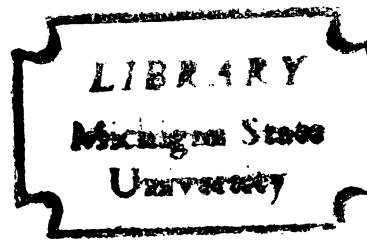


HIGHER EDUCATION:
A SURVEY OF POST-HIGH SCHOOL
EDUCATIONAL NEEDS IN THE
UPPER WABASH VALLEY

Thesis for the Degree of Ph. D.
MICHIGAN STATE UNIVERSITY
Eldon E. Fahs
1967



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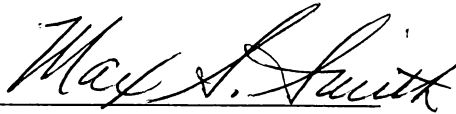
HIGHER EDUCATION: A SURVEY OF POST-
HIGH SCHOOL EDUCATIONAL NEEDS IN THE
UPPER WABASH VALLEY

presented by

Eldon E. Fahs

has been accepted towards fulfillment
of the requirements for

Ph.D. degree in Administration
and Higher
Education


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ABSTRACT

HIGHER EDUCATION: A SURVEY OF POST-HIGH SCHOOL EDUCATIONAL NEEDS IN THE UPPER WABASH VALLEY

by Eldon E. Fahs

The problem of the study was to investigate need for education beyond the high school and opportunities available for youth to attain higher education in a two-county area in the Upper Wabash Valley in the State of Indiana.

Embracing the tenet that expansion of educational opportunity is in the best interest of American society, basic underlying assumptions in the study were that (1) post-high school education must be extended to accommodate maximum numbers of youth and adults, and (2) appropriate programs in post-secondary education must be provided to meet varied needs and interests of those who would pursue higher education.

The purpose of the study was (1) to determine the nature and extent of higher educational need of youth in Wabash and Miami Counties, (2) to survey the needs of business and industry in the two-county area for employees with certain desired or required training, (3) to determine the attitudes of employers toward post-high school education,

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and (4) to identify opportunities for higher education presently available to youth and adults in the geographic area.

Data were collected by means of questionnaires from three sources: (1) high school seniors, (2) parents of high school seniors, and (3) employers in business and industry.

Information was gathered from senior students relative to their post-high school educational and vocational aspirations, expectations, plans, and goals. Data regarding selected family characteristics were also requested. Similar questions were asked of parents of twelfth graders to obtain the parents' point of view on these matters.

Questionnaires mailed to selected employers sought information concerning the employing firms, data on numbers and skill levels of workers, attitudes of employers toward various aspects of post-high school education, and types of educational programs which would be of value to their firms.

A fourth source of data to give an indication of existing post-high school programs and opportunities was sought from school and college officials who were consulted and from institutional publications which were examined.

Eighty-five per cent of the 774 seniors responding to questionnaires expressed aspirations for attending post-high school education, approximately half of whom hoped to go to college and the remaining half to pursue some type of

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post-high school specialized vocational education. Responses on the 587 returned parent questionnaires indicated hopes and aspirations for their children's education in approximately the same proportions as reported by seniors.

While more than 60 per cent of the senior students reported they actually planned to take post-high school education or training, only 40 per cent indicated they would go to college in the first year following high school graduation and 12 per cent planned to pursue specialized vocational training. Averages over the past three years show that about one-third of the high school graduates in the area have gone to two- or four-year colleges and about 10 per cent attend other specialized schools.

Present job training and pre-employment education programs were rated as generally "fair" by responding employers in the area. A need for training programs in business, secretarial, certain skilled and technical areas, and general education was expressed by employers.

Based on the findings of the study, the following conclusions were drawn:

1. A high level of interest in post-high school education was apparent among high school seniors, their parents, and employers.
2. Respondents in all groups surveyed recognized the importance of higher levels of educational preparation for personal success in today's changing, technological society.

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3. Employers in the area expressed much interest in expanding post-high school general and vocational educational opportunities.

4. While it is unlikely that all seniors expressing aspirations to continue education beyond high school would profit from further education, the fact remains that a substantial percentage of area youth who hoped to pursue post-high school studies did not go on. Thus, it may be concluded that the educational needs of a portion of the area's youth, for various possible reasons, were not being met.

5. Vocational preparation and occupational demands accounted for a major portion of interest in and need for higher education.

6. Educational and vocational goals expressed by youth and their parents gave strong indications of the need for a diversity of post-high school educational opportunities ranging from vocational, terminal programs of less than baccalaureate degree level to professional and graduate studies.

7. Liberal arts colleges and a regional campus of a state university provided opportunities for many area youth to pursue higher education in four-year degree programs, pre-professional curricula, and teacher education.

8. Even though several liberal arts colleges served the area studied, the mere presence of an institution did not

ensure maximum opportunity
to the extent to which opportunity
was provided by reliance
on tuition costs, admission
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programs not explored in

9. There was limited
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10. Since four
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needed opportunity were
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Based upon
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the two-county area
recommended that
formulate well-defined
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programs and develop
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insure maximum opportunities for attendance by area youth. The extent to which obstacles to post-high school attendance were provided by religious affiliations of the colleges, tuition costs, admissions policies, institutional philosophies, and nature of programs available were factors which were not explored in this study.

9. There was little evidence that post-high school opportunities were available in the area to provide adequate one- or two-year terminal programs for those desiring such education and for the pre-employment and job training needs of business and industry.

10. Since four-year colleges in the area were providing opportunities for youth and adults to pursue college degrees, the most urgently needed programs to expand higher educational opportunity were those offering non-degree work and less-than-baccalaureate degree programs.

Based upon the findings and conclusions, certain recommendations for expanding educational opportunities in the two-county area were considered appropriate. It was recommended that existing institutions of higher education formulate well-defined and considered objectives to guide the future planning of their offerings. By improving present programs and developing new quality programs in various areas consistent with their institutional aims and objectives,

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Eldon E. Fahs

opportunities would be increased for those students desiring to pursue the types of programs offered by these institutions.

To make available low-cost education at the post-high school level, particularly in the identified areas of greatest need, it was recommended that establishment of a community college be considered. Such an institution would be locally controlled and would offer a comprehensive program of occupational education, general education, transfer or pre-professional education, and adult education.

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SCHOOL EDUCATIONAL NEEDS IN THE
UPPER WABASH VALLEY

By

Eldon E. ^{ugene}Fahs

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Administration and Higher Education

1967

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For their support in the collection of data for the study, special acknowledgment must be given also to the superintendents, principals, and guidance counselors in the Wabash and Miami County high schools and to Mr. Walter Penrod, Director of the Upper Wabash Vocational School.

The writer is also indebted to his employer, Dr. A. Blair Helman, President of Manchester College, for his support and interest in the study.

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And to his wife, Joan, and three children, Janis, John, and James, appreciation and gratitude are expressed for patience and understanding throughout the entire graduate program and especially during the period this study was in progress.

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CHAPTER I

INTRODUCTION

Rapid and dramatic scientific, technological, economic, political, and social advances in recent decades have been instrumental in changing American society and its institutions. The Second Report of the President's Committee on Education Beyond the High School has pointed out that:

This Nation has been propelled into a challenging new educational era since World War II by the convergence of powerful forces--an explosion of knowledge and population, a burst of technological and economic advance, the outbreak of ideological conflict and the uprooting of old political and cultural patterns on a worldwide scale, and an unparalleled demand by Americans for more and better education.¹

A growing concern for higher educational opportunity is noted throughout the nation. The complexities of modern society have increased the necessity for higher levels of education for a greater proportion of its citizens. Considerable thought and study have recently been given to fuller development of human resources.

The question of who should go to college is one which has been debated at national, state, and local levels. Although some arguments are advanced for limiting college

¹The President's Committee on Education Beyond the High School, Second Report to the President (Washington: Government Printing Office, 1957), p. 1.

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enrollments, the emerging view in the United States is that higher education must be made available to all who are qualified and can profit from collegiate level study.

Rapidly increasing enrollments since World War II give evidence to the fact that larger numbers of young men and women are now continuing their education after graduation from high school than ever before. In striking contrast to the four per cent of the age group who attended college and university in 1900,² the proportion of the 18 to 21 age group taking college courses and working toward bachelor's degrees reached the 22 per cent level in 1946 and has continued upward to nearly 44 per cent in 1964.³ As enrollments passed the 5.5 million mark in the fall of 1965,⁴ the prospect of even greater numbers and larger proportions of youth and adults seeking higher educational experiences continues to pose unsolved problems.

In addition to the problem of who should attend college, equally important questions concern for what and where?⁵

²Algo D. Henderson, Policies and Practices in Higher Education (New York: Harper and Brothers, 1960), p. 6.

³United States Department of Health, Education and Welfare, Digest of Educational Statistics, Office of Education Bulletin 1965, No. 4 (Washington: Government Printing Office, 1965), p. 76.

⁴United States Department of Health, Education and Welfare, Opening Fall Enrollment in Higher Education, 1965, Office of Education, Circular No. 796 (Washington: Government Printing Office, 1966), p. 6.

⁵T. R. McConnell, A General Pattern for American Public Higher Education (New York: McGraw-Hill Book Company, Inc., 1962), p. 2.

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Individuals who seek or need higher levels of education differ widely in abilities, interests, and vocational objectives. Availability of a wide range of programs and curricula appropriate to the interests, needs, and abilities of prospective students and within their financial means is of major importance in the consideration of educational opportunity for the maximum number of youth and adults.

A rigid curriculum or a single order of studies may have been sufficient in a relatively simple, stable society. But, a highly complex, technical, rapidly changing, democratic society demands that new programs be developed to meet present day needs. The strength of America rests upon the development of many types and levels of talent and educational preparation. Education of an intellectual elite, of top scientists, engineers, mathematicians, and social scientists, is not adequate. In order to sustain higher echelons of professionals, competent second-, third-, and fourth-level workers are needed. This "training in depth" must be at the heart of future arrangements for higher education, says McConnell.⁶

Scientific and industrial expansion has changed the manpower needs and occupational patterns of the nation. While the proportion of workers in unskilled jobs in business, agriculture, industry, and other areas has steadily declined, the demand for highly skilled and semi-skilled

⁶Ibid., pp. 46-47.

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workers and for certain types of clerical and service workers has increased. The need for skilled technicians and semi-professional personnel will continue to increase throughout this decade.⁷

In business, medicine, science, engineering, and other areas, technicians are now being utilized as members of work and research teams under the direction of professionals. Generally speaking, technicians require less than four years of college or specialized training in order to fill positions in business and industry which are between the levels of the professions on the one hand and the trades on the other.

It is in this area of education and training that the two-year college--the technical institute or community junior college--has exhibited dynamic growth since World War II.⁸ Many states have incorporated the two-year college concept into their state-wide plans for higher education to provide for the manpower needs of business and industry.

In addition to educating individuals in a variety of occupational skills and levels, programs in general or liberal education must not be overlooked. McConnell emphasizes the necessity to provide advanced training for large segments of the population in both specialized and general education:

⁷ Alvin Boskoff, The Sociology of Urban Regions (New York: Appleton-Century-Crofts, 1962), pp. 254-55.

⁸ James W. Thornton, Jr., The Community College (New York: John Wiley and Sons, Inc., 1960), Chapter 2.

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¹⁰ John X
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In a democracy, training in depth is necessary not only in science and technology; it is equally essential in the humanities and the social sciences if ordinary citizens are to follow in civic affairs and in society generally the leadership of men of intelligence, sensitivity, and idealism.⁹

In the foregoing discussion, a concept of the role of higher education in present day American society has been developed. When considering higher educational needs and opportunities, two basic principles underlying this concept must be kept in mind. Jamrich states these as follows:

First, that post-high school educational opportunity be provided for the maximum number of youth and adults. Second, that programs and curricula be developed and made available in a manner appropriate to the abilities and interests of the students as well as providing for the cultural and technological needs of our society.¹⁰

This study is undertaken embracing these tenets. They are goals which have not yet been attained. For the well-being of the nation as a whole and for the progress of American democratic society, immediate and serious attention must be given to current problems of higher education while keeping at the fore these guiding principles.

The Problem

The question concerning the provision of adequate and appropriate educational opportunity for the maximum

⁹ McConnell, op. cit., p. 53.

¹⁰ John X. Jamrich, "Higher Education in the Saginaw Valley" (East Lansing: Michigan State University, 1962), p. 2. (Mimeographed.)

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number of youth and adults is one which has received national, state, and local attention. Although increasing concern has been exhibited at the national level, the direct responsibility for higher education remains with the state. Providing for higher education calls for planning at the state and local levels through both public and private channels.

Statement of the Problem

The problem of this study, broadly stated, was to investigate higher educational needs and available opportunities for attaining higher education in a two-county area (Miami and Wabash) in the Upper Wabash Valley in the State of Indiana.

More specifically, the purpose of the study was

✓ (1) to determine the nature and existence of higher educational needs of youth in the area, (2) to survey the needs of business and industry in the area for employees with certain desired or required training, (3) to determine the attitudes of employers in the area toward post-high school education, and (4) to identify opportunities for higher education presently available to youth and adults of the area.

In the solution of this problem, answers were sought for the following questions:

- ✓ 1. What are the educational goals, expectations and plans of high school seniors in the area?

2. What expectations do you have with respect to their sons and daughters?
3. What vocational training opportunities are available to seniors of this age group?
4. What factors contribute to the lack of attendance at vocational training opportunities?
5. What types of vocational training opportunities are available to seniors of this age group?
6. Are there any other factors that contribute to the lack of attendance at vocational training opportunities for the elderly?

Significance of the Study

Statewide
 explore costs, resources, and services in the field of vocational training is essential for higher education.

While state vocational needs, the elderly are equally valuable not only with problems of state level planning but little can be done without opportunities.

This study is based upon the needs of the elderly.

2. What expectations do parents of high school seniors have with regard to post-high school education for their sons and daughters?
- ✓ 3. What vocational goals and plans do high school seniors of the area have?
4. What factors contribute to plans for attendance or lack of attendance at college or some other institution offering post-high school training?
- / 5. What types of specialized training or higher educational preparation are needed by employees to fill positions in business and industry in the area?
- / 6. Are appropriate training and educational opportunities for these positions available to area youth and adults?

Significance of the Problem

Statewide studies of higher educational needs explore costs, resources, facilities, enrollment projections, and services in the state as a whole. Such collective information is essential in planning to meet increasing demand for higher education.

While state averages are useful in determining educational needs, local and regional variations from the average are equally important. A local area study can be valuable not only to those persons and institutions concerned with problems of higher education in the local area, but to state level planners as well. Until needs are identified, little can be done to develop appropriate and meaningful opportunities.

This study was designed to consider educational needs based upon expectations, aspirations, and goals of

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individuals as well as upon needs of business and industry for trained employees. To do this, a direct approach was made to people in a particular portion of the State of Indiana who were involved in planning their own educational futures beyond high school graduation, who were assisting their children to make post-high school plans, or who were concerned about qualified employees for their own company. Information thus obtained provides an additional dimension to supplement data from other studies in Indiana concerning higher educational need, both local and statewide.

It is hoped that this investigation will help stimulate interest in conducting studies of a similar nature in other areas of the state where higher educational needs have not been clearly identified. Through a series of such studies at the local level, the effectiveness of the present statewide plan for extending appropriate higher educational services to the maximum number of youth can more adequately be assessed and unmet needs identified.

Assumptions

Developed in the previous pages of this report is a point of view which assumes that maximum numbers of youth seeking higher educational opportunities must be accommodated. Furthermore, it is assumed that a broad spectrum of programs must be developed at the post-high school level appropriate to the abilities and interests of those seeking

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As a descriptive survey using questionnaires, interviews, records, and reports, this study is subject to the weaknesses inherent in such information gathering procedures. It was assumed that high school seniors, their parents, and representatives of business and industry would report accurately and completely certain information about themselves and their plans.

Assessing the existence and nature of educational needs is a difficult task. The assumption was made that an estimate of such needs could be obtained through analysis of the following types of information:

1. Expressed educational and vocational intentions, expectations, aspirations and plans of high school seniors and those held for the students by their parents.
2. Descriptions of the level of training desired or required in business and industry, and the training opportunities existing in the area.
3. Patterns of continuance of formal education beyond the high school by graduates of recent years.
4. Availability and appropriateness of higher educational programs offered by existing institutions serving the area.

Limitations and Scope of the Study

Due to the restricted geographical area considered in the study, limitations are placed upon the ability to generalize findings to larger populations. However, clues to educational needs in other areas might be provided.

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Only quantitative aspects of existing educational needs were included for study. No attempt was made to evaluate the depth of the expectation or aspiration reported, sincerity of responses in expression of intentions, or effectiveness of educational programs and services identified. The researcher is aware that the mere existence of quantity of higher educational needs and opportunities is not necessarily indicative of the quality of such needs or opportunities. However, qualitative analysis of needs and programs was beyond the scope of this study.

It is recognized that many reasons may be given by individuals for seeking higher education. Both youth and adults usually desire some general cultural educational experiences. Some have strong interest in learning and developing recreational, social, or practical skills. Much of the value attached to education in American society, however, is related to its vocational significance. While no attempt was made to distinguish between various purposes for which higher education was desired or sought, vocational interests served as a strong indicator in determining higher educational needs in this study.

Since the study was concerned primarily with present needs and conditions, no attempt was made to project needs, population growth, financial or business trends, or industrial growth in the area. Demographic factors were not dealt with in any significant way.

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With the study being confined to a two-county area, it was not the purpose of the project to show what means should be employed at the local or state level to meet expanding higher educational needs. This task is left to the decision makers with the hope that this study might provide data which will assist them in making better decisions.

Definitions of Terms

Post-high school education is used as a general term to include all formally organized education beyond the completion of the twelfth grade, and for which graduation from high school is usually required.

Higher education is used in this study synonymously with post-high school education.

Educational needs refers to the need for higher education indicated by high school seniors, their parents, and industrial and business employers as expressed on the Questionnaires and the Survey of Business and Industry.

General Information Concerning the Two-County Area

Wabash and Miami are adjacent counties in the north central portion of Indiana (see Fig. 1, p. 211). The Wabash River flows through the two counties centrally from east to west. Near the center of the area is located the city of Wabash which is approximately 44 miles southwest of Fort

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Wayne, 90 miles north of Indianapolis, and 147 miles southeast of Chicago.

Combined, the two counties are nearly 27 miles east and west by 30 miles north and south containing just over 800 square miles of land area. Located in a rural section of the state, large-scale urban expansion has had little effect upon the area.

Population

The area comprises 2.2 per cent of the state's land acreage. In 1960, 1.5 per cent of the state's population resided in the two counties. Both Wabash and Miami Counties have larger rural farm and smaller urban populations proportionately than does the state as a whole. Relationships between the counties and the state are shown in Table 1.

As indicated in Table 2, the combined area of Wabash and Miami Counties has experienced a growth rate since 1950 greater than that of the state. Among the 92 counties in Indiana, Wabash and Miami ranked 32nd and 28th respectively.

A noticeable increase in rate of growth has occurred in Miami County partially due to expansion of the Air Force Base at Bunker Hill. According to estimates of current growth, the 32,605 population of Wabash County in 1960 increased 5.5 per cent by 1965, and the 38,000 of Miami County rose 5.8 per cent during the same five year period. Both counties are among the 31 in Indiana which experienced a

Table 1. Land area, total population, and place of residence of the population in Indiana and the two-county area in 1960.*

Geographic Division	Land Area in Square Miles	Total Population	Place of Residence Population, in Per Cent		
			Rural Farm	Rural Non-farm	Urban
Indiana	36,185	4,662,498	10.4%	27.2%	62.4%
Two-county area	801	70,605	17.8	37.7	44.5
Wabash County	421	32,605	20.1	27.7	52.1
Miami County	380	38,000	15.7	46.3	38.0

* Source of data: U.S. Census, 1960.

Per Cent Increases	Per Cent Decreases	Population of Indiana, Area from 1940 to 1960.	and of the major cities in the two-county area.
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Table 2. Population of Indiana, the two-county area, and of the major cities in the area from 1940 to 1960.*

Geographic Division	1940 Population	1950 Population	Per Cent Increase 1940-1950	1960 Population	Per Cent Increase 1950-1960
Indiana	3,427,796	3,934,224	14.8%	4,662,498	18.5%
Two-county Area	54,527	57,248	5.1	70,605	23.3
Wabash County	26,601	20,047	9.2	32,605	12.2
North Manchester Wabash	3,170 9,653	3,997 10,621	26.1 10.0	4,377 12,621	9.5 18.8
Miami County	27,926	28,201	1.0	38,000	34.8
Peru	12,432	13,308	7.8	14,453	8.6

*Source of data: U.S. Census, 1960.

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greater growth rate than the 4.3 per cent gain of the state from 1960 to 1965.¹¹

Transportation

Wabash and Miami Counties are serviced by one municipal airport, six railroads, and a network of county, state, and U.S. highways which provide for convenient truck and bus transportation. Following the Wabash River, U.S. route 24 passes through Wabash and Peru, the county seats of Wabash and Miami Counties. In a north-south direction, U.S. route 31, as well as state routes 19 and 21, service Peru. State routes 15 and 13 pass through Wabash, the latter connecting the city with North Manchester 16 miles to the north. Several other state and county roads traverse the two counties.

Area Resources

Natural resources include clay, limestone, gravel, timber, sand, and rich farm land. Two of the three Upper Wabash Flood Control Project reservoirs currently under construction are located in Wabash and Miami Counties.¹² These reservoirs, covering 10,000 acres, are being developed to maximize fish and wildlife resources, recreational facilities

¹¹Indiana State Board of Health estimates published in Manpower Trends in Indiana (Indianapolis: Indiana Employment Security Division, May, 1966).

¹²Article in the Wabash Plain Dealer, October 25, 1966.

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In 1966, production of crude oil resulting from oil strikes in Wabash County began to account for a portion of the area's productivity.¹³ This factor along with change of land use and developing tourist trade brought about by construction of reservoirs must be recognized in a description of the area. These recent developments, however, are not reflected statistically in the following discussions.

Agriculture

With more than 85 per cent of its acreage devoted to farming in 1964, the Wabash-Miami County area is immersed in agricultural production (see Table 3). Cash-grain, live-stock, vegetable, poultry, and dairy comprise the major types of farms in operation. Farm products include corn, soybeans, wheat, oats, hay, vegetables, fruit, hogs, cattle, dairy products, poultry and poultry products. In 1964 Wabash County ranked 13th among the 92 counties in Indiana in annual gross value of farm products sold with a total of \$18.2 million.

Industry

In the economy of the two-county area, industry plays a significant role. Manufacturing in the area is highly diversified both in terms of products and numbers of

¹³Article in the Wabash Plain Dealer, October 6, 1966.

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employees. Seventeen of the 20 Standard Industrial Classification categories of manufacturing are represented in the two-county area. Of the 133 manufacturing establishments, 73 employ less than 20 workers and two have more than 500 on the payroll. Some statistics are presented in Table 4 from which comparisons can be made between the two counties.

Wabash County ranks considerably higher in manufacturing than Miami County. Significant manufactured products of the area include lumber, furniture, and wood products; primary metals; fabricated metal products; machinery and supplies; electrical equipment; rubber and plastics products; stone, clay, and glass products; and instruments.

Table 3. Percentage of land in farms and value of farm products sold in Indiana, Wabash and Miami Counties, 1959 and 1964.*

Category	Wabash County	Miami County	Indiana
Approximate acres in farm land	269,440	243,200	23,158,400
Proportion in farms, 1959	91.5%	87.9%	80.4%
Proportion in farms, 1964	88.2%	85.6%	77.5%
All farm products sold, 1959	\$15,665,392	\$13,592,553	\$ 945,684,527
All farm products sold, 1964	\$18,218,251	\$15,166,940	\$1,105,435,553

*Source of data: U.S. Census of Agriculture, 1964.

Table 4. Number of
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Category
Establishments
Number with 20 or more employees
Number of employees
Payroll in \$1,000
Value added by manufacture in
Rank among counties in value added

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Labor Force

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Table 4. Number of manufacturing establishments, employees, and value added by manufacture in Indiana and the two-county area, 1963.*

Category	Wabash County	Miami County	Indiana
Establishments	77	56	6,786
Number with 20 or more employees	35	25	2,509
Number of employees	6,502	2,401	609,593
Payroll in \$1,000	\$32,506	\$ 9,473	\$3,791,483
Value added by manufacture in \$1,000	\$62,108	\$23,081	\$7,687,872
Rank among counties in value added	21	46	(92 total)

*Source of data: U.S. Census of Manufactures, 1963.

Manufacturing, retail trade, and agriculture rank first, second, and third in each of two counties in terms of workers employed in various industry groups.

Labor Force

Wabash County, as noted previously, has more urban population, more agricultural production, and higher manufacturing output than neighboring Miami County. Percentages of persons employed in various occupational categories shown in Table 5 further illustrate these phenomena.

In both counties, a larger proportion of workers is engaged in agriculture than in the state and the nation.

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Although a greater percentage of land is farmed and larger dollar values of farm products are realized in Wabash County, the percentage of farm employees is lower than in Miami County.

Also noted is the greater percentage of workers employed in manufacturing in Wabash County than in Miami County, the state, or the nation. In comparison with other geographic divisions listed in Table 5, Wabash County has a smaller percentage of workers employed outside their home county. This would give some indication that jobs tend to be available locally to county residents.

Table 6 presents a more specific picture of the composition of the labor force by occupation. In the two counties under study and in the state, percentages of workers in the categories of professional and technical workers; managers, officials, and proprietors; clerical workers; sales workers; and private household workers are generally lower than national figures. Above national averages are the categories of farmers and farm managers, operatives, and craftsmen and foremen (except in Wabash County). In general, the proportion of skilled, technical, semi-professional, and professional workers is less for Wabash and Miami Counties than for the nation. With no large urban center, and thus fewer demands for office help, the proportion of clerical and secretarial workers is understandably lower in Wabash and Miami Counties.

Geographic	Table 5. Per cent of workers in certain categories in the United States, 1929, and the two-county area, 1929.			
	Per Cent Work- ing Outside the County	Per Cent Employed in Agriculture	Per Cent Employed in Manufacturing	Major Manufacturing Industry Type % of Labor Force in It

Table 5. Per cent of workers in certain categories in the United States, Indiana, and the two-county area, 1960.*

Geographic Division	Per Cent Working Outside Home County	Per Cent Employed in Agriculture	Per Cent Employed in Manufacturing	Major Manufacturing Industry Type	% of Labor Force in It
United States	13.9%	6.6%	27.1%		
Indiana	12.8	6.2	33.7	Transportation Equipment	5.1%
Wabash County	9.0	10.9	41.4	# Other Durable Goods	11.3
Miami County	12.2	12.3	28.4	Furniture, Lumber & Wood Products	4.1

* Source of Data: U.S. Census, 1960.

Includes cement; glass and glass products; concrete; gypsum, plaster, stone, structural clay, and nonmetallic mineral products; professional and photographic equipment and supplies; watches and clocks.

Table 6. Per cent
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Census Classification
of Occupation

Professional, technical
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Managers and farm
managers

Managers, officials,
proprietors

Clerical and kindred

Sales workers

Craftsmen, foremen,
kindred

Operatives and kindred

Private household
workers

Service workers

Farm laborers and
foremen

Laborers, except

Occupations not

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Table 6. Per cent of employed workers by major occupation group in the United States, Indiana and the two-county area, 1960.*

Census Classification of Occupation	United States	Indiana	Wabash County	Miami County
Professional, technical and kindred	11.2%	9.8%	8.5%	7.5%
Farmers and farm managers	3.9	4.7	7.9	9.6
Managers, officials, and proprietors	8.4	7.3	6.2	8.4
Clerical and kindred	14.4	13.4	10.6	9.7
Sales workers	7.2	6.8	5.0	6.5
Craftsmen, foremen, and kindred	13.5	14.9	13.1	15.5
Operatives and kindred	18.4	21.7	27.0	21.7
Private household workers	2.7	1.9	1.5	1.9
Service workers	8.4	8.3	7.7	8.2
Farm laborers and farm foremen	2.2	1.5	2.6	2.2
Laborers, except farm	4.8	5.0	5.9	3.6
Occupations not reported	4.9	4.6	4.0	5.3

* Source of data: U.S. Census, 1960.

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Family Income

On all measures of family income in 1959, Wabash County ranked lower than Indiana and the nation. Income for Miami County families was noticeably lower than that for Wabash County families as indicated in Table 7.

Table 7. Comparison of family income in the United States, Indiana, and the two-county area in 1959.*

Geographic Division	Median Family Income	% of Families With Incomes Under \$3,000	% of Families With Incomes Over \$10,000
United States	\$5,660	21.4%	15.1%
Indiana	5,798	17.9	14.2
Wabash County	5,523	21.1	11.8
Miami County	4,917	23.9	8.5

*Source of data: U.S. Census, 1960.

Level of Schooling

Increasing demands for better educated workers and citizens emphasize the importance of a good educational base. Enrollments in school by age group in 1960 are presented in Table 8. Worthy of note is the higher level of schooling completed for adults over the age of 25 in both Wabash and Miami Counties than in the state and the nation.

Table 8. Schooling of certain age groups in the United States, 1960.

Geographic	Per Cent of Age Group Enrolled in School				Median School Year	
	14-15 Years	18-19 Years#	20-21 Years#	24 Years#	Completed for Persons	25 Years of Age and Over

Source: U.S. Department of Education, Bureau of Education for the Handicapped, "The Education of the Handicapped in the United States, 1960," p. 100.

Table 8. Schooling of certain age groups in the United States, Indiana, and the two-county area, 1960.*

Geographic Division	Per Cent of Age Group Enrolled in School					Median School Year Completed for Persons 25 Years of Age and Over
	14-15 Years	16-17 Years	18-19 Years#	20-21 Years#	22-24 Years#	
United States	91.4%	80.9%	42.1%	21.1%	10.2%	10.6
Indiana	94.9	80.9	42.6	21.9	9.5	10.8
Wabash County	94.4	83.6	53.4	32.2	13.0	11.6
Miami County	95.3	79.2	17.8	1.5	1.8	11.4

*Source of data: U.S. Census, 1960.

#Since students living at college are considered residents of the county in which the college is located, percentages are misleading except on a state or national level.

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The percentage of youth in the 18 to 24 year old range enrolled in school is noticeably higher for Wabash County due to the location of Manchester College in that county.

Summary

Both Wabash and Miami Counties have experienced continuous population growth over the past several decades. There is evidence that the current population growth rate is advancing at a rate greater than that of the State of Indiana. Lying in a rich agricultural belt, farming is an important factor in the economy of the area. Manufacturing, particularly in Wabash County, has established a diversification of industry which plays a significant role in providing employment and continued economic expansion. Accessibility of rail and truck transportation has contributed to the growth of the area.

Overview of the Study

This chapter has set forth the problem of the study, the purpose and need for the study, basic philosophical and operational assumptions, the delimitations, the definition of terms used in the investigation, and general characteristics of the geographical area studied. The ensuing chapters deal with a review of related information and literature; rationale and methodology of the study; analysis of data

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Chapter II

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Chapter II, which follows, describes some barriers to college attendance as identified by several research studies as well as a discussion of surveys of higher education conducted throughout the United States with particular emphasis on studies in the State of Indiana.

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CHAPTER II

RELATED INFORMATION, LITERATURE, AND STUDIES

The literature related to the nature and determination of higher educational need is vast. Two major areas are dealt with in this chapter. First, pertinent information and studies concerned with extending higher educational opportunity are considered. A second area discussed involves surveys of higher educational need in the United States since World War II with particular attention given to studies in the State of Indiana.

Expanding Opportunity for Higher Education

Throughout the history of this nation, there has been growing demand for more education by more of its citizens. In the nineteenth century, elementary education for all was made compulsory and secondary education at public expense emerged. During the first half of the twentieth century, opportunity for twelve years of free formal education for virtually all youth became a reality. Now the thirst for education beyond the high school has become increasingly apparent during the past two decades.

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programs in this century, many able high school graduates do not continue their education. Thus a considerable portion of the nation's human potential remains underdeveloped.

Commenting on the need for a modern society to develop fully its human resources, Henderson states:

. . . both from the social viewpoints of developing our potential manpower and of improving the capacity of our citizens to discharge wisely their increasing responsibilities, and from the individual viewpoint of preparing to earn a good living and to live a good life, we find convincing reasons for expanding still further the opportunities for higher education. The goals of a democratic society should include that of enabling each individual to obtain as much education as he desires consistent with his ability.¹

To provide each individual with the possibility of developing his or her talents to the fullest throughout life, it is imperative that steps be taken to move in the direction of improving equality of opportunity in higher education. Equal opportunity does not imply that all individuals should receive equal or identical education, but rather that "education at all levels should be available equally to every qualified person."²

By way of definition of equality of educational opportunity, John Dale Russell offered two comments at an

¹Algo D. Henderson, Policies and Practices in Higher Education (New York: Harper and Brothers, 1960), p. 68.

²President's Commission on Higher Education, Higher Education for American Democracy, 6 vols. (Washington: Government Printing Office, 1947), Vol. II, p. 3.

In the first place, education must allow all abilities and advanced schools the richest development of education to develop to the point where it is able to make possible the highest welfare. Equality of opportunity means the same for everybody, but it means the development of a full development of the talents he possesses.

In the second place, education means the development of some kind of situation of facilities and a program is suitable and unless it can take advantage of a true

Barriers to College Education

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American Council on Education conference on "Approaching Equality of Opportunity in Higher Education." He stated:

In the first place, opportunity for higher education must always be interpreted in the light of the abilities and capabilities of each person to pursue advanced schooling. . . . our society can attain its richest development only as each person has the kind of education and the amount of education that will develop to the fullest those talents that will enable him to make his maximum contribution to the total welfare. Equality of opportunity therefore does not mean the same kind or the same level of attainment for everybody, but only that each will have the possibility of a full development of whatever socially useful talents he possesses.

In the second place, opportunity in higher education means something more than the mere provision of some kind of facilities, without regard to the situation of the potential student. Unless the facilities are readily accessible, and unless the program is suited to the needs of the prospective student, and unless his personal circumstances are such that he can take advantage of the facilities, they do not provide a true "opportunity."³

Barriers to College Attendance

Numerous studies have been undertaken to determine factors related to inequality of opportunity and educational discontinuance of high school graduates. Reeves reviewed the findings of four research agencies prior to 1950, as they related to barriers to higher education. Examined were studies by the President's Commission on Higher Education, the New York State Commission on the Need for a State University,

³ John Dale Russell, "New Factors Affecting Equality of Opportunity," Approaching Equality of Opportunity in Higher Education (Washington: American Council on Education, 1955), p. 28.

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the Connecticut State Interracial Commission, and the American Council on Education. He concluded that:

The findings of the studies corroborate one another at every point where they deal with the same subject, even though the techniques employed in investigation differed markedly both within and among the several studies. These studies show that for many youth, restricted curriculums, and inadequate educational facilities are serious barriers to education. Likewise, large numbers of youth face economic and geographic barriers so serious that they cannot be overcome under present conditions.⁴

Berdie selected for intensive study a 10 per cent sample from questionnaires returned by 25,000 Minnesota high school seniors of 1950. He reported that approximately one-third of the students exceptionally well qualified to go to college were not planning to do so. Among the significant reasons for not attending college were the economic status of the family, lack of interest in attending college, and the selection of a vocation which required no further training. Proximity to a college and course of study pursued in high school were also found to be related to the rate of continuance of formal education.⁵

In 1957, a statewide survey including over 90 per cent of all high school graduates in Wisconsin sought information from students concerning their post-high school plans.

⁴Floyd W. Reeves, "Barriers to Higher Education," Phi Delta Kappan, 31:223, January, 1950.

⁵Ralph F. Berdie and others, After High School--What? (Minneapolis: The University of Minnesota Press, 1954), pp. 56-64.

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In describing characteristics of continuing and noncontinuing graduates, Little noted that college bound students ranked for the most part in the upper two-thirds of their graduating classes, were from families in which the fathers were in professional or executive positions rather than being farmers or factory workers, were from families where parents had more formal education, were graduating from larger high schools, and had friends who were going to college. They were more strongly influenced in their decision to go to college by their parents than by their high school counselors or teachers. Although about twice as many girls as boys ranked in the upper 20 per cent of their graduating classes, the survey showed that three out of five college bound graduates were boys. As many as 60 per cent of the boys continuing education beyond high school ranked in the lower half of their classes.⁶ With regard to financial resources, it was noted that:

Lack of financial means is a significant and deciding factor among graduates who wanted to but did not attend college; however, sizable numbers who reported being able to finance a college education were not making plans to attend.⁷

Stroup and Andrew conducted an extensive survey including 12,746 senior students of representative Arkansas high schools in 1957. It was the purpose of the study to

⁶J. Kenneth Little, "Post-High-School Plans of Wisconsin Youth," Higher Education, 15:67-68, December, 1958.

⁷Ibid., p. 68.

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investigate factors related to discontinuance of formal education following high school by seniors of college ability.

The following excerpt from the report identifies several factors having considerable relationship with college attendance:

From the multiplicity of evidence examined in this study, it seems clear that a number of barriers to college attendance exist. Some of them have been identified in other investigations of the post-graduation activities of high school seniors.

From whatever geographic section the sample of seniors has been taken, the evidence indicates, for instance, that male high-school graduates attend college in greater proportion than female graduates, that graduates living in cities attend college in greater proportion than those living in rural areas, and that graduates with high scores on recognized measures of college ability attend college in greater proportion than those with low scores. It can be argued then, that being a girl, living in a rural area, and being unable to make a high score on a test of college ability are barriers to college attendance.

Of course there are others. Attending a school of low enrollment or a school with a low academic classification, being older than the average high-school graduate, and being a member of a low-income family, according to statistical evidence, are barriers to college attendance.

Membership in a family from which no one has gone to college, membership in a family with few books and magazines in the home, and marriage have also been identified as barriers to college attendance.⁸

The President's Committee on Education Beyond the High School was established in 1956, to investigate problems of education beyond the high school, to actively and

⁸ Francis Stroup and Dean C. Andrew, Barriers to College Attendance (Magnolia, Arkansas: Southern State College, 1959), pp. 119-120.

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systematically attack the problems identified, and to develop proposals in this area of education through intensive studies and conferences. In the Second Report to the President, the Committee listed some important blocks which it had identified as most frequently inhibiting students from continuing their formal education as far as their abilities would suggest. These blocks included:

1. Lack of information about careers in time to prepare for them.
2. Lack of self-knowledge of individual capabilities.
3. Lack of inspiration at home and in school.
4. Failure of the student to see the relationship of further schooling to his career needs or to the realization of his full potential.
5. Negative family attitudes.
6. Labor market conditions which make it attractive to enter the labor force early.
7. Lack of facilities for post-high school education and training in the local community.
8. Lack of personal or family funds for tuition and support.
9. Inability or unwillingness of the family to give up the earning capacity of the youth.
10. In some cases, discriminatory practices in admission, after admission, and in employment after graduation; in some cases, misconceptions which lead to student discouragement.
11. Breaks in the educational continuum (military service, marriage, leaving school for a job, etc.), without ready opportunities to reenter school, even though the individual later realizes that additional education would be desirable.⁹

⁹The President's Committee on Education Beyond the High School, Second Report to the President (Washington: Government Printing Office, 1957), p. 43.

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The Committee listed several groups for which these blocks presented particularly formidable obstacles. These included children of nonprofessional parents, women, minority groups, youth living beyond convenient commuting distance from a college, and children from low income families.¹⁰

Accessibility to institutions of higher learning has been mentioned in several studies cited above as one of the factors enhancing the probability of continuing education beyond the high school. The data make it clear that young people go to college in much greater proportions if there is an institution nearby. If there is none in their home community or county, chances for college attendance are greatly reduced. Two studies providing further evidence of increased opportunity due to geographic accessibility of a college or university are cited.

A statewide study in Minnesota revealed that those counties having only public colleges showed a much higher attendance rate by college-age youth than those counties which had only private colleges. However, the presence of a private institution within a county accounted for significantly better educational records of college attendance than was noted in counties having no college at all. The reason offered for the private colleges attracting fewer local

¹⁰ Ibid., pp. 43-44.

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students was higher tuition costs and affiliation with religious denominations.¹¹

In an extensive study of geographical origins of students in Michigan, college attendance was found to be geographically determined. Some type of institution of higher education was located in about one-third of Michigan's 83 counties when the study was conducted in 1955. In these counties the average rate of attendance of college-age population was almost twice that of the average for the remaining two-thirds of the counties. Consistent with the findings of the Minnesota survey, the presence of a privately controlled institution within a county increased the rate of college attendance, but in those counties having state-supported institutions the rate was noticeably higher.¹²

The report of the Michigan study declared that the implications of these findings on geographical origins of students was clear:

If it is the goal of the State to provide opportunities for higher education to the maximum number of its young people, institutions should be distributed widely. The institutions of higher education in Michigan are now concentrated in the southern half of the Lower Peninsula. Though the population of the

¹¹ Minnesota Commission on Higher Education, Higher Education in Minnesota (Minneapolis: University of Minnesota Press, 1950), pp. 64-65.

¹² John Dale Russell, Higher Education in Michigan - Final Report of the Survey of Higher Education in Michigan (Lansing: Michigan Legislative Study Committee on Higher Education, 1958), pp. 7-8.

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State is also heavily concentrated in the same area, certainly the young people living outside this heavily populated region should have ready access to a college or university.¹³

Continuing further, the report cautions that:

There is a too commonly accepted opinion that, when a state has established a few institutions in certain central locations and has supported these institutions so that they have developed excellent programs, all that should be expected has been done to provide equality of opportunity for higher education for all citizens. The analysis of the geographical origins of students in Michigan shows that this is not true.¹⁴

In addition to accessibility to an institution of higher learning, another problem is that of providing appropriate opportunities and programs. With the advent of a society based on and dependent upon technology, the need for semi-professional, technical and highly skilled workers in engineering, business, industry, medicine, and other areas is becoming increasingly evident.

Harris has suggested that in the not-too-distant future, post-high school education or training of less than baccalaureate degree level will be essential or desirable for "middle manpower" occupations which lie between the professional and the unskilled worker in the occupational spectrum. This middle range of jobs will account for perhaps 50 per cent of the total labor force by 1970, says Harris.¹⁵

¹³ Ibid., p. 8.

¹⁴ Ibid.

¹⁵ See Norman C. Harris, Technical Education in the Junior College (Washington: The American Association of Junior Colleges, 1964), pp. 26-33.

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After examining the changes now confronting the social and economic institutions of our society, Grant Venn has observed that:

. . . technology has created a new relationship between man and his work. Although this relationship has traditionally held for some men and some work (on the professional level, for example), modern technology has advanced to the point where the relationship may now be said to exist for all men and for all work. [Underscored words are italicized in the original.]¹⁶

Venn urges that:

. . . all levels of education, and particularly post-secondary education [italics in the original] must quickly move to assume greater responsibilities for preparing men and women for entry into the changed and changing world of technological work.¹⁷

Despite the strong indications of need for such education and training, there has been reluctance on the part of educational institutions and business and industry to recognize, define, and plan for meeting such needs.¹⁸

With regard to providing appropriate educational programs beyond the high school to meet these demands of society as well as to accommodate the changing interests, occupational intentions, and consequent educational needs of students, Starrak and Hughes observe that:

¹⁶Grant Venn, Man, Education and Work - Postsecondary Vocational and Technical Education (Washington: American Council on Education, 1964), p. 1.

¹⁷Ibid.

¹⁸Ibid., Chapter 1.

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Colleges as a rule have been unwilling to lower or adjust their academic standards to the changing abilities and needs of their students, or to make the necessary revisions in their curricula, and perhaps justifiably so. They have also been reluctant to offer separate programs of both nondegree and non-collegiate instruction, on the grounds that such programs would tend to lower the quality of their regular four-year degree programs.¹⁹

Continuing their discussion, Starrak and Hughes have cited the high drop-out rate of college students as evidence that students' needs and interests are not being met. The easier alternative is to "drop" students than for institutions to provide relevant nondegree curricula.²⁰ Developing their argument further, they state that:

The failure of our higher educational institutions to serve the educational needs of all youth who knock at their doors should not be regarded as a wholesale indictment of them. The point we wish to make is not that the present four-year colleges and universities should adjust their standards and curricula to the needs of all whom they find it necessary to drop because of low scholarship, but rather that the current curricula of these institutions are not designed to serve the educational needs and interests of this group of young people. . . . some provision should be made to serve that large proportion of our youth whose educational needs, for various reasons, are not now being served by our educational system. If, to do this adequately, a radical revision of some of the existing divisions of our educational system, or the creation of a new type of institution, is required, then we should proceed immediately to make the necessary revisions or to create such institutions.²¹

¹⁹James A. Starrak and Raymond M. Hughes, The New Junior College (Ames: The Iowa State College Press, 1948), p. 10.

²⁰Ibid., p. 11.

²¹Ibid.

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Two years of post-high school level education are usually recommended as desirable or adequate preparation for entering the world of work at the semi-professional or technician level. It should be pointed out that the two years of preparation needed do not coincide either in objective or content with the first two years of a regular college curriculum. Students enrolled in such programs, but who leave college prior to completion of the four years have not received either the content of training or the integrated type of education appropriate for job entry at the higher occupational levels.²² Unless specific programs are developed, many youth will be denied full opportunity to develop their potential so far as their occupational skills are concerned.

In the foregoing discussion, it has been our purpose to identify from the literature some of those conditions which have some effect upon college attendance and opportunity for continuing education beyond high school graduation. No single cause can be listed which would preclude any given student or group of students from entering and completing a post-high school program. Carter Good has quite emphatically pointed out that:

The inferring of causes is an extremely difficult and precarious matter especially in social fields where

²² Ibid., p. 14. See also Venn, op. cit., p. 23.

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relationships are so complex that it is nearly impossible to determine causes.²³

So it is in relation to obstacles to college attendance.

The various factors mentioned as limiting opportunity exist in a constellation of complex relationships, which, when taken together, provide some basis for understanding and identifying problems related to equality of opportunity.

Reducing Obstacles to Higher Education

Havighurst and Rodgers have suggested an equation as a model to predict the likelihood that a student will go on beyond high school to an institution of higher learning. According to the equation, "probability" is a function of "mental ability" plus "social expectation" plus "individual motivation" plus "financial ability" plus "propinquity."²⁴ The brief discussion in this and the previous chapters has indicated the increasing importance of each of these factors in light of social and economic developments of recent decades.

While so-called "innate mental ability" cannot be increased by education, it may be either left fallow or

²³ Carter V. Good, A. S. Barr, and Douglas E. Scates, The Methodology of Educational Research (New York: Appleton-Century Company, 1941), p. 545.

²⁴ Robert J. Havighurst and Robert Rodgers, "The Role of Motivation," Chapter VII in Byron S. Hollinshead, Who Should Go to College (New York: Columbia University Press, 1952), p. 137.

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unproductive or intensely cultivated."²⁵ In this century, the greater proportion of youth entering and graduating from secondary schools has effectively increased the numbers of students who have at least minimum qualifications for entering college. Even so, many who complete high school requirements "find themselves poorly prepared to enter a post-high school educational program."²⁶ To increase opportunity for and the probability of college attendance and success, then, it is essential that elementary and secondary school programs be made more adequate and suitable.²⁷

Although a discussion of problems of adequate educational opportunities and programs at lower levels of education is beyond the scope of this review of literature, efforts by federal, state, and local governmental units, as well as by other organizations, to up-grade these levels of education through school consolidation, financial assistance, and research must be noted as being fundamentally related to reducing barriers to higher education.

"Social expectations," or what the family and the society expect of a young person, are also instrumental in

²⁵James W. Thornton, Jr., The Community Junior College (New York: John Wiley and Sons, 1960), p. 29.

²⁶Report of the Post-High School Education Study Commission (Indianapolis: General Assembly of the State of Indiana, 1962), p. 14.

²⁷Russell, "New Factors Affecting Equality of Opportunity," p. 37.

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increasing the probability of college attendance. Shifts in the occupational distribution of the labor force from manual toward cognitive work, pressures of prestige and social advancement, national and local community needs, peer-group values, family ambition, and employer demands all point toward more and more education. These factors will continue to increase the probability that youth will seek and acquire higher levels of education.²⁸

Several studies have cited "lack of motivation" as one reason frequently given by well-qualified high school graduates for not continuing their education. "Individual motivation" as a factor in the equation for probability of attending college is affected by many of the same forces as in the case of "social expectations." In addition, educational guidance must assume an essential role in confronting young people with the challenge of fuller development through education and with establishing and clarifying their own life goals. Guidance from the family and through the schools must be made more adequate to motivate students to make the most of their opportunities for continuing their formal education.²⁹

As educational costs have increased, the "financial ability" factor in probability of college attendance has

²⁸Thornton, op. cit., p. 30.

²⁹Russell, "New Factors Affecting Equality of Opportunity," p. 38.

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taken on greater significance. Henderson has commented that:

There are two ways in which the individual student can be assisted in overcoming the financial barrier: he can be awarded grants or loans; or opportunities to attend college can be provided that are low in cost to him or that enable him partially to earn his way.³⁰

An increasing number of financial aids provided by governmental and private agencies has lowered the financial barrier to higher education for many students. For a good many students seeking continuing education, however, the economic situation of the family still precludes their attendance at college, despite the availability of scholarships, grants, and loans.

Closely associated with the financial factor is that of "propinquity" to an educational institution. If a college is within commuting distance, there is strong evidence to indicate that the probability of going to college is greatly increased. Students are able to live at home and thus reduce living costs. A study by the U.S. Office of Education in 1957, found that:

It was the cost of living at college rather than educational costs that made it so difficult for low-income families to finance attendance of a son or daughter at most colleges. Living costs consumed five-sixths of the average budget of students who

³⁰ Algo D. Henderson, "Current Status of Equality of Opportunity in Higher Education," Approaching Equality of Opportunity in Higher Education (Washington: American Council on Education, 1955), p. 15.

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attended public colleges and two-thirds of the budget of those who attended private institutions.³¹

In the same study, evidence is cited on charges in state institutions which revealed that:

. . . the States are abandoning the philosophy of public tuition-free higher education which has meant so much in building the American way of life, in striving for ever greater and greater equality of opportunity, and in providing the educated manpower for our rapidly expanding economy.³²

Continued expansion of the number of community junior colleges has opened doors to higher education for large numbers of students. In an extensive study of American high school students graduating in 1960, project TALENT provided data with regard to financial ability to attend college and accessibility of institutions. The report concluded that:

The effect of providing free or essentially free junior colleges and colleges in the Far Western States is clearly reflected in the high percentage of young people in that area who entered college. A typical young man in the Far West . . . apparently has about twice as great a probability of entering college as a young man of the same ability in the Southeast.³³

Obstacles to higher education are also reduced if potential students have a diversity of programs from which

³¹ Ernest V. Hollis and associates, Costs of Attending College, U.S. Office of Education Bulletin, 1957, No. 9 (Washington: Government Printing Office, 1957), p. 29.

³² Ibid., p. 64.

³³ John C. Flanagan, et al., The American High School Student, Technical Report to the U.S. Office of Education, Cooperative Research Project No. 635 (Pittsburgh: Project TALENT Office, University of Pittsburgh, 1964), p. 19.

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to select according to their needs, interests, and abilities. The President's Committee on Education Beyond the High School has noted that:

One of the principal strengths of our educational system is the diversity of educational opportunities beyond high school. Now more than ever such opportunities are in demand.³⁴

The Committee goes on to caution against emphasis upon occupational education without a concurrent effort to strengthen general education. It warns:

. . . that the demands of diversity must not be allowed to destroy the central position of general education and of training in basic skills; these are the foundations upon which specific skills may be built and adapted. The very fact that the specific skills needed in the labor force are now so varied, and are changing so rapidly, only underscores the need for educational institutions to provide students with the common denominators of adaptability. . . . institutions, primarily devoted to vocational preparation below the professional levels, should endeavor to provide a leavening of general education and basic skills, and to teach "why" as well as "how" with regard to specific skills.³⁵

American society has developed a complex of institutions offering education beyond the high school. "Many uncoordinated influences have led to the establishment of different, but often competing kinds of opportunity for higher education," states Thornton.³⁶ Numbered among the many institutions are both public and private universities,

³⁴The President's Committee on Education Beyond the High School, op. cit., p. 60.

³⁵Ibid., p. 61.

³⁶Thornton, op. cit., p. 3.

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professional schools, liberal arts colleges, institutes of technology, teachers colleges, vocational institutes, and junior colleges.

The Public Junior College Committee of the National Society for the Study of Education, after studying the needs for post-high school education, discussed ways in which opportunities could be expanded. The Committee observed that:

The four-year college and the university can certainly provide a major part of the needed additional facilities for education beyond high school. . . . But these institutions best serve the requirements of students who seek four or more years of higher education. The evidence . . . however, indicates at least as great a need for programs of less than four years. . . . Programs of less than four years are best furnished by a different type of institution--a college where the attention of faculty, administration, and board of control will be directed particularly to the needs and goals of students whose formal education is limited to one or two years beyond high school. The junior college is uniquely adapted to these ends.³⁷

Without minimizing the importance of the four-year institutions in extending educational opportunities and providing programs essential to the entire scope of higher education, the role of the two-year college in extending opportunity and reducing barriers to higher education warrants consideration at this point.

One of the most notable developments in American higher education has been the emergence of the two-year

³⁷ Nelson B. Henry (ed.), The Public Junior College, the Fifty-fifth Yearbook of the National Society for the Study of Education, Part I (Chicago: The University of Chicago Press, 1956), p. 66.

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college, an institution which historians of the movement describe as the only distinctly American contribution to higher education.³⁸ Included in the category of two-year colleges are both public and private junior colleges, community colleges, technical institutes, and two-year, off-campus centers of four-year colleges and universities. The term "junior college" is most commonly used as an inclusive title to designate post-high school educational institutions offering two-year programs in addition to perhaps other services.

More and more states are passing enabling legislation for the establishment of community junior colleges or for expanding existing systems.³⁹ With the opening of 50 new junior colleges in 18 states in the fall of 1965, the number of junior colleges operating in this country rose to a total of 780,⁴⁰ enrolling nearly 1.2 million students including about 30 per cent of all first-time college students.⁴¹

³⁸ Edmund J. Gleazer (ed.), American Junior Colleges, Sixth Edition (Washington: American Council on Education, 1963), p. 3.

³⁹ Sebastian V. Mortorana and Robert F. McHugh, "State Legislation: 1962-64 / A Survey of State Legislation Affecting Two-Year Colleges," Junior College Journal, 36:27-31+, March, 1966.

⁴⁰ American Association of Junior Colleges, "50 New Junior Colleges Open in 18 States," Junior College Journal, 36:42, November, 1965.

⁴¹ U.S. Department of Health, Education and Welfare, Opening Fall Enrollment in Higher Education, 1965, Office of Education, Circular No. 796 (Washington: Government Printing Office, 1966), p. 6.

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Thornton has traced the evolution of the junior college from its beginnings through three major stages of development ending with the emergence of the community junior college. During the first period, from 1850-1920, the junior college developed as a separate single-purpose institution offering the first two years of traditional college curriculums. Over the next twenty-five years, semi-professional and terminal educational programs gained acceptance as being the proper concern and responsibility of junior college education. Finally, from World War II to the present, the junior college has moved to provide free and equal access to post-high school education by all members of the community which finances and controls the institution at the local level. A closer relationship to the community, which includes providing adult and continuing education services, has earned for this type of two-year college a new title--the "community junior college."⁴²

The community junior college may be defined as a particular type of junior college which:

. . . is usually [italics in original] a public institution, draws most [italics in original] of its students from its supporting community, develops programs of study in response to needs of the local community, and is likely to offer a wider variety of courses than the "non-community" junior college, which intends to attract students from a much wider geographic area. The phrases "public junior college" and "community

⁴²Thornton, op. cit., pp. 45-57.

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junior college" are . . . roughly synonymous, although not identical.⁴³

The comprehensiveness of the community junior college is noted in the statement of accepted purposes which, according to Thornton, provide for:

1. occupational education of post-high-school level,
2. general education for all categories of its students,
3. transfer or pre-professional education,
4. community service, including education for adults, and
5. the counseling and guidance of students.⁴⁴

Admittedly, every community or junior college does not now measure up to the ideal prescribed for such an institution. After making an extensive study of junior colleges across the nation, Medsker identified several areas that currently are notably weak. He describes these as follows:

The junior college has claimed many exceptional achievements and has made good on many of them. Other claims--that emphasis is placed on the terminal student; on student personnel services, particularly guidance and counseling; and on general education--have not been fully realized.⁴⁵

However, despite these inadequacies, the community college offers much in the way of potential for providing appropriate post-high school education. In light of the educational needs identified in the earlier part of this chapter, and keeping in mind the various barriers to higher

⁴³ Ibid., p. 74.

⁴⁴ Ibid., p. 59.

⁴⁵ Leland L. Medsker, The Junior College: Progress and Prospect (New York: McGraw-Hill Book Company, 1960), p. 23.

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education, it appears that the community college is uniquely equipped to meet the particular needs of the community which sustains it. With control usually vested in local boards, the community or junior college may be quite sensitive to unique needs of the local community and provide programs for meeting those needs. It is not necessary to convince a controlling body outside of the community that a needed program ought to be offered. Financing of programs is carried out to a large degree through the use of local funds. For these reasons, the public community college enjoys a degree of flexibility not available to other institutions of higher education.

Being located in the community, the community college provides accessibility to post-high school programs at low cost to the student. Opportunity is available for students, both youth and adults, to explore their educational and occupational interests by having available a diversity of programs. By being an essentially "open door" institution, admission standards are not prohibitive with regard to academic qualification to enter collegiate level programs. Medsker submits evidence that a significantly greater proportion of children from lower socio-economic level families enroll in junior colleges than in state colleges and universities thus lowering the social and financial barriers to higher education.⁴⁶ All in all, relatively few barriers--

⁴⁶ Ibid., pp. 40-43.

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economic, geographical, social, or academic--come between the prospective student and the community junior college. The contribution of the community college in equalizing opportunity for higher education has been and will continue to be significant. Reynolds predicts that "the vacuum created by unsatisfied educational demands in many localities will be filled by junior colleges or other agencies. The trend," he says, "is definitely in the direction of fulfillment by the junior colleges."⁴⁷

Often the role of the community or public junior college has been misunderstood by the public and by educators as well. It frequently is seen too narrowly--as providing only the first two years of a traditional college program. Consequently, development of community institutions has been feared by established four-year institutions, especially the liberal arts colleges. In many cases, this concern is based upon the assumption that there exist only a limited number of students, thus setting up a competitive situation in which the established college will not attract sufficient students to continue its program. Several observations must be made on this issue.

Although the college or university parallel function of the community college has assisted in absorbing increasing enrollments in higher education:

⁴⁷ James W. Reynolds, The Junior College (New York: The Center for Applied Research in Education, Inc., 1965), p. 102.

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Community colleges are not designed . . . merely to relieve enrollment pressures on senior institutions. They have a role and an integrity of their own. They are designed to help extend and equalize opportunities to those who are competent and who otherwise would not attend college, and to present a diversity of general and specialized programs to meet the needs of diversified talents and career goals.⁴⁸

At the center of the American educational tradition, the liberal arts college is well established. The function which it fills in the scheme of higher education cannot be duplicated by other institutions. The Michigan Citizen's Committee on Higher Education puts it this way:

Correctly conceived, the four-year baccalaureate institution and the community college complement each other. The baccalaureate institution sets up its academic programs to meet specific requirements and either admits only those students who can master the programs or lets those fail who cannot. The community college admits all high school graduates and adults and endeavors to provide them with programs that they are able to do. The prestige of offering baccalaureate and graduate programs is so high that the four-year institution will not provide an area with many of the services expected of a community college. By the same token, the community college may become ambitious to be a baccalaureate institution. When it does, the community will soon be left without the needed community college program. For these reasons, the integrity and prestige of the community college needs guarding and nurturing.⁴⁹

The President's Commission on Higher Education has also spoken about the relationship between the liberal arts college and the community college. The liberal arts college:

⁴⁸The President's Committee on Education Beyond the High School, op. cit., p. 65.

⁴⁹Citizen's Committee on Higher Education, Report of the Citizen's Committee on Higher Education (Lansing: The Committee, 1965), pp. 24-25.

... should encourage community college, not that these communities curiosity and ambition otherwise seek colleges these students their college careers

It is increasing and diversified opportunities best efforts of all responsibilities outlined a great share of the universities. Participative and imaginative the influx of students as well. As increased for, upper division considered attention education will need to present themselves. International and economic development planning must take for articulation between education.

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. . . should encourage the development of the community college, not oppose it. Experience indicates that these community institutions awaken intellectual curiosity and ambition in many youth who would not otherwise seek college education at all, and in many cases these students will be stimulated to continue their college careers. . . .⁵⁰

It is increasingly evident that the needs for new and diversified opportunities will continue to challenge the best efforts of all institutions. In addition to the responsibilities outlined for the community and junior colleges, a great share of the load will fall on four-year colleges and universities. Particularly pressing is the need to develop creative and imaginative programs for coping with not only the influx of students, but with the explosion of knowledge as well. As increasingly higher levels of education are called for, upper division and graduate programs must receive considered attention. Needs never before confronting higher education will need to be recognized as they continue to present themselves. It is evident that, in the light of social and economic developments in present-day society, careful planning must take place for meeting widespread needs and for articulation between various levels and types of education.

In examining the division of responsibility which exists between various types of higher educational

⁵⁰The President's Commission on Higher Education, Higher Education for American Democracy, 6 vols. (Washington: Government Printing Office, 1947), Vol. 1, p. 70.

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⁵² Ibid.

institutions, the Minnesota Commission on Higher Education concluded:

Under the circumstances, it is imperative that all educational units have a clear conception of their function and that they devote their resources consistently and intelligently to the attainment of clearly defined goals. . . . A duplication of facilities in any area would be highly undesirable. It would be a disservice to the state as a whole as well as to the particular institutions involved.⁵¹

With regard to meeting community needs, the Commission continues:

However, private colleges must give serious consideration to the relationship between their offerings and the total educational needs of their communities if no public college exists in the same local area. In some cases, private senior or junior colleges may be quite ready to adjust their programs to meet community educational needs along with their general liberal arts program. In such cases it would be an unwarranted expenditure of public funds to establish public community colleges in the same area.⁵²

Caution must be exercised when considering ways in which to provide post-high school educational opportunity. Various plans have been presented for expanding opportunity and for reducing obstacles to higher education. Whatever action is taken to meet needs must be taken on the basis of informed judgment about the extent and nature of such needs and resources available. Factual information must be accumulated in order to make prudent decisions. To assess higher education needs, various types and kinds of studies

⁵¹Minnesota Commission on Higher Education, op. cit., p. 200.

⁵²Ibid.

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have been undertaken. A discussion of such studies and surveys is presented in the following section.

Studies and Surveys in Higher Education

Descriptive survey studies have been used to help solve problems in many fields--business, advertising, government and education to mention only a few. Best mentions four types of surveys frequently conducted: social surveys, school surveys, public opinion surveys, and market surveys.⁵³

Surveys may be used (1) to examine existing status, (2) to make comparisons of status and standards or criteria, and (3) to identify means and methods to use in improving the existing status.⁵⁴ While some studies may be designed to include a consideration of all three of these uses, others may be confined to only one or two.

In the history of the development of survey studies in higher education, Barnard's investigation of general school conditions in Rhode Island in 1844-46 has often been identified as the forerunner of higher educational studies.⁵⁵ Probably the first study which deserves to be called a survey of higher education, however, was conducted by the Mosely

⁵³ John W. Best, Research in Education (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1959), pp. 106-112.

⁵⁴ Deobold B. Van Dalen, Understanding Educational Research (New York: McGraw-Hill Book Company, Inc., 1962), p. 362.

⁵⁵ Paul L. Dressel and associates, Evaluation in Higher Education (Boston: Houghton Mifflin Company, 1961), p. 326.

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Commission, a group of 26 prominent British educators who toured the East and Middle West in 1903 for a period of four months studying the entire American educational system with particular attention being given to professional and technical education of collegiate level.⁵⁶

According to Eells, the use of the term "survey" to cover studies in the field of higher education dates back to 1914. Since that time, the use of the survey has become increasingly more important and more necessary. Eells points out several factors which have contributed to the development of the movement: the rise of a scientific spirit in education; the movement toward efficiency and economy; the social survey movement; the expansion, complexity, and increased costs of higher education; the need to answer criticisms of higher education; the development of accrediting agencies; and the appearance of agencies established to provide survey-making services.⁵⁷

As the costs of higher education, the numbers of students, and educational demands have soared over the past two decades, a corresponding increase in the number of surveys has been noted. The purposes for which current surveys and studies are undertaken have been described by Dressel:

⁵⁶Walter C. Eells, Surveys of American Higher Education (New York: The Carnegie Foundation for the Advancement of Teaching, 1937), p. 18.

⁵⁷Ibid., pp. 54-67.

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A survey in higher education is designed to provide data and information for judging the adequacy, effectiveness, and efficiency of some part or all of the operations of an institution or group of institutions and to furnish a basis for assessing future needs and sources of support.⁵⁸

A total of 49 studies were identified as being under way or completed in the area of higher education during the five-year period ending in 1955. As pressures on higher education mounted in the second half of the decade of the fifties, the number of studies initiated or completed increased to a total of 153 covering 43 states.⁵⁹

From the literature, many different kinds of studies and approaches may be identified. There have been national, regional, state, and local studies. Some have been comprehensive, covering numerous phases of higher education, while others have dealt with specific problems or programs. There have been large and expensive studies costing as much as \$300,000 which have used the services of many skilled experts; others have utilized an expert as a consultant or director of the study supplementing his work with the use of local committees; still other studies have used local college or professional personnel and a group of lay committees and have been inexpensive to conduct. A number of studies may be classified as special or "one-time" studies initiated by a

⁵⁸Dressel, loc. cit.

⁵⁹S. V. Mortorana and J. C. Messersmith, Advance Planning to Meet Higher Education Needs: Recent State Studies (Washington: Government Printing Office, 1960), p. 2.

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legislature, governor, special commission or similar body and which have no particular continuing relationship to prior or subsequent investigations. Another type has been continuing studies undertaken by staffs of various agencies.⁶⁰

To list all the agencies and organizations undertaking studies and publishing articles on higher education would be virtually impossible and certainly beyond the limitations of this review of literature. Therefore, only a few of the more significant ones will be mentioned.

The federal government has sponsored numerous studies through the U.S. Office of Education. These include continuing examination of such things as enrollment statistics, degrees conferred, state legislation affecting higher education, tuition and other costs of higher education, and migration of students, to mention a few. In the post-World War II period, the Presidential commissions or committees have considered various needs and problems in higher education. In 1947, the President's Commission on Higher Education concluded that, in the national interest, extending opportunity for higher education to increasing numbers of high school graduates would be desirable. The President's Committee on Education Beyond the High School, reporting in 1957, stressed the need for careful planning to meet higher educational needs. Through the activities of the National

⁶⁰Ibid., pp. 2-4.

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Science Foundation, several studies have been produced dealing with graduate education, research activity, and university-government relationships.⁶¹

The American Council on Education, a national organization whose membership is composed of various educational institutions, has shown a great deal of interest in higher education and has produced a long list of publications.

Representative of large foundations which have supported studies in higher education is the Carnegie Corporation. Centers for long-term studies of problems associated with higher education have been established by this group at Columbia University, the Universities of Michigan and California at Berkeley, and Stanford University. Publications and studies coming from these Centers for the Study of Higher Education include an examination of the decision-making process on college and university campuses by Corson,⁶² a case study of a junior college by Clark,⁶³ a review of technical institute education by Henninger,⁶⁴ an analysis of the junior college by Medsker,⁶⁵ and a consideration of diversity in

⁶¹Dressel, op. cit., pp. 377-381.

⁶²J. J. Corson, Governance of College and University (New York: McGraw-Hill Book Company, Inc., 1960).

⁶³Burton R. Clark, The Open Door College: A Case Study (New York: McGraw-Hill Book Company, Inc., 1960).

⁶⁴G. Ross Henninger, The Technical Institute in America (New York: McGraw-Hill Book Company, Inc., 1959).

⁶⁵Medsker, op. cit.

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college students and implications for meeting their needs in institutions of higher education by McConnell.⁶⁶

State-wide studies having the backing of state legislatures have been carried out in most states during the past decade. Publicly supported institutions have been involved in this type of study more frequently than have private colleges, although all institutions, both public and private, were included in about one-third of the studies conducted in 43 states between 1955 and 1960.⁶⁷

In state-wide surveys, it has been common practice to engage a person experienced in conducting studies in higher education to serve as the study director. Although in earlier studies the study director was generally imported into the state, Dressel notes that it is probably more common today to utilize in-state directors and personnel.⁶⁸ Arguments advanced for calling in someone from outside the state include the contention that such a person brings a minimum of bias and personal involvement, little or no obligation to vested interests, no threat to his own job security, and recommendations are more likely to be accepted as being objectively arrived at through an analysis of the data collected. On the other hand, certain advantages might

⁶⁶T. R. McConnell, A General Pattern for American Public Higher Education (New York: McGraw-Hill Book Company, Inc., 1962).

⁶⁷Dressel, op. cit., p. 371.

⁶⁸Ibid., p. 365.

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⁶⁹ Ibid.

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One of the most comprehensive state surveys, and one which might well serve as a model for state-wide studies, was undertaken in Michigan under the direction of John Dale Russell in 1956-1958. Included in this study were numerous factors affecting higher education. Twelve different staff studies connected with the total survey included investigations of the community college in Michigan, geographic origins of students, nursing and medical education, physical plant needs, student personnel services, instructional programs, extension and field services, financial assistance to students, space utilization, faculties, institutional planning, and control and coordination of higher education in the state. These separate studies were summarized in a final report to the Michigan Legislative Study Committee on Higher Education in September, 1958.⁷⁰

A study of Florida's higher educational needs directed by Brumbaugh for the Council for the Study of Higher Education in Florida was carried out in 1954-56. Among the recommendations made in this study were the development of a system of public community colleges and the establishment of

⁶⁹ Ibid.

⁷⁰ Russell, Higher Education in Michigan.

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additional state degree-granting institutions in the two areas of Florida having a high population density.⁷¹

California undertook a state-wide study of higher educational needs as early as 1948, followed up with a re-study in 1955, and finally emerged with a Master Plan which was then supported by legislation. A coordinated state system of higher education was developed involving the University of California and its branches, the state colleges, and the junior colleges.⁷²

More recently Illinois has developed a comprehensive Master Plan for Higher Education based upon extensive study by ten study committees and three advisory committees, one of lay persons, the second of college presidents, and the third of college faculty representatives. After receiving the reports from the advisory committees and conducting public hearings for debate of the proposals, the Illinois Board of Higher Education adopted a master plan. A significant feature of this plan was the role given to the junior college in expanding higher education opportunity. A system of comprehensive junior colleges was outlined to be under

⁷¹A. S. Brumbaugh and Myron R. Blee, Education and Florida's Future, 5 vols. (Gainesville: University of Florida Press, 1956).

⁷²Master Plan Survey Team, A Master Plan for Higher Education in California, 1960-1975 (Sacramento: California State Department of Education, 1960).

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local community control and coordinated by a state-level junior college board.⁷³

While the results of state-wide studies are too voluminous to report in this writing, Dressel has indicated that:

. . . a typical survey relate(s) primarily to broad appraisals of higher education needs in a state or region. Typically, the result of such surveys may be the indicated need for additional facilities or for the increased financing of certain institutions. Suggestions for elimination of duplication or for clarification of function and type of service may also emerge. Many surveys have been primarily concerned with the necessity for establishing additional institutions of higher education in a particular state. At best, the state survey can identify the need for additional institutions only in a general way.⁷⁴

In the Michigan study, for example, one recommendation was to consider the establishment of an additional state college or colleges in areas having high population density "not now adequately served by existing institutions, publicly or privately controlled."⁷⁵ Subsequent area studies were later conducted in the Grand Rapids area⁷⁶ and in the Saginaw Valley region⁷⁷ to investigate more thoroughly and

⁷³Illinois Board for Higher Education, A Master Plan for Higher Education in Illinois (Springfield: The Board, 1964).

⁷⁴Dressel, op. cit., pp. 370-371.

⁷⁵Russell, Higher Education in Michigan, p. 141.

⁷⁶John X. Jamrich, "A New College" (East Lansing: Michigan State University, Center for the Study of Higher Education, 1959). (Mimeographed.)

⁷⁷John X. Jamrich, "Higher Education in the Saginaw Valley" (East Lansing: Michigan State University, 1962). (Mimeographed.)

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In Michigan, there have also been a number of local studies in counties or groups of counties in which there appeared to be interest in and need for establishing community junior colleges. Such studies generally use citizens committees to investigate needs and resources in a specific geographic area.⁷⁸

Several studies have been made of higher education in Indiana since World War II. A summary of these studies as well as a discussion of the present system of post-high school education in Indiana is presented in the next paragraphs.

Higher Education in Indiana

In 1944, the Indiana Conference of Higher Education was formed to deal with anticipated enrollment increases as veterans returned from World War II to the campuses. This unique organization composed of 30 public and private and

⁷⁸Through the Office of Community College Cooperation at Michigan State University, a number of studies have been coordinated using Citizens Study Committees to consider the feasibility of establishing community colleges in local areas. Single county studies have been made such as those in Berrien, Ionia, Montcalm, Gogebic, and St. Joseph Counties. Other feasibility studies have combined several counties. These include a four-county study of Crawford, Ogemaw, Oscoda, and Roscommon; and two three-county studies including Hillsdale, Jackson, and Lenawee Counties, and Huron, Sanilac, and Tuscola Counties.

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church-related colleges and universities united "to create a forum in which the problems facing higher education in Indiana could be studied jointly by representatives of state-supported and private institutions."⁷⁹

From the outset there was agreement that higher education was not a matter of state-supported versus private education, but rather that it was a common responsibility of all Indiana institutions. As evidence of this joint obligation, it was noted that undergraduate on-campus enrollments had been almost equally divided between the state and private institutions since 1933.⁸⁰

In the early discussions of the Conference, the direction for future development of higher education in the state was set. Enrollment projections were studied and quotas were established by each of the four state-supported and 26 private institutions to insure that veterans could be accommodated. Furthermore, the conclusion was reached that the "approximately equal distribution of students be maintained (between public and private enrollments) for the future, so that wide diversity of educational opportunity continue to be offered to the young men and women in

⁷⁹"A Survey of Needs and Resources: The Capital, Operating, Personnel, and Curriculum Needs of Higher Education in Indiana" ([n.p.]: Indiana Conference of Higher Education, 1957), p. 1.

⁸⁰Ibid.

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⁷⁹"A Survey of Needs and Resources: The Capital, Operating, Personnel, and Curriculum Needs of Higher Education in Indiana" ([n.p.]: Indiana Conference of Higher Education, 1957), p. 1.

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⁸¹Ibid.

⁸²Ibid.

⁸³Ibid.

⁸⁴Ibid.

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Geographically, Indiana's colleges and universities are dispersed widely throughout the state. In 1949, a study completed by the Conference revealed that a college, university or extension center providing opportunity for taking the first two years of college was within 25 miles of the high school from which 92 per cent of Indiana's seniors graduated.⁸³ Another study in 1956 indicated that the situation had not changed. Only 8.7 per cent of high school graduates were more than 25 miles away from a college, university or extension center. Moreover, 40.3 per cent were within 25 miles of four or more institutions, 12.6 per cent had a choice of three, 16.9 per cent had a choice of two, and 21.5 per cent had a choice of only one.⁸⁴

While it was noted that only 25 per cent of students going to college attended the institution in their local area and 75 per cent went away from home to college, the Indiana Conference of Higher Education report dismissed the matter with the following statement:

⁸¹ Ibid.

⁸² Ibid.

⁸³ Ibid., p. 10.

⁸⁴ Ibid., pp. 10-11.

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Even though Indiana high school graduates have ample opportunities to attend college for at least the first two years locally, they are not availing themselves of this opportunity. Since it becomes apparent that, due to the location of the present colleges and extension centers in Indiana, there is no need in the state for any additional colleges or junior colleges, this report will deal with the existing structure of higher education.⁸⁵

The Parkhurst Report on enrollment projections was presented to the Conference in the fall of 1955 for use in assisting the member colleges and universities to determine future programs and policies for their institutions. Using six different models to make projections, the report gave a comprehensive picture of anticipated enrollments in the state's colleges and universities from 1955 to 1972.⁸⁶

In 1957, the Conference received from an appointed committee the report, "A Survey of Needs and Resources," which was adopted by the Conference. That study was a spot check which reaffirmed the intent to keep enrollments approximately evenly divided between the private and church-related, and the state institutions.⁸⁷ It also examined enrollment trends, existing physical facilities and needs for additional facilities, expenditures for current operations with particular attention to faculty salaries, curriculum,

⁸⁵Ibid., p. 11.

⁸⁶ Nelson M. Parkhurst and Betty Suddarth, "Potential Enrollment for Indiana Colleges and Universities, 1955 to 1972" ([n.p.]: Indiana Conference of Higher Education, 1955). (Mimeographed.)

⁸⁷"A Survey of Needs and Resources," p. 9.

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With regard to the adequacy of the curriculum offered by institutions in Indiana, the report indicated that the aims adopted in 1949 were "being served by the curricular offerings of the total system of higher education in Indiana."⁸⁸ No mention was made of the existence of or need for less-than-four-year programs, however.

In the fall of 1960, Raymond Butler conducted a census survey of college students enrolled in Indiana institutions to determine their geographic origins, reasons for attending the particular college in which they were enrolled, the year of their high school graduation, and several other types of information. The data revealed that 70 per cent attended a college because "it offered what I wanted," and 41.5 per cent indicated that it was "near my home, can commute." Of the June, 1960, high school graduates in Indiana, 46.5 per cent were enrolled in college in September, 1960.⁸⁹

The Post-High-School Education Study Commission, appointed by the Indiana General Assembly to investigate (1) existing programs of education beyond the high school in

⁸⁸ Ibid., p. 56.

⁸⁹ This data is summarized in a mimeographed report to the Indiana Conference of Higher Education prepared by Raymond S. Butler, then assistant secretary-treasurer of the Conference. The report, dated September 10, 1963, bears no title.

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Indiana, (2) what other states were doing in post-high school education, and (3) needs for such educational opportunity in Indiana, submitted its report in November, 1962. Included in the eight recommendations were: the expansion of the Indiana and Purdue regional campus system which provides the first two years of college level work; development of one or more of these centers into four-year institutions as the student enrollment, program needs, and geographical location might warrant; establishment of an Indiana State Scholarship Program; establishment of an Indiana School for Practical Education to provide vocational education of non-collegiate character throughout the state; and the passing of enabling legislation to permit a community, after a referendum by the voters, to establish a local community college.⁹⁰

Establishment of local two-year colleges has been openly opposed in Indiana. H. B. Wells, former President of Indiana University, expressed the view prevalent in the state with the warning that:

The establishment of large numbers of additional colleges would represent an unnecessary dilution of taxpayer financial support and a heavy drain on the resources of private and church groups. A special [italics in the original] word of caution is in order with respect to the establishment of junior or

⁹⁰ Report of the Post-High-School Education Study Commission (Indianapolis: General Assembly of the State of Indiana, 1962), pp. 9-11.

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community colleges in those states which already have a large number of four-year institutions.⁹¹

To provide opportunity for public higher education in various areas of the state, two-year extension centers are operated at eight regional campuses and centers by Indiana University⁹² and at four by Purdue University.⁹³ Both universities have centers located in Fort Wayne and Indianapolis.

Although the bulk of the courses offered at these campuses is of the university-parallel, transfer-credit type, two-year programs are also provided. Indiana University has a limited number of two-year certificate programs in the arts and sciences, and in business.⁹⁴ Purdue University offers two-year associate degrees in 13 areas of applied technology, although many of these are available at only one of the centers.⁹⁵ Various noncredit and special interest courses are also offered at the regional campuses.

⁹¹H. B. Wells, "The Outlook for Higher Education in America," Proceedings of the Eleventh Annual National Conference on Higher Education (Washington: Association for Higher Education, 1956), p. 6.

⁹²"Regional Campuses," Indiana University Bulletin, 1965-66 (Bloomington: Indiana University, [n.d.]).

⁹³"School of Technology," Purdue University Bulletin, 1966-67 (Lafayette: Purdue University, 1966).

⁹⁴"Regional Campuses," Indiana University Bulletin, 1965-66, p. 34.

⁹⁵"School of Technology," Purdue University Bulletin, 1966-67, p. 21.

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Further study of higher education needs and resources in Indiana was provided in 1963, with three doctoral dissertations completed at Indiana University. The approach of these companion studies was to survey employed parents of high school students as well as educators and lay leaders in selected Indiana counties seeking information about their felt needs for and attitudes toward higher education. Available resources (opportunities for higher education) were also investigated.

Ackerly's study involved a six-county area including and surrounding the metropolitan area of South Bend.⁹⁶ Mears surveyed Allen County and the six surrounding counties in northeastern Indiana.⁹⁷ Neteland investigated needs and resources in selected counties in southern Indiana.⁹⁸ Each of these studies identified an increasing demand for higher levels of education on the part of the respondents to the survey, and found little evidence that sufficient one- to two-year terminal post-high school opportunities were available.

⁹⁶ Robert S. Ackerly, Jr., "Higher Education: Needs and Resources in Selected Northern Indiana Counties" (unpublished Doctoral dissertation, Indiana University, Bloomington, 1963).

⁹⁷ John Aubrey Mears, "Higher Education: A Regional Pilot Study of Educational Needs and Resources in Indiana" (unpublished Doctoral dissertation, Indiana University, Bloomington, 1963).

⁹⁸ Edward Neteland, "Higher Education: A Study of Educational Needs and Resources in Indiana" (unpublished Doctoral dissertation, Indiana University, Bloomington, 1963).

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Recognizing that insufficient opportunities existed for vocational and technical training at the post-high school level, the General Assembly of the State of Indiana created a new state educational institution, the Indiana Vocational Technical College, in 1965, "to be devoted primarily to non-collegiate, non-credit practical or vocational, technical and semi-technical training for the citizens of Indiana."⁹⁹ A governing board of trustees appointed by the Governor was given the mandate to:

. . . develop an overall state plan which provides for the orderly development of regional technical institutes encompassing, ultimately, all parts of the state into a coordinated system providing a comprehensive program of post-high school vocational technical education.¹⁰⁰

The administrative staff of the Indiana Vocational Technical College was not employed until early in 1966. Therefore, planning for the initiation of programs and establishment of regional institutes is not yet fully developed. However, at present it appears that 12 regional technical institutes are being considered with plans underway to build

⁹⁹"An Act to Create and Establish the Indiana Vocational Technical College," Amended Version of Chapter 371 of Acts of 1963, Amended as per H. 1295, March 10, 1965, General Assembly of the State of Indiana. (Mimeographed copy, Indiana Vocational Technical College, Indianapolis, Indiana), Section 2a.

¹⁰⁰Ibid., Section 9a. (4).

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With the establishment of the Indiana Vocational Technical College as a new public institution to take its place with the four state universities (Indiana University, Purdue University, Ball State University, and Indiana State University) in providing state-supported education, and with the more than 30 private and church-related institutions of higher education, Indiana hopes to meet needs for post-high school education in the state.

Summary

In providing increased educational opportunity for post-high school education, barriers to college attendance must be reduced. Some of these obstacles include inadequate financial resources, lack of appropriate programs to meet students' needs and interests, inaccessibility to an institution of higher education, lack of student motivation, and certain barriers provided by social status of the prospective student and his family.

The existence of institutions in the vicinity of a student's home increases his chances of continuing formal education beyond high school by permitting him to live at

¹⁰¹Statement by Robert Riley, Vice-President and Dean of the Indiana Vocational Technical College, made in personal interview on July 15, 1966.

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In overall assessment of needs for higher education, various types of surveys and studies at national, regional, state, and local levels are necessary. Many state-wide studies have been conducted to identify problems within the state and, in some states, comprehensive studies have led to the development of master plans for higher education within the state.

Studies in Indiana have shown that college and university programs are available within commuting distance of homes of about 92 per cent of the high school graduates in the state. This factor along with the cooperative planning of state-supported and private institutions through the Indiana Conference of Higher Education to meet increasing needs by more complete utilization of existing institutions has established the pattern of higher education in Indiana. To meet growing needs for post-high school occupational education, a new institution--the Indiana Vocational Technical College--has recently been established.

CHAPTER III

THE RATIONALE AND METHODOLOGY OF THE STUDY

The main focus of this investigation was to determine higher educational needs and available opportunities for obtaining education at the post-high school level in Wabash and Miami Counties in the State of Indiana.

Various approaches have been used to obtain significant information relating to the assessment of the nature of higher education need. Expressed educational intentions and occupational aspirations of groups of high school seniors have been found to be significant indicators of types of post-high school education actually pursued following graduation.¹ Attitudes of parents, educational and economic levels of parents, success in high school, plans of friends, post-high school attendance of older brothers and sisters, and other similar factors have relationships to the tendency of high school graduates to continue their education. Analysis of such factors gives clues to educational needs in an area.²

¹Ralph F. Berdie, After High School - What? (Minneapolis: The University of Minnesota Press, 1964), p. 96.

²Raymond J. Young, "Survey of Junior College Possibilities: A State Responsibility," Junior College Journal, 29:251, January, 1959.

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In addition to aspirations and expectations of high school youth and their parents regarding higher education, an examination of employer needs may be used to give an indication of the demand for certain types of occupational education for youth and adults in the community. Young states that "Probably the most significant information on one type of educational need can be obtained from local area employers in business and industry."³

Sources of Data

Based on the assumption that information similar to that described in the above paragraphs would provide a basis for identifying higher educational needs in the Wabash-Miami County area, plans were laid for gathering and analyzing data of this type.

To obtain direct evidence from a large number of persons regarding their expectations and interests in higher education, three groups of citizens were contacted. These included (1) all senior students enrolled in six high schools in Wabash and Miami Counties, (2) parents of these high school seniors, and (3) local area employers in business and industry.

Seniors enrolled in the four Wabash County high schools--Manchester, Northfield, Southwood, and Wabash--and in two of the three Miami County high schools--North Miami

³Ibid., p. 252.

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and Peru--were selected for participation in the study. Senior students at Maconaquah, the third high school in Miami County, were excluded from the study due to the temporary nature of residence for a majority of students in that school. More than half of the seniors attending Maconaquah High School were dependents of military personnel assigned to nearby Bunker Hill Air Force Base.⁴

Included in the survey of area employers were firms which normally employ some skilled, technician, semi-professional, or professional workers. A master card file was developed using as sources (1) white pages of telephone directories, (2) lists obtained from the North Manchester, Wabash, and Peru Chambers of Commerce, and (3) the Indiana Industrial Guide, 1965, published by the Indiana State Chamber of Commerce.

After the card file was completed, a review of all firms was made to insure that they were located in Wabash and Miami Counties. No businesses or industries outside this two-county area were included in the survey. Utilizing persons who were familiar with business and industry in the area, the card file was screened further to eliminate those firms which fell under one or more of the following categories:

1. Firms with less than five employees, except medical doctors, dentists, veterinarians, realtors,

⁴Information was obtained in a telephone conversation with the Assistant Principal of Maconaquah High School on April 20, 1966.

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2. Taverns, bars, barber and beauty shops, and retail stores normally employing non-technical or non-professional workers primarily.
3. Farms except those engaging in specialized production such as dairy, poultry, nursery, etc.

If there was doubt as to whether a firm met the established criteria listed above, the card for that business or industry was left in the file. Consequently, some firms which were initially contacted were later disqualified upon the basis of information they reported on a returned questionnaire.

To determine available opportunities for higher education, institutions offering formal programs were identified. Through an examination of catalogs and documents of these institutions, supplemented by interviews with officials, the nature of present programs and opportunities was determined.

The Instruments

Having identified the population to be surveyed, attention was turned to the selection of instruments to be used in data gathering. To obtain as many expressions of attitudes, expectations, opinions, needs, and facts as possible from a large number of persons, the questionnaire method of gathering data was chosen.

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Since data are no more credible than the instruments used, it was decided to utilize instruments expertly conceived, constructed, reviewed, refined, and tested in previous studies. Selected for use were three instruments which have been employed by the Office of Community College Cooperation and others at Michigan State University.⁵ These were the Student Questionnaire, the Parent Questionnaire, and the Survey of Business and Industry. Part II of the Survey of Business and Industry questionnaire was adapted from a "Survey of Post High School Educational Needs" questionnaire developed by Dr. Raymond C. Gibson of Indiana University and used in studies conducted by researchers at that institution.⁶

Good, Barr, and Scates caution that a questionnaire developed for use in one locality may not fit the conditions existing in another area.⁷ Therefore, to insure that the instruments were applicable to Indiana and to the study at

⁵ A portion of community college feasibility studies conducted by the Office of Community College Cooperation deals with the determination of post-high school education need in local communities. Although establishment of a community college was not the immediate objective in Wabash and Miami Counties, a similar approach in identifying need was reasoned to be valuable.

⁶ Permission was obtained to use the Gibson questionnaire from Dr. Raymond S. Butler of Indiana University and Secretary-Treasurer of the Indiana Conference of Higher Education.

⁷ Carter V. Good, A. S. Barr, and Douglas E. Scates, The Methodology of Educational Research (New York: Appleton-Century-Crofts Company, 1941), p. 338.

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hand, they were carefully reviewed. Minor changes in wording, the omission of a few items, and the addition of several questions were required. The revised questionnaires were then submitted to the writer's doctoral committee and to superintendents, principals, and guidance counselors of the participating high schools for criticism, suggestions, and changes. In addition, the Survey of Business and Industry questionnaire was discussed with area Chamber of Commerce representatives, several employers, the Director of the Upper Wabash Vocational School, and Dr. Harlan Heglar, a fellow graduate student who had just completed a study of technical education needs in Jasper County, Missouri.⁸

Based on comments received, some changes in sequence of items and terminology used were made and definitions of occupational levels were added before the questionnaires were printed.

Recognizing that a concise, well-ordered, attractive questionnaire would be more likely to encourage response and lend authority to the study, the final forms were designed with such factors in mind. Copies of the questionnaires used are included in Appendices A, B, and C.

⁸Harlan L. Heglar, "A Survey of Business and Industry Needs for Vocational-Technical Programs in the Jasper County Junior College" (unpublished Doctoral thesis, Michigan State University, East Lansing, 1966).

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Eliciting Cooperation

Interest in conducting this study grew out of a concern by local citizens, foundation representatives, and school and college officials in Wabash County for increasing post-high school educational opportunities. Early in group discussions, it was recognized that basic information regarding higher education needs in the local area was urgently needed. The writer met with several groups to discuss educational problems and possible approaches to expanding opportunities. After devising and presenting the basic plan of this study to the groups involved, approval and endorsement for the project was obtained. Originally envisioned to cover only Wabash County, the close ties with Miami County in education and in business and industry argued for expansion of the study to include a two-county area.

Collecting the Data

Student and parent questionnaires were distributed by guidance counselors or classroom teachers to all senior students enrolled in Manchester, Northfield, Southwood, Wabash, North Miami, and Peru High Schools.⁹ Students were allowed time during class or homeroom periods, according to the organization of the school, to complete their questionnaires. Instructions were given to the seniors to take

⁹See Appendix D for a copy of instructions to high school principals.

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questionnaires home to be filled out by their parents. When students returned these from home, their names were checked off a master control sheet. Reminders were given to those students who had not returned a parent questionnaire after two or three days. One week after distribution, all completed student and parent questionnaires were collected from the high schools.

So that principals, teachers, and guidance counselors would be informed as to the purpose and intent of the survey, the writer held orientation sessions with high school personnel prior to their distributing the questionnaires. This enabled them to more readily answer students' questions about the questionnaires and the total study. Newspaper articles about the study were also published at this time so parents would also be informed about the survey.

Assuming that senior's plans for post-high school pursuits would be reasonably well formulated toward the end of the school year, the questionnaires were submitted to them just a few weeks prior to graduation. Wabash County high schools were surveyed in May of 1965, and the Miami County schools in May of 1966.

Questionnaires to the 346 area employers remaining in the master card file were mailed on May 2, 1966. Included with the questionnaire was a letter explaining the purpose of the study and a stamped return envelope (see Appendix E).

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On May 18, a follow-up letter was sent to those who had not yet responded to the original mailing (see Appendix F). More than a dozen employers wrote back expressing interest in the study, but indicated that they had not received questionnaires. A further check revealed that a sizeable number apparently did not receive the original mailing. Although an irregularity in mail service was suspected, the writer was unable to determine what specific factors may have been responsible. Consequently, a third mailing was dispatched on June 9, 1966, to all employers on the original list who had not yet returned a questionnaire. All items contained in the original mailing were enclosed plus a second follow-up letter explaining the situation (see Appendix G).

Contacts with non-responding employers were continued during the summer in an attempt to obtain as large a number of responses as possible.

Data from institutions of higher education in the area were collected in the fall of 1966.

Processing Completed Returns

Completed questionnaires were checked by the writer for completeness as they were returned. Responses were coded in instances where precoding had not been provided for on the questionnaires. Information was then transferred to punched cards for machine tabulation and analysis. The

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Control Data 3600 Computer at Michigan State University was used to analyze the student and parent questionnaires. Results of the business and industry survey were hand tabulated.

Analysis of the Data

Information obtained from the three questionnaires used was analyzed to reflect the frequency of each response and to calculate the percentage frequency to the total number of responses for each item. Comparison of responses on the student and parent questionnaires was accomplished through computer analysis of contingency tables. Observed frequencies, percentage across, percentage down and percentage of the total number of responses were calculated.

Because of the descriptive and exploratory nature of the study, it did not appear relevant to apply statistical techniques other than simple calculation of percentages. The design of the research called for gathering as many opinions, expectations, and attitudes as possible from a large number of persons. It was not considered advisable or necessary to predict, estimate or make wide inferences to larger populations.

Comments by respondents on the Survey of Business and Industry Questionnaire were hand tabulated and sorted into categories so that they could be discussed in this report. However, they were not analyzed to any great degree.

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Higher educational needs, as viewed by seniors, parents, and employers, were checked against the opportunities available to citizens in the two-county area to determine what gap, if any, existed between needs and opportunities.

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CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Data to provide an indication of post-high school education needs in the Upper Wabash Valley were gathered from high school seniors, their parents, and employers in Wabash and Miami Counties in Indiana. To identify the nature and extent of existing opportunities for pursuing higher education in the two-county area, institutions providing higher educational programs were identified and their listing of offerings examined.

In this chapter, data from (1) student questionnaires, (2) parent questionnaires, (3) questionnaires surveying business and industry, and (4) a review of existing higher educational programs in the area are presented and analyzed.

Student Questionnaire Findings

A total of 862 seniors were enrolled in the six high schools in Wabash and Miami Counties included in the study at the time questionnaires were distributed. Of this number, 774 seniors completed the forms. Table 9 presents a summary of percentage return in each high school. Ranging from an 83.0 per cent return in Peru High School to a 100.0 per cent return in Southwood High School, the total response

BY HIGH SCHOOL, OF SENIOR STUDENT QUESTIONNAIRES.

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Table 9. Percentage return, by high school, of senior student questionnaires.

High School	No. of Seniors	Per Cent of Total Seniors	No. of Returned Questionnaires	Percentage Returned	Per Cent of Total Returned
Manchester	154	17.9%	141	91.6%	18.2%
Northfield	92	10.7	86	93.5	11.1
Southwood	108	12.5	108	100.0	14.0
Wabash	180	20.9	157	87.3	20.3
North Miami	99	11.5	92	92.9	11.9
Peru	229	26.6	190	83.0	24.5
TOTALS	862	100.1%	774	(89.9%)	100.0%

NOTE: Due to rounding, column percentage totals may not equal 100.0%.

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represented 89.9 per cent of all seniors enrolled. Although there were differing rates of return among the schools, the rank order of the high schools for returned forms was the same as for number of enrolled seniors. Also the per cent of total questionnaires returned from each school did not differ markedly from the per cent of total seniors enrolled in each school. It was, therefore, assumed that information gathered gave a reasonable representation of characteristics, aspirations, expectations, and plans of high school seniors in the Wabash-Miami County area.

Student Characteristics

The number of male and female respondents was virtually equal--386 and 388 respectively. The following distribution was reported in response to the question, "What do you think your high school grade average is?": A - 7.2 per cent, B - 33.8 per cent, C - 48.4 per cent, D - 4.0 per cent. Six per cent did not know their grade average and five students failed to respond to the question.

As indicated in Table 10, female respondents reported higher grade averages than males. More than 50 per cent of female senior students indicated an A or B average, whereas approximately 30 per cent of male seniors thought their grade average was in the A or B categories.

In terms of high school courses of study, 44.6 per cent were enrolled in a "college preparatory" curriculum;

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D

Not known

No Response

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about one-fifth in "commercial" or "business" studies; 13.4 per cent in a "general" program; and the remainder in vocational or other studies.

Table 10. High school grade average, by sex, as reported by senior respondents.

Grade Average	Males		Females		Total	
	Number	Per Cent	Number	Per Cent	Number	Per Cent
A	17	4.4%	39	10.0%	56	7.2%
B	101	26.2	161	41.5	262	33.8
C	220	57.0	154	39.6	374	48.4
D	21	5.4	10	2.6	31	4.0
Not known	25	6.5	21	5.5	46	6.0
No Response	2	0.5	3	0.8	5	0.6
TOTALS	386	100.0%	388	100.0%	774	100.0%

It was not the purpose of this study to identify differences which existed among various segments of the two-county area, but rather to focus on conditions and needs in the area as a whole. Therefore, little attention is given in this report to unique and particular situations found among the several groups surveyed in the study.

Assuming, however, that high school programs have developed in response to local community expectations and demands, examination of curricula offered and the proportions

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Senior Education

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of students selecting various courses of study in the separate schools will give some notion of the composition of the community in terms of rural-urban interests and of the type of preparation seniors from the several high schools have followed.

As noted in Table 11, programs in agriculture were followed by sizeable proportions of senior students in the three rural high schools--Northfield, Southwood, and North Miami--and to a somewhat lesser degree in Manchester High school which serves both urban and rural areas.

College preparatory curricula involved a greater proportion of seniors than any other single program in every school except Northfield. Business and commercial studies attracted larger percentages of seniors in the three rural high schools than in the remaining three schools located in cities.

Senior Educational Aspirations

Table 12 summarizes responses of senior students to the question: "How much formal education do you want to complete?" Fifteen per cent of the total indicated no desire to continue formal education beyond high school with 50 per cent more female than male students giving this response. Among the 85 per cent indicating they wanted to pursue some type of education after high school graduation, approximately half of this group expressed interest in non-college specialized

Table 11.	Comparison, by high school, of courses of study pursued by senior students	
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	High School			Total No.	Total Per Cent
	North- field N=86	Wabash N=108	North Miami N=92		
Manchester	N=141				
South- field N=190					
Wabash		N=157			
North Miami			N=92		
Peru				N=36	4.7%

Table 11. Comparison, by high school, of course of study pursued by senior respondents.

Course of Study	High School					Total	
	Manchester N=141	North- field N=86	South- wood N=108	Wabash N=157	North Miami N=92	Peru N=190	No. Per Cent
Agriculture	3.5%	9.3%	11.1%	0.0%	12.0%	0.0%	36 4.7%
College preparatory	49.7	29.1	37.0	44.0	43.5	53.2	345 44.6
Commercial--business	18.4	37.2	23.1	19.8	21.7	13.2	159 20.5
General	7.1	5.8	11.1	19.1	6.5	21.6	104 13.4
Home economics	10.6	7.0	5.6	3.8	12.0	1.6	47 6.1
Industrial arts	10.6	8.1	11.1	12.1	4.4	6.3	69 8.9
Other	0.0	1.1	.9	.6	0.0	4.2	11 1.4
No response	0.0	2.3	0.0	.6	0.0	0.0	3 .4
TOTALS	99.9%	99.9%	99.9%	100.0%	100.1%	100.1%	774 100.0%

NOTE: Due to rounding, column percentage totals may not equal 100.0%.

Table 12. Level of
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Barber or beauty
school

Business school

Nurses training

Two years of
college

Through college
(4 years)

More than 4
years colleg

Other

TOTAL

NOTE:
not equal 100

Table 12. Level of educational aspirations, by sex, of high school seniors.

Educational Aspirations	Sex				Total	
	Male		Female			
	No.	Per Cent	No.	Per Cent	No.	Per Cent
Through high school	47	12.2%	71	18.4%	118	15.3%
High school plus specialized vocational training such as apprenticeship, trade school, armed forces school, etc.	120	31.1	25	6.5	145	18.7
Barber or beauty school	4	1.0	48	12.4	52	6.7
Business school	18	4.7	54	13.9	72	9.3
Nurses training	0	0.0	37	9.6	37	4.8
Two years of college	24	6.2	18	4.6	42	5.4
Through college (4 years)	96	24.8	74	19.1	170	21.9
More than 4 years college	72	18.7	54	13.9	126	16.3
Other	5	1.3	7	1.8	12	1.6
TOTALS	386	100.0%	388	100.2%	774	100.0%

NOTE: Due to rounding, column percentage totals may not equal 100.0%.

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training such as apprenticeship, trade school, armed forces schools, barber or beauty schools, business schools, nurses training, and other similar types of programs. Nearly 43 per cent of the total wanted to attend college anywhere from two years through graduate study. While 49.7 per cent of male seniors indicated an interest in college attendance, only 37.6 per cent of the females aspired to college study. Males in larger numbers than females wanted to complete four or more years of college.

An examination of levels of educational aspiration of seniors pursuing various high school courses of study reveals that, in general, students' post-high school education-al plans were consistent with the type of high school preparation they were following (see Table 13). Between 26 and 38 per cent of those in agriculture, business, home economics, and industrial arts curricula planned no further formal education beyond high school. Except for those in college preparatory programs, sizeable proportions of seniors ranging from 33 per cent in agriculture to 58 per cent in industrial arts desired to obtain further education in post-high school specialized vocational training such as apprenticeships, trade school, barber or beauty schools, or business schools.

Of those following college preparatory courses of study, 85 per cent aspired to college attendance or nurses training, while two per cent of the group did not plan for post-high school education of any type.

Table 13.

Level of educational aspiration indicated by seniors pursuing various high school courses of study.

Through H. S.	H. S. Plus Spec. Trng.	Level of Educational Aspiration			
		Nurses Training	Yrs. College	Other	Totals
		N	N	N	N
		%	%	%	%

seniors pursuing various high

Table 13. Levels of educational aspiration indicated by seniors pursuing various high school courses of study.

High School Course of Study	Level of Educational Aspiration									
	Through H. S.		H.S. Plus Spec. Tng.		Nurses Training		2 or More Yrs. College		Other	
	N	%	N	%	N	%	N	%	N	%
Agriculture	13	36%	12	33%	0	0%	10	28%	1	3%
College preparatory	7	2	40	12	22	6	273	79	3	1
Commercial--business	41	26	91	57	5	3	19	12	3	2
General	21	20	56	54	3	3	20	19	4	4
Home economics	18	38	20	43	6	13	11	2	2	4
Industrial arts	18	26	40	58	0	0	11	16	0	0
Other	0	0	7	64	0	0	3	27	1	9
Totals										
	36		104		36		345		104	

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Approximately eight per cent of the total group of seniors were enrolled in non-college preparatory curricula, but indicated, nevertheless, an aspiration to attend college for two or more years. The extent to which inappropriate high school preparation might be a barrier to their educational fulfillment could not be determined in this study.

When considering aspirations of seniors reporting various grade averages, it is noted that no students with "A" averages and 11 per cent indicating "B" averages desired no post-high school education (see Table 14). Of the "A" students, 86 per cent wanted to attend college and an additional five per cent desired to go into nurses training. Sixty-three and five per cent of the "B" students respectively aspired to these two post-high school pursuits.

Most "C" students, over 80 per cent, said they hoped to go on to specialized training or college. While 45 per cent of the "D" students did not anticipate further schooling after high school, about half wanted to pursue some specialized training and four seniors expressed a hope for college attendance.

Nearly half of those indicating they did not know their grade average wanted to pursue some type of specialized vocational training and 23 per cent would like to attend college following graduation from high school.

Table 14. Levels of educational aspiration indicated by seniors reporting various high school grade averages.

	Level of Educational Aspiration	
	Nurses	Other
	2 or More	Totals

Table 14. Levels of educational aspiration indicated by seniors reporting various high school grade averages.

High School Grade Average	Level of Educational Aspiration											
	Through H. S.		H. S. Plus Spec. Tng.		Nurses Training		2 or More Yrs. College		Other		Totals	
	N	%	N	%	N	%	N	%	N	%	N	%
A	0	0%	5	9%	3	5%	50	86%	0	0%	58	100%
B	28	11	49	19	14	5	165	63	6	2	262	100
C	65	17	179	48	18	5	105	28	7	2	374	100
D	14	45	13	42	0	0	4	13	0	0	31	100
Not known	11	25	21	48	1	2	10	23	1	2	44	100
No response	0	0	2	40	0	0	3	60	0	0	5	100

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Table 15. Stud
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Certainty Level

Definitely plan

Probably will a

Uncertain about

Probably will

Definitely do

No response

NOTE:
not equal 100

Summarized in Table 15 are responses to the question: "How certain are your plans for attending college or taking specialized vocational training after high school graduation?" Half of the respondents said that they will "definitely" continue their education or training beyond twelfth grade and 12.3 per cent reported that they will "probably" do so. One-fifth were uncertain about further attendance after high school while 16.8 per cent reported that they "probably" or "definitely" would not attend.

Table 15. Students' level of certainty of going to college or pursuing specialized training.

Certainty Level	Number	Per Cent
Definitely plan to attend	386	50.0%
Probably will attend	95	12.3
Uncertain about attendance	158	20.4
Probably will not attend	69	8.9
Definitely do not plan to attend	61	7.9
No response	5	0.6
TOTALS	774	100.1%

NOTE: Due to rounding, column percentage total does not equal 100.0%.

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Comparing this data with that in Table 12, it is noted that the 20 per cent who were uncertain about post-high school attendance approximately accounts for the difference between the 62 per cent who "probably" or "definitely" planned to continue and the 85 per cent who indicated aspirations for some type of further education or training beyond high school graduation.

Year Following High School Graduation

To determine immediate plans of high school seniors, the question was asked: "What will you probably do during the first year following graduation from high school?"

As indicated in Table 16, a total of 52.1 per cent responded that they actually planned to go on to college or other specialized training in the year after graduation with 40.0 per cent planning on college attendance and 12.1 per cent expecting to pursue specialized training.¹ While more male than female seniors were going to college, a larger

¹The percentage of students planning to attend college in the year following high school graduation reported here may be compared with percentages reported in a 1960 study made by Raymond S. Butler for the Indiana Conference of Higher Education. In an unpublished mimeographed report bearing no title and dated September 10, 1963, Butler indicated that 43.5 and 38.6 per cent of the boys and girls respectively who graduated from Wabash County high schools in June, 1960, attended college as freshmen in September, 1960. The total for both sexes was 41.0 per cent. In Miami County, the percentage was 45.6 for boys, 30.5 for girls, and a combined total of 38.5 per cent.

number of females

training.

Table 16. Comparison of
year following

Plans--First
Year Following
Graduation

Go to college

Go to a techni-
cal school

Enter nurses
training

Go to a business
school

Go to a trade
school

Enter armed
forces

Work for parents

Get a job

Get married
(girls)

Other

TOTAL

NOTE:
not equal 100

number of females than males were planning other types of training.

Table 16. Comparison of sex of seniors and plans for first year following high school graduation.

Plans--First Year Following Graduation	Sex				Total	
	Male		Female			
	No.	Per Cent	No.	Per Cent	No.	Per Cent
Go to college	162	42.0%	145	37.5%	307	40.0%
Go to a techni- cal school	8	2.4	2	.5	10	1.3
Enter nurses training	0	0.0	22	5.7	22	2.8
Go to a business school	6	1.6	26	6.7	32	4.1
Go to a trade school	12	3.1	18	4.6	30	3.9
Enter armed forces	31	8.0	1	0.0	32	4.1
Work for parents	17	4.3	6	1.6	23	3.0
Get a job	136	35.1	129	33.3	265	34.0
Get married (girls)	0	0.0	33	8.5	33	4.3
Other	14	3.6	6	1.6	20	2.6
TOTALS	386	100.1%	388	100.0%	774	100.1%

NOTE: Due to rounding, column percentage totals may not equal 100.0%.

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Approximately one-third of both male and female seniors felt they would "get a job." Eight per cent of the men were planning to enter military service while a like proportion of women expected to "get married." The total number actually planning post-high school education immediately after graduation was approximately 10 per cent less than those indicating definite or probable further attendance at some time in the future as shown in Table 15, and nearly 30 per cent less than those aspiring to some type of higher education as indicated in Table 12.²

Since the questionnaires were completed by seniors in the month immediately preceding graduation, students' plans for higher education immediately following graduation were well under way as shown in Table 17.

Nearly 39 per cent reported that they had been accepted at a college or school, while 11.1 per cent in addition had contacted a representative or had made application for admission to some institution. Of the remaining half of the respondents, 11.0 per cent had requested or received information from an institution and 38.3 per cent had no plans for further education.

² Some evidence exists that many students from the area covered by the present study delay college entrance one or more years following their high school graduation. In the Indiana study reported by Butler and cited in footnote 1, 19.0 per cent of the Fall, 1960, college freshmen from Wabash County and 30.7 per cent from Miami County had graduated from high school in June of 1959, or before.

Table 17. Status
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Table 17. Status of students' plans for attending college or pursuing specialized training.

Status of Plans	Number	Per Cent
Not planning to attend	122	15.8%
May go but have made no plans	174	22.5
Have received or requested information from a college or school	85	11.0
Have contacted college or school representative	28	3.6
Have submitted application for admission	58	7.5
Have been accepted at college or school	299	38.6
No response	8	1.0
TOTALS	774	100.0%

It is noted that approximately the same proportion who affirmed plans for higher education as shown in Table 16 had taken positive action toward making application or had been admitted to a school or college.

Schools and Colleges Selected

Seniors were asked to name the institutions of higher education which they had contacted or to which they had applied or been admitted.

Tabulated in Table 18 are 530 responses obtained from 478 seniors. Some listed more than one school or

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Ball State Univ
Indiana Univer
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Indiana State
Indiana Univer
Indiana Centra
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Marion College
Purdue Univer
Vincennes Uni
Other Indiana c
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Marion
Other school
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Fort Wayne
Marion
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Table 18. Colleges and schools offering post-secondary specialized training selected by seniors planning to continue education beyond high school.

Institution	Number of Responses	Per Cent of Total
<u>Colleges and Universities</u>		
Manchester College	70	13%
Ball State University	63	12
Indiana University	48	9
Purdue University	41	8
Indiana State University	18	3
Indiana University - Kokomo Campus	10	2
Indiana Central College	9	2
Huntington College	7	1
Marion College	7	1
Purdue University - Fort Wayne Campus	6	1
Vincennes University (2-year college)	6	1
Other Indiana colleges (less than 5 each)	28	5
Colleges & universities outside Indiana	59	11
<u>Business Schools</u>		
Fort Wayne	27	5
Marion	12	2
Other schools in Indiana	8	2
Outside Indiana	2	0
<u>Barber or Beauty Schools</u>		
Fort Wayne	15	3
Marion	10	2
Other schools in Indiana	5	1
Outside Indiana	3	1
<u>Nursing Schools</u>		
Fort Wayne	10	2
Other schools in Indiana	7	1
Outside Indiana	1	0
<u>Technical Institutes</u>		
Indianapolis	9	2
Other schools in Indiana	3	1
Outside Indiana	12	2

Table 18. Continued

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Table 18. Continued

Institution	Number of Responses	Per Cent of Total
<u>Miscellaneous Schools</u>		
Schools in Indiana	5	1%
Outside Indiana	16	3
<u>Apprentice Training</u>	13	3
TOTALS	530	100%

NOTE: Some students who had contacted or had been admitted to a college or other type of school listed more than one institution.

college which had been contacted. Of the colleges or universities, Indiana institutions were named 313 times as opposed to 59 for out-of-state colleges. Leading the list with 13 per cent of the total responses was Manchester College, a private institution located in Wabash County at North Manchester. Ranking second was a public institution, Ball State University in Muncie, with 12 per cent of the responses. Indiana and Purdue Universities ranked third and fourth respectively with nine and eight per cent of the total.

In addition to Manchester College, five other institutions are located within commuting distance of at least some of the seniors in the two-county area. These include Marion College, Huntington College, Grace College (at Warsaw), Taylor University (at Upland), and Indiana University--Kokomo

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Regional Campus. Of these, the Indiana University Regional Campus at Kokomo received two per cent of the total responses and Huntington and Marion Colleges, both private institutions, were named by seven respondents each representing one per cent of the total.

Also tabulated in Table 18 are schools offering specialized training, or apprentice training programs, which were listed by seniors. One hundred fifty-eight, or 30 per cent, of the seniors listed schools of this type. Thirty-four students listed out-of-state schools and 124 named Indiana schools. Schools were tabulated on the basis of the city in which they were located rather than by names of the particular institutions. Several different beauty schools in Fort Wayne were recorded by 15 respondents, for example. Cities were included in the table individually if eight or more respondents named a school or schools of a particular type within that city. Only Fort Wayne, Marion, and Indianapolis were included in this category. No schools offering specialized vocational training were located in Wabash or Miami Counties.

Vocational Preference

Vocational plans of youth provide an indication of the types of college work or specialized training beyond high school which are necessary if individuals are to achieve their occupational goals. Seniors were asked what vocational

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or occupational field they were planning to enter when they had finished all the schooling they planned to take. Each senior was limited to one choice. If no specific vocation had been decided upon by a student, he was instructed to mark the one which he preferred at that time.

Forty-two different areas of work were listed on the questionnaire with opportunity provided to write in a preference if his choice was not included in the list. Vocational areas named five or more times are shown in rank order in Table 19.

Ranking as a strong first among all vocational choices with 12.3 per cent of the responses was teaching at the elementary, secondary, or college level. In second position was secretarial, clerical, or bookkeeping with 72 responses, or 9.3 per cent. Of the 32 vocational areas indicated by five or more students, a large majority would normally require post-high school education or specialized training.

Since workers may be employed at various skill levels within the fields mentioned, a follow-up question was asked concerning the length of post-high school education respondents believed necessary for them to enter their chosen occupation. These responses are summarized in Table 20.

Only 90 seniors, or 12 per cent of the respondents, indicated that no further training was required for their

Table 19. Vocational Area

Vocational Area

Teaching
Secretarial, clerical
Scientist or biologist
Agriculture and forestry
Nursing
Business administration
Engineering
Factory worker
Accounting, auditing
Homemaking
Mechanics
Armed services
Art or arts and crafts
Medicine
Social work
Sales
Building trades
Metal trades (etc.)
Athletics (coaches)
Ministry or religious
Electronics
Government service
Music
Banking, finance
Transportation
Medical technology
Architecture
Drafting
Journalism
Chemistry
Law
Science research

Others - less than
No response

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Table 19. Vocational preference of high school seniors.

Vocational Area	Rank	Number of Responses	Per Cent
Teaching	1	95	12.3%
Secretarial, clerical, bookkeeping	2	72	9.3
Beautician or barber	3	50	6.5
Agriculture and related work	4	46	5.9
Nursing	5	42	5.4
Business administration	6	35	4.5
Engineering	7	33	4.3
Factory worker or foreman	8	29	3.8
Accounting, auditing	9	28	3.6
Homemaking	10	24	3.1
Mechanics	11	23	3.0
Armed services	12	22	2.8
Art or arts and crafts	13	21	2.7
Medicine	14	17	2.2
Social work	15	16	1.9
Sales	16	14	1.8
Building trades	17½	13	1.7
Metal trades (tool and die, welder, etc.)	17½	13	1.7
Athletics (coaching, professional)	19½	12	1.6
Ministry or religious education	19½	12	1.6
Electronics	21	11	1.4
Government service	22½	9	1.2
Music	22½	9	1.2
Banking, finance	24½	8	1.0
Transportation	24½	8	1.0
Medical technology	26	7	.9
Architecture	28	6	.8
Drafting	28	6	.8
Journalism	28	6	.8
Chemistry	31	5	.7
Law	31	5	.7
Science research	31	5	.7
Others - less than 5 responses each	-	67	8.7
No response	-	5	.7
TOTALS	-	774	100.3%

NOTE: Due to rounding, total percentage does not equal 100.0%.

TABLE 20. Years of Post-High School Training Required of Responding Respondents

	None		Years of Post-High School Training Required		Totals	
	No.	%	No.	%	No.	%
None						
Less than 2						
2						
3						
4						
5 or more						
TOTALS						

100%

Table 20. Years of post-high school training required for indicated vocational preference of responding seniors.

Vocational Preference	Years of Post-High School Training Required												TOTALS	
	Less Than 2		2		Between 2 and 4		4 or More		Not Known					
	No.	%	No.	%	No.	%	No.	%	No.	%				
	No.	%	No.	%	No.	%	No.	%	No.	%				
Accounting, auditing	0	0%	3	11%	13	46%	2	7%	7	25%	3	11%	28	100%
Agriculture & related work	18	39	5	11	3	7	2	4	10	22	8	17	46	100
Architecture	0	0	0	0	2	33	0	0	4	67	0	0	6	100
Armed services	5	23	2	8	2	9	0	0	4	19	9	41	22	100
Art or arts and crafts	0	0	1	5	6	29	1	5	12	57	1	5	21	101
Athletics (coaching, professional)	1	8	0	0	1	8	0	0	8	67	2	17	12	100
Banking, finance	4	50	0	0	1	13	0	0	2	25	1	13	8	101
Beautician or barber	1	2	39	78	6	12	1	2	2	4	1	2	50	100
Building trades	2	15	2	15	4	31	0	0	4	31	1	8	13	100
Business administration	0	0	5	14	9	26	2	6	17	49	2	6	35	101
Chemistry	0	0	0	0	0	0	0	0	5	100	0	0	5	100
Drafting	1	17	0	0	2	33	1	17	0	0	2	33	6	100
Electronics	1	9	0	0	2	18	0	0	4	36	4	36	11	99
Engineering	0	0	0	0	3	9	2	6	24	73	4	12	33	100
Factory worker or foreman	14	48	3	10	2	7	0	0	2	7	8	28	29	100
Government service	2	22	1	11	0	0	0	0	6	67	0	0	9	100
Homemaking	9	38	2	8	2	8	0	0	3	13	8	33	24	100
Journalism	0	0	0	0	0	0	0	0	2	33	4	67	6	100
Law	0	0	0	0	0	0	0	0	5	100	0	0	5	100
Mechanics	2	9	5	22	12	52	1	4	1	4	2	9	23	100
Medical technology	0	0	0	0	3	43	0	0	4	57	0	0	7	100
Medicine	0	0	0	0	1	6	0	0	15	88	1	6	17	100

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Table 20. Continued

Vocational Preference	Years of Post-High School Training Required									
	Less Than		2		Between 2 and 4		4 or More		Not Known	
	No.	%	No.	%	No.	%	No.	%	No.	%
Metal trades (tool & die, welder, etc.)	2	15%	2	15%	2	15%	4	31%	1	8%
Ministry or religious education	0	0	0	0	3	25	8	67	0	0
Music	0	0	0	0	0	0	7	78	2	22
Nursing	0	0	9	21	18	43	9	21	3	7
Sales (retail, wholesale)	4	29	2	14	1	7	2	14	3	21
Science research	1	20	0	0	0	0	4	80	0	0
Secretarial, clerical, bookkeeping	13	18	27	37	0	0	1	1	8	12
Social work	0	0	0	0	0	0	11	69	3	19
Teaching	0	0	0	0	0	0	92	97	3	3
Transportation	3	38	2	25	0	0	0	0	3	38
Others - less than 5 responses each	5	8	12	18	1	2	25	38	15	23
No response	2	29	0	0	0	0	1	14	4	57
TOTALS	90	12%	122	16%	114	15%	305	39%	106	14%
					37	5%			774	101%

NOTE: Due to rounding, total row percentages may not total 100%.

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vocational choice. Three-fifths of this group had named agriculture, secretarial, homemaking, or factory work.

A total of 122 seniors, or 16 per cent, believed that less than two years of post-high school training was required for them. More than half of these were interested in employment as beauticians, barbers, secretaries, or bookkeepers.

The 20 per cent who needed two or three years of training indicated that many are looking forward to employment at the technician or semi-professional level. Most numerous in this group were those listing the fields of accounting, business administration, mechanics, nursing, secretarial, or bookkeeping.

Higher education of four or more years' duration was believed necessary by 305, or 39 per cent, of the seniors to enable them to enter their chosen vocation. Ranking high in this category in terms of total responses were the fields of business administration, engineering, medicine, and teaching.

That some seniors were not aware of training requirements for their particular vocational choice is noted by the 14 per cent who did not know how many years were required. An examination of the fields for which this response was given reveals no identifiable trend so far as job levels are concerned. Job levels might range from unskilled, in areas such as agriculture, factory work, or the armed services; to

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Some lack of awareness, or lack of appeal to students, of job opportunities in a few fields was indicated by the small number of responses in these areas. Community service, dental technology, and radio or TV performer or announcer, were not checked by any seniors. Insurance, laboratory technician, mathematics, and repairman or serviceman were fields checked by only a single student. Pharmacy was indicated by two, veterinary medicine by three, and dentistry by four seniors.

Several of these fields are in the expanding area of highly skilled, technical, semi-professional, and service occupation groups in the middle levels of the occupational spectrum. It must be pointed out, however, that in the rural geographic area under study, the impact of technology has not had much effect upon business and industry.

Plans to Commute

To determine students' plans for either commuting or being a resident student at their chosen institution of higher education, the following question was asked: "Are you likely to attend a college or some type of school offering specialized vocational training which is within daily commuting distance of your home?" Responses are summarized in Table 21.

Table 21.

24. Comparison of students' level of certainty of going to college or pursuing a career after training and probability of commuting.

	Certainty Level	Will Commute	Probably Commute	Uncertain	Live Away from Home	Not Going To Attend	No Response	Totals
	N	%	N	%	N	%	N	N
Male	86	90	7	7	1	1	1	95
Females	10	0	0	0	0	0	0	10
Total	96	90	7	7	1	1	1	105

Table 21. Comparison of student's level of certainty of going to college or pursuing specialized training and probability of commuting.

Certainty Level Of Attending	Will Commute		Probably Commute		Uncertain		Live Away From Home		Not Going To Attend		No Response		Totals	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Definitely plan to attend	46	6%	17	2%	32	4%	271	35%	4	1%	16	2%	386	50%
Probably will attend	16	2	12	2	27	3	32	4	1	0	7	1	95	12
Uncertain about attendance	15	2	17	2	102	13	13	2	10	1	1	0	158	20
Probably will not attend	0	0	2	0	14	2	1	0	52	7	0	0	69	9
Definitely do not plan to attend	0	0	0	0	3	0	0	0	55	7	3	0	61	8
No response	0	0	0	0	0	0	1	0	0	0	4	1	5	1
TOTALS	77	10%	48	6%	178	23%	318	41%	122	16%	31	4%	774	100%

NOTE: Due to rounding, the percentage sum within columns or rows may not equal the total.

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Seventy-seven replied that they planned to commute daily, 48 that they would probably commute, and 318 that they would attend an institution away from their homes. Of those 178 who were uncertain about commuting, 59 were planning college attendance, 102 had indicated that they were uncertain about further schooling, and 17 responded that they would not continue their education further.

Of the seniors "probably" or "definitely" planning to attend college or specialized training, 91 of the 481, or 18.9 per cent, also indicated they "will" or "probably" will commute. If those uncertain about further attendance and those uncertain about commuting are included, then 284 out of 639 seniors, or 44.5 per cent, range from uncertainty about attendance and commuting to definitely planning to commute and to attend. How many of the uncertain group who would actually pursue post-high school studies and how many would commute is, of course, an open question so far as this study is concerned.³

Also noted in Table 21 are apparent inconsistencies with respect to answers given on two different questions. For example, four students indicating definite plans to attend college or specialized schooling responded that they

³In Butler's study, cited in footnote 1, 38.8 and 37.4 per cent of Wabash and Miami County students respectively attending college as freshmen in the Fall of 1960, reported that they were attending their particular college because it was "near my home, can commute."

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were not going to attend on the question about commuting. Several other such cases may be found, but relatively few individuals are involved.

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Established

Availability of appropriate post-high school educational opportunities within convenient commuting distance has been found to increase the probability of high school graduates' continuing their formal education.⁴

Although no new school or college was actively being planned at the time of the survey, a question was included to obtain an indication of seniors' attitudes and reactions toward considering attendance at a new institution offering post-high school programs, should one be established. The following question was asked: "If new and additional opportunities were made available for obtaining specialized vocational training or for taking college level courses (within daily commuting distance from your home), how certain would you be of attending such an institution or school?"

Indistinct and varied concepts were likely held among respondents concerning what such an institution might be. Therefore, responses to this particular question must be interpreted with caution recognizing that attitudes expressed were based on a very limited knowledge and information.

⁴Cf., pp. 42-43.

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In Table 22, these responses are summarized and compared with seniors' indicated plans for activities in their first year following graduation. Nearly one-fourth of those planning to go to college said they would be "very certain" of attending or would "probably" attend. Of some importance is the response of 138 seniors, or 18 per cent of the total, who planned on getting a job, but would consider attending a new institution offering additional educational opportunities in the local community. In all, 39 per cent of the total expressed interest in attending a new local institution, 27 per cent were uncertain, and the remainder showed little interest or failed to respond to the question.

Plans for Financing Higher Education

To obtain information on the important factor of finances with respect to higher education, seniors were asked the question: "What plans do you have for financing your education after graduation from high school?" This was a forced choice item in which the respondent was asked to check one of six statements which best described his plans. Twenty-four students checked more than one statement. In the tabulation these were included under the heading "other and no response."

As summarized in Table 23, just over one-fifth expected to pay all of their own expenses, nearly one-fourth were relying on their families to contribute some money, and

Plans - First Year Following Graduation	Certainty of Attendance at New Institution													
	Very Certain		Probably Attend		Uncertain		Probably Not Attend		No Interest		No Response		Totals	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Go to college	26	3%	49	6%	91	12%	72	9%	60	8%	9	1%	307	40%
Go to a techni- cal school	2	0	2	0	2	0	2	0	1	0	1	0	10	1
Enter nurses training	2	0	4	1	9	1	3	0	4	1	0	0	22	3
Go to a business school	8	1	9	1	8	1	4	1	3	0	0	0	32	4
Go to a trade school	5	1	16	2	3	0	2	0	4	1	0	0	30	4
Enter armed forces	3	0	10	1	8	1	4	1	6	1	1	0	32	4
Work for parents	2	0	4	1	6	1	5	1	4	1	2	0	23	3
Get a job	49	6	89	12	67	9	29	4	23	3	8	1	265	34
Get married (girls)	5	1	14	1	4	1	5	1	5	1	0	0	33	4
Other	1	0	7	1	7	1	5	1	0	0	0	0	20	3
TOTALS	103	13%	204	26%	205	27%	131	17%	110	14%	21	3%	774	100%

NOTE: Due to rounding, the percentages within the columns or rows may not equal the percentages given in the totals.

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Table 23. Sen
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21.8 per cent planned on family support to cover most of the expenses incurred in pursuing higher education. Only 9.3 per cent indicated that their families would pay all expenses. Of the remainder of respondents, 4.0 per cent felt that lack of family finances precluded them from pursuing further education, 16.5 per cent gave reasons other than finance for their plans not to continue, and 3.4 per cent either checked more than one statement or did not answer the question.

Table 23. Seniors' plans for financing post-high school education.

Financing Plan	Number	Per Cent
Plan to pay all of own expenses	159	20.6%
Family will pay some of expenses	189	24.4
Family will pay most of my expenses	169	21.8
Family will pay all of expenses	72	9.3
Do not plan to continue education because family cannot afford it	31	4.0
Do not plan to continue education for reasons other than finance	128	16.5
Other and no response	26	3.4
TOTALS	774	100.0%

Although only 31 seniors gave lack of finances as a reason for not going on to college or post-high school training, it should be pointed out that limited financial means may affect higher education pursuits of those who checked one of the other statements. Questions were not asked to

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determine what level of hardship might be experienced by a family that would prevent students from completing their total educational objectives even though sufficient funds might be available to begin post-high school study.

Pursuing further the question of financing higher education, seniors who were not planning on post-high school education were asked if they would change their plans and continue formal education if they had or could get more money. In Table 24, responses to this question are related to those indicated in Table 15 who were uncertain about continuing or who were probably or definitely not planning further attendance.

Just under half of those uncertain about post-high school attendance indicated that their plans might or would change if money were available. Of those probably or definitely not planning further education, 29 per cent thought they might attend providing more money could be obtained.

In terms of the total group uncertain or not planning to continue, 39 per cent would consider changing plans, one-third would not, and 28 per cent either did not know or failed to respond to the question. The 113 students who might or would change plans represented 14.6 per cent of the total group of seniors participating in the study.

Seniors who were planning to go to college or to take specialized training were asked about major sources of money they would rely upon to finance their education. Ranking

Table 24. Comparison of seniors not planning post-high school education and possible change of plans if more money were made available				
Possibility of Changing Plans if More Money Available				
No	Know	Response		Total
		N	%	

Table 24. Comparison of seniors not planning post-high school education and possible change of plans if more money were made available.

Plans For Post-High School Education	Possibility of Changing Plans if More Money Available											
	Yes		Maybe		No		Don't Know		No Response		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
A. Attendance Uncertain	41	26%	34	21%	21	13%	23	15%	39	25%	158	100%
B. Probably or Definitely Not Attend	9	7	29	22	75	58	16	12	1	1	130	100
Total A. & B.	50	17	63	22	96	33	39	14	40	14	288	100

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 (17%), respectively
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Table 25. Senior
 school

Type of
 Funds

Money from
 parents
 Part-time
 work
 Savings
 Borrowing
 Scholarships
 or grants
 Other sources
 No response

TOTALS

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first, second, and third as the first source were "money from parents" (39%), "savings" (22%), and "part-time work" (17%), respectively (see Table 25). As the second main source, the above rankings were exactly reversed.

Table 25. Seniors' sources of funds for financing post-high school education.

Type of Funds	<u>1st Source</u>		<u>2nd Source</u>		<u>3rd Source</u>		<u>Total</u>	
	No.	%	No.	%	No.	%	No.	%
Money from parents	189	39%	72	15%	56	12%	317	22%
Part-time work	83	17	132	27	84	17	299	21
Savings	104	22	80	16	48	10	232	16
Borrowing	44	9	38	8	71	15	153	10
Scholarships or grants	26	5	38	8	51	10	115	8
Other sources	25	5	3	1	6	1	34	2
No response	15	3	123	25	170	35	308	21
TOTALS	486	100%	486	100%	486	100%	1458	100%

When total responses are examined, it is noted that "money from parents" and "part-time work" were listed by 22 and 21 per cent of the respondents respectively as being major money sources for educational expenses. "Savings" represented a source for 16 per cent, while 10 per cent named "borrowing" and eight per cent checked "scholarships and grants." No single source of money stood out as being decidedly more depended upon by seniors than any other. The

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data indicate that while slightly more than one-fifth of the seniors indicated only a single source of funds as being important, the great majority of the 486 planning post-high school attendance were relying upon multiple sources to pay educational costs.

Factors Involved in Seniors'
Decisions for Post-High School
Plans

Various social forces and expectations affect students' decisions regarding post-high school activities.⁵ Although it is likely that individual students may not be able to identify fully or accurately the forces which act upon them and influence their plans, responses were solicited from seniors to gain information concerning factors which they perceived as important in making their decisions. They were asked: "Why have you reached your decision either to go on to college or school OR not to go on to college or school?" Instructions were given to check as many statements as applied to them.

Shown in Table 26 are rankings and percentages of responses to this question for three sub-groups as well as for the total group of senior respondents.

Preparation for a vocation was the statement ranking far above all others for the group who indicated they "definitely" or "probably" will attend college or school (see

⁵Cf., pp. 40-41.

26. Reasons given by seniors as factors influencing their decision to either attend college or go on to college or a specialized school.

	Seniors		Total
	Go On To College	Not Go On To College	
Persons given by seniors to go on to college or a special school	158	130	288
Persons given by seniors to not go on to college or a special school	158	130	288
Total	316	260	576

Table 26. Reasons given by seniors as factors influencing their decision to either to or not go on to college or a specialized school.

Factors Influencing Post-High School Plans	Seniors' Post-High School Plans						Total N = 774		
	Go On To College		Undecided About Going		Not Going To College or School				
	N = 481		N = 158		N = 130		Rank	No.	%
	Rank	%	Rank	%	Rank	%			
To prepare for a vocation	1	71%	2	28%	8½	5%	1	394	51%
Will enable me to make more money	2	40	3	23	8½	5	2	233	30
Want to get a job	7	19	1	34	1	50	3	208	27
To get a broad liberal education	3	37	7½	8	16	1	4	193	25
To be independent	5	27	4	14	5	13	5	170	22
Vocational choice requires this decision	4	31	13	5	16	1	6	159	21
To make friends and cultivate helpful connections	6	27	10	6	13	2	7	142	18
Want to get away from home town	8	15	10	6	6	7	8	91	12
Grades in high school	11	10	5	12	3	19	9	90	12
Want to get married	12	5	6	11	2	28	10	81	10
To please parents or friends	9	13	12	6	13	2	11	71	9
Like school	10	12	14	4	16	1	12	65	8
Am tired of school	15	2	7½	8	4	19	13	46	6
To be with friends	14	4	10	6	13	2	14	30	4
It's "the thing to do" -- never questioned why	13	4	17	1	18½	0	15	21	3
Will enter family business	16	2	18	1	8½	5	16	15	2
Don't want to leave home town	18½	0	16	3	11	4	17½	12	2
Needed at home	18½	0	16	2	8½	5	17½	12	2
"Everybody here" does this	17	1	19	0	18½	0	19	0	0
No response	-	-	-	-	-	-	-	5	1

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Table 15). Seventy-one per cent of the group gave this as a reason for their decision to continue. The expectation of being able to earn more money and of getting a broad liberal education ranked second and third with 40 and 37 per cent respectively. Vocational preparation demands, wanting to be independent, cultivation of friendships and social connections, wanting to get a job, desiring to leave home town, pleasing parents and friends, and liking school, in that order rounded out the top ten factors for the college or specialized school bound group.

It is also important to know why some students do not plan to continue their education. Half of such students in this survey indicated that wanting to get a job influenced their decisions. Wanting to get married, grades in high school, being tired of school, and wanting to be independent were other factors listed by 10 per cent or more of the non-continuing group.

Considering the total group of seniors, vocational preparation, wanting to make more money, getting a job, wanting a liberal education, desiring to be independent, and vocational choice requirements comprised the five most frequent marked reasons influencing whatever decisions the respondents had made. Twenty per cent or more marked each of these statements.

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Family Characteristics

Attitudes of parents, educational attainments of parents and older siblings, and the economic level of the family as indicated by occupational categories of the father and mother tend to influence educational aspirations and plans of high school students.⁶

Of the 774 seniors participating in the study, 458 had older brothers and sisters. Fifty-three per cent of these reported only one older brother or sister, about 21 per cent had two, and the remainder claimed three or more older siblings.

Two hundred thirty-eight seniors reported that older brothers and/or sisters were attending or had attended college or specialized schooling following high school graduation. This number represented nearly 52 per cent of those having older siblings and 31 per cent of the total group of seniors included in the survey.

Colleges or schools attended are indicated in Table 7. Since some seniors had more than one brother or sister engaged in post-high school study, the total number of siblings reported is greater than 238.

When comparing colleges attended by siblings with colleges senior students had considered or planned to attend, close relationship is noted both in rank order of

⁶Cf., pp. 30-31.

Table 27. Post-
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Name of Institution

Colleges and Universities

Manchester College
Ball State University
Purdue University
Indiana University
Indiana State University
Huntington College
Other colleges and
(less than 500 students)
Colleges and
outside Indiana

Business Schools

Fort Wayne
Other schools
Outside Indiana

Barber or Beauty Schools

Fort Wayne
Other schools
Outside Indiana

Nursing Schools

Schools in
less than 500 students
Outside Indiana

Technical Institutions

Schools in
Outside Indiana

Miscellaneous

Schools in
Outside Indiana

Apprenticeship

NO
greater than

Table 27. Post-high school institutions attended by older siblings of seniors.

Name of Institution	No. of Siblings Attended	Per Cent of Total
<u>Colleges and Universities</u>		
Manchester College	39	13%
Ball State University	37	12
Purdue University	26	8
Indiana University	23	7
Indiana State University	5	2
Huntington College	5	2
Other colleges in Indiana (less than 5 each)	37	12
Colleges and universities outside Indiana	56	18
<u>Business Schools</u>		
Fort Wayne	24	8
Other schools in Indiana	5	2
Outside Indiana	2	1
<u>Arboreal or Beauty Schools</u>		
Fort Wayne	6	2
Other schools in Indiana	8	3
Outside Indiana	0	0
<u>Dancing Schools</u>		
Schools in Indiana (less than 5 each)	10	3
Outside Indiana	1	0
<u>Technical Institutes</u>		
Schools in Indiana	4	1
Outside Indiana	11	3
<u>Miscellaneous Schools</u>		
Schools in Indiana	0	0
Outside Indiana	6	2
<u>Apprentice Training</u>	5	2
TOTALS	310	101%

NOTE: Due to rounding the total percentage is greater than 100%.

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Table 28. Comp
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Name of Instit

Manchester Co
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institutions and percentages of individuals connected with the institutions. This comparison is shown in Table 28.

Table 28. Comparison, by rank order and per cent of students, of colleges chosen by high school seniors and those attended by their older siblings.

Name of Institution	Chosen By Seniors		Attended By Siblings	
	% of		% of	
	<u>Rank</u>	<u>Responses</u> N = 530	<u>Rank</u>	<u>Responses</u> N = 310
Manchester College	1	13%	1	13%
Ball State University	2	12	2	12
Indiana University	3	9	4	7
Purdue University	4	8	3	8
Indiana State University	5	3	5	2
Indiana University-Kokomo	6	2	-	-
Indiana Central College	7	2	-	-
Huntington College	8	1	6	2
Marion College	9	1	-	-
Purdue University-Fort Wayne	10	1	-	-
Vincennes University	11	1	-	-

NOTE: Colleges named less than five times were not ranked.

Indicated in Table 29 is a summary of the educational levels of parents of seniors participating in the study. Sixty-nine per cent of the fathers and 75 per cent of the mothers completed high school as their highest level of formal education. Only 15.9 per cent and 12.6 per cent respectively of fathers and mothers had at least attended college.

Table 29. Form

Education Level

Completed 8th
less

Some high school

Completed high

Technical, trade
business schoolSpecial schools
for the blind

Nurses training

Some college

Completed college
(4 yrs.)Graduate study
(college)

Other

No response

Total

Not
equal

In

Seniors at

Parents at

Table 29. Formal education of parents of seniors.

Education Level	Fathers		Mothers	
	Number	Per Cent	Number	Per Cent
Completed 8th grade or less	106	13.7%	64	8.3%
Some high school	132	17.1	163	21.1
Completed high school	294	38.0	355	45.9
Technical, trade or business school	69	8.9	61	7.9
Special school in armed forces	23	3.0	0	0.0
Nurses training	0	0.0	18	2.3
Some college	64	8.3	56	7.2
Completed college (4 yrs.)	35	4.5	38	4.9
Graduate study (beyond college)	24	3.1	4	.5
Other	11	1.4	3	.4
No response	16	2.1	12	1.6
TOTALS	774	100.1%	774	100.1%

NOTE: Due to rounding, column percentage totals may not equal 100.0%.

In comparison with Table 12, it can be seen that seniors aspired to far higher educational levels than their parents actually achieved. Fifteen per cent of seniors

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desired no more than a high school education, while 43 per cent hoped to attend or complete college.

As the level of student academic aspiration increased, the proportion of parents completing higher levels of education also rose. Just under half of the parents of those seniors not planning further formal education after high school had not completed high school themselves and about two-fifths had finished high school as their highest level of schooling (see Table 30). Less than one-fifth of the parents of college-bound seniors failed to complete high school, while more than one-third attended college or a specialized school of some type after high school graduation.

Occupational levels of both fathers and mothers of senior respondents are identified in Table 31. In rank order, ranging from 16.7 to 12.7 per cent of the total, the largest proportion of fathers were engaged in business, in skilled occupations, as general operators, in farming, and as general laborers. Over two-fifths of the mothers reportedly were not employed. Of those who worked outside the home, 12.9 per cent worked in clerical positions and 10.7 per cent as general laborers.

Seniors were asked: "How does your family feel about your going on to college or a school which offers specialized vocational training after you graduate from high school?"

... fathers and Mothers... in Per cents
Comparative study of level of senior educational aspirations and highest level of education
30.

[illegible]

Educational Aspirations of High School Seniors	Highest Level of Education Completed by Fathers and Mothers, in Per Cents									
	Not Completed	High School Graduation	Beyond High School	Other Education	Total					
	High School	Fathers Mothers	Fathers Mothers	Fathers Mothers	or No Response	Per Cents				
	Fathers Mothers	Fathers Mothers	Fathers Mothers	Fathers Mothers	Fathers Mothers	Fathers Mothers	Fathers Mothers	Fathers Mothers	Fathers Mothers	Fathers Mothers
Completion of high school, N = 118	49.1%	46.6%	39.9%	39.8%	5.9%	10.2%	5.1%	3.4%	100.0%	100.0%
High school plus specialized training, N = 305	35.7	37.7	35.7	46.2	24.9	14.1	3.6	2.0	99.9	100.0
College (2 years or more), N = 337	19.6	15.7	40.1	48.1	38.0	35.3	2.4	.9	100.1	100.0
Other education or no response, N = 14	35.7	28.6	21.4	35.7	28.6	21.4	14.3	14.3	100.0	100.0

NOTE: Due to rounding, row percentage totals may not equal 100.0%.

Table 31. Occupational seniority

Category

Professional
Engineering, ele
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Teaching or edu
Business (owner
official)
Nursing, relate
services
Farming or farm
Technician
Craftsman, ski
tradesman, f
Clerical
General operat
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Sales, wholesa
retail
Service or dor
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General labor
Unemployed or
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No response

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Table 31. Occupational level of parents as reported by seniors.

Category	Fathers		Mothers	
	Number	Per Cent	Number	Per Cent
Professional	14	1.8%	2	0.3%
Engineering, electronics, and related fields	30	3.9	0	0.0
Teaching or education	17	2.2	27	3.5
Business (owner, manager, official)	129	16.7	22	2.8
Nursing, related health services	2	0.3	32	4.1
Farming or farm manager	110	14.2	6	0.8
Technician	9	1.2	2	0.3
Craftsman, skilled tradesman, foreman	124	16.0	3	0.4
Clerical	18	2.3	100	12.9
General operator (semi-skilled)	117	15.1	53	6.9
Sales, wholesale and retail	22	2.8	23	3.0
Service or domestic worker	26	3.4	57	7.4
General laborer	98	12.7	84	10.7
Unemployed or not working outside the home	9	1.2	321	41.5
Parent deceased or no longer at home	30	3.9	7	0.9
Other occupations	3	0.4	7	0.9
No response	16	2.1	28	3.6
TOTALS	774	100.2%	774	100.0%

NOTE: Due to rounding, column percentage totals may not equal 100.0%.

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As indicated in Table 32, three-fourths of the respondents felt that their family "insisted" that they go or "wanted" them to go on. Over 22 per cent indicated that their families didn't care if higher education were pursued. Only 10 seniors, 1.3 per cent of the total, gave responses that their families did not want them or would not allow them to continue education beyond high school.

Comparing the fathers' occupational levels with family attitudes toward seniors pursuing higher education, some differences are noted in attitudes among the various levels. Eighty per cent of the seniors whose fathers were in professional and technical, business, skilled, and clerical and sales work reported that their families insisted or wanted them to continue.

In other categories, 72.6, 69.8, and 67.2 per cent of seniors with fathers employed as semi-skilled and service workers, farmers, and unskilled and unemployed workers respectively thought their families would insist or want them to go on to college or other types of training.

Further data concerning parental expectations, attitudes, and characteristics were obtained from the parent questionnaires, a discussion of which follows.

Parent Questionnaire Findings

Each senior enrolled in the six high schools of Wash and Miami Counties included in the study was given a

Students of various ethnic backgrounds are being educated beyond high school.

Students of various ethnic backgrounds are being educated beyond high school.

Students of various ethnic backgrounds are being educated beyond high school.

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Students of various ethnic backgrounds are being educated beyond high school.

Seniors' Perception of Family Feelings About College or Other Schooling														
Fathers' Occupational Level	Insists That I Go		Wants Me To Go		Doesn't Care If I Go		Doesn't Want Me To Go		Won't Allow Me To Go		No Response		Totals	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Professional and technical	7	9.7%	51	71.0%	11	15.3%	3	4.2%	0	0.0%	0	0.0%	72	100.1%
Business proprietors & managers	13	10.1	91	70.5	22	17.1	2	1.6	0	0.0	1	.8	129	100.1
Farmers & farm managers	7	6.4	72	65.4	29	26.4	0	0.0	0	0.0	2	1.8	110	100.1
Skilled workers	7	5.7	93	75.0	23	18.6	1	.8	0	0.0	0	0.0	124	100.1
Clerical & sales workers	5	12.5	27	67.5	6	15.0	1	2.5	0	0.0	1	2.5	40	100.0
Semi-skilled and service workers	1	.7	103	72.0	38	26.6	1	.7	0	0.0	0	0.0	143	100.0
Unskilled and unemployed workers	4	3.7	68	63.5	31	29.0	1	.9	1	.9	2	1.9	107	99.9
Other & no response	2	4.1	31	63.2	12	24.5	0	0.0	0	0.0	4	8.2	49	100.0
TOTALS	46	6.0%	536	69.2%	172	22.2%	9	1.2%	1	.1%	10	1.3%	774	100.0%

Note: Due to rounding, row percentage totals may not equal 100.0%.

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questionnaire to take home for his parents to complete. Of 62 seniors enrolled, 587 returned questionnaires from home for an over-all percentage return of 68.1 per cent (see table 33).

In the same table are shown the proportions of total seniors in attendance at each high school as well as the proportions of parent questionnaires returned in each school. The rank order of seniors enrolled in each school was the same as the rank order for returned parent questionnaires. No more than 2.7 per cent difference between the two categories was noted in any case.

Parent Aspirations

Parents in Wabash and Miami Counties who answered the questionnaire felt strongly that capable students should have the opportunity to continue their formal education beyond high school. As indicated in Table 34, an overwhelming majority of parents, 93.2 per cent, responded that "all who have the ability to profit from college work regardless of financial means" should be encouraged to go. This attitude compares favorably with findings of similar studies elsewhere and suggests that higher education has become popularized and democratized to the point that adequate opportunities for capable young people to pursue post-high

Table 33. Percentage return, by high school, of senior parent questionnaires.

	No. of Parent	Percentage	Per Cent of Total
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Table 33. Percentage return, by high school, of senior parent questionnaires.

High School	No. of Seniors	Per Cent of Total Seniors	No. of Parent Questionnaires Returned	Percentage Returned	Per Cent of Total Returned
Manchester	154	17.9%	99	64.3%	16.9%
Northfield	92	10.7	63	68.6	10.7
Southwood	108	12.5	89	82.4	15.2
Wabash	180	20.9	117	65.0	20.0
North Miami	99	11.5	73	73.8	12.4
Peru	229	26.6	146	63.8	24.9
TOTALS	862	100.1%	587	(68.1%)	100.1%

NOTE: Due to rounding, column percentage totals do not equal 100.0%.

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Table 34. Attitudes of respondent parents toward post-high school attendance.

<u>Question: Who do you feel should be encouraged to go to college?</u>		
Response	Number	Per Cent
Those with superior ability only	4	0.7%
Those with ability who have the financial means	26	4.4
All who have ability to profit from college work regardless of financial means	547	93.2
No response	10	1.7
TOTALS	587	100.0%

When asked about their hopes for continued education for their own children, for example, 89.8 per cent of the parents of twelfth graders said they wanted some type of education or training following high school graduation. About two-fifths of the parents aspired to some post-high school specialized training for their sons and daughters, and just

⁷For example, studies conducted in Michigan coordinated by the Office of Community College Cooperation, Michigan State University, reported 94, 95, and 97 per cent of eleventh grade parents gave this response in Gogebic, Montcalm, and St. Joseph Counties respectively.

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over one-half hoped their children would complete two or more years of college (see Table 35).

As a measure of plans for their child's post-high school education, rather than of hopes or aspirations, parents were asked: "How certain are you that your twelfth grader will attend college or some other school offering specialized training after he or she graduates from high school?"

Table 36 provides information showing that 53.0 per cent and 10.4 per cent of the total parent group indicated their son or daughter "definitely plans to attend" and "probably will attend" respectively. Uncertain about their child's continuance were 106 parents representing 18.1 per cent of the total. No definite plans for attending were indicated by 16.2 per cent.

Of those parents who hoped their child would pursue either post-high school specialized training or college education, 48.5 and 87.4 per cent respectively reported that such attendance was "definite" or "probable." Nearly one-third who desired specialized vocational training for their sons or daughters were uncertain about plans for attendance, while about one-fifth felt that their child would probably not attend or would be very unlikely to attend. For those who held aspirations for college attendance by their sons or daughters, 8.2 per cent believed that such attendance was uncertain and 2.4 per cent thought there was little chance that their child would go to college.

Table 35. Level of educational aspiration held by parents for their children, by sex.

Males		Females		Total	
No.	Per Cent	No.	Per Cent	No.	Per Cent
Respondent		Parents of Seniors		Total	

Table 35. Level of educational aspiration held by parents for their children, by sex.

Level of Educational Aspiration	Respondent Parents of Seniors					
	Males			Females		
	No.	Per Cent	No.	Per Cent	No.	Per Cent
Through high school	12	4.6%	34	10.5%	46	7.8%
High school plus specialized vocational training such as apprenticeship, trade school, armed forces school, etc.	78	29.6	31	9.6	109	18.6
Barber or beauty school	2	0.8	29	9.0	31	5.3
Business school	10	3.8	48	14.9	58	9.9
Nurses training	0	0.0	30	9.3	30	5.1
Two years of college	10	3.8	9	2.8	19	3.2
Through college (4 years)	93	35.2	90	27.9	183	31.2
More than 4 years college	52	19.7	38	11.8	90	15.3
Other training or education	1	0.4	6	1.9	7	1.2
No response	6	2.3	8	2.5	14	2.4
TOTALS	264	100.2%	323	100.2%	587	100.0%

NOTE: Due to rounding, column percentage totals may not equal 100.0%.

Table 36.

Comparison of certainty of child's attendance at preschool school institution as reported by parents and parents' level of educational aspiration for their children.

Parent Aspiration Level for Child's Education		Total
2 or More	Less Than 2 or No Response	
		Cent

as reported by parents and parents' level of educational aspiration for their children.

Parent Aspiration Level for Child's Education

Certainty of Child's Attendance	Through High School		H.S. Plus Non- College Educ.		2 or More Yrs. College		Other or Response		Total	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Definitely plans to attend	0	0.0%	69	30.4%	237	81.2%	5	22.8%	311	53.0%
Probably will attend	0	0.0	41	18.1	18	6.2	2	9.1	61	10.4
Uncertain about attendance	9	19.6	70	30.8	24	8.2	3	13.6	106	18.1
Probably will not attend	10	21.7	26	11.5	4	1.4	3	13.6	43	7.3
Very unlikely to attend	26	56.5	17	7.5	3	1.0	6	27.3	52	8.9
No response	1	2.2	4	1.8	6	2.1	3	13.6	14	2.4
TOTALS	46	100.0%	227	100.1%	292	100.1%	22	100.0%	587	100.1%

NOTE: Due to rounding, column percentage totals may not equal 100.0%.

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Data from Table 36 indicate that chances are better for seniors to attend college to fulfill their parents' aspirations than are the chances that seniors will engage in non-college types of higher education in fulfillment of parental hopes. Although definite reasons cannot be substantiated on the basis of information obtained in this study, possible factors accounting for this differential in certainty of higher education attendance would include availability of appropriate and accessible programs, the strength of the parents' aspirations, and the interest and ability of senior students.

Vocational Plans for Children

The vocation or type of employment which parents envision their sons or daughters entering influences the amount and kind of post-high school education expected by youth. Parents were asked what vocation or occupational field their twelfth grade child has decided to enter or would prefer to enter upon completion of his or her formal education. Responses are shown in Table 37.

Major occupational areas named by 20 or more responding parents, with percentages in parentheses, include accounting (3.1), agriculture (6.2), armed services (3.8), art or arts and crafts (3.6), beautician or barber (5.6), business administration (5.0), engineering (3.9), homemaking (3.4), secretarial (10.9), and teaching (13.6).

Table 37. Vocational
by

Vocational Choice

Accounting, a
Agriculture &
Architecture
Armed service
Art or arts a

Athletics (co
Beautician o
Building tra
Business adm
Drafting

Electronics
Engineering
Factory work
Government
Homemaking

Mechanics
Medicine
Metal trade
Ministry or
Music

Nursing
Sales (ret
Secretaria
Social wor
Teaching

Others--le
No response

does not

Table 37. Vocational choice of high school seniors expected by their parents.

Vocational Choice	Respondent Parents of Seniors		Rank
	Number	Per Cent	
Accounting, auditing	18	3.1%	11
Agriculture & related work	36	6.2	3
Architecture	5	0.9	24
Armed services	22	3.8	8
Art or arts and crafts	21	3.6	9
Athletics (coaching, professional)	13	2.2	14½
Beautician or barber	33	5.6	5
Building trades	6	1.0	21½
Business administration	29	5.0	6
Drafting	7	1.2	19½
Electronics	7	1.2	19½
Engineering	23	3.9	7
Factory worker or foreman	14	2.4	13
Government service	6	1.0	21½
Homemaking	20	3.4	10
Mechanics	12	2.1	16½
Medicine	13	2.2	14½
Metal trades	8	1.4	18
Ministry or religious education	15	2.6	12
Music	5	0.9	24
Nursing	35	6.0	4
Sales (retail, wholesale, etc.)	5	0.9	24
Secretarial, clerical, bookkeeping	64	10.9	2
Social work	12	2.1	16½
Teaching	81	13.6	1
Others--less than 5 responses each	63	10.7	-
No response	14	2.4	-
TOTALS	587	100.3%	-

NOTE: Due to rounding, the column percentage total does not equal 100.0%.

Comparison

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Family Characteristics

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Comparative rankings of seniors' expected vocations and those indicated by parents for their children are indicated in Table 38. On both lists, the rank order of the top eleven occupational areas named were approximately the same. The most noticeable exception was that barber or beautician was ranked higher by seniors than by parents. Among the 13 most frequently listed occupational fields, only ministry and religious education, ranked twelfth by parents, did not appear on the students' list; and mechanics, listed eleventh by seniors, failed to rank in the top 13 on the parents' list.

To prepare for the vocation listed by parents for their twelfth graders, various levels of educational attainment are required or considered desirable. Only 8.4 per cent, as noted in Table 39, believed that no post-high school education was needed. Four or more years of college education were anticipated for their children by nearly 46 per cent of the parents. Approximately one-third of the parents envisioned education or training of less than four years' duration. Less than two years' training was indicated by 15.0 per cent, while 17.7 per cent expected two or three years of specialized education to be necessary.

Family Characteristics

Several family characteristics influence educational aspirations and expectations of parents for their children.⁸

⁸Cf., pp. 40-41.

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Table 38. Con
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Vocation

Teaching

Secretarial,

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Agriculture

Nursing

Business ad

Engineering

Factory wo

Accounting

Homemaking

Mechanics

Armed ser

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Sex of their child, family size, education of parents, employment status, occupational level of parents, financial planning of the family, vocational expectations for children--all are factors related to educational hopes and plans.

Table 38. Comparison of vocational preferences as given by seniors and their parents.

Vocation	Seniors' Rank	Parents' Rank
Teaching	1	1
Secretarial, clerical, bookkeeping	2	2
Beautician or barber	3	5
Agriculture and related work	4	3
Nursing	5	4
Business administration	6	6
Engineering	7	7
Factory worker or foreman	8	13
Accounting, auditing	9	11
Homemaking	10	10
Mechanics	11	16½
Armed services	12	8
Art or arts and crafts	13	9

Table 39. Par
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Three years

Four years

Five years o

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Table 39. Parents' report of level of training or education required for child's vocational choice.

Years Required Beyond High School	<u>Respondent Parents of Seniors</u>	
	Number	Per Cent
None	49	8.4%
Less than one year	40	6.8
One year	48	8.2
Two years	73	12.4
Three years	31	5.3
Four years	161	27.4
Five years or more	108	18.4
I don't know	58	9.9
No response	19	3.2
TOTALS	587	100.0%

Typical of the two-county area, responding parents provided data indicating a stable population in terms of place of residence. Nearly 14 per cent reported living in their present communities five years or less. More than 84 per cent have resided in the area more than five years, while over two-thirds of the families indicated more than 10 years residency in their present communities. The majority of high school seniors, therefore, have spent most of their lives in the Wabash-Miami County area and have taken virtually all of their schooling in area elementary and high schools.

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Returned forms from parents of female seniors outnumbered those from parents of male seniors by 323 to 264, accounting for 55.0 and 45.0 per cent of the total respectively.

Noted in Table 35 is the observation that most parents want some type of post-high school education for their child. However, that parents hope for higher levels of education for their sons than for their daughters is also evident. High school completion represented the highest level envisioned for 10.5 per cent of female seniors, but for only 4.6 per cent of male seniors.

Over one-half (54.9%) of the parents wanted their sons to complete four or more years of college, while less than two-fifths of the daughters were included in this category. Hopes for a greater proportion of females than males to engage in education or training of less than baccalaureate degree level were expressed.

Family Size

Parents included in the study listed a total of 1,618 children for an average of 2.8 children per family. While 17.1 per cent were out of school and no longer dependent upon their parents, 17.9 per cent had completed grade 12 and were still dependents of their parents. Just under one-half, 45.6 per cent, were enrolled in grades 7-12,

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and the remainder of 19.4 per cent were in sixth grade or below.

In other studies of a similar nature, it has been found that, in general, as the size of family increased, the expectations for higher levels of education decreased.⁹ In the present study, however, the evidence is not so clearly outlined.

According to the comparison of parents' level of educational aspirations for their children and sizes of family, shown in Table 40, the proportion of parents with five or more children who hoped for some kind of post-high school education for their twelfth grader exceeded that of parents having fewer children. Approximately the same proportion of large families wanted their children to complete four or more years of college as did families with one or two children. Post-high school non-collegiate programs were favored by a larger proportion of families with five or more children than those with smaller numbers of children. Such programs do not extend over as long a period of time and would not, therefore, put such long-term demands on the financial resources of the family.

When comparing actual plans for attending post-high school education or training with size of family, however,

⁹Office of Community College Cooperation, "Berrien County Community College Study" (Lansing: Michigan State University, 1963), p. 29. (Lithographed.)

Table 40.

Comparison of parents' level of educational aspiration for their children and size of family.

Number of Children	Per Family	Total	
		No.	Per Cent
4	5 of More		

Table 40. Comparison of parents' level of educational aspiration for their children and size of family.

Parents' Level of Aspiration for Child	Number of Children Per Family							
	1 - 2		3 - 4		5 or More		Total	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Through high school	29	8.0%	15	8.2%	2	4.7%	46	7.8%
H. S. plus specialized vocational training	125	34.6	54	29.7	19	44.2	198	33.8
Two years of college or nurses training	30	8.3	17	9.3	2	4.7	49	8.3
Four years or more of college	163	45.0	91	50.0	19	44.2	273	46.5
Other or no response	15	4.1	5	2.7	1	2.3	21	3.6
TOTALS	362	100.0%	182	99.9%	43	100.1%	587	100.0%

NOTE: Due to rounding, column percentage totals may not equal 100.0%.

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it is noted that some differential existed on the basis of family size. Although parents of three or four children reported plans for attendance at a rate greater than that for families of one or two children, the proportion for attendance was less for families of five or more children (see Table 41).

Families with one or two children reported in 62.2 per cent of the cases that their children would "definitely" or "probably" attend college or other type of school, while the ratio for families of three or four children giving these responses was 67.0 per cent. For families of five or more children, this percentage dropped to 58.1 per cent. At the same time, however, the proportion reporting that attendance was "not probable" or "unlikely" was less than for the smaller family units. A greater degree of uncertainty about continued attendance for their children was noted in responses of large families of five or more children.

One note of caution must be offered in interpreting the data of Tables 40 and 41. The number of families with five or more children was small. Only 43 out of 587 total family units representing about seven per cent of the parent population of the study had five or more children. In view of possible biases in terms of the number of questionnaires returned and the size of this group, the apparent departure of findings in this study from those of other studies regarding levels of educational aspiration and family size cannot be acclaimed with much confidence.

Table 41. Comparison of certainty of child's attendance at post-high school insti-
tution and size of family.

	Number of children		Per Family		Total	
	No.	Per Cent	No.	Per Cent	No.	Per Cent
1 - 2	3	4	3	4	3	4
3 - 4	3	4	3	4	3	4
5 or more	3	4	3	4	3	4

Table 41. Comparison of certainty of child's attendance at post-high school institution and size of family.

Certainty of Child's Attendance	Number of Children Per Family					
	1 - 2		3 - 4		5 or more	
	No.	Per Cent	No.	Per Cent	No.	Per Cent
Definitely plans to attend	189	52.2%	106	58.2%	16	37.2%
Probably will attend	36	10.0	16	8.8	9	20.9
Uncertain about attendance	59	16.3	34	18.7	13	30.2
Probably will not attend	29	8.0	12	6.6	2	4.7
Unlikely to attend	38	10.5	13	7.1	1	2.3
No response	11	3.0	1	0.5	2	4.7
TOTALS	362	100.0%	182	99.9%	43	100.0%
					587	100.1%

NOTE: Due to rounding, column percentage totals may not equal 100.0%.

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Educational Level of Parents

The level of educational attainment by parents was closely related to the aspirations parents held for their children's education. Tables 42 and 43 include data comparing fathers' and mothers' level of formal education with hopes for higher education for their sons and daughters.

Two-thirds of the fathers and approximately three-fourths of the mothers reported having no formal schooling beyond high school graduation. Nearly 30 per cent of the total parent group did not finish high school.

Whereas only one-fourth of the parents responding to the questionnaire had completed some type of education following high school, aspirations were held for about 92 per cent of their twelfth-grade offspring to continue formal education after graduation.

Post-high school, non-college education for their children was hoped for by one-half of both fathers and mothers who had not finished a high school diploma. Progressively higher proportions of parents who had completed high school and who had gone beyond reported aspirations for their children to graduate from high school, take specialized post-high school training, and complete two or more years of college.

Two conclusions are evident upon examination of these data in Tables 42 and 43. First, parents expected the educational level of their offspring to exceed their own; and

Table 42. Comparison of highest level of education completed by fathers and level of parents' educational aspirations for their children.

Level of Parents' Educational Aspirations for Their Children	Totals	
	No. Response	Per Cent
Level of Parents' Educational Aspirations for Their Children		
Plus Non-2 or College		
No Response		

Table 42. Comparison of highest level of education completed by fathers and level of parents' educational aspirations for their children.

Fathers' Educational Level	Level of Parents' Educational Aspirations for Their Children							
	High School Graduation		H.S. Plus Non-College Educ.		2 or More Yrs. College		Other and No Response	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Not completed								
H.S.	26	15.1%	86	49.7%	52	30.0%	9	5.2%
H.S. graduation	17	7.8	82	37.4	114	52.1	6	2.7
H.S. plus post-high school education	1	0.6	47	30.1	105	67.4	3	1.9
Other & no response	2	5.1	11	28.2	21	53.9	5	12.8
TOTAL	46	7.8%	226	38.6%	292	49.7%	23	3.9%
							587	100.0%

Table 43. Comparison of highest level of education completed by mothers and level of parents' educational aspirations for their children.

Mothers' Educational Level	Level of Parents' Educational Aspirations for Their Children							
	High School Graduation		H.S. Plus Non-College Educ.		2 or More Yrs. College		Other and No Response	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
	Totals							
Not completed								
H.S.	21	12.9%	84	51.5%	52	31.9%	6	3.7%
H.S. graduation	23	8.5	106	39.1	131	48.3	11	4.1
H.S. plus post-high school education	2	1.5	33	24.1	100	73.0	2	1.5
Other & no response	0	0.0	4	25.0	9	56.2	3	18.8
TOTAL	46	7.8%	227	38.9%	292	49.3%	22	3.6%
							587	100.0%

NOTE: Due to rounding, row percentage totals may not equal 100.0%.

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Employment Status of Parents

Both parents were employed in 266 of the homes represented, accounting for 45.3 per cent of the total (see Table 44). In 293 families, or 50.0 per cent of the total, only one parent worked outside the home. Neither parent was employed in 1.2 per cent of the family units, and 3.6 per cent failed to respond to the questionnaire item.

Table 44. Employment status of parents.

Employment Status	Number	Per Cent
One parent employed	293	50.0%
Both parents employed	266	45.3
Neither parent employed	7	1.2
No response	21	3.6
TOTALS	587	100.1%

NOTE: Due to rounding, column percentage total is more than 100.0%.

Occupation of Parents

In Table 45, occupational categories of parents are indicated. Among the heads of households, approximately

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Table 45.

Occupational
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one-fifth worked as semi-skilled operators in industry, transportation, and mechanics. Farming, business, and employment in skilled occupations ranked next with 15, 13 and 12 per cent of the total respondents respectively. Nearly half of the wives, as reported in this item, were not gainfully employed. Clerical and sales occupations were followed by 12 and 10 per cent respectively of wives from responding households.

Table 45. Occupational level reported by parents.

Occupational Level of Parents	Respondent Parents of Seniors			
	Head of Household		Wife, if Working	
	No.	Per Cent	No.	Per Cent
Professional and technical	42	7.1%	35	6.0%
Business proprietors and managers	75	12.8	9	1.5
Farmers and farm managers	87	14.8	4	.7
Skilled workers	73	12.5	2	.3
Clerical and sales workers	58	9.9	85	14.5
Semi-skilled and service workers	164	27.9	63	10.7
Unskilled and unemployed	52	8.9	347	59.2
Other and no response	36	6.1	42	7.1
TOTALS	587	100.0%	587	100.0%

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Some differences in proportions of parents in various occupational levels are noted when comparing seniors' reports from Table 31 with parents' responses in Table 45. Seniors indicated noticeably larger percentages of fathers working in business, as skilled workers, and as unskilled laborers. In the categories of clerical and sales workers and of semi-skilled and service workers, greater proportions of "heads of households" were reported on the parent questionnaires.

Students listed more mothers in semi-skilled and service and in unskilled categories, while a greater proportion of wives indicated employment in the clerical and sales areas.

Some of the factors accounting for this difference in reporting by seniors and their parents might be mentioned. Since occupations of both mother and father were asked for separately on the student questionnaire, and occupations of the "head of the household" and the wife were called for on the parent questionnaire, the two listings are not completely comparable. If the husband was not living at home, the wife was considered the head of the household.

Other factors might include imprecise knowledge of parents' occupational roles on the part of senior students and differing views of how jobs should be classified in the categories listed. Students were asked to check the category in which their parents' occupation was located. Parents,

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however, were instructed to list the specific titles of their jobs and these were then categorized by the writer. Finally, the smaller percentage return of parent questionnaires might have some bearing on the proportionate distribution of occupational levels reported by parents since steps were not taken to guard against or test for biases. For the purposes of this survey study, the differences between senior and parent reports of occupational categories were not considered critical to the findings of the study.

In Table 46 is represented a comparison of occupational levels of heads of household and the level of education they hoped their sons or daughters would pursue after high school graduation. In general, parents whose occupations required extensive education--professional persons, teachers, engineers, doctors, lawyers, technicians, businessmen, managers, officials--held higher educational aspirations for their children. More than 85 per cent working in professional and technical capacities wanted two or more years of college for their offspring. For businessmen, managers, and officials, the percentage was 72.0, and for clerical and sales workers, the proportion was 55.2 per cent.

Those heads of household using primarily manipulative skills in their jobs such as skilled, semi-skilled, or service workers and those who were unemployed recorded greater aspirations for their children to attend schools offering specialized vocational training. About half of farmers and

Table 46. Comparison of occupational level of heads of aspiration for their children.

Table 46.	
<i>Comparison of occupational level of heads of households of children under 18 years of age by educational aspiration level for their children</i>	
Educational Aspiration Level for Their Children	
	H.S. plus 2 years or more
	Other and less than 2 years
Totals	
High	
Low	

Occupational Level of Heads of Household	Educational Aspiration Level of Heads of Household for Their Children											
	High School Graduation		H.S. Plus Non-College Education		2 or More Years College		Other and No Response		Totals			
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent		
	No.	Cent	No.	Cent	No.	Cent	No.	Cent	No.	Cent		
Professional and technical workers	0	0.0%	5	11.9%	36	85.7%	1	2.4%	42	100.0%		
Business proprietors and managers	2	2.7	17	22.7	54	72.0	2	2.7	75	100.1		
Farmers and farm managers	11	12.7	30	34.5	42	48.2	4	4.6	87	100.0		
Skilled workers	4	5.5	40	54.8	29	39.7	0	0.0	73	100.0		
Clerical and sales workers	6	10.3	19	32.8	32	55.2	1	1.7	58	100.0		
Semi-skilled and service workers	14	8.5	80	48.8	61	37.2	9	5.5	164	100.0		
Unskilled and unemployed workers	7	13.4	24	46.2	19	36.6	2	3.8	52	100.0		
Other and no response	2	5.5	11	30.6	17	47.3	6	16.7	36	100.1		
TOTAL	46	7.8%	226	38.5%	290	49.7%	25	4.3%	587	100.0%		

NOTE: Due to rounding, row percentage totals may not equal 100.0%.

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farm managers wanted some college education for their sons or daughters and more than a third hoped for specialized post-high school training. Although unskilled or unemployed parents ranked lowest in terms of aspiration for their children to attend college (36.6%), only 13.4 per cent wanted no formal education or training for their offspring following high school graduation.

Parental Planning for Financing
Child's Higher Education

Parents who indicated that their son or daughter would "definitely" or "probably" attend or who were uncertain about their child's attendance at college or post-high school training were asked to indicate which of several statements best described their financial planning to meet educational expenses. Responses are summarized in Table 47.

No savings program for education had been planned by 38.3 per cent of the parents, but they said they would help their child work his way through school or college. Approximately one-fifth claimed to have established savings accounts for financing higher education, while 14.9 per cent intended to borrow money for educational expenses of their child. Nearly 17 per cent had no financing plan at present or were leaving it entirely up to their child to arrange. A few parents expected their child to receive scholarship aid, attend armed forces and other governmental education

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programs, and obtain financial support from the child's grandparents, other relatives, or trust funds.

Table 47. Parents' plans for financing child's post-high school education.*

Financing Plans	Respondent Parents of Seniors	
	Number	Per Cent
No plan at present	46	9.6%
Leaving it up to child to arrange finances	33	6.9
Have definite education savings program	95	19.9
Will help child work his way through, but have no savings program	183	38.3
Expect child to win scholarship	7	1.5
Expect to borrow money to assist child	71	14.9
Expect child to be trained at government expense (armed forces school, etc.)	14	2.9
Other plans for financing education	20	4.2
No response	9	1.9
TOTALS	478	100.1%

NOTE: Due to rounding, column percentage total does not equal 100.0%.

*Those parents whose children would probably not attend or were very unlikely to attend post-high school institutions did not respond to this question.

If Not Planning for Child to
Continue Education, Why Not?

Approximately 16 per cent of the total number of participating parents indicated their child "probably will not attend" or would be "very unlikely to attend" post-high school education. When considering the extension of

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opportunity for higher education, factors limiting attendance are important to identify.

Of the 95 parents not planning further attendance for their child, one-half indicated their child was not interested in further education (see Table 48). Lack of finances was listed as a factor by 18.9 per cent of the 95, and poor grades was given as a reason by 11.6 per cent. Some parents (9.5%) said that their child's vocational choice did not require further education, while others (3.2%) replied that appropriate vocational training is not offered by schools and colleges.

As shown in Table 49, availability of more money would not influence 53.7 per cent of parents of non-continuing students to change their plans for their child's post-high school activities. A few (6.3%) believed that more money would result in a change of plans, 19.0 per cent answered "maybe"; 14.7 per cent didn't know if additional money would affect their plans.

Parent Expectation of Child Commuting to School or College

From data presented in Table 47, it appears probable that parents have not given adequate consideration to the costs involved in their child's post-high school attendance. Considerable evidence exists indicating that if there is a school or college within commuting distance of students'

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homes, the probability of continuing education beyond high school is greatly increased.¹⁰ If a student can live at home, costs of post-high school attendance can be reduced. In this manner, chances that students will complete their desired educational programs are enhanced.

Table 48. Factors influential in parents' decision for child not to continue education after high school graduation.

Reason	<u>Respondent Parents of Seniors</u>	
	Number	Per Cent
Child not interested in further education	47	49.5%
Child's grades not good enough	11	11.6
Child's vocational choice doesn't require further education	9	9.5
Colleges or schools do not offer appropriate training for child's vocational choice	3	3.2
Lack of finances--can't afford it	18	18.9
No response	7	7.4
TOTALS	95	100.1%

Note: Due to rounding, column percentage total does not equal 100.0%.

¹⁰Cf., pp. 42-43.

Table 49. Pr
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Table 49. Probability of parents changing decision for child not to attend post-high school education if funds made available.

Question: Would your son or daughter change plans and continue formal education if more money were available?		
Response	No. of Responses	Per Cent
Yes	6	6.3%
Maybe	18	19.0
No	51	53.7
Don't know	14	14.7
No response	6	6.3
TOTALS	95	100.0%

To determine the extent to which parents in the present study count on their child's commuting to schools and colleges for continued education, the following question was asked: "Do you expect that your child will attend college or some type of school offering specialized vocational training which is within daily commuting distance of your home?"

Responses are tabulated in Table 50 indicating that 48 per cent of the parents expected their son or daughter to live away from home while attending college or school. Only 16 per cent expressed some certainty of their child's commuting.

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Table 50. Parents' expectation that child will commute to post-high school educational institution.

Response	<u>Respondent Parents of Seniors</u>	
	Number	Per Cent
Child plans to commute	56	9.5%
Child will probably commute	35	6.0
Child uncertain at this time	98	16.7
Child plans to live on campus	280	47.7
Child not planning further education	69	11.8
No response	49	8.4
TOTALS	587	100.1%

NOTE: Due to rounding, column percentage total does not equal 100.0%.

Probability of commuting is, of course, related to opportunities available to pursue various types of post-high school education within convenient driving distance from students' homes. To sample parents' opinions regarding possible interest in increased commuting opportunities, the question was asked:

If additional new opportunities were made available for taking college level courses or specialized vocational training (within driving distance from your home), how seriously would you consider sending your son or daughter to such an institution or school?

Recognizing the tenuous nature of responses to this question, the fact remains that nearly one-third of the

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respondents were willing to consider such a possibility for their children. This proportion of parents indicating "certain" or "probable" attendance of their child at an institution offering new and additional opportunities (see Table 51) is more than half as large as the proportion who stated that the certainty of their child attending some existing type of post-high school program was "definite" or "probable" (see Table 36).

Table 51. Parents' certainty of child attending new local post-high school institution, if established.

Certainty of Attendance	Respondent Parents of Seniors	
	Number	Per Cent
Child certain to attend	59	10%
Child would probably attend	136	23
Child would be uncertain about attendance	142	24
Child would probably not attend	99	17
Child would not be interested	74	13
No response	77	13
TOTALS	587	100%

About 24 per cent of parents would be uncertain about their child's attendance at an institution offering

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new and additional opportunities, while 30 per cent indicated little or no interest in this possibility.

On the basis of these responses, it would appear that expanded opportunities for post-high school programs in the two-county area warrant consideration. Not only would such opportunity be available to youth of the community, but also might provide adults with the possibility of continuing their education.

Parents' Educational Aspirations for Themselves

To obtain some indication of interest adults might have for pursuing additional education, parents of twelfth graders were asked: "In what additional education would you be interested?"

As noted in Table 52, nearly three-fifths of the husbands and half of the wives indicated no interest or failed to respond to the question. "Courses to help in my job or get a better job" were wanted by 20 per cent of the husbands. Other types of education were checked by substantially smaller percentages of the husbands.

Wives preferred "courses to broaden myself (personal, social, cultural)" which were marked by 18 per cent of the total, and "courses to help in my job or get a better job" were listed by 12 per cent.

Worthy of note is the number of husbands and wives who would like to work toward high school completion. Data

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Table 52. Additional educational aspirations of heads of households.

Educational Aspirations	Husbands		Wives	
	No.	Per Cent	No.	Per cent
High school completion	42	7%	64	11%
Non-credit college level courses	12	2	12	2
Work on college degree	21	4	22	4
Take graduate work	9	2	15	3
Courses to help in my job or get a better job	119	20	71	12
Courses to broaden myself (personal, social, cultural)	37	6	103	18
Recreational courses	9	2	5	1
Avocational courses	8	1	11	2
None	179	31	185	32
No response	151	26	99	17
TOTALS	587	101%	587	102%

NOTE: Due to rounding, total column percentages do not equal 100%.

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Table 52. Additional educational aspirations of heads of households.

Educational Aspirations	Husbands		Wives	
	No.	Per Cent	No.	Per cent
High school completion	42	7%	64	11%
Non-credit college level courses	12	2	12	2
Work on college degree	21	4	22	4
Take graduate work	9	2	15	3
Courses to help in my job or get a better job	119	20	71	12
Courses to broaden myself (personal, social, cultural)	37	6	103	18
Recreational courses	9	2	5	1
Avocational courses	8	1	11	2
None	179	31	185	32
No response	151	26	99	17
TOTALS	587	101%	587	102%

NOTE: Due to rounding, total column percentages do not equal 100%.

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in Tables 42 and 43 indicate that 173 fathers and 163 mothers had not finished high school. Of these, 42 fathers, or 24 per cent, and 64 mothers, or 39 per cent, expressed a desire to complete high school.

These responses suggest that while many adults do not have aspirations to pursue further education, others would avail themselves of opportunities for adult classes and programs.

Summary of Student and Parent Questionnaire Findings

Responses of twelfth-grade students and their parents demonstrated a strong desire for post-high school education for youth of Wabash and Miami Counties. Aspirations of parents for their children's continued education were somewhat greater than expectations senior students held for themselves.

While 85 per cent of the students and 90 per cent of the responding parents expressed a hope for seniors' educational continuance after high school graduation, just over 60 per cent of both groups indicated with a reasonable degree of certainty that such attendance is actually planned. The probability of attendance of those seniors aspiring to enter college appeared to be greater than for those hoping to take non-college-level work.

Forth-five per cent of the senior respondents were enrolled in a college preparatory course of study in high

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school, about one-fifth in commercial, 13 per cent in general, and the remainder in vocational courses. More than 60 percent had initiated plans for post-high school attendance by contacting an institution or by having been admitted to a school or college. Manchester College, Ball State University, Indiana University, and Purdue University were named most frequently as the colleges they planned to attend. About one-half of the seniors with older siblings indicated that older brothers and sisters had attended post-high school institutions.

Both students and parents indicated that post-high school education was necessary or highly desirable for more than three-fourths of the senior group to enable them to enter the vocation of their choice. Parents and seniors exhibited considerable agreement on the selection of a vocation to pursue after completing formal education.

For about 40 per cent, at least a college degree was believed essential for entry into their chosen vocation. A similar percentage of students expressed plans for entering college during the year following their graduation from high school. An additional 12 per cent planned to pursue other specialized training in the year after they graduate.

In general, as educational and occupational levels of families increased, the greater was the proportion of both parents and students holding aspirations for continued attendance and for higher levels of educational attainment on the part of sons and daughters.

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About one-fifth of the seniors planned to pay all of their own educational expenses while more than half would depend upon parents for funds to pay some or all of their costs of attending higher education. Yet only 20 per cent of the responding parents of children planning continued attendance reported a definite savings program for higher education expenses. An additional 53 per cent of parents, however, indicated they would help their children work their way through or borrow money to cover educational costs.

Definite plans to commute to post-high school institutions were revealed by less than one-fifth of the seniors and their parents. Nearly half of the parents and two-fifths of the students reported plans for seniors going on to school or college to live on campus.

Preparation for a vocation, increasing earning capacity, and obtaining a broad education were factors most frequently cited for influencing students' decisions to plan higher education. Those students not planning post-high school education gave as reasons the desire to get a job, lack of finances, wanting to get married, and grades in high school.

Some evidence existed to indicate that both parents and students would be interested in having new and expanded post-high school programs made available in the local area within commuting distance of their homes.

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Many parents indicated an interest in furthering their own education. Courses to improve job performance or get a better job were most frequently desired by fathers; and general courses for personal, social, and cultural development were preferred by mothers.

Survey of Business and Industry Findings

Questionnaires were sent to 346 Wabash and Miami Counties' business and industrial firms which were included on the original mailing list. Based on information obtained from replies to mailings and on unclaimed follow-up letters sent by first-class mail, 30 of the firms were removed from the list. These included 18 which had ceased operations or moved out of the two-county area and 12 which reported they received mailings under two separate company names, but were actually operating under one management.

Of the remaining 316 business and industrial organizations, replies were received from 147. Twenty-six of these were disqualified from inclusion in the study, because they did not meet basic criteria established for the study.¹¹ In 5 of the 26 cases, firms were eliminated because they employed less than five persons.

After the above mentioned adjustments were made, a total of 121 useable questionnaires remained. This number

¹¹Cf., p. 76-77.

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represented 41.7 per cent of the 290 remaining firms after revisions were made in the master list. It is not known how many of the 169 firms failing to return the questionnaire employed less than five workers. It did appear, however, that a high proportion of firms employing large numbers of workers were included among those who returned questionnaires.

Therefore, the percentage of workers within the two-county area employed by the 121 firms represented a majority of employees in the selected industrial classifications included in this study.

Some notion of the extent of employee coverage can be gained from examining the numbers employed in various industrial categories as reported in County Business Patterns.¹² In this publication by the United States Department of Commerce, Bureau of the Census, employees covered by the Federal Insurance Contributions Act are reported. Some types of workers such as government employees, farm workers, self-employed persons, and railroad workers subject to the Railroad Retirement Act are excluded in whole or in part, however. These exclusions account for an estimated 12 per cent of all workers in an area.

In mid-March, 1965, County Business Patterns reported 14,820 workers in Wabash and Miami Counties. Included

¹²United States Bureau of the Census, County Business Patterns (Washington, D.C.: Government Printing Office, 1966), pp. 16-83-84, 16-113-114.

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in this number were 8,743 employed by firms engaging in manufacturing; 573 in construction, 666 in transportation, utilities, and communications; 1,190 in financial, business, and professional services; and 3,174 in wholesale and retail trade.

Data from firms responding to the "Survey of Business and Industry" questionnaire indicated 6,295 employed in manufacturing; 105 in construction; 698 in transportation, utilities, and communications; 1,867 in financial, business, and professional services; and 262 in wholesale and retail trade for a total of 9,308 workers in the two-county area (See Table 54).

Although the two sets of data cannot be compared directly, due to differences in dates when information was collected and some differences in types of workers included, it would appear likely that half or more of the total number of employees in Wabash and Miami Counties were represented by their employers returning questionnaires. As many as 70 per cent of workers employed by manufacturers and as few as 20 per cent employed by construction firms were possibly covered. Some public school employees and railroad workers were reported in the present study. Therefore, total numbers of employees in employer groupings which include the classifications of professional services and transportation, respectively, exceed those listed in County Business Patterns.

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As a group, employers engaged in retail trade were not included on the master list of business and industrial firms to be surveyed in this study. Only those retailers who operated service departments and normally employed skilled, technical, or professional workers were sent questionnaires. Therefore, the number of employees covered by firms reporting retail trade as their major activity was small compared with the total number of workers actually engaged in this type of work in the two-county area.

Distribution of Firms Reporting
and Number of Employees

In Table 53, the distribution of firms, according to type, returning questionnaires is summarized. Accounting for approximately two-fifths of the 121 useable questionnaires in the business and industry survey were firms engaged in various types of manufacturing. Ranking next was agriculture with 8.3 per cent, followed by professional services with 7.4 per cent of the total returns. Other types of organizations were represented by eight or fewer returned questionnaires.

For the purposes of analysis in this study, six employer groups were utilized, composed of industrial classifications as indicated:

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|---------|--------|---------------------|
| Group A | N = 11 | Agriculture, Mining |
| Group B | N = 8 | Construction |

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Table 53. Distribution, by type, of businesses and industries returning questionnaires.

Types	Number of Firms	Per Cent of Total
AGRICULTURE	10	8.3%
MINING--stone, gravel	1	0.8
CONSTRUCTION	8	6.6
<u>MANUFACTURING</u>	<u>48</u>	<u>39.8</u>
Food, beverage & kindred products	2	1.7
Lumber and wood products, furniture	7	5.8
Paper and allied products	1	0.8
Printing, publishing and allied products	2	1.7
Rubber and miscellaneous plastic products	4	3.3
Sone, clay, glass products	2	1.7
Primary metal industries	2	1.7
Fabricated metal products	16	13.2
Machinery, except electrical	3	2.5
Electrical machinery and equipment	5	4.1
Instruments--scientific, controlling	1	0.8
Other--rendering, decorations, feed, fertilizer	3	2.5
TRANSPORTATION	4	3.3
COMMUNICATIONS	4	3.3
UTILITIES	4	3.3
WHOLESALE TRADE	5	4.1
<u>RETAIL TRADE</u>	<u>8</u>	<u>6.7</u>
General merchandise	2	1.7
Furniture, home furnishings, equipment	1	0.8
Automotive dealers	2	1.7
Building materials, hardware, farm equipment	3	2.5
BANKING, FINANCE	7	5.8
INSURANCE	3	2.5
REAL ESTATE	2	1.6

BUSINESS TYPE

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Table 53. Continued

Types	Number of Firms	Per Cent of Total
<u>BUSINESS TYPE SERVICES</u>	<u>5</u>	<u>4.1%</u>
Automobile and other repair services	4	3.3
Other--credit bureau	1	0.8
<u>PROFESSIONAL SERVICES</u>	<u>9</u>	<u>7.4</u>
Health services--medical, dental, pharmacy	3	2.5
Engineering, surveying, architectural	1	0.8
Educational services--teaching, etc.	4	3.3
Tax and accounting	1	0.8
Other--retirement home, community center	3	2.5
<u>TOTALS</u>	<u>121</u>	<u>100.1%</u>

NOTE: Due to rounding, column percentage total does not equal 100.0%.

- Group C N = 48 Manufacturing
- Group D N = 12 Transportation, Communications,
Utilities
- Group E N = 13 Wholesale Trade, Retail Trade
- Group F N = 29 Financial (Banking, Finance), Busi-
ness (including Insurance, Real Es-
tate), and Professional Services

A indicated in Table 54, manufacturing firms ac-
counted for two-fifths of the returned questionnaires but
represented two-thirds of the employees reported on the sur-
vey form. While agriculture ranked second in terms of ques-
tionnaires completed, less than one per cent of the employees
were engaged in agricultural work. Twenty per cent of the

employees re
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Table 54. 1

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employees reported were engaged in financial, business, or professional service type of work.

Table 54. Number of employees, by sex and employer group, reported by businesses and industries.

Employer Group	Males		Females		Total	
	No.	Per Cent	No.	Per Cent	No.	Per Cent
Agriculture, Mining	67	.7%	14	.2%	81	.9%
Construction	99	1.1	6	.1	105	1.2
Manufacturing	3,615	38.8	2,680	28.8	6,295	67.6
Transportation, Communications, Utilities	630	6.8	68	.7	698*	7.5
Wholesale and Retail Trade	198	2.1	64	.7	262	2.8
Financial, Business, and Professional services	514	5.5	1,353	14.5	1,867	20.0
TOTALS	5,123	55.0%	4,185	45.0%	9,308	100.0%

*One firm reporting from a regional personnel office indicated 1,950 employees. Since an undetermined portion are regularly employed in Wabash and Miami Counties, these figures were omitted from this tabulation of employees.

One firm in the transportation, communications, and utilities group, reporting from a regional personnel office, listed 1,950 employees, only a portion of which regularly work in Wabash and Miami Counties. Although the number of

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Table 55.

Age Group

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workers was not included in the tabulation in Table 54, other portions of the questionnaire were utilized in the study.

Data are presented in Table 55 on age groupings of employees. While the number of males in the "under 25" and "over 55" age groups exceeded that of females, the proportion of female workers in these two groupings was greater than for males. Approximately two-thirds of the total number of employees were in the "25 to 50" age range.

Table 55. Number of employees, by sex and age grouping, reported by businesses and industries.

Age Grouping	Males		Females		Total	
	No.	Per Cent	No.	Per Cent	No.	Per Cent
Under 25 years of age	947	18.5%	905	21.6%	1,852	19.9%
Between 25 and 50 years	3,431	66.9	2,750	65.7	6,181	66.4
Over 55 years of age	532	10.4	504	12.1	1,036	11.1
Not reported by age	213	4.2	26	.6	239	2.6
TOTALS	5,123	100.0%	4,185	100.0%	9,308	100.0%

Job Levels of Employees

Definitions of various job levels, such as professional workers; technician, semi-professional, or highly

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skilled workers; and skilled craftsmen, were printed on the questionnaire form (see Appendix C).

An analysis of levels in various employer groups is presented in Table 56. In the agriculture and mining, construction, and manufacturing groups, professional and technical workers comprised less than one-fifth of the total work force. Varying proportions of skilled workers were noted in these three groups, with construction utilizing about 63 per cent of the workers in this level; agriculture and mining, approximately 38 per cent; and manufacturing, less than 20 per cent. Indicative of the type of manufacturing, which was not automated to any significant degree, in the two-county area was the large proportion of unskilled workers.

Technical and highly skilled workers were employed in greater numbers by the transportation, communications, and utilities group and the wholesale and retail trade group. As indicated previously, only those firms engaged in retail trade who normally employed technical and professional level workers were included in the survey.

In the financial, business, and professional services group, a more even distribution of workers over the four levels was noted, with 26.6 per cent of the employees classified as professionals and 25.8 as technicians or semi-professionals. Skilled workers accounted for 21.2 per cent of this group; and unskilled workers, 26.4 per cent.

Table 56. Percentage of employees, by employer groups, engaged in various job levels.

Employer Groups				TE x	a p	st uc	TE x

Table 56. Percentage of employees, by employer groups, engaged in various job levels.

Job Levels	Employer Groups						Total N = 111*
	Agriculture Mining	Construction	Manufacturing	Transportation Communications Utilities	Wholesale and Retail Trade	Financial, Business, & Professional Services	
Professional workers	N = 8 8.8%	N = 8 7.5%	N = 45 4.2%	N = 11 6.3%	N = 12 4.6%	N = 27 26.6%	N = 111*
Technical, super- visory, semi- professional, or highly skilled workers	6.5	8.9	13.8	33.9	24.5	25.8	19.0
Skilled workers	37.8	63.6	19.1	27.7	41.1	21.2	27.4
Unskilled workers	47.0	20.0	63.0	32.1	29.8	26.4	43.2
TOTALS	100.1%	100.0%	100.1%	100.0%	100.0%	100.0%	100.0%

NOTE: Due to rounding, column percentage totals may not equal 100.0%.

*Ten employers of the 121 returning questionnaires failed to indicate the distribution of their employees among job levels.

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Of the total number of employees reported in the survey, 43.2 per cent were considered unskilled, while the remainder were distributed approximately equally between skilled positions and higher levels of performance. While it would be unreasonable to believe that all professional workers would confine their efforts to only professional tasks, excessive use of professional personnel in sub-professional level activities results in an uneconomical use of talent and unnecessary labor costs to the employer.

Nineteen employers, or approximately 16 per cent of the respondents, indicated that one-half or more of their professional level employees were spending a significant portion of their time at tasks which could be performed by an appropriately trained technician or semi-professional worker (see Table 57).

About one-third of the employers reported 10 to 20 per cent of their professional workers occupied with non-professional tasks in their place of employment, while 9.1 per cent indicated one-fourth to one-third of their professionals in this situation. The 41.3 per cent who did not respond to this question reported no professional level employees (as defined on page two of the questionnaire) in their firms.

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Table 57. Proportion of professional level employees spending a significant portion of their time at sub-professional level tasks.

Per Cent of Professionals in Sub-professional Tasks	Employer Groups							% of All Firms Reporting
	A	B	C	D	E	F	Total	
10 per cent	2	1	8	5	4	8	28	23.2%
20 per cent	0	1	8	1	0	3	13	10.7
25 per cent	0	0	5	0	0	2	7	5.8
33 per cent	0	1	2	1	0	0	4	3.3
50 per cent	1	1	2	0	1	2	7	5.8
67 per cent	0	0	1	1	1	0	3	2.5
75 per cent or more	1	0	3	2	2	1	9	7.4
No response	7	4	19	2	5	13	50	41.3
TOTALS	11	8	48	12	13	29	121	100.0%

LEGEND FOR EMPLOYER GROUPS: A - Agriculture, Mining; B - Construction; C - Manufacturing; D - Transportation, Communication, Utilities; E - Wholesale and Retail Trade; F - Financial, Business, and Professional Services.

Training Programs

Employers were asked if their firms had an organized training program to upgrade employees to higher job classifications. Of the 38 who responded affirmatively, 18 indicated on-the-job training. Ten sent their employees to short-term courses in school or training programs operated by their parent companies, by manufacturers of items which their employees serviced, or by professional associations, such as the American Bankers Association. Five employers listed

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weekly or periodic training sessions for foremen, supervisors, or sales personnel.

Only four firms reported schools or training programs specifically designed to prepare workers for job entry or job advancement. These included one printing apprenticeship; one nurses aide program; and two training centers, operated by utility and communications companies, designed to prepare engineering technicians, welders, servicemen, mechanics, etc. The latter two programs, designed to serve a larger region, were conducted outside the two-county area.

One firm upgraded employees by sending them to various short courses in the field of agriculture at Purdue University.

Sources of Technical, Semi-professional, and Professional Employees

To determine the source of employees in the upper ranges of the occupational spectrum, employers were asked to indicate how most of their technical, semi-professional, highly-skilled, and professional workers were obtained. As shown in Table 58, unsolicited applications ranked number one, both as a first source and as a total of first, second, and third sources. Advertising and training own employees ranked second and third on the basis of all sources. Colleges and universities were listed by 28 employers, the majority of whom ranked these institutions as a third source.

Technical, vocational,
down on the list
skilled employees

Table 58. Source
professional

Source

Unsolicited applications
State employment
Private employment
Advertising
Union or vocational
associations
Technical, vocational,
professional
Colleges and universities
Training and
employees
Other--personal
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Attitudes of
Post-High School

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technical, vocational, or professional schools ranked well down on the list as being a present source of trained and skilled employees.

Table 58. Sources of technical, highly-skilled, semi-professional, and professional employees.

Source	Number of Firms			Total
	First Source	Second Source	Third Source	
Unsolicited applications	42	8	13	63
State employment agencies	1	3	6	10
Private employment agencies	10	3	1	14
Advertising	21	20	5	46
Union or vocational associations	1	3	3	7
Technical, vocational or professional schools	5	3	6	14
Colleges and universities	5	8	15	28
Training and upgrading own employees	24	9	11	44
Other--personal invitation, transfer from other plants, etc.	4	2	4	10

Attitudes of Employers Toward Post-High School Education

Attitudes of employers in business and industry toward higher education are factors which warrant examination in a study of post-high school educational needs in a local area. It was assumed that such officials were in a position to assess the needs and performance levels of their own workers as well as to have some concept of cognitive and manipulative skills desirable for successful job performance on the part of employees.

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Employers were, therefore, asked to indicate on a three-point scale whether they considered post-high school education of various types and for certain categories of workers as being "very important," "important," or "not important."

In Table 59 are recorded the responses of employers to questions concerning the importance of education beyond high school for seven categories of workers.

In general, post-high school education was considered important for workers by a majority of employers responding to the questionnaire. For managers, buyers, and proprietors, it was considered "very important" by 49.6 per cent of the total employer group. In the categories of farm owners and managers; secretaries, bookkeepers, cashiers, and bank tellers; sales workers, advertisers, brokers, and realtors; and craftsmen, foremen, electricians, and repairmen; higher education was considered "very important" by between one-fifth and one-third of all employers. In all of these groups, post-high school education was thought to be "not important" by no more than 15.7 per cent of the employers. Higher levels of education were not considered important to as great a degree for apprentices, drivers, and deliverymen; and service workers, firemen, policemen, and attendants. In the former group, only 29.0 per cent of the respondents checked post-high school education as being "very important,"



Table 59. Importance, according to employer groups, of post-high school education for success for specific workers.

		Specific Categories of Workers (In Per Cents)						
		Farm owners and farm managers	Managers, buyers, proprietors	Secretaries, book- keepers, cashiers, bank tellers	Sales workers, ad- vertisers, brokers, realtors	Craftsmen, foremen, electricians, repairmen	Apprentices, drivers, delivermen	Service workers, firemen, policemen, attendants
Employer Group	Rating of Importance for Post-High School Education							
	Very important	36.4	45.5	27.3	18.2	0.0	0.0	9.1
	Important	45.5	18.2	27.3	45.5	54.5	18.2	27.3
	Not important	0.0	0.0	9.1	0.0	0.0	36.4	18.2
	No response	18.2	36.4	36.4	36.4	45.5	45.5	45.5
	Total	100.1	100.1	100.1	100.1	100.0	100.1	100.1
Agriculture, Mining N = 11	Very important	12.5	37.5	12.5	37.5	12.5	0.0	12.5
	Important	50.0	37.5	62.5	50.0	62.5	0.0	25.0
	Not important	12.5	0.0	12.5	0.0	12.5	75.0	50.0
	No response	25.0	25.0	12.5	12.5	12.5	25.0	12.5
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Construction N = 8	Very important	29.2	50.0	20.8	31.2	25.0	6.3	4.2
	Important	43.8	39.6	54.2	50.0	56.2	18.8	35.4
	Not important	10.4	0.0	16.7	6.3	8.3	62.5	43.8
	No response	16.7	10.4	8.3	12.5	10.4	12.5	16.7
	Total	100.1	100.0	100.0	100.0	99.9	100.1	100.1
Manufacturing N = 48	Very important	29.2	50.0	20.8	31.2	25.0	6.3	4.2
	Important	43.8	39.6	54.2	50.0	56.2	18.8	35.4
	Not important	10.4	0.0	16.7	6.3	8.3	62.5	43.8
	No response	16.7	10.4	8.3	12.5	10.4	12.5	16.7
	Total	100.1	100.0	100.0	100.0	99.9	100.1	100.1
Transportation Communications Utilities N = 12	Very important	66.7	58.3	25.0	50.0	25.0	16.7	33.3
	Important	25.0	30.0	25.0	25.0	25.0	33.3	41.7
	Not important	8.3	8.3	0.0	8.3	0.0	16.7	15.0
	No response	99.9	99.9	100.0	99.9	90.0	100.0	100.0
	Total	23.1	38.5	23.1	30.8	46.2	30.8	38.2
	Very important	69.2	58.0	23.1	15.4	46.2	61.5	61.5
	Important	23.1	30.0	23.1	15.4	46.2	30.8	38.2
	Not important	8.3	8.3	0.0	8.3	0.0	16.7	15.0
	No response	99.9	99.9	100.0	99.9	90.0	100.0	100.0
	Total	23.1	30.8	23.1	15.4	46.2	61.5	61.5

Communications Utilities N = 12	Important	66.6	33.3	50.0	58.3	25.0	33.3
	Not important	0.0	0.0	25.0	8.3	50.0	41.7
	No response	8.3	8.3	0.0	0.0	8.3	8.3
	Total	99.9	99.9	100.0	99.9	100.0	100.0
Wholesale and Retail Trade N = 13	Very important	23.1	61.5	23.1	7.7	0.0	15.4
	Important	69.2	38.5	53.8	46.2	30.8	38.5
	Not important	7.7	0.0	23.1	46.2	61.5	46.2
	No response	0.0	0.0	0.0	0.0	7.7	0.0
Financial, and Business, and Professional Services N = 29	Total	100.0	100.0	100.0	100.1	100.0	100.1
	Very important	24.1	44.8	27.6	17.2	3.5	3.5
	Important	69.0	51.7	62.1	58.6	37.9	55.2
	Not important	3.5	0.0	10.3	20.7	55.2	37.9
TOTAL N = 121	No response	3.5	3.5	0.0	3.5	3.5	3.5
	Total	100.1	100.0	100.0	100.0	100.1	100.1
	Very important	26.4	49.6	23.1	19.0	5.0	7.4
	Important	55.4	39.7	53.7	56.2	24.0	38.8
	Not important	6.6	0.0	15.7	14.9	57.8	40.5
	No response	11.6	10.7	7.4	9.9	13.2	13.2
	Total	100.0	100.0	99.9	100.0	100.0	99.9

NOTE: Due to rounding, some percentage totals may not equal 100.0%.

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In examining the responses of individual employer groups, a fair degree of consistency is noted with only a few exceptions. From 36.4 to 45.5 per cent of employers in agriculture and mining failed to respond to questions concerning categories of workers except for farm owners and farm managers. Therefore, the total percentages indicating post-high school education being "very important" or "important" are lower for six of the seven worker categories than for other employer groups, despite the fact that smaller percentages of agriculture and mining employers checked the "not important" choice.

Construction and manufacturing employers were comparatively lower in believing post-high school education "very important" or "important" for farm owners and farm managers. Those employers engaged in wholesale or retail trade felt post-secondary training was important to a lesser degree for craftsmen, foremen, electricians, and repairmen than did other employer groups except for agriculture and mining employers. Education beyond high school was considered more important for apprentices, drivers, and deliverymen; and service workers, firemen, policemen, and attendants by a noticeably higher percentage of employers in the last three groups than those in the first three groups listed in Table 59.

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Considering the importance of post-high school opportunities for adult workers, nearly two-fifths of the total group of employers considered it "very important" for adults to study "technical subjects related to their work" and "communication skills" (see Table 60). "Cultural courses for personal growth" were not believed to be as important, for only 17.3 per cent of the employers checked the "very important" category for this subject area. Those considering post-high school education unimportant for adult workers constituted a small percentage of employers ranging from a low of 5.8 for work-related technical subjects to a high of 15.7 for personal growth courses. From 43.8 per cent to 56.2 per cent of the employer group thought that course work in technical subjects, cultural courses, and communications was "important" for adult workers.

Taking a look at the individual employer groups, it is noted that deviations from the averages of the total group were not great. However, a few noticeable exceptions by separate employer groups should be cited. Greater emphasis upon importance of "technical subjects related to their work" was claimed by employers in agriculture, mining, and construction; "cultural courses for personal growth," by employers in transportation, communications, and utilities, and in financial, business, and professional services; and "communication skills," by wholesale and retail trade

Table 60. Impos
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Employer Group

Agriculture
Mining
N = 11

Construction
N = 8

Manufacturing
N = 48

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Utilities
N = 12

Wholesale a
Retail Trad
N = 13

Table 60. Importance, according to employer groups, of providing post-high school educational opportunities for adult workers to study in selected subject areas.

Employer Group	Rating of Importance for Post-High School Education	Subject Areas (In Per Cents)		
		Technical subjects related to their work	Cultural courses for personal growth	Communication skills (speaking, reading, writing)
Agriculture Mining N = 11	Very important	54.5%	18.2%	27.3%
	Important	0.0	18.2	18.2
	Not important	9.1	18.2	9.1
	No response	36.4	45.5	45.5
	Total	100.0%	100.1%	100.1%
Construction N = 8	Very important	50.0%	12.5%	25.0%
	Important	37.5	62.5	62.5
	Not important	0.0	12.5	0.0
	No response	12.5	12.5	12.5
	Total	100.0%	100.0%	100.0%
Manufacturing N = 48	Very important	37.5%	14.6%	35.4%
	Important	50.0	62.5	50.0
	Not important	4.2	14.6	6.3
	No response	8.3	8.3	8.3
	Total	100.0%	100.0%	100.0%
Transportation Communications Utilities N = 12	Very Important	33.3%	41.7%	41.7%
	Important	58.3	41.7	41.7
	Not important	8.3	0.0	8.3
	No response	0.0	16.7	8.3
	Total	99.9%	100.1%	100.0%
Wholesale and Retail Trade N = 13	Very important	38.5%	23.1%	53.8%
	Important	46.2	61.5	38.5
	Not important	15.4	15.4	7.7
	No response	0.0	0.0	0.0
	Total	100.1%	100.0%	100.0%

Table 60. Continued

Employer Group	
Financial, Business, and Professional Services N = 29	V 1 1 1
TOTAL N = 121	

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Table 60. Continued

Employer Group	Rating of Importance for Post-High School Education	Subject Areas (In Per Cents)		
		Technical subjects related to their work	Cultural courses for per- sonal growth	Communica- tion skills (speaking, reading, writing)
Financial, Business, and Professional Services N = 29	Very Important	34.5%	58.6%	37.9%
	Important	51.7	34.5	41.4
	Not important	3.5	0.0	10.3
	No response	10.3	6.9	10.3
	Total	100.0%	100.0%	99.9%
TOTAL N = 121	Very important	38.9%	17.3%	37.2%
	Important	45.5	56.2	43.8
	Not important	5.8	15.7	7.4
	No response	9.9	10.7	11.6
	Total	100.1%	99.9%	100.0%

NOTE: Due to rounding, column percentage totals may not equal 100.0%.

employers. Again, a lack of response by a significant portion of the agriculture and mining group is reflected.

Reacting to questions concerning the importance of various emphases for Indiana colleges and universities, overwhelming support was shown for such institutions to provide high-quality educational programs for one-third or more of the state's high school graduates (see Table 61). With the exception of transportation, communications, and utilities employers, more than half in every employer group checked this emphasis as "very important." Combining the "very important"



Transportation Communications Utilities N = 12	Very important Important Not important No response Total	41.7% 41.7 0.0 16.7 100.1%	33.3% 58.3 0.0 8.3 99.9%	58.3% 16.7 8.3 16.7 100.0%
Wholesale and Retail Trade N = 13	Very important Important Not important No response Total	53.8% 38.5 7.7 0.0 100.0%	15.4% 61.5 15.4 7.7 100.0%	46.2% 46.2 7.7 0.0 100.1%
Financial, and Business, and Professional Services N = 29	Very important Important Not important No Response Total	58.6% 34.5 0.0 6.9 100.0%	17.2% 69.0 0.0 13.8 100.0%	41.4% 37.9 17.2 3.5 100.0%
TOTAL N = 121	Very important Important Not important No response Total	52.9% 32.2 2.5 12.4 100.0%	19.0% 53.7 8.3 19.0 100.0%	44.6% 36.4 9.1 9.9 100.0%

NOTE: Due to rounding, column percentage totals may not equal 100.0%.

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and the "important" responses, more than 80 per cent of all employer groups except construction reflected support of this type of program.

With respect to the type of course work offered, preference for liberal arts or professional courses instead of preparation for various types of work was believed "important" by over half of the total employer group, but "very important" by only 19.0 per cent. Considering such an emphasis unimportant was 8.3 per cent of the total, with construction employers and wholesale and retail trade employers checking this response by greater percentage margins than other groups. A larger proportion of the total group did not respond to this question than was the case in the other two related questions.

A combination of courses leading to effective citizenship and satisfactory work was more readily accepted as "very important" than was the liberal arts emphasis. Construction employers showed the least enthusiastic support for this type of arrangement of courses, with 12.5 per cent checking "very important"; transportation, communications, and utilities showed the greatest, with 58.3 per cent indicating the category of "very important."

With the number of technicians in the labor force increasing, attitudes of employers were sought regarding the importance of providing technician training opportunities.

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The question was asked: "Do you consider it important to develop post-high school educational programs to train technicians?"

Responses of "very important" were recorded by a low of 27.3 per cent of the agriculture and mining employers and a high of 62.5 per cent of employers in construction (see Table 62). In total, 43.8 per cent indicated such training was "very important" to consider, and 35.6 per cent believed that it was "important." Only 2.4 per cent considered technician training programs unimportant. More than half of the agriculture and mining employers did not respond to the question, which, of course, affects the total percentages.

When asked if a technical or semi-professional educational program at the post-high school level would be important to their firms, about one-fourth indicated that it would be "very important" to them and a similar proportion said it would be "not important." As shown in Table 62, just under two-fifths reported that a program of this type would be "important" to them. Those employers in the areas of construction and financial, business, and professional services indicated the greatest interest.

In terms of possible content of a technician training program, only 10.7 per cent of the employers felt that it would be "very important" to include course work in the humanities, social sciences, and natural sciences (general education courses). While 43.8 per cent expressed an

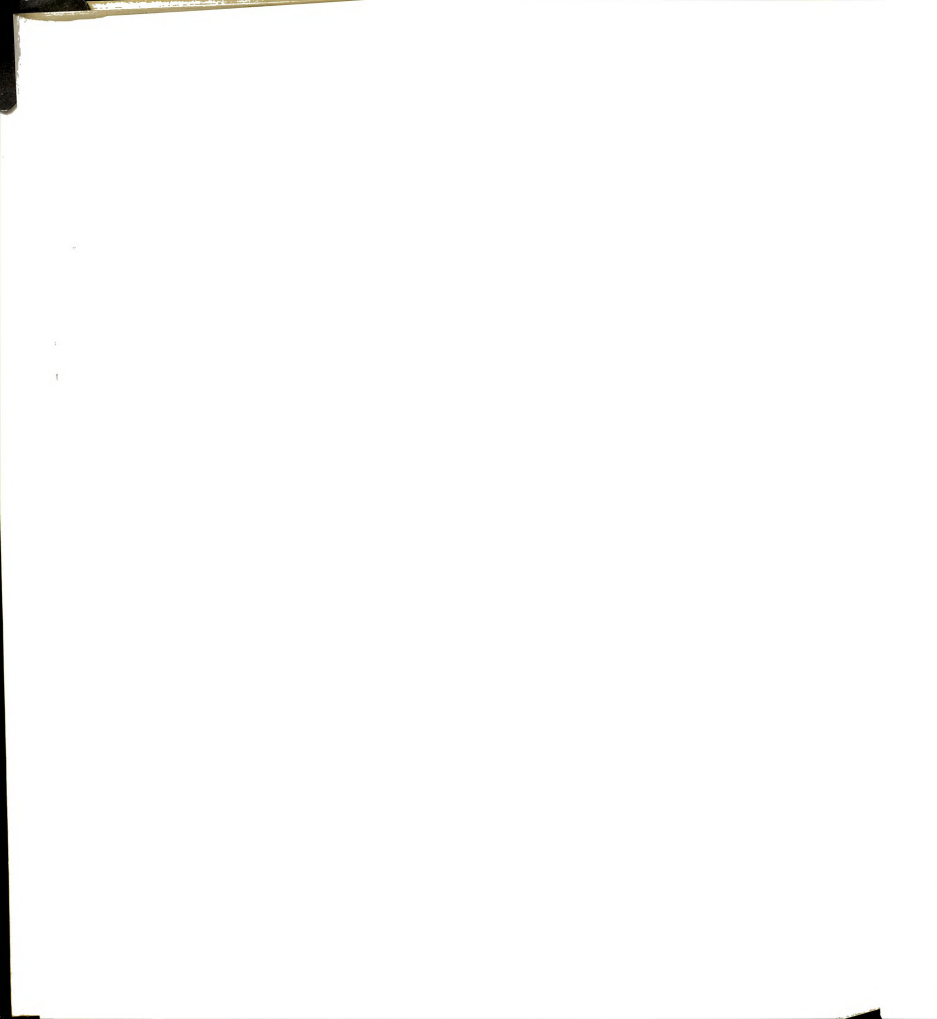


Table 62. Importance, according to employer groups, of certain aspects of post-high school education.

Questions Asked of Employers	Rating of Importance	Employer Groups (In Per Cents)						
		A N=11	B N=8	C N=48	D N=12	E N=13	F N=29	Total N=121
Do you consider it im- portant to develop post- high school educational programs to train technicians?	Very important	27.3	62.5	45.8	50.0	46.2	37.9	43.8
	Important	18.2	25.0	35.4	50.0	23.1	44.8	35.6
	Not important	0.0	0.0	2.0	0.0	7.7	3.5	2.4
	No response	54.5	12.5	16.7	0.0	23.1	13.8	18.2
	Total	100.0	100.0	99.9	100.0	100.1	100.0	100.0
How important would the development of a post- high school technical or semi-professional edu- cational program be to your organization . . . ?	Very important	27.3	25.0	33.3	16.7	15.4	24.1	26.4
	Important	27.3	50.0	27.1	41.7	53.8	51.7	38.9
	Not important	18.2	12.5	27.1	33.3	30.8	24.1	25.6
	No response	27.3	12.5	12.5	8.3	0.0	0.0	9.1
	Total	100.1	100.0	100.0	100.0	100.0	99.9	100.0
How important would it be to include . . . general education courses . . . in a post-high school technical or semi- professional education program?	Very important	0.0	12.5	6.3	16.7	30.8	10.3	10.7
	Important	27.3	25.0	45.8	58.3	38.5	48.3	43.8
	Not important	45.5	37.5	41.7	25.0	30.8	37.9	38.0
	No response	27.3	25.0	6.3	0.0	0.0	3.5	7.4
	Total	100.1	100.0	100.1	100.0	100.1	100.0	99.9
How important is it to provide some free edu- cation beyond the high school?	Very important	54.5	12.5	39.6	25.0	53.8	41.4	39.7
	Important	36.4	50.0	33.3	50.0	42.3	48.3	41.2
	Not important	9.1	37.5	18.3	16.7	0.0	10.3	15.8
	No response	0.0	0.0	8.3	100.0	100.0	100.0	100.0
	Total	99.6	100.0	100.0	100.0	100.0	100.0	100.0

How important is it to provide some free education beyond the high school for all youth . . . who desire and can benefit from additional education . . . ?

Very important	54.5%	12.5%	39.6%	25.0%	53.8%	41.4%	39.7%
Important	36.4	50.0	33.3	50.0	46.2	48.3	41.3
Not important	0.0	37.5	18.8	8.3	0.0	10.3	13.2
No response	9.1	0.0	8.3	16.7	0.0	0.0	5.8
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

NOTE: Due to rounding, some percentage totals do not equal 100.0%.

LEGEND FOR EMPLOYER GROUPS: A - Agriculture, mining, B - Construction, C - Manufacturing, D - Transportation, communication, utilities, E - Wholesale and retail trade, F - Financial, business, and professional services.

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attitude that such course work would be "important," nearly as many, 38.0 per cent, said that general education courses would not be important. The greatest support for the inclusion of humanities, social science, and natural science courses came from transportation, communications, and utilities employers, 75.0 per cent of whom marked "important" or "very important." Among wholesale and retail trade employers, 69.3 per cent indicated these two categories.

With respect to the importance of providing some free education beyond high school for all youth who had the desire to continue and who could benefit from additional education, more than 80 per cent of the employers expressed an attitude that it was "important" or "very important." Approximately two-fifths checked each of these responses (see Table 62). Construction employers, as a group, considered free post-high school education relatively unimportant, as demonstrated by the 37.5 per cent who indicated such was "not important." This proportion was twice that of employers in manufacturing, the next highest group marking "not important." Several respondents qualified their answers, indicating that they would not favor "free" education if it meant an increase in taxes.

Types of Post-High School Courses or Training Needed

In the previous section, evidence was presented showing that a three-fourths or better majority of employers

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expressed favorable attitudes toward post-high school education on nearly every question asked to solicit opinions. Employers were then asked to indicate types of courses or training which would be valuable to their firms. Fifty-one courses or training programs were listed on the questionnaire under five separate headings. Respondents were invited to check as many types as would benefit them. Opportunity was also provided to write in other types of training they would like to suggest. A summary of responses is presented in Table 63.

Under the area of "general education," more than half of the responding employers indicated that courses in communications (reading, speaking, and writing) would be of value to their employees; and nearly as many checked mathematics. Other courses considered important for employee training by more than 10 per cent of the respondents included economics (33.1%), psychology and sociology (16.5%), and chemistry and physics (11.6%). Several employers wrote in comments indicating that their employees seemed to exhibit a lack of basic concepts of economics and expressed an interest in providing their workers with opportunities to become informed in this vital area.

In a more specialized area, agriculture, considerably fewer total responses were counted. Types of post-high school study considered important by employers in agriculture

Table 63. Type
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Type of
Course or
Training

GENERAL EDUCATION

Communication
Foreign Language
Literature &
History
Economics
Gov't & Pol.
Science
Psychology &
Sociology
Biological
Sciences
Chemistry &
Physics
Mathematics

AGRICULTURE

Dairy Management
Feed, Fertilizer
Sales & Service
Grain Production
& Marketing
Landscape &
Nursery
Technology
Livestock,
Poultry
Production
Marketing
Machinery
& Service

HEALTH &

Dental Assisting
Dietetics
Nutrition
X-ray, L.
Technician
Nurses Assistant
Practical
Professional
Nursing

Table 63. Type of post-high school course or training indicated as being of value to businesses and industries.

Type of Course or Training	Number by Employer Groups							% of All Firms Reporting
	A	B	C	D	E	F	Total	
	N=11	N=8	N=48	N=12	N=13	N=29	N=121	
<u>GENERAL EDUCATION</u>								
Communication	2	3	23	10	9	16	63	52.0%
Foreign Language	0	0	1	1	0	1	3	2.5
Literature & History	0	0	1	2	0	1	4	3.3
Economics	3	0	15	6	5	11	40	33.1
Gov't & Pol.								
Science	0	0	2	3	0	3	8	6.6
Psychology & Sociology	0	0	8	2	2	8	20	16.5
Biological Sciences	2	0	0	1	0	1	4	3.3
Chemistry & Physics	0	0	12	1	0	1	14	11.6
Mathematics	4	5	29	7	7	8	60	49.5
<u>AGRICULTURE</u>								
Dairy Management	0	0	0	0	0	1	1	0.8%
Feed, Fertilizer Sales & Service	7	0	0	0	1	1	9	7.4
Grain Production & Marketing	5	0	0	0	1	1	7	5.8
Landscape & Nursery Technology	2	2	0	0	1	1	6	5.0
Livestock, Poultry Pro- duction & Marketing	5	0	0	0	1	1	7	5.8
Machinery Sales & Service	0	1	0	0	4	2	7	5.8
<u>HEALTH & MEDICAL</u>								
Dental Assistant	0	0	0	0	0	0	0	0.0%
Dietetics, Nutrition	0	0	0	0	0	4	4	3.3
X-ray, Lab Technician	0	0	0	0	0	1	1	0.8
Nurses Aide	0	0	0	0	0	5	5	4.1
Practical Nursing	0	0	1	0	0	6	7	5.8
Professional Nursing	0	0	0	0	0	5	5	4.1

Table 63. Cont.

Type of
Course or
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BUSINESS

Advertising &
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Accounting &
Bookkeeping
Business Mgmt
Data Processi
Business Mach
Marketing, Sa
Purchasing,
Merchandis
Real Estate,
Finance,
Insurance
Secretarial,
Clerical
Specialized
Secretari
Tax, Busine

INDUSTRIAL

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Heating
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Table 63. Continued

Type of Course or Training	Number by Employer Groups							% of All Firms Reporting
	A	B	C	D	E	F	Total	
	N=11	N=8	N=48	N=12	N=13	N=29	N=121	
<u>BUSINESS</u>								
Advertising & Commercial Art	1	1	8	4	5	3	22	18.2%
Accounting & Bookkeeping	4	3	33	7	9	18	74	61.2
Business Mgmt.	6	1	19	9	6	9	50	41.3
Data Processing	0	0	8	3	1	9	21	17.4
Business Machines	1	1	9	6	2	9	28	23.6
Marketing, Sales, Purchasing, Merchandising	5	3	16	5	9	6	44	36.4
Real Estate, Finance, Insurance	2	1	3	2	0	9	17	14.0
Secretarial, Clerical	6	1	25	8	6	21	67	55.4
Specialized Secretarial	0	0	6	2	0	10	18	14.9
Tax, Business Law	0	0	0	1	0	1	2	1.7
<u>INDUSTRIAL</u>								
Air Cond. & Heating	0	2	5	2	5	7	21	17.4%
Apprentice Train- ing (Tool & Die, Machinist, En- graving, etc.)	0	0	19	1	1	2	23	19.0
Construction Methods & Materials	0	7	2	2	2	4	17	14.0
Drafting, Blue- print Reading	0	6	28	3	2	5	44	36.4
Engineering Technology	0	0	12	4	1	3	20	16.5
Electricity, Wiring, Motors	1	2	17	5	6	7	38	31.4
Electronics	0	0	5	3	1	2	11	9.1
Hydraulics	0	0	6	2	1	1	10	8.3
Inspection & Quality Control	0	0	23	2	0	0	25	20.6

Table 63. Cont

Type of
Course or
Training

INDUSTRY (Con

Instrumentation
Plant Contr
Industrial
Chemistry
Laboratory
Technology
Machine Tool
Processing
Mechanics--
diesel
Metallurgy
Management,
Developme
Photographi
Processing
Printing &
Graphic
Production
Supervision
Training
Welding
Other: We
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Operati

Table 63. Continued

Type of Course or Training	Number of Employer Groups						% of All Firms Reporting	
	A	B	C	D	E	F		Total
	N=11	N=8	N=48	N=12	N=13	N=29		N=121
<u>INDUSTRY (Cont.)</u>								
Instrumentation & Plant Control	0	0	10	1	0	2	13	10.7%
Industrial Chemistry	0	0	7	1	0	1	9	7.4
Laboratory Technology	0	0	5	0	0	2	7	5.8
Machine Tools & Processing	0	1	17	0	0	3	21	17.4
Mechanics--auto, diesel	1	1	5	2	3	4	16	13.2
Metallurgy	0	0	6	1	0	0	7	5.8
Management, Development	1	2	17	6	1	6	33	27.2
Photographic Processing	0	0	1	2	0	0	3	2.5
Printing & Graphic Arts	0	0	4	2	0	2	8	6.6
Production Design	0	0	7	0	0	1	8	6.6
Supervision Training	1	2	23	4	1	3	34	28.1
Welding	1	3	18	2	3	3	30	24.8
Other: Woodwork- ing Machine Operation	0	0	1	0	0	0	1	0.8

LEGEND FOR EMPLOYER GROUPS:

- A - Agriculture, Mining
- B - Construction
- C - Manufacturing
- D - Transportation, Com-
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Utilities
- E - Wholesale & Retail
Trade
- F - Financial, Business
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and mining included courses in feed and fertilizer sales and service, grain production and marketing, and livestock and poultry production and marketing. A scattering of employers in other groups felt that these courses as well as work in landscape and nursery technology, and machinery sales and service would be valuable to them since they are areas closely related to business activities of their firms. From six to nine total employers marked courses in agricultural-related subjects.

In the health and medical category, another specialized area, nursing programs for training registered nurses, nurses aides, and practical nurses were desired by five to seven employers. Also mentioned by four respondents was dietetics and nutrition.

Programs in business received greater attention by employers than any other area of post-high school course work. Leading the list in this category was a need expressed by 61.2 per cent of the employers for courses or programs in bookkeeping and accounting. Secretarial training courses and business management programs were listed by 55.4 and 41.3 per cent of the employers respectively as being of value to their firms. Courses in marketing, sales, purchasing and merchandising, and in business machines were checked by 36.4 and 23.6 per cent of all respondents. Ten per cent or more of the employers expressed interest in advertising and commercial art; data processing; real estate,

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finance, and insurance; and specialized secretarial courses. Needs in the area of business and secretarial type programs were indicated by some employers in each of the six employer groups.

Several types of post-high school work may be identified as important to employers in the area of industrial training and education. Drafting and blueprint reading; electricity, wiring, and motors; supervision; management and development; and welding were listed in that order by 36.4 to 24.8 per cent of all employers. Still significant, but marked in somewhat lesser proportions, were courses in inspection and quality control, various types of apprentice training, air conditioning and heating, machine tools and processing, and engineering technology indicated by 20 or more employers. Other needs may be noted in Table 63.

While employers engaged in manufacturing provided much of the interest expressed in education or training in the industrial category, those in other employer groups also expressed needs in various courses.

On the basis of information obtained from respondents to the questionnaires, it is evident that post-high school training or course work in a variety of areas would be of value to a sizeable number of employers. With the greatest need indicated in secretarial and business type programs, several areas of industrial training also stood out as being in considerable demand. Types of skills required

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for study in the various programs checked ranged from a strong emphasis upon manipulative, as in welding, to a large degree of cognitive skills, as in various management and technological areas. Occupational levels of workers who would study in these areas would cover a wide range from skilled to technical and semi-professional. Training programs established to teach necessary courses would necessarily vary from relatively short periods of time to possibly a year or two of post-high school work. Interest in general education was also noted particularly in the areas of communication skills, mathematics, and economics.

Employer Support of Post-High School Programs

Although employers indicated that certain types of education and training for their employees might be of value to their firms, an important related question is whether and how they would support such programs. In response to a question asking if their firms would encourage employees to enroll for post-high school courses, if they were offered, more than two-thirds of the respondents indicated they would (see Table 64). Only 9.1 per cent would not encourage their employees to enroll for course work, while 16.5 per cent were undecided.

Employers in manufacturing reflected the lowest proportion of affirmative response among the six employer groups. Some wrote in comments to the effect that nearly

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Financial,
Business and
Professional
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all of their employees were unskilled laborers. Therefore, encouragement of workers to attend courses would be of little benefit to the employing organization.

Table 64. Attitude of employers toward encouraging employees to enroll in post-high school evening courses.

Employer Group	Encourage Employees to Enroll?							
	Yes		Undecided		No		No Response	
	No.	%	No.	%	No.	%	No.	%
Agriculture, Mining	7	63.6%	2	18.2%	1	9.1%	1	9.1%
Construction	6	75.0	1	12.5	1	12.5	0	0.0
Manufacturing	29	60.4	10	20.8	4	8.3	5	10.4
Transportation, Communica- tions, Utilities	9	75.0	2	16.7	1	8.3	0	0.0
Wholesale and Retail Trade	10	76.9	2	15.4	1	7.7	0	0.0
Financial, Busi- ness and Professional Services	23	79.3	3	10.3	3	10.3	0	0.0
TOTAL	84	69.4%	20	16.5%	11	9.1%	6	5.0%

Incentives which employers would offer to their workers to continue education are important indicators of employers' interest in upgrading their workers. Responses of employers to a question investigating various incentives

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are recorded in Table 65. About two-fifths of the respondents reported they would offer job advancement to employees, and a like proportion would consider paying part or all of the tuition for successful participation in educational and training programs. Several firms in the area currently have educational plans whereby professional and salaried employees receive company reimbursement for taking approved courses or working toward a college degree at recognized educational institutions. A third incentive, higher pay, would be offered to workers taking additional education by 35.6 per cent of the responding employers.

Assessment of Present Educational Programs

Employers were asked to indicate how well existing educational programs in the area met the pre-employment and job training needs of their firms. Table 66 shows the distribution of responses among various employer groups reacting to this question. Just over 45 per cent rated present programs as "fair," while 18.2 and 3.3 per cent indicated they were "good" and "excellent" respectively. Employers in agriculture and mining; transportation, communications, and utilities; and financial, business, and professional services recorded a "good" rating in higher proportions than the other three employer groups.

Construction, manufacturing, wholesale and retail trade, and agricultural and mining employers in that order,

Table 65. Inc
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Employer Group

Agriculture,
Mining

Construction

Manufacturing

Transportation
Communi-
cations,
Utilities

Wholesale
Retail Trade

Financial,
Business and
Professional
Service

incentive

Table 65. Incentives employers would offer to employees to enroll in post-high school courses.

Employer Group	Incentive Offered by Employer							
	Job Advance-ment		Higher Pay		Pay Part or All of Tuition		Undecided	
	No.	%	No.	%	No.	%	No.	%
Agriculture, Mining	5	45.5%	4	36.4%	6	54.5%	1	9.0%
Construction	2	25.0	5	62.5	2	25.0	0	0.0
Manufacturing	22	45.8	15	31.2	14	29.2	2	4.2
Transportation, Communications, Utilities	4	33.3	5	41.7	8	66.6	1	8.3
Wholesale and Retail Trade	8	61.5	6	46.2	5	38.5	0	0.0
Financial, Business and Professional Services	7	24.1	8	27.6	13	44.8	2	6.9
TOTAL	48	39.7%	43	35.6%	48	39.7%	6	50.0%

NOTE: Some employers indicated more than one incentive.

Table 66. *Employers' assessment of how well existing educational facilities in existing job needs are meeting needs of their firms.*

	Adequacy of Existing Educational Facilities		Meeting Job Needs	
	No.	%	No.	%
Excellent				
Good				
Fair				
Poor				
Total				
No.				
%				
				100.1%

Employer Group	Adequacy of Existing Educational Facilities in Meeting Job Needs											
	Excellent		Good		Fair		Poor		No Response		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Agriculture, Mining	0	0.0%	3	27.3%	4	36.4%	3	27.3%	1	9.1%	11	100.1%
Construction	0	0.0	0	0.0	4	50.0	4	50.0	0	0.0	8	100.0
Manufacturing	2	4.2	4	8.3	20	41.7	15	31.2	7	14.6	48	100.0
Transportation, Communication, Utilities	0	0.0	4	33.3	6	50.0	2	16.7	0	0.0	12	100.0
Wholesale and Retail Trade	0	0.0	2	15.4	7	53.8	4	30.8	0	0.0	13	100.0
Financial, Busi- ness and Professional Services	2	6.9	9	31.0	14	48.3	4	13.8	0	0.0	29	100.0
TOTAL	4	3.3%	22	18.2%	55	45.4%	32	26.4%	8	6.6%	121	99.9%

NOTE: Due to rounding, total percentage does not equal 100.0%.

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ranging from 50.0 per cent to 27.3 per cent, classed present programs as "poor." In terms of total responses, 26.4 per cent gave a "poor" rating to present occupational training programs in the area.

Comments of employers were invited concerning post-high school technical, vocational, semi-professional and/or professional education needs in the local geographic area. Responses were varied and ranged over a number of topics. A listing of comments may be found in Appendix H.

Comments expressing a need for education beyond high school outnumbered those indicating lack of interest for such opportunities by more than a four to one margin. The need for skilled and technician level workers was mentioned frequently. Some employers pointed out that with the increased reliance on technology, additional education is becoming more essential.

Due to the nature of some businesses and industries in the area, only unskilled workers are employed. At least three employers reported that they would not need employees with more than a high school education.

Financing post-high school education was mentioned by a few respondents. While some believed that it was entirely up to the individual to prepare himself for employment, others indicated they would favor cooperative financing by students, employers, and the state. A reaction against financing by a raise in taxes was also noted.

Summary of Findings
Business and Industry

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Summary of Findings From the
Business and Industry Survey

Questionnaires were returned by 121 business and industry employers in Wabash and Miami Counties, with about two-fifths of those reporting representing firms engaged in manufacturing. More than 9,000 workers were employed by responding organizations. Unskilled workers accounted for 43.2 per cent of the total group. More than one-fourth were classed as skilled workers, 19.0 per cent as technical, semi-professional or highly skilled employees, and 10.4 per cent as professionals. Approximately 16 per cent of the employers reported that half or more of their professional level employees were spending a significant portion of their time at sub-professional level tasks.

Unsolicited applications, advertising, and training own employees ranked in that order as sources of technical, semi-professional, and professional employees. Training programs, however, consisted primarily of on-the-job training and various short courses or schools provided by equipment manufacturers, parent companies, or professional associations. Technical or professional schools as a source of trained employees ranked low.

For success of most categories of workers listed on the questionnaire, post-high school education was considered "very important" or "important" by a large majority of employers. Similarly, post-high school opportunities for adult

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workers to study in areas related to their work and to their personal development were considered important. Expansion of opportunities for youth to pursue technical and vocational education beyond high school graduation was also favored by respondents.

Employers expressed interest in various kinds and types of post-high school courses or programs. Training opportunities in the area of business, such as business administration, secretarial skills, accounting, sales, and purchasing, were desired for their employees by one-third or more of all responding employers. Training programs (if developed) in other areas such as drafting and blueprint reading, supervision and management training, electricity and wiring, welding, and several other technical skill areas were also listed by respondents as being of benefit to their firms. A need for offering work in communications skills, mathematics and economics was expressed.

Increased wages, job advancement, and providing part or total payment of tuition were each indicated by more than one-third of the employers as incentives they would offer their employees to enroll in adult education courses.

Present educational programs were classified as generally "fair" in providing for pre-employment and job training needs of the firms represented by responding employers.

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Opportunities for Higher Education
in the Two-County Area¹³

Studies have indicated that the probability of high school graduates going on to college or post-high school training is influenced by a number of factors among which are (1) accessibility to an institution of higher education, (2) costs of pursuing post-high school education and training, and (3) availability of programs appropriate to the needs, interests, and abilities of prospective students.¹⁴

Formally organized educational and training programs of post-high school institutions within easy commuting distance (25 miles) of residents of the two-county area constituted the opportunities for higher education for the purposes of this study. These opportunities were examined in relation to the three above mentioned factors influencing post-high school attendance.

Post-High School Institutions

An examination of institutions of higher education in the vicinity of Wabash and Miami Counties revealed six colleges and several institutions offering specialized vocational training within commuting distance of some of the residents of the area.

¹³Information pertaining to institutions described in this section was obtained from officials, usually the Registrar, and publications of the schools and colleges in the area.

¹⁴Cf., pp. 39-44.

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In the latter category was the Indiana Business College with schools in Marion, Kokomo, and Logansport. Other post-high school vocational programs in the area included beautician schools in Marion and Kokomo, and a few apprenticeship programs in Wabash, Marion, Peru, Kokomo, and Warsaw.

Six institutions offering college level work were within commuting distance of area residents. Manchester College, in the northern portion of Wabash County, was the only institution of higher education operating within the bounds of the two counties. Grace College at Winona Lake, Huntington College at Huntington, Marion College at Marion, Taylor University at Upland, and the Indiana University Regional Campus at Kokomo were the other five institutions, all of which were located in adjoining counties.

Figure 1 depicts the geographic locations of the cities in which the above mentioned institutions were located.

Accessibility of Higher Education

Reports of the Indiana Conference of Higher Education have pointed out that over 90 per cent of Indiana's high school graduates lived within 25 miles of a college or university regional campus. Furthermore, in excess of 40 per cent were within easy commuting distance of four or more such institutions.¹⁵

¹⁵Cf., p. 65.

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Figure

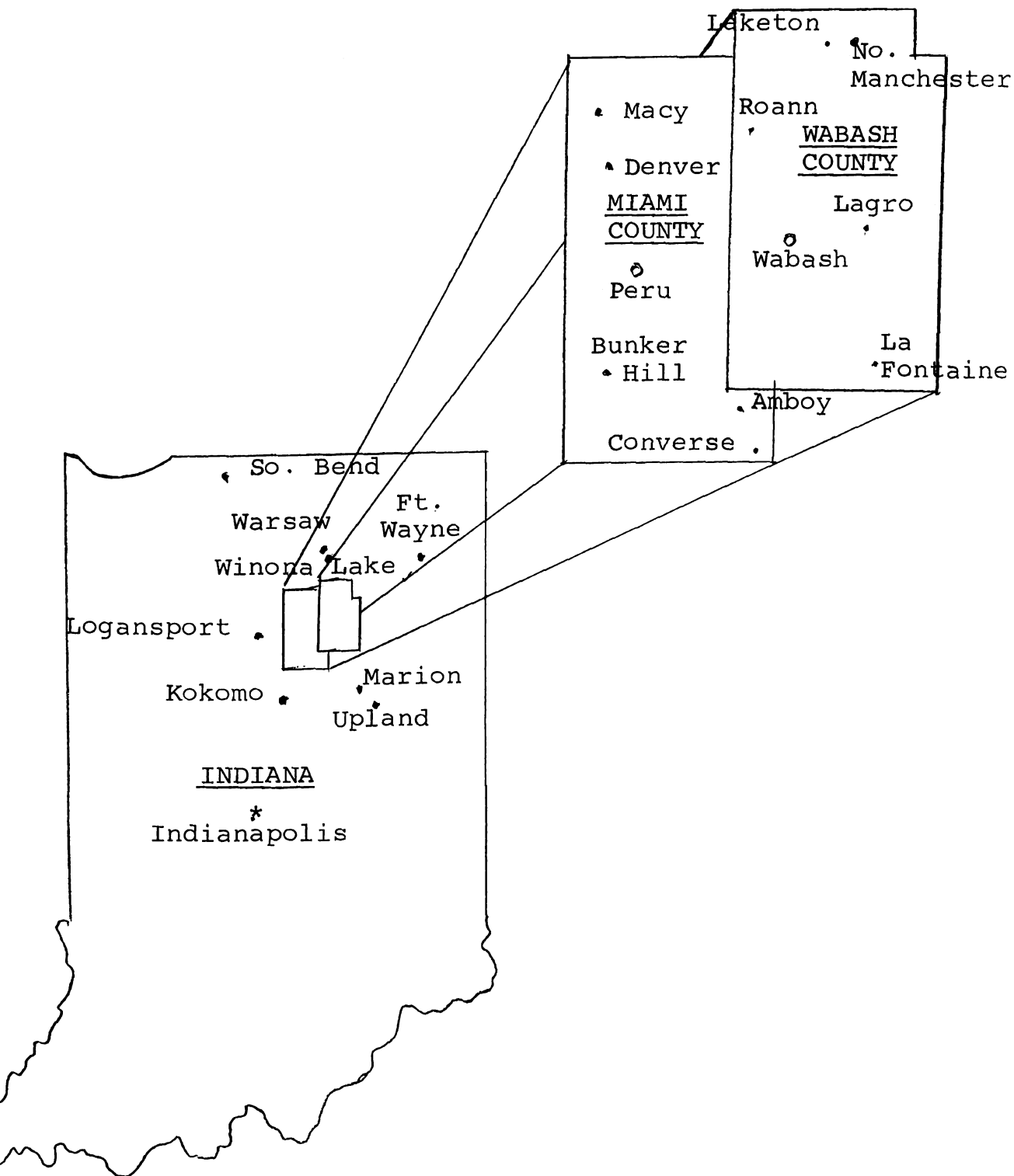


Figure 1. Geographic location of Wabash and Miami Counties in Indiana.

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The present study revealed that all residents of Wabash and Miami Counties were within 25 miles of at least two colleges. A majority were within easy commuting distance of three institutions, and some residents living south of the City of Wabash were within 25 miles of four or five colleges. Specialized vocational training opportunities described in the above paragraphs were also found within commuting distance of nearly all high school graduates in the two counties. Residents of the northern part of Wabash County did not come within the 25 mile range of most of the specialized vocational opportunities, however.

On the basis of accessibility to some post-high school institution, Wabash and Miami County residents were clearly in an advantageous position.

Types of Colleges and Tuition Costs

In Table 67 are recorded the names, locations, types of control, and affiliations of the six area colleges. A profile of each of the institutions is included in Appendix I.

Five of the six are privately controlled, coeducational, liberal arts, baccalaureate-degree granting colleges. Four of these are church-related. The fifth, Taylor University, is operated by a foundation, but is avowedly a Christian college emphasizing religious commitment and values. The sixth institution is a two-year branch of Indiana University and is under the control of that state university.

Type	in the two-county area by location, control, affiliation, and type
...	...

Table 67. Colleges in the	Control	
	Location	Affiliation
Institution		
		Coeducational, liberal arts
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Table 67. Colleges in the two-county area by location, control, affiliation, and type.

Institution	Location	Control	Affiliation	Type
Grace College	Winona Lake	Private	Nat'l Fellowship of Brethren Churches	Coeducational, liberal arts
Huntington College	Huntington	Private	Church of the United Brethren in Christ	Coeducational, liberal arts
Indiana University-Kokomo Campus	Kokomo	Public	Regional campus of Indiana University	Two-year branch of state university
Manchester College	No. Manchester	Private	Church of the Brethren	Coeducational, liberal arts
Marion College	Marion	Private	Wesleyan Methodist Church	Coeducational, liberal arts
Taylor University	Upland	Private	Interdenominational, Wm. Taylor Foundation	Coeducational, liberal arts

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As noted in Table 68, tuition costs at the six institutions ranged from a low of \$450.00 per year for a full-year program of 30 semester hours at the Indiana University Kokomo Campus to a high of \$1100.00 for the 1966-67 academic year at Taylor University. Although the Kokomo Regional Campus is operated as a public institution, tuition costs were not low. In the other colleges, tuition costs ranged from low to moderate in comparison to tuition charged at private institutions. Although total costs could be reduced greatly if a student lived at home, thereby avoiding room and board costs which are often a sizeable expenditure connected with college attendance, a considerable financial outlay would still be demanded of students to pay for tuition. These costs might provide an insurmountable barrier to continued education for many students.

As noted in the college profiles in Appendix I, financial aids were provided to students to help them in meeting post-high school educational costs. These included institutional and state scholarships, many types of loans, grants, part-time employment, government sponsored work-study opportunities, veterans' educational benefits, vocational rehabilitation educational assistance, and various other types of awards. Without a doubt, these financial aids have made it possible for many students to pursue higher education. The degree to which educational costs still

Table 68. Accreditation, enrollments, degrees offered, graduates, and tuition of colleges in the two-county area.

Accreditation	Degrees Offered	1966 Fall Term Enrollment	Number of 1966 graduates	Tuition, 1966-67
			72	\$980/year

Institution	Accreditation	Degrees Offered	1966 Fall Term Enrollment	Number of 1966 Graduates	Tuition, 1966-67
Grace College	Indiana State Dept. of Public Instruction	B.A., B.S., B. Mus.	447	72	\$980/year
Huntington College	Indiana State Dept. of Public Instruction North Central Assn.	B.A., B.D., B.S., B.Th.	467	82	\$930/year
Indiana University- Kokomo Campus	Indiana State Dept. of Public Instruction, North Central Assn., NCATE, and others	Two-Year Certificate	1,046	--	\$15/Sem. Hr.
Manchester College	Indiana State Dept. of Public Instruction, North Central Assn., NCATE	B.A., B.S.	1,394	274	\$1080/year
Marion College	Indiana State Dept. of Public Instruction, North Central Assn.	B.A., B.S.	663	72	\$890/year
Taylor University	Indiana State Dept. of Public Instruction, North Central Assn., NCATE	B.A., B.S.	1,251	145	\$1100/year

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provide barriers to post-high school education, despite recent increased programs of financial assistance, is not known.

Courses and Degrees Available

Data concerning accreditations, enrollments, degrees offered, and numbers of graduates in 1966 for the six area colleges are presented in Table 68. All of the institutions were accredited by the Indiana State Department of Public Instruction for preparing elementary and secondary teachers. Only Grace College, founded in 1948, was not accredited by the North Central Association of Colleges and Secondary Schools. Manchester College, Taylor University, and Indiana University held accreditation by the National Council for Accreditation of Teacher Education.

Five of the six institutions granted both the Bachelor of Arts and the Bachelor of Science degrees. Huntington College, in addition, offered the Bachelor of Divinity and the Bachelor of Theology degrees. Grace College provided a curriculum leading to the Bachelor of Music in Education degree. No institution in the area offered a full graduate degree program.

Grace College and Huntington College both reported less than 500 students as their total enrollment for the fall semester of 1966. Marion College registered 663 students, 120 of which were part-time. Taylor University's

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enrollment stood at 1,251 in the fall of 1966, and Manchester College reported 1,394 students.

Indiana University Kokomo Campus listed 580 freshmen, 256 sophomores, and 210 others for a total of 1,046 students in September, 1966. This number represented a decrease in enrollment from 1,124 reported in the fall semester, 1965.

Manchester College, located within Wabash County, included in its student body a total of 162 and 43 students from Wabash and Miami Counties respectively, accounting for 14.4 per cent of the total enrollment in September, 1966.

A total of 648 baccalaureate degrees were conferred by the five degree-granting colleges in 1966, with Grace and Marion Colleges awarding the fewest, 72 each. Manchester College graduated the highest number of students, a total of 274.

As would be expected, the size and the nature of the five liberal arts colleges were factors in limiting the types of programs offered.

An examination of Table 69 reveals that 22 major fields of study were offered by two colleges, 19 by one college, and 11 by two institutions. These majors were primarily in education and in areas usually considered as liberal arts and sciences.

With the number of colleges offering a major indicated in parentheses, the following majors were available in the humanities: art (2), Bible or religion (5), English (5),

Major Fields

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Table 69. Major fields of study offered by degree-granting colleges serving the two-county area.

Major Fields	College				
	Grace	Hunt- ington	Man- chester	Marion	Taylor
Ancient Civilization (Interdepartmental)		x			
Art		x	x		
Bible or religion	x	x	x	x	x
Biology		x	x	x	x
Botany					x
Chemistry		x	x	x	x
Christian education		x			x
Church music					x
Economics and business		x	x		x
Elementary education	x	x	x	x	x
English	x	x	x	x	x
French		x	x		x
General science	x				
German			x		
Greek	x				
History	x	x	x	x	x
Home economics			x		
Mathematics	x	x	x	x	x
Music	x	x	x	x	x
Nursing	x				
Peace studies (Interdepartmental)			x		
Philosophy		x	x		x
Physical education & health	x	x	x		x
Physics			x		x
Political science			x		x
Psychology		x	x		x
Social studies				x	x
Sociology		x	x		x
Spanish		x	x		
Speech	x	x	x	x	x
Theology				x	
Zoology					x
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French (3), German (1), Greek (1), music (5), philosophy (3), Spanish (2), and speech (5).

Majors offered in natural sciences included biology (4), botany (1), chemistry (4), general science (1), mathematics (5), physics (2), and zoology (1).

In the social sciences, economics and business (3), general social science (2), history (5), political science (2), psychology (3), and sociology (3), constituted major field offerings.

In the area of professional studies, elementary education (5), health and physical education (4), home economics (1), and nursing (1), were the major fields offered. Teaching majors for secondary education were recorded under the subject matter fields in previous paragraphs. Majors in Christian education (2); church music (1); interdepartmental majors in ancient civilization (1), peace studies (1); and theology (1); were also noted as specialized fields.

The programs listed above included only those which were provided by, and led to degrees at, the institutions serving the two-county area. Although the Indiana University Kokomo Campus did not offer four-year degree programs, opportunities were available for taking the first two years of regular Indiana University courses toward a degree prior to going on to the parent campus or transferring to another college. Courses were offered in business, chemistry, education, English, fine arts, foreign languages, geography, geology,

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government, history, mathematics, philosophy, physics, psychology, sociology, speech and zoology. In certain areas, primarily elementary education and business, individual courses beyond the first two years, as well as a few graduate courses, were offered.

In addition to regular credit courses, the Kokomo Center offered six two-year certificate programs in general education and a variety of non-credit adult education programs in general studies such as communications, English, fine arts, foreign language, and mathematics. Also, applied studies were scheduled such as business, data processing, electrical technology, management, and supervision.

Pre-professional courses were available at area institutions in the fields of dentistry, engineering, law, medical technology, medicine, nursing, and theology.

Indiana Business College offered a curriculum of instruction embracing a number of courses, varying in length and content, designed to prepare students for specific positions in business. Secretarial science and accounting courses made up the greatest portion of the programs offered in this specialized school.

Beautician schools in Marion and Kokomo provided programs in hair styling and related areas. Certificates were awarded to students successfully completing a prescribed program.

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Apprenticeship training programs were identified in areas of printing, tool and die making, and several other machine and industrial-related skills.

Although the Upper Wabash Vocational School has been engaged primarily in planning high school vocational curricula since its establishment in the fall of 1965, a few adult education evening courses have been scheduled such as mechanics, welding, blueprint reading, secretarial training, investment, foreign language, and other general education subjects. As yet, no integrated curricula at the post-high school level have been developed leading to job entry at a semi-skilled, skilled, or technical level.

Recent Trends in Post-High School Attendance

In earlier sections of this report, aspirations, expectations, and plans of seniors for pursuing post-high school education have been discussed. As a general indicator of opportunities which graduates have found and used after completion of high school, data were obtained from high school guidance counselors regarding graduates from 1964 through 1966 who had gone to college or pursued specialized vocational training in the year following graduation. In Table 70 are recorded proportions of graduates continuing their education anywhere, either in the local area or at institutions elsewhere in the state or nation.

Table 70. Per
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Year	(a) Total Number Gradua	
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Table 70. Percentages of 1964-1966 high school graduates of the two-county area going on to post-high school education.

Year	(a) Total Number of Graduates	(b) Per Cent Going to 2- or 4- Year Colleges	(c) Per Cent Going to Other Spe- cialized Schools	(d) Total of (b) and (c)
1964	828	33.6%	11.3%	44.9%
1965	838	32.9	8.5	41.4
1966	855	36.8	11.0	47.8
AVERAGES	840	34.4%	10.3%	44.7%

Three-year averages of post-high school attendance of recent graduates of area high schools show that just over one-third (34.4%) have gone on to two- or four-year colleges, and approximately 10 per cent have attended other types of specialized training. In 1966, the percentage attending college was 36.8 per cent, 3.2 per cent more than in 1964, and 3.7 per cent more than in 1965.

In none of the last three years did the percentage of graduates going on to post-high school education quite reach the level indicated by responses of high school seniors in the present study to a question concerning their plans for their first year following graduation. Forty per cent had indicated plans to attend college and 12.1 per cent

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Comparing the rate of continuance beyond high school of recent graduates in the two-county area with figures supplied by Butler in his study of 1960 high school graduates, it is noted that the present percentages attending college are somewhat smaller. Butler reported that 39.9 per cent of the graduates of Wabash and Miami County high schools in June, 1960, were attending college in the following fall.¹⁷ The highest rate of college attendance in the past three years was 36.8 per cent in 1966.

It is not clear, however, whether the above figures represent an actual decline in the rate of college attendance. Butler used a standard adjustment based upon known percentages of out-migration of Indiana students to colleges in other states and applied this factor to each of the separate counties. He cautions that this standard adjustment would not be uniform throughout the separate counties of the state, however. Butler's data does indicate that 33.2 per cent of 1960 high school graduates of the two-county area attended colleges and universities in Indiana. Whatever proportion went out-of-state must be added to this percentage.

¹⁶Cf., p. 98.

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Summary of Opportunities for
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Formally organized programs of post-high school education in the Wabash and Miami Counties area were considered opportunities for higher education. These were examined in relation to accessibility of institutions and programs; costs involved, and types of courses and degrees offered.

Serving the two-county area were six colleges, one located in Wabash County and the others in adjoining counties. Several business and beauty schools in nearby cities provided opportunities for specialized vocational training.

All residents of the two-county area were within easy commuting distance (25 miles) of at least two colleges and some, four or five colleges. On the basis of accessibility, opportunities for post-high school attendance were good.

In respect to educational costs and availability of a wide range of course offerings and degree programs, however, opportunities for residents of the two-county area to pursue post-high school education were more limited.

Tuition costs among the six colleges ranged from a low of \$450.00 to a high of \$1100.00 per year. Although students had the opportunity to reduce higher educational costs by living at home and commuting, it is possible that tuition alone required financial resources sufficiently high to preclude some students from pursuing a college degree. Various

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forms of financial aids were available to students to help them in paying educational costs, however.

Five of the six colleges were private, coeducational, liberal arts colleges offering the Bachelor of Arts and Bachelor of Sciences degrees. Although the regional campus of Indiana University at Kokomo did not provide a full four-year degree program, opportunity was available for taking two years of college work prior to going on to the parent campus or transferring to another institution.

Major fields of study offered were limited primarily to those areas generally considered as liberal arts and sciences and to preparation for teaching at the elementary and secondary levels.

While a few opportunities existed to pursue specialized vocational courses in business and beautician schools, in general, programs to prepare students for employment as semi-skilled, technical and professional workers (except for teachers) were not available in the area.

Examination of the percentages of area high school graduates of the three years from 1964 through 1966 who continued education reveals that slightly over one-third have attended colleges and just over 10 per cent have pursued vocational training. These average rates are considerably lower than the approximately 85 per cent reported earlier in this report who held aspirations for post-high school attendance, and are less than the total of 52 per cent who

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CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

Planning for expansion of post-high school educational opportunities involves assessment of the nature and extent of higher educational need in an area. The problem of this study was to investigate need for education beyond the high school and opportunities for attaining higher education in a two-county area in the Upper Wabash Valley in the State of Indiana. Higher education was referred to in this study as all formally organized education beyond high school and for which high school graduation is usually required.

Purpose of the Study

The purpose of the study was as follows:

1. To determine the nature and extent of higher educational needs of youth in Wabash and Miami Counties,
2. To survey the needs of business and industry in the area for employees with certain desired or required training,
3. To determine the attitudes of employers in the area toward post-high school education, and

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4. To identify opportunities for higher education presently available to youth and adults in the geographic area.

Review of Literature

Removing barriers to post-high school education is essential in increasing opportunity for attendance at institutions of higher education. Inadequate financial resources, lack of appropriate programs to meet students' needs and interests, inaccessibility to a college or school offering post-high school study, lack of student motivation, and certain barriers due to the social status of prospective students and their families are factors which have been identified as obstacles to higher education attainment. Locally controlled and operated community colleges have been able to extend educational opportunity in many areas by reducing some of the barriers just mentioned.

Studies and surveys have been used in this century to assess higher educational needs on the national, state, and local levels. Approaching student, parent, employer and citizen groups directly to ascertain their aspirations, expectations, needs, and plans for higher education is a technique which has been successfully employed in assessing need for post-high school education in a local area. Several studies, differing in scope and design, have been conducted in the State of Indiana.

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Review of Methodology

Data upon which this study was based were collected from four sources. A questionnaire was prepared to obtain information from seniors enrolled in six high schools in a two-county area relative to their post-high school educational and vocational aspirations, expectations, plans, and goals. Information on selected family characteristics was also requested. A similar questionnaire was sent to parents of twelfth graders to collect the same type of data from the parents' point of view.

A third questionnaire was mailed to selected employers in business and industry to obtain general information concerning the employing firms, data on numbers and skill levels of workers employed by the firms, attitudes of employers toward various aspects of post-high school education, and types of educational programs and courses beyond high school which would have value for their firms.

Businesses and industries in the two-county area were selected for inclusion in the study on the basis of having five or more total employees, except that certain businesses (physicians, dentists, veterinarians, realtors, attorneys, banks, and other similar types of business and professional services) were included regardless of size and certain others (taverns, bars, barber and beauty shops, and retail stores employing primarily non-technical and non-professional level workers) were excluded regardless of size.

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A fourth source of data included school and college officials who were consulted and institutional publications which were examined to identify existing post-high school educational programs available to residents of the two-county area and to determine patterns of post-high school attendance.

Findings

From an analysis of the data, the following observations were made:

Student and Parent Questionnaire Findings

1. In general, post-high school plans of seniors were consistent with the types of high school preparation they had followed and with grade averages they had reported earning.
2. Over 93 per cent of the 587 responding parents of seniors felt that all youth who have ability to profit from college work should be encouraged to continue their education regardless of their financial means.
3. Eighty-five per cent of the 774 participating seniors expressed aspirations for attending post-high school education.
4. Just over one-half of those hoping to continue their education indicated a desire to attend college and the remainder wanted some type of specialized vocational training.

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5. Parents expressed hopes and aspirations for their sons' and daughters' post-high school education in proportions comparable to those indicated by seniors and reported in items 3 and 4 above.

6. Although 62 per cent of senior students reported they actually planned to take post-high school education or training, only 52 per cent indicated they would do so the year following graduation. Of this group, 40 per cent planned on immediate college attendance, but only 12 per cent reported plans for going on to specialized vocational training.

7. Nearly two-fifths of the seniors had been accepted for admission to a college or specialized school prior to their graduation and an additional 22 per cent had either made contact with an institution or had submitted an application for admission.

8. Teaching ranked as a strong first among seniors' vocational preferences. Secretarial and bookkeeping, beautician or barber, agriculture, nursing, business administration, engineering, factory work, and accounting followed in that order.

9. About two-fifths of the seniors believed that four or more years of college would be required for entry into their selected vocations. Over one-third indicated that anywhere from less than one year to three years of post-high school training would be essential for them.

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10. Parents' responses showed close agreement with those made by seniors regarding vocational preferences and length of post-high school training needed by their sons and daughters.

11. One-fifth of the seniors planned to pay all their own expenses for higher education, while 46 per cent were relying on parents for assistance.

12. Money from parents, part-time work, and savings ranked high as sources of funds for seniors' anticipated educational expenses.

13. Only 19.9 per cent of those parents reporting that their children planned further education indicated a definite savings program to finance education. An additional 38.3 per cent said they would help their children work their way through and 14.9 per cent would borrow money, but neither of these groups had a definite savings program for covering future educational expenses.

14. Seventeen per cent of the seniors uncertain about continuing their education or not planning to continue said they would change their plans if more money were made available to them. Only 6.3 per cent of parents reporting their children as not planning further education indicated a possible change in plans if more money were available.

15. Plans for seniors to live at home following graduation and commute to institutions of higher education were revealed by only 16 per cent of the students and a like proportion of parents.

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16. Seniors indicated the following factors as influencing their decisions to pursue higher education: preparing for a vocation (71%), probability of making more money (40%), getting a broad liberal education (37%), wanting to be independent (27%), and making friends and cultivating helpful connections (27%). Those seniors not going on listed the following factors for their decisions: wanting to get a job (50%), wanting to get married (28%), grades in high school (19%), tired of school (19%), and wanting to be independent (13%).

17. Lack of interest in further education, lack of finances, and poor grades in school were factors most frequently listed by parents as being influential in their children's decisions not to pursue post-high school education.

18. Colleges and universities in or close to the two-county area were named most frequently as choices of seniors planning on going to college.

19. Over half of the seniors having older brothers and sisters reported that their older siblings had attended college or specialized schools after high school graduation. Schools and colleges attended were, in large degree, the same as those chosen by senior students.

20. Seniors not only expected to pursue education beyond high school in much larger proportions than did their parents, but also held aspirations for considerably higher levels of educational attainment than their parents actually achieved.

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21. The higher the educational level of the parents, the higher were their aspirations for their children's education. Sons were expected to achieve higher levels than daughters.

22. As occupational levels of heads of households increased, the greater was the expectation that seniors would not only continue their education, but also would complete higher levels of education.

23. Among parents who expressed a desire to further their own education, fathers showed a preference for courses to help them in their jobs or to get better jobs. Mothers indicated greatest interest in courses for personal, social, and cultural development.

24. When asked about their interest in possible establishment of a local institution which would provide new and additional opportunities for post-high school education, one-third or more of both students and parents expressed a definite interest in such a possibility.

Business and Industry Questionnaire Findings

1. Data from 121 responding employers revealed that nearly one-half of the total number of employees reported were unskilled workers and just under one-third were technicians and professionals.

2. Post-high school education was considered "very important" or "important" by employers for most categories of

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workers with the exception of those engaged in operative or service work.

3. Providing opportunities for adult workers to study communications skills and technical subjects related to their work was considered "very important" or "important" by more than 80 per cent of employers surveyed. Cultural courses for personal growth were believed important for workers by a slightly smaller proportion of employers.

4. Employers expressed the attitude by an 80 per cent or greater majority that Indiana colleges and universities should provide high quality education for one-third or more of high school graduates and offer a combination of courses leading to effective citizenship and satisfactory work. To a somewhat lesser degree they indicated that institutions should emphasize liberal arts and professional courses instead of preparation for various kinds of work.

5. Some free education beyond high school for all youth who desire and can benefit from it was considered "very important" by 40 per cent of the employers and "important" by 41 per cent.

6. While nearly 80 per cent of the employers considered it important to develop post-high school programs to train technicians, only 65 per cent indicated that such programs would be important to their own firms.

7. Inclusion of general education courses in a technical education program was considered unimportant by nearly 40 per cent of the responding employers.

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8. Present job training and pre-employment education programs in the area were considered only generally "fair" by responding employers.

9. Employers as a group expressed a need for courses or training programs to be developed in the areas of business administration and secretarial studies, in certain skilled and technical areas relating to industrial-type operations, and in general education subjects including communications, mathematics, and economics.

10. Over two-thirds of the employers would encourage their employees to enroll in post-high school education courses offered in areas related to workers' jobs.

11. Incentives offered for attending would include increased wages, job advancement, and payment of a part or all of tuition.

12. As present sources of technical, semi-professional, and professional employees, employers ranked unsolicited applications, advertising, and training own employees in that order.

13. Training programs reported by business and industrial firms consisted primarily of on-the-job training.

Findings Regarding Post-High School Educational Opportunities

1. Institutions located within 25 miles of some portion of the two-county area and offering post-high school programs included five private liberal arts colleges, one two-year

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regional campus of a state university, three business schools, and two beauty schools.

2. All residents of Wabash and Miami Counties were within easy commuting distance (25 miles) of at least two colleges.

3. Baccalaureate degree programs were offered by the five liberal arts colleges with ten different majors available in the humanities, six in the natural sciences, and six in the social sciences. Other major programs included elementary and secondary teaching, music education, nursing, home economics, health and physical education and Christian education.

4. Two-year general education programs were available at the state-supported regional campus.

5. Tuition costs at the six colleges ranged from \$450 to \$1100 per year.

6. Pre-professional programs were offered for dentistry, engineering, law, medical technology, medicine, nursing and theology.

7. Specialized training in secretarial and accounting programs were offered at the business schools and training for beauticians was available through beauty schools.

8. Some opportunities for taking non-credit work in occupational courses and in several areas of general education were identified.

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9. Nearly 45 per cent of the graduates from area high schools in recent years have continued their education, with 34 per cent going to two- and four-year colleges and 10 per cent to specialized vocational training institutions.

Conclusions

Based on the findings of the study, the following conclusions were drawn:

1. A high level of interest in post-high school education was apparent among high school seniors, their parents, and employers in Wabash and Miami Counties.

2. Respondents in all groups surveyed recognized the importance of higher levels of educational preparation for personal success in today's changing world.

3. Employers in the two-county area expressed favorable attitudes toward expanding post-high school general and vocational educational opportunities for youth and adults.

4. While it is unlikely that all seniors expressing aspirations to continue education beyond high school would profit from higher education, the fact remains that a substantial percentage of area youth who hoped to pursue post-high school education did not go on. Thus, it may be concluded that the educational needs of a portion of the area's youth, for various possible reasons, were not being met.

5. Vocational preparation and occupational demands accounted for a major portion of interest in and need for higher education.

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6. Educational and vocational goals expressed by youth and their parents gave strong indications of the need for a diversity of post-high school educational opportunities ranging from vocational, terminal programs of less than baccalaureate degree level to professional and graduate studies.

7. Liberal arts colleges and a regional campus of a state university provided opportunities for many area youth to pursue higher education in four-year degree programs, pre-professional curricula, and teacher education.

8. Even though several liberal arts colleges served the area studied, the mere presence of an institution did not insure maximum opportunities for attendance by area youth. The extent to which obstacles to post-high school attendance were provided by religious affiliations of the colleges, tuition costs, admissions policies, institutional philosophies, and nature of programs available were not explored in this study.

9. There was little evidence that post-high school opportunities were available in the area to provide adequate one-or two-year terminal programs for youth and adults desiring such education and for the pre-employment and job training needs of business and industry.

10. Since four-year colleges in the area were providing opportunities for youth and adults to pursue college degrees, the most urgently needed programs to expand post-high school

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education opportunities were those offering non-degree work and less-than-baccalaureate degree programs.

Recommendations

Based upon the findings and conclusions of this study, certain recommendations for expanding educational opportunities in the two-county area are considered appropriate.

1. It is recommended that existing higher educational institutions continually evaluate their offerings in light of well-defined goals and objectives. Improving present curricula and establishing new, quality programs consistent with institutional purposes would increase opportunities for those area students desiring the particular type of education provided by these institutions.

2. It is recommended that establishment of a community college be considered to serve the educational needs of area residents.

3. It is recommended that this locally controlled institution offer a comprehensive program of occupational education, general education, transfer or pre-professional education, and adult education to meet local area needs.

4. It is recommended that this institution develop programs of less-than-baccalaureate degree level to complement, rather than to duplicate, existing higher educational programs in the area.

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5. It is recommended that citizens committees undertake a feasibility study to examine legal aspects, enrollment potential, finances, resources, area to be served, type of control, curricular needs, and other problems associated with establishing a community college.



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APPENDIX A

STUDENT QUESTIONNAIRE

This questionnaire is
for the Upper Wabash Valley

PLEASE check to be
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What high school do

What is your sex?

1. Male
2. Female

What course of stu
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3. Commerce
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STUDENT QUESTIONNAIRE

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INTRODUCTION

This questionnaire is a part of a survey designed to determine the post-high school educational plans and needs of students in the Upper Wabash Valley area. You can assist in this study by completing the following brief questionnaire.

DIRECTIONS

PLEASE check to be sure that your Student Questionnaire number—in the upper right-hand corner—is the same as the number on the Parent Questionnaire you have received. DO NOT write your name on this sheet; all answers are strictly confidential. Answer each question as frankly and honestly as possible. Be sure to mark your answers according to directions given.

1. What high school do you attend?

(5)

2. What is your sex?

- (6) —1. Male
—2. Female

3. What course of study are you following in high school?

(7) (Check one.)

- 1. Agricultural
—2. College preparatory
—3. Commercial (business)
—4. General
—5. Home economics
—6. Industrial Arts
—7. Other (Write in) _____

4. What do you think your high school grade average is?

(8) (Check one.)

- 1. A
—2. B
—3. C
—4. D
—5. I don't know

5. How much formal education do you want to complete?

(9) (Check one.)

- 1. High school but not beyond
—2. High school plus specialized vocational training such as apprenticeship, trade school, armed forces school, etc.
—3. Barber or beauty school
—4. Business school
—5. Nurses training
—6. Two years of college
—7. Through college (4 years)
—8. More than 4 years of college
—9. Other (Write in) _____

6. How does your family feel about your going on to college or a school which offers specialized vocational training after you graduate from high school? (Check one.)

- (10) —1. Insists that I go
—2. Wants me to go
—3. Does not care if I go
—4. Doesn't want me to go
—5. Won't allow me to go

7. What will you probably do during the first year following graduation from high school? (Check one.)

- 1. Go to college

- 08. Beautician or barber
—09. Building trades (carpenter, mason, electrician, plumber, etc.)
—10. Business administration
—11. Chemistry
—12. Community service
—13. Dental technology
—14. Dentistry
—15. Drafting
—16. Electronics
—17. Engineering (electrical, chemical, aeronautical, mechanical, etc.)
—18. Factory worker or foreman
—19. Government service (city, county, state, national, or foreign service; civil service; etc.)
—20. Homemaking
—21. Insurance
—22. Journalism
—23. Laboratory technician
—24. Law
—25. Mathematics (statistics, research)
—26. Mechanics (auto, airplane, heavy equipment, etc.)
—27. Medical technology
—28. Medicine
—29. Metal trades (tool & die, machinist, welder, etc.)
—30. Ministry or religious education
—31. Music
—32. Nursing
—33. Pharmacy
—34. Radio or TV performer or announcer
—35. Repairman or serviceman
—36. Sales (retail, wholesale, etc.)
—37. Science research
—38. Secretarial, clerical, bookkeeping
—39. Social work
—40. Teaching (elementary, secondary, special, college, etc.)
—41. Transportation (trucking, rail, air, etc.)
—42. Veterinary medicine
—43. Other (Write in) _____

9. How much training or education beyond high school do you think is required for the occupational choice you have indicated? (Check one.)

- 1. None
—2. Less than one year
—3. One year
—4. Two years
—5. Three years
—6. Four years
—7. Five or more years
—8. I don't know

10. How certain are your plans for attending college or taking specialized vocational training after high school

12. If you have checked 3, 4, 5, or 6 in question 11, please write the name and location of the college or school below:

(17-18)	_____	_____
	Name of College or School	City, State
(19-20)	_____	_____
	Name of College or School	City, State

13. Are you likely to attend a college or some type of school (21) offering specialized vocational training which is within daily commuting distance of your home? (Check one.)

- ☐ 1. Yes, I plan to commute daily
☐ 2. I probably will commute
☐ 3. I am uncertain at this time
☐ 4. I plan to attend college or other type of school away from my home
☐ 5. I am not planning to attend college or other type of school after graduation from high school

14. If new and additional opportunities were made available (22) for obtaining specialized vocational training or for taking college level courses (within daily commuting distance from your home,) how certain would you be of attending such an institution or school? (Check one.)

- ☐ 1. Very certain
☐ 2. Probably would attend
☐ 3. Uncertain about attendance
☐ 4. Probably would not attend
☐ 5. Would not be interested

15. Why have you reached your decision either to go on to (23-32) college or school OR not to go on to college or school? (Check all of those which apply to you)

- ☐ 01. Want to get a job
☐ 02. To prepare for a vocation
☐ 03. To be with friends
☐ 04. Want to get married
☐ 05. To please parents or friends
☐ 06. To get a broad liberal education
☐ 07. To make friends and cultivate helpful connections
☐ 08. To be independent
☐ 09. "Everybody here" does this
☐ 10. Grades in high school
☐ 11. Vocational choice requires the decision I made

20. Do you have older brothers and/or sisters? (Check one.)

- ☐ 1. Yes
☐ 2. No

21. If you checked "yes" in the question above, draw a (40) circle around the TOTAL number of OLDER brothers and sisters you have.

- 1 2 3 4 5 6 7 8 or more
 (Number of older brothers and sisters)

22. If you have older brothers and sisters, did any of them (41) attend college or some other school after they graduated from high school? (If you check "yes", give number and name of school attended in the blanks below.)

- ☐ 1. Yes
☐ 2. No
 (42) _____ How many attended or are now attending?
 (Write in number.)

(43-44)	_____	_____
	Name of College or School	City, State

(45-46)	_____	_____
	Name of College or School	City, State

(47-48)	_____	_____
	Name of College or School	City, State

23. How much formal schooling does your father have? (49) (Check highest level attained.)

- ☐ 1. Completed 8th grade or less
☐ 2. Some high school
☐ 3. Completed high school
☐ 4. Technical, trade or business school
☐ 5. Special school in the armed forces
☐ 6. Some college
☐ 7. Completed college (4 years)
☐ 8. Graduate school (beyond college)
☐ 9. Other (Write in) _____

24. How much formal schooling does your mother have? (50) (Check highest level attained.)

11. Please check the ONE statement which best describes (16) your plans for college attendance or for taking specialized vocational training after graduation from high school.

☐ 1. I definitely plan to attend
☐ 2. I probably will attend
☐ 3. I am uncertain at this time
☐ 4. I probably will not attend
☐ 5. I definitely do not plan to attend

☐ 6. Have been accepted at a college or a school offering specialized training
☐ 5. Have made application for admission to a college or a school
☐ 4. Have made contact with a college or school
☐ 3. Have received or requested information from a college or a school
☐ 2. Have gone but have made no plans
☐ 1. Not planning to attend

12. (13) planning to enter what type of work which you are planning to take? If you have no definite decision, please indicate the type of work which you are planning to take.

☐ 07. Banking, finance
☐ 06. Athletics (coaching, professional)
☐ 05. Art or arts and crafts
☐ 04. Retail services
☐ 03. Architecture
☐ 02. Agriculture and related work
☐ 01. Accounting, auditing
☐ 00. Other (Check ONE only) _____

13. What type of vocational or occupational field are you planning to enter? (14) (Check ONE only.)

☐ 10. Other (Write in) _____
☐ 9. Girls: Get married
☐ 8. Get a job
☐ 7. Work for parents
☐ 6. Enter the armed forces
☐ 5. Go to a trade school
☐ 4. Go to a business school
☐ 3. Enter nurses training
☐ 2. Go to a technical institute
☐ 1. Go to college

APPENDIX B

PARENT QUESTIONNAIRE

250

Survey of
Upper Grade Students

This questionnaire is a
survey of Upper Wabash Valley

PLEASE do not write your
name in relation to your experience.
This is not consider final
question as frankly and honestly

What high school does
your child attend?

What is the sex of your
child?

- ☐ 1. Male
- ☐ 2. Female

How many children do
you have? (Indicate the
age group)

- ☐ 1. Pre-school
- ☐ 2. Kindergarten
- ☐ 3. Grades 1-6
- ☐ 4. Grades 7-12
- ☐ 5. Beyond grade school
- ☐ 6. Beyond grade school

How much formal
education has your child
received?

(Use
the
space
provided
for
your
answer)

PARENT QUESTIONNAIRE

No. 5516
(14)

INTRODUCTION

This questionnaire is a part of a survey designed to determine the post-high school educational plans and needs of students in the Upper Wabash Valley area. You can assist in this study by completing the following brief questionnaire.

DIRECTIONS

PLEASE do not write your name on this sheet. All answers are strictly confidential. Responses to the questions should be made in relation to your expectations and aspirations for your eleventh or twelfth grade child. For the purposes of this questionnaire, do not consider finances as restricting factors except in the questions explicitly mentioning money or finances. Answer each question as frankly and honestly as possible. Be sure to mark your answers according to the directions given.

1. What high school does your eleventh or twelfth grade child attend?

- _____07. Banking, finance
_____08. Beautician or barber
_____09. Building trades (carpenter, electrician, mason, plumber, etc.)
_____10. Business administration
_____11. Chemistry
_____12. Community service
_____13. Dental technology
_____14. Dentistry
_____15. Drafting
_____16. Electronics
_____17. Engineering (electrical, mechanical, aeronautical, chemical, etc.)
_____18. Factory worker or foreman
_____19. Government service, (city, county, or state government; civil service; national or foreign service, etc.)
_____20. Homemaking
_____21. Insurance
_____22. Journalism
_____23. Laboratory technician
_____24. Law
_____25. Mathematics (statistics, research)
_____26. Mechanics (auto, airplane, heavy equipment, etc.)

2. What is the sex of your eleventh or twelfth grade child?

- _____1. Male
_____2. Female

3. How many children do you have in each of the following groups? (Indicate the number in each group.)

- (7) _____1. Pre-school
(8) _____2. Kindergarten
(9) _____3. Grades 1-6
(10) _____4. Grades 7-12
(11) _____5. Beyond grade 12 or out of school but still dependent on you
(12) _____6. Beyond grade 12 or out of school and not dependent on you

4. How much formal education do you want your eleventh (13) or twelfth grade boy or girl to complete? (Check one.)

- _____10. _____10. Other (Write in) _____
_____9. _____9. None _____
_____8. _____8. Vocational courses _____
_____7. _____7. Recreational courses _____
_____6. _____6. Courses to broaden myself (personal, social, cultural development) _____
_____5. _____5. Better job _____
_____5. _____5. Courses to help in my job or get a _____
_____5. _____5. Advanced degree _____

- _____1. Yes, he or she plans to commute _____
_____2. He or she probably will commute _____
_____3. He or she is uncertain at this time _____
_____4. He or she plans to attend college or school _____
_____5. He or she is not planning to attend college or other type school _____
_____5. _____5. other graduation from high school _____

home? (Check one.)

8. How certain are you that your eleventh or twelfth grader (18) will attend college or some other school offering specialized training after he or she graduates from high school? (Check one.)

- ☐ 1. He or she definitely plans to attend
☐ 2. He or she probably will attend
☐ 3. He or she is uncertain at this time
☐ 4. He or she probably will not attend
☐ 5. He or she is very unlikely to attend

Answer this question ONLY if you marked choices 1, 2, or 3 in question 8.

9. Which statement below best describes the financial planning which you and your child have done regarding his or her education after graduation from high school? (Check one.)

- ☐ 1. None at present
☐ 2. We are leaving it up to the child to arrange finances
☐ 3. We have a definite education savings program
☐ 4. We will help our child work his way through, but have no savings program at present
☐ 5. We expect our child to win a scholarship in order for him or her to attend school
☐ 6. We expect to assist our child finance further education by borrowing money for education
☐ 7. We expect our child to be trained at government expense (armed forces school, etc.)
☐ 8. Other (Write in) _____

Answer questions 10, 11 and 12 ONLY if you indicated in question 8 that your 11th or 12th grade child "probably will not attend" or is "very unlikely to attend" college or some other specialized training after high school graduation.

10. Why did you reach the above decision? (20) (Check one.)

- ☐ 1. Child is not interested in further education
☐ 2. Child's grades are not good enough
☐ 3. Child's vocational choice doesn't require additional training beyond high school graduation
☐ 4. Colleges or schools do not offer appropriate training for child's vocational choice
☐ 5. Lack of finances (just can't afford it)

11. Would your son or daughter change plans and continue (21) formal education if more money were available? (Check one.)

- ☐ 1. Yes
☐ 2. Maybe
☐ 3. No
☐ 4. Don't know

12. If you checked "yes" to the last question, how much (22) more money would you need to send your child to college or other type of school after graduation from high school? (Check one.)

- ☐ 1. Enough to pay all of child's expenses
☐ 2. Enough to pay about half of child's expenses
☐ 3. Enough to pay less than half of child's expenses
☐ 4. Don't know

13. Do you expect that your child will attend college or (23) some type of school offering specialized vocational training which is within daily commuting distance of your

14. If additional new opportunities were made available for (24) taking college level courses or specialized vocational training (within driving distance from your home), how seriously would you consider sending your son or daughter to such an institution or school?

- ☐ 1. He or she would be certain to attend
☐ 2. He or she would probably attend
☐ 3. He or she would be uncertain about attendance
☐ 4. He or she would probably not attend
☐ 5. He or she would not be interested

- 15-16. Please indicate the highest level of education or (25-26) training you have attained. (Check one for each.)

- | Husband | Wife |
|-----------------------------|--|
| ☐ 1. | ☐ 1. Completed 8th grade or less |
| ☐ 2. | ☐ 2. Some high school |
| ☐ 3. | ☐ 3. Completed high school |
| ☐ 4. | ☐ 4. Technical, trade or business school or nurses training |
| ☐ 5. | ☐ 5. Some college |
| ☐ 6. | ☐ 6. Completed college (4 years) |
| ☐ 7. | ☐ 7. Graduate school (beyond 4 years of college) |
| ☐ 8. | ☐ 8. Other (Write in) _____ |

17. Please indicate below your employment status. (If self- (27) employed or if temporarily unemployed within the last year, please include yourself in the "employed" category.)

- ☐ 1. One of us is employed
☐ 2. Both of us are employed
☐ 3. Neither of us is employed

18. What is the occupation of the "head of the household" (28-29) (That is, bookkeeper, banker, carpenter, machinist, farmer, police officer, etc. Be as specific as you can.)

19. If the wife is employed outside of the home, please indicate (30-31) cate type of employment as in question 18 above.

20. How long have you lived in your present community? (32) (Check one.)

- ☐ 1. Less than 1 year
☐ 2. Between 1 and 3 years
☐ 3. Between 3 and 5 years
☐ 4. Between 5 and 10 years
☐ 5. Between 10 and 20 years
☐ 6. More than 20 years

- 21-22. In what additional education would you be interested? (33-38) ed? (Check 1st, 2nd, and/or 3rd choices by writing 1, 2, and 3 in the appropriate blanks.)

- | Husband | Wife |
|-----------------------------|--|
| ☐ 1. | ☐ 1. High school completion |
| ☐ 2. | ☐ 2. Non-credit college level courses |
| ☐ 3. | ☐ 3. Work on college degree |
| ☐ 4. | ☐ 4. Graduate work leading to an ad. |

APPENDIX C

SURVEY OF BUSINESS AND INDUSTRY QUESTIONNAIRE

OF BUSINESS AND INDUSTRY

UPPER MERIDIAN VALLEY POST-HIGH SCHOOL EDUCATIONAL NEEDS—SURVEY OF BUSINESS AND COMMUNITY SERVICES

UPPER WABASH VALLEY POST-HIGH SCHOOL EDUCATIONAL NEEDS--SURVEY OF BUSINESS AND INDUSTRY

INTRODUCTION

This survey is being made to secure up-to-date information from business and industrial employers to use (1) in identifying needs for trained people in business, industry, agriculture, and community and (2) in determining the type of training and education that will best prepare youth and adults in the Upper Wabash Valley for employment.

You may rest assured that the information you report will be kept confidential. Neither your firm nor specific information regarding it will be identified in reports published on this study. Your cooperation in completing the questionnaire in as much detail as possible is greatly appreciated.

PART 1 - GENERAL INFORMATION

1. Name of firm: _____
- Address: _____
3. Position of person reporting:

1. Owner _____	4. Personnel Director _____	7. Plant Manager _____
2. Owner-Manager _____	5. Sales Manager _____	8. Other (Specify) _____
3. Manager (Hired) _____	6. _____	_____
4. Please mark in 1, 2, 3 order the space opposite the description which best identifies the activities of your firm:

19. TRANSPORTATION 20. COMMUNICATIONS 21. UTILITIES: gas, electric, water, etc. 22. Groceries & related products 23. Electrical and electronic hardware, plumbing and heating supplies, etc. 24. Other wholesale items	34. INSURANCE 35. REAL ESTATE BUSINESS TYPE SERVICES 36. Hotel, motel, lodging places. 37. Personal services (barber, beauty shop; shoe repair, etc.) 38. Automobile and other repair services 39. Entertainment and recreation 40. Business services (advertising, etc.) 41. Other services: _____	PROFESSIONAL SERVICES 42. Health services--medical, dental, etc. 43. Legal services 44. Engineering, surveying, architectural 45. Educational services--teaching, etc. 46. Public relations 47. Other professional services (specify): _____ 48. Other (specify): _____
---	---	--

1. AGRICULTURE, forestry, fisheries
2. MINING, metal ores; coal; stone, gravel, etc.
3. CONSTRUCTION: general building
4. CONSTRUCTION, heavy: highway & road
- MANUFACTURING
5. Food, beverage & kindred products
6. Textile and apparel, fabric
7. Lumber and wood products
8. Paper and allied products
9. Printing, publishing & allied industries
10. Chemicals, petroleum, & allied
11. Rubber & misc. plastic products
12. Stone, clay, glass products
13. Primary metal industries
14. Fabricated metal products
15. Machinery, except electrical
16. Electrical, electronic equipment
17. Instruments: professional, scientific, controlling, optical, photo, etc.
18. Other (specify): _____

25. Food and kindred products
26. Eating and drinking places
27. General merchandise
28. Apparel and accessories
29. Furniture, home furnishings, equipment, dealers, service
30. Automobiles
31. Building materials, hardware, farm equip.
32. Other retail goods
33. BANKING, FINANCE

RETAIL TRADE

5. Indicate your average number of regular employees who are:

5. Under 25 years of age
 6. Between 25 and 55 years of age
 7. Over 55 years of age
 EMPLOYEES (sum of 5 + 6 + 7)

5. Indicate your average number of regular employees who are:

MALE		FEMALE	
1. Under 25 years of age	_____	5. Under 25 years of age	_____
2. Between 25 and 55 years of age	_____	6. Between 25 and 55 years of age	_____
3. Over 55 years of age	_____	7. Over 55 years of age	_____
4. TOTAL NUMBER OF MALE EMPLOYEES (sum of 1 + 2 + 3)	_____	8. TOTAL NUMBER OF FEMALE EMPLOYEES (sum of 5 + 6 + 7)	_____

DEFINITIONS

The technician, semi-professional, or highly-skilled worker can be differentiated from both the professional worker and the skilled craftsman.

Professional workers are persons with four or more years of professionally oriented training beyond the high school level in such areas as medicine, animal science, engineering, psychology, business, education, and other areas which are scientifically oriented. It is the task of the professional to engage in activities designed to expand knowledge, extend technological know-how in his particular field, and provide leadership in areas involving judgment and decision-making.

The skilled craftsman's responsibilities are usually confined to making tools, equipment, and products using plans, methods, or processes already developed. Workers in this category lean heavily upon manipulative skill and practical experience.

The technician, semi-professional, or highly-skilled worker usually works in close cooperation with and perhaps under the direct supervision of a professional person augmenting and supplementing the professional in research, development, and supervision. This group of workers, located between the professional and the skilled craftsman on a continuous scale, needs a broad competence based on knowledge of scientific principles involved in their area of work and also a general knowledge and understanding of operational skills used by the craftsman. Workers in this category generally need an extended period of specialized training beyond high school, but less than that required for a college degree. Their training emphasizes practical application of established principles rather than development of new concepts or the expansion of knowledge.

6. In view of the above definitions, approximately what percentage of your employees are

_____ % 1. Professional workers?
 _____ % 2. Technical, semi-professional, supervisory, or highly-skilled workers?
 _____ % 3. Skilled craftsmen?
 _____ % 4. Unskilled workers?

7. What percentage of your professional level employees are currently spending a significant portion of their time at tasks which could be carried out by a technician or semi-professional worker having appropriate post-high school training? (Check one)

_____ 1. 10 per cent _____ 3. 25 per cent _____ 5. 50 per cent _____ 7. 75 per cent
 _____ 2. 20 per cent _____ 4. 33 per cent _____ 6. 67 per cent _____ 8. More than 75 per cent

8. Do you have an organized training program in your organization designated to upgrade your employees to higher job classifications?

_____ 1. Yes _____ If yes, specify type: _____
 _____ 2. No _____

UNITED STATES

DEPARTMENT OF COMMERCE

BUREAU OF LABOR STATISTICS

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2213

9. Mark in 1, 2, 3 order the sources from which you now obtain most of your technical, semi-professional, highly-skilled, or professional (not unskilled) employees.

- | | | |
|--------------------------------|--|---|
| 1. Unsolicited applications | 4. Advertising | 7. Colleges and universities |
| 2. State employment agencies | 5. Union or vocational associations | 8. Training and upgrading own employees |
| 3. Private employment agencies | 6. Technical, vocational or professional schools | 9. Other (specify): |

PART II - IMPORTANCE OF POST-HIGH SCHOOL EDUCATION

Please indicate how important you think each of the following statements is by checking the appropriate response. (Check one for each statement.)

- | | Very Important | Important | Not Important |
|---|----------------|-----------|---------------|
| 10. In the last decade, the number of technicians in the labor force has approximately equaled the number of engineers. Do you consider it important to develop post-high school educational programs to train technicians? | — | — | — |
| 11. How important do you think education beyond high school level is for success in the following occupations? | | | |
| a) Farm owners and farm managers | a) — | b) — | c) — |
| b) Managers, buyers and retailers | b) — | c) — | d) — |
| c) Bankers, cashiers, bookkeepers, bank tellers | c) — | d) — | e) — |
| d) Sales workers, advertisers, brokers, realtors | d) — | e) — | f) — |
| e) Craftsmen, foremen, electricians, repairmen | e) — | f) — | g) — |
| f) Apprentices, drivers, deliverymen | f) — | g) — | |
| g) Service workers, firemen, policemen, attendants | g) — | | |
| 12. Is it important for Indiana to provide post-high school opportunities for adult workers to study in these areas? | | | |
| a) Technical subjects related to their work | a) — | b) — | c) — |
| b) Cultural courses for personal growth | b) — | c) — | |
| c) Communication skills (reading, speaking, writing) | c) — | | |
| 13. Is it important for Indiana's colleges and universities to emphasize the following? | | | |
| a) High quality education for one-third or more of the state's high school graduates. | a) — | b) — | c) — |
| b) Liberal arts and professional courses instead of courses preparing for various kinds of work. | b) — | c) — | |
| c) A combination of courses leading to effective citizenship and satisfactory work. | c) — | | |
| 14. How important would the development of a post-high school technical or semi-professional educational program be to your organization if it were located in this geographical area? | — | — | — |
| 15. How important would it be to include course work in the humanities, social sciences and natural sciences (i.e., general education courses) in a post-high school technical or semi-professional education program? | — | — | — |
| 16. How important is it to provide some free education beyond the high school for all youth in Indiana who desire and can benefit from additional education following their graduation from high school? | — | — | — |

See check the types of courses or training which, if made available in a post-high school educational need-

See check the types of courses or training which, if made available in a post-high school educational need-

See check the types of courses or training which, if made available in a post-high school educational need-

See check the types of courses or training which, if made available in a post-high school educational need-

See check the types of courses or training which, if made available in a post-high school educational need-

PART III - POST-HIGH SCHOOL EDUCATIONAL NEEDS

In the list below, please check the types of courses or training which, if made available in a post-high school educational program in this area, would be of value to your firm or organization.

17. GENERAL EDUCATION

1. Communication (reading, speaking, report writing) _____
 2. Foreign language _____
 3. Literature & history _____
 4. Economics _____
 5. Government & political science _____
 6. Psychology & sociology _____
 7. Chemistry & physics _____
 8. Mathematics _____
 10. Other (specify) _____

18. AGRICULTURE

1. Farm management _____
 2. Feed, fertilizer sales & service _____
 3. Grain production & marketing _____
 4. Landscape & nursery technology _____
 5. Livestock, poultry production & marketing _____
 6. Machinery sales & service _____
 7. Other (specify) _____

20. HEALTH & MEDICAL

1. Dental assistant _____
 2. Dietetics/nutrition _____
 3. Medical laboratory technician _____
 4. Nurses aide _____
 5. Nursing-practical _____
 6. Nursing-professional (R.N.) _____
 7. Other (specify) _____

21. INDUSTRIAL

1. Air conditioning & heating _____
 2. Apprentice training (tool & die, machine tool, etc.) _____
 3. Chemical methods & materials _____
 4. Drafting, blueprint reading _____
 5. Engineering technology _____
 6. Electricity, wiring, motors _____
 7. Electronics-industrial & communications _____
 8. Hydraulics & quality control _____
 9. Instrumentation & plant control _____
 10. Industrial chemistry _____
 11. Laboratory technology _____
 12. Machine tools & processing _____
 13. Mechanics--auto, diesel, aircraft, etc. _____
 14. Metalurgy--hot & cold metals, foundry _____
 15. Metallurgy _____
 16. Management, development _____
 17. Photographic processing _____
 18. Printing and graphic arts _____
 19. Production design _____
 20. Supervision training--foremen, supervisors _____
 21. Welding _____
 22. Other (specify) _____

22. If post-high school courses such as those listed above, both credit and/or non-credit, were available to your present employees in an existing educational program, would your firm or organization encourage your employees to enroll in such courses?

1. Yes _____ 2. Undecided _____ 3. No _____

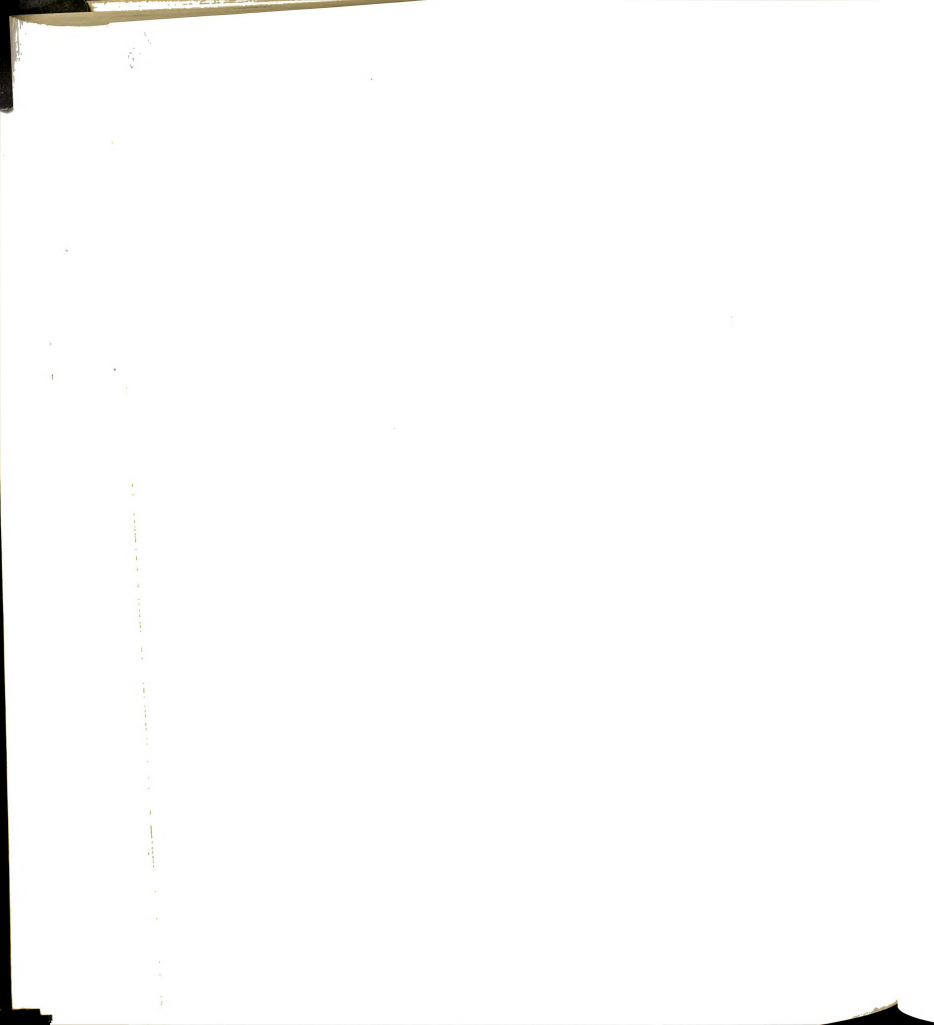
23. If you answered "yes" or "undecided" in the above question, what incentive would you offer your employees to take courses or post-high school work?

1. Job advancement _____ 2. Higher pay _____ 3. Pay a part or all of tuition _____ 4. Other (specify) _____

24. How well do existing educational facilities in the area meet the pre-employment and job training needs of your organization? (check one)

1. Excellent _____ 2. Good _____ 3. Fair _____ 4. Poor _____

25. We would appreciate your attaching a separate letter to this questionnaire or making comments on the reverse of this page giving your thoughts concerning post-high school technical, vocational, semi-professional and/or professional educational needs and existing programs in this geographical area.



APPENDIX D

MEMORANDUM TO HIGH SCHOOL PRINCIPALS

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MEMORANDUM

To: (High School Principals)

From: Eldon E. Fahs

Re: Questionnaire Survey of
Post-High School Plans
and Expectations

Date: April 25, 1966

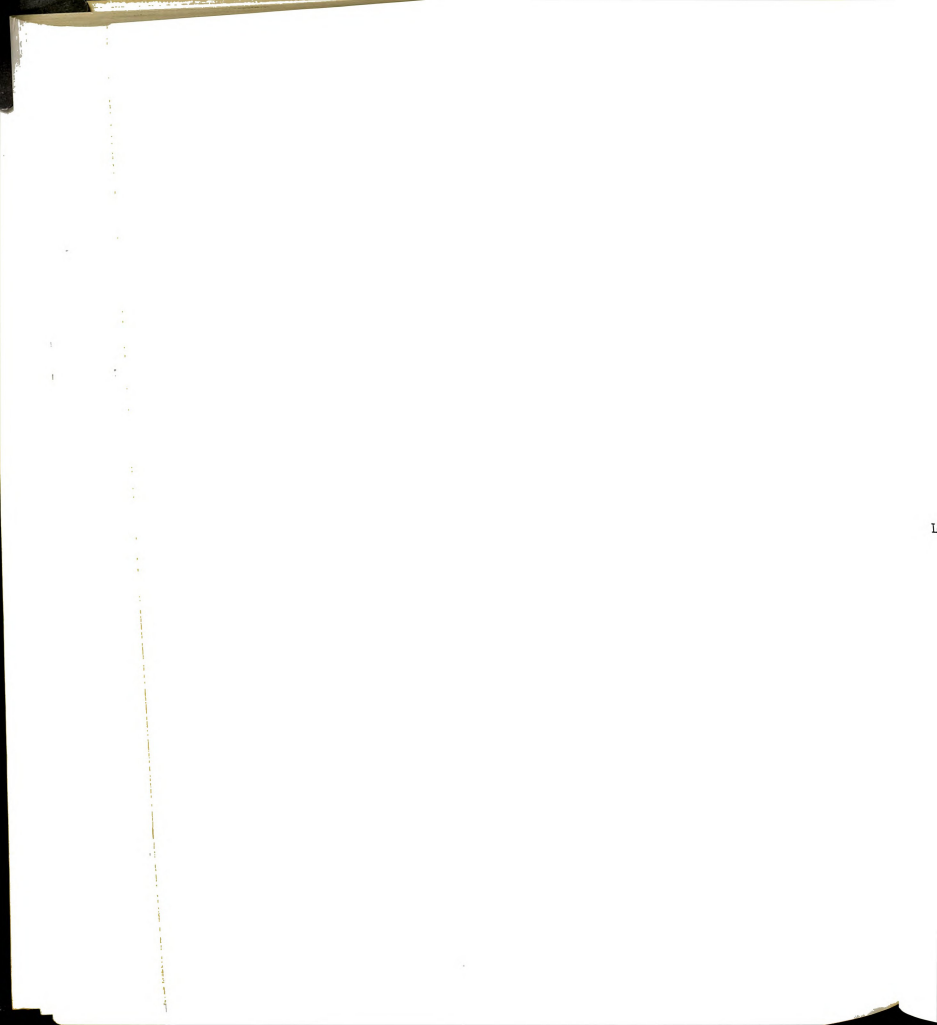
The following suggestions should facilitate the administration of questionnaires to twelfth grade students and their parents:

1. Each student in the twelfth grade should receive one yellow copy of the student questionnaire and one blue copy of the parent questionnaire.
2. For each student and his or her parents, the numbers in the upper right-hand corner of the form should be identical. By taking one student and one parent questionnaire from the top of the stack provided, there should be no difficulty in having these two numbers to coincide when they are distributed to students.
3. After passing out the forms, it would be helpful for the person in charge to go over the "introduction" and the "Directions" with students allowing time for questions.
4. Responses may be indicated by an x, a check mark, or any other means. Instructions are given at the end of each question concerning the number of responses desired for each item.
5. Students should be instructed to take the Parent Questionnaire form home and return it as soon as his parents have completed it. They should be returned to the teacher or individual distributing the forms to students or to some other place designated by your office.
6. To make the best use of the time and effort invested in this survey by the school, the students, and parents, the greatest possible return of questionnaires from parents should be obtained. One suggestion might be made in this regard. If a student's name could be checked off a master list of seniors when his parent's form is returned, a quick check could be made after a day or two to determine the number still out. A follow-up reminder for students who have not returned a form could then be sent home.

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7. Your school will have no responsibility for tabulating the questionnaires. I shall pick them up next week at a time when it appears that as many have been returned from parents as can be expected. Results will be made available to you and your staff as soon as tabulation and analysis can be made.
8. I sincerely appreciate the opportunity and encouragement which has been extended to me to work through your school. At this time of year, I realize that the school schedule becomes quite crowded. I do believe, however, that this project will be of considerable value to the school corporations and the citizens of the Upper Wabash Valley area in providing information which can be used as a basis for planning and making available increased opportunity for post-high school education in the future.



APPENDIX E

LETTER TO EMPLOYERS IN WABASH AND MIAMI COUNTIES

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Dear Employer

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POST-HIGH SCHOOL EDUCATIONAL NEEDS STUDY
Upper Wabash Valley
April, 1966

Dear Employer:

I am a doctoral student in higher educational administration at Michigan State University undertaking a study of post-high school educational needs in the Upper Wabash Valley area (Wabash and Miami counties).

This study involves a survey of high school seniors and their parents regarding students' desires and expectations for continuing their formal education beyond high school graduation.

A second aspect of the study centers around the collection of up-to-date information concerning needs of business and industrial employers in this two-county area for qualified and trained employees.

Whereas many studies of post-high school educational needs have examined financial aspects, enrollment trends, and staffing problems on a state-wide level, this study is designed to identify educational needs which exist in a smaller geographical area as expressed by students, parents, and employers.

Information gathered in this study will be of value in both local and state level planning for meeting post-high school educational needs as they exist at present and as they may develop within the next few years. Various agencies in this immediate area plan to utilize data obtained in organizing educational programs to meet existing needs. The Upper Wabash Vocational School, which is currently offering high school level vocational education, is now engaged in planning post-high school offerings. Other educational organizations are also interested in developing needed programs for youth and adults of the area.

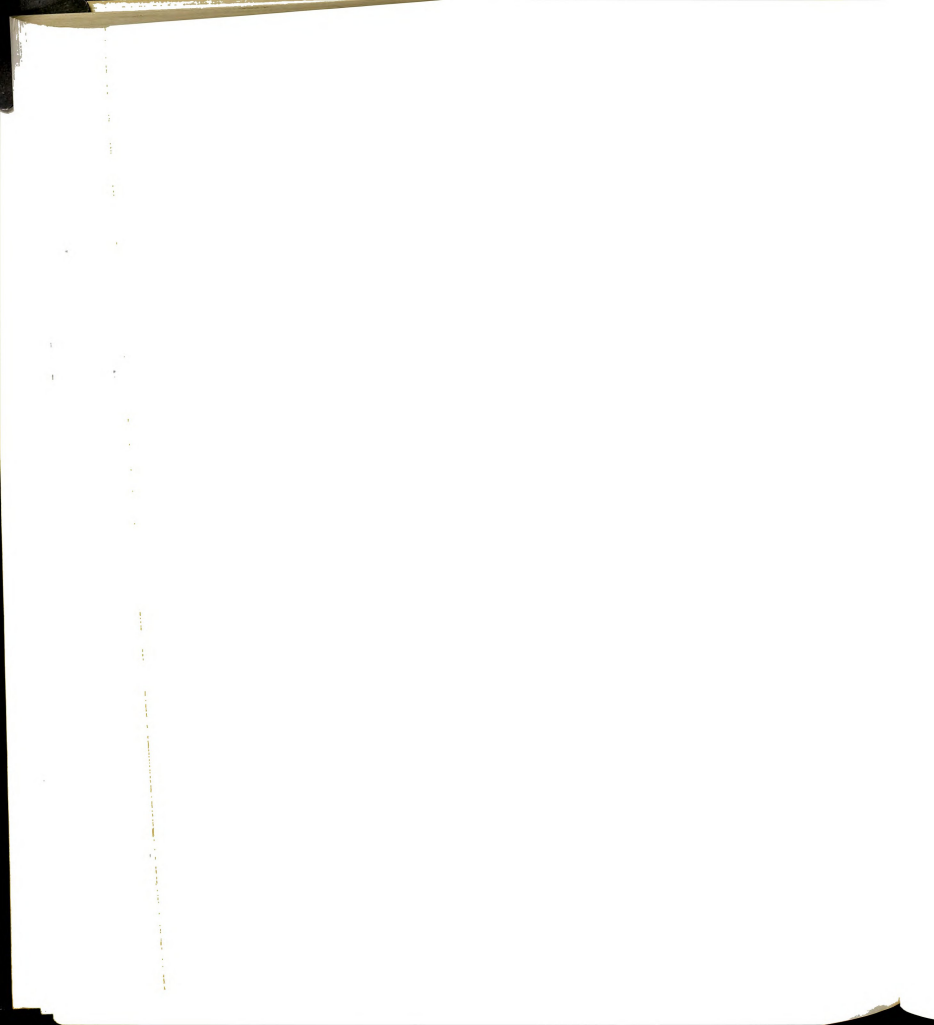
You may assist in this study by completing the enclosed questionnaire. The success of this study is dependent upon your interest and cooperation. Please use the addressed envelope enclosed to return the completed questionnaire to me.

If you h
questionnair
Ext. 213, in

If you have questions regarding this study or the questionnaire, please write me or contact me at 982-2141, Ext. 213, in North Manchester. Thank you for your assistance.

Sincerely yours,

Eldon E. Fahs, Registrar
Manchester College
North Manchester, Indiana



APPENDIX F

FOLLOW-UP LETTER TO EMPLOYERS

Dear Employer

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POST-HIGH SCHOOL EDUCATIONAL NEEDS STUDY
Upper Wabash Valley
May 18, 1966

Dear Employer:

About two weeks ago, you received a questionnaire to be completed entitled "Upper Wabash Valley Post-High School Educational Needs--Survey of Business and Industry."

As you may recall, this survey is being conducted to determine the extent and type of education and training at a post-high school level needed by individuals whom you would seek to employ in your organization.

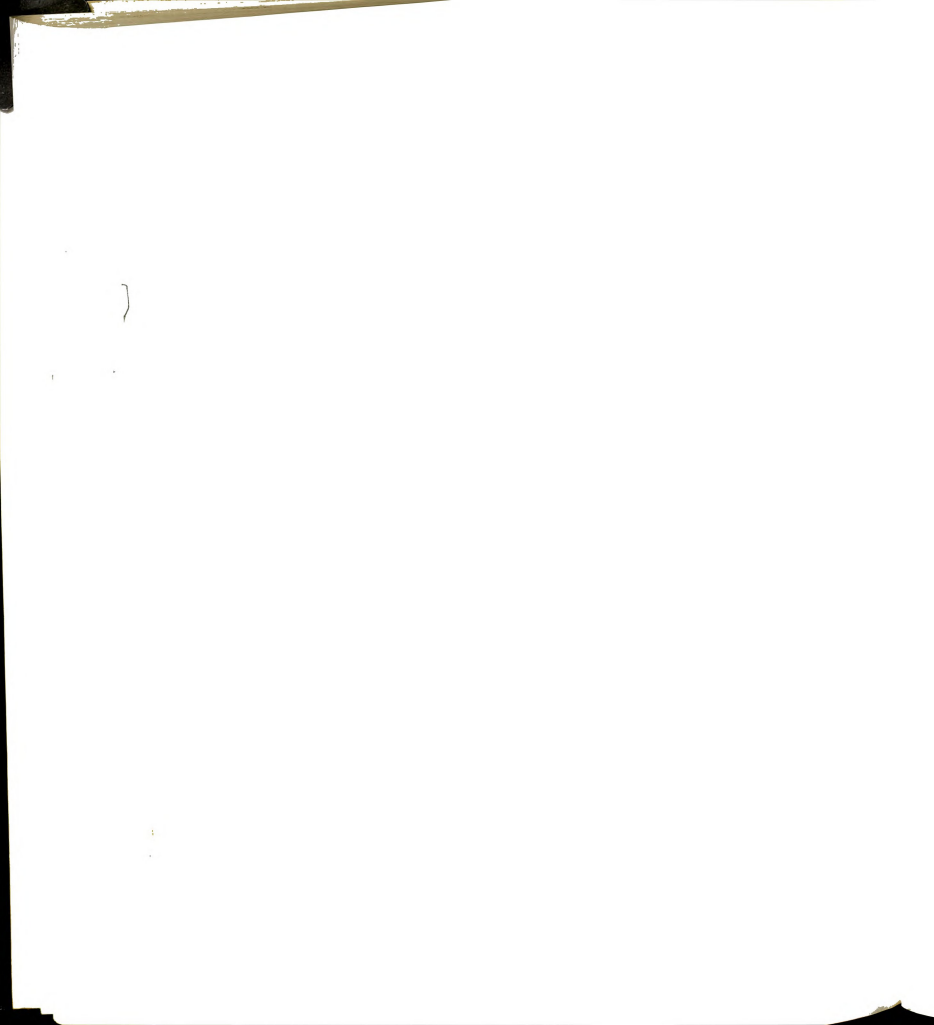
Many of the questionnaires have been returned in the self-addressed stamped envelope with the questionnaire. A check of the mailing list indicates that we have not yet received a completed questionnaire from you.

I recognize that your daily schedule is very full. However, in order that maximum value may be obtained from this survey it is necessary to have comprehensive coverage of business and industrial employers in Wabash and Miami Counties.

I would again invite you to complete the questionnaire and return it to me. Thank you for your kind cooperation.

Sincerely yours,

Eldon E. Fahs, Registrar
Manchester College
North Manchester, Indiana 46962



APPENDIX G

SECOND FOLLOW-UP LETTER TO EMPLOYERS

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Dear Empl

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POST-HIGH SCHOOL EDUCATIONAL NEEDS STUDY
Upper Wabash Valley
June 9, 1966

Dear Employer:

Early in May, I mailed to you a questionnaire concerning Post-High School Educational Needs which I am hoping to use in a doctoral dissertation study.

According to my check list, I have not received a completed questionnaire from you indicating your needs as an employer for trained workers.

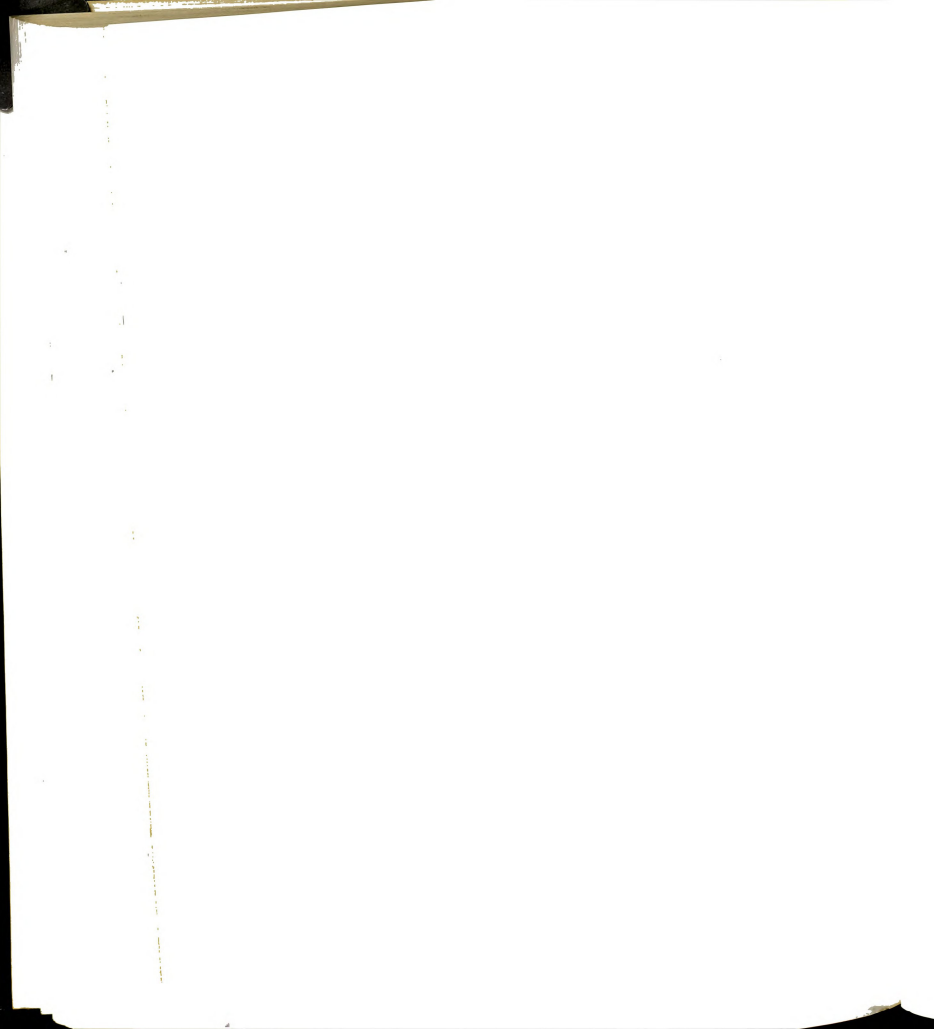
I have learned that many of the businesses and industries on my mailing list apparently did not receive a copy of the questionnaire. Therefore, I am enclosing a second copy for you just in case you did not receive the original mailing.

I would invite you to take a few minutes to respond to the questions. Please return it to me in the enclosed stamped envelope.

Thank you in advance for your cooperation. I trust that I may hear from you in a few days.

Sincerely yours,

Eldon E. Fahs, Registrar
Manchester College
North Manchester, Indiana



APPENDIX H

SUMMARY OF EMPLOYER RESPONSES CONCERNING POST-HIGH
SCHOOL TECHNICAL, VOCATIONAL, SEMI-PROFESSIONAL,
AND/OR PROFESSIONAL EDUCATIONAL NEEDS

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SUMMARY OF EMPLOYER RESPONSES CONCERNING POST-HIGH
SCHOOL TECHNICAL, VOCATIONAL, SEMI-PROFESSIONAL,
AND/OR PROFESSIONAL EDUCATIONAL NEEDS

<u>Number</u>	<u>Comment</u>
6	Need to provide for post-high school training in technical skills.
3	Post-high school education is not needed by us; our employees are unskilled-skilled labor is not required in our plant--high school education is all that is needed.
2	Favor on-the-job training rather than going to school.
2	Present job applicants show up poorly on tests we give them.
1	Farming has now become "big business"--additional training is needed by farmers.
1	It is up to the individual to educate himself in preparation for employment.
1	Training for older workers is not favored--additional opportunities are needed for young ones who have initiative.
1	Employees need an understanding of economics and the free enterprise system.
1	In the age of computers, it is increasingly necessary to have advanced training to enter our occupational field.
1	We have great need for repairmen (appliance, refrigerator, TV, and stereo).
1	Cost of post-high school education should be shared by student, employer, and the state.
1	We do not need more taxation (something for nothing expectation).
1	Adult education opportunities are needed.
1	Good progress in vocational education is being made by the Upper Wabash Vocational School.

Number

1 Lab

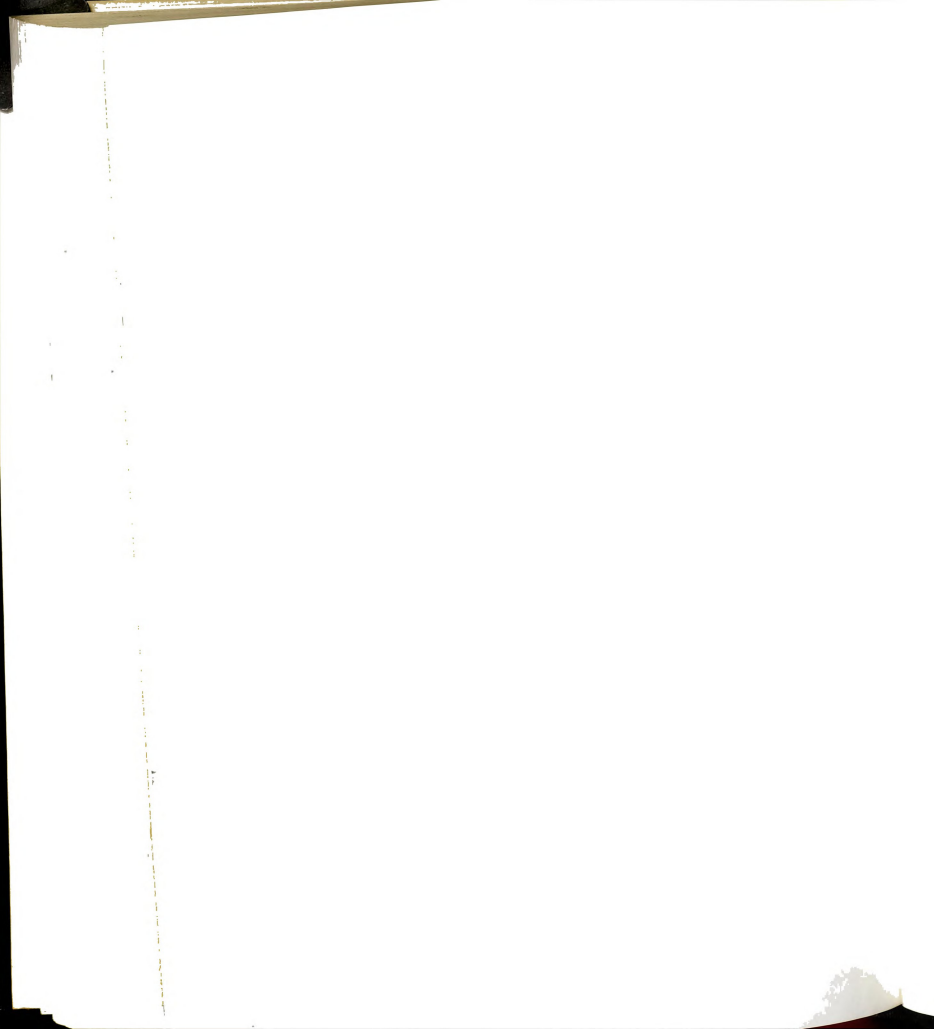
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<u>Number</u>	<u>Comment</u>
1	Labor market needs to be upgraded to attract new business and industry into the area.
1	Technicians are in short supply.
1	Young people need to be interested in pursuing some vocation before they leave high school so they may plan for further training.
1	High schools neglect the middle student--push extremely good and extremely poor students.
1	I need to learn more about my own business.



APPENDIX I

PROFILES OF COLLEGES

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Location:

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Affiliation:

Accreditation:

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G R A C E C O L L E G E

Location: Winona Lake, Indiana.

Founded: 1948.

Control: Private.

Affiliation: National Fellowship of Brethren Churches.

Accreditation: Indiana State Department of Education

Type of College: Coeducational, liberal arts college.

Majors Offered: Bible, English, General Science, Greek, Mathematics, Music, Physical Education, and Speech.

Teaching Majors Offered: English, Mathematics, Music, and Social Studies.

Professional Programs: Elementary Education, Secondary Education, Music Education, and Nursing.

Pre-Professional Programs: Pre-Seminary.

Degrees Offered: Bachelor of Arts, Bachelor of Arts leading to Secondary Certification, Bachelor of Arts in Church Music, Bachelor of Science in Nursing, Bachelor of Music in Education, Bachelor of Science in Elementary Education.

Admission Requirements: High school graduate with 16 units of high school credit. Students are evaluated on the basis of high school records, ACT Test Scores, written recommendations, Christian profession, and medical reports.

Calendar: Two semesters (September - June).

Tuition and Fees, 1966-67: Tuition, \$980.00 per year. Board, \$490.00 per year. Room, \$326.00 per year. Total regular cost, \$1796.00.

Student Financial Aids: Scholarships, loans from National Defense Student Loan Program, United Student Aid Funds, Funds for Education, President's Fund, Tuition Plan, Educational Opportunity Grants, Work-Study Program, and campus employment.

Enrollment, 1966: 420 full-time students, 27 part-time students.

Geographic Origins of Students; Fall, 1966:
Indiana, 157; Wabash Co., Unknown; Miami Co., Unknown.

Graduates, 1966: 72.

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H U N T I N G T O N C O L L E G E

Location: Huntington, Indiana.

Founded: 1897.

Control: Private.

Affiliation: Church of the United Brethren in Christ.

Accreditation: State Department of Public Instruction,
North Central Association of Colleges and Secondary
Schools.

Type of College: Coeducational, liberal arts college.

Majors Offered: Ancient Civilization (interdepartmental),
Bible, Biology, Chemistry, Christian Education, Eco-
nomics and Business, English, French, History, Mathe-
matics, Music, Philosophy, Physical Education and
Health, Psychology, Sociology, Spanish, Speech.

Professional Programs: Elementary Education, Secondary
Education.

Pre-Professional Programs: Pre-Dentistry, Pre-Engineering,
Pre-Law, Pre-Medical Technology, Pre-Medicine, Pre-
Nursing, Pre-Theology.

Degrees Offered: Bachelor of Arts, Bachelor of Divinity,
Bachelor of Science, Bachelor of Theology.

Admissions Requirements: High School graduation, including
15 units earned, acceptable scores on the Scholastic
Aptitude Test, satisfactory personal references, and an
appreciation of the standards and purposes of Huntington
College.

Calendar: Two semesters (September - June). Summer session
(eight weeks).

Tuition and Fees, 1966-67: Tuition, \$930.00 per year.
Board, \$410.00 per year. Room, \$260.00 per year. Total
regular cost, \$1600.00.

Student Financial Aids: Veteran's Programs, Vocational Re-
habilitation, scholarships, grants-in-aid, loans, part-
time employment.

Enrollment, 1966: 406 full-time students, 61 part-time
students.

Geographic Origins of Students; Fall, 1966:
Indiana, 239; Wabash Co., 13; Miami Co., 1.

Graduates, 1966: 82.

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I N D I A N A U N I V E R S I T YKokomo CampusLocation: Kokomo, IndianaEstablished: 1948.Control: Public, regional campus of Indiana University, established by the State of Indiana.Accreditation: State Department of Public Instruction, North Central Association of Colleges and Secondary Schools, National Council for Accreditation of Teacher Education, and others.Type of College: Coeducational, two-year branch of the State University.Courses Offered: (First two years of regular Indiana University courses toward a degree) Business, Chemistry, Education, English, Fine Arts, Foreign Languages, Geography, Geology, Government, History, Mathematics, Philosophy, Physics, Psychology, Sociology, Speech, Zoology. A few graduate courses in Education and Business.Non-Credit Adult Education Courses: Business, Communications, Data Processing, Electrical Technology, English, Fine Arts, Foreign Language, Management and Supervision, Mathematics.Pre-Professional Programs: Pre-Dentistry, Pre-Law, Pre-Medical Technology, Pre-Medicine, Pre-Optometry.Two-Year Certificates Offered in: Accounting, Humanities, Management and Administration, Office Management, Sciences, Social Sciences.Admissions Requirements: High school graduation, rank in top half of graduating class, above average scores on the Scholastic Aptitude Test or the American College Test. The Admissions Committee is authorized to make exceptions to the above standards.Calendar: Two semesters (September - June). Summer session.Tuition and Fees, 1966-67: \$15.00 per semester hours.Enrollment, 1966: 1046 students.



M A N C H E S T E R C O L L E G E

Location: North Manchester, Indiana. Founded: 1889.

Control: Private. Affiliation: Church of the Brethren.

Accreditation: State Department of Public Instruction of Indiana, North Central Association of Colleges and Secondary Schools, National Council for Accreditation of Teacher Education.

Type of College: Coeducational college of arts and sciences.

Majors Offered: Art, Biology, Chemistry, Economics and Business, English, French, German, Health and Physical Education, History, Home Economics, Mathematics, Music, Philosophy and Religion, Political Science, Peace Studies, Physics, Psychology, Sociology, Spanish, Speech and Drama.

Professional Programs: Elementary Education, Secondary Education, Music Education.

Pre-Professional Programs: Pre-Dentistry, Pre-Engineering, Pre-Law, Pre-Medical Technology, Pre-Medicine, Pre-Nursing, and Pre-Seminary.

Degrees Offered: Bachelor of Arts, Bachelor of Science.

Admissions Requirements: High School graduate, satisfactory high school achievement, acceptable scores on the Scholastic Aptitude Test, and satisfactory personal references.

Calendar: Three 12-week quarters (September - June), Summer quarter (two 5-week sessions).

Tuition and Fees, 1966-67: Tuition, \$1080.00 per year. Board, \$420.00 per year. Room, \$250.00 per year. Total regular cost, \$1750.00.

Student Financial Aids: Awards for Academic Excellence; Freshman and Upper Class Grants; Endowed Scholarships; Manchester College Loan Funds; Educational Opportunity Grants; National Defense Education Act Loans; Guaranteed Loan Program; Work-Study Program; Veteran's Assistance Programs; Social Security; Indiana State Scholarships; National Merit Scholarship; Education Funds, Incorporated; Vocational Rehabilitation, and part-time employment.

Enrollment, 1966: 1347 full-time students, 47 part-time students.

Geographic Origins of Students, Fall, 1966:
Indiana, 914; Wabash Co., 162; Miami Co., 43.

Graduates, 1966: 274.



M A R I O N C O L L E G E

Location: Marion, Indiana.

Founded: 1920.

Control: Private. Affiliation: Wesleyan Methodist Church.

Accreditation: State Department of Public Instruction of Indiana, North Central Association of Colleges and Secondary Schools.

Type of College: Coeducational, liberal arts college.

Majors Offered: Biology, Chemistry, English, History, Mathematics, Music, Religion, Social Studies, Speech, Theology.

Professional Programs: Elementary Education, Secondary Education.

Pre-Professional Programs: Pre-Business, Pre-Dental, Pre-Engineering, Pre-Law, Pre-Medical, Pre-Medical Technology, Pre-Nursing.

Degrees Offered: Bachelor of Arts, Bachelor of Science in Education.

Admissions Requirements: High school graduation, satisfactory high school achievement, acceptable performance on the SAT Test, and satisfactory personal references.

Calendar: Two semesters (September - June). Summer session (two 5-week periods).

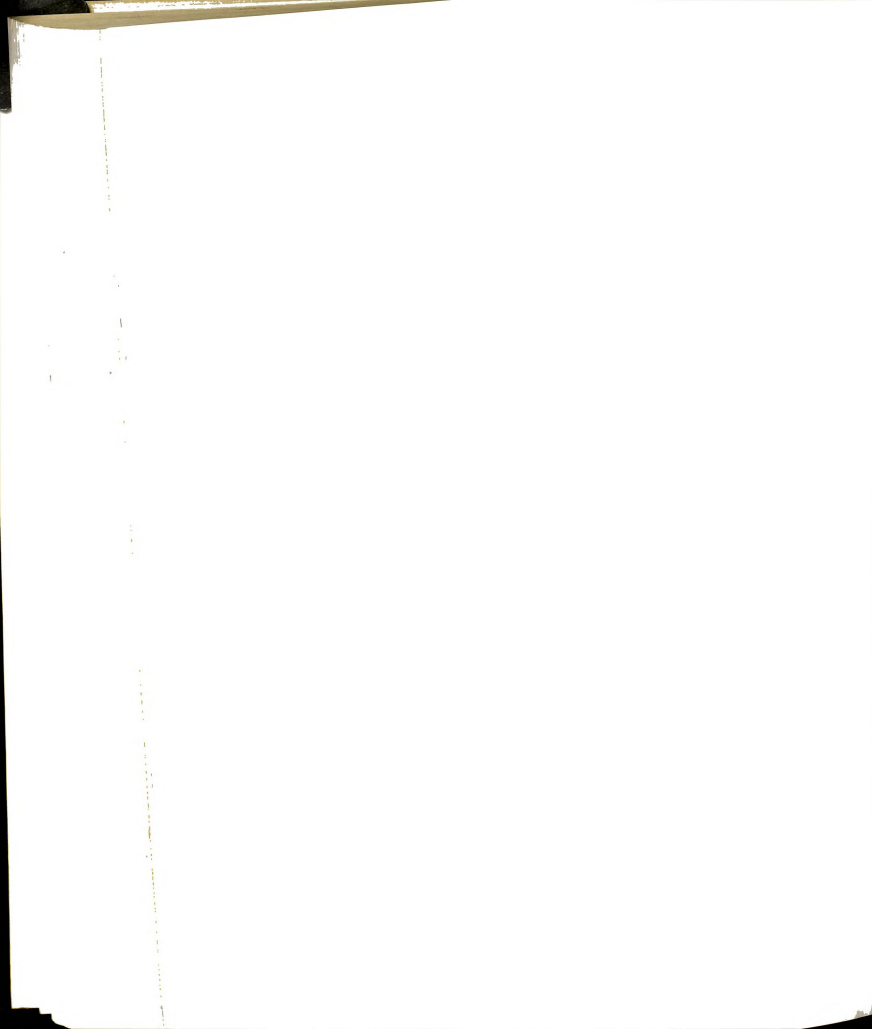
Tuition and Fees, 1966-67: Tuition, \$890.00 per year. Board, \$440.00 per year. Room, \$250.00 per year. Total regular cost, \$1580.00.

Student Financial Aids: Scholarships; Tuition Assistance Grants; National Defense Student Loan Fund; United Student Aid Funds, Incorporated; Ministerial Loan-Grant; College Loans; Work-Study Program, Economic Opportunity Grants, and part-time employment.

Enrollment, 1966: 543 full-time students, 120 part-time students.

Geographic Origins of Students; Fall, 1966:
Indiana, 464; Wabash Co., 11; Miami Co., 8.

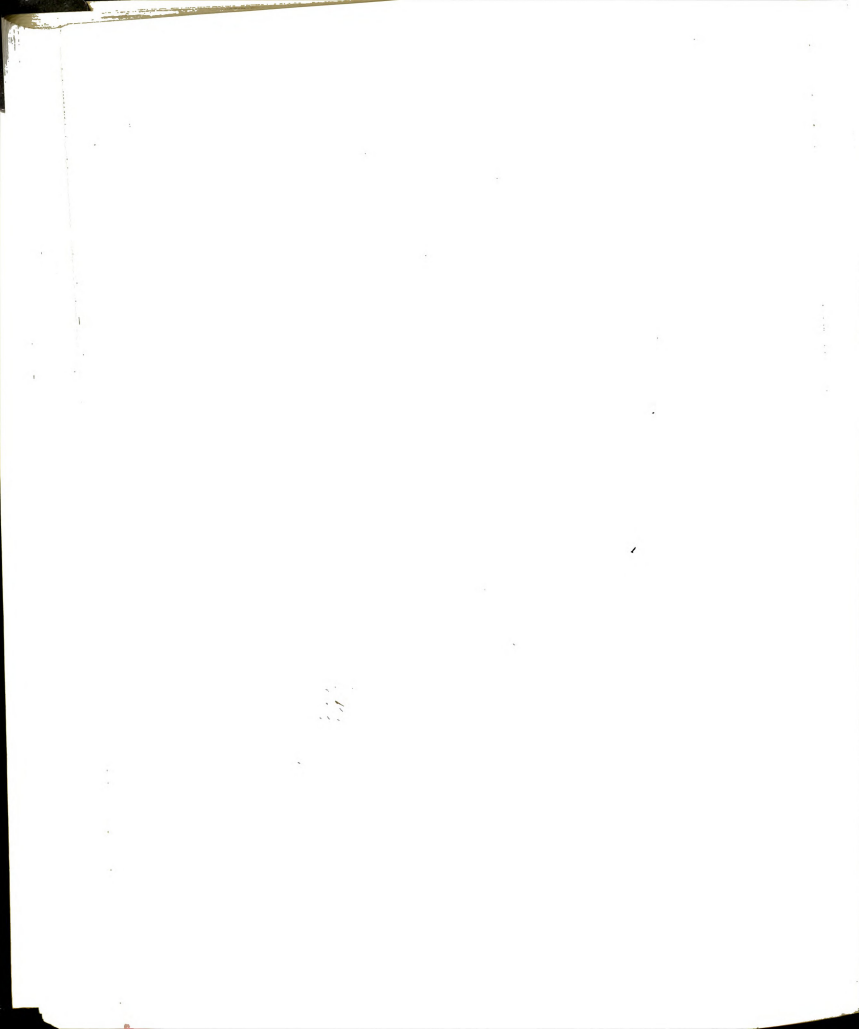
Graduates, 1966: 72.



T A Y L O R U N I V E R S I T YLocation: Upland, Indiana.Founded: 1846.Control: Private.Affiliation: William Taylor Foundation; interdenominational.Accreditation: State Department of Public Instruction of Indiana, North Central Association of Colleges and Secondary Schools, National Council for Accreditation of Teacher Education.Type of College: Coeducational, liberal arts college.Majors Offered: Applied Music, Biology, Botany, Business Administration, Chemistry, Christian Education, Church Music, Economics, English, French, Health & Physical Education (teaching major only), History, Mathematics, Philosophy, Physics, Political Science, Psychology, Religion, Sociology, Speech, Zoology.Professional Programs: Secondary Education, Elementary Education, Music Education.Pre-Professional Programs: Pre-Business Administration, Pre-Engineering, Pre-Law, Pre-Medical, Pre-Medical Technology, Pre-Nursing, Pre-Theology.Degrees Offered: Bachelor of Arts, Bachelor of Science in Education.Admissions Requirements: High school graduate, rank in upper half of class, and high school credits as follows: English, 4 units; Mathematics, 2 units; laboratory science, 1 unit; social studies, 2 units; a total of 15 Carnegie units. Also required are satisfactory SAT scores, satisfactory evidence of good character, and willingness to abide by the standards of Taylor University.Calendar: Two semesters (September - May).Tuition and Fees, 1966-67: Tuition, \$1100.00 per year. Room and Board, \$700.00 per year. Total regular cost, \$1800.00.Student Financial Aids: Scholarships, Grants-In-Aid, Taylor Student Loan Fund, Methodist Student Loan Fund, Danny Alford Memorial Loan Fund, National Defense Student Loan Fund, Veteran's Assistance Programs, Vocational Rehabilitation, Indiana State Scholarships, Part-time campus & off-campus employment.Enrollment, 1966: 1231 full-time students, 20 part-time students.Geographic Origins of Students; Fall, 1966: Indiana, 413; Wabash Co., Unknown; Miami Co., Unknown.Graduates, 1966: 145.







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