used in this study. The necessary charts and tabulations illustrated the findings. A discussion of the interpretation concluded this chapter.

Chapter V contained a summary and consideration of the findings from the analysis. A discussion related the literature, observations, and data interpretation to each of the specific questions regarding the problem of this study. This discussion was followed by a series of recommendations for further study.

Chapter II

PROFESSIONAL LITERATURE

A survey of the literature revealed no single study which contained an intercorrelation between realism of career choice, tendencies to continue formal high school education, aptitudes, high school achievement, sex, self-concept, and socioeconomic level. Studies were found, however, regarding each of these variables, singly or in groups of two or three, which appeared to be significant to this study.

REALISM OF CAREER CHOICE

Super (1957) portrayed the development of career choice as a process of decision making and compromise involving all of one's abilities, interests and psychosocial forces. Within this process the individual reached a fairly stable self-concept at some point from late adolescence to late maturity. He recommended facilitating this development through educational experiences involving the working world which would provide a framework to test the reality of the self-concept.

The main task in this tentative stage of stabilization was the crystallization of vocational choice. To reach this decision, rational compromise between personal needs and surrounding social pressures was essential for effective life adjustment. According to Roe (1956), one could choose a career for many reasons as he made an attempt to adjust to environmental conditions; thus, a totally economic man was seen as inadequate. Instead, Roe pointed to Maslow's "need" theory as being significant to realistic career choice. The more advanced the civilization, the more likely the basic needs (physiological, safety, belonging and love, importance, respect, self-esteem, and self-actualization) could be fulfilled as one chooses a career.

The vocational maturity necessary for this adjustment and decision was a meaningful developmental concept which emerged and was persistent with the passage of time. While according to Gibbons and Lohnes (1968), it encompassed a multidimensional syndrome of traits, its kernel was informed planfulness.

Gibbons and Lohnes (1968) found a noticeable trend from the eighth grade to the twelfth grade, a move from "idealism" to "realism." Slayton (1963) gave evidence of a definite relationship between the "realism" in one's tentative career choice and his knowledge about careers. According to Super (1957), this knowledge was enhanced by exploration in part-time work for high school students. He placed emphasis on exploration and orientation rather

than on earning money. Through this exposure, students gained an appreciation of work, made contact with occupational reality, and improved in vocational maturity (Amos and Grambs, 1968).

TENDENCY TO PERSIST IN FORMAL HIGH SCHOOL EDUCATION

Vocational maturity was found by Das (1963) to be more prevalent among potential high school persisters than among potential dropouts. While potential dropouts desired "practical" courses in school to "assist them in 'living in the real world'" and anticipated employment in the trades, many chose "general" curriculum. This choice suggested vocational disorientation (French and Cardon, 1968).

National statistics indicated that during the 1960-1970 decade eight million high school students were not persistent in school and were lost as "natural resources" (Husted, 1970). Dewitt (1968) stated that if these students were prepared for a realistic and practical early entrance into the world of work, they might have had a chance to find themselves academically, to change their goals, and to remain in school. Thompson and Nelson (1963) added that tendencies to persist in school did appear to be increased by the ability to relate school to the individual's future work. Slotkin (1963-1964) further supported this conclusion by a study which assisted potential dropouts with work experiences and emphasized the attainment of clear

realistic goals. Out of forty-seven potential dropouts, thirty-one were encouraged to become high school persisters.

APTITUDE

The aptitude variable was stressed in several studies.

Aptitude differences were found between high school persisters and dropouts in studies by the United States Employment Security Services (Droege, 1968). In every case, the persisters showed higher mean aptitude scores. The mean scores on cognitive aptitudes, intelligence (G), verbal aptitude (V), and numerical aptitude (N), manifested the largest differences; the spatial perceptual aptitude scores, spatial (S), form perception (P), and clerical perception (Q) showed the next highest differences; and the dexterity aptitudes, motor coordination (K), finger dexterity (F), and manual dexterity (M) displayed the smallest differences. Intelligence was also found by other researchers (Bryan, 1970; Beaird, 1965; Thompson and Nelson, 1963; and Das, 1963) to differentiate between students with tendencies to withdraw and tendencies to persist. Husted (1970) added, however, that a majority of dropouts did fall within average intelligence ranges. Intelligence was also reported to have a positive correlation with the level of occupational choice (Flores and Olsen, 1967; Bogie, 1971; Fogg, 1973).

HIGH SCHOOL ACHIEVEMENT

High school achievement as reflected by grade-point average was found to affect both career aspirations and high school persistence. Higher graded students appeared oriented toward higher level needs and value fulfillment; whereas, lower graded students seemed oriented toward worker traits and job characteristics (Shappell, 1969). High school academic records were also found to be related to student vocational choice levels by Hanley (1969). Das (1963), Bryan (1970), Turchan (1966), Childers (1966), Hamreus (1964), and Thompson and Nelson (1963) reported higher grade-point averages for high school persisters than for dropouts. Most dropouts had experienced one or more years' retention so that many had spent as many years in school as the students who were graduated.

SEX

With respect to the sex variable, most vocational theory and research conducted to validate theory emphasized only male needs. This, according to Fox (1972), has influenced girls' exploratory career choices. While Dean (1972) found girls to possess more mature vocational attitudes than males in the eighth and tenth grades, Amos and Grambs (1968) stated that they were more handicapped than men because of the greater unpredictability of the roles they played

and the timing of those roles. Their vocational aspirations were increased, however, after viewing female role models, particularly when a male model discussed the occupational roles of women (Pope, 1972). Vanlandingham (1969) also stressed this perception of opportunity as an important aspect in the sex variable. He added that this supported Hyman's and Menton's proposition of differential striving in American society.

More boys than girls dropped out of high school (Das, 1963). While boys were alienated by poor achievement, girls were alienated by poor behavior and absences. Withdrawals of both sexes were otherwise similar; they exhibited more uninhibited behavior, independence, and rebellion than persisters. Exceptions were girls who withdrew because of pregnancy and/or marriage. These girls were usually less socially oriented and more shy and retiring (French and Cardon, 1968).

SELF-CONCEPT

Acting as a global factor, self-concept was seen by Flum (1967) as subjectively integrating the total system. As the adolescent's self-concept emerged, he brought a great deal to the world; he brought him self (Super, 1957). Students who had sufficient self-concepts allowed motives to approach success to be greater than motives to avoid failure. These students had a significantly more

accurate perception of occupational prestige and higher occupational aspiration than did students with greater motives to avoid failure (Tseng, 1970). Pandit (1965) supported this statement with evidence that students with high regard for themselves had high occupational aspirations and choices.

Students' occupational decisions became so ego-involved that it was difficult for them to take objective views of their vocational assets and liabilities (Bell, 1960). As students moved from fantasy to reality, an important characteristic of vocational adulthood, Carroll (1972) detected greater use of real self-description and less use of ideal self-description incorporated with occupational choice. To be successful, not only must students have acquired methods and attitudes of industry, but also they must have combined this industry with an achievement of identity (Borow, 1964).

All students were entitled to a secure place within the social structure of the school which allows the self-concept to develop positively. For the student who was a potential dropout, however, the social aspect was often quite unattractive (Thompson and Nelson, 1963). His positive self-score and overall self-concept score was lower than the persister in studies by Burkett (1972). Differences in self-appraisal, self-ideal, and congruence index scores were also found between the dropout and the persister with a larger discrepancy between appraisal and ideal self associated with the dropout (Fiffield, 1964).

The dropout experienced feelings of powerlessness according to Gordon (1968) and felt his behavior was provoked by others rather than being controlled by himself. He saw himself as a failure and this low esteem made him self-rejecting. The potential dropout was also more self-critical and devalued himself even as a family member more so than did his peers (Thornburg, 1971). In school, he did not participate, as did persisters, in activities which developed feelings of self-respect, belonging and acceptance. Yet, being an individual, says French and Cardon (1968) was even more important to the potential dropout than to the persister.

SOCIOECONOMIC LEVEL

According to Roe (1956) socioeconomic level or inheritance was one of the most important influences in an individual's life. The occupation of the father was accepted as the most usable index of this social and economic status. It was likely that a child remained in or near his father's general socioeconomic group. Even the occupations which were open or attractive to the individual came under this influence. In studies by Wilkins (1972), boys occupational aspiration and orientation were positively associated with background factors. Hanchey (1970) found that parents were influential in vocational choice. Weinberg (1966) demonstrated a positive correlation between socioeconomic level, occupational choice, and even occupational knowledge.

Natural barriers, such as mountains, and a lack of public transportation were as much of a disadvantage as the man-made conditions of the city ghettos. The resulting poverty and cultural deprivation of lower socioeconomic groups brought low parental motivation, damaged self-concept, and poor verbal communication. According to Amos and Grambs (1968), these liabilities were coupled with a desire for immediate gratification. Within this environment where unemployment was chronic, the youth had few opportunities to learn characteristics of the worker role. This low socioeconomic background, reported Fogg (1973), was a predictor of future unemployment.

While the dropout problem cut across all ethnic groups, social classes, and geographic lines, the overwhelming percentage originated in the blue collar and lower-white collar socioeconomic classes (Husted, 1970). Other studies by Bryan (1970), Janssen (1966), Bogie (1971), Dewitt (1968), and Thompson and Nelson (1963) demonstrated that students who failed to persist in high school were from the lower socioeconomic group. In contrast, persisters' parents were higher in education, had higher incomes, smaller families and more siblings continuing in school (Turchan, 1966).

Alienation leading to premature school withdrawal was believed by Lauterback (1968) to manifest itself in the cultural alienation resulting from environmental factors. Potential dropouts had

experienced considerable failure and were generally rejected by school staff and peers (Coates, 1966). Parents of dropouts were also found to have negative attitudes toward education (Thompson and Nelson, 1963). Gordon (1968) added that these families felt their lives were subject to forces beyond their control, and that the institutions of society, including the school, were arrayed against them. Because of the permissive nature of the home, the conforming nature of the school created a stumbling block for them, said French and Cardon (1968). This was also evidenced by Janssen (1966) who found the lower socioeconomic dropout to be more creative than the lower socioeconomic persister within the present middle class school system.

Some of the reasons students gave for leaving school included a need for money, a desire for more spending money, and a preference to go to work (Thompson and Nelson, 1963). Programs were designed to provide for lack of adequate financial resources (Call, 1971, Woolfolk, 1971). Work experiences with pay were found effective in reducing the dropout rates for these lower socioeconomic students.

SUMMARY

This survey of literature revealed evidence of possible inter-correlation patterns among the variables of this study (realism of

career choice, tendencies to continue formal high school education, aptitude, high school achievement, sex, self-concept, and socioeconomic level). These variables which influenced the career choice and life of an individual were classified in the following way:

(1) inner-directing factors; (2) inner-limiting factors; (3) outer-directing factors; and (4) outer-limiting factors. Flum (1967) stressed that discrepancies existed between outer and inner directing factors or even among factors belonging to the inner directing group. In many cases a variable affected the individual in more than one respect. Global factors, such as the self-concept, served subjectively to integrate the whole system. The system, then, defined the individual's field of possibilities.

This survey demonstrated that intercorrelated patterns existed among the influencing variables. In each study, once patterns were established, methods were ascertained to improve the individual's chance for self-realization. This self-realization was believed by the researchers to increase the probability for a more complete contribution of the individual's potential and future generations' potential within society.

Chapter III

RESEARCH METHOD

This chapter includes information concerning the subjects, setting, instrumentation, and the statistical techniques. Following these descriptions, the procedures involving the preceding topics are described in detail.

SUBJECTS

Ss for this study were 125 students. They included 107 volunteers for the West Virginia Employment Security Services testing, 8 volunteers for Project GATE, and 10 participants in a Project GATE control group. Subject division was shown as follows:

Volunteers for testing	107
Project <u>GATE</u> volunteers	8
Project GATE control group	<u>10</u>
Total students	125

All students were in grades ten through twelve. Any student in grade twelve was allowed to request Employment Security Services testing. Many students who did not plan to attend college and wished help with career choices were included in this group.

Originally, Project GATE consisted of ten students. An attempt was made by the director to locate a cross-section of the high school population by study of school records and by discussions with teachers and students. Race, sex, grade level, high school achievement, socioeconomic, and personality factors were involved in the selection. The students were then interviewed and were allowed to volunteer. Two of the ten GATE students married during the 1972-1973 school year and did not complete the program.

The Project GATE control students were chosen by matched pair selection based upon a description of each Project GATE student. School records, teacher interviews, and student interviews were used to determine matching characteristics in grade level, high school achievement, aptitude, sex, socioeconomic level, and personality.

SETTING

The setting for this study consisted of regular classrooms in Glen Rogers, Herndon, Mullens, Oceana, and Pineville High Schools in Wyoming County, West Virginia.

Wyoming County is a rural area in southern West Virginia with a population in 1970 of 30,095. While of this population, 10,500 were within an age of employment, 500 or 4.8 percent were unemployed. These persons were employed by the Norfolk and Western Railroad, surrounding coal mines, and other small industries. The per capita

income in 1971 was \$2,153.00 in Wyoming County in comparison to \$2,610.00 in West Virginia (United States Department of Labor, 1971).

INSTRUMENTATION

The instruments for this study included the General Aptitude Test Battery (GATB), the Demos D (Dropout) Scale (DDS), the Index of Adjustment and Values (IAV), and the GATB Occupational Aptitude Patterns (OAP) Career Checklist.

The General Aptitude Test Battery (GATB) was developed by the United States Employment Service and has been used since 1947. Since that time the GATB has been included in a continuing program of research to validate the tests against success in many different occupations. Because of its extensive research base, the GATB has come to be recognized as one of the best validated multiple aptitude test batteries in existence for use in vocational guidance (United States Department of Labor, 1971). Studies were also initiated by the United States Employment Security Services which lead to the improvement of the GATB for high school students' use (Droege, 1968).

The nine aptitudes measured by the GATB and used in this study were identified with the following letter symbols: G (Intelligence), V (Verbal Aptitude), N (Numerical Aptitude), S (Spatial Aptitude),

P (Form Perception), Q (Clerical Perception), K (Motor Coordination), F (Finger Dexterity), and M (Manual Dexterity) (United States Department of Labor, 1971).

The DDS (Demos, 1965), an attitude scale for the identification of dropouts, determined verbalized opinions which reflected attitudes related to dropping out of school. In the DDS, validity and reliability were said to be both synonomous and high. Retest reliability coefficient of correlations ranged from .50 to .86 (Riker, 1944, 1945). Another indication of DDS validity and reliability was the establishment of mean DDS total score differences as well as individual DDS scale differences between the nondropout group and the dropout group (Demos, 1965).

Five DDS scores provided data for this study. These scores included a DDS Total Score, considered by Demos to be the most important DDS datum, and four basic area scores. The basic areas were T, dealing with attitudes toward teachers, counselors, and administrators; E, dealing with attitudes toward education, training, and college; P, dealing with attitudes toward peers and parents; and S, dealing with attitudes toward school behavior. Each score was interpreted in terms of dropout probabilities as follows: (1) little probability or five chances in one hundred; (2) some probability or twenty-five chances in one hundred; (3) even chance or fifty chances in one hundred; (4) strong probability or seventy chances in one

hundred; and (5) very strong probability or ninety chances in one hundred. The DDS Total Score was also interpreted in a range of twenty-nine to one hundred forty-five for further clarification (Demos, 1965).

The IAV (Bills, 1961) was designed to measure self-concept, self-acceptance, concept of the ideal self, and perceptions of how other people accept themselves. A person had information relative to his present self-organization (self-concept is a part of this self-organization) and a view of himself as he wished to be (concept of his ideal self). A significant portion of his behavior was aimed at bridging this gap. His self-satisfaction was directly related to the difference he perceived between his self-concept and his concept of his ideal self.

Personal maladjustment existed when the discrepancy between these two concepts was sufficiently large as to cause unhappiness. Social maladjustment, on the other hand, developed in relationships with people when a person perceived himself as more or less adequate than his peers. Social adjustment was possible when a person believed himself and others to be adequate and possessing worth, dignity, and integrity. He needed to have these perceptions of himself and to believe that others had similar self-percepts (Bills, 1951).

Therefore, for purposes of this study, discrepancy scores or scores representing the differences between the self-concept rating and the ideal self-rating, and scores representing the differences between the individual's perception of others' self-concept and ideal self were used. Split-half and test-retest reliability coefficients for the discrepancy scores were established as follows:

SELF	Split-half	.88	Test-retest	.65
OTHERS	Split-half	.92	Test-retest	.40

These scores were validated for both concurrent and construct validity through correlation with other self-concept tests such as the Phillips Attitudes Toward Self and Others Questionnaire, the California Test of Personality, and the Washburne S-A Inventory (Bills, 1951). Additional experimental validation supported this initial research (Roberts, 1952).

The OAP Career Checklist was based on the GATB Student Guide listing of jobs or general areas of work that related to GATB scores. Space was also provided on the Checklist for the student to write in an occupation of his choice. Each choice was checked in the GATB Occupational Aptitude Patterns for occupational recommendations. These recommendations were checked against the student's GATB scores. Discrepancy between GATB minimum scores, required to perform satisfactorily the major tasks of each occupation or area of work, and the student's scores were evaluated in terms of

career choice realism. The subject was given a score of (1) if he was within the GATB recommended occupation; (2) if he, with the standard error of measurement was within the GATB recommended occupation or was marginal on just one score; or (3) if he was outside the recommended occupation. His occupational choice was used for the occupational aspiration as a GATB OAP number. In general, lower OAP numbers required higher GATB scores, particularly in academic aptitudes.

Each subject was asked to rank himself on the definiteness of his career choice on a scale of (1) indefinite through (6) very definite. He was also asked to check the level of education which he would like to achieve from a list consisting of high school, vocational or technical school, junior or community college, regular four-year college, and training above four-year college. These choices were later ranked (1) through (5) in the same order. These choice numbers (1 - 5) were recorded to represent the student's educational aspiration and achievement.

Socioeconomic level was based on the Anne Roe typology designated by the occupational level of the father and/or mother of each subject. This method followed the guidelines found in "Classification of Students According to Father's Occupation" (Goolsby and Frary, 1971). Within this classification (1) the student's father held a professional or managerial position usually with a

bachelor's degree, (2) the student's father held a regular, full-time job which required training but not at the college level, (3) the student's father held a job which required only short-term training.

Sex classification for subjects, (1) female or (2) male, was obtained from school records. All school records were verified with the school principals and/or the subjects. Achievement was based on the high school grade-point average with a 4.0 system (A - 4.0, B - 3.0, C - 2.0, D - 1.0, F - 0).

TESTING ACTIVITIES AND PROCEDURES

The subjects were tested by the West Virginia Employment Security Services personnel, Project GATE Guidance Aide, and Project GATE Director and researcher at different scheduled times in the 1972-1973 school year. These students were tested in five high schools within Wyoming County, West Virginia: Glen Rogers, Herndon, Mullens, Oceana, and Pineville.

At regularly scheduled testing dates, West Virginia Employment Security Services personnel administered the GATB to each of the subjects. These administrators were assisted by the Project GATE Guidance Aide and/or the Project GATE Director and researcher. Following the testing, the answer sheets were machine scored by the administrators and copies of the results were obtained by the researcher.

During these same testing periods, the DDS was administered and later scored by the Project GATE Guidance Aide and/or the researcher. The Aide and the researcher administered and scored the IAV and the OAP Career Checklist in the spring of 1973, obtaining the self and others' discrepancy scores, occupational aspiration, definiteness, educational aspiration, and socioeconomic level. At this time the GPA and sex of each subject were added to the data from the school records.

STATISTICAL PROCEDURES

The researcher tabulated all scored data in preparation for computation. All data were rechecked for errors. The statistical procedures included factor analysis, and the computation of means and standard deviations both for the total subjects and for varied groups within each variable. Initially, the computer program, BMDO3D (Dixon, 1973), was used to obtain means, standard deviations, and a correlation matrix allowing for pairwise deletion of cases with missing data. The missing data were due to subjects who became unavailable for testing. The resulting correlation matrix was used as input to the factor analysis program, BMDO8M (Dixon, 1973). To obtain this analysis, unities were placed in the diagonal of the inter-correlation matrix, and a principal components extraction was performed to the point at which eigenvalues of less than 1.0 were

encountered. A varimax rotation was performed for all factors corresponding to these eigenvalues.

Based upon the interpretation of the factor analysis, the data were analyzed by use of the following cross tabulations:

- (1) A comparison of self-concept discrepancy scores with socioeconomic level and the DDS influence by peers or parents.
- (2) A comparison of DDS scores (E, P, S) with realism of career choice and occupational aspiration.
- (3) A comparison of GATB (G, V, N) scores with DDS total scores.
- (4) A comparison of female and male occupational aspiration with DDS attitudes toward teachers.
- (5) A comparison of GATB (G, V, N) scores and GPA with socioeconomic level and realism career choice.

Means and standard deviations were computed for the subjects within each cell or combination of cells in the cross tabulation, depending on the number of subjects involved.

Miscellaneous analysis consisted of the following frequency charts:

- (1) A comparison of socioeconomic level with educational aspiration.

- (2) A comparison of occupational aspiration according to sex.
- (3) A comparison of educational aspiration according to sex.

SUMMARY

Within a descriptive design, 119 - 125 subjects were administered the GATB, the DDS, the IAV, and the OAP Career Checklist in five Wyoming County high schools. Sex and high school achievement were determined for each subject from school records. These were verified by school principals and/or the subjects. All instruments were administered and scored, and the data recorded by the West Virginia Employment Security Services personnel, Project GATE Guidance Aide, and Project GATE Director and researcher.

These data were analyzed by the following statistical methods: means, standard deviations, frequencies, and factor analysis. With the aid of a computer, the data were compiled into tables and charts for interpretation.

Chapter IV

RESULTS

Twenty-two variables were considered in this analysis.

These variables included realism of career choice, educational aspiration, definiteness, DDS in attitudes toward teachers, attitudes toward education, influences by peers or parents, and school behavior, GATB scores in general intelligence, verbal aptitude, numerical aptitude, spatial aptitude, form perception, clerical perception, motor coordination, finger dexterity, manual dexterity, grade-point average, sex, self-concept discrepancy, others' concept discrepancy, socio-economic level, and occupational aspiration. Because of personal involvement with the subjects and their environment, the researcher found unbiased analysis difficult. An attempt was made, however, in Chapter IV to extract from the statistical data salient findings for objective interpretation and discussion.

The method for presentation of these findings included means and standard deviations, factor analysis, and miscellaneous analyses. Means and standard deviations of the original variables were examined in view of score range potential. From the factor analysis, factors which condensed the original twenty-two variables were identified,

denominated and interpreted. Additional raw data were compiled into frequency charts for further consideration under the designation of miscellaneous analyses. Labeled discussion which considered these data findings, related literature findings, and the researcher's observations followed specific interpretation presentations.

MEANS AND STANDARD DEVIATIONS

Interpretation

The mean, standard deviation, score range, and subject number for the variables (Table I) indicated the following characteristics of the students studied. The subjects had a mean score of 2.0 on realism of career choice. This result was interpreted to mean that the students' average was marginal. About two-thirds of the students scored either 1, 2, or 3 (mean of 2.1) on educational aspiration which was interpreted to be low. These same students scored relatively high on definiteness with a mean of 4.2 and a standard deviation of 1.9. On a five-point Demos D. Scale the means of the students ranged from 2.3 - 3.3 with attitudes toward teachers indicating the strongest dropout tendency. Only slight dropout tendencies were evidenced by the mean scores of attitudes toward education, influence by peers or parents, and school behavior.

GATB scores showed means of 91.6 - 108.1 with standard deviations of 12.0 - 21.9. The greatest dispersion was found in

TABLE I
MEANS STANDARD DEVIATIONS, SCALES,
AND SUBJECT NUMBERS

Variable	Low - High Scale		Mean	Std. Dev.	No. of
	Negative	Positive			Subj.
1 Realism of Career Choice	3	1	2.0	0.9	118
2 Educational Aspiration	1	5	2.1	1.3	118
3 Definiteness	1	6	4.2	1.9	118
Demos D. Scale:					
4 Attitudes toward Teachers	5	1	3.3	0.5	124
5 Attitude toward Education	5	1	2.4	0.5	124
6 Influences by Peers or Parents	5	1	2.6	0.6	124
7 School Behavior	5	1	2.3	0.5	124
General Aptitude Test B:					
8 General Intelligence	45	145	96.3	12.2	125
9 Verbal Aptitude	45	145	93.3	14.5	125
10 Numerical Aptitude	45	145	99.8	12.0	125
11 Spatial Aptitude	45	145	98.3	16.7	125
12 Form Perception	45	145	108.1	16.8	125
13 Clerical Perception	45	145	106.3	13.1	125
14 Motor Coordination	45	145	103.5	16.4	125
15 Finger Dexterity	45	145	98.1	18.8	119
16 Manual Dexterity	45	145	91.6	21.9	122
17 Grade-Point Average (4.0 System)	1	4	2.4	.7	124
18 Sex (Female 1, Male 2)	1	2	1.4	.5	125
19 Discrepancy Self-Concept	196	0	34.8	17.4	118
20 Discrepancy Others' Concept	196	0	34.4	18.5	118
21 Socioeconomic Level	3	1	2.6	.7	119
22 Occupational Aspiration	62	1	16.7	12.6	119

a mean score of 91.6, manual dexterity. The GPA mean demonstrated by these students was above average with 2.4 on a 4.0 scale.

Females (seventy-one) outnumbered the males (fifty-four) by seventeen reflected in the 1.4 mean sex computation. Self-concept and others' concept discrepancy scores (34.8 and 34.4) were lower and more positive than were general norms (43.9 and 42.6) established with high school seniors (Bills, 1951). The standard deviation for each showed less dispersion of scores than was found in the Bills' study. Socioeconomic level fell between medium and low levels with a mean of 2.6. On an occupational level scale ranging from the highest level of one to the lowest occupational level of sixty-two, the mean of the group was 16.7 with considerable dispersion as indicated by the standard deviation of 12.6.

Discussion

The 125 students tested were generally from families of low socioeconomic level. With average intelligence and aptitude, these students demonstrated slightly above average achievement as evidenced by their grade-point average. They, however, were marginal in their realistic appraisal of careers but definite as to their choices, which ranked in the upper one-third level of occupational aptitudinal requirements. Their educational aspirations were generally low.

Dropout tendencies were slightly below the middle range except for attitudes toward teachers, which ranged slightly higher. Self-concept discrepancy scores showed positive self-concept in regard to norms established by high school seniors. (Bills, 1951).

As indicated by Super (1957), career choice was a process of decision making and compromising which involved all of one's abilities, interests, and psychosocial forces. The low socioeconomic level of the students tested made reasonably predictable the low educational aspirational. This result was consistent with findings by Roe (1956) and Wilkins (1972) and supported the conclusion that a child remained in or near his father's general socioeconomic group. A contrary trend seemed to be established as one analyzed the relatively wide dispersion of chosen occupations. The occupational score, however, indicated that occupations which were attractive to those tested were more demanding than the level of education to which the student aspired. This demonstrated that his educational ambition came under influence of his family and other environmental factors.

Environmental factors included natural geographic barriers in mountain communities and limited cultural advantages (Amos and Grambs, 1968). These factors compounded by low socioeconomic level limited the students' knowledge of careers and tended to interfere with his capacity to emphasize "realism" rather than "idealism" (Slayton, 1963) in his choice of careers. On the other hand, the fact

that realism did not appear above marginal in test results indicated that the students' choices were influenced more by their knowledge of careers locally available rather than by an understanding of the careers to which they were particularly suited by aptitude and educational aspiration.

This deficiency may have accounted for a high score on definiteness of career choice. Limited knowledge of careers also seemed to be a determining factor along with a need for earning money in jobs most readily available within the local economic and industrial community. Based upon the low socioeconomic level and limited job availability, these students found it difficult to relate job opportunities to persistence toward higher levels of education. They tended toward the relatively low educational aspiration level, and consequently, greater dropout potential. According to French and Cardon (1968), dropouts desired "practical courses," which when not available, discouraged continued educational advancement.

These students manifested average aptitudes, slightly above average achievement, and scored well above norms on self-concept testing. Inasmuch as the self-concept measurement determined the discrepancy between what a student was and what he desired to be, the results reflected a degree of self-acceptance (Bills, 1961). The association of these characteristics with low socioeconomic levels was in contrast to the findings of Amos and Grambs (1968).

FACTOR ANALYSIS

Factor analysis was completed (see page 28) in order to determine the extent to which the twenty-two variables measured common factors. This analysis resulted in seven factors which summarized twenty-two original variables. The criterion for inclusion of an item on a given factor was that its highest factor loading be on that factor and that the loading be not less than .33.

These seven rotated factors (corresponding to eigenvalues greater than 1.0) were titled: non-verbal ability, self-concept discrepancy, DDS, verbal general ability, aspiration definiteness, sex — teacher problem, and achievement status. The above factors were used extensively in this study in order to investigate more closely relationships which were believed to exist as indicated in the following tables, the first of which was Table II, the Rotated Factor Matrix. Interpretation of each factor was as follows:

Non-Verbal Ability

Interpretation. Table II, Factor I, showed high loadings on manual and non-verbal activities of form perception (P 12), clerical perception (Q), motor coordination (K), finger dexterity (F), and manual dexterity (M), with a slight loading on the sex factor indicating greater female non-verbal ability and numerical aptitude.

TABLE II

ROTATED FACTOR MATRIX

Variable		I Non- Verbal Ability	II Self- Concept Discrep.	III DDS	IV General Ability	V Aspiration Definite- ness	VI Sex Teacher Problem	VII Achieve- ment Status
R. C.	1	-19	-13	-36	-19	21	-12	61
E. A.	2	06	-33	-29	11	71	-09	-09
D	3	08	17	28	-03	78	03	01
DDS: T	4	18	-14	13	12	-07	-71	21
E	5	-07	05	78	-09	01	-20	01
P	6	-25	-37	50	17	11	25	-02
S	7	-09	-08	76	09	06	-16	25
GATB: G	8	05	-09	-07	55	04	-14	-74
V	9	04	-09	-14	45	15	-03	-73
N	10	37	-17	-17	02	-07	-00	-67
S	11	11	03	12	82	-01	-06	-21
P	12	40	11	-12	69	04	12	-26
Q	13	64	07	-20	37	-09	19	-34
K	14	75	03	-21	-07	-07	02	-30
F	15	79	02	08	14	17	06	-07
M	16	84	07	-05	15	04	-14	-04
G. P. A.	17	29	-19	-13	13	18	28	-61
Sex	18	-39	01	27	-09	24	-68	-12
S. C. D.	19	-13	-86	03	01	-03	08	-15
O. C. D.	20	05	-79	00	-08	04	-21	-07
SEL	21	08	41	02	13	-35	-09	44
O. A.	22	-04	35	51	-29	-25	-42	-10

TABLE II

ROTATED FACTOR MATRIX

R. C. = Realism of career choice; E. A. = Education Aspiration; D = Definiteness;
DDS = Demos D. Scale; T = Attitudes toward Teachers; E = Attitude toward Education;
P = Influences by Peers or Parents; S = School Behavior; GATB - General Aptitude Test B;
G = General Intelligence; V = Verbal Aptitude; N = Numerical Aptitude; S = Spatial Aptitude;
P = Form Perception; Q = Clerical Perception; K = Motor Coordination;
F = Finger Dexterity; M = Manual Dexterity
S. C. D. = Self-Concept Discrepancy; O. C. D. = Other Concept Discrepancy;
SEL = Socioeconomic Level; O. A. = Occupational Aspiration.

Discussion. Apparently form perception, clerical perception, motor coordination, finger dexterity, and manual dexterity were more interrelated with each other than they were with general intelligence since no substantial general intelligence loadings appeared in Factor I. It might also be concluded that these five aptitudes were not related to educational aspiration nor to dropout tendencies in general. Loadings were not sufficiently high to indicate a strong correlation between non-verbal capabilities and career choice realism, dropout tendencies or grade-point average. Slight tendencies were noted in sex, signifying a higher degree of dexterity and perception among female subjects than among male subjects. Minimal loadings also appeared on numerical aptitudes.

Generally speaking, students with non-verbal abilities were expected to be realistic in career choice because their inclination might be the acceptance of a vocation within their apparent aptitudes. Computer analysis, however, appeared to support the conclusion that non-verbal ability failed to influence vocational realism since meaningful intercorrelations were absent from Factor I.

Self-Concept

Interpretation. Because of high loadings on self-concept discrepancy and others' concept discrepancy scores, Table II, Factor II, was interpreted to be a self-concept factor. Other

substantial loadings on this factor included the dropout tendency, influence by peers or parents (P), and socioeconomic level. Slight loadings were noted on educational aspiration and occupational aspiration. Socioeconomic level and occupational aspirations were positively correlated with Factor I; whereas, the other four variables were negatively correlated.

It may be anticipated that the higher the self-concept and others' concept discrepancy scores, the higher the dropout tendency score (P), likewise, the higher the self-concept and others' concept discrepancy scores and the higher the dropout tendency scores (P), the lower the socioeconomic level scores. Consideration was given to the fact that a low socioeconomic score denoted high socioeconomic level (1); whereas, a low socioeconomic level was designated by a score of 3. Likewise, the lowest occupational aspiration score (1) indicated the highest occupational aspiration level. A high self-concept and others' concept discrepancy score tended to identify a student from a high socioeconomic level with a high dropout tendency measured by the student's attitude toward peer or parental influence, higher educational aspiration, and higher occupational aspiration.

Table III contained self-concept discrepancy and others' concept discrepancy scores of all the students arranged in cross tabulation to illustrate the relationship of these scores to socioeconomic level and DDS (P) scores. The mean self-concept

TABLE III

A COMPARISON OF SELF-CONCEPT DISCREPANCY SCORES
WITH SOCIOECONOMIC LEVEL AND THE DDS INFLUENCE
BY PEERS OR PARENTS

	SOCIOECONOMIC LEVEL									DEMOS D - PEERS OR PARENTS								
	High			Medium			Low			Low			Medium			High		
	1			2			3			1-2			3			4-5		
	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N
Self- Concept Discrep.	49.9	19.9	9	42.2	17.7	27	30.7	15.0	82	29.9	13.5	48	36.2	18.7	66	55.2	16.2	5
Others' Concept Discrep.	44.4	11.2	9	35.4	17.2	27	33.2	19.7	82	32.8	16.9	48	34.7	19.4	66	52.6	18.2	5

discrepancy score shown in Table I was 34.8. Those nine students from high socioeconomic level families showed a mean self-concept discrepancy score of 49.9 and others' discrepancy mean score of 44.4. Those students from low socioeconomic level background (eighty-two) scored 30.7 on the average in self-concept discrepancy and 33.2 in others' concept discrepancy.

The other portion of the cross tabulation showed that the forty-eight students lowest in dropout tendencies, measuring their attitude toward peers or parents, scored well below the average self-concept discrepancy score by tabulating 29.9; and for others' concept discrepancy average, this group scored 32.8. The five students highest in self-concept discrepancy exhibited a mean score of 55.2 and an others' concept discrepancy of 52.6.

Discussion. Self-concept discrepancy used in testing procedure was designed to measure self-dissatisfaction. It attempted to measure the difference between what a student saw himself to be as opposed to what his ideal self-concept actually was.

The findings of Flum (1967), Tseng (1970), Pandit (1965), Bell (1960), Carroll (1972) and Borow (1964), expressed self-concept to be one of the most significant aspects in the total development of the individual. According to Tseng (1970), students who had adequate self-concept had greater motives to approach success than motives to

avoid failure and were more accurate in their perception of occupational prestige and higher occupational aspiration. Pandit (1965) concluded that students with a high regard for themselves had high occupational aspiration and choices.

By comparison to these studies, research revealed (Table III) that those students from the lowest socioeconomic level had the lowest self-concept discrepancy score and likewise, the lowest others' concept discrepancy score. The lower self-concept discrepancy score and the lower others' concept discrepancy score implied that those eighty-two students from the lowest socioeconomic level were self-accepting and saw others in like situations (Bills, 1961). This outcome was in contrast with the findings of Amos and Grambs (1968) who considered that damaged self-concept resulted from poverty and cultural deprivation of lower socioeconomic groups. This contrast would be peculiarly applicable only within the context of the setting in which the data were collected, namely, mountain communities of Wyoming County, West Virginia.

These findings were also in conflict with those writers who found that adequate self-concept encouraged one to higher educational aspiration and occupational aspiration. In this study, students with more self-acceptance showed preferences for lower levels of occupational and educational choice than did those students with higher self-concept discrepancy scores. A conflict existed with other

research findings when adequate self-concept was viewed as the equivalent of low self-concept discrepancy, Table II, Factor II.

The correlation between self-concept and others' concept discrepancy and dropout tendency, as measured by the students' reaction to influences by peers or parents, was expressed in the second portion of the cross tabulation of Table III. Out of 119 students, only five scored high in the dropout tendency and yet, their average self-concept discrepancy score was extremely high (55.2 with an others' concept discrepancy of 52.6). This finding was supported by Fiffield (1964) who also found a larger self-concept discrepancy associated with the potential dropout.

Research findings by Gordon (1968) likewise disclosed that the dropout felt his behavior was provoked by others and saw himself as a failure. This low esteem made him self-rejecting. According to Thornburg (1971), the potential dropout was more self-critical and devalued himself even as a family member more so than did his peers. In addition, he failed to participate in school activities which tended to instill feelings of self-respect, belonging and acceptance.

Those lowest in the dropout tendency, influence by peers or parents, shown in Table III (forty-eight students averaged 29.9) demonstrated a low self-concept discrepancy and projected a corresponding pattern for others. These students having a tendency to persist in formal education scored similarly to those involved in

studies by Burkett (1972) in which the persister had a higher over-all self-concept score than did the potential dropout.

Dropout Tendency

Interpretation. Table II, Factor III, of the Factor Matrix indicated high loadings on DDS scores in attitudes toward education (E), influence by peers or parents (P), and school behavior (S). Because of the high loadings of the above variables this factor was interpreted as one showing dropout tendency.

Also loading with these DDS scores were realism of career choice and occupational aspiration. A cross tabulation illustrating the relationships of realism of career choice and occupational aspiration to the DDS scores of E, P, and S was shown in Table IV.

In dividing the students by their realism of career choice scores as previously noted, forty-six made choices within the recommended career pattern while twenty-two were marginal; and fifty-one were clearly outside the recommended career pattern for their respective capabilities.

In segregating students according to occupational aspiration, those choosing occupations within the occupational aptitudinal pattern (OAP) ranging between one through fifteen were classified high; sixteen through thirty were classified medium; and above thirty-one were classified low. It was noted that of the one hundred nineteen

TABLE IV

A COMPARISON OF DDS SCORES (E, P, S) WITH REALISM
OF CAREER CHOICE AND OCCUPATIONAL ASPIRATION

	Realism of Career Choice									Occupational Aspiration								
	High			Medium			Low			High			Medium			Low		
	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N
DDS:																		
E	2.5	.6	46	2.4	.5	22	2.4	.5	51	2.3	.4	54	2.4	.5	44	2.8	.6	21
P	2.7	.6	46	2.6	.5	22	2.6	.6	51	2.7	.6	54	2.6	.6	44	2.7	.5	21
S	2.3	.6	46	2.2	.4	22	2.3	.6	51	2.2	.4	54	2.3	.5	44	2.5	.6	21

DDS = Demos D. Scale; E = Attitude toward Education; P = Influences by Peers or Parents;
S = School Behavior; M = Mean; SD = Standard Deviation; N = Number.

students, fifty-four chose OAP numbers rating them high in occupational aspiration; forty-four chose occupations located in the middle range; and twenty-one chose occupations ranked in the low classification.

Means and standard deviations of DDS scores as they related to realism of career choice and occupational aspiration illustrated complex behavior characteristics. However, the students showing the highest level of realism in career choice and the lowest level of occupational aspiration revealed in both categories the highest dropout tendencies. Those students most realistic and those least realistic in career choice in general demonstrated greater dropout tendencies than did those in the medium range.

A pattern in which students who showed the highest occupational aspiration also demonstrated the least dropout tendencies seemed to be established but became irregular in the mean P score (influence by peers or parents). This 2.7 mean score indicated that those students choosing the highest occupational levels were subjected to severe dropout stress from influence by peers or parents. Although those with high occupational aspiration were least influenced with the attitudes toward education and school behavior, they were subjected to dropout stress from peers and parents.

In measuring dropout tendencies both in regard to realism of career choice and level of occupation chosen, influence by peers or

parents demonstrated with consistency higher scores than did attitudes toward education or school behavior.

Even though the general ability variable did not correlate highly with the dropout tendency factor, findings documented by other research demonstrated a substantial positive relationship. For this reason, DDS total raw scores of the one hundred twenty-five subjects tested were cross tabulated with general ability in Table V. DDS total scores were arranged as nearly as possible so that one-third of the students tested were in each group (high, medium, and low). The results indicated little difference in mean and standard deviation of the three groups.

Discussion. The findings from Table II, Factor III, showed in more detail in Table IV, that students with more realistic appraisal of their career capabilities and lower occupational aspiration (choices with less demanding requirements) were more likely potential drop-outs.

A correlation between low level of occupational choice and a high degree of realism in choosing a vocation would exist in that the twenty-one students that chose low level careers were most likely within their aptitude range, and therefore, would be numbered among the forty-six who tested high in realism of career choice. The lower the level of careers chosen with less demanding requirements meant

TABLE V
A COMPARISON OF GATB (G, V, N)
SCORES WITH DDS TOTAL SCORES

	D. D. S. Total Scores								
	High			Medium			Low		
	M	SD	N	M	SD	N	M	SD	N
GATB:									
G	96.8	12.3	43	98.3	12.6	44	96.0	12.5	38
V	93.2	12.5	43	95.0	11.3	44	93.7	11.7	38
N	98.3	11.8	43	101.7	11.0	44	99.3	13.0	38

DDS = Demos D. Scale;
 GATB = General Aptitude Test B;
 G = General Intelligence;
 V = Verbal Aptitude;
 N = Numerical Aptitude;
 M = Mean;
 SD = Standard Deviation;
 N = Number

in most instances that the career chosen was within the student's potential. Limitations of the realism testing, however, prevented disclosures of "nonrealism" in cases in which students chose occupations that were beneath their potential.

These findings suggested the possibility that the students tested failed to relate career potential to the pursuit of formal education. Failure to relate school to future work increased dropout tendencies (Thompson and Nelson, 1963). Of the dropout tendencies measured, the most critical factor in these students' choice of career and occupational level was influence by peers and parents as opposed to attitudes toward education and school behavior. When students in southern Appalachia wanted more formal education to increase range in career choice, they were likely to receive the parental advice to get a job and to aid family economics.

This same parental pressure influenced children to be closely tied to the family work group (Lewis, 1970), and to become a part of a generation-to-generation addiction to a family vocation (Roe, 1956). Hospitalization, unemployment insurance, retirement funds, welfare, and other fringe benefits of coal mining and rail-roading tended to influence the potential family wage earner to remain in occupations associated with environmental factors.

Table V indicated no substantial differences in total DDS scores in relation to general ability. Even those of highest general

ability manifested dropout tendencies. This present research, however, was contrary to the research of Droege (1968), Bryan (1970), Beaird (1965), Thompson and Nelson (1963), and Das (1963), who found lower intelligence among potential dropouts than among persisters. Even the more intelligent manifested greater, than might be expected, dropout tendencies for students of this general ability level within the general population. The research of Droege (1968) and others found that persistence in every case showed higher general ability mean scores. Those with highest intelligence in this study, however, failed to exhibit the lowest dropout tendencies perhaps because of factors that were peculiarly attributable to this region.

This idea was also supported by the strong influence of peers and parents on dropout tendencies for all levels of realism and levels of occupational aspiration. Even students of higher intelligence may have chosen lower occupations than those for which their latent ability might have qualified them. Through realism of career choice analysis, these students would have scored high because they chose careers well within their ability. Intelligence level, thus, did not seem to be nearly so constant a factor in dropout tendencies as did the influence of peers and parents which consistently denoted higher dropout tendency scores in all levels of occupational choice and realism of career choice (Table IV).

General Ability

Interpretation. Table II, Factor IV, indicated heavy loadings on GATB general intelligence (G), verbal aptitude (V), spatial aptitudes (S), form perception (P), and clerical perception (Q) and was labeled a general ability factor. No other significant loadings were found on this factor.

Discussion. The group of variables entering this analysis were more related among themselves than to members of other groups. However, some variables defining this factor also loaded on Factor VII indicating an intercorrelation with other variables.

Aspiration - Definiteness

Interpretation. Educational aspiration and definiteness in career choice appeared to be most substantial in the variables loading in Table II, Factor V. For this reason, Factor V was defined as aspiration - definiteness. Both educational aspiration and definiteness variables were positively correlated with this factor. Socioeconomic scores showed a slight negative correlation with this factor. The lower the socioeconomic level score, however, the higher the socioeconomic level.

Discussion. The failure of heavy loadings to appear on Factor V on realism of career choice indicated that a student may be

definite but not necessarily realistic in his career choice. A direct relationship among definiteness in career choice, educational aspiration, and socioeconomic level existed without high corresponding loadings in realism of career choice. It may be assumed that a substantial number of students were definite in choice of careers, but perhaps lacking in realism. The correlation of socioeconomic level with Factor V was consistent with the findings of Roe (1956), Wilkins (1972), and Hanchey (1970), who found the influence of socioeconomic level to be critical in aspiration.

Sex — Teacher Problem

Interpretation. Table II, Factor VI, indicated high loadings on dropout tendencies in attitudes toward teachers (T), sex, and occupational aspiration. The high loadings were positively correlated. In other words, when the dropout tendency increased, the sex score was increased. Since female was identified by the number one and male was identified by the number two, the similar increase indicated more problems with attitudes toward teachers and lower occupational aspiration for male students than for female students.

A cross tabulation chart (Table VI), which showed the interrelationships between dropout tendencies as measured by attitudes toward teachers and occupational aspiration, was prepared and presented according to sex. This table showed that those females

TABLE VI

A COMPARISON OF FEMALE AND MALE OCCUPATIONAL
ASPIRATION WITH DDS ATTITUDES TOWARD TEACHERS

	The DDS - Attitudes Toward Teachers								
	Low			Medium			High		
	M	SD	N	M	SD	N	M	SD	N
Female Occupational Aspiration	8	0	2	12.2	7.1	55	16.2	15.0	11
Male Occupational Aspiration	8	0	1	22.4	15.3	28	22.2	14.0	23

having the highest dropout tendency measured exhibited the lowest level of occupational aspiration. Occupational levels aspired to ranged from one, which was high, to sixty-two, which was low, based on aptitudinal requirements.

Discussion. Important, perhaps, was the indication from Table II, Factor VI, and Table VI that fifty-five females of average dropout tendencies in attitudes toward teachers chose occupational levels with a mean of 12.2. Only two females low in this particular dropout tendency chose an occupational group with a mean of eight.

Comparing the data on male students in Table VI, it was noted that those male students, twenty-three in number, having the highest dropout tendency as measured by their attitude toward teachers, did not score the lowest in occupational aspiration as might have been expected. The lowest level of occupations were chosen by those twenty-eight students who had medium range dropout tendencies in attitudes toward teachers.

Generally, it was obvious that male students in the medium and high range of dropout tendency (fifty-one out of fifty-two male students tested) chose substantially lower occupational levels than did any of the females tested. This test result suggested that very few careers involving manual labor for females were available; thus, in order to secure employment, training and some formal education were required for other than menial tasks.

From the above, it was concluded that the male students in this study experienced more dropout tendencies in attitudes toward teachers than did the female students. This result reflected poor male student-teacher relationships and thus greater dropout tendencies. This conclusion was tenuous in that corresponding loadings did not appear in attitudes toward education, influence by peers or parents, school behavior, or dropout tendencies that might have been anticipated. The general conclusion, however, was supported by Das (1963) who found that more boys than girls drop out of school. Findings by French and Cardon (1968) also indicated that boys were alienated from education by poor achievement, a possible influence in male students' attitudes toward teachers.

Achievement-Status

Interpretation. Table II, Factor VII, of the factor matrix was interpreted to be achievement-status because of high loadings on GPA and socioeconomic level. Substantial loadings were also found in GATB (G, V, and N) scores and realism of career choice. Slight loadings were found on clerical perception (Q). The socioeconomic level score and realism of career choice scores were inversely correlated with GATB (G, V, and N) scores, GPA, and clerical perception. In other words, the higher the socioeconomic level and realism of career choice, the more likely students were to manifest

higher levels of intelligence, verbal, and numerical aptitudes, achievement based on grade-point average, and clerical perception. The cross tabulation in Table VII tended to support the foregoing conclusion.

Analysis by cross tabulation in Table VII revealed that nine students from this high socioeconomic level had G, V, and N mean scores of 110.0 - 110.4 with a mean grade-point average of 3.3; those students from the medium category had mean G, V, and N scores ranging from 95.4 to 100.0 with a mean grade-point average of 2.5; and students from the low socioeconomic level had mean G, V, and N scores ranging from 92.4 to 98.5 with a mean grade-point average of 2.4.

Students scoring low in realism of career choice exhibited mean G, V, and N scores ranging from 88.7 to 96.4 with mean grade-point average of 2.2. The students with marginal realism of career choice had mean G, V, and N scores ranging from 97.8 to 99.5 with mean grade-point average of 2.6. Those students exhibiting high levels of realism in career choice showed mean G, V, and N scores ranging from 99.3 to 104.5 with mean grade-point average of 2.7.

Of the one hundred seventeen students tested, eighty-two ranked low, twenty-six medium and only nine ranked high in socioeconomic level. In realism of career choice, fifty-one of one hundred nineteen ranked low; twenty-one were in the marginal range; and

TABLE VII

A COMPARISON OF GATB (G, V, N) SCORES AND GRADE-POINT
AVERAGE (GPA) WITH SOCIOECONOMIC LEVEL AND
REALISM OF CAREER CHOICE

	Socioeconomic Level									Realism of Career Choice								
	High			Medium			Low			High			Medium			Low		
	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N
GATB:																		
G	110.4	5.7	9	98.1	14.5	26	95.6	11.3	82	104.5	10.8	47	99.1	9.1	21	90.8	11.3	51
V	110.0	8.6	9	95.4	13.0	26	92.4	10.1	82	99.3	11.8	47	97.8	11.1	21	88.7	10.3	51
N	110.1	6.3	9	100.0	11.3	26	98.5	12.1	82	103.9	12.6	47	99.5	10.2	21	96.4	11.5	51
GPA	3.3	.5	9	2.5	.7	26	2.4	.6	82	2.7	.7	47	2.6	.7	21	2.2	.6	51

GATB = General Aptitude Test B;

G = General Intelligence; V = Verbal Aptitude; N = Numerical Aptitude;

GPA = Grade-Point Average (4.0 System);

M = Mean; SD = Standard Deviation; N = Number

forty-seven ranked high. These forty-seven students ranking high in realism of career choice demonstrated not only higher levels of general ability as evidenced by their G, V, and N scores, but also greater achievement as shown by their GPA of 2.7.

Discussion. According to Roe (1956) socioeconomic level was one of the most important influences in an individual's life. She pointed to Maslow's needs theory as being significant to realism of career choice. She concluded that it was most likely that a child remained in or near his father's general socioeconomic group. Supporting the conclusions of Roe, this study demonstrated that in the subjects tested from southern Appalachia, socioeconomic level had a critical impact upon the students' general ability. The results of this impact were seen by GATB (G, V, and N) scores, level of achievement as shown by his GPA, and level of educational aspiration.

Alienation leading to premature school withdrawal manifested itself in the cultural alienation resulting from environmental factors (Lauterback, 1968). This cultural deprivation of the lower socioeconomic groups bringing with it low parental motivation and poor verbal communication (Amos and Grambs, 1968) projected more significant consequences than did the level of income in southern Appalachia. Parents were found to have negative attitudes toward education (Thompson and Nelson, 1963). Many of these families felt

that they were rejected by the school staff and that their lives were subjected to forces beyond their control, and that institutions of society, including the school, were arrayed against them (Gordon, 1968).

Table VII showed that those students from low socioeconomic backgrounds had a tendency to lower achievement as indicated by their mean grade-point average (2.4) and further had a tendency to manifest a lower degree of general ability as evidenced by their GATB (G, V, and N) scores. In consideration of the families of lower socioeconomic levels (Gordon, 1968), was it possible that the grade-point average discrepancy between low socioeconomic level students and students from other levels could be accounted for in part by teachers' awareness of family background, and consequently prejudiced evaluation of the student's performance? Or, was it more likely that this student's performance by intelligence, by achievement, and by aspiration was the over-all product of his environment? This study demonstrated in Table VII that the intelligence level, the achievement level, and the realism of career choice were all related to the socioeconomic level from which the student had his origin. Further, Table VII indicated the subjects of low socioeconomic level in southern Appalachia either did not aspire to rise above the level of their own environment, or if so aspired, lacked realism in their choice of career. They did not have the capacity to achieve such high levels of educational attainment

or realism of career choice as demonstrated in Table VII (the higher the level of intelligence, the higher the level of realism in choice of career). Not only were students of lower general ability less realistic in career choice, but also, they demonstrated a lower level of achievement as indicated by their GPA.

MISCELLANEOUS ANALYSES

Upon the completion of factor analysis and cross tabulations, additional raw score data were compiled into frequency charts.

These frequency charts displayed occupational and educational aspiration according to socioeconomic level and according to sex.

Socioeconomic Level — Educational Aspiration

Interpretation. A detailed presentation of the raw scores, together with percentages for all of the one hundred seventeen students showing the relationship of socioeconomic level to educational aspiration, was compiled in a frequency chart, Table VIII. Because this relationship was suggested by the survey of literature and slight loadings on the factor analysis (Table II, Factor II, and Factor V), the correlation matrix was examined to ascertain the correlation coefficient. The correlation coefficient was found to be .34. Table VIII revealed that of the eighty-two students of low socioeconomic level, sixty-two had low educational aspiration, ten medium, and ten high.

TABLE VIII

A COMPARISON OF SOCIOECONOMIC LEVEL
WITH EDUCATIONAL ASPIRATION

	Low EA N	Percent Low EA of Each SEL	Medium EA N	Percent Medium EA of Each SEL	High EA N	Percent High EA of Each SEL	Total Each SEL Group
Low SEL N	62	76%	10	12%	10	12%	82
Percent Low SEL of EA		78%		71%		42%	
Medium SEL N	16	60%	3	12%	7	26%	26
Percent Medium SEL of EA		20%		21%		29%	
High SEL N	1	11%	1	11%	7	78%	9
Percent High SEL of EA		1%		7%		29%	
Total Each EA Group	79		14		24		

Of the ten that indicated a desire for an educational level classified as high, a check of raw scores showed only one had a general intelligence score which demonstrated sufficient latent ability to achieve the chosen educational level. Of the ten in the low socioeconomic level who aspired to the medium level of educational accomplishment, only three demonstrated GATB (G) scores indicating a sufficient general intelligence level to achieve the level of education to which they aspired. Analysis of the individual scores of nine students from high socioeconomic levels revealed that seven had high educational aspiration (one medium and one low). Of these nine students, five chose educational levels which by their G scores they were qualified to achieve.

The frequency chart in Table VIII was developed in the process of attempting to learn from raw scores of individual students what level of educational aspiration was chosen by each of the students in each of the socioeconomic levels shown in Table VII. It seemed critical to this study to ascertain how many of the eighty-two students from low socioeconomic backgrounds made choices of educational attainment ranking low, medium, and high. Similarly, the researcher desired to know the direction of educational aspiration of those students from high and medium socioeconomic backgrounds. It also appeared important to tabulate for each socioeconomic level the number of students who showed a desire for high, medium and low educational attainment.

This frequency chart (Table VIII) showed that of the eighty-two students from the low socioeconomic level, sixty-two or 76 percent of that number aspired to low levels of educational attainment. By comparison, of the seventy-nine students who chose a low level of educational aspiration, sixty-two or 78 percent came from a low socioeconomic background. Again, of the eighty-two students from low socioeconomic backgrounds, adding the low and medium columns, seventy-two or 88 percent showed levels of educational attainment no higher than mid-range. Similarly, of the seventy-nine students choosing a low level of educational attainment, again adding the low and medium columns, seventy-eight or 98 percent came from medium and low socioeconomic backgrounds.

Discussion. The data in Table VIII revealed that of eighty-two students of low backgrounds, sixty-two had low educational aspiration. Of the ten who had high aspiration, only one had the capacity to achieve his chosen educational level (raw score analysis). Of the ten who chose medium educational aspiration, only three were qualified by intelligence level to reach their educational goals. Obviously, those students who had a sufficient level of intellect to rise above their level of environment were within the sixty-two who chose not to do so. The twenty who chose to rise above their low level of environment were not realistic, and only four had the ability to

accomplish their objectives (raw score data). The results revealed that intelligence was not nearly so important in projecting the level of students' educational attainment as were environmental factors, at least within the region of southern Appalachia. These findings were supported by Bogie (1971), Roe (1956), and Thompson and Nelson (1963).

Sex — Occupational Aspiration

Interpretation. Table IX set forth the occupational aspiration frequencies along with their respective percentages of the sixty-seven female and the fifty-two male subjects tested. The leading preferences for the females were secretary and office work (48 percent), nurse and x-ray technician (10 percent), hospital or nurse aide (10 percent), and teacher (9 percent), respectively. Other choices were widely varied and limited in number. The primary male occupational choices were carpenter (13 percent), technical engineer (13 percent), coal miner (12 percent), and mechanic (8 percent).

Discussion. In a coal mining and railroading community, it was apparent that occupations for females were limited. This resulted in an obvious stereotyping of occupational choices for females. The influence of job availability was perhaps compounded by female non-verbal abilities as demonstrated by Table II, Factor I.

TABLE IX

A COMPARISON OF OCCUPATIONAL ASPIRATION
ACCORDING TO SEX

	NUMBER	PERCENT
FEMALE:		
Secretary, Office Work	32	48
Nurse, X-ray Technician	7	10
Hospital Nurse Aide	7	10
Teacher	6	9
Social Worker	3	5
Grocery	3	5
Lawyer	1	1.5
Physician	1	1.5
Fashion Designer	1	1.5
Photographer	1	1.5
Beauty Operator	1	1.5
Telephone Operator	1	1.5
Housewife	1	1.5
Home Economist	1	1.5
Speech Therapist	1	1.5
Total Female Subjects	67	
MALE:		
Carpenter	7	13
Technical Engineer	7	13
Coal Miner	6	12
Mechanic	4	8
Heavy Equipment Operator	3	6
Production Machine Operator	3	6
Lawyer	2	4
Teacher	2	4
Physician	2	4
Engineer	2	4
Lab Technician	2	4
Architect	1	2
Psychologist	1	2
Social Worker	1	2
Accountant	1	2
Electrical Engineer	1	2
Dentist	1	2
Armed Forces	1	2
Bookkeeper	1	2
Office Clerk	1	2
Hospital Attendant	1	2
Bricklayer	1	2
Welder	1	2
Total Male Subjects	52	

Amos and Grambs (1968) concluded that the female was more handicapped than was the male because of the greater unpredictability and timing of her role. In southern Appalachia, this problem was even more acute for the female than for the male. If regularly employed, her position, like that of the male, was subject to fluctuations of the local economy. If not regularly employed, during periods of economic recesses or strikes, she was compelled to accept any employment readily available to provide family necessities (Pope, 1972).

The three most frequently chosen occupations by males were ones requiring manual labor and relatively little formal education. These choices also reflected career opportunities of the area and students' knowledge of careers. Slayton (1963) gave evidence of a definite relationship between the "realism" in one's tentative career choice and knowledge about careers. Super (1957) stressed that knowledge was enhanced by career exploration through part-time work for high school students with emphasis on exploration and orientation rather than earning money. These explorations, however, were extremely difficult to accomplish in mountain communities because of limited job opportunities and limited transportation to other areas.

Sex -- Educational Aspiration

Interpretation. Table X showed the educational aspiration

TABLE X
A COMPARISON OF EDUCATIONAL ASPIRATION
ACCORDING TO SEX

Educational Aspiration	Female		Male			
	Totals	Number	Percent	Totals	Number	Percent
LOW	44			35		
High School		34	52		23	44
Vocational-Technical School		10	15		12	24
MEDIUM	12			2		
Junior -Community College		12	19		2	4
HIGH	9			15		
Four-Year College		6	9		9	17
Graduate Study		3	5		6	12
Total	65 (Female)			52 (Male)		
Total Subjects						117

of one hundred seventeen students tested in this variable and analyzed by sex for each level. Six subjects were unavailable at the time this information was sought and two others gave incomplete data for this particular part of the study. In view of the factor analysis loadings, differences were expected to be minimal (Table II, Factor V). Of the subjects tabulated, seventy-nine (forty-four female and thirty-five male) aspired to a level of learning of high school or vocational-technical school, which in Table VIII represented the low classification. Of those fourteen desiring to attend junior or community college (medium range educational aspiration in Table VIII) twelve were female and two were male. Of those twenty-four students showing a high educational aspiration (Table X) nine were female and fifteen were male.

Within this total group, sixty-five were female and fifty-two were male. The sixty-five female subjects chose educational aspiration levels by percentage as follows: 67 percent low, 19 percent medium, and 14 percent high. The fifty-two male subjects demonstrated educational aspiration levels by percentage as follows: 68 percent low, 4 percent medium, and 29 percent high.

In the educational aspiration levels, comparison of the male and the female yielded 67 percent of female and 68 percent of male in the low category, 19 percent of female and 4 percent of male in the medium category, 14 percent of female and 29 percent of male rated in the high category.

Discussion. In regard to the sex factor, the males were found in Table X to choose either the high or low educational aspiration category. Of the males, 68 percent chose low and 25 percent chose high. On the other hand, females in medium and low ranges of educational aspiration seemed to be more concentrated in number. Pope (1972) contended that this female aspiration would be increased by exploration of female role models. Vanlandingham (1969) stressed perception of opportunity as an important aspect in the sex variable.

Students of southern Appalachia, however, were very similar in their educational aspirations to the educational requirements for the national employment opportunity predictions. This similarity was evident with and without the classification of sex (United States Department of Labor, 1974). For both sexes, educational aspiration was not necessarily a product of low income, but rather a product of the cultural background associated with the type of work, geographic background, and parental level of education. Socioeconomic background and parental influence of the mountainous cultural community lead the subjects to seek their needs within the local environment. This finding was consistent with Maslow's need's theory as being determined by the level of civilization (Roe, 1956).

Chapter V

SUMMARY AND RECOMMENDATIONS

SUMMARY

Problems relating to career development, while evident throughout the United States (Das, 1963), were severe in southern Appalachia (Stevic, 1967). Mountains acted as natural barriers which caused a lack of communication and transportation. These disadvantages, according to Amos and Grambs (1968), resulted in poverty, cultural deprivation, low parental motivation, damaged self-concept and desire for immediate gratification. Career development was seen as a decision-making process involving one's total personality (Bartlett, 1971) in relationship to the background of his total environment.

The objectives of this study were to devise testing procedures for identification of contributing factors in career development problems believed to be prevalent in southern Appalachia and in particular, Wyoming County, West Virginia; to identify career development problems unique to students in this region; and to define and analyze interrelating factors. It was hoped that this study could

add to a body of research which might be utilized to understand the unique southern Appalachian student and his career development needs.

Aptitude tests (GATB), dropout tendency scales (DDS), self-concept inventories (IAV), and career checklists (OAP) were administered to 119 - 125 students who had no prior career orientation. These students represented five Wyoming County high schools. Other pertinent information about these students was obtained from school records.

Means, standard deviations, factor analysis, cross tabulations, and frequency comparisons were calculated. The resulting data were compiled into charts and tables. From these data, significant relationships were sought relating to realism of career choice, educational aspiration, tendencies to continue formal education, aptitudes, high school achievement, sex, self-concept, socioeconomic level, and occupational aspiration.

General Findings

The general findings from this study, summarized from Chapter IV, were as follows:

1. From the mean scores, these subjects were found to be marginal in career choice, low in educational aspiration, average in dropout tendencies, except for attitudes toward teachers which was

above the medium range, average in aptitudes, slightly above average in achievement, positive in self-concept, low in socioeconomic level, and relatively high in occupational aspiration (Table I, page 33).

2. The students exhibiting the highest self-concept and highest others' concept came from the lowest socioeconomic family background. It was also characteristic that the highest self and others' concept students had least dropout tendency, as measured by peers' or parents' influence (P), (Table III, page 42).

3. The students with more realistic career choices and lower occupational aspirations were more likely potential dropouts (Table IV, page 47).

4. Dropout tendencies were not found to be related to general ability scores (Table V, page 50).

5. The students aspiring to higher levels of education were more definite in their choices of careers than were others (Table II, Factor V, page 38).

6. Male students experienced more dropout tendencies in attitudes toward teachers than did female students (Table VI, page 55).

7. Students from higher socioeconomic levels demonstrated higher general ability aptitude scores and higher achievement based on GPA scores. Conversely, students from the low socioeconomic level manifested lowest general ability scores and lowest GPA scores (Table VII, page 59).

8. A positive correlation was found among realism of career choice, general ability, and achievement. Those students scoring lowest in realism of career choice had lowest mean scores in general ability and lowest mean grade-point averages; whereas, those with highest realism of career choice showed highest mean scores in general ability and highest mean grade-point average (Table VII, page 59).

9. The subjects of low socioeconomic level, in general, did not choose a level of educational attainment above that of their parents' socioeconomic group (Table VIII, page 63).

10. Both male and female stereotype roles appeared in occupational choice based primarily upon local career opportunities (Table IX, page 67).

11. Female subjects generally chose low and medium levels of education while male subjects usually chose low and high educational levels (Table X, page 69).

Major Research Questions

Results obtained from this study, while not conclusive in some areas, provided some insight to the answers of the major research questions. These findings were discussed in relationship to each question.

Findings, Questions 1 and 2. Inasmuch as questions 1 and 2 were interrelated and presented in the same table, their answers and discussions were considered together rather than separately.

1. How was realism of career choice related to the tendency to persist in formal high school education? Specifically, was it the case that the lack of realism was frequently associated with tendency to drop out?

2. How was career expectation level related to the tendency to persist in formal high school education? Specifically, did those with tendency to drop out have low career expectations?

A cross tabulation, Table IV, showed the relationship of realism of career choice and occupational aspiration with dropout tendencies as revealed in Table II, Factor III. These dropout tendencies included attitudes toward education (E), influence by peers or parents (P), and school behavior (S). No relationship was shown between attitudes toward teachers as a dropout tendency and realism of career choice or occupational aspiration.

Those students who were most realistic in career choice showed the greatest dropout tendency, or the least tendency to persist in formal high school education. Specifically, it was not the case that lack of realism was frequently associated with tendency to drop out, but rather, that those most realistic were most likely to discontinue formal education. Those most realistic and those least realistic in

general showed greater dropout tendencies in E, P, and S than did those in the marginal range of realism.

Dividing the students by their realism of career choice scores, forty-six students made choices within the recommended career patterns, twenty-two were marginal, and fifty-one were clearly outside the recommended career pattern for their respective capabilities.

Those students displaying the lowest career expectation level demonstrated the least tendency to persist in formal high school education. Specifically, those with the greatest tendency to drop out had lowest career expectation.

Dividing the students by their occupational aspiration scores, fifty-four were within an OAP range classified as high; forty-four were classified in the medium range; and twenty-one chose occupations ranked as low. Realism of career choice was, in effect, the statistical matching of students' occupational choices against their aptitudes within GATB established patterns. Realism of career choice and occupational aspiration in all ranges (high, medium, and low) were influenced by peers and parents as a dropout tendency. This dropout tendency showed consistently higher scores than did other dropout tendencies.

Discussion. Students with more realistic appraisal of their career capabilities and lower occupational aspiration (with less

demanding requirements) showed greater dropout tendencies in E, P, and S. A correlation between low level choice of occupation and high degree of realism would seem to exist in that the twenty-one students choosing low careers were basically within their level of ability and therefore, would be among those forty-six who scored high in realism of career choice. The lower the career level chosen, the more likely the career choice was within the range of the student's ability.

As indicated by Thompson and Nelson (1963), the student of southern Appalachia failed to relate his career potential to the pursuit of formal education. In choosing low level occupations most readily available within the local community a student scored high on realism testing of his choice of careers because his low choice was within his potential. If the student had made a specific job choice within his potential, his goal orientation might not necessarily have involved continued formal education within the current limits of curriculum.

The student of this area tended not to be influenced by his maximum career potential, but rather by the jobs most readily available. These job opportunities were limited primarily to coal mines and railroads. Dropout tendencies have been found in other research to be strongly influenced by environmental factors including natural barriers, economic and cultural disadvantages, limited job opportunities, and meager knowledge of careers (Amos and Grambs, 1968).

Of the dropout tendencies in the realism of career choice and occupational aspiration tabulation, influence by peers and parents had consistently high mean scores in all categories (high, medium, and low). This finding suggested that a student who desired to pursue formal education so as to elevate his career choice might be met with parental advice to get a job and help with the family budget.

In this Appalachian region, attributable to cultural disadvantages and limitation of job opportunity, there was associated not only a lack of parental motivation to excel, but also parental pressure for immediate gratification (Amos and Grambs, 1968). Parental pressure influenced children to be closely aligned to the family work group (Lewis, 1970) and to become a part of the family vocational pattern. Therefore, a student under parental stress might tend to choose an occupation which he had the ability to achieve without educational perseverance. Thus, he might score highly realistic and at the same time manifest high dropout tendency scores as determined by influence of the peers or parents factor.

In a mountainous area where the economic and industrial climate was dominated by mines and railroad, the researcher observed peer and parental pressure to prevent individuals from becoming a part of self-improvement activities. The students were viewed by their peers and parents as attempting to be "different."

Realism of career choice in this study failed to establish a

pattern with tendency to persist in formal high school education.

Those highest in realism of career choice showed the least tendency to persist in formal high school education. The marginal and low ranges of realism were inconsistent in dropout tendency scores. A lack of realism, however, has been frequently associated with the tendency to dropout as concluded by Das (1963) and was not disproved by this study.

From this study, it can be said that students choosing the lowest level of occupational aspiration showed the highest dropout tendencies. A similar pattern that students showing the highest occupational aspiration demonstrated the least dropout tendencies seemed to be established. This pattern became irregular in the mean influence by peers or parents (P) score. This 2.7 mean score in those students choosing the highest occupational level was interpreted as dropout stress from peers or parents. Of all the dropout tendencies, it was seen from Table IV that influence by peers or parents was consistently higher in its over-all effect upon students than were attitudes toward education and school behavior in all levels (high, medium, and low) of occupational aspiration and in all levels of realism of career choice (question 1).

Findings, Question 3. Was there evidence of female role stereotyping in low career choices?

From this study, there was evidence of female role stereotyping in low career choices (Table IX). Of the sixty-seven female subjects tested, thirty-two or 48 percent chose secretary and office work as their vocation; seven or 10 percent chose nurse or x-ray technician; seven or 10 percent chose hospital or nurse aide; and six or 9 percent aspired to become teachers.

In Table X, a consistent pattern showed the educational aspiration of sixty-five females. A low level of educational aspiration was selected by forty-four or 65 percent, and an additional twelve or 19 percent aspired to the medium range of educational attainment. Only nine or 14 percent chose an educational level classified in the high category.

Discussion. Dominance of coal mining and railroading in the economy of the community tended to limit career opportunities for females. Lack of career opportunity promoted female role stereotyping in the low-level occupations readily available. However, this stereotyping was consistent with national trends in female employment (United States Department of Labor, 1974). The influence of job availability upon female choice of careers was perhaps compounded by a higher female aptitude in non-verbal ability as demonstrated in Table II, Factor I.

According to Amos and Grambs (1968), females were more handicapped in career choice than were males. The greater

unpredictability and timing of the female roles were considerations even more critical for the female than for the male of southern Appalachia where unemployment and strikes were prevalent.

This female role stereotyping might have varied from areas in which manufacturing predominated and utilized large numbers of female workers with their manual dexterity and perception skills (Table II, Factor I). Female role stereotyping in the Appalachian mountain community required a higher level of educational attainment, than did production-line employment, for jobs such as secretarial or office work (Table IX). This was suggested, in some measure, by a higher percentage of females than males in medium educational aspiration levels (Table X). Few jobs were available in mines or railroads for women to use manual dexterity or low level clerical skills.

Findings, Question 4. To what extent was low socioeconomic level associated with failure to develop adequate self-concept, tendency to drop out of school, educational aspiration, and unsatisfactory high school achievement?

Low socioeconomic level was associated with adequate self-concept, was not associated with tendency to drop out of school, was associated with low educational aspiration, and unsatisfactory high school achievement.

A review of the results shown in Table III revealed an inverse correlation of self-concept in relation to socioeconomic level. Within the context of this study, low self-concept discrepancy (otherwise stated, adequate self-concept) resulted most frequently with students from low socioeconomic backgrounds.

From Table III, students from high socioeconomic families displayed mean self-concept discrepancy scores of 49.9; whereas, the mean self-concept discrepancy shown in Table I for all students was 34.8. The lower the self-concept discrepancy score, the more adequate was the self-concept. The test was designed to measure the difference between one's appraisal of himself and what one's goal was. Table III showed that those students from low socioeconomic backgrounds, eighty-two, scored 30.7 in their average self-concept discrepancy in contrast to the mean for all students, 34.8, and against the score of 49.9 for students from high socioeconomic levels.

From the rotated factor matrix loadings (Table II), low socioeconomic level was not interrelated with tendency to drop out of school. Table VIII, however, showed a direct relationship between low socioeconomic level and low educational aspiration. Consequently, those who had low educational aspiration, logically and by circumstance, had a greater tendency to drop out of school; likewise, they had less tendency to persist toward higher levels of education.

The relationship between low socioeconomic level and

educational aspiration, as heretofore indicated, had been shown in the frequency tabulation of Table VIII. Of one hundred seventeen students tested, eighty-two were from low socioeconomic levels. Of the eighty-two from low socioeconomic backgrounds, sixty-two or 76 percent aspired to educational levels ranked as low. On the other hand, of the seventy-nine students ranked low in educational aspiration, sixty-two or 78 percent came from low socioeconomic family background. Of the eighty-two low socioeconomic level students, ten aspired to middle and ten to high levels of educational aspiration. From an analysis of raw scores of the individuals that desired educational aspiration levels classified as high, only one had an intelligence level demonstrating ability sufficient to meet the goal, and likewise, only three aspiring to the medium level of educational attainment demonstrated sufficient intelligence potential to attain their choice. These low socioeconomic level students either aspired to low level educational aspiration or, for the most part, failed to demonstrate the intelligence potential to meet their objectives. Only nine of the one hundred seventeen were from high level socioeconomic background, and of this number, seven aspired to high level educational attainment.

Low socioeconomic level was associated with unsatisfactory high school achievement as expressed in the analysis of the cross tabulation of Table VII. Students in this study, from the low

socioeconomic level had a mean grade-point average of 2.4; whereas, those from the mid-range families had a mean GPA score of 2.5, and those from high level socioeconomic background scored an average of 3.3 on their GPA scores. In other words, a direct correlation existed between socioeconomic level and achievement level as shown by grade-point average.

Discussion. In the context of this study, low socioeconomic level was inversely correlated with adequate self-concept, directly correlated with educational aspiration and achievement, but was inconclusive in regard to tendencies to drop out of school.

This research revealed, as seen in Table III, that students from the lowest socioeconomic level had the lowest self-concept discrepancy scores or higher self-concept than did others tested. The results indicated that those eighty-two students from the low socioeconomic level displayed the most self-acceptance (Bills, 1961). This finding was applicable only in the context in which the data were collected, namely, mountain communities of Wyoming County, West Virginia, where coal mines and railroads dominated the economy. In this environment, students from low socioeconomic families tended to be more self-accepting than were those students from higher socioeconomic levels.

This finding was in contrast to that of Amos and Grambs (1968) who found damaged self-concept resulting from poverty and

cultural deprivation of lower socioeconomic groups, a condition prevalent where mountain barriers tended to isolate a community and its economy. The findings of Flum (1967) established self-concept as a global factor subjectively integrating the total system. Pandit (1965) supported the importance of self-concept with evidence that students with high regard for themselves had high aspirations. Tseng (1970), Bell (1960), Carroll (1972), and Borow (1964) also found self-concept to be one of the most significant aspects in the total development of the individual. While this study did not negate the importance of self-concept in the development of one's personality and potential, it did provide a contrasting facet which should be viewed in the context within which this study was made.

According to Roe (1956), the socioeconomic level was one of the most important influences in an individual's life. The cultural deprivation of low socioeconomic groups, which demonstrated low parental motivation and negative attitudes toward education (Thompson and Nelson, 1963), interfered with educational aspiration and fostered dropout tendencies (Wilkins, 1972). While the data within this study revealed no intercorrelation between socioeconomic level and dropout tendencies, the frequency tabulation of Table VIII demonstrated that a relationship existed between socioeconomic level and educational aspiration, or, formal educational persistence. Raw scores compiled into frequency tabulation in Table VIII projected for this

study that students from the low socioeconomic level aspired to low levels of education and conversely, students from the high socioeconomic level aspired to high levels of education.

The findings of Roe projected the likelihood that a child remained in or near his father's general socioeconomic group (Roe, 1956). Table VIII dramatically illustrated that aspirations tended to be stratified by the socioeconomic level from whence a student came and seldom did he aspire to rise above his environmental level. Noted were percentages of students from each socioeconomic level who aspired to remain in a corresponding level of educational accomplishment.

Low socioeconomic level was associated with unsatisfactory high school achievement. Table II, Factor VII, provided factor matrix interpretations linking low achievement and low socioeconomic level by virtue of high loadings. The cross tabulation in Table VII illustrated these positive correlations in more detail. Higher graded students appeared oriented toward high level needs and value fulfillment according to Shappell (1969). While students from lower socioeconomic groups appeared to be less oriented toward educational aspiration and achievement, they also exhibited lower grade-point averages.

Findings, Question 5. How was realism of career choice related to achievement? This question was interrelated with a consideration of aptitude level.

By the results of this study, realism of career choice was related to achievement by positive correlation. Computations establishing this relationship and the interrelation with aptitude level were shown on Table VII.

Students low in realism of career choice demonstrated mean G, V, and N scores ranging from 88.7 to 96.4 with a grade-point average of 2.2. Those with marginal realism of career choice had mean G, V, and N scores ranging from 97.8 to 99.5 with mean grade-point average of 2.6. Those exhibiting high levels of realism in career choice showed mean G, V, and N scores ranging from 99.3 to 104.5 with mean grade-point average of 2.7.

Discussion. Within this group of students, it may be seen from these test results that those most highly realistic in choice of careers demonstrated higher levels of intelligence as determined by G, V, and N scores. At the same time, those high in realism were higher achievers as indicated by their mean GPA score of 2.7. A consistent pattern was thus developed showing positive correlation of realism of career choice and achievement. This pattern remained constant for all aptitude levels.

From the trend of this study, those students with the lowest GPA scores were projected as having the lowest aptitude level measured by the G, V, and N scores. At the same time, these low achievers were expected to demonstrate a low degree of realism in the choice of careers.

Consistent with these findings was research which indicated that high school achievement as reflected by GPA was found to affect career aspiration and further, that higher graded students appeared oriented toward higher level needs and value fulfillment (Shappell, 1969). Hanchey (1970) also found high school academic records to be related to vocational choice. Bartlett (1971) added that vocational maturity developed analogously to the total personality development. Finally, Super (1957) portrayed the development of career choice as a process of decision making and compromising that involved all of one's abilities, interests and psychosocial forces.

Limitations

Limitations were recognized within this study as follows:

1. Results should be viewed within the context of the geographic region in which the study was performed, namely, Wyoming County, West Virginia.
2. Realism of career choice testing was inadequate to discover students choosing occupations below their general ability.

3. Indications from dropout tendency patterns were less revealing than might have been anticipated in that the subjects tested, generally, were high school seniors.

RECOMMENDATIONS

After comparing the results of this statistical study and its limitations with related professional literature and after observing high school students in southern Appalachia, recommendations for further study were made.

1. It was recommended that career orientation research be continued in the geographic region of this study, namely, Wyoming County, West Virginia.

2. It was recommended that the following modifications and expansions be made in this study for future research:

a. Realism of career choice testing should identify, not only over-aspirers, but also under-aspirers. Long-term follow-up studies of students and their career choices would assist in evaluating realism of career choice testing.

b. Dropout tendency test samples should be expanded to include subjects in lower grade levels. These tests should be maintained on an annual basis for comparison purposes.

c. The twenty-two variables considered within this study were cumbersome to analyze in detail. Future research should involve in-depth expansion of fewer variables.

3. Since the socioeconomic variable appeared to exert a crucial influence on the other variables within this research, additional exploration and testing refinement for this variable were recommended.

a. Inverse relationships between socioeconomic level and self-concept were in contrast to previous research findings. It is questionable whether the specific finding from this study, the higher the socioeconomic level the less adequate the self-concept, would be prevalent in a broad sample of the general population. Could it be that this finding was peculiar to the setting of this study?

b. Statistical loadings appeared on the DDS influence by peers or parents on this same factor. To what extent did each parent influence his child to remain within the family socioeconomic level? Useful parental information might include educational level, occupations, income, home ownership, parent-child communication, career knowledge, and aspiration.

c. An interrelation was noted between socioeconomic level and achievement level based on GPA. To what extent did this finding reflect teachers' impressions of socioeconomic status? To what extent did this finding reflect an achievement score influenced by socioeconomic level? A test should be devised to measure the objectivity of achievement record in relation to socioeconomic level.

4. It was recommended that this career orientation research be conducted in metropolitan settings and other rural settings for comparison purposes to determine the consistency of findings. Comparisons might include aptitudes, dropout tendencies, educational aspiration, occupational aspiration, socioeconomic level, and realism of career choice. The results obtained from these studies should be compared with national occupational patterns.

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APPENDIX

Project GATE

GUIDANCE AIDE TRAINEE EXPERIENCE

Title III Elementary and Secondary Education Act

STATEMENT OF NEEDS

Wyoming County in general and the Mullens area in particular had no organized guidance program in the elementary schools, the junior high schools, the special education program, or the community. Mullens was a rural area with a railroad, surrounding mines, little other industry, and a decreasing population.

The county board, educators, vocational school director, and parents had expressed concern about the need for a guidance program (kindergarten through grade nine) in career awareness, exploration, and development. The development of a new vocational school, which was being enlarged in both curriculum and structure, and the high school curriculum changes had aided in the conceptualization of the guidance needs.

Civic and service organizations, such as the Parent Teachers' Association, the Rotary Club, the Lions' Club, the Woman's Civic Club, and the Mullens Area Public Library Board, had expressed a need for an awareness type of guidance program in order that students and adults be better prepared to make wise educational and vocational decisions both during and following their school years. (See attachments) The guidance increment was in a social position to meet a

large segment of the student and adult population's needs for exploration and guidance in the career area.

POPULATION

The population of the Mullens area was both rural and urban and was dispersed over an area of approximately forty square miles. This project area included the city of Mullens and the towns of Maben, Itmann, and Stephenson. The population in the city of Mullens was 2,964.

Population continued to decline because of few industries and a limited economic base. This economic base was supported by the N & W Railroad, the coal mines, and timbering. School population continued to decline at the rate of more than eight percent per year over the last ten years. Students completing school found it necessary to leave the area to find jobs elsewhere. This project was designed to serve the following population of the Mullens area:

<u>Population</u>	<u>School or Group</u>	<u>City or Town</u>
575	Mullens Grade	Mullens
150	Stephenson Grade	Stephenson
100	Itmann Grade	Itmann
16	Wyoming County Sheltered Workshop	Maben
480	Mullens High	Mullens
75	Faculty	All Above
500	Community Adults by-way-of civic organizations	All Above
<hr/> 2,401		

PROGRAM

Self-Awareness, Decision-Making,
and Career Education

I. To provide a ten-month secondary school course in guidance aide education for the training of student para-professional guidance aides in self-awareness, decision making, career awareness, career exploration, and career attempt.

- A. Group Guidance
 - (1) Group Discussion
 - (2) Role Playing
- B. Guest Speakers
- C. Field Trips
- D. Testing
- E. Oral Reports
- F. Audio Visual Viewing
- G. Research

Simulated Employment

II. To provide career guidance materials and services to the Mullens High School feeder schools as a part of the Guidance Aide experience-based activities.

- A. Orientation Workshop
- B. Career Materials Preparation
- C. Community Resource Coordination
 - (1) County Vocational School
 - (2) Neighborhood Youth Corps
 - (3) Juvenile Courts
 - (4) Special Education
 - (5) Rehabilitation
 - (6) Employment Security Services

- C. Community Resource Coordination (continued)
 - (7) Southern Regional Health Council
 - (8) Service Clubs
 - (9) Sheltered Workshop
 - (10) Business and Industry

III. To provide career materials and services to the Mullens area adult community as a part of the Guidance Aide experience-based activities.

- A. Student Logs
- B. Oral Reports
- C. Video-taped Field Trips
- D. Adult Career Night
- E. Group and Individual Guidance

IV. To influence the total environment of the Mullens Community

- A. Community Presentation Service Clubs, etc.
- B. School Presentations
- C. Newspaper Releases

Objectives

To plan, develop, and implement a Guidance Aide Trainee Experience for students to serve the Mullens area population for career awareness, exploration, and development. More specifically, the objectives included the following:

I. To provide a ten-month secondary school course in Guidance Aide Education for the training of student para-professional

guidance aides for self-awareness, decision making, career awareness, career exploration, and career development.

A. Ten students were recruited from the Mullens High School to be trained as guidance aides. (Hereafter called guidance aides trainees) The characteristics of the selected class were reported in terms of the State-County Testing program and other school records, (A₁) and results of the teacher, parent, and student interviews (A₃). The number of students requesting consideration into the program were reported (A₂).

B. The guidance aide trainees completed a planned guidance aide training program:

1. The guidance aide trainees became more self-aware, and capable in decision making through fifteen, one-hour group guidance sessions (A₂). Change in self-awareness and decision making capability was measured by pre and post tests of the Demos D Scale (A₁), the Bills Index of Adjustment and Values (IAV) and Roop's Stimulated Decision Making Questionnaires (RSDQ) (A₃) and data which came to the attention of the staff (A₄).

2. The guidance aide trainees developed an understanding of the world of work, and their own personal characteristics as a worker. The outcomes were measured by: completion of class assignments and course requirements (A₂); grades on courses as assigned by the instructors (A₁); the agreement of individual tentative vocational choices and scores derived on the General Aptitude Test Battery and the Dictionary of Occupational Titles profile. (A₁).

3. The guidance aide trainee participated in leadership group activities in five schools. (A₂). Effectiveness was measured by a Self-Report Rating Scale (A₃). Effectiveness of the program to the participating schools was measured by Guidance Aide Trainee Effectiveness Questionnaire (GATE-Q) (A₃), and other data which came to the attention of the staff (A₄). Individual students kept a log of contacts which included the service he provided (A₂).

II. To provide guidance materials and services to the Mullens High School feeder schools as a part of the guidance aides' experience-based activities. Effectiveness of the program as it related to the secondary purposes of helping the feeder schools was measured by the GATE-Q (A₃), students' Logs (A₂), and other data that came to the attention of the staff (A₄).

III. To provide materials and services to the Mullens area Adult Community as a part of the guidance aide experience-based activities. Effectiveness was measured as it related to the secondary purposes of helping the Mullens Community by GATE-Q (A₃), students' Logs (A₂) and other data that came to the attention of the students and staff (A₄). The effectiveness of the change was determined by the interest generated through student involvement in many activities. A descriptive report of the number and kinds of activities comprised the evaluation of this objective (A₃). Over-all effectiveness of the Guidance Aide Program was measured by the work readiness of the participants as judged by three independent evaluators who had observed their effectiveness in experience-based activities.

PLANNING

Planning for Project GATE began in the summer of 1971.

Elementary and junior high school principals, the county staff, and parents had expressed a need for elementary and junior high guidance. The county superintendent, James Pizzino, expressed a desire to extend guidance services. Neither the funds nor the personnel, however, were available to meet the need. Discussions were held in the Wyoming County schools' central office to determine possible solutions to this problem. These discussions included James Pizzino, Superintendent; Jesse W. Morgan, Administrator of Federal Programs; Billy Ray Bailey, Assistant Superintendent; Vernon Short,

Guidance Director; and Jeane R. Suddarth, Guidance Counselor of Mullens High School.

Following the discussions, a conference was held with Joe Kirby and Dr. Jonell Kirby and planning was begun by Jeane R. Suddarth. Further planning sessions were held with Vernon Short, J. T. Davidson, Jr., Mullens High School Principal, and various community personnel. Dr. Jonell Kirby and Joe Kirby served as consultants for this project.

Materials and assistance in planning also were received from the following:

1. Special Education, Sandra Buckley, Director
2. Juvenile Court, Bruce Williams, Probation Officer
3. PTA, Mary Campbell, President
4. Wyoming County Vocational School, Grady Mullins, Director
5. Woman's Civic Club, Mrs. Tracy Hylton, President
6. Mullens Area Public Library, Mrs. Jack Dick, Librarian
7. Mullens Rotary Club, Vaughn Earl Harstell, Vocational Services Director
8. Mullens Lions Club, Paul Goode, Jr., President

Teachers, elementary principals, and junior high principals helped in development of the program in workshops. To meet special needs, they gave continuous feedback for evaluation and modification

in the program. The Wyoming County school system provided classroom facilities, school buses, and administration for Project GATE.

PERSONNEL

Director

Jeane R. Suddarth, Guidance Counselor of Mullens High School, BS, Concord College, 1964; MA in Speech, Marshall University, 1966; MA in Counseling and Guidance, West Virginia University, 1971. Had MA + 30 with major teaching fields in English, Social Studies, Music, Guidance and Counseling, and Speech. Served five years as secondary teacher, one year as secondary teacher and part-time guidance counselor, and one year as guidance counselor.

Consultants

Joe Kirby and Dr. Jonell Kirby. They were staff members at West Virginia College of Graduate Studies and had also worked in the school systems of Georgia. They assisted in planning, developing, implementing and evaluating the program.

Guidance Aide Co-Director

One full-time aide, Mrs. Jack Dick, assisted the counselor

in preparation of materials, typing, clerical work, audio-visual equipment, record keeping, presentations, and group discussions.

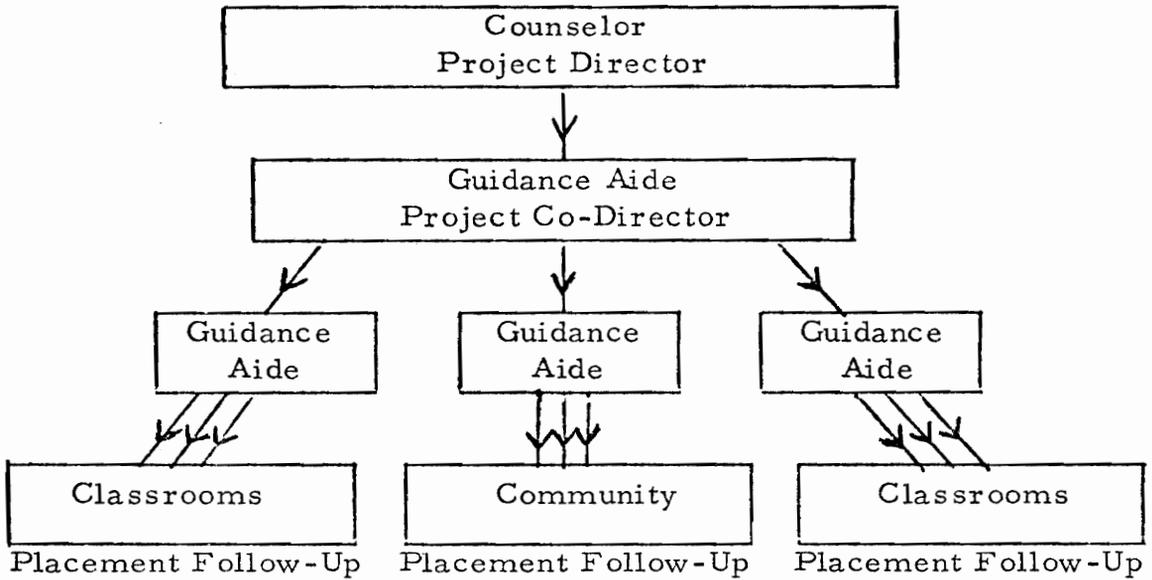
Facilities, Materials, and Equipment

Facilities. Classrooms and buses were provided by the Wyoming County Board of Education. Driver pay and extra telephone expense, however, were taken from the project budget.

Equipment. Television camera, monitoring equipment, and video tapes were used to record the field experiences for instructional use and project evaluation. A tape recorder, tapes, file cabinets, typewriter, and duplicating equipment were utilized.

Supplies and Materials. Published materials, supplies, tests, and questionnaires for use in counseling and guidance were furnished.

PROCEDURES AND PROGRAM CONTENT



The Guidance Aide Education Class, composed of Mullens High School students, met on a regular schedule of two hours each school day. During the first nine weeks, the students gained experience in self-awareness, decision making, and career awareness, exploration, and development through group guidance, individual and group projects of career information, and field trips. Within this small group, these students also gained experience in visual aids and oral expression.

Beginning with the second nine-week period, the students were ready to start a regularly scheduled visit to the three feeder elementary schools, the junior high school, the sheltered workshop, community groups, and other high school classes.

The visits included the dispersing of occupational information through guest speakers, student oral presentation, field trips, video tapes, 16 mm film, filmstrips, records, and tapes. Following this presentation, discussions were held in large and small groups. In small groups, student aides were the discussion leaders. Aides also helped coordinate Career Day for the elementary, the junior high school, the high school, and the community. In-service training for faculty orientation preceded these visits.

PROVISION FOR EVALUTAION

Evaluation was continuous; however, at critical points evaluation took place in a formal manner. A total of three evaluations during the grant period was performed. As indicated in the budget, an external evaluation was utilized.

The following Systems Approach was used for evaluation:

- A1 Objective - Empirical - Quantifiable data (Primary and Secondary measures)
- A2 Normative data, e. g., number of pupils involved
- A3 Extra-rational — feeling and intuition — opinion
- A4 Unintended positive and negative consequences

This approach also allowed for the inclusion of unanticipated positive or negative consequences. It was used to measure each objective in relation to the tools available in A₁, A₂, A₃, A₄, or any combination.

BUDGET

200 INSTRUCTION:

214 g. Salaries: Counselor-Director	\$	\$
Jeane R. Suddarth . 3 @ \$10,000	3,000.00	
216 b. Salaries: Guidance Aide		
Mrs. Jack Dick 10 mos. @ \$310	3,100.00	
230 a. Library Books	300.00	
230 c. Audio Visual Materials (tapes)	700.00	
240 Teaching Materials - Kits, etc. for Career Guidance	500.00	
250 b. Travel: Director and Aide	973.00	
250 b. Guidance Aide Training Type	850.00	
250 c. Consultants - Inservice and Evaluation	<u>1,100.00</u>	10,523.00

500 TRANSPORTATION SERVICES

510 b. Salaries for Bus Driver for Target population K-12	<u>850.00</u>	850.00
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600 MISCELLANEOUS

640 d. Phone, Postage, etc.	<u>300.00</u>	300.00
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800 FIXED CHARGES

810 a. Teacher Retirement	137.00	
810 b. Social Security	345.00	
820 b. Workmen Compensation	<u>35.00</u>	517.00

1200 CAPITAL OUTLAY

1230 c. T. V. Equipment (One set for recording and play back)	3,000.00	
Tape Recorder and Tapes	100.00	
Typewriter	400.00	
File Cabinets (2)	<u>200.00</u>	<u>3,700.00</u>

Year 1 - 1972-1973 Total Budget		\$ 15,890.00
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Three Year Total		\$ 47,670.00
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<u>REVIEW</u>	<u>Low</u>	<u>Below Average</u>	<u>Average</u>	<u>Above Average</u>	<u>High</u>
1. SELECTION PROCESS: The loss of two participants at mid-year harmed selection rating.	1	2	3	(4)	5
2. TRAINING: This is a strong point in the program at this time.	1	2	3	4	(5)
3. DEVELOPMENT: Records available indicated that all objectives were completed. No record was available to indicate a concerted effort to help each trainee tie together all of his-her test data.	1	2	3	(4)	5
4. LEADERSHIP: This rating was average due to problem of scheduling visits through Mullens High School.	1	2	(3)	4	5
5. PROVIDING CAREER MATERIALS: The problem showed inability to receive administrative permission to leave the campus.	1	2	(3)	4	5
6. DISSEMINATION: An excellent performance was indicated.	1	2	3	4	(5)
LAST TOTAL RATING:	1	2	3	(4)	5

NUMERICAL SUMMARY FOR ON-SITE REVIEW
 -PROJECT GATE-
 Guidance Aide Trainee Experience
 Wyoming County

THE PROJECT	0	1	2	3	4	*MEAN
1. The current direction of the project is consistent with the stated objectives.				1	4	3.8
2. The project staff is making reasonable progress toward the achievement of the approved objectives.				3	2	3.4
3. The project supplements the existing school program.					5	4.0
4. Activities in the project demonstrate new and/or exemplary approaches to education				3	2	3.4
5. The project personnel provide leadership in preparing personnel, in the area served, for new programs proposed as part of the project.			1	3	1	3.0
*6. Non-public schools have sufficient opportunity to take part in the program.			N/A			
7. The evaluation techniques used are appropriate for measuring the progress toward the achievement of the objectives.				3	2	3.4

continued - next page

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- 0 = None of the element present
 1 = Little being done in the area
 2 = Satisfactory achievement in the area
 3 = High degree of achievement in area
 4 = Very high degree of achievement in area

* The mean score for each item was determined by dividing the sum of responses by the number of persons responding.

** There are no non-public schools in project area.

continued

NUMERICAL SUMMARY FOR ON-SITE REVIEW
 -PROJECT GATE-
 Guidance Aide Trainee Experience
 Wyoming County

THE PROJECT	0	1	2	3	4	*MEAN
8. The measuring instruments used are appropriate for measuring the progress toward the achievement of the objectives.				4	1	3.2
9. The evaluation measures the effect of each activity on the target group.				3	2	3.4
10. Dissemination is adequate and appropriate for the public in the area served.				4	1	3.2
11. The schools in the project area use the services offered by the project staff.			3		2	2.8

0 = None of the element present

1 = Little being done in the area

2 = Satisfactory achievement in the area

3 = High degree of achievement in area

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* The mean score for each item was determined by dividing the sum of responses by the number of persons responding.

** There are no non-public schools in project area.

VITA FOR JEANE R. SUDDARTH

Suddarth, Jeane R.

Part-Time Instructor and Director of Educational Television Class,
West Virginia College of Graduate Studies, Charleston, W. Va.

Federal Project Director of Project GATE, Mullens, W. Va.

Birthplace: Mullens, Wyoming County, West Virginia, April 1, 1934.

Education

Concord College	Athens, W. Va.	B.S. Education	1965
Marshall University	Huntington, W. Va.	M.A. Speech	1968
W. Va. University	Morgantown, W. Va.	M.A. Counseling, Guidance	1971
VPI and SU	Blacksburg, Va.	Ed.D Counseling	1974

Experience

Part-Time Instructor and Director of Educational Television Class		1973-74
Federal Project <u>Gate</u> Director		1972-73
High School Guidance Counselor, Mullens High School		1971-72
Practicum Assistant and Project <u>Voice</u> Assistant, W. Va. University K. V. G. Center - Summer		1972
Instructor, Individual Appraisal in Counseling, VPI & SU - Summer		1972
Career Education Lab Coordinator, Practicum Supervisor Assistant		1972-73

Honors

Phi Kappa Phi Honor Society, VPI & SU	1974
Kappa Delta Pi Honorary Society, Education, Concord College	1965
Listed in <u>Who's Who Among Students in American Universities and Colleges</u>	1965

Professional Organizations

American Personnel and Guidance Association (APGA)
 West Virginia Personnel and Guidance Association (WVPGA)
 Vice President, West Virginia Speech Association (1968-1970)
 Group Leader, Senior High Division, WVPGA (1972)
 Conference Leader, W. Va. Dept. of Education, ESEA Title III, 1972
 Co-Chairman, Wyoming County Curriculum Council (1967-1972)
 Reader, Title III ESEA, 1973

Articles, Projects, and Research

- I. Television: Personality and Behavior Development Series of 24 (one-hour) Color Tapes with Workbooks, W. Va. College of Graduate Studies and WMUL-TV, Charleston, W. Va.
- II. Chapters: "Paraprofessionals and Career Development"
 Career Development in the Elementary School, 1972.
- III. Articles: "A Group Guidance Approach" Guidance Servicer,
 January, 1972.
 "A Reaction to Career Day" Guidance Servicer,
 Spring, 1972.
- IV. Projects and Research: Project GATE, Guidance Aide Trainee Experience, \$47,000 funded 1972. The use of paraprofessional students in career development activities within elementary and junior high schools.
 Thesis, Marshall University, 1968.
 Dissertation, VPI & SU, 1974.
- V. Developed and wrote guidance program for Mullens High School. Expanded for Wyoming County.

Jeane R. Suddarth
 Jeane R. Suddarth

INTERCORRELATION PATTERNS RELATING TO CAREER ASPIRATION AMONG SOUTHERN APPALACHIAN YOUTH

by

Jeane R. Suddarth

Problems relating to career development, while evident throughout the United States (Das, 1963), were severe in southern Appalachia (Stevic, 1967). Mountains acted as natural barriers which caused a lack of communication and transportation. These disadvantages, according to Amos and Grambs (1968), resulted in poverty, cultural deprivation, low parental motivation, damaged self-concept and desire for immediate gratification. Career development was seen as a decision-making process involving one's total personality (Bartlett, 1971) in relationship to the background of his total environment.

The objectives of this study were to devise testing procedures for identification of contributing factors in career development problems believed to be prevalent in southern Appalachia and in particular, Wyoming County, West Virginia; to identify career development problems unique to students in this region; and to define and analyze interrelating factors. It was hoped that this study could add to a body of research which might be utilized to understand the

unique southern Appalachian student and his career development needs.

Aptitude tests (GATB), dropout tendency scales (DDS), self-concept inventories (IAV), and career checklists (OAP) were administered to 119 - 125 students who had no career orientation. These students represented five Wyoming County high schools. Other pertinent information about these students was obtained from school records.

Means, standard deviations, factor analysis, cross tabulations, and frequency comparisons were calculated. The resulting data were compiled into charts and tables. From these data, significant relationships were sought relating to realism of career choice, educational aspiration, tendencies to continue formal education, aptitudes, high school achievement, sex, self-concept, socioeconomic level, and occupational aspiration.

The general findings from this study were as follows:

1. From the mean scores, these subjects were found to be marginal in career choice, low in educational aspiration, average in dropout tendencies, except for attitudes toward teachers which was above the medium range, average in aptitudes, slightly above average in achievement, positive in self-concept, low in socioeconomic level, and relatively high in occupational aspiration.

2. The students exhibiting the highest self-concept and

highest others' concept came from the lowest socioeconomic family background. It was also characteristic that the highest self and others' concept students had least dropout tendency, as measured by peers' or parents' influence.

3. The students with more realistic career choices and lower occupational aspiration were more likely potential dropouts.

4. Dropout tendencies were not found to be related to general ability scores.

5. The students aspiring to higher levels of education were more definite in their choices of careers than were others.

6. Male students experienced more dropout tendencies in attitudes toward teachers than did female students.

7. Students from higher socioeconomic levels demonstrated higher general ability aptitude scores and higher achievement based on GPA scores. Conversely, students from the low socioeconomic level manifested lowest general ability scores and lowest GPA scores.

8. A positive correlation was found among realism of career choice, general ability, and achievement. Those students scoring lowest in realism of career choice had lowest mean scores in general ability and lowest mean grade-point averages; whereas, those with highest realism of career choice showed highest mean scores in general ability and highest mean grade-point average.

9. The subjects of low socioeconomic level, in general,

did not choose a level of educational attainment above that of their parents' socioeconomic group.

10. Both male and female stereotype roles appeared in occupational choice based primarily upon local career opportunities.

11. Female subjects generally chose low and medium levels of education while male subjects usually chose low and high educational levels.

These findings and intercorrelation patterns were used to provide answers for five major research questions. The questions related to career orientation problems of southern Appalachia.