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ABSTRACT

This document, the second of a two-part study, focuses on the area of continuing and adult education at Ferris State College (FSC), Michigan. An overview of the status of, adult and continuing education and recommendations are provided by the schools of allied health, business, general education, education, pharmacy, technical and applied arts, and the FSC library. Additional information provided includes: a definition of continuing education, a commentary on rewards, an overview and discussion of the concept and implementation of external degree programs, organizing continuing education, and the role of research and evaluation in continuing education programs. A related document, ED 068 037, reviews the role of Ferris State College. (MJM)

ED 083912

**THE FERRIS EDUCATIONAL MISSION**

**A Continuing Study**

**by**

**The Ferris Educational Planning Committee**

**Part II**

**CONTINUING EDUCATION**

U.S. DEPARTMENT OF HEALTH,  
EDUCATION & WELFARE  
NATIONAL INSTITUTE OF  
EDUCATION

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**Spring, 1973**

HE004780



## FOREWORD

In September, 1971, the members of the Educational Planning Committee held a retreat to determine the most pressing subjects pertinent to the Ferris educational mission to which they should address themselves during the 1971-72 academic year. In subsequent meetings, content areas were identified and outlined, then allocated to particular members for study and analysis. The document, Part I "Obligations and Direction," was realized from this effort. A reading copy of it is on reserve in the Library.

This document, Part II "Continuing Education," is a pathfinder for the subject. It continues the traditions of study and reporting as indicated in 1971-72. Readers will find, as appropriate, both specific and general directions which pertain to the Schools and to College-wide questions.

Recommendations are contained in most of the sections. A review of them can also be had by examination of the annual report.

### SECTIONS, TITLES, AND AUTHORS

- Section I    The School of Allied Health  
                  Dr. Rouman, Miss Siebers
- II    The School of Business  
                  Drs. Goodwin, Moss, and Wigglesworth
- III    The School of General Education  
                  Drs. Bond, Milton, and Salinger
- IV    The School of Education  
                  Part I - Dr. Griffin  
                  Part II - Drs. Griffin and Hoeksema
- V    The School of Pharmacy  
                  Drs. Orr and Tindall

- VI     **The School of Technical and Applied Arts**  
       **Mr. Jarvi and Mr. Parsons**
- VII    **The Ferris State College Library**  
       **Mr. Dickinson**
- VIII   **A Definition of Continuing Education**  
       **Drs. Griffin and Orr**
- IX     **Commentary on Rewards**  
       **Dr. Griffin**
- X      **External Degree**  
       **Part I - Concept and Implementation**  
       **Dr. Wigglesworth**  
       **Part II - An Overview**  
       **Mr. Peticolas**
- XI     **Organizing for Continuing Education**  
       **EPC Committee**
- XII    **The Role of Research and Evaluation In a Continuing Education**  
          **Program**  
       **Drs. Griffin and Salinger**

The School's reports were read by a sub-committee composed of Drs. Bond, Griffin, Milton, and Orr. College-wide sections were reviewed by the Committee. Dr. Rankin aided the Committee by providing a typed first copy.

The editorial task was shared by Drs. Griffin, Kakonis, and Salinger. Dr. John Johnson served as advisor to the EPC throughout the entire year. Dr. William Wenrich provided the initial statement to the Committee on the subject.

**SECTION I**  
**THE SCHOOL OF ALLIED HEALTH**

The School of Allied Health is committed to the philosophical concept of continuing education. There is tremendous need and demand for a viable innovative continuing education program at Ferris State College. This program can only become a reality as the institution is willing to make a substantial commitment to this program. To make this system truly effective, support is required in the following areas:

I. Continuing Education Coordinator for Ferris State College;

II. Directors within the six schools of the college.

We envision the coordinator as being just that; a coordinator or facilitator. This office would function to serve the directors in each of the six schools of the college. The director in each school would serve as chairman of that school's continuing education committee. This person along with the committee would establish the priorities for continuing education in that school. The director would then relate these priorities to the C.E. Coordinator for his assistance in consummating this program.

III. Logistical Support and Facilities

Experience has shown that our school does not presently have the physical facilities to conduct an adequate continuing education program. We are aware that when the new Allied Health facility is constructed many of our existing physical plant problems will be solved. Further, the "class room without walls" concept is most adaptable to our program areas.

#### IV. Instructional Support

Instructional and administrative personnel are available for limited projects during the academic year and could handle a number of projects during the summer months. This additional time can not be considered a part of the regular faculty workload.

#### V. Funding

Funding for the Continuing Education programs will vary according to the clientele being served. Programs with flexibility in funding could possibly use consultant fees for the instructors, with registration fees adjusted to cover the expense of the program. Programs lacking resources will require that the instructor be paid at a basic rate and the registration fees adjusted to cover these costs.

#### SUPPORTIVE INFORMATION:

More than half the jobs and occupational areas open to young people starting on a career today did not exist when their fathers were young men. Accordingly, the W.K. Kellogg Foundation has stated that a worker entering the Allied Health Field at age 20 will go through seven major retraining periods in a forty-year career. The faculty and administration of the School of Allied Health recognize their role in providing workshops, short courses and inservice programs for this generation of Allied Health clientele. The school agrees that these services can best be provided through a direct program of continuing education utilizing all of the resources (both personnel and facilities) to the benefit of all in our West Michigan area who may find them useful. In fact, over the years programs in health teaching techniques, home health aid, food service, migrant labor, optics, and many other areas of concern have been conducted by our faculty.

We have established the present program needs of the School of Allied Health in continuing education to include:

1. Continuing Education for the internship directors who are in the field. For example, in Environmental Health we could utilize workshops for representatives from the County Health Departments that provide the internship experience for our students.
2. Continuing Education for our faculty to keep them abreast of changes taking place in their fields, both philosophically and technically. For example, a most pressing issue is the expanded duties for dental assistants and dental hygienists.
3. Continuing Education for the alumni of our programs.
4. Continuing Education with the hospitals in the West Michigan area. The major thrust in this area could be handled by the Technical Nursing program and the Health Services Management Program.

#### SUMMARY:

Our survey and follow-up contacts have led us to the conclusion that Ferris State College must make a commitment to provide funds for a college-wide coordinator, continuing education directors for each of the schools and basic support monies for programs which may not be self-supporting. The role of the director would be to develop his school's priorities for programs within a college wide framework using the assistance and consultative skills of the coordinator.

Our school supports such a concept, which would be invaluable to our present school-wide continuing education committee. Priorities change rapidly within the Allied Health Field. Close surveillance by those at the heart of the educational process is required to maintain the flexibility necessary to meet the needs of our clientele.

FERRIS  
STATE  
COLLEGE

Big Rapids, Michigan 49307

616/796-9971

October 26, 1973

ERIC - Higher Education  
Suite 630  
1 Dupont Circle  
Washington, D. C. 20036

Dear Sirs:

The Ferris State College Educational Planning Committee wishes to include Part II of The Ferris Educational Mission in the ERIC system.

While Part I dealt with the role of the college, Part II focuses its attention on the area of continuing and adult education.

We hope that other colleges might benefit from the findings and recommendations that the Educational Planning Committee has set forth in this document.

Thank you for your interest in this matter.

Sincerely yours,

*Raymond B. Dickinson*

Raymond B. Dickinson  
Secretary,  
Educational Planning Committee  
Ferris State College



As a result of our survey of faculty opinion, we believe the ultimate priority decisions should reside within the individual schools and not within a college-wide committee.

## SECTION II

## THE SCHOOL OF BUSINESS

A survey of the geographic area\* served by the School of Business would indicate several strong markets for continuing education activities. These markets are:

1. Retail
2. Wholesale and manufacturing
3. Education
4. Health services
5. Government

A number of the markets can be subdivided. For example, the retail market can be delineated according to product and service designations. The governmental market, which is essentially restricted to the local governmental level, would have general and operational as well as human service needs.

The listing also suggests the possibilities for interdisciplinary approaches combining the resources of several Ferris divisions. To illustrate, the School of Pharmacy and the School of Business could combine their resources in the area of variety goods and drug merchandising, while the School of Business and the School of Trade and Industrial Arts could serve the needs of gasoline service stations and food service establishments.

The tables in Appendix A, which present data relative to the counties within the School of Business target area, warrant the following remarks:

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\*Antrim, Benzie, Charlevoix, Clare, Emmet, Grand Traverse, Gratiot, Ionia, Isabella, Kalkaska, Kent, Lake, Manistee, Mason, Mecosta, Missaukee, Montcalm, Muskegon, Newaygo, Oceana, Osceola, Ottawa, Wexford.

**Table I. Breakdown of Retail Industry**

Table I shows that there are about 9,500 retail establishments with over 51,000 paid employees located in the northwest lower Michigan multi-county area believed logically served or servable by the School of Business. If only one percent of these businesses were to be interested in sending one or more persons to seminars or short refresher courses, they alone would probably be sufficient to fund and to justify the development of a program of courses to meet their needs.

**Table II. Retail Trade for Selected Michigan Counties**

Table II to some extent classifies the retail establishments in the target area by type of business. This would suggest the possibility of tailored services or programs to meet the needs of establishments with common characteristics, such as eating and drinking places. The possibility of School of Business programs in conjunction with certain other of the Schools at Ferris, is also suggested by the table.

**Table III. Wholesale Establishments**

Table III indicates the presence of about 1,700 wholesale establishments with 18 to 19 thousand employees in the market area. Hopefully at least 2 or 3 percent of these establishments might be interested in continuing education programs. If this many would respond by sending one or more persons to pertinent programs there would probably be a sufficient number to justify and fund programs specifically developed to meet their needs.

#### Table IV. Selected Services (Industries)

Table IV shows over 6,000 selected service-type business establishments in the target area with over 14,000 employees. Unquestionably many of these have proprietor or employee educational needs similar to those of other businesses, such as retailers and wholesalers. Programs could be designed to serve service industries in combination with one or more of the other groups. Might not, for example, a business practices and accounting seminar mounted in conjunction with the cosmetology department, be well received by beauty parlor operators? Or a similar undertaking, for automobile service and repair shops, be developed in conjunction with Technical and Applied Arts?

#### Table V. Educational Services

Table V supplements Table IV by showing the number and location of various service type enterprises such as hotels, garages, beauty shops, etc., indicated by county. No comment is necessary.

#### Table VI. Manufacturing Research

Manufacturing establishments in the target area are indicated in Table VI to exceed 2,100 in number and to employ about 140,000 persons. The production management, labor relations, international business, financial and sales management and other activities of these factories can be matched with the several departments in the School of Business which, obviously, have the abilities and capacity to develop programs of value to the manufacturers within the FSC target area. If sufficient number of persons were to become interested, say 2 or 3 percent, funding might not present a serious obstacle for this group. The market potential appears to be present.

**Table VII. Selected Major Cities**

Table VII supplements Table VI in that it gives the location by city of various types of manufacturing enterprises within the target multi-county area. The possibility of specialized types of needs to be met on the part of plastics, printing, refrigeration, furniture, machinery and other types of enterprises would seem to exist. Some of these could again perhaps be best met by joint undertakings, such as between the School of Business and of Technical and Applied Arts.

**Table VIII. Number of Local Governments and Employees**

Another probable market for continuing education experiences lies in the governmental as contrasted to the private sector of the economy. Table VIII shows that there are well over 800 governmental or quasi-governmental units within the northwest lower Michigan multi-county area. These would include such entities as the county governments themselves, city and village governments, school and special purpose districts. Doubtless many of the people in such governmental units could benefit from short refresher or other courses, or sessions in such areas as taxation, accounting, business, and government, financial management and other studies easily within the province of the School of Business to develop and administer.

**Table IX. Labor Force for Selected Areas**

Table IX suggests the numbers of persons in governmental units who might be involved potentially in continuing education fields. The table provides data on the two of the most populous centers within the area. While many of the local government employees probably are teachers and others who would perhaps be better served by other Ferris divisions than the School of Business, there are no doubt numerous administrators and technical people who would be well served by the Business School.

**Table X. Payrolls of Local Governments**

Table X serves to give some idea of the magnitude of the local governments from a payroll standpoint, educational and otherwise, within the multi-county area.

**Table XI. Wage and Salary Workers**

Table XI indicates there are over 60,000 governmental employees in the target area.

**Table XII. Total Labor Force**

The total labor force in the multi-county target area is shown by Table XII to approximate 500,000 people. While the number of these not included within previously mentioned tables is no doubt much smaller, there could well be some residue there from so far as the potential market for School of Business continuing education services is concerned.

**Table XIII. Demographic Statistics on Counties**

Table XIII provides useful basic information for persons planning a continuing education program. The data include the numbers of people and their occupations, education and income within specific counties of the target area. This data could provide clues, for example, as to the numbers of people who might be qualified to take college level continuing education courses on a credit basis. That very large numbers of people in the area might not be able to pay very much or anything at all for educational experiences is also suggested by the data. This is a factor which could pose problems so far as continuing education programs, aimed at the general public, are concerned.

**Tables XIV and XV. Educational Data**

Tables XIV and XV provide additional data with respect to the school systems within the multi-county target area. This data can be useful should continuing education programs be considered or undertaken for school administrators, school board members, teachers, or all those concerned with other aspects of local school system operation.

### Further Suggestions for Course Offerings

Present course offerings in the School of Business provide ample opportunity for persons within the target area to gain career preparation or to implement career change. Entry points into the curriculum are numerous and conveniently spaced.

Courses for continuing professional education are presently being offered. Students may take courses in preparation for the following professional designations: Certified Public Accountant, Chartered Life Underwriter, Chartered Property and Casualty Underwriter, and Certified Court Reporter.

Many courses are and can be given which would enrich leisure time activities. Some of these courses are: personal typing, note taking, business correspondence, personal finance and income tax preparation, office machine operation, consumer product information, interior decoration, data processing, and basic business routine operation.

The steady march of developments in the data processing and computer application fields suggest substantial opportunities for continuing education programs. In addition, timely courses dealing with the impact of business decisions on ecological factors have been proposed for inclusion in the standard curriculum as well as in the continuing education program.

A report published in 1970 titled "A Bureau of Business Services for Ferris," authored by Dr. Edwin Wigglesworth, highlighted the potential for brief workshops and seminars in the West Michigan target area. Business persons in the target area were surveyed. Specifically, business persons were questioned about their desire to become involved in seminars and workshops, and their preferences for seminar and workshop topics. The response



from the business community was immediate and enthusiastic. At this writing, there would be every reason to believe that the 1970 findings are still valid. Therefore, it can be concluded that sponsorship of continuing education programs await the initiative of the faculty and administration of the School of Business.

### The Medium for Programs

In September 1972, the Educational Services Program committee was formed. The committee consists of one member from each instructional department in the School of Business, two faculty members serving as publication co-editors, a Program Coordinator on partially released time, a secretary, and the shared services of an Administrative Assistant. On February 20, 1973, detailed job summaries, duties and responsibilities were proposed and unanimously approved by the committee. Exhibit II, Appendix B, illustrates the structure of the Educational Services Program.

Approximately twenty-five percent of the School of Business faculty expressed a willingness to participate in the committee activities. In this sense, participation would consist of performing consulting work, conducting workshops and seminars, giving on-campus and off-campus instruction, and speaking to interested groups on a variety of topics. Exhibit III, Appendix B, indicates the scope of services offered by the Educational Services Program. At the present time, the Program Coordinator is visiting firms and organizations in the target area to determine education needs and to arrange programs.

### Recommendations

Because the market area for the services of the School of Business at Ferris has been shown in two studies (the present one and the report prepared

In 1970 by Dr. Wigglesworth\*) to have more than adequate potential for supporting a broad range of continuing education activities, the following recommendations are made:

1. That current, on-going efforts of the School of Business Educational Services Program be strengthened.
2. That the Educational Services Program personnel be directed to study methods of expanding publicity for this program.
3. That each department within the School of Business consider the development of continuing education by cooperative departmental effort, advised and assisted by the Educational Services Program personnel
4. That every effort be made by the personnel of the Educational Services Program committee to coordinate School of Business education extension programs with other Ferris divisions.

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\*A bureau of Business Services for Ferris, Ferris State College, Big Rapids, Michigan, June 1970. See page 170 for recommendations.

SECTION III  
THE SCHOOL OF GENERAL EDUCATION

"Lifelong learning is essential in a society in which career patterns are changing and new developments are coming so rapidly in all fields," keynote speaker Robben W. Fleming, President of the University of Michigan, recently told the Region IV Conference of the National University Extension Association (NUEA) at its opening session.

The role of the School of General Education of Ferris State College in providing opportunities for lifelong learning falls into three broad categories. Its first function is that of a service to other schools since General Education can offer support courses for their programs. In this connection, the course offering will be largely determined by the schools being served. The second function will be to provide non-vocational courses planned for particular interest groups. The School of General Education has a unique opportunity to be of community service in such areas as programs for the aging and education for leisure time. The third function would be to expand and develop programs relating to the several degree curricula offered in General Education. There will be increasing need for Workshops for law enforcement officers, journalists, public administrators; for short courses for para-professionals in day care centers and those working with the aged, as these professions increasingly demand current knowledge in a period of rapid change and expansion.

Programs for the Aging

Population to be served: Senior Citizens from Mecosta and Osceola Counties and portions of Lake, Newaygo, Wexford and Montcalm counties.

Curriculum: Short courses and workshops

Personnel: Staff available from present faculty.

These courses could be designed primarily for persons in their later years. Programs could include: Health for Senior Citizens, Retirement Living, Travel Lectures, Art and History related Tours.

#### Education for Leisure Time-Adult Education

Population to be served: Adults from Macosta and Osceola Counties and portions of Lake, Newaygo, Wexford, and Montcalm Counties.

Curriculum: Short Courses and workshops

Personnel: Staff available from present faculty

Offered primarily for leisure time enrichment, the current program cooperates with the local public schools program; courses are offered either by Ferris or the public schools depending on the most appropriate setting and use of facilities.

In his address Fleming added, "The need for lifelong education is great." Calling attention to the fact that leisure time continues to increase in most segments of society, he pointed out that we need to provide opportunities for people to develop individuality. "Individuals are already seeking those things that bring life satisfactions rather than those relating only to career goals," he said. "This approach could open up new avenues of extension programming in the arts and humanities." At Ferris such programs could include such fine arts courses as Art Appreciation, History of Art, Drawing and Sketching, Design, Ceramics, Pottery, Sculpture, Jewelry and Metalcraft, Basic Photography, Color Photography, and Creative Writing, Liberal Arts courses could include: Conversational Spanish, Appreciation of Literature, World Literature, Shakespeare, Theory and Practice of Acting. Music Department offerings could include, in addition to Band day, Summer Band Camp, and concerts, expanded programs in music appreciation and community participation in musical groups.

### Journalism Associates

**Population to be served:** Working Journalists in Central Western Michigan, teachers seeking certification as journalism teachers.

**Curriculum:** Degree programs, writing and makeup workshops, workshops in publicity release writing, public relations, newswriting, and industrial editing.

**Personnel:** Staff available from present faculty.

### Public Administration Assistants

**Population to be served:** Non-administrative municipal and county employees in Central Western Michigan who seek administrative positions or upgrading of their present position.

**Curriculum:** Degree programs, workshops.

**Personnel:** Staff available from present faculty.

### Police Science

**Population to be served:** City, county, and state law enforcement officers of Central Western Michigan.

**Curriculum:** Refresher courses, workshops, degree programs.

**Personnel:** Staff available from present faculty.

### General Courses

Other departments of the School of General Education currently offer and are in a position to expand various programs within their respective disciplines.

**Population to be served:** Adults from Mecosta, Osceola Counties and portions of Lake, Newaygo, Wexford and Montcalm Counties and community personnel beyond these for specific offerings.

**Curriculum:** Short courses and workshops

**Personnel:** Staff available from present faculty.

Some of the existing or future program areas include these:

Among the members of the Department of Biology are People who could institute programs in conservation and the broader areas of the environment and environmental problems and staff who could work on problems of birth control and social diseases.

The Department of Physical Science could provide resource people for high school in-service teacher training programs and advisors for communities concerned over nuclear power plants such as those at Charlevoix, Ludington, and Muskegon.

In the Department of Language and Literature, there have been communication workshops and reading conferences. It is possible that Ferris could expand not only these special services but institute a program designed to appeal to outstanding students.

The Department of Physical Education now offers leadership in coaching courses, in first aid, in special workshops for trainers involved in high school athletics. In addition, this department sponsors several special programs in swimming and cheerleading.

The Department of Mathematics offers in-service training for teachers, a special program of math for parents, and hosts a regional math conference.

The Department of Social Sciences has the resources for special offering in political science; another lecture series relating to the social sciences might be possible and desirable. It would be feasible for Ferris to set up a continuing information center for small town administrators, that would provide expert advice or interpretation of special regulations relating to the environment, to fiscal problems, to police administration, as the needs for these forms of information might arise.

The School of General Education has the resources to provide post-degree in-service workshops in the various areas of human services.

Demand and opportunity alike exist for the School of General Education. It only remains for the personnel involved to expand existing programs and to

develop new ones suited to the requirements of the non-urban population in Mecosta and adjacent counties. A wider area of service would probably be restricted to specialized programs instituted to meet the needs arising out of particular technical requirements relating to the biological, physical and social sciences.

SECTION IV  
THE SCHOOL OF EDUCATION  
PART I

This report explains a rationale for continuing education programs within the School of Education. Functionally it serves a way of conceptualizing the field, particularly with respect to the learners. Readers are encouraged to examine other rationales and to otherwise create their own concept of purposes and interactions. However, it does not attempt to provide a detailed "how to do it" outline.

The rationale begins with certain identifying questions. They are:

- I. What educational purposes should the School seek to attain?
- II. What type of learning experiences can be presented?
- III. How can these experiences be organized?
- IV. In what manner will it be determined whether these purposes are being reached?

The report suggests a means of examining these questions. Answers will vary with program actions and level of involvement. The explanation given to the procedures by which one answers questions constitutes a source of knowledge.

The Association for Curriculum Development and Supervision's 1962 yearbook, *Perceiving, Behaving, Becoming: A New Focus for Education*<sup>1</sup>, is recommended reading, as it presents a field approach to education. Likewise, Ralph W. Tyler's, *Basic Principles of Curriculum and Instruction*<sup>2</sup>, can aid as a guide for readers regarding need analysis. Other readings will be mentioned in the context of this statement.

- I. What Educational Purposes Should the School Seek to Attain?

The question can be examined by first stating that if an important effort in continuing education is to be carried out a conception of the



general goals or aims is needed. Potential clients want to be assured that the goals and subsequent related objectives are relatively free from biases and distortions. These conditions do not make the task an easy one.

What sources, then, can be considered helpful and significant in determination of the goals?

#### A. Students

An analysis of the students themselves would attempt to document required changes which the School can seek to produce. For example, evidence may be located which indicates that high school youth in Michigan are not healthy. This fact may suggest general goals when viewed in terms of normal health conditions of youth. Analogously, if one ascertains that high school graduates are initially worried about not getting a job, a case could be presented for vocational guidance and for occupational training. Such goals are most attractive when a acceptable standard can be identified. The difference between the present unacceptable condition and the standard can be described as a need.

Cole<sup>3</sup>, Havighurst<sup>4</sup>, Murray<sup>5</sup>, and others have classified or reported a different type of "psychological" need. Here, they refer to the state of balance in which most individuals covertly should exist. Categories are established as belonging, activity, affection, and intellectual. In theory, the person must satisfy these needs in a balanced way to grow and prosper. A School, in drawing upon established need findings, could examine a particular community problem for clues to types of needs currently not being satisfied by the curriculum. Local findings could then be used for the purpose of stating goals.

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<sup>1</sup> Association for Supervision and Curriculum Development, *Perceiving, Behaving, Becoming: A New Focus for Education*, 1962 Yearbook (Washington, D.C.: The Association, 1962)

<sup>2</sup> Ralph W. Tyler, *Basic Principles of Curriculum and Instruction* (Chicago: Syllabus Division, University of Chicago Press, 1950).

<sup>3</sup> Luella Cole, *Psychology of Adolescence* (New York: Holt, Reinhart and Winston, Inc., 1965), pp. 6, 7.

<sup>4</sup> Frederick J. McDonald, *Educational Psychology* (Belmont, California: Wadsworth Publishing Company, Inc., 1965), pp. 118, 119.

Of the two systems described, the former probably has greater potential for utilization. Perhaps one reason for this is that it is more readily understood and applied. Even these fundamental needs, however, are complicated by the influence of one's culture as it affects attempts to cope.

### B. External Life

Two commonly used logics to extract goals are as follows:

1. Because contemporary life is and has been for some time undergoing change, it is necessary to analyze important segments for observed changes so that the student will not waste time in outdated learning. The implication is that the schools should not spend time in learning content that has little potential to improve a student's status in life.

2. Transfer of learning for students is facilitated when realistic situations are utilized in school work.

In order to gain such comparisons, examples of studies available are Riesman's<sup>6</sup>, The Culturally Deprived Child, or Conant's Slums and Suburbs.<sup>7</sup> Numerous studies are available on national, state and community levels which point to disparities in values, changes in communities, and the effects of life on people.

A more recent example concerning the status of the blue-collar worker is Jerome M. Rosow's<sup>8</sup>, The Problem of the Blue-Collar Worker. His memo builds a case for important goals in the area of job upgrading, child care, education for adults, higher education for the worker's children, tax policy,

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<sup>6</sup>Frank Riesman, The Culturally Deprived Child (New York: Harper & Brothers, 1962).

<sup>7</sup>James B. Conant, Slums and Suburbs: A commentary on Schools in Metropolitan Areas (New York: McGraw-Hill Book Co., Inc., 1961).

<sup>8</sup>Jerome M. Rosow, The Problem of the Blue-Collar Worker (Washington, D.C.: Memorandum, Department of Labor, 1970).

status of the blue-collar worker, recreation facilities, transportation, housing, and disability protection. The recommendation pertains to national conditions. A follow-up analysis is possible on a regional basis, which will act as a source for specific objectives.

### C. Subject specialist

The subject specialist's approach to determining goals is perhaps the most prevalent in secondary schools and post-secondary schools. Text books and courses are generally written by specialists and represent their conception of what the student should learn. For example, a college professor of mathematics is likely to write a test for beginning mathematics high school and likewise for other subjects. This approach is open to criticism as it may prove too technical or too special for general continuing education courses.

The question a subject specialist might endeavor to answer in continuing education is "What can the subject offer those not in a mathematics field, the citizen simply interested in the subject?" If subject specialists can answer this question they are likely to make an important contribution, knowing the field as they do, that can benefit the lives of others. In an analogous way citizens could be motivated in science, when the learning includes an understanding of the way in which disease is spread and the precautions that can be taken by the community to protect itself from poor health practices.

Perhaps of even more concern today are the various forms of energy transformation, and plant and animal resources. The common man is quite interested in the way which these resources can be effectively utilized, especially when told he is in danger of a partial loss of essential service. These suggestions are valuable in describing goals that a school could aim at in utilizing science or other subject fields.

#### D. Values

An adequate base of information on continuing education will undoubtedly, among other things, include an attempt to define values essential to life. Four examples of democratic values often stressed are: (1) acceptance of the importance of every individual as a human being, (2) opportunity for participation in all phases of community life, (3) encouragement of differences in personality, and (4) rational intelligence as a method of dealing with problems. Community acceptance of these values implies that its schools act in ways consistent with democratic values.

The founders of the United States conceived of democracy as a way of life appropriate to all in the United States. Communities can consistently stress that the stated values are known and should be applied to active identifiable problems of everyday affairs.

A second type of question is: "Should the educated man adjust to society, accept the social order, or attempt to improve the society in which he lives?" This can be an important question for those who have achieved educational status. A potential reply is that people who have capability to understand the society and are able to live within it also should work effectively to improve their communities. The implication is clear that the values of the school must be reflected in its students as it offers leadership in fostering vital learning experiences. By seeking out the answers to these and other related questions, this question can serve as a screen to programs.

The book, College & Universities As Aspects of Social Change, suggests a broader role for colleges in their communities in terms of social change. Many educational philosophies stress that the college has a prime responsibility to seek the truth. Some may prefer that the college take a less active stance, externally, but most have long since disbanded the "Ivory tower" image. The case is stated in this following quotation.

"The university should, in deep and direct ways, recognize itself as--and act as--an agent of the most profound politics. What is wrong with the university denying modestly that it is not political and then continuing in a quiet way its role as an agent of the profound politics of modernization, reform, and freedom?

The thing wrong with universities pretending not to be agents of social change is that it is a cover-up; it camouflages the fact that universities are such agents; and in their disavowal they may fool themselves as well as others.

The federal government knows, the State Department knows, the Pentagon knows, the CIA knows, our adversaries in the world know that American universities are and have been agents for research and recruitment in support of America's present world policies and military efforts. Why shouldn't the American people and the members of the university community know the facts on this? So the official doctrine of political neutrality is wrong because it is corrupting and cowardly.

Following the truth as a question may not lead to larger appropriations for state universities. But the urgent is too often the enemy of the important, and undue prudence will not lead to good prophecy. The important thing is that we act in the faith that is the Truth as a question that makes men free."<sup>9</sup>

The implications can be spelled out in continuing education action programs. These programs are intended to be in harmony with the philosophy of the sponsoring college in a changing society.

#### E. Learning Theory

Can stated objectives be distinguished that are feasible and attainable for the persons intended according to known learning theory? To illustrate that problem, in reading it is thought necessary for a student to have the concrete experience to which meaning can be attached. Further, until level of vocabulary competence is attained along with other reading competencies, it may be useless to place a great deal of attention upon developing skills of interpretation. The examples given may illustrate the necessity of examining learning theory in deciding about objectives for continuing education at particular points in the education sequence.

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<sup>9</sup>W. John Minter and Mann M. Thompson, ed., Colleges & Universities As Agents Of Social Change (Boulder, Western Interstate Commission for Higher Education, 1972), pp. 12.

Important knowledge in learning theory is available in such areas as forgetting, length of time, levels, multiple learnings, outcomes and methods teachings. Objectives stemming from other sources such as subjects can be screened as their probability of being attainable or otherwise being in conflict with established knowledge of learning theory.

The finally developed objectives can be related to the kind of behavior desired in the participants and the content or area of life in which this is to operate. By defining these desired results as clearly as possible, the program planner has useful criteria for selecting content, recommending learning approaches and engaging in the teaching procedure.

Increasingly in the next ten years colleges are liable to build staffs, allocate funds and create flexible facilities, to achieve this aim. On the part of program writers, the best work may come from the creative thinkers who can apply solid learning theory to various environments.

## 11. What type of learning experiences can be provided students?

Essentially, in the continuing education area, learning takes place through the experiences which the learner has in the environment (community) of which he is a part. The term "learning experience" is not solely synonymous with course content. The definition implies the interaction of the students as active participants toward well classified objectives. The task of the teacher will likely have much to do with operating in that environment and, secondly, structuring the situation so as to stimulate the desired learning. Lastly, content will come into play.

As can be imagined, a learning environment type of teaching places considerable responsibility upon the teacher. The students will have various motives for being there which range from self actualization through interest in career promotion. The problem is one of selecting learning experiences which are likely to produce even objectives to a mutually acceptable degree.

There are some well known general principles to begin which may be observed in the selection of learning experiences appropriate to continuing education programs. A sample of these are: (a) In order to be effective, the participants must gain satisfaction from the experience. (b) The learning must be within the range of possibility for the students involved. (c) Learners should have an opportunity to practice at least some of the implied actions. (d) One learning experience will usually bring about several outcomes. And, it is not necessarily true that all persons must have the same prescribed set of experiences to assure that the desired objectives are attained. (e) A well planned experience will be made up so that several objectives can be achieved in nearly the same time span. Testing these out in various settings will eventually result in a much needed guide for program writers as the goals come from the already desired sources.

It is equally well known that certain types of learning experiences are more appropriate to particular objectives than others. Two suggestions are offered in the following sections of the kinds of things which can be considered in continuing education.

### Information - Knowledge

Information or knowledge can be gained as a phase of other processes in teaching. The use of such information and the reasons for obtaining it should be clear. It is more economical in continuing education to set up learning situations in which information is obtained as a part of the total process of learning, than to set up special learning experiences to memorize information.

### Attitudes

Everyone has experienced a desire to participate in something, to react in a positive or negative way to a situation. Attitudes may be envisioned as a predisposition to react to situations, places, and people. Attitudes are

very powerful influences on individuals and on what they will learn. Therefore, once set in place they continue to reinforce each other. There is a great need for schools to establish an environment for aiding people in developing desirable attitudes about people, communities, and work. It is directly possible to do things such as increase the degree of unity of social practice within the school, or stress the positive aspects of the contributing community. If the student has prejudices, these could well limit the understanding of social goals. In this connection a tactic could well provide learners with a first-hand experience of a problem such as unemployment in order to gain a sincere hearing.

### III. How Can Experience Be Organized?

At the outset it may be well to recognize that a major intellectual change toward continuing education will not likely be produced overnight. Changes in current fundamental operating structure, in policies, in peoples' attitudes are slow to come. Nevertheless, the total cumulative effect will be evident perhaps with a five year span. In order for this to occur, events can be organized as to reinforce each other.

If the programs written offer no connection to each other or are in conflict with each other, the college may find itself in virtually the same position of having to offer mostly compartmentalized learning. A few ideas are offered with the thought that their acceptance or rejection can lead to other questions of organization.

There are at least three criteria which can be considered:

Integration as a criterion suggests that the proposed learners will increasingly obtain a unified view and will unify their actions as a result.

Sequence as a criterion emphasizes the importance of having each successive exposure build on preceding ones but go more broadly and deeply into the involved matters.



Continuity as a criterion means that over time the same kind of concepts will be brought into continuous operation.

It is important to observe that these principles are intended to have meaning to the learners.

There are situations where sharp differences can be noted between what a professor sees as connecting elements in fields, such as history, science, or social services, and what a learner may see.

Actually there are many possible organizing elements which need to be planned, checked and examined in the field. So far as promoting a relationship to life is concerned, frequently the kinds of problems posed will necessarily cut across discipline lines. This will require more integrative organization and a disregarding of historical boundaries of the disciplines. In a completely informal structure an organization around problems or student purposes might be an effective approach. Subject specialists' assistance can come into play at a later date as elements are identified.

#### IV. In What Manner Will It Be Determined Whether These Purposes Are Being Reached?

Evaluation becomes an integral part of the process for determining how well the planned learning experiences have achieved the objectives for which they are designed. It will record both the gains and weaknesses of the experience. As a supplement it can also aid in checking student progress and conditions of teaching. All of the above can be useful in making decisions about programs. Suggestions are presented in other sections of the report on basic questions which need to be asked.

In the final analysis, there may be little reason to expect perfectly effective programs. This is because the individual recipients of such programs bring to the setting a wide fact of intelligence, skills, and innovation. Funded programs not recognizing this often contain narrow objectives that can be rapidly learned and just as easily forgotten.

Improvement in society via individuals should be a major commitment for all education. This requires a more permanent or long range outlook on evaluation. What may be vitally important to consider are the benefits to individual people of a life-long involvement in education. For example, what does it mean to an individual when he can increase his lifetime earning potential from ten to twenty percent? What will it mean to individuals if they can successfully plan their retirement years? What is it worth to business and industry if persons can intelligently purchase food or prepackaged drugs? To what extent will the State prosper from better use of its energy resources or observance of public health practices? These are only suggestive of an important array of questions. The writer believes that we will increasingly be asked to justify immediate program efforts not only in terms of what they mean to the individual receiver but also the society of which he is a part. It is proposed we first learn to ask the important questions. From them will stem a concept of evaluation which will be meaningful in the long-term. It may then be possible to determine the extent to which we are achieving the desired goal. The know-how of doing this constitutes a major challenge to educators.

The immediate recommendation developed from this paper is reflected in the definition of continuing education - see Section VIII.

SECTION IV  
THE SCHOOL OF EDUCATION  
PART II

A survey was undertaken in the School of Education to produce an increased awareness of faculty concerns and to gather faculty suggestions for continuing education program areas as they may exist within the School. A Survey Worksheet requested that information be supplied to reflect interest in the development of specific continuing education programs without geographic or other limitations over a five year period. The instrument was structured to direct the respondents to teaching format, population estimates, and availability of resources in several content areas. These areas included career change programs, continuing programs involving certification, upgrading, credential maintenance, and leisure time programs.

An open ended response style requested the insertion of possible classes, workshops, seminars, institutes, laboratories, conferences, clinics, and correspondence programs in each of the specified content areas. After making this initial entry, the respondent was asked to include population estimates and other information related to present or needed resources.

The Survey Worksheet forms were distributed to seventeen faculty and staff members during the last week of January, 1973. Replies were requested by February 5. A follow-up verbal request for returns was given on February 9 during a general faculty meeting.

Nine (9) members replied in writing while a few others discussed the worksheet independently with the authors. The results of the survey appear in Appendix C.

The responses received on the Continuing Education Survey Worksheet are to be interpreted as illustrating needs for continuing education programs as perceived by the faculty and staff of the School of Education. The needs may not be actual needs as perceived by the population the School would attempt to serve. Workshops, clinics, and conferences were illustrated as program areas in which the School could continue and expand its role for career change programs. Generally, the present staff was perceived as adequate while funds and facilities were viewed as needed resources. Facilities appear to be particularly limited while college classes are in session.

In the area of continuing programs for certification, upgrading, and maintaining credentials the School could enhance the opportunities to be of service to area teachers with the addition of a limited graduate program or a contracted program in which the presently available staff would be utilized while a graduate institution would award the credit. Returning teachers desire graduate credit and travel elsewhere to maintain credentials while working toward advanced degrees. Resources are excellent for summer and in-service workshops under contract to intermediate school districts and regional school systems for awareness and implementation workshops in media technology, testing, career education, and innovative mathematics and science school programs.

Leisure time programs are already well served with the community as are adult continuing education program.

The school is already deeply involved in the improvement of instruction in career education through educational technology projects, further, it is thought to be able to offer classes, workshops, seminars, institutes, labs, conferences, and clinics as model programs. Present facilities are described as minimal and an increased flexibility in the educational environment, beyond that presently available, would be needed. Additional equipment, educational materials, and staff would also be required.

Adequate staff and resources were noted as available for school board seminars in problem and tension issue areas of American education. A Bureau of School Services to undertake educational improvement in schools in designated academic and vocational areas, to carry on school surveys and accountability studies to evaluate title fund programs, and to serve in consultation roles, could be readied to be available on a contract basis.

With any significant increase in the demand for services and an increased population to be served, the need for additional staff, additional facilities and equipment, and funding becomes justified. While graduate credit would be an attractive feature of a continuing education program in the School of Education, credit available through a graduate institution would help service a perceived need.

**Recommendation:**

- a. Dean to appoint a joint faculty-administrative Committee on Continuing Education.
- b. Dean to appoint a Director of Continuing Education for the School of Education
- c. The role of the Director and the Committee during the initial stage (two years) will be to research and develop significant pilot programs.
- d. The Committee and the Director will concentrate on current continuing education affairs only to the extent that it provides required information for pilot programs.

SECTION V  
THE SCHOOL OF PHARMACY

INTRODUCTION

The American Association of Colleges of Pharmacy, section on Continuing Education, has prepared and has had professional acceptance of its "Guidelines for Continuing Pharmaceutical Education" (American Journal of Pharmaceutical Education, Volume 36, pages 634-47, 1972). Those guidelines list five steps for development of a high-quality College of Pharmacy continuing education experience for pharmacists. Those steps are:

1. Determine the pharmacists' educational needs and enlist their aid in planning programs.
2. Formulate clear learning objectives expressed in behavioral terms.
3. Identify available program resources and their limitations.
4. Develop a program design and select methods to accomplish the objectives.
5. Develop and implement an adequate system of evaluation.

Coupled to the above guidelines, a continuing education commitment should be considered in relation to real, identified forces or pressures affecting the concept itself. Those forces are:

- a. Professional organizations: The Michigan Pharmaceutical Association has interests in promoting "mandatory continuing education".
- b. State Board of Pharmacies: The Michigan Board of Pharmacy has begun deliberations regarding "professional-competency exams" as a yardstick for relicensure.
- c. The practitioners: The Michigan pharmacist, sensing his role change, is actively seeking continuing education and "professional enrichment" to allow him to adapt to new roles.

### PROCEDURES AND PRACTICES

The School of Pharmacy is actively responding to requests for post baccalaureate education, subject to limitations of its personnel and its faculty. Appendix D describes approximately 50 short topics in pharmacy, of one to three hours duration, that are now available. Appendix B lists eight short courses that may be offered soon in addition to a newly developed correspondence course in Diagnostic Biochemistry.

### WHAT OF THE FUTURE?

The School of Pharmacy's future commitments to continuing education are to meet the needs of Michigan practitioners. This will be done in accordance with the capabilities of its personnel and facilities.

Currently, the total number of Michigan pharmacists that could be served by continuing education programs is 5,640 (Appendix D, Table I). However, licensure to practice does not mean active engagement. If continuing education in Michigan were offered only to persons engaged in community or hospital practice, this total would be reduced to 4,426 (Table I).

There is a very strong possibility that the future will witness "mandatory continuing education for relicensure". Thus it will mean a more active participation in continuing education activities by Michigan's three Schools of Pharmacy. The geographic region best served by Ferris State College would be the upper and middle peninsulas. As Michigan already has a state pharmaceutical organization and several local state association affiliates (Appendix D, Table II), it would seem most efficient and expedient to utilize their organizational structure, communication channels, and their public relations committees to enhance the offerings of continuing education. By consulting a map of Michigan, it is found

that Ferris State College could geographically serve the members of twelve local pharmacy associations (Table III). These twelve groups have a 1972 enrollment of 650 community pharmacists gathered from a potential of 1130. Also, Ferris State College could provide continuing education offerings to the Michigan Society of Hospital Pharmacists.

The question of compulsory continuing education as a requirement for relicensure in Michigan must be a paramount consideration for only long range planning groups. Presently, six states (Appendix D, Table IV) do have this requirement for pharmacists and it is likely that more will follow suit. At the 1972 Annual Meeting of the National Association of Board of Pharmacy, they announced their endorsement of compulsory continuing education and also a "Uniform Professional Continuing Education Act". Not only have they endorsed this Uniform Act but they have a prepared statute, plus the rules and regulations necessary to enforce such an act to permit "correct" introduction of continuing education for those states which desire it.

#### CLOSING STATEMENT

Any continuing education program must identify the needs of those it hopes to attract. Research on pharmacy's continuing education needs has been carried out and documented. Such research has identified the needs of pharmacists as being primarily educated on various disease states (Appendix D, Table V), preferably presented by M.D.'s. It has further been found that these needs are proportional to: a) personal achievement, b) freedom of choice, c) continuity, d) accessibility, and e) perseverance. Programs that have professional, scientific, and socio-economic factors have increased the motivation of those who participated. There is also an "organizational need" to involve pharmacy leaders in continuing education programs because their credibility provides a much needed source of feedback as well as manpower to help promote and run the programs.



**RECOMMENDATIONS**

1. A School of Pharmacy Continuing Education Committee be formed with the chairman acting as the dean's representative in planning and execution of a continuing education program in the area of pharmaceutical education.
2. Specific funds be allocated for the continuing education program.
3. When the above Continuing Education Committee is formed its chairman be given not less than one-half of his contractual time as a release from on-campus teaching in order that he can execute effectively and efficiently his off-campus duties as continuing education coordinator.

**SECTION VI**  
**THE SCHOOL OF TECHNICAL**  
**AND**  
**APPLIED ARTS**

This report will be presented in two parts. Part I deals with continuing education courses or programs presently being offered by the School of Technical and Applied Arts plus suggestions for new offerings. Part II deals with new continuing education courses or programs that could be offered by the institution and recommendations for implementation in terms of staff and physical plant requirements.

All segments of the school were contacted while gathering information for this report. Information for Part I came from interviews with department heads and selected members of the school administrative staff. Information for Part II came from survey responses submitted by members of the faculty.

Part I

**Courses or Programs Presently being Offered by the School of Technical  
and Applied Arts**

Information for Part I of the report was gathered from interviews with each of the six department heads and with selected members of the administrative staff who collectively are responsible for 32 program areas in the school.

## AUTOMOTIVE DEPARTMENT

1971-72 Program Offerings

Mobile training courses for practicing mechanics 544 trainees

Auto Emissions Control Clinics for practicing mechanics 378 trainees

Suggested New Program Offerings

Certification training for practicing mechanics

Automobile consumer education for the public

## CONSTRUCTION DEPARTMENT

1971-72 Program Offerings

Surveying for the U. S. Corps of Engineers 15 trainees

L. P. Gas Clinic for Service personnel 25 trainees

Suggested New Program Offerings

Land Surveyors workshops

Civil Engineers workshops or seminars

Professional Engineers workshops or seminars

(Resident facilities would improve the potential for these programs)

## ELECTRICAL AND ELECTRONICS DEPARTMENT

1971-72 Program Offerings

Job safety and training for linemen 300 trainees

Suggested New Program Offerings

Flight training for the public

Communications workshops for technicians upgrading and/or certification

## GENERAL DEPARTMENT

1971-72 Program Offerings

Cosmetology workshop	<u>115</u> trainees
Library workshops	<u>45</u> trainees

Suggested New Program Offerings

Art for leisure time (public)

Michigan Hair Fashion workshops and seminars for practicing cosmetologists

## GRAPHIC ARTS DEPARTMENT

1971-72 Program Offerings

Printing workshop for the Michigan Press Association	<u>30</u> trainees
Printing workshop for the Lake City News	<u>10</u> trainees

Suggested New Program Offerings

Teacher training workshops for new processes

Apprentice training

## INDUSTRIAL DEPARTMENT

1971-72 Program Offerings

None

In the past, under the former State Technical Service Program, Welding and Machine Tool workshops for teachers and "in-plant" training programs for plant personnel have been conducted successfully. In-plant training works well in this area and should be explored further.

Suggested New Program Offerings

Teacher training workshops covering new processes in plastics

Industrial safety for teachers and plant personnel

Other programs coordinated and/or offered by Technical and Applied Arts school personnel but not identified with a given department are as follows:

1. Industrial Arts Teacher training program for the Grand Rapids Public Schools in the following areas: 15 trainees
  - A. Electrical
  - B. Plastics
  - C. Welding
  - D. Small Engines
  
2. Michigan Industrial Education Safety Problem Solving seminar and contest for high students in the areas of: 80 trainees
  - A. Welding
  - B. Machine Tool
  - C. Drafting (mechanical and architectural)
  - D. Automotive
  - E. Small Engines
  
3. Career Awareness Program for Veterans

#### Suggested New Program Offerings

Career awareness programs for the public

Expand offering of programs that involve skill upgrading

Apprenticeship training under a new format

## Part II

### Suggested New Courses or Programs

Information for Part II of the report has been provided by the faculty of the School of Technical and Applied Arts.

Using the survey question guide provided by the committee, a survey instrument was developed and circulated to all faculty members of the school. The survey asked for titles of continuing education courses or programs, a suggested teaching format, an immediate and future population estimate in terms of students per year, whether or not the course or program could be offered with present facilities and staff, and recommendations for facilities and staff. Respondents were asked to supply this information for six general instructional areas: Leisure time; career change; continuing professional education; standard credit courses for special purposes; new advances, procedures, or techniques; and other continuing education.

Forty responses to the survey provided 77 different course or program titles along with the supporting information. Apparently the most difficult item to estimate was the future population in terms of students per year. However, suggested titles were included even though population estimates were not given.

The report has been organized into six sections reflecting the six general program area titles used in the survey (see Appendix E). While some course or program titles could have been reported under more than one general program area, they have been reported exactly as suggested.

Results of the survey taken for Part I of this report show that during the 1971-72 academic year 1557 people received training through continuing education courses or programs offered by personnel in the School of Technical and Applied Arts. These offerings were conducted by faculty

and staff holding regular employment with the school. Existing on-campus facilities were used for all offerings in Big Rapids. Since the nature of much of the training required that it be offered in strategic locations throughout the state, local facilities were provided by sponsoring agencies in industry and education for those courses or programs.

Sixteen new titles for courses or programs were suggested in Part I of the report. While many could be offered using our present format, some would require resident facilities for participants.

The survey information in Part II indicates that forty-two of the courses or programs recommended could be conducted with existing facilities and staff while twenty-nine would require additional facilities or staff. No recommendation was furnished in six cases.

While the estimated student population was not given for all courses or program titles, a summary of those furnished gives some indication of potential.

Program Area	Population Estimate # Students / Year	
	Immediate	Future
I Leisure Time	535	640
II Career Change	160	215
III Continuing Professional Education	245	355
IV Standard Credit for Special Purpose	485	645
V New Advances, Procedures, or Techniques	845	1340
VI Other Continuing Education in TAA	360	625

With the exception of four course titles the population estimate above represents courses or programs new to the institution. No attempt has been made to include courses already being offered by the institution since this information was furnished in Part I of the report.

**Recommendations**

1. The Educational Planning Committee should develop and implement a program designed to contact key personnel and organizations in the surrounding communities relative to the need for continuing education.
2. The Educational Planning Committee should develop an informational paper directed to the faculty which clarifies the meaning of continuing education.
3. The Educational Planning Committee should use its resources to offer a series of workshops to train interested faculty in the procedures for planning and conducting continuing education offerings.
4. Since continuing education has been primarily generated by faculty activity in the past, the role of the faculty member in terms of load, remuneration, and clerical assistance relative to this activity should be clarified.
5. If continuing education is to have a major thrust at this institution some form of meaningful assistance for program implementation must be made available to the faculty at the school or institutional level.



## SECTION VII

## THE FERRIS STATE COLLEGE LIBRARY

A survey of the areas in which the F. S. C. Library and its staff could participate in continuing education programs showed that at the present time, and in the near future (five years), there are no identifiable areas of need that could be fulfilled.

There is, however, a population that could be served, should it express a desire. This population would be those persons responsible for the operation of the many small public libraries in northern lower Michigan.

There are 34<sup>1</sup> counties in this area with 103 community libraries serving less than 13,000 patrons each. The staff of these small public libraries include both state certified and non-certified personnel.

There are a total of 354<sup>2</sup> public library staff members in the 34 counties. Of these, 183 are certified, and 173 are not. To be certified, the State Library of Michigan sponsors workshops which lead towards certification. Ferris is currently host to one of these annual workshops. For the F.S.C. Library to hold any continuing education courses for these people, a conflict of interest may arise, to the detriment of the participants of the workshops.

The primary purpose of the F.S.C. Library is to serve the college.

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<sup>1</sup>See Appendix I.

<sup>2</sup>Michigan. Department of Education. Michigan library directory and statistics, 1971, p. 9-36. 1972.

As the American Library Association points out:

The primary functions of the college library are defined as: 1) building collections of informational materials, 2) organizing collections for effective use, and 3) providing guidance and instruction in the use of informational materials.<sup>3</sup>

There are, of course, additional important functions that the Library performs, and all of these are in support of any of the programs that the college offers. The Library, several years ago, initiated a continuing education program for faculty members regarding the use of the F.S.C. Library. Those faculty members who attended expressed their appreciation and recommended that it be continued and expanded.

The F.S.C. Library is staffed by 14 professional librarians who are experienced in all phases of library operation, and should the area public librarians express a desire for Ferris to provide a continuing education program, the Library staff would be able to do so.

Areas of competence would include:

- Acquisitions
- Administration
- Bibliographies
- Book selection
- Budgets
- Cataloging
- Classification

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<sup>3</sup>American Library Association. Guidelines for college libraries;  
working draft . . ., p. 4 1970

Displays

Library problems

Preparation of materials

Publicity

Reference service

The F.S.C. Library staff will continue to provide library service to any adult or continuing education course that the college offers.

These services include:

Bibliographies

Library orientation

Reserve books

(any other special requests would also be considered)

#### SUMMARY

The F. S. C. Library's primary purpose is to serve the college in its instructional endeavors. The Library will provide support of any regular or adult/continuing education course that is offered.

At the present time, there are no identifiable areas of need that the library could fulfill with an adult or continuing education program.

## COUNTIES OF NORTHERN LOWER MICHIGAN IN THE SURVEY AREA

- |                    |                  |
|--------------------|------------------|
| 1. Alcona          | 18. Mecosta      |
| 2. Antrim          | 19. Missaukee    |
| 3. Benzie          | 20. Montcalm     |
| 4. Charlevoix      | 21. Muskegon     |
| 5. Cheboygan       | 22. Newaygo      |
| 6. Clare           | 23. Oceana       |
| 7. Crawford        | 24. Ogemaw       |
| 8. Emmet           | 25. Ontonagon    |
| 9. Gladwin         | 26. Osceola      |
| 10. Grand Traverse | 27. Oscoda       |
| 11. Gratiot        | 28. Otsego       |
| 12. Iosco          | 29. Presque Isle |
| 13. Kalkaska       | 30. Roscommon    |
| 14. Lake           | 31. Sanilac      |
| 15. Leelanau       | 32. Shiawasee    |
| 16. Manistee       | 33. Tuscola      |
| 17. Mason          | 34. Wexford      |

## SECTION IX

## COMMENTARY ON REWARDS

Members of the Educational Planning Committee and the Chairman have indicated their concern regarding matter of "rewards" as they relate to the continuing education. Because of this concern a question was communicated to the Representative Faculty Advisory Committee by the Chairman as to the nature of present practices and policies. The question and issues related to rewards is on the agenda of the RFAC and other groups on campus.

The position of the EPC is to encourage these discussions with the aim that such activity will eventually produce practices and policies which will enhance the educational effort in continuing education.

What seems apparent to the Committee is that persons who are willing to exert themselves in new directions need consideration. While the nature of such consideration may vary for individuals, there can be some general policies established. These general policies may involve money, released time, public relations, and the like. An analysis of present practices could assist in the development of new or altered policies.

A second type of consideration is equally important to serious program developers. The concern here is with aiding the individual in such areas as report preparation, conference services, evaluation and funding. The EPC believes it is very important that their efforts be facilitated and coordinated because faculty can become discouraged by the excessive time required for these matters.

For example, the individual may be quite willing to accept an established rate of compensation or released time for teaching a specific workshop. However, he may not be anxious to spend his own time in recruitment

or checking on guest room conditions. It has been stated to the EPC that some faculty have had negative experiences with some of these items and do not feel the money or public recognition to be worth the effort.

While the Committee is not capable of adjusting past problems, it can encourage establishment of new beneficial procedures.

## SECTION X

## PART I

CONTINUING EDUCATION AND  
THE EXTERNAL DEGREE CONCEPT

In contemporary higher education the main thrust of innovation, as far as the interface of the institution and the general public is concerned, appears to be the expansion of college and university services to all segments of the public other than the degree student in residence. This development comports with the spectrum of basic social developments through the sixties and continuing. One notes the women's liberation movement, the continuing struggle for racial equality, trial marriages, more liberal sexual attitudes, and the loosening of the abortion laws. In the colleges one can point to the increased participation of the students in administrative policies and affairs, freer admissions standards, broadened concepts of grading, freer general administrative attitudes and rules, relaxed residence hall requirements, and the establishment of sub-campuses to serve several communities.

Curricula developments also not only reflect the heightened degree of freedom but also the reordering of socio-economic concepts and newly-recognized needs, as represented by the up-grading and expansion of vocational and health services programs, the initiation of legal assistance, public administration, and many other innovative programs. It is significant that these developments have occurred since the institution of state systems of low-cost higher education and of the two-year community colleges. It is recognized that these educational gains are only a few among the many causes of the social phenomena mentioned above but they might also be among the most potent. And, unquestionably, they do account for a very tangible broadening of intellectual and social concepts.

What remains to be done, among many other actions is to encourage the general public, more fully than ever before, to participate in an expanded educational community and to arrange the means for doing so conveniently and effectively.

In dealing with this new level of educational concepts and in institutionalizing them, the traditional concept of extension or continuing education is still intact. However, a restatement of the applicable terms might not only serve to clarify the traditional arrangements but also to provide a meaningful contrast with the new.

Traditional (Limited Time)  
(In-school)

Concept

Extension education  
Continuing education  
Adult education

Institution

Night school  
Evening Division  
Continuing education division

New (Lifelong)  
(In and Out of School)

Concept

Daily work  
Experience  
Organized group trips  
Self-study  
Travel and observation  
Attendance, school  
courses, seminars

Institution

Museums  
Places of work  
Business  
Parks  
The city, town, county  
Libraries  
Schools (all levels)  
Governments  
Welfare agencies  
Hospitals, clinics

In reaching out to the public, the colleges are projecting their programs in a variety of ways, both conventional and unconventional. With reference to the unconventional, probably all of them are based on the concept illustrated above: (1) that education is a lifelong affair, and (2) that it occurs daily in a multitude of places and circumstances wholly unrelated to the campus and classroom in the traditional sense, yet equally worthy of collegiate recognition.\*

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\*England has been working this concept into her "free university" for some time.



How to organize the new concept into a single, viable institution is the question of the day. Several answers have been found already and are in the process of becoming famous. They can all be condensed into the term "External Degree Program." If one writes this term between the two columns above, one sees immediately the connecting institutional force which it exerts:

New (Lifelong)

(In and Out of School)

<u>Concept</u>		<u>Institution</u>
Daily work		Museums
Experience	<u>External Degree Program</u>	Places of work
Organized group trips		Business
Self-study	Student-created program;	Parks
Travel and observation	qualifying or proficiency	The city, town, county
Attendance, school	examinations	Libraries
courses, seminars		Schools (all levels)
		Governments
		Welfare agencies
		Hospitals, clinics

The following programs are the ones which are already well-publicized in the general press or at least well-known in the world of Education:

Empire State College (New York State). Activated.

New York State Regents External Degree Program. Activated. (Grew out of their College Proficiency Examination Program.)

California State Universities and Colleges Program. (In the planning state.)

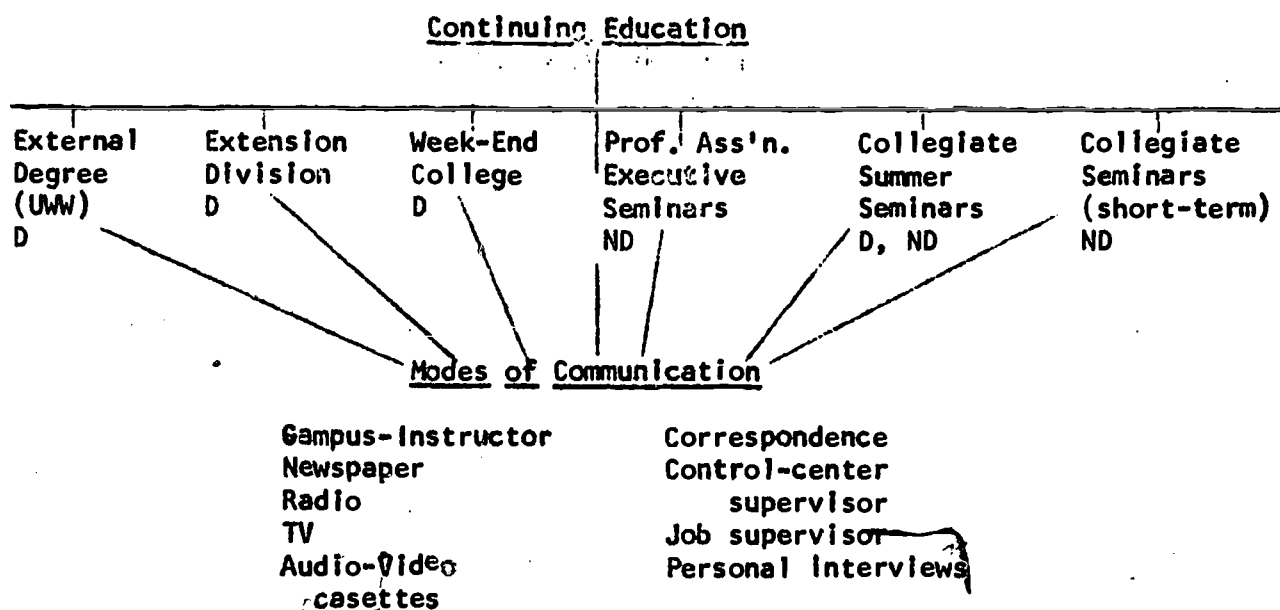
Minnesota Metropolitan State College. Activated.

Union of Experimenting Colleges and Universities. Activated. (Has 26 colleges and universities as member units. Is referred to as the "University Without Walls.")

U.S. Dept. of Urban and Housing Development's University Without Walls. Activated. (For federal, state, local government employees. Central Michigan University cooperates in this program.)

It is probable that many more universities and colleges are planning external degree programs. It might be added at this point that the open admissions policy is not common to all of those already established. The Union of Experimenting Colleges and Universities, for example, retains for each member its usual entrance requirements.

The relation of the External Degree Program to the traditional higher education programs can best be illustrated by means of a diagram or model. This permits the bringing in of other concepts which are currently receiving much publicity but are not educational innovations in themselves. The newspaper course of a certain California college is cited as an example. This is a mode of communication and is shown in the model under that heading. The standard means of continuing education, which also merit recognition in the scheme of lifelong education, are given their place in the model also. Whether one wishes to use as the key title, "lifelong" or "continuing" education is really immaterial. The model is as follows:



D=degree granting. ND=non-degree granting.

Although the external degree program is shown in the model as one form of continuing education, this does not imply that it is not also an institution of original undergraduate education, nor does it detract from its importance as perhaps the newest form of such education. However, if one is consistent in applying the total concept of continuing education in its "lifelong" sense, then it must be admitted that the undergraduate college is itself only one institutionalized segment in the continuum of learning which begins with the parents and ends at the grave.

In summary, the essential elements of the new concept are: (1) recognizing the educational value in non-formal situations, circumstances, experiences; (2) designing ones own educational program under institutional controls; (3) revising admissions qualifications to admit work done and life experience to count for credit as well as for the equivalent of course credit during the performance of the program requirements; (4) acquiring course credit by qualifying examination without residence or classroom attendance requirements; (5) expanding the time span for completing degree requirements. In brief, it is simply an expanded concept of what, in reality, constitutes learning and the acceptance of the fact that there are dozens of ways in which it can be ingested and that these many ways must, somehow, be incorporated into the degree-earning process.

SECTION X  
PART II  
EXTERNAL DEGREE

INTRODUCTORY COMMENTS

There are many interpretations and variations of this development in higher education. As a result it has received many kinds of identities, and many versions have developed.

Essentially, behind this trend is the common need in higher education to be free of geographical restrictions of the traditional college campus, and to be free of the iron-bound, "pre-requisite- and you must take this" syndrome. Our fluid society has found other ways to live; now education must find other ways to educate. Perhaps the idea of fluid education might best identify these needs today!

This awakening by our sleepy "ivory tower" educationist has been slow- too slow. Where it started, and when, would be difficult to pinpoint; for in fact the hand writing on the wall may have been seen many, many years ago; the voice of this early awakening was probably lost in the forest of traditionalism.\*

The significant fact is that the movement toward non-traditional higher education is now a fast growing reality. Pioneers in this activity can be found in New York, Oklahoma, Florida, California, Utah and Ohio; and now there are many more states, nineteen in all, that have taken positive steps to provide opportunities for higher education that meet the needs of the public.

For the most part, provisions have been made for non-traditional approaches to traditional degree requirements. A second type of "Open Degree" centers on an evaluative approach that takes into consideration all types of applicable education, occupational experience and special

\* The first special degree program is attributed to Brooklyn College in 1954.

training. A third type seems to be emerging that might be identified as occupation oriented. In this approach, there seem to be two variations or kinds of degree experiences that emerge; the first may be identified by the New York State External Nurses degree, just recently announced. This is an occupation degree earned outside the granting college. The second variation, less traditional and considerably more flexible, would be for the individual who has the occupation, but needs the degree, and most likely with the identity of the occupation in the degree.

The possibilities for variations within this concept of an "Open Degree" are endless, but like any changing trend, it has its "forums" and "againstums". Campus hierarchies are difficult to establish and maintain in such an unconfined environment. This leaves the establishment hard put to compete.

#### DEGREE IDENTIFICATION

One of the interesting aspects of special degree programs centers on how they should be identified. The committee discussed many combinations such as "General Occupational Degree", "General Studies Degree", "Occupational Studies Degree", "General Technical Degree in Applied Studies" for example.

The fact is that a special degree such as the traditional degree requires an identification for reference, such as the examples cited, and a diploma identity, which is more specific. For example, the diploma could read, "Bachelor, (or Associate) of Technology in Special Studies;" or "Bachelor of Technology" with the area of specialty identified.

The Bachelor of Technology identification has been adopted by many universities and colleges and is finding increasing use to differentiate

Law, Science and Arts degree.

The Bachelor (or associate) of Technology in an area of specialty, could then be referred to as a "Special Studies Degree in Applied Technology".

Many possibilities for identification come to mind, and perhaps this is an opportunity to be more realistic and specific in how a college education is identified. The traditional diploma identities become less and less real as the nature of our educational process becomes more specific.

### SPECIAL DEGREE EDUCATION

The following material represents specific ideas, concepts, and recommendations on special degree programs. Particular emphasis has been placed on the following:

- The Need
- The Aspects
- The Common Elements
- Faculty Involvement
- Catagories

Much of the material is extracted indirectly and directly from the sources cited in the Bibliography.

### THE NEED

For the most part, the need for special degree programs for adults is an established fact. This can be further supported by the fact that more than eight million are attending colleges and universities, while over twenty five million adults are participating in continuing education.

As one report states, "Our colleges and Universities must take necessary steps to make educational programs more available to adult students." and, "The time of education should not be limited to the concept of 18-25 years."

The committee on Higher Education created by the Carnegie Foundation, states it this way:

"Opportunities for higher education and the degree it affords should be available to persons throughout their lifetimes and not just immediately after high school . . . . More educational, and thus career opportunities should be available to all those who wish to study part time or return to study later in life, particularly women and older persons."

"Society would gain if work and study were mixed throughout a lifetime, thus reducing the sense of sharply compartmentalized roles of isolated students v. workers and of youth v. isolated age. The sense of isolation would be reduced if more students were workers and if more workers could also be students; if the ages mixed on the job and in the classroom . . . ."

The HEW Task Force, initiated in 1970 to study the problems facing higher education, identified literally millions who can benefit from new approaches to education. Specifically, these were identified as:

1. The young people who chose not to go to college, or who chose to leave in the middle of their college program, but who want some contact with higher education.'
2. Women who choose both family and education.
3. Those needing professional training for new careers.
4. Workers already involved with jobs and families.
5. Those who find the conventional college education unsatisfying or unsuited to their needs.

To the above, one can also add;

- a. Those in large corporations without degrees that cannot advance professionally.
- b. Those who live and work far from university campuses.
- c. Those who have completed associate degree programs and later find the compelling need for further educational opportunity.
- d. Those from unique occupational programs such as at Ferris, needing additional education.

It is apparent that the needs as uncovered by various committees and study groups have a repetitive similarity, and one can see that the specific needs identifiable with Ferris alumni will come within the range of those cited nationally.

### ASPECTS

When considering the aspects of special degree programs, there are a surprising number of possibilities that can be included, such as:

- |                             |                       |
|-----------------------------|-----------------------|
| 1. Guided independent study | 6. Field Trips        |
| 2. Seminars                 | 7. TV instruction     |
| 3. Evening Courses          | 8. On-Campus Courses  |
| 4. Correspondance Study     | 9. Extension Courses  |
| 5. Radio Instruction        | 10. Advanced Standing |

### FACULTY INVOLVEMENT

Utilization and evaluation of these many aspects will require maximum faculty involvement with a wide range of capabilities and experience.

The controlling factor of success in such approaches may well be the committment of the faculty members involved. Obviously, the complexity of the variety of avenues for education will require extensive facilities as well as competent direction and control. Maximum involvement should be sought from the regular faculty on a full or part time basis, as independent study directors, tutors, counselors, teachers and seminar directors.

It would be logical then to organize an academic unit within a particular school or division for control of the curriculum, instruction, and evaluation. As one source suggested, there could be established a new unit, such as a College of Continuing Education, or Division of Special Degree Programs.

### COMMON ELEMENTS

Roy Troutt in Special Degree Programs for Adults, says "Although there are differences among all existing degree programs, there are also many common elements. All differ from traditional degree programs in objectives,



content, and methodology."

A. A. Liveright, writing in the Educational Record about Special Degree Programs, has categorized various degree programs according to four variables: (1) the amount of credit which must be earned through regular on-campus classes; (2) the total residence requirements; (3) the extent to which special methods and media are utilized; and (4) the extent to which the credit-hour system is replaced by other means of measuring and reporting progress. He then applies these variables to individual degree programs and identifies six categories as I interpret them, for these:

1. Traditional degree programs
2. Liberal education programs
3. External degree programs
4. Experience-proficiency-independent study programs
5. Adjusted curriculum-methodology-objectives programs
6. External degree-entirely examination programs

Thus one can see that three significant distinctions can be made from the before mentioned categories; the first holds the requirements and credits the same, allowing flexibility in meeting the requirements; the second would allow modification of objectives and content to suit the needs of the individual, with the methods and requirements remaining the same; the third distinction would be the completely innovative programs, differing in methodology, objectives, and curriculum. It is this latter approach that the committee is considering quite seriously. Furthermore, most of the programs in liberal education have what might be termed as a common core of objectives, such as instilling a desire to learn; developing skills for independent study; emphasizing basic concepts; meeting special needs; variation in manner and circumstance convenient to pursuing the degree program; and providing opportunity for evaluation and research.

It is of interest to note that the working draft developed by Dick Shaw has received very favorable reaction from the Deans of Michigan Community Colleges present at Dick Shaw's talk in Lansing. A copy of the first response is included for your information.

It is the unanimous vote of the committee that such a program for Ferris be pursued vigorously and every effort be made to implement the project.

## SECTION XI

## ORGANIZATION FOR CONTINUING EDUCATION

**Ferris-Wide Control.** That a director (chairperson, dean) be appointed, on a major administrative level, to do the following:

1. Encourage continuing education programs and inservice activities within and among the several schools.
2. Coordinate the proposed programs among the several schools to ensure that Ferris resources are being used maximally.
3. Develop and implement a central publicity program and coordinate all publicity efforts of the several schools.
4. Be generally responsible for administrative detail and procedures and the conduct of program.

**School-Level.** That within the Schools a Committee be given the responsibility for the development of whatever programs are consonant and feasible with its disciplines.

That in those schools wherein a similar committee exists, such committee likewise be delegated a similar tasks, and should there be a school in which no such committee exists, that the dean appoint one to carry out this purpose.

That the school-level committees coordinate their planning and implementation steps with the Ferris director and that he, in turn, maintain continuous contact with each school committee to ensure that unity in planning and implementation and communication between the two levels be secured.

## SECTION XII

THE ROLE OF RESEARCH AND EVALUATION  
IN A CONTINUING EDUCATION PROGRAM

Central to any existing or proposed programs should be an organized system of research and evaluation. In this context, "research" means an evaluation of the program to determine that it will be practical, meaningful, and will do that which it sets out to do. Follow-up of the program also is essential.

Proposed programs should be:

- a) Relevant to the total educational effort of Ferris State College.
- b) In accordance with established educational principles.
- c) Appropriate to the role of Ferris State College regarding the geographical (primarily state-wide) community that is served by the college.

Evaluation can utilize existing staff resources of Ferris State College to determine that continuing education programs:

- a) Adequately serve those populations for which they are intended. Individual and group growth experiences should be provided for those individuals and organizations that participate.
- b) Correlate with existing on-campus and extension programs. That is, continuing education programs should supplement, not duplicate, on-going efforts.

In order to provide resources to persons who are considering development of new programs, an "Information Retrieval System" can be devised. The IRS can be coordinated with the Library, where a file of completed projects can be maintained. Each project record should contain the following information:

Author's name  
Project abstract (500 words maximum)  
Copy of final report  
Index  
Completion date

**APPENDIX A****SCHOOL OF BUSINESS DATA**

Student aid for the School of Business report came from: Michael Green, Herbert Lambert, Michael Harrigan, Terry O'Leary, Bill Stelinski, Deb Stricker, Dwight Snodgrass, Steve Premo, and David Trombley.

## TABLE I

BREAKDOWN OF RETAIL INDUSTRY

IN

TWENTY-THREE COUNTIES

WITH

BREAKDOWN OF A FEW KEY CITIES IN THESE COUNTIES

COUNTY	NUMBER OF ESTABLISHMENTS	SALES (\$1,000)	YEARLY PAYROLL (\$1,000)	NUMBER OF PAID EMPLOYEES	NUMBER OF ACTIVE PROPRIETORS
Antrim	148	13,115	1,066	267	149
Benzie	123	11,503	968	236	122
Charlevoix	202	19,390	1,902	473	204
Clare	229	26,670	2,490	642	240
Emmet	272	38,109	4,485	1,008	247
Grand Traverse	442	95,339	10,329	2,307	416
Gratiot	361	57	55,639	1,646	361
Ionia	410	55,610	5,090	1,447	409
Isabella	268	52,929	5,518	1,597	263
Kalkaska	54	4,872	432	118	58
Kent	2,886	737,613	85,439	22,767	2,669
Lake	78	4,630	383	99	86
Mainstee	231	25,570	2,414	735	216
Mason	248	34,774	3,225	940	246
Mecosta	245	31,006	3,058	860	236
Missaukee	74	8,272	616	179	79
Montcalm	403	62,266	5,652	1,509	405
Muskegon	1,119	235,035	24,798	6,870	1,093
Newaygo	239	28,422	2,594	698	264
Oceana	184	21,883	1,728	486	194

COUNTY	NUMBER OF ESTABLISHMENTS	SALES (\$1,000)	YEARLY PAYROLL (\$1,000)	NUMBER OF PAID EMPLOYEES	NUMBER OF ACTIVE PROPRIETORS
Osceola	179	17,257	1,536	516	190
Ottawa	865	157,985	15,929	4,638	881
Wexford	<u>238</u>	39,896	4,097	<u>1,019</u>	236
	9,498			51,057	

Information from:

1972 Michigan Statistical Abstract, Pages 397-404  
 Division of Research  
 Graduate School of Business  
 Michigan State University



COUNTY CITY	NUMBER OF ESTABLISHMENTS	SALES (\$1,000)	YEARLY PAYROLL (\$1,000)	NUMBER OF PAID EMPLOYEES	NUMBER OF ACTIVE PROPRIETORS
Charlevoix					
Charlevoix	69	8,269	869	191	70
Boyne City	58	5,771	517	158	59
Emmet					
Petoskey	143	30,455	3,612	839	120
Grand Traverse					
Traverse City	331	84,199	9,381	2,102	294
Gratiot					
Alma	131	28,803	3,090	912	126
Ionia					
Belding	58	7,846	727	186	59
Ionia	154	22,099	2,176	710	126
Isabella					
Mt. Pleasant	178	43,286	4,732	1,402	163
Kent					
East Grand Rapids	34	7,186	***	***	27
Grand Rapids	1736	445,942	55,772	14,681	1,595
Kentwood	7	1,222	***	***	7
Lowell	74	13,230	1,203	292	78
Wyoming	326	105,132	12,445	3,432	248
Manistee					
Manistee	128	16,192	1,645	521	115

COUNTY CITY	NUMBER OF ESTABLISHMENTS	SALES (\$1,000)	YEARLY PAYROLL (\$1,000)	NUMBER OF PAID EMPLOYEES	NUMBER OF ACTIVE PROPRIETORS
Mason Ludington	140	22,486	2,172	632	133
Mecosta Big Rapids	117	20,963	2,263	622	106
Montcalm Greenville	106	23,831	2,298	630	93
Muskegon Muskegon Muskegon Hts. North Muskegon	482 139 31	102,004 26,784 6,138	12,079 3,052 524	3,269 769 139	430 138 31
Newaygo Freemont	89	15,539	1,434	388	97
Ottawa Grand Haven Grandville Holland Hudsonville Zeeland	154 81 342 42 78	33,845 20,420 67,028 9,467 11,252	3,400 1,929 7,124 802 1,399	963 519 1,998 191 430	141 80 339 39 85
Wexford Cadillac	160	34,539	3,607	842	157



TABLE II  
RETAIL TRADE FOR SELECTED  
MICHIGAN COUNTIES

Counties	Building materials hardware and farm equipment dealers		General merchandise group stores		Food Stores	
	Estab- lish- ments (number)	Sales (\$1,000)	Estab- lish- ments (number)	Sales (\$1,000)	Estab- lish- ments (number)	Sales (\$1,000)
Antrim	17	2,875	8	1,059	19	5,443
Benzie	16	1,944	7	963	26	4,516
Charlevoix	17	1,751	9	1,591	36	8,447
Clare	18	3,393	10	772	42	10,098
Emmet	14	3,834	9	8,674	44	12,707
Grand Traverse	28	9,064	18	23,022	63	28,407
Gratiot	38	7,692	19	9,293	56	18,118
Honia	45	7,696	12	3,469	56	16,899
Isabella	24	6,570	16	9,994	40	14,014
Kalkaska	6	452	1	243	8	3,015
Kent	154	38,138	91	76,319	395	219,753
Lake	5	-	5	399	22	2,560
Manistee	14	2,110	11	4,125	35	9,934
Mason	20	2,293	10	8,357	38	13,569
Mecosta	14	2,278	17	4,653	34	10,715
Missaukee	9	1,403	3	517	13	2,294
Montcalm	52	9,517	18	4,128	53	24,462
Muskegon	54	13,490	40	39,918	177	65,660
Newaygo	22	3,121	14	2,125	34	7,876
Oceana	20	2,687	8	1,171	25	7,744
Osceola	21	2,369	12	940	26	5,484
Ottawa	57	12,316	30	17,000	111	55,755
Wexford	14	2,635	12	7,974	38	12,592

Table II (cont.)

Counties	Automotive dealers		Gasoline Service stations		Apparel and accessory stores	
	Estab-lish-ments (number)	Sales (\$1,000)	Estab-lish-ments (number)	Sales (\$1,000)	Estab-lish-ments (number)	Sales (\$1,000)
Antrim	8	2,007	4	1,165	4	97
Benzie	10	3,670	12	930	4	276
Charlevoix	21	4,787	24	2,057	12	622
Clare	9	6,703	38	4,891	8	801
Emmet	19	9,855	32	3,101	23	3,065
Grand Traverse	37	33,260	52	5,710	23	3,230
Gratiot	34	17,736	47	4,748	21	1,959
Ionia	26	15,588	51	5,003	26	1,828
Isabella	25	14,416	30	3,159	15	2,669
Kalkaska	5	1,756	9	855	2	-
Kent	204	204,363	402	53,137	164	37,470
Lake	-	-	11	655	-	-
Manistee	17	6,657	35	2,761	9	794
Mason	17	11,444	37	2,683	13	929
Mecosta	14	7,954	38	2,732	14	1,420
Missaukee	6	1,833	12	839	1	-
Montcalm	30	20,295	58	4,859	17	1,904
Muskegon	95	55,631	146	18,021	60	9,404
Newaygo	20	9,326	34	2,751	13	886
Oceana	17	6,335	26	2,444	10	659
Osceola	11	3,139	29	2,199	6	429
Ottawa	71	47,728	126	14,585	54	5,270
Wexford	17	10,052	35	3,507	11	1,518

Table 11 (cont.)

Counties	Furniture home furnishings and equipment stores		Eating and drinking places		Drug stores and proprietary stores	
	Estab-lish-ments (number)	Sales (\$1,000)	Estab-lish-ments (number)	Sales (\$1,000)	Estab-lish-ments (number)	Sales (\$1,000)
Antrim	5	180	36	957	8	971
Benzie	5	261	28	1,045	4	791
Charlevoix	7	1,151	42	1,781	6	895
Clare	11	1,087	55	2,644	5	1,021
Emmet	12	3,431	53	2,797	8	2,029
Grand Traverse	34	6,971	69	5,556	16	2,899
Gratiot	20	2,522	55	3,619	9	1,615
Ionia	28	2,055	71	3,565	12	2,035
Isabella	18	3,409	48	3,635	7	2,284
Kalkaska	1	210	12	505	2	150
Kent	237	51,527	465	43,084	107	31,916
Lake	2	231	26	771	1	134
Manistee	18	1,692	52	1,913	7	1,466
Mason	16	1,542	47	2,330	8	1,539
Mecosta	15	1,852	48	2,344	10	1,911
Missaukee	3	237	12	364	1	502
Montcalm	19	2,758	79	3,438	13	2,153
Muskegon	78	14,887	212	16,387	42	9,281
Newaygo	11	1,374	39	2,045	6	724
Oceana	5	637	33	1,017	7	962
Osceola	7	403	26	893	5	714
Ottawa	75	11,209	127	8,585	23	6,869
Wexford	13	2,118	46	2,675	5	1,554

Table 11 (cont.)

Counties	Miscellaneous retail stores		Nonstore retailers	
	Estab-lish-ments (number)	Sales (\$1,000)	Estab-lish-ments (number)	Sales (\$1,000)
Antrim	25	-	2	-
Benzie	11	500	-	-
Charlevoix	21	-	7	-
Clare	25	1,518	8	-
Emmet	55	-	3	-
Grand Traverse	83	8,480	19	1,322
Gratiot	47	5,161	15	1,040
Ionia	61	3,561	22	1,054
Isabella	35	3,075	10	1,234
Kalkaska	8	228	-	-
Kent	438	44,429	229	20,207
Lake	5	-	1	-
Manistee	25	-	8	-
Mason	37	-	5	-
Mecosta	31	-	10	-
Missaukee	13	-	1	-
Montcalm	46	3,285	18	1,466
Muskegon	156	11,609	59	4,616
Newaygo	37	2,595	9	328
Oceana	26	1,973	7	69
Osceola	27	2,925	9	71
Ottawa	145	14,666	46	1,827
Wexford	37	-	10	-

TABLE III

WHOLESALE ESTABLISHMENTS  
1967 FIGURES

County	Number of Establishments	Sales (1,000)	Number of Employees	Active Proprietors
Antrim	14	3,049	34	5
Benzie	7	2,700	23	4
Charlevoix	14	6,014	65	4
Clare	13	8,447	61d	5
Emmet	44	23,365	311	26
Grand Traverse	68	51,779	756	30
Gratiot	51	41,266	447	21
Ionia	40	15,196	152	22
Isabella	47	21,925	314	21
Kalkaska	4	764	12	2
Kent	868	1,336,835	12,627	338
Lake	4	( D )	( D )	( D )
Manistee	32	14,648	168	16
Mason	28	8,526	105	14
Mecosta	20	9,250	80	9
Missaukee	9	1,504	9	5
Montcalm	50	23,111	256	20
Muskegon	174	122,085	1,669	91
Newaygo	28	7,501	112	13
Oceana	14	3,331	57	7
Osceola	19	7,643	80	10
Ottawa	147	111,224	1,330	78
Wexford	<u>46</u>	20,424	<u>260</u>	23
	1,741		18,928	

D=With held to avoid disclosure

Source: Michigan Statistical Abstract, 1971 edition



## TABLE IV

## SELECTED SERVICES (INDUSTRIES)

Repair shops, motion pictures, amusements,  
recreation, hotel and likes, laundry (dry and  
coin), beauty and barber shops, and photographic,  
funeral, business, and auto services

Twenty-Three Counties

Table IV Con't.

County	Main City	#Est.	Receipts \$1,000	Payroll \$1,000	#Paid Employees	#Active Prop.
Antrim	- total	- 112	- 2,918	- 704	- 166	- 107
Benzie	- total	- 75	- 1,469	- 276	- 71	- 65
Charlevoix	Boyer City total	30 147	686 5,481	153 1,306	53 300	24 107
Clare	- total	- 118	- 2,549	- 558	- 171	- 107
Emmet	Petoskey total	71 165	2,493 6,086	730 1,661	188 532	49 142
Grand Traverse	Traverse City total	197 302	7,765 9,751	2,105 2,610	495 617	157 257
Gratiot	Alma Ithaca total	67 29 188	2,368 536 4,480	509 108 876	153 30 257	48 27 163
Ionia	Ionia total	64 228	1,328 3,484	323 689	110 212	50 195
Isabella	Mt. Pleasant total	96 160	3,440 5,096	863 1,201	184 2285	78 135
Kalkaska	- total	- 45	- 506	- 86	- 8	- 45
Kent	Grand Rapids Kentwood Wyoming E. Grand Rapids total	1,182 26 210 47 2,089	82,001 2,143 9,503 1,349 114,130	25,756 592 2,484 281 33,555	6,149 167 630 45 7,990	836 21 157 37 1,625
Lake	- total	- 61	- 687	- 110	- 24	- 48
Manistee	Manistee total	76 139	1,731 2,656	416 609	151 176	58 109
Mason	Ludington total	79 150	1,561 2,456	348 532	131 177	66 132
Mecosta	Big Rapids total	67 122	1,538 2,539	344 546	101 158	59 109
Missaukee	- total	- 35	- 451	- 63	- 18	- 33
Montcalm	- total	- 228	- 3,502	- 639	- 149	- 202

Table IV Con't.

County	Main City	#Est.	Receipts \$1,000	Payroll \$1,000	#Paid Employees	#Active Prop.
Muskegon	Muskegon	256	12,367	3,288	897	186
	Muskegon Hts.	89	3,434	940	218	78
	N. Muskegon	27	844	294	117	20
	Roosevelt Park	18	547	188	64	18
	total	751	25,175	6,330	1,703	619
Newaygo	Freemont	45	769	178	64	35
	total	126	1,655	299	86	113
Oceana	-	-	-	-	-	-
	total	115	1,808	366	56	67
Osceola	total	79	1,076	161	58	67
Ottawa	Holland	242	6,661	1,479	433	203
	Grand Haven	93	2,874	608	160	85
	total	562	15,338	3,486	929	479
Wexford	Cadillac	96	2,740	549	181	82
	total	145	4,280	953	324	130
		6,142			14,467	

## By SMA And Type Of Service

Grand Rapids					
Type	#Est	Receipts \$1,000	Payroll \$1,000	#Paid Employees	#Active Prop.
Hotel	121	11,280	3,372	1,051	102
Personal	1,092	32,109	11,257	2,850	908
Business	526	44,012	13,173	2,605	378
Auto Repair	355	23,028	4,751	1,067	321
Misc. Repair	313	7,295	1,669	322	258
Motion Pic.	26	3,409	-	-	7
Amusements	218	8,335	-	-	132
total	2,651	129,468	37,041	8,919	2,106

Muskegon					
Type	#Est	Receipts \$1,000	Payroll \$1,000	#Paid Employees	#Active Prop.
Hotel	53	2,344	527	204	51
Personal	351	7,173	1,977	582	301
Business	106	2,760	996	332	79
Auto Repair	82	4,172	894	166	70
Misc. Repair	90	5,797	1,230	202	71
Motion Pic.	6	-	-	-	-
Amusements	56	-	-	-	-
total	751	25,175	6,333	1,703	619

## Source:

Michigan Statistical Abstract, Ninth Edition  
Pp. 420-435

Compiled under the direction of David I. Verway

Division of Research

Graduate School of Business Administration

Michigan State University

TABLE V  
 EDUCATIONAL SERVICES PROGRAM  
 FERRIS STATE COLLEGE  
 SELECTIVE SERVICES

**ANTRIM:**

	Hotels and other Lodging Places	6
P. 24	Tourist Courts and Motels	4

**BENZIE:**

	Hotels and other Lodging Places	8
P. 28		

**CHARLEVOIX:**

	Hotels and other Lodging Places	18
P. 36	Tourist Courts and Motels	16
	Personal Services	19
	Medical and Health Services	12
	Nonprofit Membership Organization	10

**CLARE:**

	Hotels and other Lodging Places	7
P. 38	Tourist Courts and Motels	6
	Medical and Health Services	16
	Hospitals	1

**EHMET :**

	Hotels and other Lodging Places	27
P. 43	Tourist Courts and Motels	24
	Personal Services	20

## Table V (cont.)

EMMET (cont.)

Beauty Shops	10
Medical and Health Services	23
Hospitals	3
Nonprofit Membership Organization	14

GRAND TRAVERSE:

Hotel and other Lodging Places	32
Tourist Courts and Motels	22
Trailer Parks and Camps	5
Sporting Camps and Recreation Camps	3
P. 48- Laundry and Dry Cleaning	12
49 Beauty Shops	15
Auto Repair, Services and Garages	14
Amusements and Recreation	9
Medical and Health Services	73
Hospitals	2
Legal Services	11
Educational Services	1
Nonprofit Memberships Organizations	36
Labor Organizations	12
Engineering and Architectural Services	10

GRATIOT:

P. 49 Hotels and other Lodging Places	7
Rooming Houses	1
Personal Services	33

## Table V (cont.)

GRATIOT (cont.)

Laundry and Dry Cleaning	14
Auto Repairs, Services and Garages	12
Medical and Health Services	53
Hospitals	2
Rest Homes	5
Educational Services	5
Colleges and Universities	1
Vocational Schools	1
Nonprofit Membership Organization	18

IONIA:

Personal Services	35
Laundry and Dry Cleaning	12
Beauty Shops	15
P. 57 Auto Repairs, and Services and Garages	10
Medical and Health Services	41
Hospitals	1
Rest Homes	2
Nonprofit Membership Organization	17

ISABELLA:

Hotels and other Lodging Places	10
Personal Services	23
Business Services	11
P. 59 Medical and Health Services	25
Hospitals	1
Legal Services	11

## Table V (cont.)

ISABELLA (cont.)

Nonprofit Membership Organization	21
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KALKASKA:

Services	14
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P. 65

KENT:

Hotels and other Lodging Places	54
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Tourist Courts and Motels	35
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Rooming Houses	9
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P. 70

Laundry and Dry Cleaning Services	100
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Personal Services	339
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Power Laundry-Family	12
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Linen Supply	5
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Coin Operated Laundry and Cleaning	29
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Dry Cleaning Plants	51
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Photographic Studios	20
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Beauty Shops	150
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Barber Shops	23
--------------	----

Funeral Services and Crematories	24
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Advertising	22
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Advertising Agencies	19
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Services to Buildings	40
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Employment Agencies	11
---------------------	----

Detective and Protective Services	10
-----------------------------------	----

Auto Repairs, Services, and Garages	167
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Auto Rentals	13
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## Table V (cont.)

KENT (cont.)

Auto Parking	9
Electrical Repair Shops	17
Furniture Repair Services	12
Motion Pictures	13
Theater	11
Amusement Services	11
Bowling Alleys	16
Billiard Estbl.	6
Golf and Country Clubs	9
Medical and Health Services	536
Hospitals	10
Rest Homes	24
Legal Services	94
Educational Services	57
Colleges and Universities	6
Nonprofit Membership Organizations	302
Labor Organizations	63
<u>MAKE:</u>	
Services	15
P. 71	
Nonprofit Membership Organizations	5
<u>LEELANAU:</u>	
Services	42
P. 72	
Hotels and other Lodging Places	7

## Table V (cont.)

MANISTEE:

P. 81	Hotels and other Lodging Places	12
	Tourist Courts and Motels	12
	Personal Services	16
	Medical and Health Services	28
	Hospitals	2
	Nonprofit Membership Organizations	12

MASON:

P. 83	Hotels and other Lodging Places	13
	Tourist Courts and Motels	12
	Personal Services	18
	Hospitals	1
	Nonprofit Membership Organizations	22

MECOSTA:

P. 84	Services	86
	Personal Services	12
	Medical Services	23

MISSAUKEE:

P. 86.	Services	20
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MONTCALM:

P. 89	Services	139
	Personal Services	26

## Table V (cont.)

MONTCALM (cont.)

Beauty Shops	11
Auto Repairs and Services and Garages	11
Medical and Health Services	44
Hospitals	5
Nonprofit Membership Organizations	17

MUSKEGON:

Services	654
Hotels and other Lodging Places	22
Tourist Courts and Motels	16
P. 91- Laundry and Dry Cleaning	34
92 Personal Services	108
Dry Cleaning Plants	18
Beauty Shops	45
Barber Shops	10
Funeral Services and Crematories	10
Services to buildings	15
Auto Repair and Services and Garages	48
Amusements and Recreation Services	26
Bowling Alleys	7
Billiard Estbl.	7
Medical and other Health Services	185
Hospitals	3
Rest Homes	5
Legal Services	35
Educational Services	11
Nonprofit Membership Organizations	120

## Table V (cont.)

MUSKEGON: (cont.)

Labor Organizations	36
Social Associations	25
Religious Organizations	38
Engineering and Architectural Services	12

NEWAYGO:

p. 92	Services	68
	Personal Services	14
	Medical and other Health Services	19
	Hospitals	2

OCEANA:

p. 98	Services	56
	Medical and other Health Services	13
	Nonprofit Membership Organizations	11

OSCEOLA:

P. 100	Services	49
	Personal Services	11
	Medical and other Health Services	13
	Hospitals	1

OTTAWA:

P. 103	Services	449
	Hotels and other Lodging Places	16
	Tourist Courts and Motels	12
	Personal Services	73

## Table V (cont)

OTTAWA (cont.)

Laundry and Dry Cleaning	18
Dry Cleaning Plants	11
Beauty Shops	38
Business Services	22
Auto Repair, Services, and Garages	38
Auto Repair Shops	30
Amusements and Recreational Services	20
Medical and other Health Services	129
Hospitals	1
Rest Homes	14
Educational Services	20
Colleges and Universities	2
Nonprofit Membership Organizations	87
Labor Organizations	12
Civic and Social Associations	14
Religious Organizations	45

WEXFORD:

Services	96
P. 128	
Medical and other Health Services	22
Hospitals	1
Nonprofit Membership Organizations	17

TABLE VI

MANUFACTURING DATA FOR SELECTED COUNTIES

County	Number of Establishments	EMPLOYEE SIZE CLASSES				Number of Employees (1,000)
		1 - 19	20 - 99	100 - 249	250+	
Antrim	33	23	7	3	0	1.1
Benzle	18	9	8	1	0	.7
Charlevoix	38	24	6	4	4	2.0
Clare	25	19	5	0	1	1.0
Emmet	29	20	7	2	0	.8
Grand Traverse	55	33	14	5	3	2.8
Gratiot	44	26	10	2	6	3.5
Ionia	72	46	17	4	5	4.1
Isabella	27	20	5	2	0	.6
Kalkaska	12	10	2	0	0	-N.A.
Kent	895	552	239	57	47	59.8
Lake	11	10	1	0	0	.1
Manistee	46	31	5	7	3	2.7
Mason	52	32	12	6	2	2.4
Mecosta	33	18	11	2	2	1.7
Missaukee	10	10	0	0	0	.1
Montcalm	59	40	12	2	5	5.4
Muskegon	245	138	64	19	24	28.5
Newaygo	35	27	6	0	2	1.6
Oceana	27	16	10	1	0	.6
Osceola	31	20	5	2	4	1.9
Ottawa	279	162	72	27	18	15.9
Wexford	52	32	14	4	2	2.1
						<hr/>
						139.4

2,128

Michigan Statistical Abstract

The Directory of Michigan Manufacturers

## TABLE VII

SELECTED MAJOR CITIES AND TYPES OF MANUFACTURING DONE  
(CITY FOLLOWED BY COUNTY)

Baldwin - Lake p. 24

Blowers and fans, ice cream, machinery, boxes, wood products

Big Rapids - Mecosta p. 37

Tools and dyes, boxes, furniture, metal stamping, printing, concrete, milk, refining, sporting good, meat packing, footwear

Boyer City - Charlevoix p. 39

Electrical, Machinery, Pre-fab building, metal stamping

Cadillac - Wexford p. 43

Stone products, construction, boxes, clothing, tools and dyes, rubber products, aircraft engine, printing, boat building, furniture, metal stamping, casting, machinery, cheese, auto parts, concrete, refining, leather goods, vacuum cleaners, dental equipment, food, soft drinks.

Clare - Clare p. 50

Machine tools, concrete, plastics, printing, meat packing, cheese, chemicals, ice cream, electronics.

Edmore - Montcalm p. 136

Printing, food, saw mills, textiles, tools, dies, and jigs, metal products,

Evart - Osceola p. 139

Construction machinery, saw mills, flour, plastics, tools and dyes, welding apparatus, milk.

Fremont - Newaygo p. 155

Agricultural chemical, feed, plastics, refining, milk, printing, food canning, concrete, machinery.

Grand Rapids - Kent p. 160

Machine tools and dyes, metal processing, printing, furniture, optical, textile, clothing, wood products, signs, plastics, meat products, bakery goods, motor and generators, candy, soft drinks, trucks, trailers, and tractors, blast furnaces, pharmaceuticals, glass, metal processing.

**Greenville - Montcalm p. 181**

Fertilizers, milk, tools and dyes, plastics, refrigeration, auto parts, meat packing, printing, refining, food, metal stamping, concrete, footwear.

**Harrison - Clare p. 184**

Meat packing, food, wood products, logging camps, furniture, saw mills, signs, construction machinery.

**Holland - Ottawa p. 190**

Printing, metal products, house furnishings, machine tools, wood products, bakery, casting (nonferrous), grain milling, chewing gum, rubber products, dental equipment and supplies, aluminum, concrete products, chemicals (medicinal and botanical), paper, mattresses and bedspring, machinery, aircraft propellers, signs and advertising display, milk, paints, millwork, casting, pharmaceuticals, printing, glass, meat packing, metal stamping, steel, motors and generators, textiles, soft drinks, boat building.

**Ionia - Ionia p. 198**

Curtains, machinery, wire products, metal stamping, soft drinks, textiles, meat packing, concrete, printing, trailer coaches, food preparations, meat products, flour, plastics, feed.

**Kalkaska - Kalkaska p. 214**

Plywood, wood products, screw products, sporting goods, chemicals, wire products.

**Lake City - Missaukee p. 215**

Adhesives and gelatin, wood products, metal stamping, printing.

**Mancelona - Antrim p. 233**

Cheese, art films, saw mill, metal stamping, machinery, plastics, concrete, auto parts.

**Manistee - Manistee p. 233**

Boats, clothing, food, machinery, furniture, cans, refining, chemicals, soft drinks, milk, printing, signs.

**Mt. Pleasant - Isabella p. 249**

Oil field machinery, feed, sheet metal work, soft drinks, auto parts, truck trailers, printing, signs, refining, furniture, concrete, food preparation.



**Muskegon - Clare p. 250**

Metal working, printing, machine tools, chemicals, textiles, wood products, bakery, oil parts, furniture, food packing.

**Newaygo - Newaygo p. 257**

Foundaries, sporting goods, concrete, machinery, canvas goods.

**Petoskey - Emmet p. 268**

Plastics, soft drinks, wire products, signs, canvas goods, machinery, plywood, bakery products, refining, concrete, printing.

**Reed City - Osceola p. 277**

Tools, steel, wiring devices, printing, refining, milk, footwear.

**Scottville - Mason p. 292**

Concrete, food preparation, cheese, stone products, food.

**Shelby - Oceana p. 293**

Frozen food, wood products, boxes, metal work, metal stamping.

**Stanton - Montcalm p. 303**

Motor vehicle parts.

**Traverse City - Grand Traverse p. 308**

Meat packing, soft drink, machinery, sporting goods, watches, concrete, food, signs, wire products, metal stamping, milk, printing, refining, aircraft parts, furniture, fertilizers, saw mill, rubber products, clothing.

TABLE VIII  
 NUMBER OF LOCAL GOVERNMENTS & EMPLOYEES  
 BY COUNTY: 1967

<u>County</u>	<u>Number of Local Governments</u>	<u>Total Employees</u>	<u>Full-time Employees</u>
Antrim	28	672	347
Benzie	24	466	273
Charlevoix	29	738	466
Clare	24	714	333
Emmet	32	718	473
Grand Traverse	30	1,510	1,040
Gratiot	39	1,333	833
Ionia	68	1,517	385
Isabella	25	1,185	762
Kalkaska	23	246	113
Kent	58	10,484	8,654
Lake	21	294	133
Leelanau	22	374	170
Manistee	29	802	514
Mason	26	786	460
Mecosta	32	959	565
Missaukee	28	439	226
Montcalm	40	1,644	1,074
Muskegon	51	5,349	4,033
Newaygo	41	1,120	671
Oceana	40	859	382
Osceola	30	639	373
Otsego	18	397	214
Ottawa	47	3,951	2,535
Wexford	31	762	490
Total	<u>836</u>	<u>37,958</u>	<u>26,019</u>

TABLE IX  
LABOR FORCE FOR SELECTED AREAS

<u>Government</u>	<u>Grand Rapids</u>	<u>Muskegon</u>
Federal	1,800	400
State	1,700	600
Local	<u>19,200</u>	<u>5,800</u>
Total	22,700	6,800

Michigan State Graduate School - Michigan Statistical Abstract, 1972 - p. 510

TABLE X  
 PAYROLLS OF LOCAL GOVERNMENTS  
 BY COUNTY: 1967

County	October Total	Payrolls Education	(\$1,000) Other
Antrim	195	136	59
Benzie	140	86	54
Charlevoix	252	171	82
Clare	192	135	57
Emmet	264	176	87
Grand Traverse	636	415	221
Gratiot	532	408	125
Ionia	558	410	148
Isabella	482	334	148
Kalkaska	64	39	25
Kent	5,245	3,223	2,022
Lake	69	34	35
Leelanau	104	79	24
Manistee	268	155	113
Mason	285	207	77
Mecosta	284	151	113
Missaukee	116	72	44
Montcalm	598	466	133
Muskegon	2,583	1,895	688
Newaygo	385	256	130
Oceana	208	126	81
Osceola	224	142	82
Otsego	131	84	47
Ottawa	1,650	1,016	634
Wexford	286	185	101
Total	15,751	10,401	5,350

TABLE XI

## WAGE &amp; SALARY WORKERS

	<u>Non Government</u>		<u>Government</u>
	Manufacturing	Other	
Antrim	975	925	800
Benzie	625	975	600
Charlevoix	1,625	1,775	900
Clare	675	1,625	825
Emmet	775	3,375	925
Grand Traverse, Kalkaska, Leelanau	3,400	8,900	3,700
Gratiot	2,950	5,150	1,675
Ionia, Montcalm	8,675	6,725	4,700
Isabella	600	4,200	5,225
Kent, Ottawa	70,000	97,800	22,700
Lake	150	300	400
Manistee	2,425	2,025	975
Mason	2,050	3,075	925
Mecosta	1,325	1,875	3,400
Missaukee, Osceola, Wexford	3,175	4,600	2,300
Muskegon	21,800	20,700	6,800
Newaygo	1,825	1,925	1,425
Oceana	400	1,250	1,100
Otsego	775	1,325	675
			<u>60,050</u>

TABLE XII

## TOTAL LABOR FORCE, UNEMPLOYMENT &amp; EMPLOYMENT IN MICHIGAN, 1971

	Total Labor Force	Unemployment	
		Number	Rate
Antrim	3,975	350	8.8
Benzie	3,200	375	11.7
Charlevoix	6,050	650	10.7
Clare	4,750	850	17.9
Emmet	7,125	775	10.9
Grand Traverse, Kalkaska, Leelanau	21,900	2,300	10.5
Gratiot	13,800	2,075	15.0
Ionia, Montcalm	28,375	3,600	12.7
Isabella	12,800	800	6.3
Kent, Ottawa	233,400	19,200	8.2
Lake	2,000	200	10.0
Manistee	7,500	875	11.7
Mason	8,100	675	8.3
Mecosta	8,600	750	8.7
Missaukee, Osceola, Wexford	14,675	1,900	12.9
Muskegon	62,100	6,600	10.6
Newaygo	7,475	850	11.4
Oceana	4,425	775	17.5
Otsego	<u>3,725</u>	<u>350</u>	9.4
	453,975	43,950	

TABLE XLII.

DEMOGRAPHIC STATISTICS ON COUNTIES  
FOR EDUCATIONAL SERVICES PROGRAM

Counties	Total Population	% Change in Pop. 1960-1970	1970 Population		Total % Change Between 1960 & 70	
			Urban	Rural	Urban	Rural
Antrim	12,612	21.6	0	12,612	0	21.6
Benzie	3,593	9.7	0	8,593	0	9.7
Charlevoix	16,541	23.2	6,488	10,053	16.9	27.7
Clare	16,695	43.3	2,439	14,056	0	20.7
Emmet	18,331	15.3	6,342	11,989	3.3	22.8
Grand Traverse	39,175	17.0	18,048	21,127	-2.1	40.3
Gratiot	39,246	6.0	16,640	22,606	8.1	4.6
Ionia	45,848	6.3	15,299	30,549	2.2	8.5
Isabella	44,594	26.2	20,504	24,090	37.8	17.7
Kalkaska	5,272	20.3	0	5,272	0	20.3
Kent	411,044	13.2	342,261	68,783	15.6	2.4
Lake	5,561	6.1	0	5,661	0	6.1
Manistee	20,094	5.5	7,723	12,371	-7.2	15.4
Mason	22,612	3.1	9,021	13,591	-4.3	8.7
Mecosta	27,992	33.0	11,995	15,997	38.1	29.4
Missaukee	7,126	5.0	0	7,126	0	5.0
Montcalm	39,560	10.8	7,493	32,167	.7	13.0
Muskegon	157,426	5.0	108,733	48,693	8.2	-1.6
Newaygo	27,992	15.9	3,465	24,527	34.1	12.1

Table XIII (cont.)

Counties	Total Population	% Change in Pop. 1960-1979		1970 Population		Total % Change Between 1960 & 70	
		Urban	Rural	Urban	Rural	Urban	Rural
Oceana	17,984	8.7	0	17,984	0	0	8.7
Osceola	14,838	9.1	0	14,838	0	0	9.1
Ottawa	128,181	29.8	61,921	66,260	35.5	24.9	
Wexford	19,717	6.8	9,990	9,727	-1.2	16.4	



Table XIII (cont.)

<u>Counties</u>	<u>Manufacturing Occupation (%)</u>	<u>White Collar Occupation (%)</u>
Antrim	30.3	29.7
Benzie	20.3	32.9
Charlevoix	27.0	33.5
Clare	30.1	32.0
Emmet	13.2	42.0
Grand Traverse	19.0	43.2
Gratiot	31.4	34.4
Ionia	38.9	28.8
Isabella	19.1	37.2
Kalkaska	29.5	36.4
Kent	36.2	43.3
Lake	18.6	30.7
Manistee	37.0	33.0
Mason	29.4	31.8
Mecosta	21.3	40.1
Missaukee	18.8	27.7
Montcalm	38.1	29.5
Muskegon	48.8	36.1
Newaygo	35.5	32.7
Oceana	33.8	37.5
Osceola	30.8	26.0

Table XIII. (cont.)

<u>Counties</u>	<u>Manufacturing Occupation (%)</u>	<u>White Collar Occupation (%)</u>
Ottawa	42.5	33.9
Wexford	29.9	39.3

Table XIII (cont)

<u>Counties</u>	<u>% Education Completed High School</u>
Antrim	38.8
Benzie	39.4
Charlevoix	40.7
Clare	38.5
Emmet	43.2
Grand Traverse	43.1
Gratiot	40.2
Ionia	38.8
Isabella	41.6
Kalkaska	36.4
Kent	42.7
Lake	24.8
Manistee	37.0
Mason	40.3
Mecosta	41.2
Missaukee	30.7
Montcalm	40.0
Muskegon	36.3
Newaygo	34.4
Oceana	34.6

Table XIII (cont.)

<u>Counties</u>	<u>% Education Completed High School</u>
Osceola	36.5
Ottawa	36.3
Wexford	36.1

Table XIII (cont.)

<u>Counties</u>	<u>Average Family Income</u>	<u>Under \$3,000</u>	<u>Over \$10,000</u>
Antrim	\$ 4,002	34.2	6.5
Benzie	4,563	28.3	4.1
Charlevoix	4,502	27.1	6.3
Clare	4,400	33.7	4.7
Emmet	4,694	26.7	5.5
Grand Traverse	5,259	20.6	11.0
Gratiot	5,218	22.8	10.4
Ionia	5,091	21.9	8.9
Isabella	5,206	23.8	11.6
Kalkaska	3,876	35.5	2.6
Kent	6,329	12.9	16.5
Lake	3,158	44.0	3.1
Manistee	5,112	21.1	7.3
Mason	4,991	25.2	7.6
Mecosta	4,322	33.5	7.1
Missaukee	3,678	37.9	6.1
Montcalm	4,815	26.6	7.2
Muskegon	6,048	13.4	12.8
Newaygo	4,583	29.3	8.1
Oceana	4,841	27.5	7.2

**Table XIII (cont.)**

<u>Counties</u>	<u>Average Family Income</u>	<u>Under \$3,000</u>	<u>Over \$10,000</u>
Osceola	4,350	31.3	6.1
Ottawa	5,920	13.3	12.0
Wexford	4,865	24.9	7.8

Table XIII (cont.)

Counties	% Households by Cash Income - 12/3/71						Group Classifications
	A	B	C	D	E	F	
Antrim	27.6	17.5	27.6	12.1	9.8	5.4	A. 0 - \$ 3,000
Benzie	20.0	13.6	23.5	17.8	18.3	6.8	B. \$ 3,000 - \$ 5,000
Charlevoix	22.0	14.6	29.2	13.3	14.8	6.1	C. \$ 5,000 - \$ 8,000
Clare	29.9	15.7	23.2	13.6	14.0	3.6	D. \$ 8,000 - \$ 10,000
Emmet	23.3	13.7	25.5	16.3	16.2	5.0	E. \$ 10,000 - \$ 15,000
Grand Traverse	15.2	9.0	18.8	15.2	23.2	18.6	F. \$ 15,000 - over
Gratiot	18.8	12.1	24.3	16.0	18.2	10.6	
Ionla	17.3	12.0	25.7	15.2	19.5	10.3	
Isabella	18.9	12.6	23.0	15.3	18.5	11.7	
Kalkaska	27.3	17.7	26.3	12.4	13.9	2.4	
Kent	12.7	8.7	19.9	17.6	25.9	15.2	
Lake	38.3	17.4	23.1	9.1	9.2	2.9	
Manistee	16.3	10.3	23.0	18.4	22.3	12.4	
Mason	17.9	12.7	20.1	17.4	20.5	11.4	
Mecosta	26.5	15.3	23.2	13.6	14.7	6.7	
Missaukee	26.4	17.0	28.0	9.5	12.6	6.5	
Montcalm	21.2	13.7	25.2	15.6	16.4	7.9	
Muskegon	12.6	8.3	24.0	20.7	22.3	12.1	
Newaygo	24.3	13.6	24.3	14.7	15.7	7.4	
Oceana	27.6	12.4	20.0	12.9	19.0	8.1	

Table XIII (cont.)

Counties	% Households by Cash Income - 12/3/71					
	A	B	C	D	E	F
Osceola	25.1	14.4	27.1	13.8	14.0	5.6
Ottawa	11.4	8.2	23.4	20.4	24.5	12.1
Wexford	19.9	13.3	25.3	15.1	18.1	8.3

Bibliography

Sales Management, 8111 Publications, 1971, pps. D-58-62

Michigan Statistical Abstract, MSU, 1972, page 38.

County and City Data Book, pages 182 and 183



TABLE XIV

## NUMBER OF SCHOOLS IN MICHIGAN BY TYPE OF SCHOOL IN 1968

I. Type of School

Public Schools	
Elementary	3,362
Secondary	1,057
Non-Public Schools	
Elementary	763
Secondary	253
College	
Private Owned	36
Public Owned	51
Schools of Nursing	20

Source: Michigan Statistical Abstract, 1972, p. 117

## II. NUMBER OF SCHOOL DISTRICTS AND TEACHERS SALARIES AND PUPIL ENROLLMENT IN MICHIGAN

<u>Year</u>	<u>Number of Districts</u>	<u>Number of Teachers</u>	<u>Average Salary</u>	<u>Membership</u>
1952-53	4,532	42,528	\$ 3,919	1,175,031
1970-71	624	90,672	\$11,034	2,178,745

Source: Michigan Statistical Abstract, 1972 p. 138

## III. TOTAL SCHOOL ENROLLMENT BY COUNTY, BY LEVEL APRIL, 1970

	<u>Nursery School</u>	<u>Kinder-garten</u>	<u>Elementary</u>	<u>High School</u>	<u>College</u>
Antrim	36	275	2,250	1,079	96
Benzie	16	172	1,419	618	80
Charlavoix	---	287	3,211	1,187	195
Clare	33	343	2,839	1,369	193
Emmet	48	302	3,194	1,630	387
Grand Traverse	187	779	6,248	3,310	756
Gratiot	113	912	6,871	3,061	1,467
Ionia	120	1,002	8,037	3,871	486
Isabella	112	705	6,564	2,645	9,507
Kalkaska	---	133	820	406	16
Kent	1,897	8,069	74,597	33,862	14,428

Source: Michigan Statistical Abstract, 1972 Pp. 121 and 122

IV. SCHOOL SYSTEM ENROLLMENT, HIGH SCHOOL ENROLLMENT, ELEMENTARY ENROLLMENT, JUNIOR HIGH ENROLLMENT, AND POPULATION BY CITY IN COUNTY.

ANTRIM

Alba, Population 450

School System Enrollment 175  
Total Number of Teachers 8

	<u>Grades</u>	<u>Enrollment</u>	<u>Teachers</u>
Jr. - Sr. High School:	5-12	100	6
Elementary:	K- 4	75	2

Bellaire, Population: 897

School System Enrollment 600  
Total Number of Teachers 31

Jr. - Sr. High School:	250	16
Elementary:	350	15

Central Lake, Population 741

School System Enrollment 550  
Total Number of Teachers 31

Jr. - Sr. High School:	7-12	270	17
Elementary:	K- 6	280	14

Ellsworth, Population 362

School System Enrollment 325  
Total Number of Teachers 15

High School:	9-12	101	--
Jr. High School:	7- 8	54	8
Elementary:	K- 6	162	7

Elk Rapids, Population 1,249

School System Enrollment 1,249  
Total Number of Teachers 49

High School:	9-12	300	19
Jr. High School:	6- 8	260	13
Elementary:	K- 5	460	17

Mancelona, Population 1,255

School System Enrollment 1,001  
Total Number of Teachers 40

Jr. - Sr. High School	7-12	486	20
Elementary:	K- 6	515	20

BENZIE

	<u>Grades</u>	<u>Enrollment</u>	<u>Teachers</u>
<u>Benzonia</u> , Population 412			
School System Enrollment		1,740	
Total Number of Teachers		63	
High School:	8-12	597	25
Jr. High School:	6- 7	130	10
Elementary:	K- 5	931	28
<u>Frankfort</u> , Population 1,660			
School System Enrollment		905	
Total Number of Teachers		44	
High School:	8-12	330	17
Jr. High School:	3- 7	370	19
Elementary:	K- 2	220	8

CHARLEVOIX

<u>Boyne City</u> , Population 2,969			
School System Enrollment		2,797	
Total Number of Teachers		57	
High School:	7-12	690	30
Elementary:	K- 6	845	27
<u>Boyne Falls</u> , Population 347			
School System Enrollment		288	
Total Number of Teachers		15	
High School:	7-12	134	8
Elementary:	K- 6	176	7
<u>Charlevoix</u> , Population 3,519			
School System Enrollment		1,600	
Total Number of Teachers		77	
High School:	9-12	450	24
Jr. High School:	5- 8	530	26
Elementary:	K- 4	620	27
<u>East Jordan</u> , Population 2,041			
School System Enrollment		1,165	
Total Number of Teachers		51	
High School:	7-12	467	23
Elementary:	K- 6	698	28

Table XIV Con't.

		<u>CLARE</u>		
		<u>Grades</u>	<u>Enrollment</u>	<u>Teachers</u>
<u>Clare</u> , Population 2,639				
School System Enrollment	1,919			
Total Number of Teachers	76			
High School:		7-12	915	38
Elementary:		K- 6	994	38
<u>Farwell</u> , Population 777				
School System Enrollment	1,420			
Total Number of Teachers	56			
High School:		7-12	725	28
Elementary:		K- 6	600	28
<u>Harrison</u> , Population 1,460				
School System Enrollment	1,800			
Total Number of Teachers	68			
High School:		9-12	500	24
Jr. High School:		6- 8	390	15
Elementary:		K- 5	520	19
		K- 5	300	10
<u>EMMET</u>				
<u>Harbor Springs</u> , Population 1,662				
School System Enrollment	860			
Total Number of Teachers	35			
High School:		7-12	406	20
Elementary:		K- 6	407	15
<u>Pellston</u> , Population 469				
School System Enrollment	595			
Total Number of Teachers	30			
<u>Petoskey</u> , Population 6,342				
School System Enrollment	3,046			
Total Number of Teachers	62			
High School:		10-12		
Jr. High School:		7- 9		
Elementary (6)		K- 6	1,538	62
2 Colleges				
1 Catholic High School				

GRAND TRAVERSE

	<u>Grades</u>	<u>Enrollment</u>	<u>Teachers</u>
<u>Kingsly</u> , Population 632			
School System Enrollment		635	
Total Number of Teachers		31	
High School:	7-12	301	16
Elementary:	K- 6	634	15
<u>Traverse City</u> , Population 18,048			
School System Enrollment		9,120	
Total Number of Teachers		398	
High School:	10-12	1,826	80
Jr. High School:	7- 9	1,900	85
Elementary (13):	K- 6	4,576	225
2 Colleges			
1 Catholic High School			

GRATIOT

<u>Alma</u> , Population 9,790			
School System Enrollment		3,153	
Total Number of Teachers		----	
High School:	9-12	1,026	
Jr. High School:	6- 8	--	
Elementary: (5)			
2 Colleges			
1 Nursing School			

<u>Ashley</u> , Population 521			
School System Enrollment		521	
Total Number of Teachers		26	
High School:	9-12	135	15
Jr. High School:	7- 8	102	
Elementary:	K- 6	327	11

<u>Breckenridge</u> , Population 1,257			
School System Enrollment		1,550	
Total Number of Teachers		65	
High School:	7-12	650	28
Elementary:	3- 6	515	23
	2	140	6
	K- 1	245	8

Table XIV Con't.

		<u>GRATIOT</u>		
		<u>Grades</u>	<u>Enrollment</u>	<u>Teachers</u>
<u>Ithaca</u> , Population 2,749				
School System Enrollment	1,914			
Total Number of Teachers	82			
Jr. Sr. High School:		7-12	885	40
Elementary:		K- 6	538	23
		K- 6	491	19
<u>Middleton</u> , Population 560				
School System Enrollment	1,270			
Total Number of Teachers	108			
<u>St. Louis</u> , Population 4,101				
School System Enrollment	2,185			
Total Number of Teachers	87			
High School		9-12	660	28
Jr. High School		6- 8	464	17
Elementary: (4)		K- 5	1,061	42
<u>IONIA</u>				
<u>Belding</u> , Population 5,121				
School System Enrollment	2,603			
Number of Teachers Total	94			
High School:		9-12	765	33
Jr. High School:		7- 8	400	15
Elementary: (8)		K- 6	1,438	46
<u>Ionia</u> , Population 6,361				
School System Enrollment	3,977			
Total Number of Teachers	140			
High School:		9-12	1,250	51
Jr. High School:		7- 8	500	17
		7- 8	70	3
Elementary: (5)		K -6	1,432	69
<u>Lake Odessa</u> , Population 1,924				
School System Enrollment	3,100			
Total Number of Teachers	103			
High School:		9-12	900	38
Jr. High School:		6- 8	470	17
		7-8	200	11
Elementary:		K- 6	1,530	46

IONIA

	<u>Grades</u>	<u>Enrollment</u>	<u>Teachers</u>
<u>Pewamo</u> , Population 498			
School System Enrollment		815	
Total Number of Teachers			34
High School:	9-12	370	18
Jr. High School:	7- 8	180	6
Elementary:	1- 6	161	7
	K- 3	147	3

Portland, Population 3,817

School System Enrollment 1,999

Saranac, Population 1,225School System Enrollment 1,200  
Total Number of Teachers 54

High School:	7-12	530	27
Elementary:	4- 6	285	12
	K- 4	410	15

ISABELLAMt. Pleasant, Population 20,504School System Enrollment 4,626  
Total Number of Teachers 204

High School:	9-12	1,328	68
Jr. High School:	7- 8	778	36
Elementary: (7)	K- 6	2,520	100

Beal County School DistrictSchool System Enrollment 550  
Total Number of Teachers 25

High School:	7-12	333	18
Elementary:	K- 6	192	7

Shepherd, Population 1,416School System Enrollment 1,925  
Total Number of Teachers 78

High School:	9-12	540	
Jr. High School:	7- 8	300	38
Elementary:	K- 6	930	36
	1- 5	100	4

KALKASKA

	<u>Grades</u>	<u>Enrollment</u>	<u>Teachers</u>
<u>Kalkaska, Population 1,475</u>			
School System Enrollment		1,400	
Total Number of Teachers		46	
High School:	9-12	445	22
Elementary:	K- 5	404	14
	K- 6	186	10

KENTByron Center, Population 1,000

School System Enrollment 1,607  
Total Number of Teachers 42

High School:	7-12	500	22
Elementary:	K- 6	660	20

Caledonia, Population 716

School System Enrollment 2,177  
Total Number of Teachers 98

Cedar Springs, Population 1,807

School System Enrollment 2,150  
Total Number of Teachers 84

High School:	9-12	635	27
Jr. High School:	7- 8	340	14
Elementary:	K- 4	835	32
	5- 6	340	11

Comstock Park, Population 5,766

School System Enrollment 2,043  
Total Number of Teachers 90

Grand Rapids, Population 197,649

School System Enrollment 33,832  
Total Number of Teachers 1,906

High School (4):	9-12	6,974	318
Jr. High Schools (9):	7- 8	7,149	397
Elementary: (57)	K- 6	20,964	1,191



KENT

	<u>Grades</u>	<u>Enrollment</u>	<u>Teachers</u>
<b><u>East Grand Rapids Public Schools</u></b>			
School System Enrollment		3,763	
Total Number of Teachers		189	
High School:	9-12	1,300	67
Jr. High School:	7-8	644	38
Elementary (5):	K-6	1,819	84
<b><u>Forest Hills Public Schools</u></b>			
School System Enrollment		4,350	
Total Number of Teachers		184	
High School:	9-12	1,237	61
Jr. High School:	7-8	718	37
Elementary (6):	K-6	2,395	86
<b><u>Kalloggville Public Schools</u></b>			
School System Enrollment		2,606	
High School:			
Jr. High School:			
Elementary (5):			
<b><u>Kenos Public Schools</u></b>			
School System Enrollment		3,583	
High School:			
Jr. High School (2):			
Elementaries (4):			
<b><u>Kentwood Public Schools</u></b>			
School System Enrollment		6,004	
Total Number of Teachers		266	
High School:	9-12	1,529	69
Jr. High School:	6-8	686	27
	6-8	671	29
Elementary (7):	K-5	2,870	136
<b><u>Northview Public Schools</u></b>			
School System Enrollment		3,481	
Total Number of Teachers		134	
High School:	10-12	738	35
Jr. High School:	7-9	582	27
	6-8	736	29
Elementary (4):	K-4	1,160	43
<b><u>Grand Rapids</u></b>			
14 Colleges			
1 Junior College			
5 Catholic High Schools			

		<u>KENT</u>		
		<u>Grades</u>	<u>Enrollment</u>	<u>Teachers</u>
<u>Grandville</u> , Population 10,764				
School System Enrollment	4,500			
Total Number of Teachers	204			
High School:		9-12	1,400	70
Jr. High School:		7- 8	700	35
Elementary (9):		K- 6	2,292	99
<u>Kent City</u> , Population 686				
School System Enrollment	1,490			
Total Number of Teachers	107			
High School:		9-12	410	28
Jr. High School:		7- 8	230	9
Elementary:		K- 6	850	20
<u>Lowell</u> , Population 3,068				
School System Enrollment	2,894			
Total Number of Teachers	113			
High School:		9-12	804	34
Jr. High School:		7- 8	652	29
Elementary (4):		K- 6	1,254	50
<u>Rockford</u> , Population 2,428				
School System Enrollment	3,925			
Total Number of Teachers	157			
High School:		9-12	1,225	54
Jr. High School:		7- 8	635	30
Elementary (8):		K- 6	2,020	73
<u>Sparta</u> , Population 3,094				
School System Enrollment	2,980			
Total Number of Teachers	126			
High School:		9-12	875	42
Jr. High School:		5- 8	925	43
Elementary:		K- 4	1,180	41
<u>Wyoming</u> , Population 56,560				
School System Enrollment	7,862			
Total Number of Teachers	260			
High School (3):		10-12	1,639	100
Jr. High School (3):		7- 9	1,935	90
Elementary (4):		K- 6	1,889	70

		<u>KENT</u>		
		<u>Grades</u>	<u>Enrollment</u>	<u>Teachers</u>
<u>Godfrey Lee School District</u>				
School System Enrollment	1,407			
Total Number Of Teachers	70			
<u>Godwin Public Schools</u>				
School System Enrollment	3,059			
Total Number of Teachers	164			
High School:		9-12	927	48
Jr. High School:		7- 8	533	32
Elementary:		K- 6	786	36
		K- 6	429	24
		K- 6	434	24

Source: Patterson's American Education 1973, pp. 224-242

Name of towns and school systems enrollment obtained from this source.

Source: Michigan Educational Directory and Buyers Guide, 1970-71, pp. 120-228

All other information obtained from this source

Blank spaces indicate information not available.

School system enrollment and totals for each school will not gel because:

1. Data from different years
2. Parochial schools included in school system enrollment and not in the separate schools.

TABLE XV

## STATISTICS ON SCHOOL DISTRICTS IN 12 SELECTED MICHIGAN COUNTIES

## MUSKEGON COUNTY

Holton School System: City population (350), school system enrollment (1,040), 48 teachers.

S-Holton:	7-12	440 students
E-Holton:	K-6	600 students

Montague School System: City population (2,396), school system enrollment (1,950), 83 teachers.

S-Montague	9-12	585 students	25 teachers
J-Nellie B. Chisholm	6-8	500 students	20 teachers
E-Oehrli	K-5	530 students	21 teachers
Grant	K-5	245 students	12 teachers
Mouth	K-5	90 students	5 teachers
Catholic School: St. James	1-6	133 students	

Muskegon School System: City population (44,631), school system enrollment (10,142), 466 teachers.

S-Muskegon	10-12	1,965 students	94 teachers
J-Bunker	7-9	545 students	21 teachers
Nelson	7-9	590 students	24 teachers
Steele	7-9	1,116 students	49 teachers
E-Angeli	K-6	786 students	37 teachers
Bluffton	K-6	196 students	6 teachers
Bunker	K-6	653 students	27 teachers
Craig	K-6	261 students	15 teachers
Froebel	K-6	502 students	26 teachers
Glenside	K-6	447 students	19 teachers
Marquette	K-6	353 students	26 teachers
Marsh	K-6	126 students	5 teachers
McLaughlin	K-6	415 students	17 teachers
Moon	K-6	437 students	16 teachers
Nelson	3-6	272 students	20 teachers
Nims	K-6	434 students	18 teachers
Oakview	K-6	585 students	22 teachers
Phillips	K-6	403 students	19 teachers
Vanderlaan	Sp. Ed.	40 students	5 teachers
<b>Lutheran Schools:</b>			
Our Redeemer	K-8	126 students	
Trinity	K-8	110 students	
<b>Catholic Schools:</b>			
Catholic Central	9-12	930 students	
Our Lady of Grace	1-8	112 students	
St. Frances de Sales	1-8	470 students	
St. Jean	1-8	214 students	

Muskegon School System (cont.)

## Catholic Schools:

St. Mary	1-8	233 students
St. Michael	1-8	260 students

Muskegon P.O. Mona Shores School System: School system enrollment

(6,375), 276 teachers.

S-Mona Shores	10-12	1,467 students	67 teachers
J-N. Shores	7-9	895 students	42 teachers
S. Shores	7-9	630 students	30 teachers
E-Campbell	K-4	518 students	21 teachers
Churchill (H)	K-6	414 students	17 teachers
Churchill (P)	K-6	414 students	19 teachers
Hile	K-6	575 students	25 teachers
Lincoln	K-6	485 students	18 teachers
Lincoln Park	K-6	666 students	26 teachers
Maple Grove	4-6	293 students	13 teachers

Muskegon P.O. Oakridge Park School System: School system enrollment

(2,250), 99 teachers

S			
S-Oakridge	9-12	570 students	28 teachers
J-Oakridge	7-8	350 students	19 teachers
E-Bates	K-6	240 students	8 teachers
Can	K-5	580 students	25 teachers
Jibon	1-5	140 students	5 teachers
Wolf Lake	K-6	370 students	14 teachers

Muskegon P.O. Orchard View School System: School system enrollment

(3,586), 152 teachers.

S-Orchard View	9-12	943 students	41 teachers
Orchard View Sp. Ed.	9-12	200 students	15 teachers
J-Orchard View	6-8	839 students	35 teachers
E-Orchard View	K-5	655 students	23 teachers
Gustafson	K-5	370 students	14 teachers
Jolman	K-5	579 students	24 teachers

Muskegon Heights School System: Population of city (7,304), school system enrollment (4,121), 182 teachers. 1973 updated figures school system enrollment has dropped to 3,844

S-Muskegon Heights	9-12	1,040 students	49 teachers
J-Muskegon Heights	7-8	679 students	32 teachers
E-Central	1-6	304 students	16 teachers
Edgewood	1-6	187 students	6 teachers
Glendale	1-6	285 students	10 teachers
Martin Luther King Jr.	1-6	565 students	24 teachers
Charles A. Lindberg	1-6	455 students	21 teachers
E. Grace Loftis	1-6	302 students	12 teachers
Theodore Roosevelt	1-6	304 students	12 teachers

Muskegon Heights School System (cont.)

<b>Catholic Schools:</b>			
Sacred Heart	1-8	496 students	
<b>Lutheran Wisconsin Evangelical School:</b>			
Grace	K-8	177 students	
<b>Colleges Located in Muskegon County:</b>			
Midwest School of Technology			
Muskegon Business College		472 students	
Muskegon Community College		4,001 students	

North Muskegon School System: Population of city (4,243), school system enrollment (1,163) updated figure; 54 teachers (also updated figure).

S-North Muskegon	7-12	520 students	31 teachers
E-North Muskegon	K-6	500 students	23 teachers

North Muskegon P.O.: School system enrollment (4,254), 203 teachers

S-Reeths-Puffer	10-12	873 students	50 teachers
J-Laketon	7-9	1,039 students	49 teachers
E-Baker	2-3	61 students	3 teachers
Central	K-6	623 students	26 teachers
Giles	K-6	195 students	8 teachers
McMillan	KK-6	190 students	10 teachers
Pennsylvania	K-6	192 students	10 teachers
Reeths-Puffer	K-6	683 students	29 teachers
Twin Lake	K-6	398 students	18 teachers

Ravenna School System: Population of city (1,048), school system enrollment (1,483) updated figure; old figure (1,516); 63 teachers.

S-Ravenna	9-12	450 students	20 teachers
J-Ravenna	7-8	225 students	8 teachers
E-Ravenna	K-8	850 students	25 teachers
<b>Catholic School:</b>			
St. Catherine	1-8	156 students	

Whitehall School System: Population of city (3,017), school system enrollment (2,254), 85 teachers.

S-Whitehall	9-12	648 students	28 teachers
J-Whitehall	5-8	688 students	28 teachers
E-Whitehall	K-4	754 students	28 teachers

## OTTAWA COUNTY

Coopersville School System: Population of city (2,129), school system enrollment (2,400), 114 teachers

Coopersville School System c(cont.)

S-Coopersville	9-12	800 students	30 teachers
J-Coopersville	6-8	450 students	20 teachers
E-Coopersville	K-5	920 students	40 teachers
Lamont	1-3	75 students	3 teachers
Conklin	1-6	150 students	6 teachers
Eastmonville Trainable (Sp. Ed.)		15 students	

Hudsonville School System: Population of city (3,523), school system enrollment (2,222), 95 teachers.

S-Hudsonville	9-12	710 students	34 teachers
J-Hudsonville	7-8	304 students	15 teachers
E-Alward	K-6	710 students	7 teachers
Bauer	K-6	205 students	8 teachers
Forest Grove	K-6	175 students	7 teachers
Jamestown	K-6	185 students	7 teachers
Park	K-6	233 students	11 teachers
South	K-6	216 students	6 teachers

Holland School System: Population of city (26,337), school system enrollment (5,574), 301 teachers.

S-Holland	10-12	1,134 students	63 teachers
J-Fell	7-9	1,318 students	70 teachers
E-Apple Ave.	5-6	101 students	4 teachers
Federal	K-6	126 students	7 teachers
Harrington	K-6	288 students	12 teachers
Holland Hts.	K-4	184 students	8 teachers
Jefferson	K-6	300 students	17 teachers
Lakeview	K-6	328 students	12 teachers
Lincoln	K-6	303 students	13 teachers
Longfellow	K-6	402 students	14 teachers
Maplewood	K-6	201 students	9 teachers
Montello Park	K-6	171 students	8 teachers
Van Raalte	K-5	302 students	11 teachers
Washington	K-6	316 students	14 teachers

Catholic Schools

St. Augustine Seminary 9-12

St. Francis de Sales 1-6 198 students

Christian Schools: (Holland)

Holland Christian High 10-12 866 students

Holland Christian Jr. High 7-9 640 students

E-East View K-3 109 students

Maplewood K-6 379 students

Rose Park K-6 279 students

South Side K-5 313 students

West Side K-6 189 students

South Olive K-8 93 students

Colleges:

Hope 2,033 students

Western Theological Seminary 137 students

Table XV Con't.

Ottawa County (cont.)Holland P.O.

S-West Ottawa	10-12	894 students	48 teachers
J-West Ottawa	7-9	930 students	46 teachers
E-Beechwood	3-6	251 students	11 teachers
Glerum	K-6	275 students	11 teachers
N. Holland	K-6	195 students	7 teachers
Pine Creek	K-6	324 students	13 teachers
Woodside	K-6	384 students	13 teachers
Sheldon Woods	K-6	204 students	8 teachers
Waukazoo	4-6	253 students	9 teachers
		<u>4,060</u>	<u>178</u>

Grand Haven School System: Population of city (11,844), school system enrollment (6,161), 300 teachers.

S-Grand Haven	10-12	1,356 students	75 teachers
J-Grand Haven	7-9	1,489 students	75 teachers
E-Central	K-6	294 students	10 teachers
A.W. Elliott	K-3	97 students	5 teachers
Ferry	K-6	495 students	19 teachers
Jack & Jill	1-2	39 students	2 teachers
Griffin	K-6	197 students	7 teachers
Dick & Jane	Sp. Ed.	60 students	2 teachers
Ferrysburg	K-6	421 students	15 teachers
Little Black Lake	K-6	106 students	6 teachers
Mary A. White	K-6	352 students	13 teachers
Rosy Mound	1-6	173 students	6 teachers
Peach Plains	K-6	523 students	19 teachers
Bignell	K-2	138 students	5 teachers
Robinson	K-6	338 students	12 teachers
Agnew	3-6	47 students	2 teachers
Connell	K-2	37 students	2 teachers
Christian:	K-9	356 students	
Seventh Day Adventists		1-8	2 teachers
Lutheran School:			
St. John	K-8	114 students	

Jenlson School District: Population of city (11,266), school system enrollment (3,904), 154 teachers

S-Jenlson Jr.-Sr.	7-12	1,329 students	65 teachers
E-Bauerwood	K-6	288 students	10 teachers
Sandy Hill	K-6	573 students	21 teachers
Maplewood	K-6	374 students	13 teachers
Pinewood	K-6	402 students	13 teachers
Bursley	K-6	592 students	23 teachers



Ottawa County (cont.)

Spring Lake School System: Population of city (3,034), school system enrollment (2,461), 103 teachers.

S-Spring Lake	9-12	794 students	45 teachers
J-Spring Lake	7-8	397 students	16 teachers
E-Holmes	K-5	560 students	25 teachers
Jeffers	K-9	592 students	20 teachers
Nunica	K-5	175 students	9 teachers
Catholic School: St. Mary	1-8	213 students	

Zeeland School System: Population of city (4,734), school system enrollment (2,530), 109 students.

S-Zeeland	9-12	776 students	37 teachers
J-Zeeland	5-8	622 students	31 teachers
E-Lincoln	K-5	371 students	15 teachers
Roosevelt	K-4	303 students	11 teachers
New Groningen	K-5	275 students	9 teachers
Prenthe	K-2	79 students	3 teachers
Vriesland	3-5	75 students	3 teachers

## OSCEOLA COUNTY

Ewart School System: Population of City (1,707), school system enrollment (1,265), 54 teachers.

S-Ewart		604 students	29 teachers
E-Ewart		652 students	26 teachers

LeRoy School System: Population of city (248), school system enrollment (740), 50 teachers. Pine River area schools.

S-Pine River	7-12	519 students	25 teachers
E-LeRoy	K-6	226 students	9 teachers
Luther	K-6	188 students	8 teachers
Tustin	K-6	187 students	8 teachers

Marion School System: Population of city (891), school system enrollment (900), 40 teachers.

S-Marion	7-12	400 students	20 teachers
E-Marion	K-6	500 students	20 teachers

Reed City School System: Population of city (2,286), school system enrollment (2,035), 78 teachers

S-Reed City	9-12	539 students	27 teachers
J-Reed City	6-8	538 students	18 teachers

Reed City School System (cont.)

E-Reed City	K-5		28 teachers
Hersey	K-5	166 students	5 teachers
Lutheran School:			
Trinity	K-8	78 students	

## MONTCALM COUNTY

Carson City School System: Population of city (1,217), school system enrollment (1,916), 78 teachers.

S-Carson City-Crystal	7-12	859 students	38 teachers
E-Carson City-Crystal	K-7	581 students	21 teachers
Crystal	K-6	164 students	13 teachers
Hubbardston	K-6	164 students	6 teachers

Cedar Lake School System: Population of city (692), school system enrollment (unknown).

Intermediate and senior high school: Cedar Lake Academy 9-12 242 students  
E-Cedar Lake 1-8

Edmore School System: Population of city (1,149), school system enrollment (1,700), 68 teachers.

S-Montabella	9-12	455 students	17 teachers
J-Blanchard	7-8	247 students	10 teachers
E-Blanchard	K-5	277 students	17 teachers
Edmore 2nd. St.	K-3	280 students	9 teachers
Six Lakes	K-6	228 students	9 teachers
McBride	4-6	181 students	6 teachers

Greenville School System: Population of city (7,493), school system enrollment (3,630), 148 teachers

S-Greenville	9-12	1,095 students	50 teachers
J-Central	5-8	810 students	35 teachers
E-Baldwin	1-5	445 students	19 teachers
Cedar Crest	K-5	356 students	14 teachers
Walnut	1-5	349 students	15 teachers
Turk Lake	K-5	176 students	5 teachers
Churchill	K-	110 students	2 teachers
Lincoln Hts.	1-5	167 students	6 teachers
Satterlee	K	112 students	2 teachers
Catholic School: St. Charles	1-8	167 students	

Montcalm County (cont.)

Howard City School System: Population of city (1,060), school system enrollment (1,428), 61 teachers.

S-Tri-County	9-12	360 students	20 teachers
J-Tri-County	6-8	370 students	14 teachers
E-MacNaughton	K-5	460 students	16 teachers
Sand Lake	K-5	270 students	11 teachers

Stanton School System: Population of city (1,089), school system enrollment (1,976), 80 teachers.

S-Central Montcalm	9-12	554 students	27 teachers
J-Stanton	5-8	294 students	12 teachers
Sheridan	7-8	147 students	6 teachers
E-Stanton	K-5	483 students	13 teachers
Sheridan	K-6	488 students	22 teachers

Montcalm Community College has an enrollment of 769 students and located in the community of Sidney in Montcalm County.

## MANISTEE COUNTY

Bear Lake School System: Population of city (376), school system enrollment (450), 22 teachers.

Jr.-Sr. High School	7-12	180 students	9 teachers
E-Bear Lake	K-8	270 students	12 teachers

Brethern School System: Population of city (700), school system enrollment (739), 30 teachers.

Senior High School	7-12	311 students	16 teachers
E-Wellston	K-6	215 students	6 teachers
Kaleva	K-6	200 students	7 teachers

Manistee School System: Population of city (7,723), school system enrollment (2,553), 120 teachers.

S-Manistee	7-12	1,049 students	55 teachers
E-Jefferson	K-6	353 students	16 teachers
Kennedy	K-6	382 students	15 teachers
Lincoln	K-6	219 students	10 teachers
Madison	K-6	292 students	12 teachers
Washington	K-6	243 students	12 teachers

Catholic Schools:

S-Manistee Catholic	9-12	326 students	
J-Manistee Catholic	7-8	167 students	
E-Guardian Angel	1-6	170 students	
St. Joseph	1-6	248 students	

Lutheran School: Trinity K-8 102 students

Manistee County (cont.)

Onekama School System: Population of city (632), school system enrollment (805).

S-Onekama	805 Students
E-Onekama	
Arcadia	

## MECOSTA COUNTY

Big Rapids School System: Population of city (11,995), school system enrollment (2,500).

S-Big Rapids	9-12	865 students	43 teachers
J-Big Rapids	6-8	554 students	27 teachers
E-Brookside	1-5	230 students	8 teachers
Eastwood	K-5	235 students	7 teachers
Hillcrest	K-5	243 students	7 teachers
Catholic School			
St. Mary's	1-8	150 students	
Lutheran School			
St. Peter's	K-8	100 students	
Colleges			
Ferris State		8,439 students	

Morley School System: Population of city (481), school system enrollment (1,274).

S-Morley-Stanwood	7-12	554 students	17 teachers
E-Morley	K-6	362 students	13 teachers
Stanwood	K-6	341 students	12 teachers

Remus School System: Population of Remus (2,375) and population of Barryton (368), school system enrollment for Chippewa Hills School District (2,355).

S-Chippewa Hills	11-12	316 students	23 teachers
Chippewa Hills (Barryton)	grades 9-10	385 students	13 teachers
J-Chippewa Hills (Weidman)	6-8	226 students	13 teachers
Chippewa Hills (Mecosta)	6-8	227 students	11 teachers
E-Chippewa Hills (Barryton)	K-5	334 students	13 teachers
Chippewa Hills (Remus)	K-5	256 students	10 teachers
Chippewa Hills (Weidman)	K-5	246 students	11 teachers
Chippewa Hills (Mecosta)	K-5	187 students	8 teachers
Catholic Schools			
St. Michael's (Remus)	1-8	222 students	

## WEXFORD COUNTY

Cadillac School System: Population of city (9,990), school system enrollment (4, 000).

S-Cadillac	10-12	855	students	37	teachers
J-Cadillac	7-9	1,015	"	41	"
E-Cass	K-6	352	"	13	"
Kenwood	K-6	225	"	10	"
Cooley	K-6	332	"	11	"
Franklin	K-6	369	"	13	"
McKinley	K-6	256	"	10	"
Lincoln	K-6	411	"	14	"
Forest View	K-6	244	"	10	"

Buckley School System: Population of city (244), school system enrollment (308).

S-Buckley	9-12	100	students	9	teachers
J-Buckley	7-8	50	"		
E-Buckley	K-6	200	"	5	"

Mesick School System: Population of city (376), school system enrollment (700).

S-Mesick	Jr-Sr.	7-12			
E-Mesick		K-6			

## MASON COUNTY

Custer School System: Population of City (320), school system enrollment (666).

S-Mason County	7-12	280 students	13 teachers
E-Mason County	K- 6	340 "	12 "

Freesoil School System: Population of City (186), school system enrollment (240).

S-Freesoil	9-12	60 students	4 teachers
J-Freesoil	7- 8	40 "	1 "
E-Freesoil	K- 6	125 "	4 "

Ludington School System: Population of city (9,021), school system enrollment (3,550).

S-Ludington	9-12	1,084 students	59 teachers
J-Ludington	7- 8	523 "	28 "
E-Nordshouse	K- 2	99 "	4 "
S.Hamlin	2- 6	190 "	8 "
Lakeview	K- 6	385 "	15 "
Foster	K- 6	347 "	14 "
Franklin	K- 6	377 "	13 "
Pleasant View	K- 3	104 "	4 "
Summit	4- 6	76 "	3 "
Pere Marquette	K- 6	192 "	7 "

Scottville School System: Population of city (1,202), school system enrollment (1,756).

S-Mason County	9-12	494 students	22 teachers
J- Mason	6- 8	408 "	17 "
E-Scottville	K- 5	463 "	18 "
Riverton	K- 6	214 "	8 "
Victory	K- 5	177 "	7 "

Catholic Schools

Ludington Area Catholic grades 1-8 252 students

Colleges

West Shore Community College 323 students

## LAKE COUNTY

Baldwin School System: Population of city (612), school system enrollment (1,035).

S-Baldwin	9-12	270 students	16 teachers
J-Baldwin	7- 8	150 "	8 "
E-Baldwin	K- 6	388 "	15 "
Bitely	1- 3	49 "	2 "
Nelson	1- 3	81 "	4 "

## MISSAUKEE COUNTY

Lake City School System: Population of city (704), School system enrollment (906).

S-Lake City	400 students
E-Lake City	550 "

McBain School System: Population of city (520), school system enrollment (675).

S-McBain Rural	7-12	345 students	14 teachers
E-McBain Rural	K- 6	330 "	11 "

## NEWAYGO COUNTY

Fremont School System: Population of city (3,465), school system enrollment (2,800).

S-Fremont	10-12	735 students	45 teachers
J-Fremont	7- 9	610 "	30 "
E-Daisy Brook	1- 6	930 "	38 "
Pine Street	K- 5	275 "	11 "
Cedar Street	K- 5	275 "	11 "

Grant School System: Population of city (772), school system enrollment (1,750).

S-Grant	9-12	485 students	26 teachers
J-Grant	6- 8	418 "	22 "
E-Grant	3- 5	450 "	17 "
Grant Primary	K- 2	430 "	14 "

Newaygo School System: Population of city (1,381), school system enrollment (1,306).

S-Newaygo	9-12	370 students	16 teachers
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Newaygo School System Cont.

J-Newaygo	5-8	410 students	14 teachers
E-Vera Wilsie	K-4	480 "	18 "

White Cloud School System: Population of city (1,044), school system enrollment (1,239).

S-White Cloud	7-12		51 teachers
E-White Cloud	K-6		for both

Christian Schools

Fremont	K-9	397 students	
Grant	K-9	75 "	

## OCEANA COUNTY

Hart School System: Population of city (2,139), school system enrollment (1,126).

S-Hart	7-12	700 students	32 teachers
E-Spitler	K-3	350 "	15 "
Elementary	4-6	250 "	12 "

Hesperia School System: Population of city (877), school system enrollment (1,126).

S-Hesperia	7-12	512 students	27 teachers
E-Hesperia	K-6	614 "	26 "

Shelby School System: Population of city (1,703), school system enrollment (1,325).

S-Shelby	9-12	460 students	26 teachers
J-Shelby	7-8	165 "	5 "
E-Thomas Read	K-6	530 "	20 "
New Era	K-7	210 "	8 "

Walkerville School System: Population of city (319), school system enrollment (335).

S-Walkerville			16 teachers total for three
J-Walkerville			
E-Walkerville			



TABLE XV  
STATISTICS ON SCHOOL DISTRICTS IN 12 SELECTED MICHIGAN COUNTIES

EXPLANATION

S = senior high school

J = junior high school

E = elementary school

Population of city is the population of the city for which the school system was named after. For example: Scottville School System, the population given is for Scottville.

Population figures and school system figures were taken from Patterson's Higher Education.

The break down of schools and teachers in each was taken from Michigan Education Directory and Buyer's guide.

Colleges and their enrollments were taken from Higher Education: Education Directory.

Where figures were not given in this report they were not available.

Counties given in this report are: Lake, Manistee, Mason, Mecosta, Missaukee, Montcalm, Muskegon, Newaygo, Oceana, Osceola, Ottawa, and Wexford.

SOURCES OF INFORMATION

Michigan Education Directory and Buyer's guide 1970-71

Patterson's American Education 1972

Higher Education: Education Directory 1970-71

**APPENDIX B**

**SCHOOL OF BUSINESS**

**EDUCATIONAL SERVICES STRUCTURE AND POSITION DESCRIPTION**

**EXHIBIT II**

**JOB TITLE:** Program Coordinator  
**DEPARTMENT:** Educational Services Program  
**REPORTS TO:** Director, Educational Services Program  
**DATE:** February 14, 1973

**JOB SUMMARY**

On a partial release time from normal teaching responsibilities, develop and coordinate plans for Educational Services in the various business disciplines for business and industry, government, and/or education.

**DUTIES AND RESPONSIBILITIES**

1. Receive ideas or suggestions and develop into program plans which provide educational services to business and industry, government, and/or education.
2. Search out, contact, and/or visit organizations, meet with appropriate personnel, and tailor programs to satisfy their educational needs.
3. Locate faculty or administrative members willing and able to satisfy the business educational needs of the client, working with same when required in order to assist in developing programs to satisfy their needs.
4. Serve as an ex-officio member of the Educational Services Program Faculty Committee.
5. Act in the absence of the Administrative Coordinator when necessary.

**JOB TITLE:** Administrative Coordinator  
**DEPARTMENT:** Educational Services Program  
**REPORT TO:** Director, Educational Services Program  
**DATE:** February 14, 1973

#### JOB SUMMARY

As a part of the duties as Administrative Assistant to the Dean of the School of Business, provide all necessary administrative services for the implementation of the Educational Services Program.

#### DUTIES AND RESPONSIBILITIES

1. Handle processing of administrative details necessary for approval of Educational Services Program Activities.
2. Make necessary arrangements, such as for physical facilities, food service, etc., for Educational Services Program activities.
3. Assist Program Coordinator with developing and/or implementing educational services as feasible.
4. Initiate requisitions for disbursing of funds for Educational Services Program activities.
5. Serve as an ex-officio member of the Educational Services Program Faculty Committee.
6. Act in the absence of Program Coordinator when necessary.

**JOB TITLE:** Project Director  
**DEPARTMENT:** Educational Services Program  
**REPORT TO:** Program Coordinator and Administrative Coordinator, as appropriate  
**DATE:** February 14, 1973

#### JOB SUMMARY

Upon appointment by the Director of the Educational Services Program, directs and coordinates all activities for the effective planning and implementation of the specified project.

#### DUTIES AND RESPONSIBILITIES

1. Working with the Director, Program Coordinator, Administrative Coordinator, and/or Faculty Committee Chairperson, develop ideas for the specified project and initiate the Public Service Proposal Forms, as needed.
2. As the Planning Committee Chairperson, work with the Program Coordinator to select an appropriate planning committee and develop plans for the specified project.
3. Working with the Administrative Coordinator, identify and request the necessary and appropriate administrative arrangements for the implementation of the specified project.
4. Direct the implementation of all aspects of the specified projects.

**JOB TITLE:** Chairperson, Educational Services Program Faculty Committee  
**DEPARTMENT:** Educational Services Program  
**REPORT TO:** Dean, School of Business  
**DATE:** February 14, 1973

#### JOB SUMMARY

Lead the Educational Services Program Faculty Committee for the purpose of suggesting programs and services for the extension of educational assistance to business and industry, government and/or education.

#### DUTIES AND RESPONSIBILITIES

1. Work with the Educational Services Program Faculty Committee composed of one faculty representative of each department of the School of Business for the purpose of:
  - a. generating ideas or suggestions for possible services or programs for extending educational assistance to business and industry, government, or education
  - b. generating ideas or suggestions for faculty participation in Educational Services Program activities.
2. Serve as committee representative of that department of which he or she is a member.
3. Maintain the records and/or minutes of the meetings and programs of the committee.
4. Communicate ideas or suggestions generated to Program Coordinator and assists on a limited and as feasible basis with program development activities.

**JOB TITLE:** Committee Member, Educational Services Program Faculty Committee  
**DEPARTMENT:** Educational Services Program  
**REPORTS TO:** Chairperson, Educational Services Program Faculty Committee  
**DATE:** February 14, 1973

#### JOB SUMMARY

At the invitation of the Chairperson of the Educational Services Program Faculty Committee, meet to suggest business programs or services for possible dissemination to business and industry, government, and/or education.

#### DUTIES AND RESPONSIBILITIES

1. Convene at the request of the committee chairperson
2. Solicit, generate, propose and transmit to committee ideas or suggestions of the faculty or administration for possible business programs and/or services for assistance to business and industry, government, and education.
3. Solicit, generate, propose, and transmit to committee ideas or suggestions of the faculty and administration for rules and regulations governing the conditions upon which faculty or administration might expect to accept assignments in public speaking, consultation, seminar leadership, etc.

**JOB TITLE:** Co-editor  
**DEPARTMENT:** Educational Services Program  
**REPORT TO:** Director, Educational Services Program  
**DATE:** February 14, 1973

#### JOB SUMMARY

Edit materials prepared by faculty and administration for publication (as approved by the Director) by the Educational Services Program.

#### DUTIES AND RESPONSIBILITIES

1. Review and edit written materials of faculty and administration for approved publication by the Educational Services Program.
2. Provide editorial advice to faculty and administration in the developing of Educational Services Program activities which may eventually result in published material.
3. Prepare written materials for Educational Services Program activities as requested by the Director.



**JOB TITLE:** Administrative Secretary  
**DEPARTMENT:** Educational Services Program  
**REPORTS TO:** Director, Educational Services Program  
Administrative Coordinator and Program Coordinator  
**DATE:** February 14, 1973

#### JOB SUMMARY

Perform such secretarial duties as are necessary for the operation of the Educational Services Program.

#### DUTIES AND RESPONSIBILITIES

1. Provide the necessary typing, stenographic, and clerical services needed for the Educational Services Program activities.
2. Take, transcribe and transmit minutes of the Educational Services Program Faculty Committee meeting.
3. Set up and maintain files, records (including financial) and reports of the Educational Services Program.
4. Receive, direct to proper person, and/or reply to written or oral inquiries for assistance from the Educational Services Program.
5. Receive visitors, answer telephones, place telephone calls, schedule appointments, arrange travel accommodations, etc. for Educational Services Program activities.
6. Perform variety of secretarial duties such as checking and posting records, receiving and transmitting funds, completing reports and forms, dispatching mailings of Educational Service Program and similar announcements.
7. Serve also as secretary to the Administrative Assistant to the Dean, School of Business.

All departments have representation in the group and willingness to participate. Special areas are covered in all departments. Listed below are some of the specialties.

Accountancy

Problems  
Tax Planning  
Embezzlement  
Cost Accounting  
Statement Analysis

Administration

College Admissions  
Credit and Transfer Problems  
Ferris Programs

Data Processing

DP Education  
DP Systems  
DP Processing Concepts  
Mini-Computers  
Manufacturing Systems Design  
Computer Center Standards

Management

Business Law  
Paralegal Training  
Legal Aspects of Purchasing  
Investment Counselling  
Finance Advisory  
Management/Supervisory Training  
Union/Non-Union Relations  
Wage/Salary Administration  
Insurance Administration  
Management Systems  
Organizational Behavior  
Personnel Management  
Leadership  
Direction and Control Problems

Marketing and Advertising

Market Research  
Retailing  
Small Business Problems  
Teaching with Video Playback  
Sales Administration  
Retail Site Location  
Area Economic Research  
Purchasing

Office Administration

Communications  
Management by Objectives

Should we be approached with some area not specifically covered by the above subjects, we will probably approach individuals who may or may not be on the participatory list.

## APPENDIX C

SCHOOL OF EDUCATION  
CONTINUING EDUCATION SURVEY RESULTS**A. Career change programs:**

1. **Title:** Workshops and clinics  
**Type:** How to make a choice when planning to prepare for new jobs.  
**Population:** 5,000 in commuting range  
**Present resources:** Excellent  
**Needed resources:** Funds
  
2. **Title:** Clinics and conferences  
**Type:** Educational career guidance for intermediate aged people who may now be interested in personal career guidance. i.e.: teaching.  
**Population:** 20 - 100  
**Present resources:** Adequate staff  
**Needed resources:** Clinic and conference facilities.

**B. Continuing programs for certification, upgrading, and maintaining credentials:**

1. **Title:** Graduate education program  
**Type:** Classes  
**Population:** 500  
**Present resources:** Excellent  
**Needed resources:** Graduate credit
  
2. **Title:** Undergraduate vocational education programs for in-service teachers.  
**Type:** Classes and Clinics  
**Population:** 1,000  
**Present resources:** Excellent  
**Needed resources:** Funds

3. Title: Professional, vocational, and educational media.  
 Type: Institutes and clinics  
 Population: Open number  
 Present resources: Good to Excellent  
 Needed resources: Funds
4. Title: Contracts with local school districts  
 Type: Special studies  
 Population: 5 to 10 schools  
 Present resources: Excellent  
 Needed resources: Graduate courses
5. Title: Elementary and intermediate school programming  
 in tests and measurements.  
 Type: Classes  
 Population: 20 Students per term  
 Present resources: Excellent  
 Needed resources: A testing laboratory

C. Leisure time programs

1. Title: Teacher and Paraprofessional training for  
 recreational activities  
 Type: Institute and clinics  
 Population: Open number  
 Present resources: Excellent  
 Needed resources: Funds
2. Title: Recreational mathematics  
 Type: Adult Education Class  
 Population: Open number  
 Present resources: Adequate  
 Needed resources: None

3. Title: Readings in Education  
 Type: Seminar  
 Population: 10 - 15  
 Present resources: Staff  
 Needed resources: Library materials

D. New advances, procedures, techniques:

1. Title: Seminar: The Business Education Block. Media techniques for in-service and teachers.  
 Type: Workshops, institutes and clinics.  
 Population: 20  
 Present resources: Very limited  
 Needed resources: At least one professional. Facilities and supporting funds.
2. Title: Science curriculum updating  
 Type: Workshop  
 Population: 20  
 Present resources: Good  
 Needed resources: Supplies & equipment
3. Title: Regional Center for the Improvement of Instruction in Career Education  
 Type: Institute  
 Population: Limited workshop concept 200 - 500  
 Total concept 2000+ annual  
 Present resources: The biggest resource is Ferris' reputation already in Career Education  
 Needed resources: Greatest need is space especially adapted to the needs of such a Center.

E. Special courses:

1. Title: Instructional development for occupational curriculums

- Type: Institute and clinics  
 Population: 30  
 Present resources: Excellent  
 Needed resources: Funds for stipends and tuition
2. Title: Problems and Issues in American Education for School Board Members  
 Type: Seminar  
 Population: 10 - 20  
 Present resources: Adequate  
 Needed resources: Adequate
3. Title: The Western Michigan Public Health Departments  
 Type: Audiovisual Workshop  
 Population: 100  
 Present resources: Staff and resources are available  
 Needed resources: Extra AV equipment will be needed

**F. Other continuing education in the School of Education:**

1. Title: Northwestern Michigan Bus. Ed. Conf. Experimental programs to implement the 'Model for Career Development Teacher Education -- Secondary'  
 Type: Workshop  
 Population: 20  
 Present resources: Excellent  
 Needed resources: Funds
2. Title: Bureau of School Services  
 Type: Institute  
 Population: On contract  
 Present resources: Adequate staff  
 Needed resources: Staff added to center. Conference center and services needed.

APPENDIX D  
THE SCHOOL OF PHARMACY

A. Continuing Education Topics Available\*

1. Prostaglandins
2. Pathophysiology and Treatment of Diabetes Mellitus
3. Treatment of Congestive Heart Failure
4. Drug Management of Glaucoma
5. Treatment of Hypertension
6. Coronary Heart Disease
7. Drugs Used in the Treatment of Pain
8. Gout and Abnormalities of Uric Acid Metabolism
9. Fredrickson Classification of Hyperlipidemias
10. Diagnostic Enzymology
11. Vitamins
12. Alcoholism
13. References Useful in Pharmacy
14. The Pharmacist and Drug Interactions
15. Basic Mechanisms of Drug Interactions
16. A Survey of Drug Interactions
17. Introduction to Statistics
18. General Treatment of Dermatoses
19. The Endometrial Cycle and Hormone Control of Associated Disorders
20. Methods of Birth Control
21. Sulfonamides and Urinary Tract Anti-Infectives
22. Antihistamines
23. Antacids
24. Laxatives
25. Management of Accounts Receivable in the Community Pharmacy
26. Computers and Their Application in Community and Clinical Practice
27. How to do a Pharmacy Location Analysis
28. Communications: Word Magic to Successful Retailing
29. H.M.O.'s: Another Partner for Pharmacy?
30. Pharmacy Technicians: A Bundle of Mortal Sins?
31. Prepaid Prescription Programs: Considerations and Implications
32. Health Care Legislation Affecting Pharmacy
33. Antibiotics and Their Use.
34. Community Health Problems

35. The Wrong Drug--or Just the Wrong Dose?
36. Drug Distribution Systems
37. Unit Dose
38. I.V. Additives and Parenteral Therapy
39. Policy and Procedure Manuals
40. Simple Inventory Control and Records
41. Accreditation Standards Related to Pharmacy
42. Formulary - Pharmacy Therapeutic Committee
43. Controls and Documents for Prepackaging and Drug Distribution
44. Who needs a Nursing - Pharmacy Committee?
45. Basics of Patient Drug Histories
46. Patient Profiles - Any Value?
47. Going Home Medications - Do Patients Know How to Use Them?
48. Introduction to Biopharmaceutics
49. Pharmacokinetic Studies of Potential Drug Candidates
50. Comparative Bioavailability of Established Commercial Products.

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\*1-3 hours duration

**A. Short Courses to be offered**

1. Drugs Used in the Prevention and Treatment of Pain and Inflammation
2. Introduction to Nuclear Pharmacy
3. Biopharmaceutics and Physical Pharmacy
4. Unit Dose and I.V. Additives
5. Antibiotics
6. The Pathophysiology and Treatment of Dermatoses
7. The Pharmacist and Drug Interactions
8. The Pathophysiology and Treatment of Disorders of the G.I. Tract

**B. Correspondence course now available**

1. Diagnostic Biochemistry 15 participants

**C. Programs in the developmental stage**

1. A 20 hour course in pharmacology designed for nurses involved in the care of geriatric patients
2. A series of presentations in pathophysiology and therapy of disease states designed to upgrade pharmacy services in the Saginaw V.A. Hospital and in the surrounding area



TABLE I  
MICHIGAN PHARMACIST MANPOWER DATA

1. Pharmacists Registrations	
a. In Practice	5,640
b. Not In Practice	340
c. Out of State	160
2. Resident Pharmacists In Practice Per 100,000 Population	63.7
3. Total In Community Practice	4,845
a. Proprietor	1,876
b. Staff	2,969
4. Total In Hospital Pharmacy	581
5. Sex	
a. Female Pharmacists	581
b. Male Pharmacists	5,059
6. Age Distribution	
a. Under 30	1,314
b. 30-39	1,380
c. 40-49	1,128
d. 50-59	1,080
e. 60-64	372
f. Over 65	366

TABLE II

MEMBERSHIP STATISTICS FOR MICHIGAN  
LOCAL PHARMACEUTICAL ASSOCIATIONS

<u>ASSOCIATION</u>	<u>POTENTIAL</u>	<u>70-71 FINAL</u>	<u>71-72 FINAL</u>	<u>NUMERICAL INCREASE/ DECREASE</u>
Bay County Pharm. Assn.	82	57	62	+5
Branch County Assn. of Pharm.	22	20	18	-2
Calhoun County Pharm. Assn.	85	62	59	-3
Central Mich. Pharm. Assn.	58	28	31	+3
Downriver Pharmacists Assn.	165	109	112	+3
Genesee County Pharm. Assn.	274	224	188	-16
Greater Northwest Pharm. Assn.	170	117	123	+6
Ingham County Pharm. Assn.	164	106	103	-3
Ionia-Montcalm Pharm. Assn.	57	25	25	0
Jackson County Pharm. Assn.	71	48	52	+4
Kent County Pharm. Assn.	303	147	145	-2
Lenawee-Hillsdale Pharm. Assn.	54	33	30	-3
Macomb County Pharm. Assn.	262	163	166	+3
Metro. Detroit Pharm. Assn.	1036	479	511	+32
Monroe County Pharm. Assn.	36	22	22	0
Northeast Mich. Pharm. Assn.	75	35	37	+2
Northern Mich. Pharm. Assn.	69	36	36	0
Northwestern Mich. Pharm. Assn.	44	29	33	+4
Oakland County Pharm. Assn.	724	291	296	+5
Quad County Pharm. Assn.	42	22	29	+7
Saginaw County Pharm. Assn.	140	71	72	+1
St. Clair Co. Pharm. Assn.	70	38	35	-3
Southwestern Mich. Pharm. Assn.	179	113	114	+1
Thumb Area Pharm. Assn.	83	39	41	+2
Tri-County Pharm. Assn.	134	58	65	+7
Upper Peninsula Div., MSPA	148	97	99	+2
Washtenaw County Pharm. Soc.	168	116	121	+5
Western Mich. Pharm. Assn.	90	74	61	-13
Westshore Pharm. Assn.	49	35	40	+5

TABLE III

LOCAL PHARMACY ASSOCIATIONS POSSIBLY SERVED  
BY FERRIS STATE COLLEGE SCHOOL OF PHARMACY

	<u>71-72 Membership</u>	<u>Potential Membership</u>
Bay County Pharm. Assn.	62	82
Central Michigan Pharm. Assn.	31	58
Ionia-Moncalm Pharm. Assn.	25	57
Kent County Pharm. Assn.	145	303
North East Mich. Pharm. Assn.	37	55
Northern Mich. Pharm. Assn.	36	69
North Western Mich. Pharm. Assn.	33	44
Quad County Pharm. Assn.	29	42
Saginaw County Pharm. Assn.	72	140
Thumb Area Pharm. Assn.	41	83
Upper Peninsula Division. M.Ph.A.	99	148
Westshore Pharm. Assn.	40	49
<b>TOTALS</b>	<b>650</b>	<b>1,130</b>

TABLE IV  
STATES REQUIRING CONTINUING EDUCATION AS A  
REQUIREMENT FOR PHARMACY RELICENSURE

<u>States</u>	<u>Date of Introduction</u>
Florida	1967
Kansas	1967
Ohio	1971
California	1971
New Jersey	1972
Pennsylvania	1972

NOTE: Most programs require the earning of about 10 credits/year where  
1 credit = 1 hour of course attendance in an approved program.

TABLE V  
PHARMACISTS' NEEDS FOR CONTINUING EDUCATION

- A. Nature of Disease States
  - B. *Medicinal Chemistry*
  - C. Pharmacology
  - D. Clinical Aspects of Practice
  - E. Drug Interactions
- Retail and Hospital Management

APPENDIX E

SECTION I

LEISURE TIME PROGRAMS

Suggested Title	Teaching Format	Population Estimate #Students/Year		Can the program be offered with present facilities and staff?	What facilities and staff would be required to offer the program?
		Immediate	Future		
Photography	Classroom - Workshop	30	30	No	Equipment and Instructor
Fly casting	Laboratory	----	----	Yes	Existing
Boat safety certificate	Workshop	----	----	Yes	Existing
Gun safety clinic	Workshop	----	----	Yes	Existing
Basic fly fishing	Workshop or seminar	15	30	Yes	Ferris gym - field trips
Boating safety	Workshop or seminar	30	100	Yes	Classrooms, field trips
Auto Maintenance	Workshop or seminar	30	30	Yes	Auto lab
Boating	Laboratory	30	100	Yes	-----

SECTION I continued  
LEISURE TIME PROGRAMS

Suggested Title	Teaching Format	Population Estimate #Students/Year		Can the program be offered with present facilities and staff?	What facilities and staff would be required to offer the program?
		Immediate	Future		
Nature, History, geology and geography of area	Laboratory	30	100	Yes	Assistance of faculty from the school
Home Remodling	Workshop	15	---	No	Need additional part-time staff and facilities
Amateur Gunsmithing	Workshop	15	---	Yes	Woodshop and part-time instructor
Machine Shop for the hobbyist	Classroom - Laboratory	15	---	Yes	Present Facilities
Home Maintenance and small appliance repair	Classroom - Laboratory	15	---	Yes	Present Facilities

SECTION I continued  
LEISURE TIME PROGRAMS

Suggested Title	Teaching Format	Population Estimate #Students/Year		Can the program be offered with present facilities and staff?	What facilities and staff would be required to offer the program?
		Immediate	Future		
Skeet and Trap shooting	Workshop	15-30	100	No	Skeet and trap range. Special staff qualifications
Boating and Sailing	Classroom - Field Trips	15	15-30	No	Instructor and suitable water
Archery	Laboratory	15	---	Yes	Present Facilities
Auto Mechanics for owners	Classroom - laboratory	15-30	---	Yes	Present Facilities
Finishing materials and methods	Classroom - laboratory	15	---	No	Special laboratory requirement to meet fire and ventilation requirements
Amateur Radio Citizens Band	Classroom - laboratory	15	---	Yes	Present Facilities
Auto Body (Mini-repairs)	Classroom - laboratory	15	---	Yes	Present Facilities



SECTION I continued  
LEISURE TIME PROGRAMS

Suggested Title	Teaching Format	Population Estimate #Students/Year		Can the program be offered with present facilities and staff?	What facilities and staff would be required to offer the program?
		Immediate	Future		
Home Electrical Maintenance	Classroom - laboratory	15-30	15-30	Yes	Present Facilities
Golf Instruction	Workshop or seminar	15-30	100	Yes	Present Facilities
Recreational Vehicle Maintenance	Classroom - laboratory	15-30	---	Yes	Present Facilities
Ham Radio Operator	Classroom	---	---	Yes	Present Facilities
Electronics Hobby	Classroom - laboratory	15-30	---	Yes	Present Facilities
Motorcycle Servicing	Classroom - laboratory	15	---	Yes	Present Facilities
Woodworking for the beginner	Classroom - laboratory	15-30	---	No	Woodworking Shop

SECTION I continued  
LEISURE TIME PROGRAMS

Suggested Title	Teaching Format	Population Estimate #Students/Year		Can the program be offered with present facilities and staff?	What facilities and staff would be required to offer the program?
		Immediate	Future		
Leather Craft	Classroom - laboratory	15	---	Yes	Present Facilities
Plastics for the Hobbyist	Classroom - laboratory	15	---	Yes	Present Facilities
Amateur Radio Citizens band	Workshop	15	---	No	Additional Equip- ment. Part-time staff

SECTION II  
CAREER CHANGE PROGRAMS

Suggested Title	Teaching Format	Population Estimates #Students/Year		Can the program be offered with present facilities and staff?	What facilities and staff would be required to offer the program?
		Immediate	Future		
B.S. Degree Construction	Classroom - laboratory	---	---	No	-----
Radio - T.V. or General Electronics	Classroom - laboratory	15	---	No	Additional staff needed
Fundamental of semi-conductor	Classroom - laboratory	15	---	Yes	Present Facilities
Basic computer training	Classroom - laboratory	15-30	---	Yes	Present Facilities
Basic Salesmanship	Classroom or seminar	15-30	100	Yes	Present Facilities
Truck driving school	Classroom - laboratory	15-30	---	No	Additional staff and equipment
Recreational vehicle maintenance	Classroom - laboratory	15	---	No	Additional staff and equipment

SECTION II continued

CAREER CHANGE PROGRAMS

Suggested Title	Teaching Format	Population Estimate #Students/Year		Can the program be offered with present facilities and staff?	What facilities and staff would be required to offer the program?
		Immediate	Future		
Basic Shop Skills	Classroom - Laboratory	---	---	No	Laboratory facilities
Parts - Counter Man training	Institute	15-30	100	No	Faculty Equipment Supplies and Facility
Basic Welding	Workshop Classroom - Laboratory	15	15	Yes	-----

SECTION III

CONTINUING PROFESSIONAL EDUCATION PROGRAMS

Suggested Title	Teaching Format	Population Estimate #Students/Year		Can the program be offered with present facilities and staff?	What facilities and staff would be required to offer the program?
		Immediate	Future		
Masters degree in Vocational (3) Education	Classroom - Workshop	15-30	---	No	Additional faculty
Auto Body repair	Workshop seminar	15-30	100	No	Laboratory facilities
Reinforced fiberglass repairs	Classroom - laboratory	15-30	100	No	Laboratory facilities
B.S. Degree Land Surveyor	Classroom Laboratory Seminar Institute Workshop	15-30	15-30	Yes	Present facilities
B.S. Degree Land Surveyor	Classroom Laboratory Seminar Workshop	15-30	15-30	No	Off Campus facilities

SECTION III continued

CONTINUING PROFESSIONAL EDUCATION PROGRAMS

Suggested title	Teaching Format	Population Estimate #Students/Year		Can the program be offered with present facilities and staff?	What facilities and staff would be required to offer the program?
		Immediate	Future		
Control Surveying	Classroom	15	---	Yes	Present Facilities
Web offset	Workshop seminar	30	30	Yes	Existing
Process Camera	Workshop seminar	30	30	Yes	Existing
Stripping and Platemaking	Workshop seminar	30	30	Yes	Existing
Library Skills	Workshop	15	15	Yes	-----

## SECTION IV

STANDARD CREDIT COURSES FOR SPECIAL PURPOSES

Suggested Title	Teaching Format	Population Estimate #Students/Year		Can the program be offered with present facilities and staff?	What facilities and staff would be required to offer the program?
		Immediate	Future		
Art in Industry	Classroom - Laboratory	30	---	Yes	-----
Technical Sketching (for trade-related drafting, arch. comm. art, Gen. Ed. art.)	Classroom - Laboratory seminar	15	---	---	-----
General Welding	Laboratory	15	30	Facilities--Yes Staff--No	Need additional part-time staff
General Chemistry	Classroom	30	30	Yes	-----
Performance Objectives	Classroom	30	30	Yes	Staff and classroom

SECTION IV. continued  
STANDARD CREDIT COURSES FOR SPECIAL PURPOSES

Suggested Title	Teaching Format	Population Estimate #Students/Year		Can the program be offered with present facilities and staff?	What facilities and staff would be required to offer the program?
		Immediate	Future		
Blueprint reading (for off campus industries.)	Classroom, Laboratory Other	100	100	Yes	State car and facilities for off campus offerings.
Electronics for High School or Junior High School teachers	Classroom - Laboratory	15	---	No	Need additional staff
Mass transit problems	Seminar	15-30	100	No	Special resource people would be required.



SECTION V

NEW ADVANCES, PROCEDURES OR TECHNIQUES

Suggested Title	Teaching Format	Population Estimate #Students/Year		Can the program be offered with present facilities and staff?	What facilities and staff would be required to offer the program?
		Immediate	Future		
Photocomposition	Workshop seminar	30	30	No	Need equipment (\$50,000 units)
New trends and techniques in Cosmetology	Classroom Workshop	15	15	---	-----
Industrial Technology	Workshop Conference	---	100	---	-----
New Construction	Seminar	15	---	No	Need additional staff and facilities
Quick service mechanic (Auto)	Classroom laboratory	15-30	100	No	Separate facilities and faculty
Rotary Engine	Workshop	15-30	100	No	Special resource people and equipment



SECTION V continued  
NEW ADVANCES, PROCEDURES OR TECHNIQUES

Suggested Title	Teaching Format	Population Estimate #Students/Year		Can the program be offered with present facilities and staff?	What facilities and staff would be required to offer the program?
		Immediate	Future		
Emmission Control device Clinics	Classroom	over 100	over 100	No	Off campus facilities needed
Telephone Training	Classroom Laboratory	to 100	over 100	No	Special resource people and equipment
Automotive trim application	Classroom Laboratory	15-30	to 100	No	Additional staff and Laboratory space needed

**SECTION VI**  
**OTHER CONTINUING EDUCATION**

Suggested Title	Teaching Format	Population Estimate #Students/Year		Can the program be offered with present facilities and staff?	What facilities and staff would be required to offer the program?
		Immediate	Future		
Heavy Equipment Operation	Laboratory	to 100	100 & over	No	Would require additional staff, equipment and training area
General Welding	Classroom Laboratory	15-30	15-30	Yes	Present Facilities
Diesel Engine Maintenance and Trouble Shooting	Classroom - Laboratory	15	15	Yes	Present Facilities
Tooling Seminar	Seminar	----	30	----	-----
Manufacturing Seminar	Seminar	----	30	----	-----

SECTION VI continued  
OTHER CONTINUING EDUCATION

Suggested Title	Teaching Format	Population Estimate #Students/Year		Can the program be offered with present facilities and staff?	What facilities and staff would be required to offer the program?
		Immediate	Future		
Commercial Photography	Classroom - Laboratory	30	100	No	Darkroom & studio- photo instructor with a commercial photographic back- ground - service in field
Technical Illustration for Commercial Artists	Classroom - Laboratory	30	100	Yes	Studio & Instructor
Production Art for the Technical Illustrator	Classroom - Laboratory	30	100	Yes	Studio & Instructor
Auto Shop for Women	Workshop	100	100	Yes?	-----
Welding of Thermal Plastics	Workshop	30	---	---	-----