

R E P O R T R E S U M E S

ED 018 588

VT 001 541

70,000 HIGH SCHOOL SENIORS, THEIR EDUCATIONAL AND VOCATIONAL PLANS, A REPORT OF THE SURVEY OF THE EDUCATIONAL AND VOCATIONAL INTERESTS AND PLANS OF INDIANA'S 70,000 HIGH SCHOOL GRADUATES IN 1966.

INDIANA VOCATIONAL TECHNICAL COLL., INDIANAPOLIS

REPORT NUMBER IVTC-RES-BULL-1

PUB DATE

67

EDRS PRICE MF-\$0.25 HC-\$1.36 32P.

DESCRIPTORS- VOCATIONAL EDUCATION, GRADE 12, SURVEYS, *VOCATIONAL INTERESTS, *HIGH SCHOOL STUDENTS, *EDUCATIONAL INTEREST, STUDENT CHARACTERISTICS, *CAREER CHOICE, VOCATIONAL COUNSELING, EDUCATIONAL NEEDS, INDIANA,

THE INTERESTS OF GRADUATING SENIORS WERE IDENTIFIED TO PROVIDE NECESSARY DATA FOR DEVELOPING THOSE AREAS OF POST-HIGH SCHOOL EDUCATION NEEDED FOR PERSONS ENTERING THE LABOR MARKET. ABOUT 38,000, OR 54 PERCENT, OF 70,000 GRADUATES COMPLETED A 22-ITEM QUESTIONNAIRE AND MADE CURRICULUM AND OCCUPATIONAL CHOICES RELATED TO THEIR EDUCATIONAL AND VOCATIONAL PLANS. KNOWN CHARACTERISTICS AND KNOWN GEOGRAPHICAL DISTRIBUTION OF THE TOTAL POPULATION OF HIGH SCHOOL SENIORS COMPARED FAVORABLY WITH THE SURVEY RESPONSES, JUSTIFYING THE GENERAL APPLICATION OF SURVEY CONCLUSIONS TO THE TOTAL SENIOR POPULATION. SOME GENERAL FINDINGS WERE--(1) 42.8 PERCENT OF THE GRADUATES PLANNED TO ENTER A COLLEGE OR UNIVERSITY, (2) 12 PERCENT PLANNED TO ENROLL IN VOCATIONAL OR TECHNICAL SCHOOLS AFTER GRADUATION, (3) ONLY 12,500 OF THE 40,000 WHO ENTERED THE LABOR FORCE HAD HIGH SCHOOL SUBJECTS WHICH WERE VOCATIONALLY ORIENTED, (4) STUDENT INTEREST IN VOCATIONAL SUBJECTS INCREASED DURING THE SENIOR YEAR WITH PREFERENCES MORE IN THE BUSINESS AND SERVICE THAN IN THE TRADE AND INDUSTRIAL AREA, AND (5) THE MOST FREQUENT CAREER SELECTIONS FROM A LIST OF 196 OCCUPATIONS WERE TEACHERS (ALL FIELDS), ENGINEERS (ALL FIELDS), ACCOUNTANTS, SECRETARIES, MANAGERS (TRADE AND SERVICE), DRAFTSMEN-DESIGNERS, PROFESSIONAL NURSES, BARBERS-BEAUTICIANS, FARMERS, AND BUSINESS MACHINE OPERATORS. EDUCATIONAL IMPLICATIONS CONCERNED NEEDS FOR BETTER GUIDANCE AND COUNSELING, VOCATIONAL TRAINING AND RETRAINING FOR 100,000 PERSONS ANNUALLY, AND ANNUAL SURVEYS OF THIS KIND. SPECIFIC DATA ARE PRESENTED IN GRAPHS, TABLES, AND A MAP. (BS)

EDD 1

70,000 HIGH SCHOOL

SENIORS

THEIR EDUCATIONAL AND VOCATIONAL PLANS

RESULTS OF A SURVEY
OF INDIANA'S
HIGH SCHOOL SENIOR CLASS OF 1966



11-1004-11

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE
PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINION
STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION
POSITION OR POLICY.

70,000 HIGH SCHOOL SENIORS

THEIR EDUCATIONAL AND VOCATIONAL PLANS

A report of the survey of the
educational and vocational interests and plans
of Indiana's 70,000 high school graduates in 1966.

INDIANA VOCATIONAL TECHNICAL COLLEGE

Board of Trustees

Glenn W. Sample, President
Vice President, Indiana Farm Bureau, Inc.

W. M. Dalton, Secretary
President, Dalton Foundries, Inc.

John V. Barnett
Executive Vice President, Indiana State Chamber of Commerce

Mrs. Helen J. Morris
Trustee

Dallas W. Sells, Jr.
President, AFL-CIO of Indiana

W. Henry Walker
Attorney-at Law

Richard D. Wells
State Superintendent of Public Instruction

Frederic M. Hadley
President

Indiana Vocational Technical College

Research Bulletin No. 1, 1967
Research Department
Indiana Vocational Technical College
333 North Pennsylvania Street
Indianapolis, Indiana 46204

TABLE OF CONTENTS

	Page
PREFACE	iii
DESCRIPTION OF THE SURVEY	1
GENERAL FINDINGS OF THE SURVEY	6
To College or to Work	6
The Seniors' Major Subjects	7
Hindsight on Vocational Training	8
Ten Most Common Career Choices	9
RELATIONSHIPS AND ANALYSES	10
Relationships	10
Educational Plans Beyond High School	10
Fathers' Education and Occupation	10
Financing Their Education	11
Post-High School Plans	11
Their Grades and Their Plans	12
Main Vocational Interest vs Educational Plans	13
Educational Plans vs Where They Live	14
Place of Residence vs Main Vocational Interest	15
Where They Want to Work	16
How Did They Choose a Career?	16
Major Subjects vs Main Vocational Interest	17
Certainty of Career Plans	17
When Career Decisions Were Made	18
IMPLICATIONS FOR GUIDANCE AND COUNSELING	18
THE NEED OF VOCATIONAL TRAINING FACILITIES	19
CONCLUSIONS	20
APPENDIX	21
Organized Occupational Curriculums	21
Major Occupational Groups and Divisions	22

PREFACE

In a recent act by the Congress of the United States relating to manpower needs, the Congress states . . .

"There is critical need for more and better trained personnel in many vital occupational categories, including professional, scientific, technical, and apprenticeable categories; that even in periods of high unemployment, many employment opportunities remain unfilled because of the shortages of qualified personnel; and that it is in the national interest that current and prospective manpower shortages be identified and that persons who can be qualified for these positions through education and training be sought out and trained, in order that the nation may meet the staffing requirements of the struggle for freedom. . . ."

Being cognizant of this critical need and its implications for the State of Indiana, the General Assembly in its acts of 1963 (Chapter 371) created and established: "A new state educational institution to be devoted primarily to non-collegiate non-credit practical or vocational technical and semi-technical training for the citizens of Indiana." The name given to the new institution was "Indiana Vocational Technical College."

Certain specific objectives have been formulated and adopted by the Board of Trustees of the Indiana Vocational Technical College. They are as follows:

1. To see that the needs of residents of the state for post high-school vocational and technical training and retraining are met by providing educational opportunities.
2. To see that the needs of employers of the state for persons with vocational and technical skills and knowledge are provided for in addition to those needs provided for through secondary schools, private agencies or collegiate programs.
3. To establish geographic regions within the state, and to establish regional boards whose responsibilities will be set forth in charters to be granted in accordance with the legislation creating the Indiana Vocational Technical College.
4. To identify needs of the state residents and employers by Indiana Vocational Technical College regions for specific vocational and technical programs.
5. To ascertain all vocational and technical education programs in existence, or planned in the immediate future that are offered in each region.
6. To attract, maintain and recruit when appropriate, a sufficient number of persons eligible for Indiana Vocational Technical College programs to meet employer requirements for needed vocational and technical skills.
7. To enroll only those students found to have interests in and need for specific occupational training or retraining.
8. To make certain that effective education and training benefits are achieved from the use of funds used for Indiana Vocational Technical College programs and services.

In setting about the task of achieving these objectives, a multi-phased approach has been undertaken. The occupational and manpower needs of the state are to be ascertained. The background and desires of prospective students and trainees must be studied. Geographical and population distribution factors must be considered. Existing and planned facilities and programs must be integrated into a state-wide system of educational resources utilization. Federal, state, and local funds must be programmed and a system of program priorities established according to educational needs and funds available.

With the identification of these factors and their projection into a master plan, a picture of the role of the Indiana Vocational Technical College can emerge.

This survey is one of the first attempts to identify the specific needs of Indiana residents. The Indiana Vocational Technical College is indebted to the efforts of the management consulting firm of Booz, Allen and Hamilton, Inc. under whose direction the survey was formulated and administered, the Indiana State Department of Public Instruction, and all the school administrators and teachers throughout the state who supported and assisted in the survey. Identification of the interests of graduating seniors in the state's secondary schools will provide necessary data for developing those areas of post high school education which will be sought by young people entering the labor market in the coming years.

DESCRIPTION OF THE SURVEY

What do high school seniors say they plan to do regarding their education beyond the high school? What are their chief vocational interests? Will they go to college, full-time or part-time? Will they go to a technical school? Where and in what occupations do they wish to work? What about military service? How did they choose their profession, trade, or other type of employment? When did they make their decisions? Who influenced them to choose their planned vocation? How many plan additional vocational training?

These and many other questions are answered by the seniors responding to the questionnaire. In their answers lie many significant implications for vocational technical education in Indiana. Granted that a high school student's plans, as anyone's, often go awry and that his judgment may lack a degree of maturity, the secondary school student who is a senior and anticipating graduation has reached a point where his aspirations, plans, and opinions are of vital interest to society. They are of special interest to Indiana Vocational Technical College, to institutions of higher learning, and to school administrators, teachers, counselors and others intimately concerned with educational planning and administration.

In May of 1966 a questionnaire was distributed to all public, parochial and private high schools in the State of Indiana. About 70,000 questionnaires were distributed and about 38,000—or 54 per cent, were completed and returned for analysis. This exceptionally high return is attributed to the co-operative efforts of the Department of Public Instruction and school administrators throughout the state. Validating questions and many specific correlations were built into the questionnaire.

Twenty-two questions were asked in the questionnaire. Students were asked to select their occupational curriculum and occupation choices from the lists found in the appendix. The questions were:

1. Name and location of high school
2. Sex and age of respondent
3. My high school majors (three years or more in a field of study) are....
4. If vocational and technical training, or more of it, had been offered in my high school, I would have enrolled in....
5. My high school grade average is....
6. The population of the community in which I live is....

7. My father's occupation is or was, if deceased....
8. The highest level of education of my father or, if deceased, the head of my household is....
9. After graduation from high school my plans are for....
10. If vocational and technical training programs for high school graduates were now available now in my community, I would enroll in....
11. My present career plans for a vocation or profession are Definite Almost definite Indefinite
12. At present my *main* vocational or professional interest after I complete my education or military service is....
13. I had my first interest in my chosen vocational or professional field in grade....
14. I decided on my chosen vocational or professional field in grade....
15. The person who has most influenced my career choice is....
16. I have had job experience closely related to my vocational or professional career choice....
17. My educational plans after high school are to enroll in....
18. My preference of a vocational or professional school was or will be a....
19. My selection of a school for vocational or professional training has been, or will be, based *primarily* upon....
20. The school in which I plan to enroll is located within....
21. I plan to finance my education through....
22. I hope to be employed in my chosen profession or vocation in....

Known characteristics of the total population of high school seniors in the state were compared to the total survey responses. Information regarding the known characteristics of the seniors was obtained from the State Department of Public Instruction. There is a favorable comparison of the total population of high school seniors to survey respondents in regard to sex, school size, community size, age, ratio of private and parochial secondary schools to public secondary schools, plans

for college, and high school curricula. Conclusions based on an analysis of this survey can be applied in general to the total state population of high school seniors due to the volume and nature of the response.

There is also a favorable comparison of the known geographical distribution of the population of high school seniors with the responses of the seniors by geographical areas of the state. This factor is of concern to the Indiana Vocational Technical College because of its objective of organizing geographic regions of the state and establishing regional institutes for vocational technical training.

Although this report deals only with the findings on a state-wide basis, detailed analyses of the questionnaire returns by regions are being made.

Exhibit 1, which follows, compares the character-

istics of total population of high school seniors to characteristics of survey respondents. (note: The difference in age distribution is accounted for by the fact that the total population age distribution was reported early in the year as opposed to the survey data reported in June. Numerous seventeen-year-olds had undoubtedly reached their eighteenth birthday between the time they entered their senior year and the data of the survey.)

Exhibit 2 (page 4) shows the regional distribution of total high school senior responses and responses of seniors and high schools by regions.

(Note: Since the survey was made, which shows 14 regions, IVTC has limited the number of regions to 13.)

Exhibit 3 (page 5) shows the geographic distribution of secondary schools in Indiana responding to the survey of vocational plans of senior students.

EXHIBIT 1

COMPARISON OF CHARACTERISTICS OF TOTAL POPULATION OF HIGH SCHOOL SENIORS TO CHARACTERISTICS OF SURVEY RESPONDENTS, 1966

<u>Characteristic</u>	<u>Total</u>	<u>Respondents</u>
Sex Distribution		
Male	50.8%	50.5%
Female	49.2%	49.5%
School Size		
0—99	52.8%	46.4%
100—199	21.7%	23.5%
200—299	8.9%	10.5%
300—399	6.0%	5.4%
400 or more	10.6%	14.2%
Community Size		
(50,000 or more)	41.7%	41.4%
Age Distribution		
16	3.8%	.3%
17	50.3%	39.8%
18	27.1%	45.6%
19	5.2%	5.2%
20	.2%	.5%
Other	13.4%	8.5%
Ratio of Parochial and Private Secondary Schools to Public Secondary Schools	9.0%	8.7%
Plans for College	40.0%	44.7%

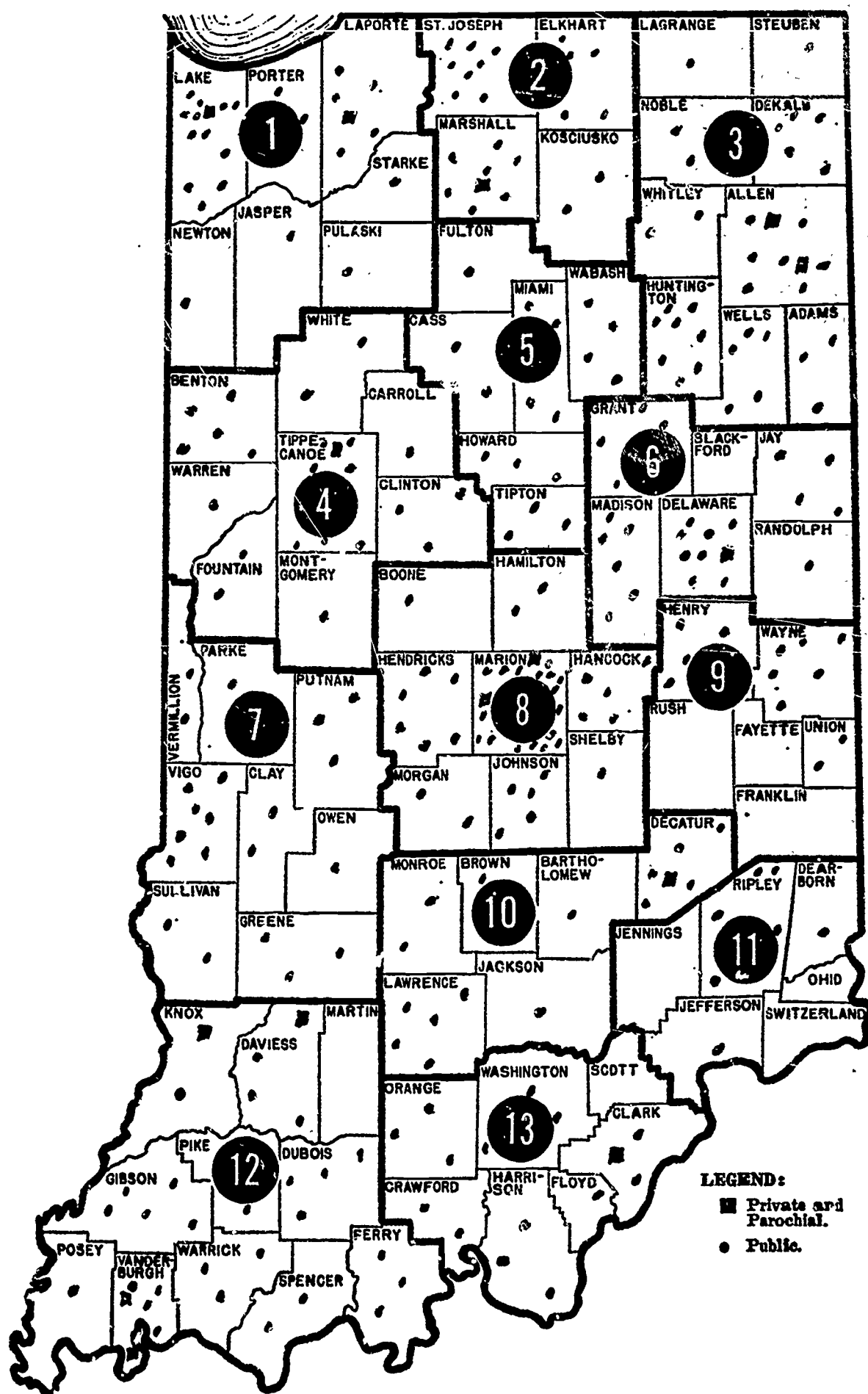
EXHIBIT 2

REGION DISTRIBUTION OF TOTAL HIGH SCHOOL SENIOR RESPONSES AND RESPONSES OF SENIORS AND HIGH SCHOOLS BY REGION

<u>Region</u>	<u>% of High</u>	<u>% of Total</u>	<u>% Responding in Region</u>	
	<u>School Seniors</u> <u>in the State</u>		<u>% Seniors</u>	<u>% Schools</u>
I	15.0	9.2	39	37
II	9.1	8.4	60	53
III	9.4	9.1	70	61
IV	4.7	5.3	52	51
V	4.7	6.1	80	61
VI	8.1	9.0	69	53
VII	4.1	5.0	73	52
VIII	20.5	24.5	85	64
IX	4.4	3.7	60	40
X	2.8	1.3	25	50
XI	2.3	2.6	70	53
XII	2.1	1.1	28	39
XIII	8.8	10.3	83	60
XIV	4.0	4.2	64	58

EXHIBIT 3

GEOGRAPHIC DISTRIBUTION OF SECONDARY SCHOOLS IN INDIANA RESPONDING TO THE SURVEY OF VOCATIONAL PLANS OF SENIOR STUDENTS*



*NOTE: Survey Results Were Originally Based On 14 Regions.

GENERAL FINDINGS OF THE SURVEY

In June of 1966 about 70,000 high school students were graduated from Indiana public, private, and parochial high schools.

After graduation, these students generally planned to enter college or enter the labor force; relatively few planned to go directly into military service.

Approximately 30,000 high school graduates (42.8 per cent of the graduates) said they planned to enter a college or university full-time. Based on past experiences in the state, it is estimated that 25,000 actually enrolled and less than half of them will eventually receive a college degree.

About 40,000 of the graduates have now entered the labor force on a full-time or part-time basis. These young adults, graduated from high school and entering the labor force, will have expanded the working population of Indiana by almost 4 per cent.

Many of these students have little specific occupational preparation but they are competing for positions of various levels — semi-professional, technical, skilled, clerical, and unskilled.

Of the 40,000 planning to enter the labor force, only about 12,500 had major high school subjects that might be said to be vocationally oriented in nature, such as agriculture, business education, home economics, industrial arts, or vocational education. About three-fourths of the graduates "majored" in "academic" subjects such as the social studies, language, mathematics, science, and music.

A bar graph, Exhibit 4, showing the percentage of majors in specific subject areas follows. (Since three years of English is required by the state for a general diploma, it follows that all students had a major in English.)

It should be noted that other than English, the

subject most frequently constituting a major (56.6 per cent of the majors) was social studies and the next highest percentage of major subjects was mathematics (41.1 per cent). Next in order were business education, science, home economics, music, and the foreign languages.

Seventy per cent of the students continuing full-time education planned to enter a college or university within the state. Forty-eight per cent of the students continuing full-time education planned to select a school located rather near their homes.

Twenty-nine per cent of the students have had employment related to their career choice.

Student interest in vocational and technical education appeared to be greater after the student was a senior than it was while he was attending "undergraduate" classes.

Exhibit 5, page 8, shows what type of vocational and technical training the students said they would have taken had it been offered in their high schools and the type of vocational and technical training they said they would take after graduation if it were available in their community. Their interest appeared to be more in the business and service curricula than in the trade and industrial area.

The ten most common selections of careers by the seniors, among 196 occupational positions were in order of frequency: teachers (all fields), engineers (all fields), accountants, secretaries, managers (trade and service), draftsmen-designers, professional nurses, barbers-beauticians, farmers, and business machine operators. Exhibit 6, page — shows these choices in graphic form.

About 12 per cent of the seniors said they planned to enroll in a vocational or technical school, such as drafting, electronics, medical technology, printing, secretarial, etc.

EXHIBIT 4

PER CENT OF TOTAL 1966 HIGH SCHOOL SENIOR STUDENTS ENROLLED IN EACH MAJOR FIELD OF STUDY

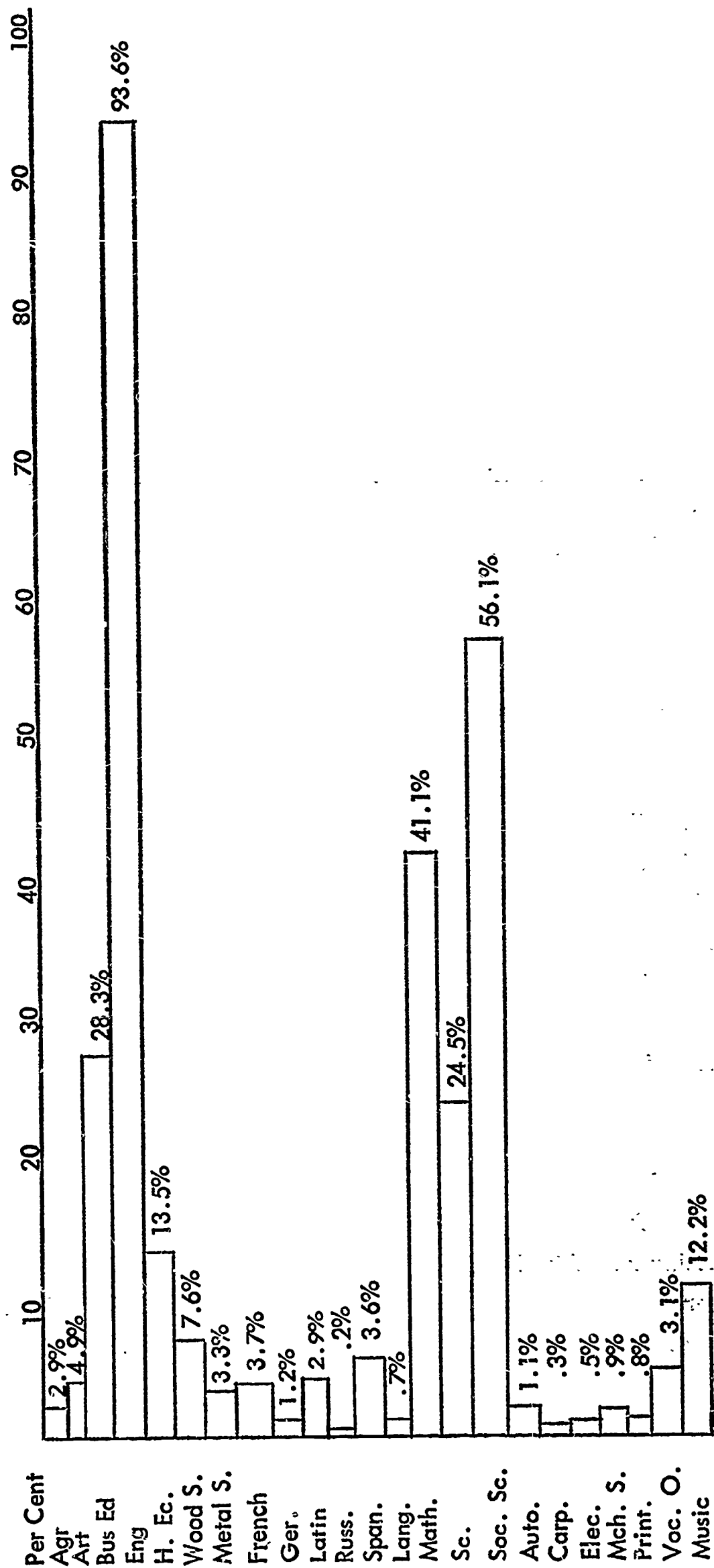


EXHIBIT 5

PER CENT OF SELECTION BY RANK ORDER OF OCCUPATIONAL CURRICULA SELECTED BY SENIOR HIGH SCHOOL STUDENTS

Question:

If vocational and technical training, or more of it, had been offered in my high school, I would have enrolled in the following vocational and technical curricula:

Answer:

2.9%	Medical Lab Technology
2.6%	Fashion Design
2.6%	Accounting & Bookkeeping
2.5%	Automobile Maintenance
2.4%	Nursing & Nurse Aide
2.0%	Business
1.8%	Computer Operations
1.7%	Tool & Die Design
1.5%	Journalism
1.5%	Electronics
1.3%	Interior Decorating
1.3%	Secretary or Typing
1.3%	Office Machine Operation
1.3%	Key Punch
1.2%	Drafting & Machine Design
15.7%	Other
56.4%	No Response
100.0%	

Question:

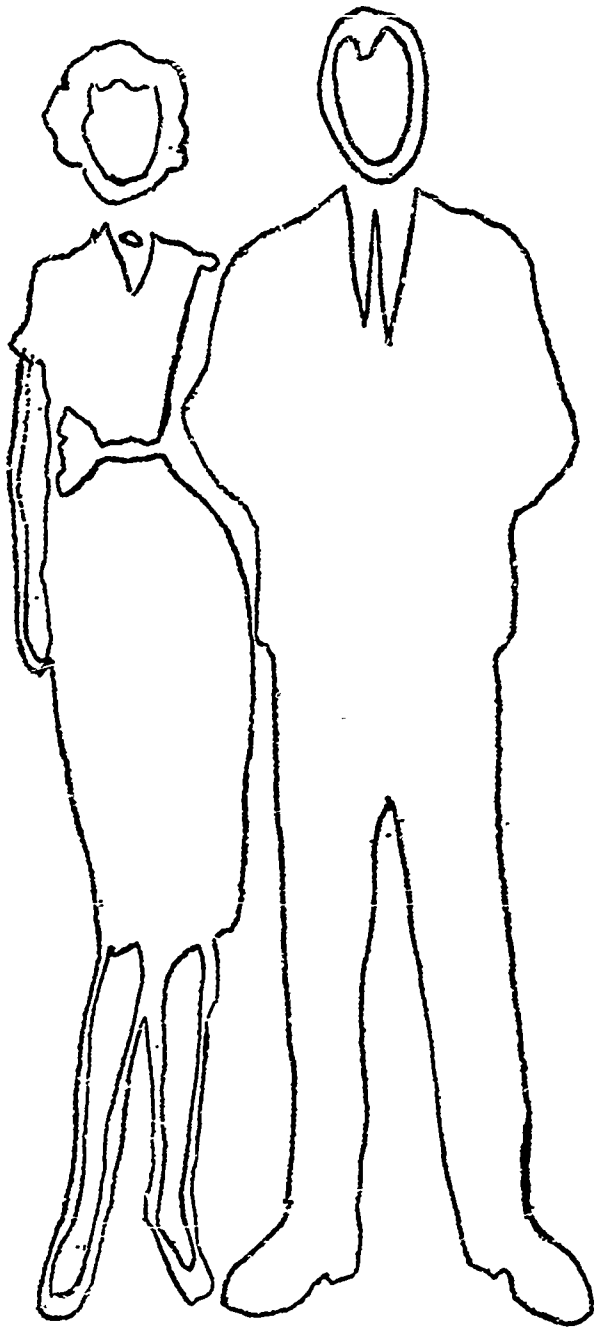
If vocational and technical training programs for high school graduates were now available in my community, I would enroll in the following vocational and technical curricula:

Answer:

6.7%	Business
5.0%	Accounting & Bookkeeping
4.2%	Secretarial or Typing
3.8%	Electronics
3.5%	Medical Lab Technology
3.5%	Nursing & Nurse Aide
3.0%	Automobile Maintenance
2.9%	Computer Operations
2.7%	Cosmetology & Barbering
2.6%	Drafting & Machine Design
2.5%	Tool & Die Design
2.3%	Commercial Art & Advertising
2.2%	Fashion Design
1.9%	Office Machine Operation
1.7%	Electrical Technology
44.2%	Other
7.6%	No Response
100.0%	

EXHIBIT 6

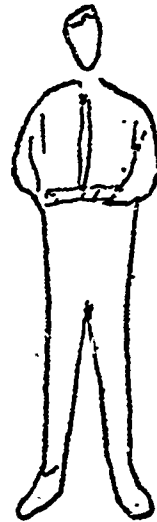
TEN MOST COMMON CAREER CHOICES BY OCCUPATIONAL POSITION OF INDIANA HIGH SCHOOL SENIORS GRADUATING IN 1965



TEACHERS



ENGINEERS



ACCOUNTANTS



SECRETARIES



MANAGERS-
TRADE AND
SERVICES



DRAFTSMEN-
DESIGNERS



PROFESSIONAL
NURSES



BARBERS-
BEAUTICIANS



FARMERS



BUSINESS
MACHINE
OPERATORS

Forty-one per cent of the students who planned to continue their education beyond high school said they hoped to be employed in the city in which they resided as high school students.

RELATIONSHIPS AND ANALYSES

Further significant details concerning the seniors are obtained through a study of the relationships of specific responses to selected items.

Correlation of the answers of the respondents to

questions involving their intention to go to college with their answers to six other questions showed consistently that 42.8 per cent of the seniors said they planned to enter college. The range was from 42.7 per cent to 43.1 per cent.

EDUCATIONAL PLANS BEYOND HIGH SCHOOL

The following table shows senior's educational plans beyond high school, and what this would mean in actual numbers when these percentages

are applied by extrapolation to the total of 70,000 seniors in the state.

<u>Educational Plans</u>	<u>Per Cent of Responses</u>	<u>Actual Number by Extrapolation</u>
Enter college full-time	42.8	29,860
Enter college part-time	8.8	6,160
Enroll in a technical school	11.9	8,330
Become trade apprentices	5.4	3,780
Indefinite or no plans	23.2	16,240
"Other" plans	8.0	5,600

From these figures it would appear that at least a fourth of the seniors, or 17,500, had no definite

plans for education or skill training after leaving high school.

FATHERS' EDUCATION AND OCCUPATION

Of the seniors whose father had a college or university degree, 80.2 per cent planned to enter a college or university. Of the seniors whose father's educational level was marked "unknown", 40.7 per cent had indefinite plans or no plans for continuing their education beyond high school.

Of the seniors whose father's occupation was marked "professional", 63.8 per cent planned to enter a college or university. The percent planning to enter a college or university, full-time, and their father's occupational category follows:

<u>Category</u>	<u>Per Cent</u>
Professional	63.8
Semi-professional	46.2

Managerial	57.2
Clerical	46.6
Sales	58.6
Service	36.0
Agriculture	44.0
Manufacturing	33.1
Miscellaneous	30.6
Craftsmen-foremen	32.9

Of those whose father's occupations were listed as "manufacturing" including skilled, sem-skilled, and unskilled workmen, this group constituted 25.2 per cent of all seniors who planned to enter college.

PLANS FOR FINANCING CONTINUED EDUCATION

The seniors planned to utilize various means of financing their education beyond high school. From the number of responses compared with the number of questionnaires returned, 53,508 versus 38,000, it is obvious that many of the seniors

planned to use more than one method of financing their education.

Of the seniors who planned to go to college full-time, the following table shows how they planned to finance their education.

<u>Methods of Financing</u>	<u>Per Cent Using This Method</u>	<u>Actual Number by Extrapolation</u>
Parental aid	35.5	10,650
Personal savings	26.9	8,070
Work part-time	19.7	5,910
Seek a loan	10.4	3,120
Scholarship	4.3	1,290
Work full-time	1.6	480
Unknown and "Other"	1.4	320

Of the seniors planning to go to an extension center or regional campus, 23.6 per cent said they would work part-time, and 10.6 per cent said they would work full-time.

Of those planning to enter a technical school, 25.6 per cent said they would work part-time, and 12.7 per cent said they would work full-time.

POST HIGH SCHOOL PLANS

When asked what their plans were after graduation from high school, the seniors' responses were approximately as follows:

<u>Plans After High School</u>	<u>Per Cent of Seniors</u>	<u>Number by Extrapolation</u>
Immediate employment	15.3	10,630
Continue full-time education	46.0	32,200
Employment and education	22.4	15,680
Military service, no further education	2.7	1,890
Military service, then education	5.4	3,780
Marriage, no further education	1.8	1,260
"Other"	4.4	3,080

THEIR GRADES AND THEIR PLANS

A correlation study of the grade averages of the seniors with their educational plans after high school showed that 11.9 per cent of the seniors who planned to enter college had a grade average of "A". Of the seniors who had an average of "A", 83.4 per cent planned to enter college.

Forty-seven per cent of the seniors who planned to enter college said they had a grade average of "B" and 34 per cent said they had a grade average of "C".

The grade averages of the seniors and their educational plans after high school are shown by the following tables.

Eleven per cent of the seniors (7,700 seniors) said they did not know what their grade average was.

Seniors with an Average Grade of "A" (4,270 seniors)

<u>Per Cent</u>	<u>Plans</u>
83.4	Enter college full-time
7.1	Enter a college at an extension center
2.6	Enter a technical school
2.6	Indefinite plans
2.1	No plans
1.8	"Other" plans
0.4	Become trade apprentices

Seniors with an Average Grade of "B" (22,680 seniors)

<u>Per Cent</u>	<u>Plans</u>
68.4	Enter college full-time
10.2	Enter a college at an extension center
8.6	Enter a technical school
6.3	No plans
5.9	Indefinite plans
4.6	"Other" plans
1.8	Become trade apprentices.

Seniors with an Average Grade of "C" (32,620 seniors)

<u>Per Cent</u>	<u>Plans</u>
31.7	Enter college full-time
14.8	Enter a technical school
13.9	Indefinite plans
13.8	No plans
9.6	"Other" plans
8.9	Enter a college at an extension center
7.4	Become trade apprentices

Seniors with an Average Grade of "D" (2,730 seniors)

<u>Per Cent</u>	<u>Plans</u>
27.7	Indefinite plans
17.6	No plans
14.6	"Other" plans
12.8	Enter a technical school
11.7	Enter college full-time
11.0	Become trade apprentices
4.6	Enter a college at an extension center

Twenty-seven per cent of the seniors with a "C" average had no plans or indefinite plans for education or training beyond high school, and 45 per cent of the seniors with a "D" average had no plans or indefinite plans for education or training beyond high school.

Of the seniors planning to enter a technical school (8,330 seniors) —

- 1.3 per cent had an average of "A"
- 23.6 per cent had an average of "B"
- 58.4 per cent had an average of "C"
- 4.2 per cent had an average of "D"
- 12.6 per cent were marked "unknown"

MAIN VOCATIONAL INTEREST AND EDUCATIONAL PLANS

The seniors' main professional or vocational interests were indicated as follows:

<u>Per Cent of</u> <u>Seniors</u>	<u>Main Vocational</u> <u>Interest</u>	<u>Actual Number</u> <u>By Extrapolation</u>
41.5	professional occupations	30,050
9.9	semi-professional occupations	6,930
4.3	managerial positions	3,010
11.9	clerical positions	8,330
1.7	sales positions	1,190
5.4	service occupations	3,780
2.8	agriculture	1,960
10.8	manufacturing	7,560
2.9	miscellaneous	2,030
.9	craftsmen	630
8.0	foremen	5,600

The educational plans of the seniors who said they wished to become craftsmen (630 seniors) were as follows:

<u>Per Cent</u>	<u>Educational Plans</u>	<u>Number by</u> <u>Extrapolation</u>
24.4	Enter college full-time	153
20.7	No plans	130
18.7	Indefinite plans	121
11.7	Enter a technical school	73
8.7	Enter college at an extension center	55
8.0	Become trade apprentices	50
7.7	"Other" plans	48

The educational plans of the 5,600 seniors who said they planned to become foremen were as follows:

<u>Per Cent</u>	<u>Educational Plans</u>	<u>Number by</u> <u>Extrapolation</u>
23.6	Enter college full-time	1,331
19.2	No plans	1,075
16.4	Indefinite plans	918
11.7	Become trade apprentices	655
11.3	Enter a technical school	632
10.9	"Other" plans	610
6.9	Enter college at an extension center	386

The educational plans of the 1,960 seniors who said their main vocational interest was in agriculture said their educational plans were as follows:

<u>Per Cent</u>	<u>Educational Plans</u>	<u>Number by Extrapolation</u>
33.6	Enter college full-time	659
20.2	No plans	395
16.3	Indefinite plans	319
11.5	"Other" plans	225
6.6	Become trade apprentices	129
6.2	Enter college at an extension center	121
5.6	Enter a technical school	110

Seniors who said their chief interest was in clerical work (8,330 seniors) had the highest percentage of un-planned programs for continuing their education or training. Of this group, 27.6 per cent had no plans for continuing their training, and 21.2 per cent had indefinite plans.

Only 2.8 per cent of those interested in the profession had no plans for continuing their education, and only 4.2 per cent had indefinite plans.

THEIR EDUCATIONAL PLANS VS. WHERE THEY LIVE

More than one third of all the seniors in the state live in cities with a population of 50,000 or more. Their place of residence in respect to the population of their home community is shown in the following table.

<u>Per Cent of Seniors</u>	<u>Population of Community</u>	<u>Number of Seniors by Extrapolation</u>
36.4	over 50,000	25,480
9.3	25,000 to 50,000	6,510
12.2	10,000 to 25,000	8,540
11.3	5,000 to 10,000	7,910
7.1	2,500 to 5,000	4,970
4.4	1,000 to 2,500	3,080
14.6	less than 1,000 or rural area	10,220
4.7	population "unknown"	3,290

The educational plans of the 10,220 seniors who live in rural areas or in villages of less than 1,000 population were shown as follows:

<u>Per Cent of</u>		<u>Number of Seniors</u>
<u>Seniors</u>	<u>Educational Plans</u>	<u>by Extrapolation</u>
37.2	Enter college full-time	3,802
29.9	Indefinite or no plans	3,055
13.5	Enter a technical school	1,380
8.9	"Other" plans	910
5.8	Become trade apprentices	593
4.7	Enter college at an extension center	480

The educational plans of the 25,480 seniors who live in cities of 50,000 or more population were shown as follows:

<u>Per Cent of</u>		<u>Number of Seniors</u>
<u>Seniors</u>	<u>Educational Plans</u>	<u>by Extrapolation</u>
48.7	Enter college full-time	12,409
18.0	Indefinite or no plans	4,586
12.3	Enter college at an extension center	3,134
10.0	Enter a technical school	2,548
6.4	"Other" plans	1,631
4.6	Become trade apprentices	1,172

In each population group, the percentage of seniors who said they would enter a technical school remained rather constant, ranging from 10 per cent of the seniors in cities of 50,000 or more to 13.7 per cent in towns or villages with a population of 1,000 to 5,000.

Similarly, the percentages of those who said they would become trade apprentices showed little variation, the range being from 4.6 per cent of the seniors living in cities of 50,000 or more to 6.6 per cent of the seniors living in towns of from 5,000 to 10,000 population.

PLACE OF RESIDENCE VS MAIN VOCATIONAL OR PROFESSIONAL INTEREST

Only 9.2 per cent of the 7,560 seniors living in rural areas said their main vocational interest was in agriculture; 34.4 per cent were chiefly interested in the professions; 9.3 per cent in semi-professional vocations; 7.5 per cent in becoming craftsmen or foremen; 13.2 per cent in manufacturing; and 14.2 per cent in clerical or sales positions.

Of the 30,050 seniors planning to enter the professions, 9.3 per cent live in the rural areas, and 40.8 per cent live in cities with a population of 50,000 or more.

Of the 1,960 seniors who planned to enter agriculture, 13.2 per cent live in cities of 50,000 or more, and 34.7 per cent live in rural areas.

WHERE THEY WANT TO WORK

Of all the seniors responding to this question, 23.1 per cent said they hoped to be employed in the city of their residence; 16.7 per cent in the county of their residence; 3.4 per cent wanted to work over 50 miles from home but in the state; 20.4 per cent wanted to work outside the state; and 32.8 per cent said they had no preference.

Of the seniors who planned to enter college, 23.4 per cent said they hoped to be employed outside the state; 41.1 per cent had no preference; and the remaining percentage of the seniors hoped to be employed in the state.

Of all the seniors who said they wanted to work in the city of their residence while in high school, 36.5 per cent were those planning to enter a college or university; 14.5 per cent were those planning to enter a college extension center; 18.2 per cent planned to enter a technical school; 10.3 per cent planned to become trade apprentices; and 10.2 per cent were those who had indefinite plans or no plans as to continuing their education or training beyond high school.

HOW DID THEY CHOOSE A CAREER?

When asked who had the most influence on their choice of a career, the seniors responded as shown by the following table.

<u>Person with most Influence</u>	<u>Per Cent of Seniors</u>	<u>Actual Number By Extrapolation</u>
Own efforts	39.7	27,790
Father	12.7	8,890
A high school teacher	11.1	7,770
Mother	10.7	7,490
A personal friend	7.1	4,970
Other	4.4	3,080
Another relative	4.0	2,800
Brother or sister	3.6	2,520
Guidance counselor	2.3	1,710
Employer	2.3	1,710

Of the seniors planning to enter the service occupations, 46.6 per cent said they decided their career choice by themselves.

Of the seniors planning to enter the professions, 40.8 per cent said they made their own decisions, and 41.3 per cent of those planning to enter the semi-professional occupations said they made their own decisions.

Of those who said a high school teacher had the

most influence on their choice of a career, 56.7 per cent were planning to enter the professions.

Of those who said a high school guidance counselor had the most influence in their making a choice, 37.4 per cent were planning to enter the professions; 12.5 per cent were to enter the semi-professional occupations; 17.7 per cent chose clerical work; 11.7 per cent chose manufacturing; 6.4 per cent planned to become trade apprentices; and 1.0 per cent said they planned to become foremen.

RELATION OF MAJOR SUBJECTS TO MAIN VOCATIONAL INTEREST

The seniors who had majors in the social studies said their main professional or vocational interests were as follows:

<u>Per Cent</u>	<u>Main Professional or Vocational Interest</u>
41.3	Enter the professions
11.4	Clerical work
11.3	Manufacturing
9.8	Enter semi-professional occupations
8.1	Become trade apprentices
5.6	Service occupations
4.6	Managerial positions
2.8	Miscellaneous
2.3	Agriculture
1.9	Sales occupations
1.0	Become foremen

(Note: Since each senior had more than one major subject, an extrapolation of the percentages would be based on a percentage of the *majors* rather than on a percentage of the individuals.)

Of the seniors who had a major in mathematics, 64.8 percent planned to enter the professions or semi-professional occupations.

Of the seniors who planned to become trade apprentices, 17.9 per cent of their majors were in the social studies; 10.2 per cent of their majors were in mathematics; and 9.9 per cent of their majors were in business education.

Of the seniors who planned to become foremen, 17.9 per cent of their majors were in the social studies; 10.2 per cent were in mathematics; and 11.5 per cent were in business education.

Of the seniors who had a major in printing, 42.2 per cent planned to go into manufacturing (which included skilled labor) and 19.7 per cent planned to become trade apprentices.

CERTAINTY OF CAREER PLANS VS MAIN VOCATIONAL INTEREST

When asked whether their present plans for their careers were definite, almost definite, or indefinite, about 26 per cent of the seniors said their career plans were definite, 40 per cent said they were almost definite, and 26 per cent said their plans were indefinite.

The seniors planning to enter the professions were the most definite about their plans and those planning to enter the sales occupations were the most indefinite.

The certainty of their career plans in relation to their main professional or vocational interests is shown for some of the seniors by the following table.

<u>Main Professional or</u> <u>Vocational Interest</u>	<u>Per Cent of Seniors in This Group</u> <u>Whose Plans were Indefinite</u>
Professional occupations	20.3
Managerial occupations	35.8
Manufacturing	38.9
Foremen	42.9
Apprenticeship	44.0
Sales occupations	47.2

WHEN CAREER DECISIONS WERE MADE

When asked what grade they were in when they decided upon their careers, most of the seniors said they were in the 12th grade. The table below shows the percentages by grades in which the seniors made their career choices. (More than a fourth of the seniors did not respond to this question.)

<u>Per Cent of</u> <u>Seniors</u>	<u>Grade level at which</u> <u>Career Choice Was Made</u>
38.3	Grade 12
16.5	Grade 11
9.1	Grade 10
5.6	Grade 9
1.8	Grade 8
0.8	Grade 7

(Fractional percentages of the seniors said their career choice was made while they were in the lower elementary school grades.)

IMPLICATIONS FOR GUIDANCE AND COUNSELING

About a fourth of all the seniors had no plans or indefinite plans for any further education or training beyond the high school. Of the seniors planning to become craftsmen, 39.4 per cent had no plans or had indefinite plans for further training in their chosen career; 35.6 per cent of those planning to become foremen had no plans or indefinite plans; and 36.5 per cent of those whose main vocational interest was in agriculture had no plans or indefinite plans for training in this vocation.

Of the seniors whose main interest was in becoming craftsmen, 24.4 per cent said they planned to go to a college or university; 8.7 per cent said they would go to a college extension center or regional campus; 11.7 per cent said they would enroll in a technical school; and 8 per cent said they would become trade apprentices.

The apparent low correlation of educational or training plans vs career choices seems to indicate a need for additional vocational and educational guidance. It appears that the non-college-bound

seniors have not had the benefit of vocational counseling. However, in view of the limited resources for vocational technical education facilities and/or programs, counselors are at a loss as to where to advise students to go for vocational training.

Only 2.3 per cent of the seniors indicated that the high school guidance counselor was the one who influenced them the most in choosing a career. The number of counselors available to make their influence felt among so many students may be a contributing factor. The North Central Associa-

tion of Colleges and Secondary Schools recommends one guidance worker for each 500 students or fraction of that number. Many high schools presently do not provide this degree of service to students.

Effective vocational counseling requires an adequate staff of counselors who are knowledgeable in the industrial and business life of the community. Their services could well be augmented by advisory committees defined and required by Indiana statutes.

THE NEED FOR VOCATIONAL TECHNICAL TRAINING FACILITIES

If the percentage of seniors who planned to attend college full-time (42.8 per cent) is added to the 8.8 per cent who expected to attend a college extension center, the total percentage of seniors who might be said to be "college bound" is 51.6 per cent. This leaves 48.4 per cent of the seniors who did not plan to go to college either full-time or part-time. If 30,000 graduates enter college on a full-time basis as they indicated, then 40,000 graduates entered the labor force on a full-time or part-time basis.

Of this 40,000, about 12,000 (17.3 per cent of all the seniors) said they planned to enter a technical school or become trade apprentices. These graduates are seeking technical training facilities or trade-related training.

The interest shown by the seniors in vocational technical curricula covers a wide variety of occupational training. A comprehensive high school cannot offer such a variety of vocational training. Frequently graduates interested in enrolling in a technical school have difficulty in finding such a school meeting their need for type of education, location, and cost of education. The Indiana Vocational Technical College is designed to meet these needs.

Vocational and technical education programs are needed also to retrain employees who have requirements for different skills as a result of rapid and accelerating technological changes.

Many of the drop-outs will need basic education as a pre-requisite to their training in practical occupational skills.

At present the manpower shortage is so acute that if all members of the labor force were adequately trained for the job opportunities there would still be a shortage of manpower in Indiana. When this condition changes, the jobs will go to those most adequately trained and the need for retraining will again be emphasized.

There is a need to assist the unemployed in the identification, development and application of skills to aid them in occupational placement and advancement.

Considering the graduates who are not college-bound, the number of high school drop-outs, the need for retraining for technological changes and upgrading, it may be safe to assume that vocational technical training is needed for more than 100,000 annually in Indiana.

Studies made by the Indiana State Department of Public Health and the Indiana Department of Commerce predict that the total population of Indiana in 1985 will show a 30 per cent increase over the state's population of 1960.

During the same period of time, the population of Indiana in the age group of 18 to 24 years will increase by 100 per cent, the studies show.

These figures point toward great intensification of the problem of providing adequate vocational technical education at the post high school level.

CONCLUSIONS

On the basis of the seniors' responses to the survey, about three-fourths of them recognize the need for additional educational or vocational training beyond high school and had planned accordingly.

The influence of the conflict in Vietnam is shown by the fact that 8.2 per cent of the seniors planned to enter the military service upon graduation from high school. This means that about 5,740 boys were expecting to enlist or be called for service following graduation.

There appears to be a lack of knowledge on the part of the seniors in regard to vocational-training opportunities, and the type of training required for success in certain types of occupations.

There is a definite need for additional vocational technical training throughout the state. To the 40,000 seniors who planned to enter the labor force on a full-time or part-time basis must be added some 25,000 drop-outs who need more education for occupational placement more satisfying to their individual needs and the needs of society.

About 8,330 seniors said they planned to enroll in a technical school to take such courses as drafting, electronics, medical technology, secretarial training, etc. If the Indiana Vocational Technical College is to discharge its obligations as defined by the Indiana General Assembly, it must provide training opportunities for all these persons, and retraining for thousands of others who need to acquire new skills because of the rapidly changing technology.

Conducting a survey of this type each year can be of great value for the planning and development of educational resources. Within each high school, possibly at an earlier grade level, studies of this type should be conducted annually.

The high percentage of returns of the questionnaire, 54 per cent, is attributed to the efforts and cooperation of the State Department of Public Instruction and the high school administrators throughout the state who made this study of the results possible.

APPENDIX

LIST A

ORGANIZED OCCUPATIONAL CURRICULUM U. S. OFFICE OF EDUCATION

Industrial Fields

- 01 Aeronautical Design & Maintenance
- 02 Air Conditioning, Heating & Refrigeration
- 03 Automobile Maintenance
- 04 Automotive Technology
- 05 Building Construction
- 06 Building Maintenance
- 07 Chemical Technology
- 08 Civil Engineering Technology
(Including Surveying)
- 09 Diesel Technology
- 10 Drafting & Machine Design
- 11 Electrical Construction & Wiring
- 12 Electrical Technology
- 13 Electronics
- 14 General Engineering Technology
- 15 Industrial Technology
- 16 Machine Repair
- 17 Marine Technology
- 18 Mechanical Technology
- 19 Petroleum Technology
- 20 Photography
- 21 Plumbing & Pipefitting
- 22 Radio & Television
- 23 Structural Technology
- 24 Technical Sales
- 25 Tool & Die Design
- 26 Welding
- 27 Other

Non-Industrial Fields

- 50 Accounting & Bookkeeping
- 51 Agriculture - Business
- 52 Agriculture
- 53 Animal & Poultry Husbandry
- 54 Appliance Repair
- 55 Business
- 56 Cabinet Making
- 57 Clothing & Textiles
- 58 Commercial Art & Advertising
- 59 Computer Operations
- 60 Cooking & Baking
- 61 Cosmetology & Barbering
- 62 Dairy Technology
- 63 Dental Hygiene
- 64 Dental Lab Technology
- 65 Executive Assistant Technology
- 66 Fashion Design
- 67 Fire Protection Technology
- 68 Floriculture & Horticulture
- 69 Food Administration
- 70 Furniture Making
- 71 Graphic Arts
- 72 Home Economics
- 73 Hotel Management
- 74 Insurance & Real Estate
- 75 Interior Decorating
- 76 Journalism
- 77 Key-Punch
- 78 Landscaping
- 79 Medical & Biological Lab Technology
- 80 Medical Assistant Technology
- 81 Nursing & Nurse Aide
- 82 Office Machine Operations
- 83 Photography
- 84 Police Technology
- 85 Publishing & Printing Technology
- 86 Sales & Distribution
- 87 Secretarial or Typing
- 88 Technical or Legal Secretarial
- 89 Transportation & Traffic Management
- 90 Upholstery
- 91 Other

LIST B

MAJOR OCCUPATIONAL GROUPS AND DIVISIONS

The following occupational titles are taken from the Dictionary of Occupational Classifications published by the United States Department of Labor. A few selected occupational classifications have been added for this study. Please review the entire list before you indicate the vocation that most accurately identifies your response to the question.

PROFESSIONAL AND MANAGERIAL OCCUPATIONS

PROFESSIONAL OCCUPATIONS

00001	Accountants and auditors
00002	Actors and actresses
00003	Architects
00004	Artists, sculptors, and teachers of art
00005	Authors, editors, and reporters
00006	Chemists
00007	Clergymen
00008	College presidents, professors, and instructors
00011	County agents and farm demonstrators
00012	Dentists
00013	Engineers, metallurgical, and metallurgists
00014	Engineers, chemical
00015	Engineers, civil
00016	Engineers, electrical
00017	Engineers, industrial
00018	Engineers, mechanical
00019	Engineers, mining
00020	Lawyers and judges
00022	Librarians
00023	Musicians and teachers of music
00024	Pharmacists
00025	Physicians and surgeons
00026	Social and welfare workers
00027	Teachers, primary school and kindergarten
00030	Teachers (secondary school) and principals
00031	Teachers and instructors
00032	Trained nurses
00033	Veterinarians
00034	Natural scientists
00035	Social scientists
00038	Other Professional occupations

PROFESSIONAL OR SEMI-PROFESSIONAL OCCUPATIONS

00041	Aviators
00043	Decorators and window dressers
00044	Commercial artists
00045	Dancers and chorus girls
00046	Designers
00048	Draftsmen
00050	Laboratory technicians and assistants
00052	Healers and medical service occupations
00056	Photographers
00057	Athletes, sports instructors, and sports officials
00061	Radio operators
00062	Showmen
00064	Surveyors

00065	Embalmers and undertakers
00066	Technicians, except laboratory
10001	Cytological technologist
10002	Dental assistant
10003	Dental hygienist
10004	Dental laboratory technician
10005	Dietician
10006	Electroencephalography technician
10007	Food technologist
10008	Health scientist
10009	Industrial hygienist
10010	Inhalation therapist
10011	Medical artist
10012	Medical laboratory assistant
10013	Medical librarian
10014	Medical photographer
10015	Medical record librarian
10016	Medical record technician
10017	Medical secretary
10018	Medical social worker
10019	Medical technologist
10020	Occupational therapist
10021	Physical therapist
10022	Public health sanitarian
10023	Public health statistician
10024	Recreational therapist
10025	Rehabilitation counselor
10026	Sanitary engineer
10027	Science writer
10028	Speech and hearing clinician
10029	X-ray technologist

MANAGERIAL AND OFFICIAL OCCUPATIONS

00071	Hotel and restaurant managers
00072	Retail managers
00073	Wholesale managers
00074	Buyers and department heads, stores
00075	Floormen and floor managers, stores
00079	Inspectors, managerial and official
00081	Advertising agents
00083	Officials of lodges, societies, unions, etc.
00085	Credit men
00087	Managers and superintendents, buildings
00088	Ship captains, mates, pilots, and engineers
00091	Purchasing agents and buyers
00092	Conductors, railroad
00094	Public officials
00095	Inspectors, public service
00098	Other managers or officials

CLERICAL AND SALES OCCUPATIONS

CLERICAL AND KINDRED OCCUPATIONS

00101	Bookkeepers and cashiers, except bank cashiers
00102	Bookkeeping machine operators
00103	Checkers
00104	Clerks, general
00105	Clerks, general office
00106	Financial institution clerks
00107	Hotel clerks
00108	Insurance clerks
00110	Printing and publishing clerks
00111	Transportation clerks
00112	Clerks in trade
00115	Collectors, bills and accounts
00116	Correspondence clerks
00117	File clerks
00118	General industry clerks
00120	Library assistants and attendants
00123	Messengers, errand boys, and office boys and girls
00124	Telegraph messengers
00125	Office machine operators
00126	Paymasters, pay-roll clerks, and timekeepers
00127	Post office clerks
00128	Mail carriers
00131	Express messengers and railway mail clerks
00132	Physicians' and dentists' assistants and attendants
00133	Secretaries
00134	Shipping and receiving clerks
00135	Technical clerks
00136	Statistical clerks and compilers
00137	Stenographers and typists
00138	Stock clerks
00141	Telegraph operators
00142	Telephone operators
00143	Baggagemen, transportation
00144	Ticket, station, and express agents, transportation
00145	Weighers
00148	Agents and appraisers
00149	Other clerks and kindred occupations

SALES AND KINDRED OCCUPATIONS

00151	Auctioneers
00152	Salesmen, brokerage and commission firms
00155	Canvassers and solicitors
00156	Demonstrators
00157	Salesmen, insurance
00158	Newsboys
00161	Hucksters and peddlers
00163	Salesmen, real estate
00165	Salesmen, stock and bond
00170	Sales clerks
00175	Salespersons
00180	Salesmen, to consumers
00185	Salesmen and sales agents, except to consumers
00196	Sales clerks, dry cleaning and laundry
00197	Shoppers

SERVICE OCCUPATIONS

DOMESTIC SERVICE OCCUPATIONS

00201	Day workers
00202	Laundresses, private family
00203	Housekeepers, private family
00204	Housemen and yardmen
00205	Cooks, domestic
00206	Maids, general
00207	Nursemaids
00208	Parlormaids
00209	Miscellaneous servants, private family

PERSONAL SERVICE OCCUPATIONS

00221	Bartenders
00222	Bellmen and related occupations
00223	Boarding-house and lodging-house keepers
00224	Maids and housemen, hotels, restaurants, etc.
00225	Housekeepers, stewards, and hostesses
00226	Cooks, except private family
00227	Waiters and waitresses, except private family
00228	Ship stewards
00229	Kitchen workers in hotels, restaurants, railroads, steamships, etc.
00232	Barbers, beauticians, and manicurists
00234	Bootblacks
00236	Guides, except hunting and trapping
00238	Midwives and practical nurses
00240	Attendants, recreation and amusement
00242	Attendants, hospitals and other institutions
00243	Attendants, professional and personal service
00244	Camp attendants
00245	Doormen
00247	Apprentices to service occupations
00248	Ushers
00249	Airline hostesses

PROTECTIVE SERVICE OCCUPATIONS

00261	Guards and watchmen, except crossing watchmen
00262	Crossing watchmen and bridge tenders
00263	Firemen, fire department
00265	Policemen and detectives, except in public service
00266	Policemen and detectives, public service
00267	Sheriffs and bailiffs
00268	Soldiers, sailors, marines, and coast guards

BUILDING SERVICE WORKERS AND PORTERS

00282	Charwomen and cleaners
00284	Janitors and sextons
00286	Porters
00291	Pullman porters
00292	Baggage porters
00295	Elevator operators

AGRICULTURAL, FISHERY, FORESTRY, AND KINDRED OCCUPATIONS

AGRICULTURAL, HORTICULTURAL, AND KINDRED OCCUPATIONS

00301	Cash grain farmers
00302	Cotton farmers
00303	Crop specialty farmers

00304 Dairy farmers
 00305 Fruit farmers
 00306 General farmers
 00307 Animal and livestock farmers
 00308 Poultry farmers
 00309 Truck farmers
 00311 Farm hands, grain
 00312 Farm hands, cotton
 00313 Farm hands, crop specialty
 00314 Farm hands, dairy
 00315 Farm hands, fruit
 00316 Farm hands, general farms
 00317 Farm hands, animal and livestock
 00318 Farm hands, poultry
 00319 Farm hands, vegetable
 00330 Fruit and vegetable graders and packers
 00331 Blight control laborers and bindweed eradicators
 00332 Irrigation occupations
 00335 Farm mechanics
 00336 Farm couples
 00337 Farm managers and foremen
 00338 Nursery operators and flower growers
 00339 Nursery and landscaping laborers
 00340 Gardeners and grounds keepers, parks, cemeteries, etc.
 00341 Hatchery men
 00342 Laborers, hatchery
 00343 Stablemen
 00344 Barn bosses
 00347 Cotton ginner
 00348 Technical agricultural occupations
 00349 Agricultural occupations

FISHERY OCCUPATIONS

00387 Fishermen and oystermen
 00388 Sponge and seaweed gatherers
 00369 Fishing occupations

FORESTRY, HUNTING AND TRAPPING OCCUPATIONS

00391 Forestry occupations, except logging
 00396 Hunting and trapping guides
 00397 Hunters and trappers

SKILLED, SEMISKILLED, AND UNSKILLED OCCUPATIONS

Occupations in Manufacturing and Related Activities

OCCUPATIONS IN PRODUCTION OF FOOD PRODUCTS

00401 Bakers
 46802 Occupations in production of bakery products
 46803 Occupations in production of beverages
 46804 Occupations in canning and preserving of foods
 46805 Occupations in production of confections
 46806 Occupations in processing of dairy products
 04607 Millers, grain, flour, feed, etc.
 46808 Occupations in production of grain-mill products
 46809 Occupations in slaughtering and in preparation of meat products
 46810 Occupations in production of miscellaneous food products

OCCUPATIONS IN MANUFACTURE OF TOBACCO PRODUCTS

46812 Occupations in manufacture of tobacco products

OCCUPATIONS IN PRODUCTION OF TEXTILES

46814 Occupations in manufacture of knit goods
 00415 Weavers, textile
 00416 Loom fixers
 04613 Nonprocess occupations, in manufacture of textiles
 46817 Occupations in manufacture of textiles

OCCUPATIONS IN PRODUCTION OF FABRICATED TEXTILE PRODUCTS

46821 Furriers and occupations in fabrication of fur goods
 00423 Milliners
 46824 Occupations in manufacture of hats and caps
 04625 Dressmakers and seamstresses
 00426 Tailors and tailorettes
 46827 Occupations in fabrication of textile products

OCCUPATIONS IN PRODUCTION OF LUMBER & LUMBER PRODUCTS

04629 Inspectors, scalers, and graders, logs and lumber
 46830 Lumbermen, raftsmen, and woodchoppers
 46831 Sawmill occupations
 00432 Cabinetmakers
 46833 General woodworking occupations
 46834 Planing mill occupations
 04635 Upholsterers
 46836 Occupations in manufacture of furniture
 46838 Cooperage occupations
 46839 Occupations in manufacture of miscellaneous finished lumber products

OCCUPATIONS IN PRODUCTION OF PAPER AND PAPER GOODS

46841 Occupations in manufacture of paper and pulp
 46842 Occupations in manufacture of paper goods

PRINTING OCCUPATIONS

04644 Compositors and typesetters
 00445 Electrotypers and stereotypers
 00446 Lithographers
 00447 Photoengravers
 00448 Pressmen and plate printers, printing
 46849 Occupations in printing and publishing

OCCUPATIONS IN PRODUCTION OF CHEMICALS AND CHEMICAL PRODUCTS

46850 Occupations in production of paint and varnish
 46851 Occupations in production of plastics and related synthetic materials, and in the processing of chemicals
 46852 Occupations in production of industrial chemicals
 46853 Occupations in production of chemical products
 46854 Occupations in production of ammunition

OCCUPATIONS IN PRODUCTION OF PETROLEUM & COAL PRODUCTS

46855 Occupations in refining of petroleum
 46856 Occupations in production of miscellaneous petroleum and coal products

OCCUPATIONS IN PRODUCTION OF RUBBER GOODS

46857 Occupations in production of rubber goods

OCCUPATIONS IN MANUFACTURE OF LEATHER & LEATHER PRODUCTS

46859 Occupations in manufacture of leather
 04660 Shoemakers and shoe repairmen, not in factory
 46861 Occupations in manufacture of boots and shoes
 46862 Occupations in manufacture of leather products, other than boots and shoes

OCCUPATIONS IN PRODUCTION OF STONE, CLAY, AND GLASS PRODUCTS

46865 Occupations in production of glass and glass products
 46866 Occupations in production of clay products
 46867 Occupations in production of cement, concrete, gypsum, and plaster products
 00468 Stonecutters
 46869 Occupations in stoneworking
 46870 Occupations in production of asbestos products, abrasives, and polishing products

METALWORKING OCCUPATIONS

00471 Jewelers, watchmakers, goldsmiths, and silversmiths
 46872 Occupations in manufacture of clocks, watches, jewelry, and articles of precious metals
 04673 Engravers

46874 Occupations in electroplating, galvanizing, and related processes
 00475 Machinists
 00476 Toolmakers and die sinkers and setters
 46877 Filers, grinders, buffers, and polishers (metal)
 46878 Machine shop and related occupations
 00480 Tinsmiths, coppersmiths, and sheet metal workers
 04681 Molders
 46882 Foundry occupations
 04683 Boilermakers
 46884 Structural-metal and ornamental-metal workers
 04685 Welders and flame cutters
 04686 Blacksmiths, forgers, and hammermen
 46887 Heat treaters, annealers, and temperers
 46888 Occupations in mechanical treatment of metals (rolling, stamping, forging, pressing, etc.)
 04690 Ore dressing occupations
 04691 Furnacemen, smelters, and pourers
 46892 Occupations in production of ferrous and nonferrous metals
 46893 Occupations in fabrication of metal products
 46895 Inter-industry metalworking occupations

ELECTRICIANS & OCCUPATIONS IN MANUFACTURE OF ELECTRICAL EQUIPMENT

04697 Electricians
 46898 Occupations in manufacture of radios, phonographs, and accessories
 46899 Occupations in manufacture of electrical machinery and accessories
 57900 Occupations in manufacture of miscellaneous electrical equipment

OCCUPATIONS IN MANUFACTURE OF TRANSPORTATION EQUIPMENT

57902 Occupations in manufacture of automobiles
 57903 Occupations in building of aircraft
 57905 Occupations in building of transportation equipment (except automobiles and aircraft)

OCCUPATIONS IN MANUFACTURE OF MISCELLANEOUS PRODUCTS

05700 Opticians and lens grinders and polishers
 57909 Occupations in manufacture of professional and scientific apparatus
 57910 Occupations in manufacture of fabricated plastic products
 00512 Piano and organ tuners
 57913 Occupations in the manufacture of miscellaneous products

MISCELLANEOUS MANUFACTURING OCCUPATIONS

57916 Painters, except construction and maintenance
 05717 Pattern and model makers, except paper
 05718 Dyers
 00919 Miscellaneous assembly occupations

OCCUPATIONS IN NONMANUFACTURING ACTIVITIES OCCUPATIONS IN EXTRACTION OF MINERALS

57920 Occupations in production of petroleum
 05721 Miners and mining-machine operators
 57922 Occupations in extraction of minerals

CONSTRUCTION OCCUPATIONS

05723 Construction machinery operators
 05724 Brick and stone masons and tile setters
 00525 Carpenters
 05726 Cement and concrete finishers
 05727 Painters, construction and maintenance
 00528 Paperhangers
 00529 Plasterers
 00530 Plumbers, gas fitters, and steam fitters
 00731 Roofers and slaters
 57932 Other construction occupations
 05733 Asbestos and insulation workers

TRANSPORTATION OCCUPATIONS

07935 Routemen
 05736 Chauffeurs and drivers, bus, taxi, truck, and tractor
 05737 Teamsters
 05738 Brakemen, railroad
 00539 Conductors, bus and street railway
 05740 Motormen (vehicle), except railroad, railway, and bus
 00541 Locomotive engineers
 00542 Locomotive firemen
 00543 Motormen, street, subway, and elevated railway
 05744 Switchmen, railroad
 05745 Gatemen and train callers
 07947 Longshoremen and stevedores
 57948 Sailors and deckhands, except U. S. Navy
 57949 Other transportation occupations

COMMUNICATION AND UTILITY OCCUPATIONS

05751 Power station operators
 05753 Linemen and servicemen, telegraph, telephone, and power
 57954 Occupations in furnishing utilities

TRADE AND SERVICE OCCUPATIONS

05755 Motion picture projectionists
 57956 Amusement, recreation, and motion picture occupations
 57957 Occupations in laundering, cleaning, dyeing, and pressing of apparel and other articles
 05758 Meatcutters, except in slaughtering and packing houses
 57959 Occupations in trades and services
 00760 Attendants, filling stations and parking lots
 57961 Public service occupations

MISCELLANEOUS OCCUPATIONS

00763 Nonprocess occupations in manufacturing
 07968 Packing, filling, labeling, marketing, bottling, washing, and related occupations
 07970 Firemen, other than process firemen
 07971 Oilers of machinery
 57972 Engineers, stationary
 57973 Cranemen, derrickmen, hoistsmen, and shovelmen
 05774 Blasters and powdermen
 05775 Drillers, extraction of minerals and construction
 05776 Inspectors
 57977 Glaziers
 00578 Millwrights
 05779 Mechanics and repairmen, railroad and carshop
 05780 Mechanics and repairmen, airplane
 05781 Mechanics and repairmen, motor vehicle
 57983 Mechanics and repairmen
 05784 Tool sharpeners and dressers
 07985 Transportation equipment laborers, washers, and greasers
 57986 Photographic process occupations
 07987 Chainmen, rodmen, and axmen, surveying
 57988 Warehousing, storekeeping, handling, loading, unloading, and related occupations
 57989 Key punch operators

FOREMEN

00591 Foreman, manufacturing
 00593 Foremen, extraction of minerals
 00594 Foremen, construction
 00595 Foremen, transportation, communication, and utilities
 00597 Foremen, services, amusements
 00599 Foremen, other

APPRENTICES

00793 Carpenters' apprentices
 00794 Machinists' apprentices
 00795 Electricians' apprentices
 00796 Plumbers' apprentices
 00797 Apprentices to other construction and hand trades
 00798 Apprentices to printing trades
 00799 Apprentices to other trades

NOTES AND MEMOS

Use order form below for additional copies of the paper-bound survey.

Price \$1.00* per copy including postage and handling.

Jack Birdcell
Director of Research
Indiana Vocational Technical College
333 N. Pennsylvania Street
Indianapolis, Indiana 46204

Please send _____ copies of this survey at \$1.00* per copy. Enclosed is

check or money order in the amount of _____

Amount for Indiana Sales Tax _____

Total _____

Name _____

Institution or Organization _____

Street Address _____

City _____ State _____ Zip Code _____

*Add 2% for Indiana Sales Tax unless you are exempt from this tax and have enclosed a completed copy of your exemption certificate with this order.