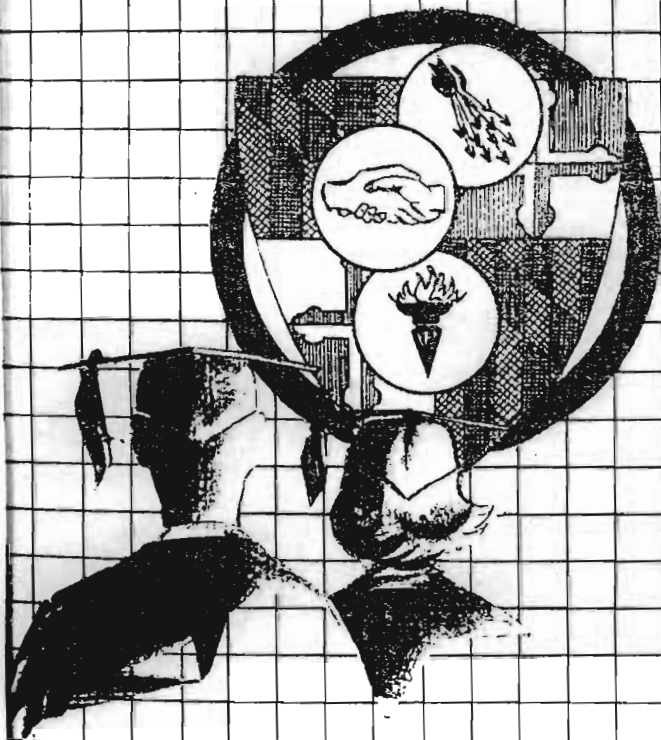


State of New Jersey
Department of Education
Trenton
June, 1965

**A STUDY OF THE PROPOSAL
TO ESTABLISH AND OPERATE
A COUNTY COLLEGE
IN
MORRIS COUNTY**



A Report of
The New Jersey State Commissioner of Education
To the State Board of Education
(Pursuant to N.J.S.A. 18:22-101)

A STUDY
OF
THE PROPOSAL
TO ESTABLISH AND OPERATE
A COUNTY COLLEGE
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June, 1965

State Department of Education Committee for the
STUDY OF THE PROPOSAL TO ESTABLISH AND OPERATE
A COUNTY COLLEGE IN MORRIS COUNTY

Guy V. Ferrell (Director of Study)
Director of Community College Education
Division of Higher Education

Donald R. Bagin (Editor of Study)
Division of Higher Education

Edward Bambach
Director of Finance Planning
Division of Higher Education

Nicholas Frigiola
Director of Technical Education
Division of Vocational Education

Edward W. Kilpatrick
Assistant Commissioner
Division of Business and Finance

Steven Poliacik
Director, Field Services
Division of Higher Education

Richard B. Scheetz
School and Industry Coordinator
Division of Curriculum and Instruction

Edward Spare
Consultant, School Plant Planning
Division of Business and Finance

Clyde E. Weinhold
Director of Adult Education
Division of Higher Education

Resource Persons

Wallace B. Appelson, Coordinator of Terminal Programs
Peter A. Kucker, Principal Auditor
Earl E. Mosier, Assistant Commissioner for Higher Education
Cleve O. Westby, Director of School Building Services

F O R E W O R D

This "Study of the Proposal to Establish and Operate a County College in Morris County" is presented in compliance with the provisions of New Jersey Statutes Annotated 18:22-100 et seq. which direct the following:

When the board of chosen freeholders of one or more counties, after study and investigation, shall deem it advisable for such county or counties to establish a County College, such board or boards of county freeholders may petition the State Board for permission to establish and operate a County College. A report shall be attached to such petition and shall include information of the higher educational needs of the county or counties, a description of the proposed County College, and any other information or data deemed pertinent. (N.J.S.A. 18:22-101)

The Statute further provides:

Upon receipt of such petition by the State Board, it shall be referred to the Commissioner who shall make an independent study as to the higher educational needs of the county or counties, the necessity or advisability of establishing such County College, and whether the county or counties could, with the State aid provided for in this act, financially support such college. The Commissioner shall submit a report containing his conclusions to the State Board and to the petitioning board of boards of chosen freeholders. (N.J.S.A. 18:22-101)

On February 3, 1965, the State Board of Education accepted from the Morris County Board of Chosen Freeholders a petition requesting permission to establish and operate a County College in that county. The petition was then officially referred to the Commissioner of Education with the request that an independent study be conducted to determine the higher educational needs of Morris County and the ability of the county to support the proposed County College.

This study report, prepared by a Committee of the State Department of Education duly authorized by the Commissioner of Education, reflects some of the findings presented in The Study of a Community Junior College

for the County of Morris, New Jersey, prepared by the Morris County Community Junior College Study Committee and includes an analysis of other pertinent and new data revealed by the present investigation. The results of several limited surveys, conducted for the purposes of this Study, by various members of the Department's Committee, are reported.

This document is submitted for the purpose of providing the State Board of Education with information needed in determining the feasibility of establishing a County College in Morris County pursuant to the proposal offered by the Morris County Board of Chosen Freeholders. The conclusions of this study report appear in Chapter VIII.

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STATE DEPARTMENT OF EDUCATION COMMITTEE FOR THE STUDY. 1

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CHAPTER I

THE COUNTY COLLEGE CONCEPT

Nowhere is America more the Land of Opportunity than in its educational system. However, change has no conscience and today's population explosion and technological revolution might well have narrowed the opportunity for educational advancement for millions had not educational authorities, wise government planners, and civic-minded individuals and business leaders looked ahead.

Change might have closed the doors of opportunity to countless young people were it not for the development in our century of the two-year college. The two-year college is a uniquely American idea that demonstrates how our system of education can be flexibly responsive to the demands of society while recognizing the worth of the individual.

As the century opened, there were fewer than ten such institutions, only one of them public. Today, there are over 700 two-year colleges, with more than half of them public. Today, they enroll more than 25 per cent of all students going to college for the first time. By 1970, they will be the first college attended by some 75 per cent of the young population.^{1*}

The "County College" is a term which originated in the enabling legislation² which provided the authority for the counties of New Jersey to establish and operate publicly supported two-year colleges. This type of educational institution is nationally identified as the "community college". Throughout this report, frequent reference is made to community colleges and is intended to refer to a collegiate institution which is known as the "County College" in New Jersey.

* All reference notes refer to the citations listed at the end of the report which are numbered successively and grouped according to chapters.

The Role of the County College in New Jersey

The New Jersey State Board of Education, in several of its official publications, has structured the design of community college development in this State. In the State Board's Community College report, which provided the basis for the County College law mentioned above, it is recommended that the primary aims of New Jersey's County Colleges be as follows:

- a. to make two-year college education accessible to able students in their home environment,
- b. to provide regular full-time students with diversified programs of studies leading to appropriately varied educational and vocational goals, including transfer to other institutions,
- c. to provide part-time adult students with diversified programs of studies leading to appropriately varied educational and vocational goals, including transfer to other institutions,
- d. to provide effective programs of scholastic, vocational and personal guidance and flexibility of transfer among programs so that the students may have the opportunity to develop their potentialities to the utmost,
- e. to provide for local as well as State and national needs appropriate to this type of institution, and
- f. to supplement educational opportunities now available in the State.³

In an official newsletter of the State Department of Education it is stated that the community colleges, by being deliberately located within commuting distance of the students they seek to serve, are expected to eliminate some of the major barriers which keep many capable youth from pursuing education beyond high school. The publication explains that:

Living costs represent a substantial portion of the student's expenses in a live-in college; the opportunity to stay at home would offer significant savings in room and board. Studies have revealed

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that college attendance is more dependent upon family income than student scholarship. The savings realized on housing, meals, long-distance travel, and unusually low tuition at a community college may make a college education possible for many of our youth who otherwise would be denied the opportunity.

There are still many young people who do not continue their education beyond high school because they do not see the advantages. This is generally due to inadequate information about the kinds of college experiences available. The local community college, by offering broad programs, directly appeals to a wide range of abilities and interests.

The college-age group would not be the sole constituency of the community college; working adults could also find educational opportunities for personal growth, in-service training for occupational improvement, and intellectual satisfaction.⁴

In the legislation governing the establishment and operation of County Colleges, the role of these institutions is indicated by their definition. According to New Jersey law:

'County College' means an educational institution . . . offering programs of instruction, extending not more than 2 years beyond high school, which may include but need not be limited to specialized or comprehensive curriculums, including college credit transfer courses, terminal courses in the liberal arts and sciences, and technical institute type programs.⁵

The Distinctive Characteristics of the Two-Year Community-Oriented County College

The community-oriented County College is a distinctive institution in that it attempts to equalize educational opportunity beyond the high school through its low tuition cost to the student and by its flexible admission policy. These equalization factors become increasingly important as higher education becomes more costly, as four-year colleges become more crowded and selective, and as the national and State welfare

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increasingly demand that all youth be developed to their maximum potential.

Another distinctive community college characteristic is its provision for an extensive program of guidance services for the student. The community college, by offering a variety of learning experiences, caters to students representing a wide range of interests, objectives and capacities. Persons uncertain of their educational and career objectives are given the opportunity to sample fields of knowledge and to test their own abilities under the guidance of counselors and teachers with a concern for the "individual" student. Community colleges have been referred to as great distributing agencies; some of their graduates will go on to four-year colleges and universities for advanced work, while others will move directly into a variety of careers and professions.

Furthermore, the two-year community college is distinctive in that it occupies a "middle position" between the high school and the four-year college, industry, or general life activities. No other institution of higher education has such an adaptable structure.

In a 1956 report of the State Board of Education, the unique characteristics and contribution of the community college are summarized as follows:

1. They serve as community centers responsive to the needs of their constituency in post-high school education and in adult education. They bring to the community a center of information and culture which supplements the work of the secondary school. Being flexible institutions they can, if their size permits, offer work in almost any subject field.
2. Community colleges within a community can provide the first two years of the college curriculum, enabling students to prepare for more intensive upper division and graduate work of later years.
3. Community colleges are in an excellent position to stimulate the search for and development of talent.
4. They can give "terminal" two-year courses, emphasizing the skills and techniques important to the development of the community and the State and offering educational

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5. Community colleges can give a basic general education beyond the high school level.
6. Community colleges widely established and well supported would go far toward meeting the increasing demand for facilities. In fact, they would serve the society's need for trained personnel by making college available to many who would not otherwise attend. A comprehensive system of community colleges would probably increase the proportion of New Jersey's young people entering college to almost 50 per cent of the 18 year olds.⁶

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Basic Functions of a Two-Year Community-Oriented County College

Basically there are four areas of specific curricular responsibility which are considered community college functions: (1) university-parallel; (2) general education terminal courses; (3) technical-institute type programs; and (4) continuing or adult programs. In a recent report on higher educational needs, the New Jersey State Board of Education describes these functions:

1. "University-Parallel Programs . . . should provide two-year programs equipping students for transfer to the upper division of four-year and five-year colleges, or to universities for the completion of their requirements for a baccalaureate degree in arts or sciences, and for work of the Junior and Senior years leading to professional degrees."⁷

Assuming that the student takes the required pattern of courses and that he achieves the prescribed quality level in work taken, he may transfer to the third year of a four-year college or university program. Transfer is usually accomplished with ease; particularly if the student identifies early in his college career, the institution to which he wishes to transfer for completion of the baccalaureate degree program. The student's work at the community college can usually be structured to meet the prerequisites for future work at the college or university of his choice.

2. "General Education Terminal Courses are . . . offerings closely related to these programs (above) and often identical as to the content of a single course of subject. . . ."⁸

These courses would provide local opportunity for formal education, especially beyond high school level, that will develop the qualities of good family membership, civic responsibility, and personal cultural improvement.

3. "Technical Institute Type Programs provided for . . . the development of two-year vocational terminal (technical education) programs preparing students to serve the needs of business, industry, agriculture, research institutes, laboratories and other technical assistance related to health services, the practice of medicine and dentistry, and the like. In the development of curriculums in these fields, emphasis must be placed on adaptation to the needs of the locality which the community college serves. Among the many specializations indicated are the programs such as those dealing with electronics, operating engineering, refrigeration and air conditioning, personal or technical services in support of business executives, and the like."⁹

Training in the areas of technical education usually requires two years of post-high school education in a prescribed curriculum of the technical institute type. The curriculums are designed specifically for the preparation of the technician, not an engineer or scientist. The two-year technical education course of study is rigorous and requires broad preparation in mathematics, science, and applied engineering or scientific technology. A technical education program in a community college is designed to give intellectual breadth and personal enrichment as well as technical proficiency.

4. "Continuing or Adult Education Programs provide for the . . . education of adults in . . . fields mentioned above; on-the-job training in response to the needs which grow out of technological advances which modify patterns of employment. The community colleges should, as well, offer opportunities to adults which will increase their social competence, and other courses which may contribute to the enrichment of their lives through the appreciation of the cultural opportunities in our society."¹⁰

Adults enrolled in a community college may wish to take courses of study which will lead toward a two-year Associate Degree, or they may enroll for courses which do not award college credit but which contribute to creative expression in the arts and the humanities or perhaps toward an appreciation of some field of interest.

There is considerable diversity in programs among community colleges. As a common practice, the community college faculties study their communities to identify the post-high school educational services needed. The staff work closely with resource committees from business, industry, and the professions and make an attempt to provide educational programs appropriate to the character of the community and the objectives of the college. They are deliberately designed to serve regional interests most efficiently.

Students Served by a Community College

A comprehensive community college attempts to accommodate . . .

1. Youth who are high school graduates and who want two, rather than four, years of higher education in the arts and sciences, or in vocational-technical or semi-professional programs.
2. High school graduates eventually bound for a four-year college or university who want to spend their freshman and sophomore years in their own community, living at home.
3. Young adults who have not graduated from high school but, through part-time study, eventually hope to earn a college degree by beginning with special courses at their level and advancing to collegiate level work after meeting the necessary admission requirements of a college-level program.
4. Employed persons who want to improve their skills, prepare for advancement or for change of employment, or to expand their general education.
5. Adult women interested in homemaking, child care, cultural courses or preparation for employment or re-employ-

ment.

6. Any citizen desiring training for community services such as fire science, police science, first aid and rescue work, and sanitation.

Community College Enrollment Trends

The prediction of college enrollments to 1970 has been undertaken by many. And there seems to be a rather uniform agreement concerning the number of young people who will be of college age. The major point of uncertainty in the projection studies concerns the percentage of those of college age who will actually attend college. Financial assistance, availability of needed educational programs, programs of motivation and encouragement, and increase in the percentage of students graduating from high school have been mentioned as factors which might materially increase the percentage of students who will go to college.

The future enrollment picture for the two-year community college is further influenced by the following:

1. The community colleges enroll students from the immediate locality, many of whom would not and could not go to college elsewhere; therefore, the increase in the enrollment will depend to a very great extent on the development of more community colleges.
2. An increase in the percentage of high school graduates undertaking college will probably affect community colleges more than four-year colleges simply because of the influence of the economic factor.
3. The increased emphasis on the community service role of the community colleges may result in program revisions and in the inauguration of new offerings which will greatly increase the attractiveness of community college curriculums for adults of all ages.
4. As the terminal programs of two years or less in length become better known and generally accepted as appropriate training for a wide variety of occupations, youth with the encouragement of their parents are more likely to take advantage of them.

5. Four-year colleges may find enrollments so overwhelming in comparison to resources that students will be encouraged to spend their first year or two in the community colleges.
6. The demands of adults for education are, as yet, largely unfathomed. The extent to which adults will enroll in the future depends largely on the kinds of training available.

As a result of these factors, a significant annual increase in the community college enrollment can be expected by 1970.

College Costs and the Financial Advantages of Community Colleges

College tuition costs have doubled on many college and university campuses in the past 15 or 20 years. Along with the other living costs, the cost of room and board, books, and incidentals reflects the general increase. In addition, there are other major financial items which must be considered by the youths who attend out-of-state colleges and universities. Presently about 51 per cent of New Jersey students, who enter college, enroll in out-of-state institutions.*

Cost data for several publicly supported universities attended by New Jersey students are shown in the chart on page 10. Out-of-state publicly supported institutions of higher education have been popular with many New Jersey students because of the basic tuition costs which are usually much less than comparable private institutions. Shown in the chart are the expenses for room and board and for special fees for students living out of the state in which the institution is located.

Much of the information about the drawing power of community colleges could well be under the heading of costs. The popularity of the community college has been derived to a great extent from its money-saving features.

Although not all public community colleges are tuition free, most of them have low tuition. The big saving, however, is in room and board. The student in the public two-year college ordinarily lives at home. At the four-year college, annual cost for tuition, fees, room and board

* September, 1964

TWO MAJOR EXPENSES (OTHER THAN TUITION) FOR
NEW JERSEY YOUTH ATTENDING OUT-OF-STATE UNIVERSITIES¹¹

College	Room and Board	Tuition Penalty for N.J. Students	Total
University of Vermont, Burlington	\$775	\$784	\$1,559
Pennsylvania State Univ., University Pk.	795	525	1,320
University of Virginia, Charlottesville	750	460	1,210
University of New Hampshire, Durham	590	420	1,010
University of Delaware, Newark	660	335	995

averages about \$2,025. Multiply this figure by two for an Associate Degree or for a Baccalaureate Degree four times and add a varied amount for books, supplies and miscellaneous expenses, the total cost of college could range from \$5,000 to \$10,000. If the first two years of college are at a community college where the student can live at home, the saving is sizable and may very well make the difference in the choice of a career.

Another financial advantage of the community college is that students are more likely to find part-time work in their own communities where they are acquainted with available work opportunities and are known personally by many.

Some Guiding Principles Governing the Establishment of a County College

The State Board of Education has recommended that the County Colleges be established in an orderly fashion and in keeping with sound planning and practical financing.¹² In its report to the Governor and Legislature in January, 1961, the State Board proposes that these institutions be governed by the following guiding principles:

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1. . . . There should be a statement of purposes and objectives. These should be clear, honest and susceptible to attainment and be realistically attuned to the needs of higher education in the county, particularly to those students for whom a two-year college program is appropriate.
2. . . . A County College should have its own physical plant and equipment including parking facilities, consonant with the demands of its purposes and programs. Such plant and equipment should be continually reconsidered in view of changing needs, development and expansion. The County College should operate as a separate and identifiable unit and not be dominated by any other unit of education.
3. . . . The curricula should be designed in light of the needs of the students attending a County College and in harmony with the stated purposes and objectives. The programs of study should be built upon broad flexible course offerings, the objectives of which are to help each student develop his own potentialities.¹³
4. . . . Responsibility for offering technical programs of less than college grade should be vested in the County Board of Vocational Education, and high school graduates may be admitted to such programs. If no County Board of Vocational Education exists in a County, the County College may also offer such programs. In particular, if it is desirable to transfer programs in whole or in part from one institution to the other, the two Boards, subject to approval by the State Board of Education and by the County Board of Chosen Freeholders, might. . . transfer real and personal property from one to the other.¹⁴ Furthermore the County. . . should endeavor to remove and prevent undesirable duplication between their respective programs and agree upon the assignment of programs between the two, subject to the rules and regulations of the State Board of Education.¹⁵

CHAPTER II

POPULATION AND SOCIOLOGICAL CONDITIONS IN MORRIS COUNTY

The Population Trends in Morris County

Similar to conditions in many other New Jersey counties, the population growth pattern of Morris County points to an increasing number of college-age youth. Shown in Table 1 (See Appendix A) are the numerical changes in population for the decades between 1930 and 1960 for the County's total population as well as for four specific age groupings.

The overall county population increased 31 per cent during the 1940's and another 59 per cent during the 1950's. Morris County has experienced a significant population increase over the past thirty years.

During the past two decades, there has been significant growth in the total school-age population (19 years and under). See Table 1 (Appendix A). The number of school-age children in Morris County increased about 60 per cent between 1940 and 1960.

Summarized in Table 2 (Appendix A) are the County's numerical and percentage changes in population by various age groupings between 1950 and 1960. Age group "10-14 years" experienced about 132 per cent increase; age group "5-9 years" had a 103 per cent increase; and age group "under 5 years" had approximately an 89 per cent increase since 1950. The increase in the number of all children "under 18" was about 104 per cent between 1950 and 1960. Dramatic increases in these child age groups emphasize the need to provide increased post-high school educational opportunities for a large number of Morris County children who are advancing through the grades.

Morris County's total population in 1960 was 261,620 (U.S. Census). Parsippany-Troy Hills, the County's largest municipality, had a population of 25,557. This municipality and the next two largest, Morris-town, 17,712 and Madison Borough, 15,122, represent almost a fourth

of the County's population. The population distribution among Morris County's 39 municipalities for the past thirty years is shown in Table 3 (Appendix A).

Projected Population Growth in Morris County

Table 4 (Appendix A) summarizes the projected growth in population for the Nation, the State and Morris County. By the year 1980, the Morris County population is expected to be about 51 per cent more than it was in 1960, reaching an approximate total of 530,000.

Studies show that the County's growth will continue to be steady. This growth which has reached nearly one-third million people has brought about an increased demand for more educational opportunities and facilities at all levels. Projections of population for Morris County through 1980 indicate that this demand will be further intensified.

Morris County Employment Picture

Data from the 1960 U.S. Census and information contained in various County documents provide the basis for a description of the industrial employment picture in Morris County.

Table 5 (Appendix A) summarizes for the year 1960 the types of industries and number of men and women employed in each type, ranked according to number employed. "Manufacturing" establishments employed the largest number, about 33,000. Of these industries, "Electrical Machinery, Equipment, and Supplies" firms employed 5,000 workers. The next largest group, "Other Retail Trade" employed about 2,000 workers. Excluded from this group are the retail groups specifically identified in the table such as "Food and Dairy Products Stores", "Eating and Drinking Places", etc.

Occupational and Social Characteristics of Morris County

Summarized in Table 6 (Appendix A) are the occupations of Morris County residents. As revealed in the Table, the category "Professional,

"Technical and Kindred Workers" employed the largest number, about 18,000. "Clerical and Kindred Workers" employed the second largest number, about 15,000. "Craftsmen, Foremen and Kindred Workers" is third with a total of approximately 15,000 employed.

"Farmers and Farm Managers" is the smallest occupational group with only 480 men and women employed in this category.

The 1960 data in Table 7 (Appendix A) show the annual median earnings of selected occupational categories for Morris County contrasted with those of the State. For the Morris County men, the highest earnings are for the "Professional, Managerial and Kindred Workers" with \$8,400. The second largest median earnings are for "Craftsmen, Foremen, and Kindred Workers" with \$5,915. "Farm Laborers" show the low median earning of \$2,386. The average State male worker in the Professional and Managerial field earns \$7,526, \$874 less than a Morris County worker. The average State male worker at the Craftsmen and Foremen level earns \$257 less.

As indicated by the 1959 data in Table 8 (Appendix A), the median family income in Morris County is \$5,542. This amount is considerably less than the State's average of \$6,786. The median male income is \$5,708 which is slightly more than the \$5,016 for the State. Table 8 (Appendix A) also shows that more individual men in Morris County have incomes in the range \$5,000 to \$5,999, and more families in the income range "\$10,000 and over" than any other thousand-dollar range shown in the Table. Almost 58 per cent of Morris County families earn \$7,000 and over.

Educational Achievements of Morris County Residents

Summarized in Table 9 (Appendix A) are the achievements of Morris County adults 25 years or older. Of the total 1960 adult population in Morris County, 42,818, or 28.3 per cent, graduated from high school.

About 14 per cent of Morris County adults have completed four or more years of college. This proportion is about 6 per cent more than the proportion in the State who have four or more years of college. The percentage of men in Morris County with this amount of education (19.2 per cent) is over twice that of the women (8.9 per cent) in the County.

In 1960, a total of 21,324 adults (14.1 per cent) had less than an eighth grade education and 72,054 (47.6 per cent) had less than a high school education.

The data in Table 9 (Appendix A) further reveal that almost 76 per cent of Morris County adults have not attended college.

In consideration of the normal aptitude of adults, it seems apparent from the data that Morris County adults are achieving far below their intellectual and academic potential. This, however, is not a characteristic peculiar to Morris County alone; this condition has been noted in all seven counties in which County College feasibility studies have been conducted.

It seems reasonable to assume that the Morris County residents would probably make a much better showing both educationally and occupationally if increased higher educational opportunities were made available to a larger percentage of county youth and adults. The leadership role of the County in the future will depend much on the educational opportunity available to the workers who must develop skill and competencies commensurate with the demands of the expanding technologies.

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CHAPTER III

MORRIS COUNTY'S EDUCATIONAL CHARACTERISTICS

Morris County's School Enrollment

The total number of pupils enrolled in the public secondary schools for the 1964-65 school year in Morris County was 20,222. See Table 10 (Appendix A).

Shown in Table 11 (Appendix A) are the projected school enrollments for the public schools in grades Kindergarten through twelve for the different school years to 1970-71. Using a uniform projection technique, Table 11 reveals the number of Morris County twelfth graders expected to graduate in the next seven years. Estimates of the graduates are as follows: 1965, 4,203 high school graduates; 1966, 4,363; 1967, 4,686; 1968, 4,189; 1969, 4,564; 1970, 4,800; and 1971, 4,947. In these projections the parochial school enrollments have not been included.

Post-High School Educational Institutions and Programs Available in Morris County

There are three institutions of higher education located in Morris County. The number of New Jersey residents attending these institutions in 1964, were as follows: Drew University, 835 full-time students and 371 part-time; Fairleigh Dickinson University about 4,900 full-time students and 11,000 part-time; and the College of Saint Elizabeth approximately 700 full-time students and 180 part-time. These three institutions are providing educational opportunities for about 6,500 full-time and 11,500 part-time students who are residents of New Jersey. It should be noted, that the curricula available in these four-year institutions, and all other senior colleges and universities, are designed primarily to serve the specific objectives of the baccalaureate degree and advanced programs, and to fulfill the special purposes of a four-year collegiate institution.

Morris County has only one hospital, All Soul's in Morristown,

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offering a professional nursing program. Sixty-four students are enrolled in this program. The only practical nursing training offered in the County is at Dover General Hospital in Dover. Cooperating with Morris Hills High School, Dover General is now training 15 students for practical nursing.

There is no County sponsored vocational-technical high school in Morris County. Consequently, there are no post-high school technical education programs. Vocational courses are offered in several of the district high schools offering programs in the various trades.

There are two private trade schools in the County enrolling 80 students in vocational trades courses. One private business school, enrolling about 60, is located in the County.

Extent of Attendance of Morris County Residents at Post-High School Institutions

Table 12 (Appendix A) shows the actual enrollment of full and part-time Morris County students in New Jersey institutions of higher education as of March 1, 1964. The institution enrolling the greatest number of Morris County residents is Fairleigh Dickinson University, with an enrollment of 1,372 full and part-time students. Second in number is Rutgers the State University with 583 full and part-time students. Seton Hall University follows with 390 full and part-time students. The total number of Morris County residents attending all of the New Jersey colleges and universities is 4,397 of which 1,798 are full-time students and 2,599 part-time.

Summarized in Table 13 (Appendix A) are the number and per cent of Morris County high school graduates attending post-high school institutions of various types. In 1962, 53 per cent (or 1,319) of the 2,482 graduates attended institutions which required a high school diploma for entrance. In 1963, 59 per cent (or 1,540) of the 2,710 graduates attended educational institutions beyond the high school.

Types and Extent of Enrollment in Community Adult Education Programs

In Table 14 (Appendix A), is a summary of the course offerings and enrollments in each of the community adult schools sponsored by Morris

County local public school districts. There were 7,708 adults in Morris County enrolled in numerous non-credit subject-matter areas in the public school adult education programs during the 1963-64 school year. In 1963-64, the total number of adults enrolled in the various avocational courses offered in the public schools was approximately 2,000; in commercial and distributive education subjects about 1,100; in arts and crafts courses, about 800; and in health, safety and physical education about 750.

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CHAPTER IV

ESTIMATED ENROLLMENT OF THE PROPOSED COUNTY COLLEGE
IN MORRIS COUNTY

Potential County College Enrollment for Morris County

There are several methods commonly used to estimate the potential full-time enrollment of a two-year community college. For this report, five formulae have been applied to estimate the potential enrollment for a County College in Morris County. Although the average age of community college students is about 25 years, the 18 and 19 year-olds are often referred to and considered the two-year college age population in determining potential full-time enrollment figures. Numbers utilized for future years are by necessity statistically projected estimates.

FORMULA I: The potential full-time enrollment of a newly established community college may be estimated by computing 30 per cent of the total number of 18 and 19 year-olds living in the county.¹

Year	Number 18-19 Year Olds*	Potential County College Enrollment, Morris County (30% of Column 2)
(1)	(2)	(3)
1965	8,831	2,649
1966	10,128	3,038
1967	9,882	2,965
1968	9,586	2,876
1969	9,851	2,955
1970	10,367	3,110

*In arriving at the numbers of 18 and 19 year-olds for the years 1965 through 1970, figures obtained from the 1960 U.S. Census were utilized. The number of youth of ages 8 through 14 was projected the appropriate number of years to arrive at the estimated 18 and 19 year-olds for the

* (cont.)

various years cited. Although death rates were not applied to the 1960 quantities, it was believed that since Morris County has experienced about a 59 per cent population increase since 1950, future anticipated growth would compensate for any changes in figures due to deaths among these age groups. In fact, the total population of 7 through 9 year-olds in 1950 was 7,831, while this same group ten years later in 1960 (17 through 19 year-olds) had increased 14 per cent to a total of 8,938.

FORMULA II: The potential full-time enrollment of a newly established community college may be estimated by using the ratio of one potential college student for every three pupils enrolled in high school grades 10, 11, and 12.²

School Year	Number in the High Schools Grades 10-11-12	Potential County College Enrollment, Morris County, (1/3 of Column 2)
(1)	(2)	(3)
1965-66	13,252	4,417
1966-67	13,238	4,413
1967-68	13,439	4,480
1968-69	13,553	4,518
1969-70	14,311	4,770
1970-71	14,707	4,902

FORMULA III: The potential full-time enrollment of a newly established community college may be estimated by:

- A. Computing 20% of the total high school enrollment.³
- or
- B. Computing 25% of the total high school enrollment.⁴

School Year
(1)
1965-66
1966-67
1967-68
1968-69
1969-70
1970-71

FORMULA I

Reference Year
(1)
1965-66
1966-67
1967-68
1968-69
1969-70
1970-71

FORMULA V

Duration
Interest in

School Year	Number in Public High Schools Grades 9-10-11-12	Potential County College Enrollment, Morris County (20% Column 2)(25% Column 2)	
(1)	(2)	(3)	(4)
1965-66	17,441	3,488	4,360
1966-67	17,802	3,560	4,451
1967-68	18,239	3,648	4,560
1968-69	18,500	3,700	4,625
1969-70	19,271	3,854	4,818
1970-71	19,970	3,994	4,993

FORMULA IV: The potential enrollment of a newly established community college may be estimated by computing 40% of the high school graduates in the county for the two preceding years.⁵

Reference Year	Number of Public High School Graduates In Two Preceding Years	Potential County College Enrollment, Morris Co. (40% of Column 2)
(1)	(2)	(3)
1965-66	7,603	3,041
1966-67	8,566	3,426
1967-68	9,049	3,620
1968-69	8,875	3,550
1969-70	8,753	3,501
1970-71	9,364	3,746

FORMULA V: A questionnaire may be used to survey student interest in attending a County College. Information is obtained from all the 11th and 12th grade pupils. The total number of pupils who indicated they would attend a County College, if one were established, is considered to be the potential second year enrollment of a college.⁶

During the school year 1964-65, a study of prospective students' interest in a local community college was conducted by the County's local

study committee. A questionnaire survey of ninth, tenth and eleventh graders of Morris County public and parochial high schools was made. The total number of pupils surveyed was 14,174. A total of 12,222 pupils responded to the questionnaire, representing an 86 per cent return. The results of this survey showed that 27.1 per cent (total of 2,092) of all ninth, tenth, and eleventh graders responding indicated that they would attend a two-year community college if one were established in Morris County.⁷

This Study, therefore, assumes that the 27.1 per cent reported by the local study committee, would be applicable to the eleventh and twelfth grade pupils as an index of desire to attend a County College in Morris County. The influence of the responses from the ninth and tenth grade pupils would tend to lower the percentage. It is considered appropriate for the purposes of prediction to apply this conservative percentage estimate to the current and future combined enrollments for eleventh and twelfth grades in Morris County. Based on the findings of similar previous studies, the results are considered reliable estimates of the responses that would be received from comparable future high school groups. The computations are summarized below.

School Year	Morris County 11th and 12th Grade Pupils	Would Attend County College (27.1% of Column 2)
(1)	(2)	(3)
1965-66	8,566	2,321
1966-67	9,049	2,452
1967-68	8,875	2,405
1968-69	8,753	2,372
1969-70	9,364	2,538
1970-71	9,747	2,641

All of the above enrollment estimates are for both years of the two-year college. The opening enrollment would be estimated at a figure less than one-half of the two-year potential, varying with the breadth of program, facilities, status of the new institution, and tuition cost.

Summarized on the following page are the data obtained from the

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various formulae used in estimating the full-time enrollment potential of a Morris County College.

For 1965-66, the enrollment potential, or possibility, for a Morris County College is approximately 3,000 full-time students for both college years. Note, such an estimate of potential is based on a theoretical condition that such a college could be fully established and operating with a comprehensive and complete program at this early date. In spite of many intervening variables, such a statistic is useful as a basis for long-range planning and gives a good index of educational needs. The estimates for a 1966, 1967, or 1968 opening date also indicate a potential enrollment of about 3,500 students for both college years.

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The chart on the following page should not be interpreted to mean that a single college campus should be planned and designed to serve this number of students. The County might decide on one college to serve only a portion of the need, or decide to establish two campuses suitably located to best serve all the County's residents, or decide on some other possible and acceptable arrangement. A total of 1,500 full-time students on one campus is considered a good working size for an effective community college program.

It is important to note that enrollment potential of a new college is subject to many variables such as: publicity given the college, the entrance and tuition policies of the institution, curricula offered, quality of leadership and faculty obtained, number of campuses and the facilities provided. Of considerable importance is the number of youth attracted from adjacent areas outside the county, should the County College become a "receiving institution". This particular factor has not been considered in the foregoing enrollment estimates.

Based on the experiences in other states with a community college program, the part-time (evening session) enrollment may be expected to be about twice that of the full-time day session.

Number of Morris County Youths Pursuing Their Education After High School Graduation: Kinds of Programs

A two-year follow-up study of Morris County's 1962 and 1963 high school graduates provides some indication of the type of post-high

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school programs of interest to high school graduates. Of the total 1963 graduating class (2,710), about 46 per cent enrolled in four-year colleges, and universities, about 7 per cent enrolled in technical and nursing schools, about 3 per cent in business-secretarial schools, and about 2 per cent pursued various miscellaneous programs. Presently about 57 per cent of the County's high school graduates go on for further study.⁸ (See Table 13, Appendix A)

Major Factors Which Act as Barriers to College Education

Of the 12,222 Morris County high school ninth, tenth, and eleventh graders responding to the local committee's survey, 2,652 said they were not planning to attend college. The most frequently marked reason (1,061 pupils or 40 per cent) for this decision was "I am not interested in going to college". Other reasons significant in terms of numbers and percentage were "I prefer to work full-time", cited by 316 pupils, or 12 per cent; "I cannot afford the cost of attending college away from home", mentioned by 174 pupils, or 7 per cent; and "I am expected to work so as to help out at home financially", listed by 128, or 5 per cent.

With reference to these findings, financial barriers seem evident in the reasons for not planning to attend college for about a fourth of the Morris County high school pupils responding to the question. In a study reported in Education Beyond High School: The Two-Year Community College, a publication of the State Board of Education, the significance of the financial barrier to college education is further substantiated.

Attitude of Parents Toward A County College in Morris County

A parental interest survey was conducted by the Morris County local study committee. A total of 2,193 parents responded to a questionnaire. About 77 per cent of those responding favored a County College; 41 per cent replied that a two-year County College would help students who can afford only two years of college, would make higher education available to more students, or would keep down costs of college education; 37 per cent stated that this type of institution would meet the needs for technical, vocational, or terminal higher education; 17 per cent indicated that this type of institution would make opportunities available for transfer to a four year college; and 10 per cent of the parents replying felt that closer guidance and better opportunities to make wiser choices of curricular offerings were advantageous for their sons and daughters.

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THE PROPOSED MORRIS COUNTY COLLEGE
SUMMARY OF POTENTIAL
FULL-TIME STUDENTS

Formula	Potential Enrollment					
	1965	1966	1967	1968	1969	1970
I	2,649	3,038	2,965	2,876	2,955	3,110
II	4,417	4,413	4,480	4,518	4,770	4,902
IIIa	3,488	3,560	3,648	3,700	3,854	3,994
IIIb	4,360	4,451	4,560	4,625	4,818	4,993
IV	3,041	3,426	3,620	3,550	3,501	3,746
V	2,321	2,452	2,405	2,372	2,538	2,641
Mean	3,379	3,557	3,613	3,607	3,739	3,898

These findings are consistent with the results of numerous out-of-state studies. Results of various studies consistently reveal parental aspirations toward a college education for their children, if financially attainable.

Summary

It should be taken into account in the planning of County College programs that the post-high school educational activities of individuals are naturally limited by the availability of particular programs and are not necessarily indicative of the primary choices or desires of the high school graduates. Also, the potential enrollment of a County College does not mean the actual enrollment to be expected at any particular date since many factors may have a negative effect on the total enrollment. Potential enrollment estimates assume that the County College would be in full operation, with adequate facilities, and providing the programs and services that the better community colleges are providing.

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CHAPTER V

CURRICULAR NEEDS TO BE MET BY THE PROPOSED MORRIS COUNTY COLLEGE

Major Programs and Curricula of Interest to Prospective Students

The findings of the local Morris County study committee and data revealed by the surveys conducted for this Study have provided the basis for predicting the types of curricular programs which seem appropriate for the proposed Morris County College. The five major programs and curricula needed to meet the needs of the students of the proposed County College as revealed by surveys of high school pupils' interests and industrial personnel needs are:

- A. A two-year Technical (Engineering-Science) Education program: would be of interest to about 26 per cent of the prospective County College students.
- B. A two-year Liberal Arts-Sciences (university parallel) program: represents the interest of about 25 per cent of the prospective students.
- C. A two-year Business Occupations program: would be of interest to 22 per cent of the prospective students.
- D. Health Services program: represents the interest of about 10 per cent of the prospective students.
- E. A two-year General Studies (terminal) program: interest of about 4 per cent of the prospective students.
- F. Other: interest by about 10 per cent of the prospective students.

The foregoing percentage breakdown is consistent with the findings revealed for Morris County in a 1961 State study. The results of this study showed 29 per cent business education; 27 per cent for liberal arts-sciences (transfer); 22 per cent technical education; and 11 per cent for health science programs.

A. Two-Year Technical (Engineering-Science) Education

The worth of technical education has been truly recognized in the past decade. Specifically, it has been established that engineering teamwork, rather than brilliance of individual effort alone, is making possible the unprecedented technological progress we are experiencing. Several individuals of widely diverse abilities and skills make up the engineering team which consists of:

The ENGINEER and the SCIENTIST, who formulate ideas to create new products and services,

The ENGINEERING TECHNICIAN, who utilizes his broad semi-professional abilities and skills to help develop, and apply these ideas and creations,

The INDUSTRIAL TECHNICIAN, whose highly specialized abilities and skills are used to supervise and control the manufacturing and service processes,

The CRAFTSMAN, who applies his high-order manipulative skills to shape the components and fabricate the needed structures and appurtenances needed for progress,

The SEMI-SKILLED AIDE, who performs the several lower order tasks which are in direct support of other members of the team.

The technical educational curricula should offer students opportunities to acquire sound basic training for immediate employment upon completion of the two-year County College program. Generally, the preparation is in the technical and scientific subject matter areas which are considered aids to the professional and supervisory occupations in such fields as agriculture, engineering and science research. Specific courses in technical skills, e.g., basic drafting and manufacturing processes, and in technical specialities are essential to all of the various technologies.

The importance of general education (that part of a student's education which looks first of all to his life as a responsible human being and citizen) is recognized by educational leaders in occupational education. The kind of courses which should be classified as general education in a technical education curriculum are those which have the best chance of fulfilling the following student aims: (1) to draw the student

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into vital new areas of intellectual experiences; (2) to increase the student's participation in his cultural heritage, and (3) to prepare the student to make sound judgements outside his field of specialized occupational preparation.¹

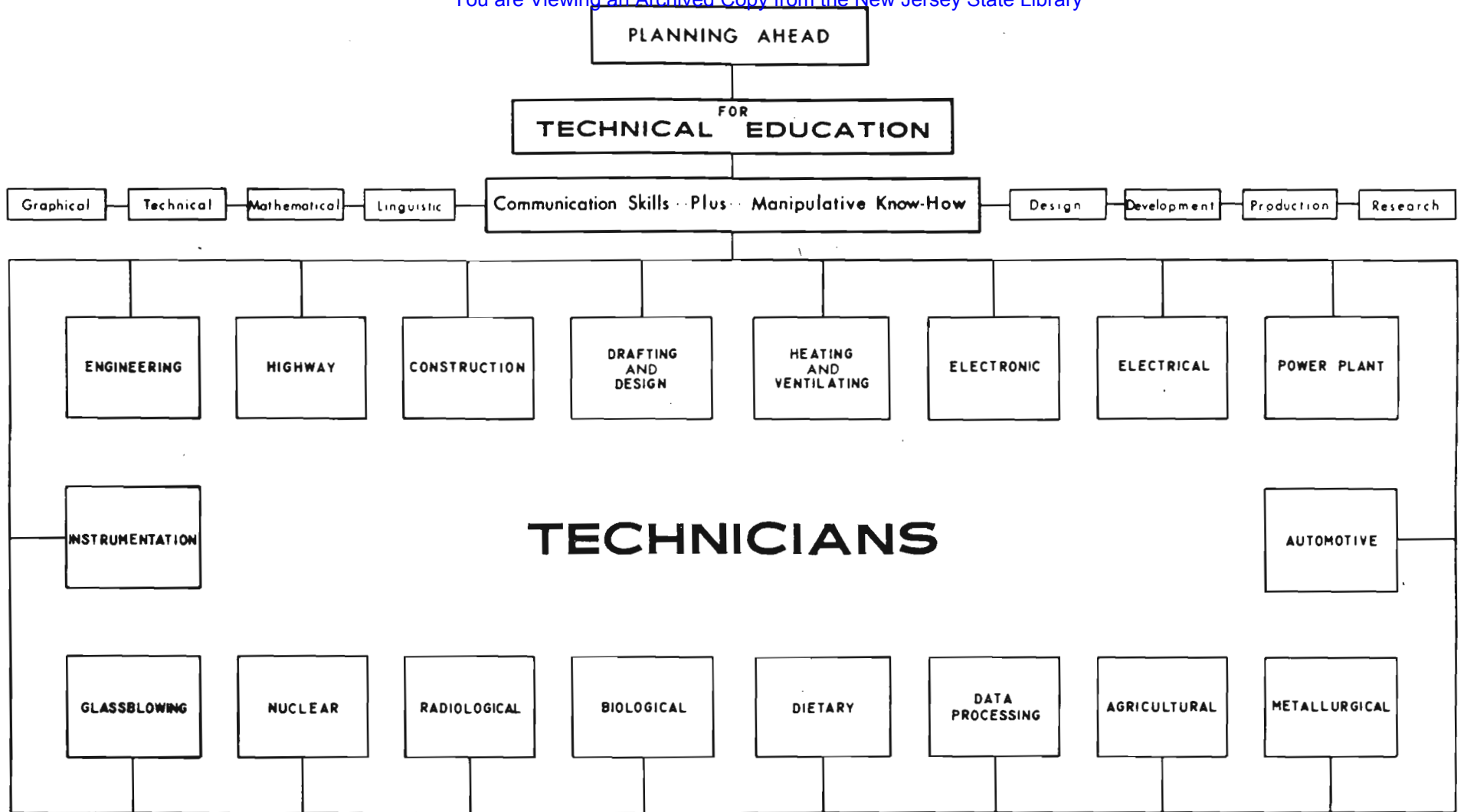
A graphic illustration of the need and design of technical education for New Jersey is presented in the chart on the following page.

The two-year technical education curricula in a County College would most likely be structured as follows:

- (a) 15-20 per cent of the entire curriculum devoted to general education subjects which would be pertinent to the technology. These may include such courses as economics, management, and human relations, English composition, public speaking, and technical report writing. The amount of time devoted to general educational subjects should be in proportion to the place that the general education of the individual occupies in the college's statement of objectives as well as the student's educational and vocational goals.
- (b) 20-25 per cent of the curriculum allotted to mathematics and science principles and concepts, with appropriate applications to the major field of technical specialization.
- (c) 30-40 per cent of the curriculum allocated to the development of laboratory techniques, instrument operation, and project work appropriate to the student's major field of specialization.
- (d) 5-10 per cent of the curriculum allotted to the opportunity for acquiring manipulative skills (e.g., hand-tools, auxiliary machines, other intricate equipment.)
- (e) 5-10 per cent of the curriculum allowed for library research and/or elective courses.

B. Two-Year Liberal Arts-Sciences (university parallel)

Whether a student has plans to enter a career immediately after two years of college work, or intends to pursue a four or five-year baccalaureate degree program, his community college program of studies should be designed to include courses in the humanities, social sciences,



Graphic Overview
OF
MAJOR TECHNICAL EDUCATION NEEDS

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and natural sciences. Selection of courses, in addition to the general education requirements, should be dictated by the need to provide the foundation for a possible major at a four-year college, or the need for desirable intellectual experiences useful in the student's personal life.

It is desirable that the student be given a thorough introduction into the primary areas of education in a liberal arts-sciences (university parallel) program. Many of these transfer students will be preparing for ultimate entrance into a wide variety of professions, such as dentistry, optometry, teaching, anthropology, and the like. It would be impractical to develop courses and facilities that would specifically prepare each student for all such specialized areas. When a two-year college emphasizes collegiate-level subject matter, insists on adequate academic preparation and grades appropriately, no difficulty should be expected in the transfer of students' credits to another institution of higher education.

C. Two-Year Business Occupations

In the development of a business occupations program, in the proposed County College, consideration should be given to the needs of those who would want to specialize in such areas as general business administration, accounting, salesmanship, insurance, business machine technology, banking, or secretarial science. These subject-matter areas have been found to relate to the needs of the business and industrial firms in the area. The various curricula in the business occupations program should provide a high degree of technical competence leading to a responsible position in a specialized area of business.

D. Health Services

The programs in the health services of the proposed Morris County College should probably be designed to prepare students for such health services or related curricula as: nursing, medical laboratory technology, dietetics, and X-ray technology.

It is recommended that where individual courses, such as X-ray, hematology, blood bank techniques, or bacteriology are needed, and in which highly specialized instruction is required, the cooperation of outside agencies such as hospitals, industrial laboratories, and industrial firms be sought to provide the specialized teaching personnel and the laboratory facilities in off-campus locations.

E. A Two-Year General Studies (terminal)

Terminal programs in general studies (basic and survey courses in the liberal arts and sciences) appeal to the student who wishes to complete his formal schooling in a two-year college. The student's program of studies would be designed to meet his own personal needs and interests.

Terminal occupational training. The community college does not necessarily need to limit its curricular offerings to a level which requires advanced mathematical and scientific preparation. By design and intent, this institution stands ready to offer to adults any occupation-centered curriculum for which there is a demand sufficient to warrant the offering of post-high school training. Preparation in any particular area may not be available in every community college; individual County Colleges might ultimately serve the needs of the entire State in specific occupational programs.

Programs and Curricula Necessary to Fulfill Cultural and Educational Aspirations of Adults Pursuing Studies on a Part-time Basis

The County College should play a significant role in the development of continuing, or adult education, in the county. That portion of the college's program generally referred to as "non-credit program" should be organized in close cooperation with existing community adult education programs in the county. A County College facility and its personnel would probably add prestige to the overall adult education program. Public school districts located in close proximity to the college should have the opportunity to call on the college's faculty for consultative services. Conversely the County College should be able to use the local facilities and personnel for the purpose of promoting their program whenever appropriate and practical. The County College, working in conjunction with adult education specialists, might well take the initiative in developing a cooperative approach to adult education for the county.

Relatively few of the total number of individuals in need of and capable of benefiting from formal adult educational programs of the vocational preparation type are presently obtaining such instruction. The increasing demands for trained manpower, current economic and social developments, changes in the various occupational fields, advancements in science and technology, and other developments, indicate the necessity for extending adult vocational preparation programs and for modifying

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The fact that certain courses included in a certificate program may have "transfer value" is incidental. The intent of such programs is to prepare the student to enter directly into employment after the program offered by the community college has been completed.

Many occupational training programs for adults will carry no college recognition, whatsoever, and will take only a few weeks or months to complete. Such programs may enroll both adults and out-of-school youth (including 16-year-old dropouts) in day and evening sessions.

A graphic orientation of the proposed role of the County College and other institutions of learning is presented in the chart on a following page. The relationship of curricula leading to the associate degrees and to "certificates of completion" may be seen by carefully studying the chart. A need for continuing programs for up-grading and retraining of adults is indicated for all counties. The increasing demand for skilled labor and the competition in the labor market, demands a higher level of educational achievement for the worker.

Programs and Curricula Necessary to Fulfill Cultural and Educational Aspirations of Adults Pursuing Studies on a Part-Time Basis

The County College should play a significant role in the development of continuing, or adult education, in the county. That portion of the college's program generally referred to as "non-credit program" should be organized in close cooperation with existing community adult education programs in the county. A County College facility and its personnel would probably add prestige to the overall adult education program. Public school districts located in close proximity to the college should have the opportunity to call on the college's faculty for consultative services. Conversely, the County College should be able to use the local facilities and personnel for the purpose of promoting their program whenever appropriate and practical. The County College, working in conjunction with adult education specialists, might well take the initiative in developing a cooperative approach to adult education for the county.

Relatively few of the total number of individuals in need of and capable of benefiting from formal adult educational programs of the vocational preparation type are presently obtaining such instruction. The increasing demands for trained manpower, current economic and social developments, changes in the various occupational fields, advancements in science and technology, and other developments, indicate the necessity for extending adult vocational preparation programs and for modifying

existing programs. All persons sixteen years or older, not enrolled in a high school program, who desire vocational instruction, should have an opportunity to enroll for such education. High school graduates with, or without, a high school background in vocational education should have an opportunity to continue or enter this important field. Furthermore, there is great need for this type of education for the handicapped, the aging, the migrant from rural areas to cities, migrant farm workers, displaced and unemployed workers, and individuals who drop out of school.

In a recent survey of parental attitudes toward a County College, 77 per cent of a sampling of 2,193 Morris County parents said that there was a need for a two-year community college in Morris County.³ The evidence indicates that the growth potential of such a college will be commensurate with the effectiveness with which the working students and graduates may adapt to the industries' diversified employment criteria.

A review of the non-credit course offerings in the 11 community adult schools of Morris County indicates a strong interest in the vocational and commercial and distributive education courses.

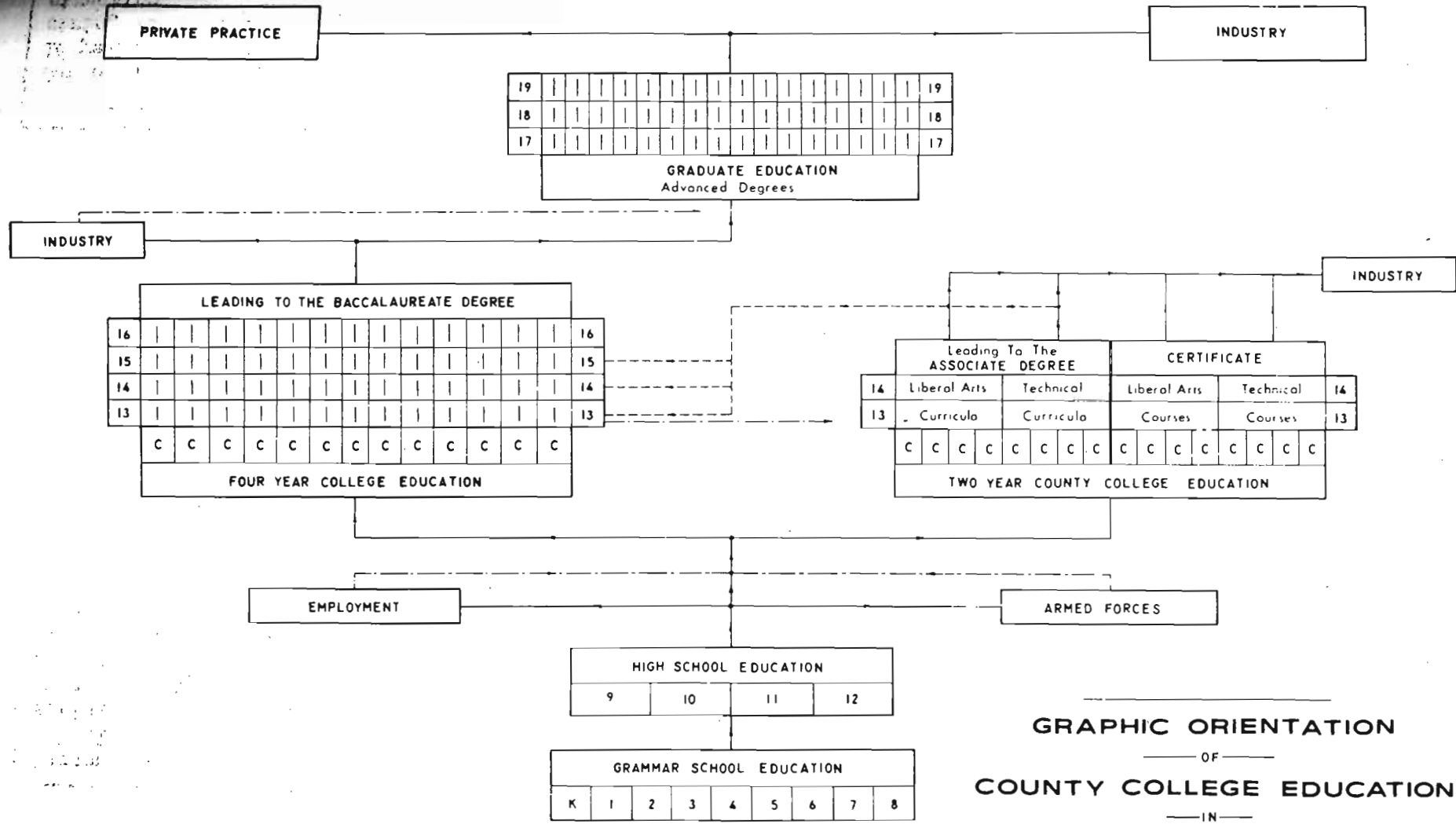
Student Guidance and Counseling Functions of a County College

Traditionally, the guidance and counseling functions of the community college have been significantly emphasized, resulting in these institutions being referred to as "guidance oriented colleges." The objectives of the college's student personnel program are synonymous with the instructional program. Instruction and guidance are interwoven and interrelated functions, each vitally important to the individuals' overall educational growth.

The multifold character of community colleges and the heterogeneous backgrounds and aptitudes of students who attend them, require that student counseling in this type of institution be emphasized, with quality a fundamental essential. Only if its importance is fully recognized can the counseling program discharge its responsibility adequately to the individual students and to the community college in which it functions.

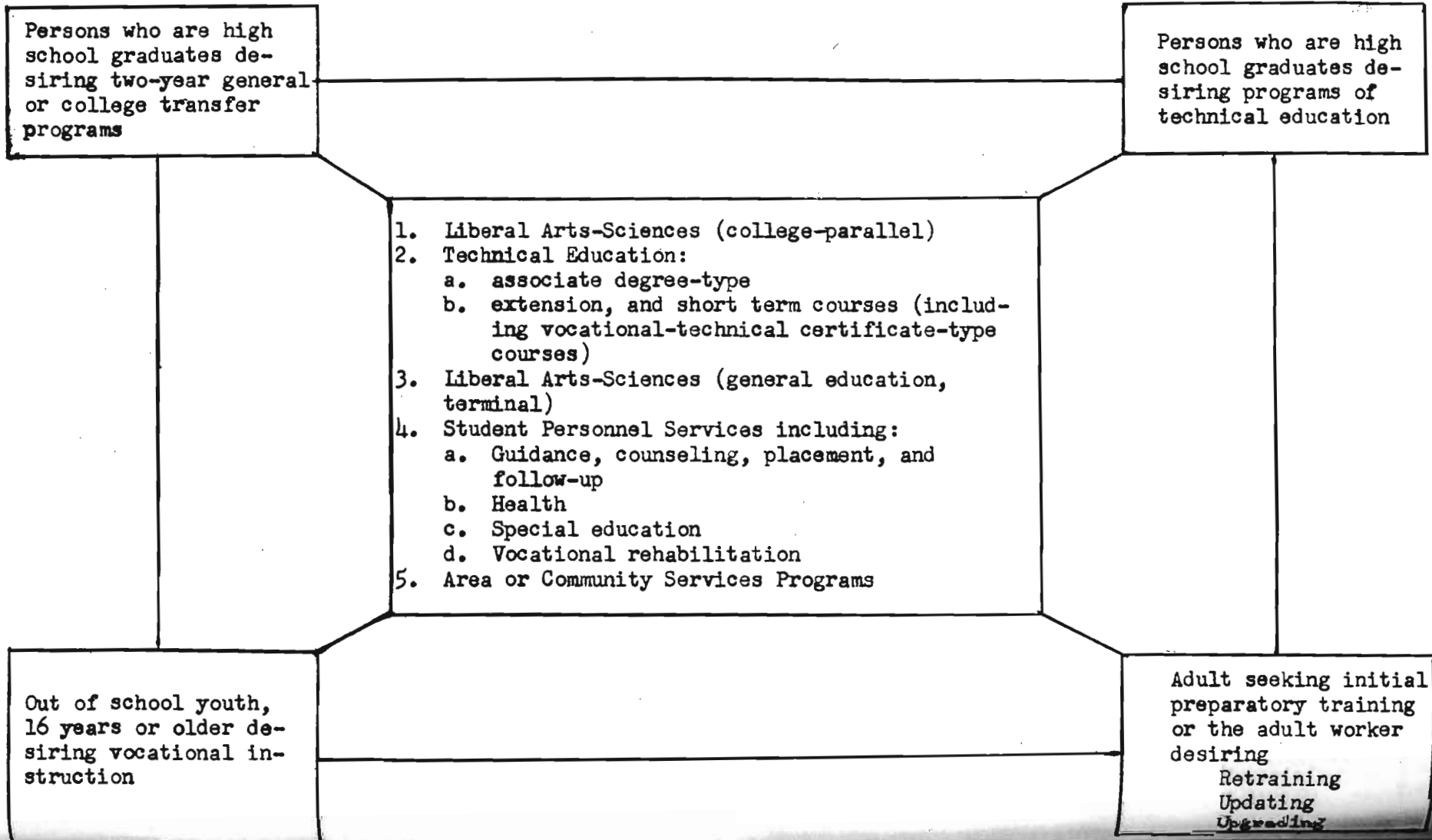
On a following page is a graphic description of the relationship of program and services of a community college and the personnel it serves.

GRAPHIC ORIENTATION
 OF
 COUNTY COLLEGE EDUCATION
 IN
 NEW JERSEY



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 The center rectangle represents programs and services performed by a community college. The small outside rectangles represent the people that would be served by such an institution.



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The commuting student and his diverse needs pose special counseling responsibilities for the County College. The objectives of the student activities program should, therefore, include provision for meaningful educational experience in social and organizational situations and the maintenance of a desirable balance between curricular and co-curricular programs.

Specific Curricula to Meet County Employment Needs

Two extensive survey-type studies were made in recent years to determine the extent of Morris County's industrial-technical personnel needs and whether the training programs in the County were adequate.^{4,5} In addition, an interview survey of limited scope was conducted for this Study to assess the present technical educational needs of the County. It is believed that the selected firms in the latter study are representative of the major industrial activities of the County. (See Appendix B).

The findings of the above and other pertinent data indicated that the following curricula are in demand:

1. Air Conditioning and Refrigeration Technology
2. Automotive Technology
3. Biological Technology
4. Chemical Technology
5. Civil Technology
6. Construction Technology
7. Data Processing Technology
8. Drafting and Design Technology
9. Electrical Technology
10. Electronic Technology
11. Fabrication Technology
12. Instrumentation Technology
13. Industrial Laboratory Technology
14. Machine Technology
15. Mechanical Technology
16. Metallurgical Technology
17. Nursing
18. Optical and Laser Technology
19. Scientific Glassblowing Technology
20. Secretarial Science Technology

Out of school youth,
16 years or older de-
siring vocational in-
struction

21. Tool and Die Technology
22. Welding Technology

In addition, courses in business management and supervision would prove most helpful for many of the in-service technical personnel and employees in supporting areas.

The industries and businesses in New Jersey need a continuing supply of highly qualified, professional, technical and skilled workers to maintain and improve services and production. When considering a County College program of vocational-technical education, primary attention must be given to needs of existing industries of the sponsoring county. However, in addition to local employment opportunities, county residents should be provided with the opportunity to qualify, by preparation, for job openings available outside the boundaries of any one county.

In planning the curricular offerings in the proposed Morris County College, it is strongly recommended that a careful study be made to evaluate all programs now available in institutions located in the County. Evening programs as well as the full-time day curricula should be examined to ascertain if any serious conflicts may develop. Most noteworthy, however, is the fact that the spectrum of technical education is sufficiently wide and varied of purpose so as to permit much latitude in course offerings thereby avoiding undesirable duplication.

The firms included in the survey conducted for this Study indicated that a major educational objective of the proposed County College should be to offer two years of rigorous, college-level technical education and training that is thoroughly occupationally oriented. It was the expressed hopes of those interviewed that such preparatory instruction would provide the needed technicians and would: (a) offer the associate degree upon successful completion of a prescribed program of instruction, (b) provide the graduates with marketable technical abilities and acumen, and (c) establish an excellent foundation for those planning to continue their education in pursuit of a higher degree at a four-year college or university. Highly specialized technical curricula were suggested for adults who may select to pursue a certificate curriculum for upgrading or retraining purposes.

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Anticipated Community Cooperation

Throughout Morris County, in interviews, public discussions, and individual group meetings, representatives of the State Department of Education have found strong support for the establishment of a County College.

In an extensive doctoral degree study conducted in 1961 by Dr. Lawrence Stratton, interviews with Morris County high school guidance directors and school superintendents revealed that fourteen of the fifteen guidance directors surveyed had the opinion that there was a need for a community college in Morris County, and practically all of the school superintendents in the County agreed with this conclusion.⁶

Evidence of the strong support for a County College for Morris County is the action taken by the Board of Education of Parsippany-Troy Hills, the largest municipality in the County, which pledged, by a resolution dated May 10, 1962, the following:

This Board resolved—

1. That this board encourages the Morris County Board of Chosen Freeholders to give immediate and serious consideration to the establishment of a junior college in Morris County.
2. That this board offers to participate in any of the planning that would be necessary for the establishment of a junior college in Morris County.
3. That this board suggests that the junior college be located in Parsippany-Troy Hills since this community is the geographical center of Morris County, the largest in population and the crossroads of the highway network of the county.
4. That this board welcomes the opportunity to cooperate with the Morris County Board of Chosen Freeholders in locating an adequate site for a junior college in the Township of Parsippany-Troy Hills.
5. That this board offers the use of part of its school facilities in after-school hours if the junior college begins

operation while its own buildings are under construction.

6. That a true copy of this resolution be sent to the Governor of New Jersey, the New Jersey state legislators from Morris County, the Morris County Board of Chosen Freeholders, the New Jersey State Commissioner of Education, and the Morris County Superintendent of Schools.

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CHAPTER VI

THE PHYSICAL PLANT NEEDS OF THE PROPOSED COUNTY COLLEGE IN MORRIS COUNTY: THE SITE AND BUILDINGS

Planning Overview

The key to good County College planning lies in an awareness of what the future may bring. A campus plan should be flexible enough to satisfy those foreseeable needs and provide accommodations for the unpredictable future.

There are certain fundamentals important in the study of the physical plant needs of a community college. One, these colleges are not scaled-down universities, or modified high schools. They are institutions with their own identity and with individual objectives aimed at serving particular local higher educational needs. The special space requirements of many occupational-type programs offered by community colleges stress the importance for planning flexibility beyond that of the high school or the four-year college. Two, there are many common characteristics of community colleges that may be observed in the planning of an institution of comparable purpose. Appraisals of community college campus plans developed in other states have revealed that the variety of educational programs generally offered frequently demands more space than had been initially anticipated by the planners.

At this stage of the development, there are no established and tested building guides for community colleges. Nevertheless, any planning that goes into the creation of such an institution must take into account how this college's own unique purposes may be best implemented.

The Site Needs of a County College

After considering the experiences of existing community colleges throughout the United States, the consensus of specialists in the field is that a site of approximately 100 acres is needed for a comprehensive community college program. One New Jersey county is now preparing to utilize for its County College a site in excess of 200 acres and another is developing a campus on a tract containing more than 400 acres. Although the New Jersey State Board of Education's criteria for the estab-

lishment of County Colleges indicate that an area as small as 45 acres would be acceptable, it is understood that a desired pattern of flexibility may dictate a need far beyond this minimum requirement.

It is evident, of course, that some counties in New Jersey will find sites of sizable acreage practically impossible to obtain. It is important, however, that for the proper development of a community college program, every effort be made at the outset to provide sufficient land to accommodate the desired program.

There are many variables that have to be considered in developing a college--such as the curricular needs, the probable enrollment in future years, the changing concepts in educational philosophy, and the changing educational needs of the geographical area. It is important for a county to take these influences into consideration when planning the location and site for the County College campus.

The Morris County local study committee's proposal to provide a campus of a minimum of 100 acres is consistent with acceptable practices in community college campus planning and is acceptable to this Study Committee.¹ Several factors which are of primary importance in the selection of a community college site are:

- A. The area should provide adequate space for the college's immediate and long term requirements as defined in a "master plan" for its future growth and expansion;
- B. Environmental surroundings should be appropriate to an institution of higher learning. It should provide aesthetic surroundings removed from commercial-industrial areas;
- C. The topography should permit economical construction of buildings and provide maximum utilization of land;
- D. It should be accessible by established routes of travel and, to a lesser degree, convenient to public transportation;
- E. It should be geographically located near the center of the county rather than near the present center of population;
- F. The quality of the soil conditions should be appropriate

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to campus needs;

G. It should be accessible to needed utilities.

Probable Costs for Plant and Equipment

The probable capital expenditures for a one-thousand (1,000) student County College have been carefully considered by the Morris County local study committee.² The findings of this Study, in general, concur with the conclusions of the local study committee and are discussed in detail on the following pages. The cost estimates revealed by this Study differ from comparable figures presented by the local study committee, mainly because the estimates have been more refined.

It has been proposed by the local study committee that in order to provide the physical facilities needed to house the desired program approximately 200 square feet per student should be allocated. Findings of this Committee substantiate this estimate of plant area. The report of the local committee also indicates that the initial construction should approximate 200,000 square feet.³ (200 square feet x 1,000 students contemplated.)

The unit cost of construction for the proposed college has been estimated by the local study committee at \$20.00 per square foot. This seems to be a reasonable estimate for this area of New Jersey.

Using the figures indicated above, the basic construction cost for the proposed Morris County College would be \$4,000,000 (1,000 students x 200 sq. ft./student x \$20/sq. ft.).

Using a 15 per cent estimate for furnishings (15 per cent of basic construction cost), the result is \$600,000 for furniture and equipment. The total estimated cost for building construction and furnishings is \$4,600,000.

In predicting the overall costs for a County College plant, there are additional items for which capital allotment should be made to insure sufficient funds for a complete capital program. These are costs for architect's fees, bonding and legal fees, site development, land acquisition, and contingency.

Architectural fees represent an expense item in practically all construction programs. The prevailing rate in New Jersey is approximately 6 per cent of the basic construction cost which in this particular project would amount to \$240,000.

Bonding and legal fees are also an integral part of any construction program and these will ordinarily not exceed two per cent. In many cases, these may be established as a flat fee or may be at a lower percentage, but for reasons of precaution against under-estimating, a safe figure is indicated here. For the proposed Morris County College a two per cent fee for bonding and legal services would amount to \$80,000.

Site development is generally listed as a separate capital item beyond the basic five contracts for construction. This would include grading and paving, the provision for walks and driveways, parking and recreational areas, landscaping, and other outdoor facilities necessary for the implementation of the program. Qualified estimators consider the site development expense to be between five and ten per cent of the basic construction cost. Using the minimum percentage (5%), this item would be about \$200,000.

Planning should allow for minor changes that will emerge as the building proposal is refined. The most careful planning is subject to change through developments that occur between the time of the original concept and the finalization of the construction drawings. These changes may involve design, materials, finishes, techniques, or built-in equipment. These usually increase the costs beyond the basic construction estimates. Even after the final drawings have been developed and approved, other physical changes may be wanted, possibly adding to the cost of the project. For these reasons, some provision should be made for contingencies that will arise whether from changes in philosophy, proposed purposes of areas, curricular revisions, general upgrading of the planned facilities, or any other developments beyond the control of the participants doing the initial planning. No concrete figure can be established for these variables, but an acceptable practice provides at least five (5) per cent of the construction cost as a reasonable contingency fund. Based on the basic construction cost estimate, about \$200,000 should be estimated for contingencies.

The question of land acquisition is very difficult to evaluate. Many factors are involved in this consideration and at the time of this Study there is little basis for estimating this cost. Although several counties have received land gifts for County College sites, Morris County should be aware of this possible cost and be prepared to set aside some reasonable

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amount for site purchase. The amount would be based on local conditions, availability of land, and specific needs of the proposed County College. The determination of how large the site would be, its location and its accessibility to utilities, will have a significant bearing on the eventual cost.

To recapitulate, the possible capital costs for the proposed 1,000 student County College for Morris County are as follows:

A. Basic Construction	\$4,000,000
B. Furniture and Equipment (15%)	600,000
C. Architect's Fees (6%)	<u>240,000</u>
Sub-total	\$4,840,000
D. Bonding and Legal Fees (2%)	\$ 80,000
E. Site Development (5%)	200,000
F. Contingency (5%)	<u>200,000</u>
Grand Total	\$5,320,000 (Plus site acquisition if necessary)

Some Guides for Science Laboratory Facilities

Consideration of specifications available for college science laboratories may be helpful in the initial planning. The floor areas of the laboratories for the biological and physical sciences should be planned on the basis of about 40 square feet per student exclusive of storage areas. The average total floor area of recently constructed laboratory rooms is about 900 square feet which accommodates a maximum of 24 students at one time. Adjacent to each laboratory room, there should be a preparation room with an area of 400 to 500 square feet. It is recommended that all laboratory rooms be designed to serve no more than 32 students at any one time. Consideration should be given to inclusion of demonstration tables in all classrooms which may be used for science instruction. "Tote rooms" might be utilized to expand the use of laboratories by providing more storage space than that available in laboratory tables.

While costs vary widely, average overall costs for science laboratory furnishings and equipment would range from \$10,000 to \$15,000 per room, with biology laboratory being on the low side and the chemistry laboratory being on the high side. The average costs of laboratory apparatus and supplies to initially equip the same rooms would range between \$7,500 and \$12,000. These average costs do not include construction costs.

Instructional Facilities Needed to Provide a Quality Educational Program in a County College

Since the County College must house an extremely wide range of activities and will frequently vary considerably in enrollments, the planning presents a great challenge. In spite of the potential differences, certain common characteristics among them exist. The most common to all are the basic curricular programs (university-parallel and technical education programs) and the needed facilities related to these programs.

A 1962 report of the New Jersey State Board of Education pointed out that education of youth in colleges requires more than buildings for classrooms. The report outlined the following needs:

Education of youth in colleges and universities today requires more than classroom buildings. The necessary complex of coordinate and supporting facilities includes:

A. Instructional Facilities

--Classrooms, general and specialized laboratories, music and art studios; shops, conference, lecture and study rooms; administrative and faculty offices; research and experimental installations, such as clinical facilities offering services to the handicapped; mathematics and statistics computing center; laboratory schools; field experiment stations; research center for the study of governmental administration and of labor and management problems, and the like.

--Libraries

--Physical Education Facilities - gymnasiums and playfields

B. Student Life Facilities

--Food Services, Bookstore, Student Organizations' Offices; Social and Recreational Facilities. . .

--Parking Facilities

--Auditoriums and Little Theaters

C. Faculty Offices and Conference Rooms

. . . In planning classroom buildings, provision should always be made for faculty offices and conference rooms

. . . A faculty office is related to the service which the faculty member makes. It is only when there is a possibility of conference with an individual or with a small group of students that the best teaching can be done. Classroom work alone does not measure the faculty load.

D. Study Rooms for Commuting Students

. . . There is a very great lack of spaces for study in the publicly supported colleges. Students go to class and then have one or more vacant periods. For those who commute, and that is the great majority of the student body, the spaces now provided in student centers are crowded and study is all but impossible. In every college that serves a commuting population, the opportunity for study should be as certainly available to students who live in dormitories. Rooms equipped for study, in addition to those equipped for recitation purposes, should be established in each of the publicly supported institutions.

E. Facilities for Physical Education

. . . Physical well-being is essential in the growth and development of youth. Gymnasiums and playfields to accommodate the total population should be considered a necessity.⁴

The State Board of Education also recommended in January 1961 that: Such plant and equipment [community colleges] should be continually re-considered in view of changing needs, development and expansion.⁵ This degree of flexibility should be built into a "master plan". Various stages of campus and plant development should evolve from it. A master, or developmental, plan provides a valuable force which can help bridge the time between present and future. Such a plan may never be realized as it exists at any given time because it is a dynamic, evolving idea . . . not a final, crystalized set of plans.

There are five keys to plant planning, not often expressed, which may be useful to those who will be involved in the development of the specifications for a County College. Cognizance of these should add another dimension to sound planning of educational facilities.

- (1) The plant, itself, can teach an appreciation of beauty, the orderly usefulness of space, the possible interrelationships of parts and the spirit of harmonious living. Aesthetics of the building, itself, can help in establishing an environment for learning;
- (2) The building should not only serve the students and faculty of the college but also should be designed to cooperate in meeting certain community needs which a college campus can provide;
- (3) All parts of the building, especially the instructional areas, should be designed and equipped to provide conditions under which the students would learn best. An environment and equipment which tends to motivate both the student and the teacher will do much toward providing a better program;
- (4) A County College of the type proposed for Morris must provide areas for work, relaxation and student activities since there will be many hours during the week when the student remains

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on campus with hours intervening between classes. To provide the stimulus necessary for maximum effort, it would be desirable to provide many non-instructional areas as an integral part of the facilities;

- (5) Most important is a master plan for the future expansion of the college. This should indicate where additions would go, what they are to house, how they would be located on the site, what their relationship would be to the existing structure and how this future expansion could be accomplished at minimum cost.

Recent Trends in Community College Planning and Construction

Each year finds new innovations in educational plant facilities. Some are tested experimentally until time and practice develop acceptance and then they become a part of improved planning. Only with change can upgrading occur. As the planners for a Morris County College explore the probable solutions to the physical plant needs there are certain to be items of more recent development that will be taken into consideration. Since the basic estimations for capital cost are generally founded on traditional approaches, any acceptance of variation can encompass additional costs. But, on the other hand, it is also possible that they may effect material savings as well as improved educational environment. The extent to which these innovations may become a part of the County College plan should be decided before the preparation of the educational specifications.

Some recent trends are described below:

- A. Increased use is being made of free span construction with easily moved partition walls planned in modules.
- B. More consideration is being given to the overall maintenance costs of college buildings. Masonry material is being used for both the exterior and interior of buildings.
- C. Nylon tile floor covering is being used in most areas and carpeting has been found to be very practical for the library and offices.
- D. The college is being planned for year-round operation and for

use from 12 to 15 hours per day. This extensive use requires that the plant be adequately air-conditioned.

- E. Provisions for radio and TV transmission and receiving are being included in construction.
- F. Study carrels are being provided in classroom and laboratory buildings as well as in the library area.
- G. Multi-purpose science laboratories are being used and large laboratories to accommodate 50 to 75 students have been designed.
- H. More emphasis is being placed on individualized developmental programs of physical education rather than intercollegiate athletics. This practice would cut down on spectators' seating area in the gymnasium. Outdoor sports areas are being used to decrease the use-time of gymnasiums.
- I. Computers and data-processing machines are increasingly being used for such purposes as fiscal accounting, student accounting, and book store inventories.
- J. Individual classrooms and laboratories are being provided with film projectors and other audio-visual aids at the time of initial construction.
- K. More vending machines are used to provide food services.

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CHAPTER VII

FINANCIAL ABILITY OF MORRIS COUNTY
TO ESTABLISH AND OPERATE A COUNTY COLLEGE

The net debt of Morris County was \$13,678,127.79 as of December 31, 1964. This amount is 0.7042 per cent of the average equalized valuations of \$1,942,326,522.

The legal borrowing capacity of the County (2 per cent of the average equalized valuations of the last three preceding years) is \$38,846,530.44. The present available unused borrowing capacity is \$25,168,402.65.

The school law (N.J.S.A. 18:22-101) provides that no county shall issue bonds for County College purposes in excess of one-half of one per cent of equalized valuation of property. Since the average equalized valuation of property in Morris County is \$1,942,326,522, this amount would provide a County College borrowing capacity of \$9,711,632. A bond issue of \$2,660,000* estimated for the capital outlay program (rounded off to nearest even ten-thousand dollars) is well within the limits of the County's capacity.

The local Morris County study committee has proposed a 10-year retirement period for a County College bond issue. If this were acceptable, the annual maturities (based on a \$2,660,000 bond issue) may be estimated at \$270,000 for 9 years and \$230,000 for the 10th year.

Assuming that the County's bonds would carry at an interest rate of 3 per cent, the interest costs would be approximately \$81,000 a year. The initial total debt service expense for a County College would be \$351,000 (\$270,000 + \$81,000) annually. If the County chooses not to make a payment on the principal of the first year of the loan, the debt service expense would include only the \$81,000 for interest.

*See Chapter VI for details of capital outlay expense

With an annual debt service of \$351,000 for the proposed County College, the County's tax rate would be increased \$.015 for each \$100 of equalized valuation of property.* Since county taxes are apportioned to each municipality within the County according to the equalized valuations, the increased tax on a home, the true value of which is \$10,000 would be \$1.50 for a \$351,000 debt service and may be expected to be the same for each municipality.

Cost of Operation for a County College in Morris County

The findings of various studies indicate that emphasis should be placed on curricula both in the liberal arts and sciences and in vocational-technical education. The County's overall economic conditions further verify the need to promote occupational type programs in the proposed college, on the college degree level and on the craftsman-clerical level.

The need for technical and scientific curricula is significant in considering operational costs of the proposed County College since the teaching staff for these fields would most likely be employed at the upper levels of the salary scale in order to compete with salaries of industry. In consideration of these variables and the rising cost factor, an operating cost of \$700 per student per year is considered a reasonable cost estimate at the present time. The present per capita cost of the New Jersey State Colleges is about \$750, excluding auxiliary services. Generally the operational cost of a two-year college program is about 20 per cent less than the cost of a similar four-year program.

The following is a summary of possible resources for current operation based on 600 full-time students and a \$700 per capita operational cost.** It is presented as a suggestion only, since the amount of

*A debt service expense of \$81,000, assuming no payment on the principal of the loan, for the first year of operation would add \$.0035 to the tax rate for each \$100 of equalized valuation.

**The local study committee has proposed a County College to accommodate 1,000 full-time students. It is recommended that about 600 students be considered for the first year of operation. The remainder of the 1,000 would be enrolled in the second year after the college is better organized and educational programs further developed.

student tuition would actually be determined by a County College board of trustees, subject to the approval of the State Board of Education.

Summary of Possible Income Sources
for the First Year's Current Operation
(600 full-time students, estimated minimum enrollment)

<u>Source of Funds</u>	<u>Amount per Student</u>	<u>Full-time Students</u>	<u>Total Amount</u>
MORRIS COUNTY	\$250	600	\$150,000
STATE	\$200	600	120,000
STUDENT	<u>\$250</u>	<u>600</u>	<u>150,000</u>
TOTAL	\$700	(600)	\$420,000

It should be noted that the sources of income for current operations listed above show only the first year's revenue for full-time students. In addition to the tuition fees from full-time students, the college would charge tuition fees for part-time students who take courses during the late afternoon and evening. It is reasonable to expect, that for the programs offered to part-time students, the initial operating costs would be somewhat less than the total amount of student tuition which would be received. In effect, the resources from full-time students would not be needed to support the evening program. For State aid purposes, students enrolled in part-time programs will be equated to full-time students with the appropriate payments being made to the institution.

If the County's share of the first year's current operating costs were \$150,000 (assuming 600 students and \$250 per capita, summarized above), this would add \$.0065 to Morris County's tax rate for each \$100 of equalized valuation of property.

Summarizing, the findings of this Study show that Morris County's share of the first year's cost for establishing a 1,000-student County College and operating it to serve 600 full-time students the first year would amount to \$501,000 (\$351,000 debt service + \$150,000 current operation), representing a \$.0218 county tax rate increase per \$100

of equalized property valuation.*

There seems to be sufficient and valid evidence which indicates that Morris County could afford to finance the proposed County College without undue tax burden to the local taxpayer.

Planning the County College Budget

Although it is impracticable, at this time, to develop an operating budget for the proposed County College, information relevant to how the resources may be distributed through the major expenditure categories for a program to be offered to the full-time students, may be important for planning purposes. Summarized below are the percentage distributions of current expenditures for community colleges in three selected states.

The classification of expenditures will vary not only by state, but from institution to institution according to the organization, size, and special interests. Such data, however, may serve as a basis for understanding the overall distribution of expense for a two-year college operation.

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*If no payment is made on the principal of the loan for the capital program, the County's share of the first year costs would be approximately \$231,000. (\$81,000 debt service + \$150,000 current operation), representing a \$.01 county tax rate increase per \$100 of equalized property valuation.

7 All tax rate increases are based on 1965 net valuation on which county taxes are apportioned.7

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Per Cent of Total Expenditures For
Current Operation Expense Items For Community Colleges
In Three Selected States

<u>Type of Expense</u>	<u>Colorado²</u> <u>1961-62</u>	<u>Texas³</u> <u>1961-62</u>	<u>Florida⁴</u> <u>1960-61</u>
A. General Admin.	8.5%	7.9%	---%
B. General Expense: (Student Services, Staff Benefits, Gen. Institutional)	17.5	5.7	0.2
C. Instruction and Rel Act.	55.1	69.4	68.4
D. Libraries	5.4	2.4	4.5
E. Operation and Maint. of Plant	12.4	14.2	7.2
F. Fixed Charges	1.2	---	0.5
G. Other Items: (Public Services Reserve)	---	---	20.2

The following are estimated budget distributions of expenditures for the operation of the proposed Morris County College based on \$420,000 operational fund source for 600 first year full-time students; allocations are flexible and submitted as a guide only.

Summary of Operational Expenditures

Academic Salaries

Includes all academic personnel, administrators, and teachers; about 60 per cent of total budget. \$252,000

Non-Academic Salaries

Includes secretarial, clerical, business office staff and maintenance employees; allocation about 20 per cent of total budget. 84,000

Maintenance and Supplies

Includes fuel, utilities, consumable supplies, office, printing, household items, educational supplies for classroom use, purchasing of books for annual college library needs after the initial establishment of the library; about 10 per cent of the total budget. 42,000

Services Other Than Personal

Includes travel expenses, telephone, insurance, household expenses paid to service agencies, membership in professional organizations, postage, entertainment, consultation services, etc.; about 3 per cent of the total budget. 12,600

Maintenance and Replacements

Includes funds for maintenance of buildings and grounds, office equipment, educational equipment, etc. (salaries for maintenance personnel not included); about 3 per cent of the total budget. 12,600

Additions and Improvements

Includes all equipment used for maintenance purposes, office or instructional departments; (Not to be confused with funds being allocated for equipment purposes from local bond issue proposal. It is not a duplicate of that item.) about 4 per cent of the operating budget. 16,800

Total Expenditure \$420,000

Since instructional expense is the major item in an operating budget, professional personnel salaries are an important consideration. Shown on the following page are summary data on salaries paid to the faculty and to certain selected members of the administration in public

two-year colleges. The information concerning average salaries obtained in a national survey seems significant; particularly, since all institutions of higher education are now, or soon will be, faced with the problem of securing and holding qualified personnel. Adequate financial provisions must be made in order to solve this problem. Data contained below are presented as information only and not as a proposal. In general, the salaries in the metropolitan area near New York and Philadelphia can be expected to be among the highest.

National Annual Salaries Paid To Public
Two-Year Colleges Faculty And Administration
1963-64⁵

<u>Position</u>	<u>Median Salary</u>	<u>Range of Salaries</u>	<u>Third Quartile Point (Lowest salary of top 25%)</u>
Faculty (9 mos.)	\$ 7,828	\$3,000 to \$14,750	\$ 9,337
President	13,517	7,000 to 26,500	16,290
Dean of Instr.	11,688	5,500 to 21,000	14,300
Dir., Voc.-Tec. Ed.	10,062	5,000 to 17,500	12,333
Dir., Adult Ed.	10,083	4,500 to 17,000	12,499
Librarian	7,989	4,000 to 16,500	9,341
Registrar	8,625	3,000 to 16,500	10,249
Business Manager	9,115	4,000 to 21,000	11,624

The median salary of public two-year college teachers in 1963-64 was \$7,828. Two years previous, this figure was \$7,212. In 1963-64, 1.2 per cent of the full-time teachers earned \$12,000 or more, and about 16 per cent earned \$10,000 or above.⁶

The use of a formal salary schedule by public two-year colleges

is a common practice. Over 80 per cent of these institutions maintain a formal salary guide. A typical public two-year college salary schedule provides for minimum and maximum amounts; designates from 12 to 15 steps from minimum to maximum; applies the same schedule to men and women; recognizes different levels of professional preparation; and provides for an annual increase of about \$250 (plus).⁷

One question frequently asked is "Can the County Colleges compete in the open manpower market for the number and the quality of personnel needed to staff their programs?" The leadership in every type of college will need to extend the effort to make greater use of the available instructional staff. Without doubt, the college student-teacher ratio will be increased. However, the evidence is encouraging that systematic efforts to prepare college teachers are being sharpened.

The intangible rewards, satisfactions beyond dollar compensation, are being pointed up to attract the interest of scholarly minded students to the profession of college teaching. Recruitment is beginning to command serious attention. If the future obligations of higher education to society are to be met, however, the task should be viewed in new dimensions. Few in the public are alert to the already present implications. The leadership in higher education needs to be equipped with facts, hard, undeniable, up-to-date facts concerning the quality of instruction in the classroom, and the competition in the open market for the limited number of persons of the required competence to go forward with higher education in the State and in the Nation.⁸

Funds to compete successfully with other professions for qualified and competent personnel seem to be available to only a few colleges and universities. These foregoing conditions will have immediate and long range affects on the financial program of a County College.

CHAPTER VIII

SUMMARIES AND CONCLUSIONS

SUMMARIES

I. The County College Concept

- A. A locally controlled public institution of higher education designed to serve the post-high school needs of youth and adults.
- B. A two-year college, adaptable to the needs and interest of a heterogeneous student body, offering university-parallel, terminal general education, technical institute type, and continuing adult education programs.
- C. A community-oriented college with reasonable student tuition rates and accessible to qualified students in their home environment.
- D. An institution which is earning increased recognition as a strong and important link in the educational chain which supplements and strengthens the programs of four-year institutions and professional schools.
- E. A rapidly growing collegiate institution which is exceptionally attractive to students because of the distinctive characteristics named above.

II. Population and Sociological Conditions in Morris County

- A. The population of Morris County increased 59 per cent between 1950 and 1960 to reach a total of 261,620. The County's population is expected to reach 530,000 in 1980, a total of one and a half times as large as the 1960 population.

- B. The three largest municipalities, Parsippany-Troy Hills, Morristown and Madison Borough, represent almost a fourth of the County's population.
- C. Between 1950 and 1960, the number of children "under 18" just about doubled. The number of children in the County between ages 10 and 14 increased about 133 per cent.
- D. Manufacturing, which employs about 33,000 people, is the principal economic activity. "Electrical machinery, equipment and supplies" is the largest type of manufacturing, employing about 5,300.
- E. About 63 per cent of the County's labor force (about 62,000 in 1960) is concentrated in five major categories: professional, technical, clerical, craftsmen, and operatives.
- F. The County's median family income in 1959 was \$5,542; the State's average was \$6,786. About 58 per cent of Morris County's families earned \$7,000 or more a year in 1959.
- G. In 1960, about 28 per cent of the County's adult residents, 25 or older, had graduated from high school and about 14 per cent, from college. The proportion of high school graduates in the total population of Morris County is four per cent more than for New Jersey. The percentage of college graduates in the County's adult population is 6 per cent more than the percentage of college graduates in the adult population of the State.
- H. About three of every four Morris County adults have never attended a college of any kind.

III. Morris County Educational Characteristics

- A. The County's public secondary schools enroll about 20,000. About 4,300 are expected to graduate from the public schools in June, 1966.
- B. Post-high school institutions in the County include two universities and a college, one hospital school of nursing, one private business school and two private trade schools.

- C. About three of every five (1,540) 1964 high school graduates attended some institution of advanced study after graduation.
- D. A total of 4,937 Morris County residents were enrolled as full-time students in New Jersey institutions of higher learning in 1964.
- E. Community adult programs in Morris County enrolled 7,708 students in 1964.

IV. Estimated Enrollment of the Proposed County College in Morris County

- A. The average enrollment potential, or possibility, (both years) of the proposed Morris County College is 3,000 full-time students for the year 1965-66. This potential increases to 3,500 during the following three years. The enrollment potential for part-time students is about twice the number of full-time students. The number of students considered maximum for an effective community college program is 1,500.
- B. About 78 per cent of the County's ninth, tenth and eleventh grade pupils expressed plans to continue formal education after high school in response to a questionnaire. Presently about 61 per cent of the County's graduates continue their formal education. About 27 per cent, or 2,092, of those surveyed noted they would attend a local community college if one were available.
- C. The expressed interests of potential County College students indicate a need for a comprehensive community college program.

V. Curricular Needs To Be Met by the Proposed Morris County College

- A. The needs of about 73 per cent of the County's students would be met by a two-year program in technical-education fields, a two-year university-parallel program in Liberal Arts and a two-year Business Occupations program. Each of these three areas has attracted between 20 and 30 per cent of student-expressed interest in the County. About 10 per

cent of the students would be interested in health service programs.

- B. Technical education and scientific curricula in chemical, biological, electronic, instrumentation, metallurgical, highway, air conditioning and refrigeration, construction, civil, drafting and design, mechanical, electrical, tool and die, machine, metals, automotive, scientific glassblowing, optical glassblowing, data processing, power plant, agricultural, welding, ceramic, nuclear, fabrication technology; plus business management, secretarial science, and clinical nursing are in demand in Morris County to accommodate employment needs of local industries, businesses, and hospitals.
- C. Morris County's industries, businesses, and hospitals are in need of properly trained personnel and have indicated an extremely favorable attitude toward a County College program in the County.

VI. The Physical Plant Needs of the Proposed County College in Morris County: The Site and Buildings

- A. The needs in 1966 for post-high school educational opportunities in Morris County would require County College facilities to serve about 3,000 students.
- B. The local Morris County study committee has recommended that the initial phase of the proposed County College be planned to accommodate 1,000 full-time students. This number represents about 30 per cent of the total possible enrollment, according to enrollment predictions.
- C. Selection of a site and the planning of physical facilities for a Morris County College should place special emphasis upon plant needs for: adequate instructional space, area for student life activities, faculty offices and conference rooms, study rooms for commuting students, and facilities for physical education.
- D. To accommodate 1,000 students, the estimated plant area is

200,000 square feet (1,000 x 200 square feet). At \$20 a square foot, the basic physical plant of the proposed size would cost \$4,000,000. Adding to this sum the cost of furniture and equipment, architect's fee, legal-bonding fees, site development costs and a five per cent contingency fee would bring the overall cost to \$5,320,000. No cost estimates for site acquisition have been made.

VII. Financial Ability of Morris County to Establish and Operate a County College

- A. The outstanding debt of Morris County (December 31, 1964) was \$13,678,128. The present available unused borrowing capacity is \$25,168,403.
- B. The County College law provides that no county shall issue County College bonds in excess of one-half of one per cent of the equalized valuation of all property within the county. The average equalized valuation of property in Morris County is \$1,942,326,522. This sum provides a maximum borrowing capacity for County College purposes of \$9,711,632.
- C. The construction cost of the proposed Morris County College is estimated at \$5,320,000. A County bond issue (one-half of total) would probably be set at a figure of \$2,660,000. This amount is well within the borrowing capacity of the County.
- D. The annual debt service for capital outlay may be planned to not exceed \$351,000 with the proposed 10-year amortization program. The total debt service (principal plus 3.5 per cent interest) would add \$.015 to the County's tax rate for each \$100 of equalized valuation.
- E. Evidence indicates that the per capita cost for current operations will be about \$700. . . to be shared by the State (not to exceed \$200 per equated student), the County and the student. The County's share of current operations for the first year enrollment of 600 full-time students may be estimated at \$150,000. This would add \$.0065 for each \$100 equalized valuation to the County's tax rate.

CONCLUSIONS

- A. There is sufficient and reliable evidence of a need for a County College in Morris County.
- B. A County College in Morris County should provide curricular programs in:
 - 1. Two-Year Liberal Arts-Science (university-parallel).
 - 2. Two-Year Business and Technical (engineering and science) Education. Both collegiate level and non-credit type courses are needed. Broad offerings in general business and health services should be included.
 - 3. Continuing (Adult) Education, with particular emphasis on the first two above.
- C. Physical plant facilities should be planned to accommodate a possible enrollment of 3,500 full-time students. Morris County's proposal to build initially for 1,000 full-time students is reasonable and sound.
- D. Morris County is financially able to construct and operate the proposed County College.

¹⁴Ibid., p. 6.

¹⁵What is it Worth and What Does it Cost? Fidelity Mutual Life Insurance Company, (Philadelphia, Pennsylvania, 1963), pp. 18, 32, 36, 46.

CHAPTER II

CHAPTER III

CHAPTER IV

¹Michigan State University, Iona County Community College Study (East Lansing, Michigan: Office of Community College Cooperation, Michigan State University, 1962).

²Florida State University, Florida's New Community Junior Colleges (Tallahassee, Florida: Florida State University, 1957).

³Iowa State Department of Public Instruction, Education Beyond High School Age: The Community College (Des Moines, Iowa: The Department, 1963).

⁴New Mexico State Department of Education, New Mexico's Needs for Further Post-High School Education (Santa Fe, New Mexico: The Department, 1956).

⁵H. H. Semans, T. C. Holly and others, A Study of the Need for Additional Centers of Public Higher Education in California (Sacramento, California: California State Department of Education, 1957).

⁶A Method developed by the New Jersey State Department of Education, Division of Higher Education, 1962.

⁷The Need for a Two-Year County College in Morris County, Report of the Morris County College Study Commission authorized by the Morris County Board of Chosen Freeholders (Morristown, New Jersey: February, 1965).

⁸Ibid., p. 27.

CHAPTER V

¹Middle States Association of Colleges and Secondary Schools, Junior Colleges, and Community Colleges, Document No. 4.60 (New York: Middle States Association, 1958). p. 2.

²The Need for a Two-Year County College in Morris County, op. cit., p. 11.

³Ibid., p. 32.

⁴Ibid., pp. 11-16.

⁵Study of the Need for Technicians and Post-Secondary Training, Morris County, New Jersey, Report of a Study Made at the Request of the New Jersey State Board of Education for the Vocational Division of the New Jersey State Department of Education (New Brunswick, New Jersey: Rutgers, The State University, 1961), pp. 29-34.

⁶Ibid., pp. 43, 44.

CHAPTER VI

¹The Need for a Two-Year County College in Morris County, op. cit., p. 36.

²Ibid., p. 35.

³Ibid., pp. 38-39.

⁴George D. Strayer, op. cit., pp. 60-63.

⁵Education Beyond High School, op. cit., p. 9.

CHAPTER VII

¹The Need for a Two-Year County College in Morris County, op. cit., p. 40.

²Colorado State Department of Education, Community Junior Colleges, Enrollments, Staffs, Finances, 1958-59 through 1961-62 (Denver, Colorado: Division of Research and Statistics, June, 1963).

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³Texas Education Agency, The Public Junior Colleges of Texas, A General Report for the Academic Year 1961-1962 (Austin, Texas: The Agency, February, 1963).

⁴Florida State Department of Education "Analysis of Expenditures," Junior College Report for 1960-61, p. 11. (Mimeographed)

⁵National Education Association, Salaries Paid and Salary Practices in Universities, Colleges, and Junior Colleges, 1963-64, (Washington, D. C.: Research Division Research Report 1964 R3, February, 1964) pp. 46, 56.

⁶Ibid.

⁷Ibid.

or

C.:

A P P E N D I X · A

TABLE 1

MORRIS COUNTY
POPULATION TRENDS BY MAJOR AGE GROUPS
1930-1960^a

Age Group	1930	1940	1950	1960
TOTAL POPULATION	110,445	125,732	164,371	261,620
19 and Under	37,681	37,210	49,848	98,502
20-44 Years	42,733	51,030	62,772	87,953
45-64 Years	22,710	27,610	36,925	53,414
Over 65	7,321	9,882	14,826	21,751

^aN.J. Dept. of Cons. & Eco. Dev., Pop. Age Groups in N.J. (Trenton, N.J.: The Dept., March, 1963), pp. 20-21.

TABLE 2

MORRIS COUNTY
POPULATION CHANGE BY AGE GROUPS
1950-1960^a

Age Groups (Years)	Population Totals			
	Year		Increase or Decrease	
	1950	1960	Number	Percent
ALL AGES	164,371	261,620	497,249	59.2%
Under 5	16,223	30,598	14,375	88.6
5-9	13,702	27,774	14,072	102.7
10-14	10,132	23,532	13,400	132.3
15-19	9,791	16,598	6,807	69.5
20-24	10,439	11,604	1,165	11.2
25-29	12,815	15,577	2,762	21.6
30-34	13,343	20,281	6,938	52.0
35-39	13,363	21,233	7,870	58.9
40-44	12,812	19,258	6,446	50.3
45-49	11,323	16,841	5,518	48.7
Under 18	45,899	93,470	47,571	103.6
Over 50	40,428	58,324	17,896	44.3

^aN.J. Dept. of Cons. & Eco. Dev., Pop. Age Groups in N.J., (Trenton, N.J.: The Dept., March, 1963), p. 71.

TABLE 3

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MORRIS COUNTY
MUNICIPALITIES' POPULATION DATA
1930-1960^a

Municipalities	Area In Sq. Miles	1930	1940	1950	1960
<u>Town</u>					
Boonton	2.70	6,866	6,739	7,163	7,981
Dover	2.30	10,031	10,491	11,174	13,034
Morristown	2.00	15,197	15,270	17,124	17,712
<u>Township</u>					
Boonton	7.50	623	817	1,155	1,998
Chatham	9.00	1,115	2,026	2,825	5,931
Chester	28.68	1,453	874	1,297	2,107
Denville	12.80	2,162	3,117	6,055	10,632
East Hanover	8.40	946	1,579	2,151	4,379
Hanover	10.80	2,516	2,812	3,756	9,329
Harding	16.70	1,206	1,565	1,970	2,683
Jefferson	44.30	1,254	1,548	2,744	6,884
Mendham	17.60	1,003	1,079	1,380	2,256
mine Hill	2.80	1,422	1,541	1,951	3,362
Montville	18.30	2,467	3,207	4,159	6,772
Morris	15.80	5,565	6,107	7,432	12,092
Mount Olive	31.60	1,235	1,526	2,597	3,807
Parsippany-Troy Hills	25.30	6,631	10,976	15,290	25,557
Passaic	16.50	2,149	2,664	3,429	5,537
Pequanock	6.90	2,104	2,856	5,254	10,553
Randolph	21.06	2,165	2,160	4,293	7,295
Rockaway	44.88	3,178	2,423	4,418	10,356
Roxbury	21.00	3,879	4,455	5,707	9,983
Washington	45.10	1,615	1,870	2,147	3,330
<u>Borough</u>					
Butler	1.80	3,392	3,351	4,050	5,414
Chatham	2.30	3,869	4,888	7,391	9,517
Chester	1.62	-	650	754	1,074
Floerham Park	7.60	1,269	1,609	2,385	7,222
Kinnelon	19.70	428	745	1,350	4,431
Lincoln Park	7.00	1,831	2,186	3,376	6,048
Madison	4.00	7,481	7,944	10,417	15,122
Mendham	6.70	1,278	1,343	1,724	2,371
Morris Plains	2.50	1,713	2,018	2,707	4,703
Mountain Lakes	3.00	2,132	2,205	2,806	4,037
Mount Arlington	2.70	306	456	639	1,246
Netcong	0.80	2,097	2,157	2,284	2,765
River Dale	1.80	1,052	1,110	1,352	2,596
Rockaway	2.02	3,132	3,514	3,812	5,413
Victory Gardens	0.14	-	-	*	1,085
Wharton	2.00	3,683	3,854	3,853	5,006
COUNTY TOTAL	477.70	110,445	125,732	164,371	261,620

*Included in Randolph Twp. in 1950.

^aNew Jersey Department of Conservation and Economic Development, Population Trends in New Jersey (Trenton, New Jersey: The Department, July, 1961), p. 35.

TABLE 4

MORRIS COUNTY
POPULATION GROWTH AND PROJECTIONS
1940-1980^a

Locality	Population (By Decades)				
	1940	1950	1960	1970	1980
U.S.A.	131,669,275	151,325,298	179,323,175	214,222,000	259,584,000
New Jersey	4,160,165	4,835,329	6,066,782	7,431,370	8,491,780
Morris County	125,732	164,371	261,620	392,000	530,000

^aNew Jersey Department of Conservation and Economic Development, Research and Statistics Section, "New Jersey Estimated Population Projections", (Trenton, New Jersey: The Department, April, 1964), (mimeographed).

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TABLE 5

MORRIS COUNTY
INDUSTRIES AND NUMBER OF EMPLOYEES
(1960 U.S. CENSUS)^a

Industry Group	Men and Women Employed	
	Number	Rank Order
Agriculture	1,327	29
Forestry and Fisheries	9	40
Mining	501	37
Construction	5,984	4
Manufacturing	33,370	1
Furniture, Lumber and Wood Products	493	38
Primary Metal Industries	1,246	30
Fabricated Metal Industries	5,473	6
Machinery, Except Electrical	3,021	13
Electrical Machinery, Equip., and Supplies	5,349	7
Motor Vehicles and Motor Vehicle Equipment	152	39
Transportation Equip., Exc. Motor Vehicle	2,277	18
Other Durable Goods	1,653	23
Food and Kindred Products	2,304	17
Textile Mill Products	767	34
Apparel & Other Fabric'd Textile Products	1,454	28
Printing, Publishing, and Allied Products	1,569	25
Chemical and Allied Products	3,863	10
Other Nondur. Goods	3,749	11
Railroad and Railway Express Service	747	35
Trucking Service and Warehousing	804	33
Other Transportation	1,118	31
Communications	1,880	22
Utilities and Sanitary Service	1,492	27
Wholesale Trade	3,309	12
Food and Dairy Products Stores	2,235	19
Eating and Drinking Places	1,990	20
Other Retail Trade (excludes all others listed)	7,353	2
Finance, Insurance, and Real Estate	5,476	5
Business Services	4,199	9
Repair Services	1,053	32
Private Households	1,899	21
Other Personal Services	1,647	24
Entertainment and Recreation Services	567	36
Hospitals	2,427	16
Educational Services: Government and Private	4,701	8
Welf., Relig., & Nonprofit Membership Orgns.	1,536	26
Other Professional and Related Services	2,658	15
Public Administration	2,985	14
Industry Not Reported	7,108	3

^aUnited States Bureau of the Census, United States Census of Population: 1960. General Social and Economic Characteristics, New Jersey, Final Report PC (1)-32C (Washington, D.C.: U.S. Government Printing Office, 1962), p. 307.

TABLE 6
 OCCUPATIONS IN WHICH RESIDENTS ARE EMPLOYED IN
 MORRIS COUNTY
 (1960 U.S. CENSUS)^a

Occupational Group	Number Employed*			
	Men	Women	Total	
			Number	Rank Order
Profsnl., Technl., & Knrd. Wkrs.	13,206	5,218	18,424	1
Farmers and Farm Managers	440	16	456	12
Mgrs. Off'cls, & Propr's, Exc. Farm	9,234	1,062	10,296	5
Clerical & Kindred Workers	4,691	10,028	14,719	2
Sales Workers	5,407	2,162	7,569	7
Craftsmen, Foremen & Knrd. Wkrs.	14,265	329	14,594	3
Operatives & Kindred Workers	9,977	4,405	14,382	4
Private Household Workers	104	1,441	1,545	10
Service Workers, Exc. Pvt. Hsld.	2,938	2,559	5,497	8
Farm Laborers & Farm Foremen	431	49	480	11
Laborers, Exc. Farm and Mine	2,966	67	3,033	9
Occupations Not Reported	5,135	2,695	7,830	6
.....
All Occupations	68,794	30,031	98,825	

*All civilians 14 years old or older.

^aUnited States Bureau of the Census, United States Census of Population: 1960. General Social and Economic Characteristics, New Jersey, Final Report PC (1)-32C (Washington, D.C.: U.S. Government Printing Office, 1962), p. 305.

TABLE 7

MEDIAN EARNINGS OF MEN AND WOMEN OF
MORRIS COUNTY
BY SELECTED OCCUPATIONAL GROUPS
COMPARED TO NEW JERSEY^a

Occupational Group:	Median Earnings (dollars)			
	County		New Jersey	
	Men	Women	Men	Women
MEN				
All Occupations	\$5,921		\$5,350	
Professional, Managerial and Kindred Workers	8,400		7,526	
Farmers and Farm Managers	2,706		2,867	
Craftsmen, Foremen, and Kindred Workers	5,915		5,658	
Operatives and Kindred Workers	5,101		4,850	
Farm Laborers	2,386		1,946	
Laborers, Except Farm and Mine	3,961		3,824	
WOMEN				
All Occupations		\$2,768		\$2,650
Clerical and Kindred Workers		3,213		3,240
Operatives and Kindred Workers		2,815		2,480

^aUnited States Bureau of the Census, United States Census of Population: 1960. General Social and Economic Characteristics, New Jersey, Final Report PC (1)-32C (Washington, D.C.: U.S. Government Printing Office, 1962), p. 309.

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J-32C

TABLE 8
 INCOME OF INDIVIDUALS AND FAMILIES OF
 MORRIS COUNTY
 IN 1959a

Amount of Income (dollars)	Number Earning the Amount of Income		
	Individuals		Families
	Men	Women	
\$ 1 to 499	3,590	10,264	1,266
500 to 999	3,001	8,013	
1,000 to 1,999	4,672	8,122	1,429
2,000 to 2,999	4,420	6,551	1,866
3,000 to 3,999	5,716	6,683	2,879
4,000 to 4,999	9,674	4,706	4,888
5,000 to 5,999	11,863	2,038	7,641
6,000 to 6,999	9,513	1,205	7,918
7,000 to 9,999	14,448	1,125	18,537
10,000 and Over	12,040	432	19,393
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Median Income	\$5,708	\$1,725	\$5,542

^a United States Bureau of the Census, United States Census of Population: 1960. General Social and Economic Characteristics, New Jersey, Final Report PC (1)-32C (Washington, D.C.: U.S. Government Printing Office, 1962), p. 309.

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TABLE 9
 EDUCATIONAL ACHIEVEMENTS OF ADULTS 25 YEARS AND OLDER IN
 MORRIS COUNTY^a

Years of Schooling Completed	County's Adults						New Jersey Adults
	Male		Female		Total		
	No.	Per Cent	No.	Per Cent	No.	Per Cent	Per Cent
ELEMENTARY							
None	838	1.2%	1,037	1.3%	1,875	1.2%	2.5%
1-4	2,099	2.9	1,827	2.3	3,926	2.6	4.5
5-6	3,653	5.0	3,699	4.7	7,352	4.9	7.1
7	4,455	6.1	3,716	4.7	8,171	5.4	6.5
8	10,579	14.6	12,652	16.1	23,231	15.3	18.4
HIGH SCHOOL							
1-3	13,204	18.2	14,295	18.2	27,499	18.2	20.4
4	16,420	22.6	26,398	33.5	42,818	28.3	24.5
COLLEGE							
1-3	7,433	10.2	8,061	10.2	15,494	10.2	7.7
4 or More	13,968	19.2	7,068	8.97	21,036	13.9	8.4

^aUnited States, Bureau of the Census, United States Census of Population: 1960. General Social and Economic Characteristics, New Jersey, Final Report PC (1)-32C (Washington, D.C.: U.S. Government Printing Office, 1962), p. 303.

TABLE 10

MORRIS COUNTY'S
PUBLIC SECONDARY SCHOOLS' ENROLLMENT, 1964-65

Public Secondary School	Type	Enrollment
Boonton High School	4 year	1,506
Butler High School	4 year	738
Chatham Public Schools		
Chatham Senior High School	3 year	614
Chatham Junior High School	3 year	470
Chatham Twp. High School	6 year	644
Dover Public Schools		
Dover Senior High School	3 year	707
Dover Junior High School	3 year	750
Hanover Park Reg. High School	4 year	1,513
Jefferson Twp. High School	6 year	800
Kinnelon High School	4 year	980
Madison High School	4 year	920
Morris Hills Reg. High School District		
Morris Hills High School	4 year	1,675
Morris Knolls High School, Denville Twp.	4 year	662
Morris Twp. Junior High School	3 year	651
Morristown High School	4 year	1,774
Mountain Lakes High School	4 year	508
Netcong High School	4 year	320
Parsippany High School	4 year	1,437
Pequannock Twp. High School	4 year	804
Randolph Twp. High School	6 year	960
Roxbury Twp. High School	4 year	529
West Morris Reg. High School	4 year	1,160
ALL PUBLIC SECONDARY SCHOOLS		20,222

TABLE 11

PROJECTION OF PUBLIC SCHOOL ENROLLMENTS FOR
MORRIS COUNTY PUBLIC SCHOOLS
1963-64 to 1970-71

Grade	Enrollment							
	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71
K	6,128	6,128	6,128	6,128	6,128	6,128	6,128	6,128
1	5,742	6,128	6,128	6,128	6,128	6,128	6,128	6,128
2	5,385	5,742	6,128	6,128	6,128	6,128	6,128	6,128
3	5,263	5,385	5,742	6,128	6,128	6,128	6,128	6,128
4	4,960	5,263	5,385	5,742	6,128	6,128	6,128	6,128
5	4,947	4,960	5,263	5,385	5,742	6,128	6,128	6,128
6	4,800	4,947	4,960	5,263	5,385	5,742	6,128	6,128
7	4,564	4,800	4,947	4,960	5,263	5,385	5,742	6,128
8	4,189	4,564	4,800	4,947	4,960	5,263	5,385	5,742
9	4,686	4,189	4,564	4,800	4,947	4,960	5,263	5,385
10	4,363	4,686	4,189	4,564	4,800	4,947	4,960	5,263
11	4,203	4,363	4,686	4,189	4,564	4,800	4,947	4,960
12	3,400	4,203	4,363	4,686	4,189	4,564	4,800	4,947
TOTAL	62,630	65,358	67,283	69,048	70,490	72,429	73,993	75,321

Note: Projections of enrollments as used in this Table are developed by advancing the enrollments one grade each year. No adjustments are made for drop-outs or new enrollees.

TABLE 12

MORRIS COUNTY
STUDENTS IN NEW JERSEY INSTITUTIONS OF HIGHER EDUCATION
(March 1, 1964)

New Jersey College or University	County Students Enrolled		Total
	Full-Time	Part-Time	
UNIVERSITIES			
Drew	70	54	124
Fairleigh Dickinson	233	1,139	1,372
Princeton	--	--	--
Rutgers	305	278	583
Seton Hall	129	261	390
LIBERAL ARTS COLLEGES			
Alma White	--	--	--
Bloomfield	30	14	44
Caldwell	29	4	33
Saint Elizabeth	209	45	254
Don Bosco	1	--	1
Georgian Court	3	--	3
Monmouth	20	14	34
Rider	41	1	42
Saint Peters	12	3	15
Shelton	4	--	4
Upsala	45	35	80
STATE COLLEGES			
Glassboro	51	--	51
Jersey City	7	66	73
Montclair	133	155	288
Newark	63	--	63
Paterson	116	129	245
Trenton	82	16	98
PROFESSIONAL AND TECHNOLOGICAL			
Immaculate Conception Seminary	16	--	16
Newark College of Engineering	101	256	357
New Brunswick Theological Seminary	1	--	1
Northeastern Collegiate Bible Inst.	3	2	5
Princeton Theological Seminary	1	2	3
Saint Michael's Monastery	--	--	--
Stevens Institute of Technology	30	110	140
Westminster Choir College	7	1	8
JUNIOR COLLEGES			
Archangel	--	2	2
Assumption	4	4	8
Centenary	31	--	31
Immaculate Conception	1	--	1
Lutheran	--	--	--
Monmouth (Junior College Division)	--	--	--
Saint Josephs	--	--	--
Tombrock	--	--	--
Trenton	3	1	4
Union	16	7	23
Villa Walsh	1	--	1
ALL INSTITUTIONS	1,798	2,599	4,397

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3
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42
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73
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357
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140
8
2
8
31
1
4
23
1
4,397

TABLE 13
MORRIS COUNTY
PUBLIC HIGH SCHOOL GRADUATES ATTENDING POST-HIGH SCHOOL INSTITUTIONS
(1962-1963)

Type of Post-High School Institutions	1962		1963		1964	
	No.	%	No.	%	No.	%
College of Arts-Sciences	611	25%	567	21%		
State Colleges	130	5	147	5		
Engineering Colleges	81	3	94	3		
Other Colleges	266	11	434	16		
Sub-Total	1,088	44	1,242	46		
Nursing Schools	61	2	99	4	(Not Available)	(Not Available)
Technical Schools	52	2	70	3		
Business Schools	81	3	82	3		
Others	37	1	47	2		
----- All Institutions Total	1,319	53	1,540	57		
----- TOTAL GRADUATES	2,428		2,710			

**THE ENROLLMENTS AND COURSE AREAS OF ADULT EDUCATION PROGRAMS
MORRIS COUNTY PUBLIC HIGH SCHOOLS-- SCHOOL YEAR, 1963-64**

Course Areas	Number Enrolled											
	Boonton	Dover	Hanover Park Regional	Madison- Chatham Adult*	Morris Hills Regional	Morris Plains	Morris- town	Parsippany Troy Hills Township	Randolph Township	Roxbury Township	West Morris Regional High School District	Totals
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Americanization	40	63	--	--	--	--	--	--	--	21	--	124
Arts and Crafts	86	21	88	197	108	67	44	59	50	49	36	805
Avocational	164	45	123	650	346	104	159	188	24	149	--	1,952
Civic and Public Affairs	--	--	34	141	--	--	--	--	--	--	--	175
Commercial and Distrib- utive Education	101	35	127	217	251	51	109	145	15	52	17	1,120
Driver Education	--	--	--	--	--	--	--	--	5	24	--	29
Elementary and Remedial Education	--	--	--	--	--	--	--	--	--	--	--	--
English and Literature	13	20	20	60	17	--	--	48	--	--	--	178
Foreign Languages	26	9	8	146	73	8	73	85	8	--	--	436
Health, Safety and Physical Education	59	--	37	294	230	11	--	35	29	67	--	762
Homemaking and Family Education	56	17	54	197	91	6	12	114	--	28	50	625
Leadership Training	--	--	--	90	43	--	--	--	--	--	--	133
Music and Drama	24	14	42	163	36	--	48	61	--	--	--	388
Secondary and High School Equivalency	--	55	39	--	275	--	46	57	--	--	--	472
Vocational and Technical	25	68	--	9	229	--	--	93	20	--	21	465
Others	--	--	--	--	44	--	--	--	--	--	--	44
Totals	594	347	572	2,164	1,743	247	491	885	151	390	124	7,708

* Comprising Madison, Florham Park, Chatham Borough and Chatham Township

A P P E N D I X B

106410
* Comprising Madison, Florham Park, Chatham Borough and Chatham Township

INDUSTRIAL FIRMS SURVEYED

FOR THIS STUDY

by: Nicholas F. Frigiola

<u>Firm</u>	<u>Person</u>	<u>Interviewed</u>
1. Allied Chemical Corp. Morristown Twp., New Jersey	R. A. Widmer	Personnel Manager
2. Austenal Company Div. of Howe Sound Co. Dover, New Jersey	D. Amenson	Personnel Manager
3. Bell Telephone Laboratories, Inc. Whippany, New Jersey	E. B. Stallman	Head, General Employment Dept.
4. Cameron Machine Co. Dover, New Jersey	M. J. Kochek	Personnel Manager
5. Hercules Powder Co. Kenvil, New Jersey	T. Billis	Personnel & Security Supt.
6. Metal Hose & Tubing Co. Dover, New Jersey	A. Lindstedt (Mrs.)	Personnel Manager
7. Quam-Tech Laboratories Inc. Whippany, New Jersey	M. Kaplan	Secretary-Treasurer
8. RCA Victor Records Rockaway, New Jersey	P. Van Strum	Personnel Manager
9. Thiokol Chemical Corp. Reaction Motors Division Denville, New Jersey	P. Cutter	Personnel Manager
10. Westinghouse Electric, Inc. Elevator and Electric Stairway Division Randolph Twp., New Jersey	John More	Industrial Relations Supv.