

A COMPARISON OF SELECTED CHARACTERISTICS
OF METROPOLITAN TECHNICAL INSTITUTE
STUDENTS AND ON-CAMPUS SCHOOL OF
TECHNOLOGY STUDENTS

By

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CHAPTER I

INTRODUCTION

Enrollment pressures on colleges and universities have made it increasingly evident that this country will need to provide at least two years of education beyond the high school level for all high school graduates. The question is no longer, "Which high school graduate should go to college?" but rather, "What type of program and institution will best fit the student's needs?" (1, p. 57).

This increasing demand for education at the post-high school level has led to an increasing interest in technician education programs. Recognizing this interest, congress has passed several acts to support this type of education, including the National Defense Education Act of 1958, the Vocational Education Act of 1963, and the Vocational Admendments of 1968. These acts have led to the establishment of technician education programs in a variety of public supported institutions: technical institutes, junior and community colleges, and four-year colleges and universities.

Statement of the Problem

The problem with which this study is concerned is the lack of information concerning selected characteristics of technician education students enrolled in similar technician education programs, but at different types of institutions.

Purpose of the Study

The purpose of this study was to identify and compare differences and similarities of selected characteristics of persistent technician education students from two different types of institutions: a metropolitan technical institute and a school of technology based at a university. This information is needed (1) to provide a reference point for the counseling and recruitment of prospective technician education students, (2) to provide helpful guidelines in the planning of new technician education programs and improve existing programs, and (3) to provide additional information in this often neglected field of research. Considered in this investigation are a number of personal, educational, and social background characteristics of technician education students.

Need for the Study

As technician education program enrollments continue to grow, the need for up-to-date information on the characteristics of the students is of vital importance to the educator. According to Graney (2), information on student characteristics is of primary importance. Regarding this he states (2, p. 87):

In the final analysis, educational programs must be planned to fit the particular talents and needs of students attracted to a program, educational planning should begin with a consideration of the students to be served.

Also Brumbaugh (3) contends that student characteristics are important tools for educators. Concerning this he states (3, p. 9):

The more that is known about the students--their characteristics, their experiences, their success and

failures, both in and after college--the better can an institution formulate and evaluate its policies, programs, and procedures.

The amount of factual research in the area of technician education student characteristics has been limited. In 1968 Phillips (4, p. 21) states:

In spite of the growing interest in technician education in recent years there are surprisingly few factual data relative to the kinds of individuals served by technician education. While factual information is scarce, speculation abounds; however, much of the speculation deals more with what technician students ought to be than with what they are.

The limited amount of research in this area of technician education and the need for providing more information on the characteristics of technician education students, enrolled at different types of institutions, appear to justify the need for a study in this area. It was expected that the information would be useful to educators, students, counselors, and add to the limited factual research in this area of technician education.

Scope of the Study

This study is limited to technician education students enrolled in the second year of a technician education program, hereafter known as persistent technician education students. The study dealt with persistent technician education students enrolled in two different types of institutions operated by Oklahoma State University. Both institutions have the same admission requirements and offer the associate degree upon completion of a sixty-four semester hour program. One of the institutions is Oklahoma State University Technical Institute at Oklahoma City, Oklahoma and the other is the School of Technology, Oklahoma State University at Stillwater, Oklahoma.

The technician curricula selected for this study from the Technical Institute at Oklahoma City were: architectural drafting technology, civil technology, computer programming technology, electronics technology, nurse science, pre-nursing, and technical writing technology.

The technician curricula selected for this study from the School of Technology at Oklahoma State University were: aeronautical technology, construction management technology, electronics technology, fire protection technology, mechanical design technology, mechanical power technology, metallurgical technology, petroleum technology, and radiation and nuclear technology.

Oklahoma State University Technical Institute at Oklahoma City is a division of the College of Engineering and is accredited by the North Central Association. It is located in a metropolitan city with an approximate population of 324,000 (5, p. 7).

Oklahoma State University is a federal land grant institution located in a county seat of approximately 25,000 population. The city is located in a rural area approximately 60 miles from the nearest metropolitan city. It is also accredited by the North Central Association (6, p. 7).

Assumptions

Design of this study was based upon the assumption that the students gave accurate responses to the questionnaires (see Appendix A) that were designed to obtain selected characteristics of the students. An additional assumption was that the persistent technician education students used in this study will be typical of persistent technician education students of future years.

Definition of Terms

Persistent students - are students that are in their second year of a two-year technician education program.

School of Technology - is a post-high school institution offering training for occupations in which emphasis is placed on the application of the functional aspects of math and science. It is usually a division of the college of engineering at a four-year institution. Its primary purpose is to train engineering technicians (primarily two-year programs) and engineering technologists (four-year programs).

Socioeconomic level - for use in this study: low socioeconomic level means any family whose total income is less than \$6,000 per year; middle socioeconomic level means any family whose total income is between \$6,001 and \$9,999 per year; and high socioeconomic level means any family whose total income is \$10,000 per year or above (7, p. 346).

Technical Institute - a post-high school institution offering training for occupations in which emphasis is placed on the application of the functional aspects of math and science, or officially designated, separately organized technical institute division of a four-year institution. The primary purpose of the technical institute is training for an objective other than a bachelors degree (4, p. 7).

Technician Education - is a planned sequence of classroom and laboratory experiences at the post-secondary level designed to prepare the student for a number of closely-related positions in industry. The program of instruction includes sufficient specialized technological courses to allow the graduate to enter a job and be productive with a minimum of additional training after employment. Related practical courses add to the versatility of the graduate. Science and mathematics

courses are included to provide an understanding of the physical laws involved in the operation and to develop the ability to use the principles as working tools in the development of ideas and processes. Technician education prepares for the occupational area between the skilled craftsman and the professional person (8, p. 5).

CHAPTER II

REVIEW OF THE LITERATURE

This review of literature explores several articles and studies dealing with significant characteristics of technician education students. The literature is largely descriptive in nature. Most of the studies are devoted to the identification of general characteristics of the typical technician education students. The studies are mostly localized in nature and very few examine the characteristics of students enrolled in different types of institutions. A review of the literature suggests that it should be divided into three parts: (1) general descriptive characteristics, (2) educational characteristics, and (3) sociological characteristics of technician education students.

General Descriptive Characteristics

In 1959, Henninger (9) found that in a study of 93 technical institutes the average age of the students at entrance ranged from 18 to 27 years with a mean of 20 years.

In discussing the technical institute student, Gravey (3, p. 94) states:

As a rule, students who are enrolled are somewhat older than average college students, are less interested in advanced theory than are engineering students, and believe they lack either time or money to finance a four-year program. They come to such schools directly from high school, transfer from bachelor programs, or enter after or during industrial

employment. They are more interested in what and how rather than in why, and tend to pursue technical, job-related courses rather than general studies.

Van Derslice (10) describes the technician student as averaging about age nineteen with a large number of the technician students coming directly from high school or from a tour of the military. He further states that the general student population is young with very few students coming from the military or industry.

Based on twenty years of observation, Van Hall (11) describes the technician education student. He is work-oriented with an unquenchable curiosity. He not only wants to know how things work but he also wants to know why. He is pragmatic. He likes to take the shortest, most direct, and efficient route, to get where he is going. The technician student will show a strong aptitude in the mathematical areas, but will show little interest in English and social studies.

Educational Characteristics

In his study of the Broome County Technical Institute, Hamm (12, p. 12) reports that most of the technician education students come from families in which the parents have completed high school but not college. The students themselves usually were in the upper two-thirds of their high school graduating classes.

In 1964, Miller and Haller (13, p. 299) found occupational aspirations associated with school, achievement, education of parents and aspirations parents had for their children.

Perrone (14, p. 141) found students in two-year post high school programs to be intellectually, socioeconomically, and educationally

between those who terminate their education with high school or before those attending four-year colleges and universities.

In 1967, Pucel and Nelson (15) conclude that most technician students are well-educated high school graduates, with previous vocational training in high school. Similar conclusions were drawn by Van Derslice (10, p. 82) in 1968. This study found that most technician education students were high school graduates, or the equivalent of a high school graduate. He also stated, "It has been determined by several studies that the intelligence level of most successful technician students is average, or above, but not as high as the students in four-year programs."

Sociological Characteristics

In 1959 Riesman (4, p. 13) contended that students in the lower socioeconomic levels were less inclined to attend college and had a very limited geographic range in thinking about college.

Cross (16) finds that a child's ability to achieve in school is intricately interwoven with his family background. In a study of freshmen students at a southwestern college and an eastern college, Wasburn (17, p. 130) had similar findings. He reports that the more urban the residence background of the student, the better his academic performance is likely to be, up to a population of 500,000. However, in a similar study by Kallas (18, p. 15), it was found that when social class was held constant the effect of the rural or urban background was insignificant when related to academic performance.

Schroder and Sledge (4, p. 16) in 1966 suggested that personal and motivational factors may be more important determinants of college achievements than the socioeconomic level of the parents.

In their study of the relationship among socioeconomic status, intelligence and attainment of higher education, Sewell and Shah (19, p. 1) report:

Both socioeconomic status and intelligence have direct effects on planning on college, college attendance, college graduation, and considerable indirect effects on the level of educational attainment through their effects on college plans and college attendance.

In summary, this review of literature has explored several articles and studies dealing with general, educational, and sociological characteristics of technician education students. In some areas there seem to be an abundance of information available, while in others such as sociological characteristics only a small amount of information is to be found. However, in the area of characteristics of students enrolled in different types of institutions, the amount of information is almost non-existent. This is due to the limited amount of research in the area of technician education.

CHAPTER III

METHODOLOGY

The purpose of this study was to identify and compare differences and similarities of selected personal characteristics of persistent technician education students enrolled in two different types of institutions. A study of the literature revealed only a limited amount of information on characteristics of technician education students enrolled at different types of institutions. However, through the literature, selected student characteristics and methods of obtaining student characteristics were reviewed for use in this study.

Two institutions were selected for the study: a metropolitan technical institute and an on-campus school of technology. An eighteen item questionnaire was used to collect the data for the study. The population was defined and data were collected from 146 students at the metropolitan technical institute and 86 students at the school of technology. All data were collected during the 1971 fall semester, in group settings. The remainder of this chapter is devoted to a more detailed description of the procedures.

Institutions

Two institutions offering technician education programs were selected for this study. These two institutions were a metropolitan technical institute and an on-campus school of technology. These

institutions were selected primarily because both were divisions of the college of engineering of the same state university, the entrance requirements were the same at both institutions, and they both offered the associate degree at the completion of a two-year technician education program.

Population

All students utilized in this study were enrolled in the second year of a two-year program. A biased sample of twenty percent of the total sophomore enrollment of each of the programs was selected from the total population of 504 persistent students at the technical institute and 225 persistent students at the school of technology. The school of technology had no night students, but the technical institute had such a large night enrollment that night students were included by proportion in the sample. Table I lists the total number of subjects used from the technical institute by program and Table II lists the total number of subjects used from the school of technology program.

Table I shows the distribution of students included in the study and total sophomore enrollment by program at the metropolitan technical institute. The table reveals that of the 44 students enrolled in architectural drafting technology, nine of the students were used in the study; of 37 students enrolled in civil technology, seven students were used; of three students in environmental health technology, one student was used; of 120 students enrolled in computer programming technology, 24 were used; of 189 students in electronics technology, 38 students were used; of four students in bio-medical electronics, one student was used; of 33 students enrolled in industrial drafting technology, seven

TABLE I

DISTRIBUTION OF STUDENTS INCLUDED IN THE STUDY BY PROGRAM
AT THE TECHNICAL INSTITUTE AT OKLAHOMA CITY, OKLAHOMA

Technology	Sophomore Enrollment	20% of Sophomore Enrollment
Architectural Drafting	44	9
Civil	37	7
Environmental Health	3	1
Computer Programming	120	24
Electronics	189	38
Bio-Medical Electronics	4	1
Industrial Drafting	33	7
Nurse Science	48	9
Pre-Nursing	20	4
Technical Writing	6	1
Total	504	101

TABLE II

DISTRIBUTION OF STUDENTS INCLUDED IN THE STUDY BY PROGRAM
AT THE SCHOOL OF TECHNOLOGY AT STILLWATER, OKLAHOMA

Technology	Sophomore Enrollment	20% of Sophomore Enrollment
Aeronautical	32	6
Construction Management	22	4
Electronics	39	8
Fire Protection	23	5
Mechanical Design	33	7
Mechanical Power	41	8
Metallurgical	9	2
Petroleum	13	3
Radiation and Nuclear	13	3
Total	225	46

were used; of 48 students in nurse science technology, nine students were used; of twenty students in pre-nursing technology, four students were used; and of six students in technical writing technology, one student was used in the study.

Table II shows the distribution of students included in the study and total sophomore enrollment by program at the on-campus school of technology. The table reveals that of the 32 students enrolled in aeronautical technology, six students were used in the study; of 22 students enrolled in construction management technology, four students were used; of 39 students in electronics technology, eight students were used; of 23 students in fire protection technology, five students were used; of 33 students in mechanical design technology, seven students were used; of 41 students in mechanical power technology, eight students were used; of nine students in metallurgical technology, two students were used; of thirteen students in petroleum technology, three students were used; and of thirteen students enrolled in radiation and nuclear technology, three students were used in the study.

Instrument

After a study of the literature an eighteen item questionnaire was designed to obtain data for determining student characteristics. Many of the items were answerable by a single check mark. The students were advised to answer all of the questions to the best of their ability and not to leave any questions unanswered. A copy of the questionnaire is included in Appendix A.

Data Collection

All of the data were collected in group settings with the cooperation of the teachers and administrators at the institutions used in this study. The questionnaire was first checked to see if they were completely filled out, then they were grouped by program and institution. Random samples of the remaining questionnaires were drawn to fill the twenty percent of the total sophomore enrollment of each of the programs.

CHAPTER IV

RESULTS

The purpose of this study was to identify and compare differences and similarities of selected personal characteristics in persistent technician education students enrolled in two different types of institutions. Results of the data utilized in this study are presented in this chapter. All tables are in percentages of the biased sample of twenty percent of the total sophomore enrollment of each of the programs.

Analysis

Table III shows the distribution of the technician students by sex. The table shows that 89.1 percent of the students utilized in this study from the technical institute were male and 10.9 percent were female. The number of females utilized in this study was seven in nurse science, three in pre-nursing, and one in computer programming. In contrast, 100 percent of the school of technology students were male.

Table IV shows the marital status of the students. The table shows that there were more married students at the technical institute than at the school of technology. The percentages were 52.5 at the technical institute and 37 percent at the school of technology.

TABLE III
DISTRIBUTION OF STUDENTS BY SEX
(PERCENT)

Sex	Institutions	
	Technical Institute N=101	School of Technology N=46
Male	89.1	100
Female	10.9	0

TABLE IV
MARITAL STATUS OF STUDENTS
(PERCENT)

	Institutions	
	Technical Institute N=101	School of Technology N=46
Married	52.5	37
Single	47.5	63

Table V shows the number of dependents that rely on the married male students for their support. The married female students did not answer this question because the question was designed for male respondents only. The married male technical institute students had a range of from one to six dependents with the largest percentage of 29.2 being at two dependents. The school of technology male students had a range of

from one to three with the highest percentage of 76.4 being at one dependent. Table V summarizes the percentages of dependents.

TABLE V
NUMBER OF DEPENDENTS OF MARRIED MALE STUDENTS
(PERCENT)

Number of Dependents	Institutions	
	Technical Institute N=48	School of Technology N=17
1 (wife)	22.9	76.4
2	29.2	11.8
3	16.6	11.8
4	27.1	
5	2.1	
6	2.1	

Table VI shows distribution of the students by age. The school of technology had the younger students overall, but the technical institute had its highest percentage of 26.6 at the eighteen to twenty year old level. The school of technology had its highest percentage of 39.1 at the 21 to 23 year old level while the technical institute had a percentage of 22.8 at this level. The technical institute students had an age range of from 18 to 46 years old while the students in the school of technology had an age range of from 19 to 29 years. The table shows

that 73.9 percent of the school of technology students were below the age of 24, while only 49.4 percent of the technical institute students were below the age of 24.

TABLE VI
DISTRIBUTION OF STUDENTS BY AGE
(PERCENT)

Age	Institutions	
	Technical Institute N=101	School of Technology N=46
18-20	26.6	34.8
21-23	22.8	39.1
24-26	18.8	21.7
27-29	11.9	4.4
30-32	4.0	
33-35	5.0	
36-38	4.0	
39-41	5.9	
42 and over	1.0	

Table VII shows the work status of the students. The school of technology had the smallest numbers of working students, with a percentage of 37.0. The technical institute had a percentage of 69.3 working students.

TABLE VII
 WORK STATUS OF STUDENTS
 (PERCENT)

Working	Institutions	
	Technical Institute N=101	School of Technology N=46
Yes	69.3	37.0
No	30.7	63.0

Table VIII shows the distribution of the hours worked per week by the students. The students from the technical institute worked more hours per week than did the students from the school of technology.

TABLE VIII
 DISTRIBUTION OF HOURS WORKED PER WEEK
 (PERCENT)

Hours	Institutions	
	Technical Institute N=70	School of Technology N=17
10-15	17.2	41.2
20-25	15.7	41.2
30-35	7.1	17.6
40 and over	60.0	

Table VIII shows that the technical institute had its highest percentage of 60.0 at the 40 hour or over level, the school of technology had no responses at this level. The technical institute had only 32.9 percent that worked under 30 hours, while the school of technology had 82.4 percent that worked under 30 hours per week.

Table IX shows the distribution of veteran students. The technical institute had the highest number of veterans with 53.5 percent while the school of technology had 26.1 percent.

TABLE IX
DISTRIBUTION OF VETERAN STUDENTS
(PERCENT)

Veteran	Institutions	
	Technical Institute N=101	School of Technology N=46
Yes	53.5	26.1
No	46.5	73.9

Table X shows the distribution of students by the size of the town in which they attended high school. The percentages of both the school of technology and the technical institute were the highest at the level of over 100,000 population. The technical institute had the highest percentage, 46.5, and the school of technology had 34.7 percent. The

table shows that the percentages are slightly different but both of them taper the same way.

TABLE X
DISTRIBUTION OF STUDENTS BY SIZE OF TOWN
IN WHICH THEY ATTENDED HIGH SCHOOL
(PERCENT)

Size	Institutions	
	Technical Institute N=101	School of Technology N=46
Less than 1,000	5.9	6.5
1,000-10,000	24.8	30.4
10,000-100,000	22.8	28.4
Over 100,000	46.5	34.7

Table XI shows the students' activities at least one year before enrolling in the technician education program. The table shows that 45.7 percent of the school of technology students were in high school before entering the technician education program. The technical institute shows 21.8 percent in high school before entering the program. The technical institute shows 31.7 percent of its students working full time before entering the program while the school of technology shows 13. percent. Both the technical institute and school of technology show high percentages in the military before entering the program. The

technical institute showed 18.8 percent and the school of technology 23.9 percent.

TABLE XI
STUDENTS' ACTIVITIES BEFORE ENTERING PROGRAM
(PERCENT)

Activity	Institutions	
	Technical Institute N=101	School of Technology N=46
High school	21.8	45.7
Working (full time)	31.7	13.0
Military	18.8	23.9
Going to another school	16.8	10.9
Unemployed	3.0	
Other	7.9	6.5

Table XII shows the distribution of the reasons that the students enrolled in the technician education programs. The table reveals that 82.6 percent of the school of technology students stated that they enrolled in the programs to prepare for a job while 60.4 percent of the students at the technical institute stated the same reason. The technical institute had an 8.9 percent response to "other". Most of these responses stated continuing education or self-satisfaction as their reason for enrolling in the program.

TABLE XII
DISTRIBUTION OF REASONS WHY STUDENTS ENROLLED IN PROGRAMS
(PERCENT)

Reasons	Institutions	
	Technical Institute N=101	School of Technology N=46
To prepare for a job	60.4	82.6
To upgrade an existing skill	30.7	17.4
Other	8.9	

Table XIII shows distribution of persons who influenced students to enroll in a technician education program. The table shows that 82.5 percent of the school of technology students chose "nobody" and that 63.4 percent of the technical institute students made the same response. The next highest percentage was 10.9 percent of students in the technical institute indicated that they had been influenced by a high school teacher or counselor.

Table XIV shows the educational aspirations of the students. The table reveals that 82.6 percent of students of the school of technology and 53.5 percent of the students of the technical institute expected to complete a B.S. degree. Also 26.7 percent of the technical institute students and 2.2 percent of the school of technology students indicated that they expected to complete an A.S. degree. Only one percent (one respondent) listed no educational aspiration.

TABLE XIII
DISTRIBUTION OF PERSONS WHO INFLUENCED
STUDENTS TO ENROLL IN PROGRAM
(PERCENT)

Persons	Institutions	
	Technical Institute N=101	School of Technology N=46
Parents	5.9	4.4
Relatives	4.0	2.2
Friends	7.9	6.5
Employer	7.9	
High school teacher or counselor	10.9	4.4
Nobody	63.4	82.5

TABLE XIV
EDUCATIONAL ASPIRATIONS OF STUDENTS
(PERCENT)

Aspirations	Institutions	
	Technical Institute N=101	School of Technology N=46
A.S. Degree	26.7	2.2
B.S. Degree	53.5	82.6
M.S. Degree	12.9	15.2
Ph.D. Degree	5.9	
None	1.0	

Table XV shows students' preferred working locations upon completion of the programs. The table reveals that 46.5 percent of the technical institute students and 37 percent of the school of technology students desired to work in Oklahoma; 21.8 percent of the technical institute students and 26 percent of the school of technology students desired to work in another state; and 31.7 percent of the technical institute students and 37 percent of the school of technology students stated no preference about location.

TABLE XV
STUDENTS' PREFERRED WORKING LOCATION
UPON COMPLETION OF PROGRAM
(PERCENT)

Location	Institutions	
	Technical Institute N=101	School of Technology N=46
In Oklahoma	46.5	37.0
In another state	21.8	26.0
No preference	31.7	27.0

Table XVI shows the distribution of the students' socioeconomic level. The table reveals that 21.4 percent of the technical institute students and 23.9 percent of the school of technology students were at the lower socioeconomic level; 39 percent of the technical institute students and 37 percent of the school of technology students were at the

middle socioeconomic level; and 39.6 percent of the technical institute students and 39.1 percent of the school of technology students were at the higher socioeconomic level.

TABLE XVI
DISTRIBUTION OF STUDENTS' SOCIOECONOMIC LEVELS
(PERCENT)

Level	Institutions	
	Technical Institute N=101	School of Technology N=46
\$5,999 and under	21.4	23.9
\$6,000-\$9,999	39.0	37.0
\$10,000 and over	39.6	39.1

Table XVII shows the distribution of students whose fathers had attained specific educational levels. The table reveals that 39.6 percent of the fathers of technical institute students and 45.7 percent of the fathers of school of technology students completed from ten to twelve years of education; 9.9 percent of the fathers of technical institute students and 13 percent of the fathers of school of technology students completed from fifteen to sixteen years of education; and two percent of the fathers of technical institute students and 6.5 percent of the fathers of school of technology students completed more than sixteen years of education.

TABLE XVII
 DISTRIBUTION OF STUDENTS WHOSE FATHER HAD
 ATTAINED SPECIFIC EDUCATIONAL LEVEL
 (PERCENT)

Years Completed	Institutions	
	Technical Institute N=101	School of Technology N=46
9 or less	30.7	23.9
10-12	39.6	45.7
13-14	9.9	13.0
15-16	17.8	10.8
More than 16	2.0	6.5

Table XVIII shows the distribution of the students whose mothers had attained specific educational levels. The table reveals that 64.5 percent of the mothers of the technical institute students and 68.5 percent of the mothers of the school of technology students completed from ten to twelve years of education; 12.8 percent of the mothers of technical institute students and 10.8 percent of the mothers of the school of technology students completed from fifteen to sixteen years of education; and one percent of the mothers of the technical institute students completed more than sixteen years of education.

TABLE XVIII
 DISTRIBUTION OF STUDENTS WHOSE MOTHER HAD
 ATTAINED SPECIFIC EDUCATIONAL LEVEL
 (PERCENT)

Years Completed	Institutions	
	Technical Institute N=101	School of Technology N=46
9 or less	8.9	7.5
10-12	64.5	68.5
13-14	12.8	13.0
15-16	12.8	10.8
More than 16	1.0	0.0

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to identify and compare differences and similarities of selected characteristics in persistent technician education students from two different types of institutions: a metropolitan technical institute and a school of technology based at a university. This information is needed (1) to provide a reference point for the counseling and recruitment of prospective technician education students, (2) to provide helpful guidelines in planning of new technician education programs and improve existent programs, and (3) to provide additional information in this often neglected field of research.

In this study an eighteen-item questionnaire was designed and administered in group settings to 146 sophomore students at the metropolitan technical institute and to 86 students at the school of technology six weeks before the end of the fall semester, 1971. All students utilized in this study were enrolled in the second year of a two-year program. One hundred and one technical institute students and 46 school of technology students were taken as a biased sample of twenty percent of the total sophomore enrollment of each of the programs at the two institutions used in this study.

The major findings of this study, of the selected characteristics of technician education students enrolled in similar programs but at different types of institutions, are briefly summarized below.

1. The technical institute students utilized in this study were 89.1 percent males and 10.9 percent females. In contrast 100 percent of the school of technology students were males.

2. The study showed that 52.5 percent of the technical institute students were married while only 37 percent of the school of technology students were married.

3. The study showed that of the married students at the school of technology only 23.6 percent had children while 77.1 percent of the married students from the technical institute had children. The married students from the technical institute had from one to five dependents while the married students from the school of technology had one or two dependents.

4. The average age of the school of technology students was 22 and the age ranged from 19 to 29 years. The average age of the students from the technical institute was 26 and the age ranged from 18 to 46 years.

5. The study showed the school of technology had the smallest number of working students, with a percentage of 37. The technical institute had a percentage of 69.3 working students.

6. The study showed that 60 percent of the working students of the technical institute worked 40 hours or over per week and 32.9 percent of them worked under 30 hours per week. The school of technology had 82.4 percent of its working students, working under 30 hours per week.

7. The technical institute had the highest number of veterans with 53.5 percent while the school of technology had 26.1 percent.

8. The school of technology at 34.7 percent and the technical institute at 46.5 percent showed their highest percentage of students from towns with populations of 100,000 or over.

9. The study showed that 45.7 percent of the school of technology students were in high school one year before entering technician education programs. The technical institute showed 21.8 percent of their students in high school one year before entering the program. The technical institute shows 31.7 percent of its students working full time before entering the program, while the school of technology showed thirteen percent. The technical institute at 18.8 percent and the school of technology at 23.9 percent had high percentages in the military one year before entering the program.

10. The students revealed that 82.6 percent of the school of technology students stated that they enrolled in technician education programs "to prepare for a job" while 60.4 percent of the students at the technical institute stated the same reason. The technical institute students had a 30.7 percent response to "upgrade an existing skill" as the reason they enrolled in a technician education program while the school of technology showed a 17.4 percent response to this reason.

11. The study showed that 82.5 percent of the school of technology students stated that "nobody" influenced them to enroll in a technician education program and that 63.4 percent of the technical institute students made the same response. The technical institute students indicated that 7.9 percent of them had been influenced by their

employers to enroll in a technician education program while the school of technology students showed no responses as to employers influencing them to enroll.

12. The study revealed that 82.6 percent of the students of the school of technology and 53.5 percent of the students of the technical institute had educational aspirations toward a B.S. degree. Also, 26.7 percent of the technical institute students and 2.2 percent of the school of technology students indicated that they aspired to complete an A.S. degree. Only 18.8 percent of the technical institute students and 15.2 percent of the school of technology students aspired to a graduate degree.

13. The study revealed that 46.5 percent of the technical institute students and 37 percent of the school of technology students upon completion of their technician education programs desired to work in Oklahoma; 21.8 percent of the technical institute students and 24 percent of the school of technology students desired to work in another state; and 31.7 percent of the technical institute students and 37 percent of the school of technology students stated no preference as to working location upon completion of their program.

14. The study showed that the socioeconomic levels of the technical institute students and the school of technology students were almost the same. The study showed that 21.4 percent of the technical institute students and 23.9 percent of the school of technology students were at the lower socioeconomic level; 39 percent of the technical institute students and 37 percent of the school of technology students were at the middle socioeconomic level; and 39.6 percent of the

technical institute students and 39.1 percent of the school of technology students were at the higher socioeconomic level.

15. The study revealed that 39.6 percent of the fathers of technical institute students and 45.7 percent of the fathers of school of technology students had completed from ten to twelve years of education; 9.9 percent of the fathers of technical institute students and 13 percent of the fathers of school of technology students had completed from fifteen to sixteen years of education; and two percent of the fathers of technical institute students and 6.5 percent of the fathers of school of technology students had completed more than sixteen years of education.

16. The study revealed that 64.5 percent of the mothers of technical institute students and 68.5 percent of the mothers of school of technology students had completed from ten to twelve years of education; 12.8 percent of the mothers of technical institute students and 10.8 percent of the mothers of the school of technology students had completed from fifteen to sixteen years of education; and one percent of the mothers of technical institute students had completed more than sixteen years of education.

Conclusions

The conclusions of this descriptive study are based upon the responses made by 101 persistent metropolitan technical institute students and 46 persistent school of technology students. The conclusions are as follows:

1. Although some of the students could be served by the technician education programs at either of the institutions, there is a difference

in the selected characteristics of persistent metropolitan technical institute students and persistent on-campus school of technology students. Thirteen, of the selected student characteristics, out of the sixteen used in this study were found to be different. Thus, the technician education programs at the two different types of institutions serve students with different personal characteristics.

2. There is a similarity in the background characteristics of persistent metropolitan technical institute students and persistent on-campus school of technology students. The study found that the education level of the students' parents and the socioeconomic level of the students' parents were similar. Thus, the technician education programs at the two different types of institutions served students with similar socioeconomic backgrounds.

Recommendations

1. It is recommended that, in the counseling and recruitment of prospective technician education students, counselors and educators should take into consideration the differences identified in this study of selected characteristics of students served by a metropolitan technical institute and an on-campus school of technology.

2. It is recommended that in planning new technician education programs and improving existent programs, educators and state officials should take into consideration the differences identified in this study of students served by a metropolitan technical institute and an on-campus school of technology.

3. It is recommended that research is needed to determine if technician education students enrolled in the same types of programs

at different types of institutions, have similar or different personal characteristics.

4. It is recommended that research is needed in the area of determining if female technician students have characteristics which are similar to male technician education students.

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APPENDIX

STUDENT QUESTIONNAIRE

Department of Technical Education
Oklahoma State University
1971

INSTRUCTIONS: Read the question carefully, mark your selection, and do not leave any of the questions unanswered.

1. Age (in years)

2. Marital Status
1. _____ Single
2. _____ Married
3. Number of persons other than yourself who are dependent on you for their support. (Males only)

4. Are you presently working?
1. _____ Yes
2. _____ No
5. If presently working, how many hours do you work a week?

6. Are you a veteran?
1. _____ Yes
2. _____ No
7. In which particular program are you currently enrolled? (Example: Electronics Tech.)

8. In this program, I am now a:
1. _____ Freshman
2. _____ Sophomore (more than 32 semester hours)
9. Why did you enroll in this program?
1. _____ To prepare for a job
2. _____ To upgrade an existing skill
3. _____ Other (specify) _____

10. Who most influenced you to enroll in this program?
1. _____ Parents
2. _____ Relatives
3. _____ Friends
4. _____ Employer
5. _____ High school teacher or counselor
6. _____ Nobody
11. What were you doing (at least one year) before enrolling in this program?
1. _____ Going to high school
2. _____ Working (full time)
3. _____ In the military
4. _____ Attending another school
5. _____ Unemployed (looking for work)
6. _____ Other
12. What is the size of the town in which you attended high school?
1. _____ Less than 1,000
2. _____ 1,000 to 10,000
3. _____ 10,000 to 100,000
4. _____ Over 100,000

13. Highest grade completed by your father (circle number)
- 7 8 9 10 11 12
High School
- 1 2 3 4
College
- _____
Others (specify)
14. Highest grade completed by your mother (circle number)
- 7 8 9 10 11 12
High School
- 1 2 3 4
College
- _____
Others (specify)
15. What is the highest level of education you expect to complete? (Example: A.S., B.S.)
- _____
16. Estimated parent income for last 12 months.
1. _____ Under \$2,000
2. _____ \$2,000 to \$3,999
3. _____ \$4,000 to \$5,999
4. _____ \$6,000 to \$7,999
5. _____ \$8,000 to \$9,999
6. _____ \$10,000 or over
17. If you seek employment upon completion of this program, where do you prefer to work?
1. _____ In Oklahoma
2. _____ In another state
3. _____ No preference
18. Sex
1. _____ Male
2. _____ Female

2
VITA

Douglas Wayne Mitchell

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Master of Science

Thesis: A COMPARISON OF SELECTED CHARACTERISTICS OF METROPOLITAN
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