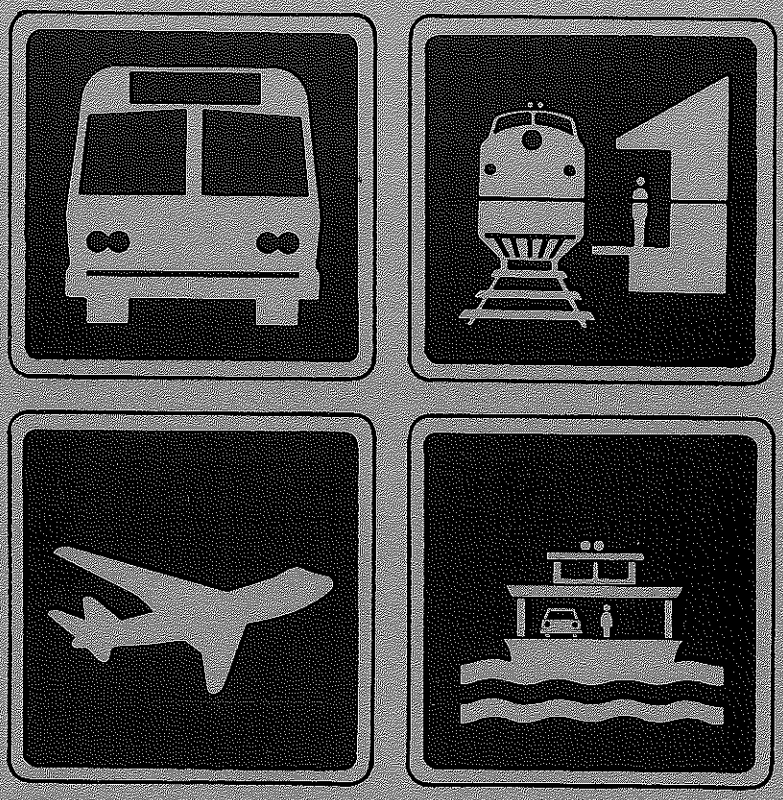
PUBLIC TRANSPORTATION
IN MICHIGAN

MICHIGAN UNIVERSITY/ COLLEGE STUDENT HOME LOCATION STUDY

SEPTEMBER, 1986



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16. Abstract

The purpose of this study is to identify potential intercity bus routes which will improve weekend trip service to and from Michigan's universities and colleges. Twenty-six universities and colleges are analyzed in the study, including the 6 largest schools in the state, with 15,000 or more students. All schools included have at least 1,000 students. This was found to be the minimum student population required to provide some assurance of successful intercity bus service.

Schools are classified into different categories of potential for new or improved intercity bus service: strong potential, moderate potential, and limited potential. These categories are based on the number of students residing in the major urbanized areas of the state who attend the same university or college. The information can be used by intercity bus carriers and the Michigan Department of Transportation to determine where new or improved special service may be feasible.

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OF

TRANSPORTATION

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MICHIGAN UNIVERSITY/COLLEGE STUDENT HOME LOCATION STUDY

September, 1986

Bureau of Transportation Planning
Intercity Transportation Planning Division
Passenger Transportation Planning Section
Surface Systems Unit

Acknowledgments

This document was prepared by the staff of the Bureau of Transportation Planning, Passenger Transportation Planning Section. Major staff contributors were Robert L. Kuehne and Douglas C. Hollandsworth of the Surface Systems Unit.

Kathy A. Hundt and Janis K. Becker of the Surface Systems Unit developed a master key equating zip codes to existing zones on the Michigan map so student residences could be plotted. Mary Ann Barrett and Jeaniva Baker of the Passenger Transportation Planning Section assisted in various ways in the preparation of the final document. Joanne B. Gierman of the Data Base Management Section updated the data base incorporating the zip code information. William R. Sanford, Jr., of the Transportation Planning Procedures Section and Michael F. Guthrie of the Scientific Systems Development Section developed the programs and processes for generating the student home location maps.

The cooperation and assistance of the two- and four-year universities and colleges in Michigan made this study possible and is deeply appreciated.

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EXECUTIVE SUMMARY

Deregulation of Michigan's intercity bus industry created many opportunities. Regulations affecting the establishment of new companies, the revision of existing service, and the implementation of new service were substantially reduced. In this relaxed regulatory environment it is important to realize significant trends and opportunities in the marketplace. This permits quick establishment of needed and beneficial transportation services. One area that has traditionally had high ridership and revenue potential for the intercity bus industry has been the college student weekend home trip market.

The purpose of this University/College Student Home Location Study is to determine where potential exists for new or improved intercity bus service for weekend trips. Candidate universities/colleges in Michigan were limited to those with 1984 fall enrollments of 1,000 or more. This information can be utilized by intercity bus carriers and the Michigan Department of Transportation to determine where new or improved special service may be feasible.

Twenty-six universities/colleges are included in the study. These schools represent 90% of the enrolled student population in Michigan at the time of the study. Student home location information was provided by each school. This information was analyzed to determine concentrations of student home residences, and possible travel patterns from the residence areas to the

school. The routes were then classified into three categories, strong potential, moderate potential, and limited potential. These are based upon student home location concentrations, number of students enrolled, and availability of existing weekend service that meets the needs of the students.

The following schools were found to have strong potential for some variety of new or improved weekend service...

1. Adrian College. Weekend service to the Detroit Metropolitan Area, with connections at the University of Michigan, Ann Arbor and at Eastern Michigan University in Ypsilanti.

2. Central Michigan University. Several routes are possible from Mount Pleasant to: 1) Grand Rapids, 2) Battle Creek and Kalamazoo, perhaps via an extension of existing service to Lansing or Grand Rapids, and 3) extension of service from Detroit to Port Huron.

3. Ferris State College. Several routes have potential. One is an express from Big Rapids to Kalamazoo and Battle Creek via Grand Rapids. Currently, layovers in Grand Rapids make travel to Kalamazoo and Battle Creek tedious. This route could be scheduled to connect with the bus arriving in Grand Rapids from Central Michigan providing service connections for both schools. A second is service from Big Rapids to Midland, Bay City, Saginaw, Flint, and possibly Port Huron. A third is a direct route from Big Rapids to the Detroit Metropolitan Area. Current routes head south from Jackson to Toledo, omitting Ann Arbor, Ypsilanti, and Detroit.

4. Hillsdale College. Service to the Detroit Metropolitan Area, particularly Oakland County; and to Toledo.

Moderate potential conditions were determined for 12 schools and one combination of schools: Albion College, Aquinas College, Calvin College, Eastern Michigan University, Grand Rapids Area Schools (a combined service to five schools in the Grand Rapids

to Chicago corridor), Grand Rapids Baptist College and Seminary, Hope College, Kalamazoo College, Michigan State University, Northern Michigan University, University of Michigan, Wayne State University, and Western Michigan University. Schools in the moderate category are generally candidates for routes that serve more than one location.

The remaining 10 schools have limited potential for new or additional special weekend service for a variety of reasons. A school was rated as having limited potential if there was significant existing service meeting student weekend home travel needs, the student distribution pattern was extremely scattered or extremely concentrated (less than 100 students residing in an area), or there was an excessive time/distance (over 180 minutes/150 miles) between the school and the student home location concentration.

The validity of these service potential groupings will be ascertained as intercity bus carriers establish service to the schools. If the groupings are accurate, routes to the schools with strong and moderate potential should be successful.

A user's guide is included to provide direction in using and interpreting the data presented in the previous sections of the study. The guide, written in non-technical language, provides a suggested methodology for using the study findings to establish new or improved service to Michigan college students.

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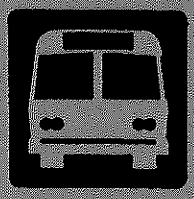


I. INTRODUCTION

IA. REASON FOR STUDY

The purpose of this University/College Student Home Location Study is to determine where potential exists for new or improved intercity bus service for weekend home trips to four-year universities/colleges in Michigan with 1984 enrollments of 1,000 or more. This potential is based on the number of students residing in a similar geographical area attending the same university or college located within a given distance from the students' home residences. The propensity of students to make weekend trips home by intercity bus has been estimated using the results from a 1977 and a 1985 user/ticket study of the Michigan intercity bus system (1) and has been taken into account by limiting the type of school (2) included in the study (four year schools with 1,000 or more students). The two user/ticket studies indicated that schools in these categories were most likely to have a large number of students who utilized intercity bus services for weekend home trips.

Many of the suggested potential routes overlap. The total picture should be considered when determining possible new routes; each recommendation should be viewed in light of how it might complement existing service or how it could serve other communities along the route. It is not necessarily true that new service will be needed for each of the potential routes listed. In some instances, only a time change or route deviation for the weekend run of regularly scheduled service will be required.

The deregulation of the intercity bus industry in 1982 created a new operating environment for Michigan's intercity bus system. Route expansion into new areas and the formation of new bus companies can now be accomplished much more easily and quickly than was previously possible. A large body of bus companies looking for new service opportunities has developed.

Because of the high ridership levels of existing special university/college service, and the transportation benefits to the students involved, special weekend service for university/college students is a likely area for successful route expansion by intercity bus carriers. The Michigan Department of Transportation may be in a position to provide limited funding on a temporary basis for the start-up, trial operation of this type of bus service, if the service indeed looks feasible. This study provides information to the Urban and Public Transportation Division (UPTRAN) of the Department for use in determining the possible success of specific new or improved routes serving weekend home trips by college students. The study also assists intercity bus carriers throughout the state in identifying new routes in which service can be provided, either with or without state assistance.

IB. UNIVERSITIES AND COLLEGES INCLUDED IN THE STUDY

Twenty-six schools (3) are included in this report (see **Appendix A**). These schools represent four-year institutions with enrollment levels of 1,000 or more (according to the 1984 figures reported to the Michigan Department of Education) which provided

the student residence information requested for this study. Initially, information was requested from all two- and four-year schools in the state. A preliminary review of the data from these schools indicated that, in general, the student population of two-year schools or schools with less than 1,000 students is either commuter oriented or too small for successful intercity bus service.

Twelve schools met the above criteria but either did not, or could not, provide the student residence information. Some of the schools chose not to participate because they felt that the majority of their students were commuters and would not benefit from the study. Others were unable to easily provide a distribution of student home locations.

IC. SERVICE CRITERIA

Successful intercity bus service is defined in this report to be a bus route that can be expected to regularly carry at least 25 persons. This is somewhere in the range generally considered the minimum number of riders needed to recover the costs of operating a standard size intercity bus which seats 47 persons. With a minimum enrollment of 1,000 students, only about 2.5 percent of the total student population need use the special service in order to make it successful.

Additionally, only counties with 100 or more student residents attending the same school are considered. Because of the larger number of student residents in these counties, it is more likely

that the minimum number of riders will be available to make weekend service successful.

ID. SCHOOL CHARACTERISTICS

Some general characteristics for the schools included in the study are...

- All are four-year universities or colleges with 1984 enrollments of 1,000 or more students according to figures provided by the Michigan Department of Education (see **Appendix B**).

- Nearly 85% (23) of the schools are located in the southern one-half of Michigan's Lower Peninsula (as defined by an imaginary line drawn from Muskegon to Bay City). This corresponds to the population concentrations in the state as 85% of the population also resides in the southern one-half of the Lower Peninsula according to the 1980 Census (see Figures 1 and 2).

- Fifteen (58%) of the 26 schools are located near the least one of the state's 15 urbanized areas. However, the 15 schools are not evenly distributed among the urbanized areas (all of which are located in the southern one-half of the Lower Peninsula).

- Slightly more than one-half (15 or 58%) of the schools are public (state affiliated).

- Most (84%) of the schools have easy, close access to an interstate expressway. Each school has access to either an interstate expressway or a state trunk line highway.

- Of all the students enrolled in four-year institutions in Michigan during 1984, 90% are included in this study.

- Most of the communities where the schools are located have at least one regularly scheduled daily intercity bus round-trip: two (8%) school communi ties have no service; 10 (38%) school communities have at least one, but less than five daily round trips; seven (27%) school communities have 5-10 daily round trips; and seven (27%) school communities have more than 10 daily round trips.

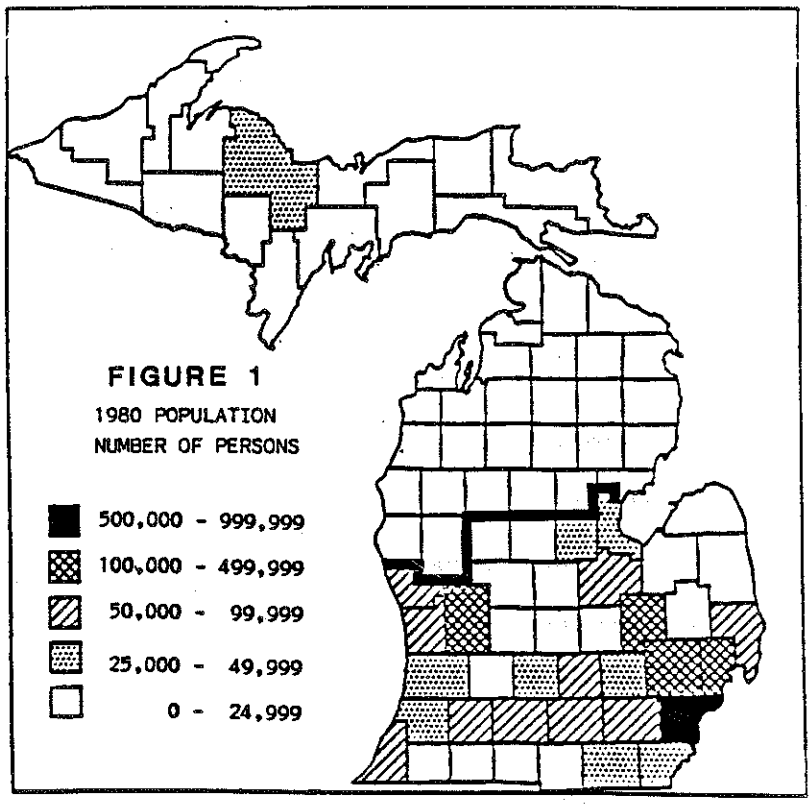


FIGURE 1
1980 POPULATION
NUMBER OF PERSONS
500,000 - 999,999
100,000 - 499,999
50,000 - 99,999
25,000 - 49,999
0 - 24,999

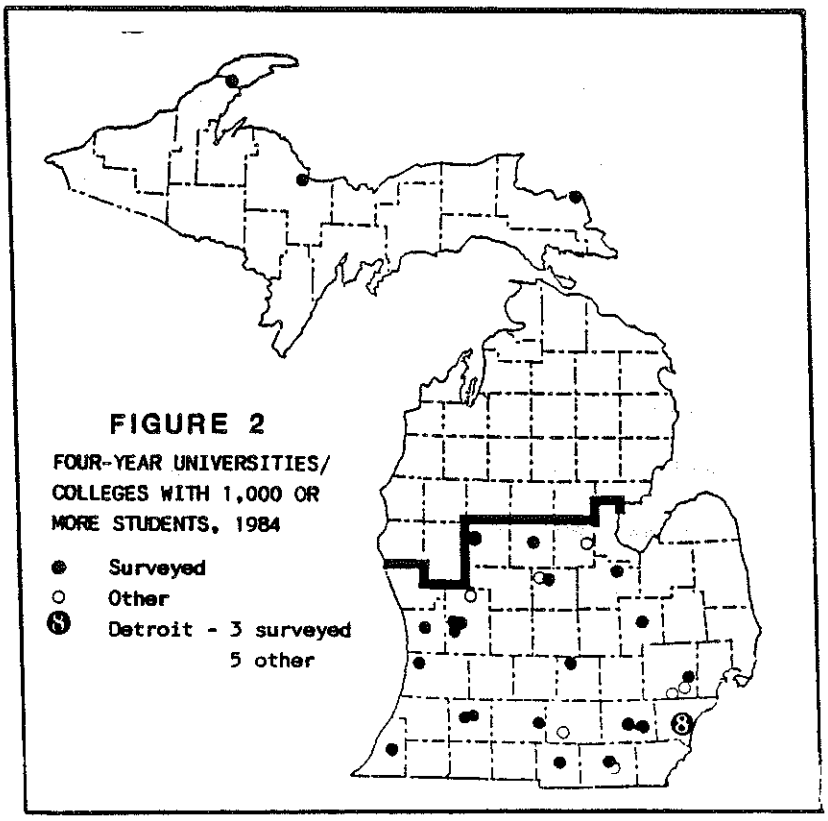


FIGURE 2
FOUR-YEAR UNIVERSITIES/
COLLEGES WITH 1,000 OR
MORE STUDENTS, 1984
Surveyed
Other
8
Detroit - 3 surveyed
5 other

IE. EXISTING INTERCITY BUS SERVICE

A map showing existing regular-route intercity bus service throughout the State of Michigan as of June, 1986, is provided (see **Appendix F**). This map is helpful in determining existing intercity bus service patterns to Michigan university/college communities. Note that the existence of regular-route service does not necessarily indicate that weekend student travel needs are adequately accommodated. Departure and arrival times may be awkward (early morning or late night), indirect routing, or difficult access to the bus terminal from the campus are some of the problems that can cause existing service to be inadequate.

IF. REPORT CONTENT

Part II, Study Methodology describes the procedure used to conduct the survey including efforts to obtain data, screening methods used to assure the data was accurate, the selection criteria for identifying the schools included in this report, and data processing procedures utilized to prepare the data for analysis.

Part III, Individual School Analysis portrays the results of the survey for each of the 26 schools by summarizing enrollment and residence information, describing the existing level of weekend intercity bus service, and discussing the feasibility of establishing new weekend service where existing levels appear to be inadequate or nonexistent. Graphics display the concentration of student residences by county, time distances from various zones in the state to the schools, and the shortest state trunk line

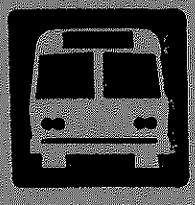
highway route from the students' home location to the school campus.

Part IV, Findings and Limitations summarizes the various potential service needs determined in Part III in terms of high potential, moderate potential, and limited potential and discusses limitations inherent to the study.

The **Appendices** contains detailed tables, school listings, maps, and other information that is helpful in evaluating the topics covered in the report.

PART II

STUDY METHODOLGY



II. STUDY METHODOLOGY

IIA. INITIAL CONTACT

Initial contact was made to each two- and four-year university and college in Michigan by letter to the Registrar's Office. The intent and purpose of the study was described. Each school was asked to provide home residence information by class and zip code for their 1984 Fall Term enrolled student population.

IIB. RESPONSE SCREENING

Data received from the various schools was reviewed to assure that it was in a usable form. This included comparing enrollment figures to those reported by the Michigan Department of Education and assessing the logic of general patterns portrayed by the data. Any inconsistencies or omissions were discussed by telephone with the individual providing the information. In most instances this was the school registrar.

Analysis of the data for two-year schools during this screening process indicated that...

1. Student residence patterns were highly concentrated in the general area of the schools, or,
2. Students residing outside of the general area of the school were widely distributed in a scattered pattern not easily served by intercity bus.

These assumptions were supported by discussions with the registrar's office of some of the schools that did not return student residence information. Most two-year schools are generally commuter in nature, a fact recognized by the institutions.

Screening of the data for four-year schools with less than 1,000 students indicated similar results. Although the four-year schools were often less commuter oriented, their student home location distribution was generally either localized in a tight cluster, or greatly dispersed. Neither condition supports special intercity bus service.

This process indicated some filtering criteria needed to be developed to determine which schools would most likely benefit from the study. Two criteria, or filters, were established. Only schools which could meet both criteria were included in the final analysis. The two criteria were...

1. The school must have 1,000 or more students enrolled.
2. The school must be a four-year institution.

These rules were followed rigorously, using 1984 enrollment data provided by the Michigan Department of Education, and classification information from the 1984 Higher Education Directory. Some schools were excluded by a fine margin. Two schools that met the enrollment criteria in 1983, but not in 1984, were included (see **Appendix B**).

The results of the study tend to support the legitimacy of these two criteria. Schools that were included with lower enrollments, including the two exceptions, tend to be less likely candidates for special intercity bus service unless combined with service to other schools. Consideration for combination service with the excluded schools, while not a part of this report, might be a

successful venture for intercity bus companies wishing to serve these schools.

IIC. FOLLOW-UP CONTACTS

After screening data and establishing criteria, renewed efforts were made to contact those four-year schools with 1,000 or more students who had not yet provided home location information. Some schools indicated that retrieval of the information was impossible. In one instance an on-site visit was necessary to manually compile the data. Eventually data was collected for all schools with 5,000 or more enrolled students, and as many schools as possible with enrollments between 5,000 and 1,000. Although several schools are excluded, the data collected includes nearly 90% of all students enrolled in Michigan four-year universities/colleges having a 1984 Fall Term enrollment of 1,000 or more.

No additional efforts were made to obtain information from schools not responding to the original request if they did not meet the two filtering criteria. Information provided by schools which did respond but not meeting the criterion was not included in the analysis of this report. However, maps showing student home location concentrations were developed for these schools and will be provided to them. Their cooperation and assistance in providing the data is appreciated.

IID. DATA PROCESSING

The 26 schools provided a substantial amount of information that needed to be processed in order to analyze patterns and develop conclusions. All student home data had been requested by zip code. A new program was written to match each student's home zip code with 1 of the 2,300 zones that Michigan has been divided into for analysis purposes. Out-of-state and provincial zip codes/postal codes were matched with special state/provincial codes. Information for students living outside of the United States and Canada was excluded. It is unlikely that such students would be utilizing intercity bus services for weekend home trips because of either the nature or distance of the trip.

Most of the information was provided in a standard format that could be directly entered into the computer. Some data needed to be rewritten into a consistent format for accurate entry into the data base. Rewriting was done by hand on standard coding forms. The information was transferred from these sheets and from the printouts provided by the schools into the data base. Results of the entered data were manually checked for accuracy. Selected parts of the final data base were compared with the original data sheets as a secondary check.

IIE. GRAPHICS

After the data was entered into the computer, the new "zip-to-zone" program was run which generated a data base that permitted creation of maps indicating the distribution and concentration of student home locations. Three maps were generated for each school; a state map portraying 547 geographical areas, or zones;

a regional map showing Michigan with the surrounding states and province (4); and a trunk line assignment map.

IIF. PRELIMINARY ANALYSIS

In an effort to provide a product for use by the intercity bus companies in time for the Fall 1985 school season and to obtain input on the report, a preliminary analysis was prepared in July 1985. The preliminary report contained an analysis for Michigan's six four-year universities with enrollments of 15,000 or more. It was distributed to major intercity bus carriers, both regular-route and charter, serving the state.

The carriers were encouraged to comment on the report and suggest style changes in addition to using the information for determining possible new route locations. One comment was received. The carrier suggested that the data in the state map be presented by county rather than by the 547 zones, to make it easier to distinguish information in unfamiliar areas. This suggestion was incorporated into this report; state maps are presented by county where possible.

Another result of the preliminary report was the interest of one intercity bus carrier in establishing new weekend service to three of the six universities. Difficulty in obtaining student addresses from the schools for direct marketing has delayed institution of service to these schools.

PART III
INDIVIDUAL SCHOOL ANALYSIS

III. INDIVIDUAL SCHOOL ANALYSIS

IIIA. INTRODUCTION

An analysis of the 26 schools included in this study is presented in this section. Three items are reviewed for each school: 1) student distribution patterns, 2) existing service accommodating student distribution patterns, and 3) potential service communities and corridors. Each of these areas is described in detail below.

IIIB. STUDENT DISTRIBUTION PATTERNS

Student distribution patterns are described using two different characteristics. These are time/distance distribution from the school to the students' home (called proximity analysis), and Student Home Location Concentrations (SHLC).

The proximity analysis section includes the location of each school, the total enrolled student population for the study period, and the percent of students living within 60, 90, 120, 180, and 181+ minutes of the school. All students with similar times are grouped together to obtain the total percentage for each distance category.

The percentages in these groups are cumulative except for the 181+ minute group. Students reported in the 60 minute group are included in the 90 minute group, students from both groups are included in the 120 minute group, and students in the 60 minute, 90 minute, and 120 minute group are included in the 180 minute

group. The 181+ group contains all students not listed in the previous groups. Care should be taken not to double-count students from previous percentiles when using this information.

These groupings highlight the time, and therefore distance, students live from their school. This is important, because too great a distance would be impractical for regular weekend home trips. In this study, a three-hour, 180 minute (approximately equivalent to 150 miles assuming an overall average speed of 50 mph) trip is used as the maximum time/distance factor a student could live from their home in order to make regular weekend home travel feasible. There are, of course, some students who will and do travel farther than this selected distance, but this study assumes that a majority of students would not make this extended trip on a regular basis. Areas farther than 180 minutes from the schools are considered to have limited potential for special weekend home service.

The distance is shown by a proximity analysis map which identifies the distance, in time, from 547 zones in the state to each school. Analysis of the proximity maps shows that less than five percent of the students included in this study reside over 180 minutes from their school. Seventeen (65%) of the 26 schools have less than 10% of their students who live over 180 minutes. All schools except one have less than 50% of their students in this category (see Table 1). This supports the use of a three hour time distance limitation for weekend home travel since a majority of the students included live within this range.

TABLE 1

Percent and Number of Students By Time Band, 1984 Enrollment

University/College	% Students 0-60 MIN	# Students 0-60 MIN	% Students 0-90 MIN	# Students 0-90 MIN	% Students 0-120 MIN	# Students 0-120 MIN	% Students 0-180 MIN	# Students 0-180 MIN	% Students 181+ MIN 1/	# Students 181+ MIN 1/	Total Students
Adrian	26.9	328	46.2	564	98.1	1,197	100.0	1,220	0.0	0	1,220
Albion	17.6	276	27.5	431	71.4	1,120	93.4	1,465	6.6	104	1,569
Alma	31.8	323	40.9	416	45.5	462	100.0	1,016	0.0	0	1,016
Andrews	95.5	2,897	95.5	2,897	97.7	2,964	97.7	2,964	2.3	70	3,034
Aquinas	82.1	2,324	83.6	2,367	83.6	2,367	89.6	2,537	10.4	294	2,831
Calvin	74.0	2,940	77.6	3,083	79.4	3,155	82.5	3,278	17.5	695	3,973
Central Michigan	21.2	3,579	33.9	5,723	42.7	7,209	90.5	15,278	9.5	1,604	16,882
Eastern Michigan	91.2	17,520	94.9	18,230	99.2	19,056	99.6	19,133	0.4	77	19,210
Ferris State	23.6	2,487	34.4	3,626	43.9	4,627	64.1	6,756	35.9	3,784	10,540
Gd. Rapids Baptist	79.5	756	81.8	778	81.8	778	86.4	822	13.6	129	951
Gd. Valley State	80.9	5,787	85.3	6,102	89.0	6,366	94.6	6,767	5.4	386	7,153
Hillsdale	21.6	223	21.6	223	23.5	243	94.1	971	5.9	61	1,032
Hope	61.8	1,576	70.0	1,785	71.5	1,823	76.4	1,948	23.6	602	2,550
Kalamazoo	32.7	362	38.8	429	44.9	497	84.7	937	15.3	169	1,106
Lake Superior	41.0	1,141	44.4	1,236	51.7	1,439	63.5	1,767	36.5	1,016	2,783
Mercy	96.0	2,366	97.0	2,391	98.5	2,428	100.0	2,465	0.0	0	2,465
Michigan State	32.5	13,713	65.0	27,425	89.6	37,805	95.1	40,126	4.9	2,067	42,193
Michigan Tech.	21.7	1,505	22.8	1,581	24.2	1,678	30.9	2,143	69.1	4,792	6,935
Northern Michigan	56.4	4,413	58.9	4,608	68.0	5,320	78.7	6,157	21.3	1,667	7,824
Oakland	97.6	11,684	99.5	11,911	99.9	11,959	100.0	11,971	0.0	0	11,971
Saginaw Valley St.	0.0	0	0.0	0	50.0	230	100.0	460	0.0	0	4,833 2/
Michigan	59.3	10,524	79.2	14,056	84.1	14,925	94.8	16,824	5.2	923	34,467 3/
Michigan, Dearborn	100.0	6,321	100.0	6,321	100.0	6,321	100.0	6,321	0.0	0	6,321
Michigan, Flint	98.7	5,523	100.0	5,596	100.0	5,596	100.0	5,596	0.0	0	5,596
Wayne State	99.0	28,779	99.8	29,012	99.9	29,041	100.0	29,070	0.0	0	29,070
Western Michigan	49.4	9,995	65.7	13,293	72.2	14,608	92.9	18,796	7.1	1,437	20,233

Notes: 1/ These figures are not cumulative. They do not include students in the 0-180 MIN group.

2/ Proximity data is based on 460 on-campus dormitory students, and does not equal this total.

3/ Out-of-state students, except for Chicago and Toledo, are not included. Proximity data is based on a total of 17,747 students: all in-state students and students residing in Chicago and Toledo.

Source: MDOT, Bureau of Transportation Planning, Passenger Transportation Planning Section.

The Student Home Location Concentrations (SHLC) describe where significant concentrations of students reside. A "significant concentration of students" is defined as 100 or more students whose home residence is in the same urbanized county and who attend the same school.

Non-urbanized counties and other states/provinces with more than 100 student residences are noted, but urbanized areas are stressed because of their natural potential for special intercity bus service. They have 1) a greater population, 2) a higher population density, 3) more existing intercity bus service and facilities, and 4) a majority of the students and schools are located in or near urbanized areas. This information is shown by a Michigan map, identifying each of the 83 counties in the state and indicating the number of students residing in each county by an incremental scale pattern.

IIIC. EXISTING SERVICE ACCOMMODATING STUDENT DISTRIBUTION PATTERNS

This section compares the SHLC with existing bus routes and scheduled times indicating existing service that could accommodate student weekend home travel. Existing service information was derived from the March, 1986 issue of Russell's Official National Motor Coach Guide (see **Appendix F**). This guide is the official publication of intercity bus lines for the United States and Canada and includes most current intercity bus routes.Fluctuations in scheduled routes do occur. The information contained in this section is subject to change, although the general pat-

terns for the communities involved in this report are expected to remain fairly stable.

IIID. POTENTIAL SERVICE COMMUNITIES AND CORRIDORS

This section highlights possible student home travel patterns, as identified by the proximity analysis and SHLC, which do not have existing regular or special weekend service to meet the needs of student home travel. An area that has a high SHLC, but has limited, oddly scheduled, or no service to the school from the area would be identified here. This information is shown for each school using a state trunk line highway assignment plot.

This plot indicates, using band-widths, the total number of students traveling to a school from each home location. These plots represent the most optimistic situation since it is unlikely that all students will be traveling at the same time. The routes shown are the least-time trunk line routes from the home location to the school and are cumulative. This graphic provides an opportunity to determine where new intercity bus patterns might best be established since both direction and student volume are shown. Table 2, summarizing these findings for all of the schools, is included in **Part IV, Findings and Limitations.**

IIIE. INDIVIDUAL SCHOOL ANALYSIS

The individual summary for each school is presented on the following pages. These summaries utilize the tools described above to identify student distribution patterns, existing service accommodating student distribution patterns, and potential ser-

vice communities and corridors for new service. The individual school summaries are combined for a comprehensive view in **Part IV, Findings and Limitations.**

ADRIAN COLLEGE

Student Distribution Patterns

1. Approximately 27% of the 1,220 students attending Adrian College reside within 60 minutes of the campus in Adrian, 46% within 90 minutes, 98% within 120 minutes, and 100% within 180 minutes.

2. Student Home Location Concentrations (SHLC) are found in 1 of the 15 urbanized areas in the State of Michigan; the Detroit Metropolitan Area. There are also high concentrations of students residing in the Lenawee County and the State of Ohio.

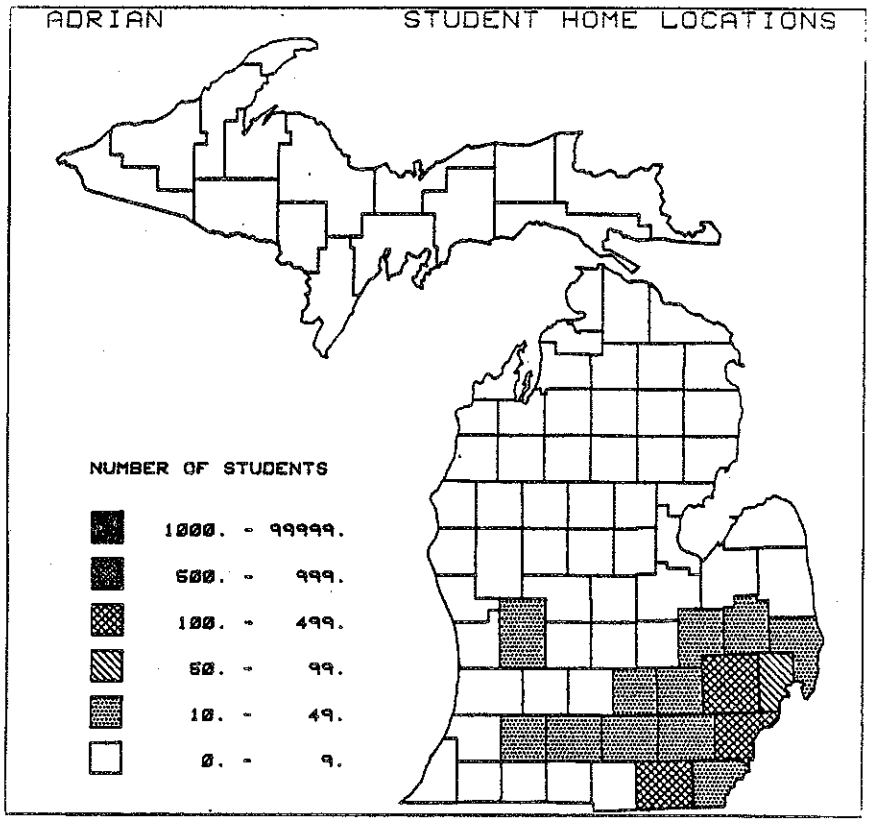
Existing Service Accommodating Student Distribution Patterns

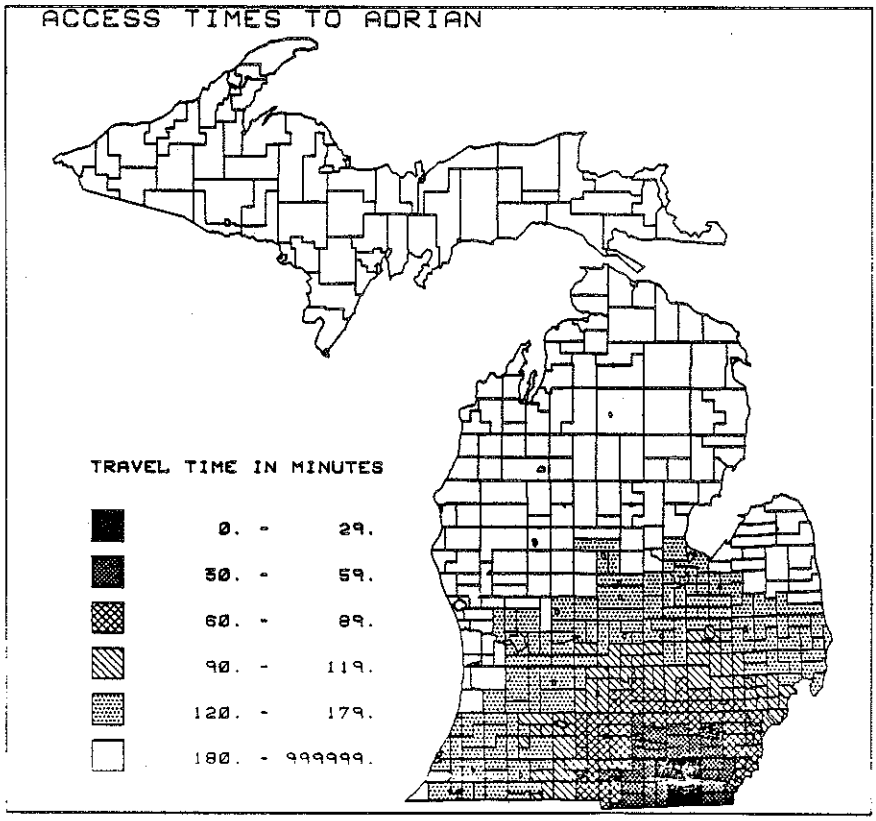
3. Existing service provides connections on the US-223/US-23 corridor to Toledo and on the US-223/US-127 corridor to Jackson.

4. No direct service is available to the Detroit Metropolitan Area.

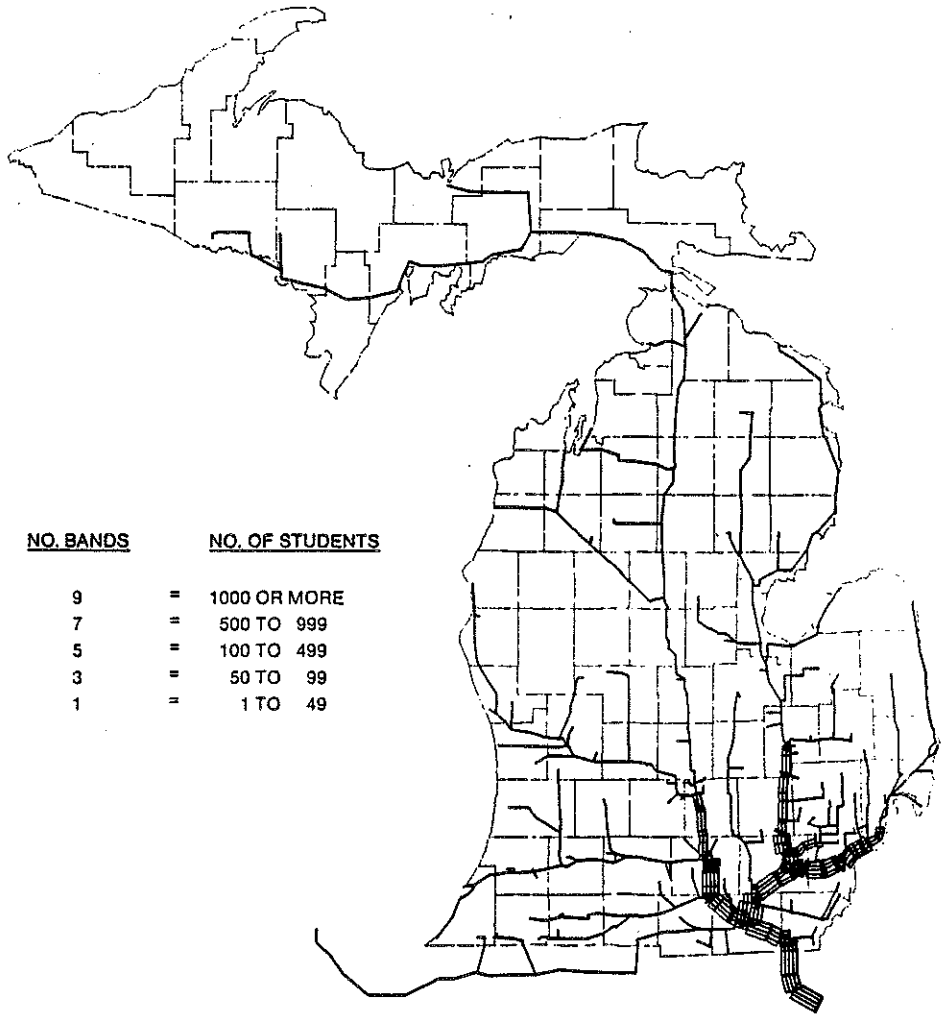
Potential Service Communities and Corridors

5. There is the potential for service from Adrian to the Detroit Metropolitan Area, especially in the counties of Wayne and Oakland. A route that also makes stops at the University of Michigan in Ann Arbor and Eastern Michigan University in Ypsilanti may be possible, increasing the potential ridership pool.


ADRIAN
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


ACCESS TIMES TO ADRIAN
TRAVEL TIME IN MINUTES
0. - 29.
30. - 59.
60. - 89.
90. - 119.
120. - 179.
180. - 999999.

SIMULATED STUDENT TRAVEL PATTERNS FOR ADRIAN



NO. BANDS		NO. OF STUDENTS
9	=	1000 OR MORE
7	=	500 TO 999
5	=	100 TO 499
3	=	50 TO 99
1	=	1 TO 49

ALBION COLLEGE

Student Distribution Patterns

1. Approximately 18% of the 1,569 students attending Albion College reside within 60 minutes of the campus in Albion, 28% within 90 minutes, 72% within 120 minutes, and 93% within 180 minutes.

2. Student Home Location Concentrations (SHLC) are found in 2 of the 15 urbanized areas in the State of Michigan; Battle Creek, and the Detroit Metropolitan Area.

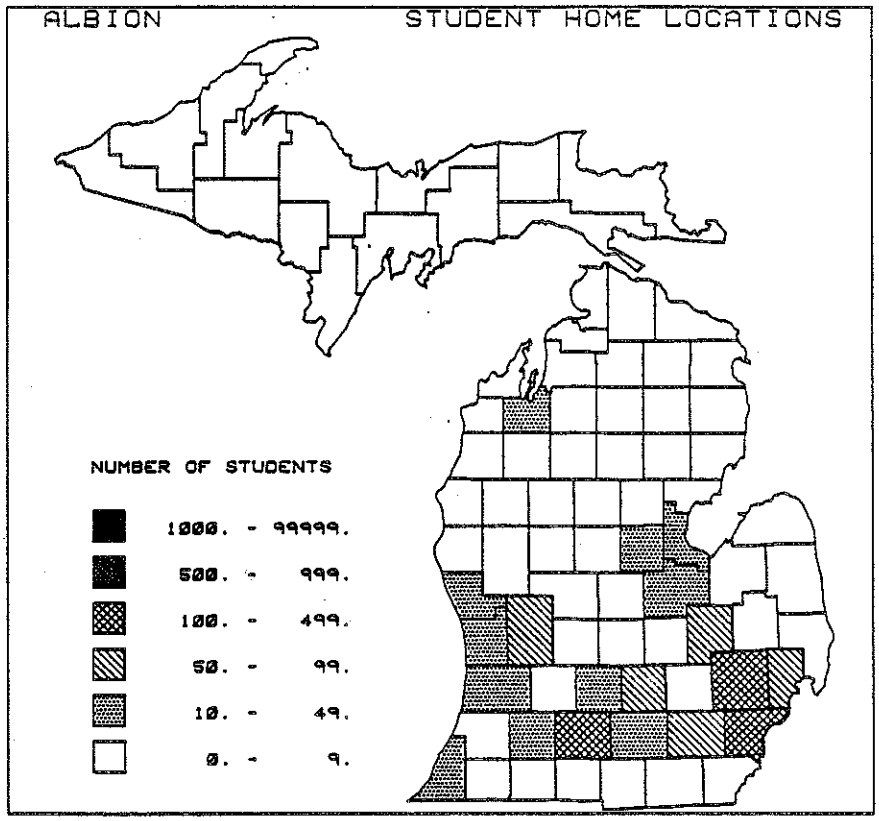
Existing Service Accommodating Student Distribution Patterns

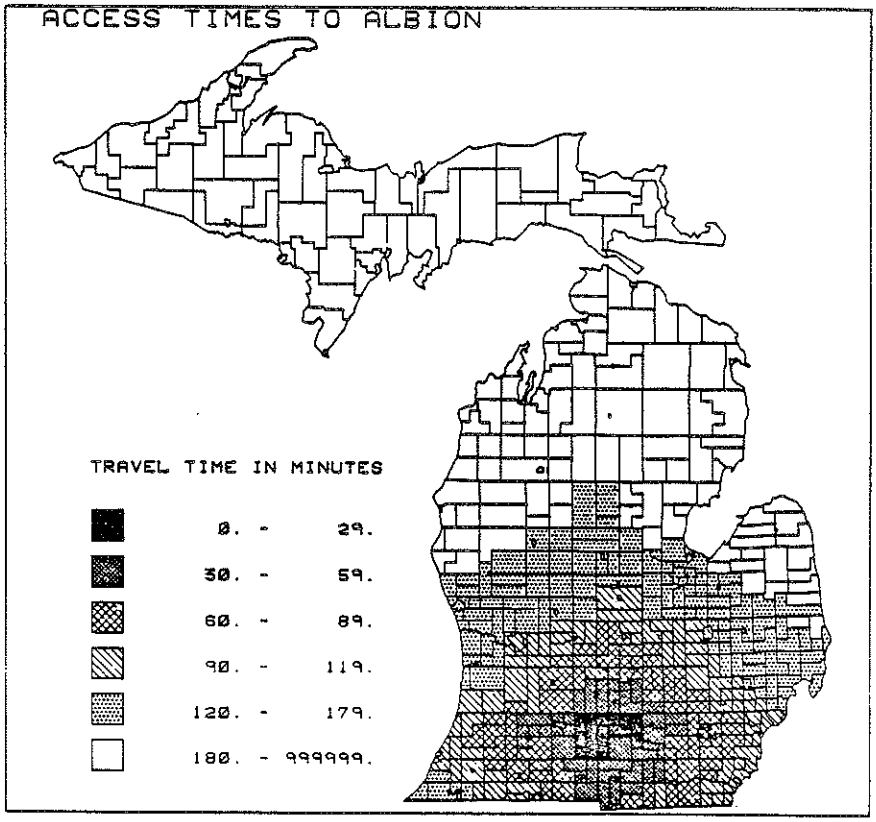
3. Existing intercity bus (ICB) service accommodates much of the student travel demand in the I-94 corridor connecting Ann Arbor, Battle Creek, Detroit, and Jackson with the Albion campus.

4. No direct service is available accommodating travel to Oakland County.

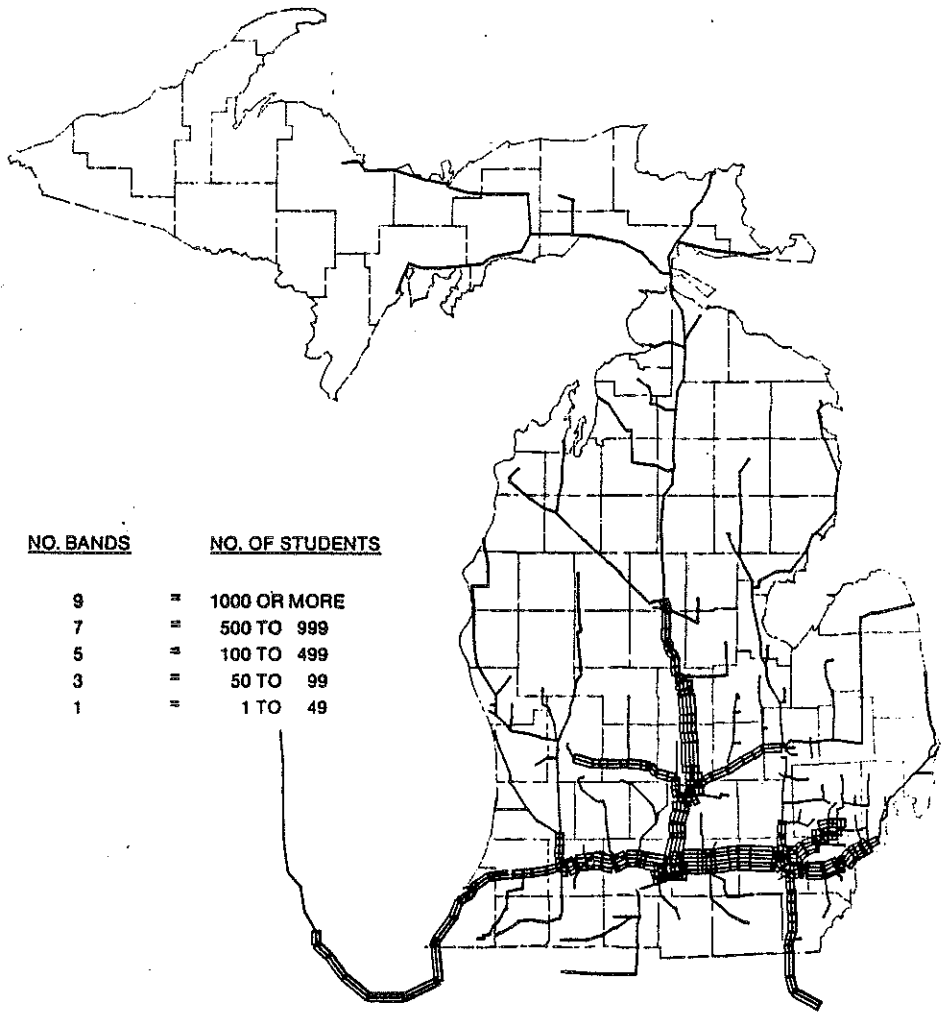
Potential Service Communities and Corridors

5. There appears to be the potential for some direct service from the Albion campus to the Oakland County area, an extension of the existing route to Detroit may be feasible. This service could be combined with other schools along the I-94 corridor such as Western Michigan University and Kalamazoo College in Kalamazoo.


ALBION
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


ACCESS TIMES TO ALBION
TRAVEL TIME IN MINUTES
0. - 29.
30. - 59.
60. - 89.
90. - 119.
120. - 179.
180. - 999999.

SIMULATED STUDENT TRAVEL PATTERNS FOR ALBION



ALMA COLLEGE

Student Distribution Patterns

1. Approximately 32% of the 1,016 students attending Alma College reside within 60 minutes of the campus in Alma, 41% within 90 minutes, 46% within 120 minutes, and 100% within 180 minutes.

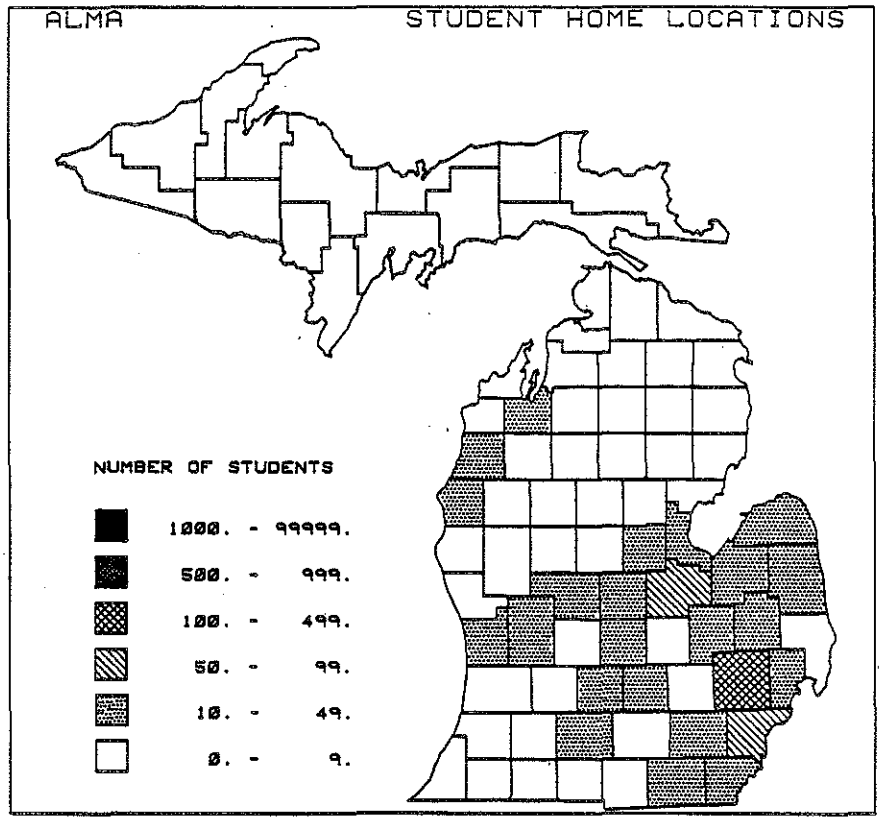
2. Student Home Location Concentrations (SHLC) are found in 1 of the 15 urbanized areas in the State of Michigan; the Detroit Metropolitan Area.

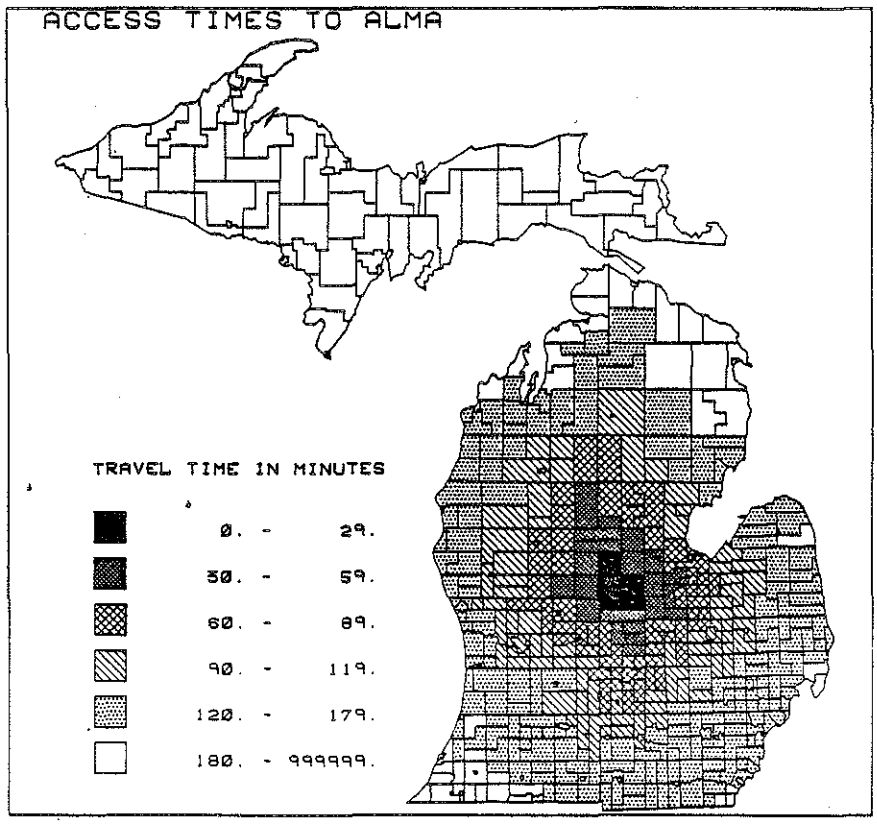
Existing Service Accommodating Student Distribution Patterns

3. Existing service connects Alma to Lansing on US-27 with connections to Detroit and Southfield via I-96.

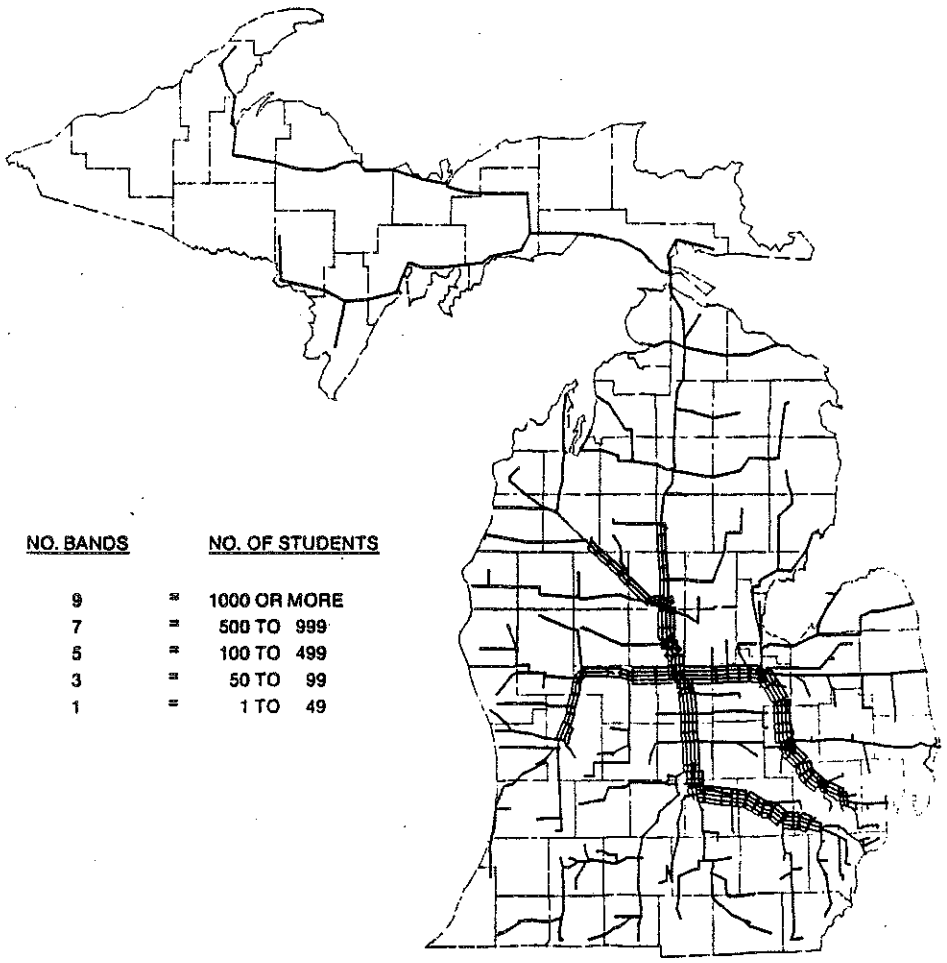
Potential Service Communities and Corridors

4. Existing regular service to Detroit and Southfield appears to accommodate the travel demand.


ALMA
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


ACCESS TIMES TO ALMA
TRAVEL TIME IN MINUTES
0. - 29.
30. - 59.
60. - 89.
90. - 119.
120. - 179.
180. - 999999.

SIMULATED STUDENT TRAVEL PATTERNS FOR ALMA



NO. BANDS		NO. OF STUDENTS
9	=	1000 OR MORE
7	=	500 TO 999
5	=	100 TO 499
3	=	50 TO 99
1	=	1 TO 49

ANDREWS UNIVERSITY

Student Distribution Patterns

1. Approximately 96% of the 3,034 students attending Andrews University reside within 60 minutes of the campus in Berrien Springs, 96% within 90 minutes, 98% within 120 minutes, and 98% within 180 minutes.

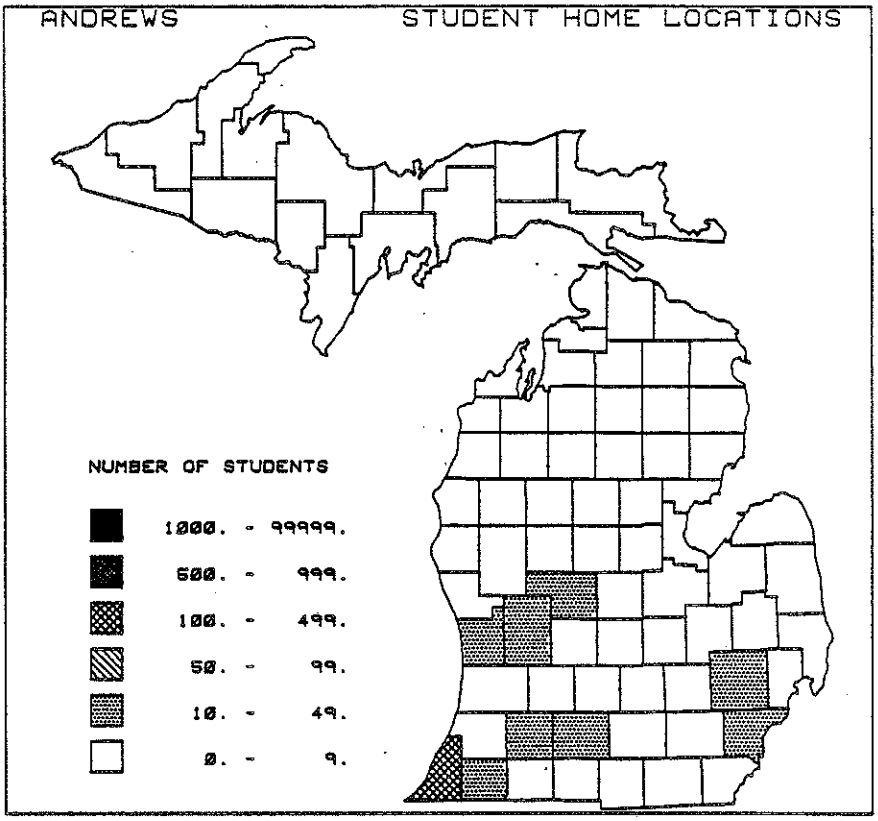
2. Student Home Location Concentrations (SHLC) are found in 2 of the 15 urbanized areas in the State of Michigan; Benton Harbor/St. Joseph and Niles/South Bend.

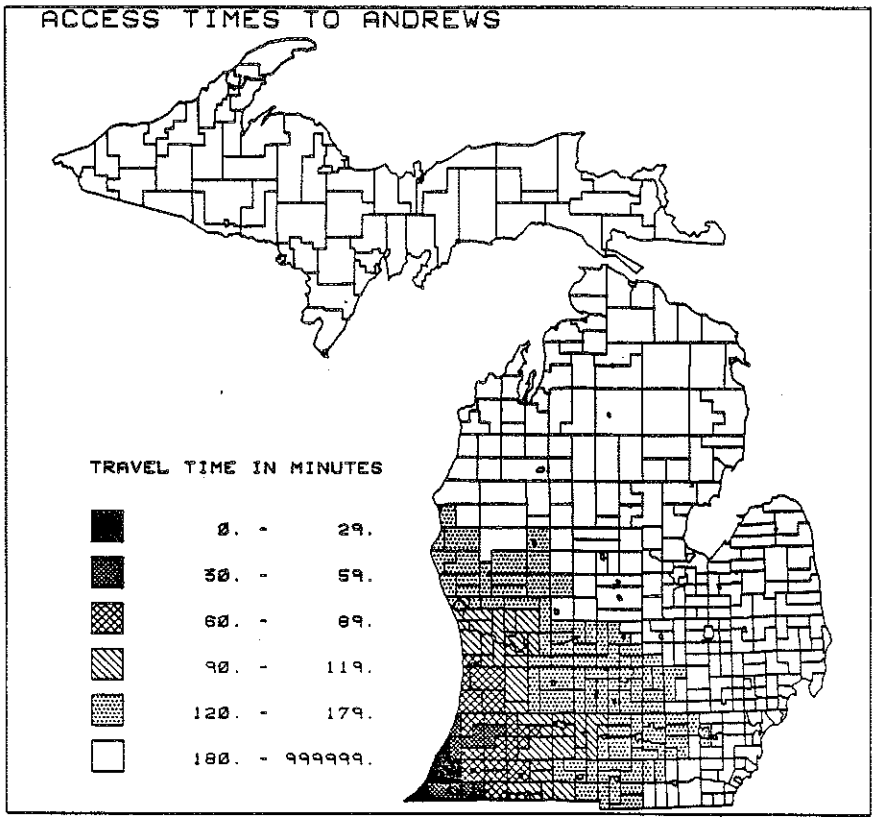
Existing Service Accommodating Student Distribution Patterns

3. Existing service connects Benton Harbor and Niles to Berrien Springs via the US-31 corridor.

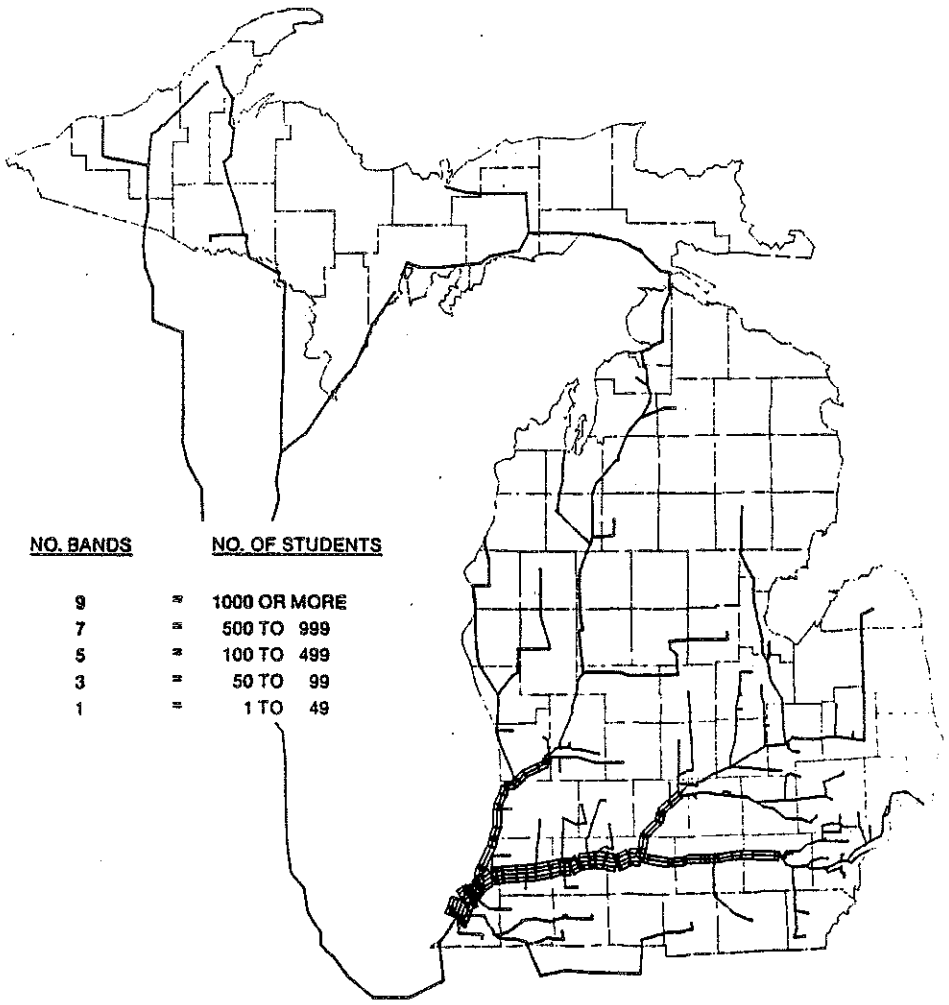
Potential Service Communities and Corridors

4. Existing regular service, the concentrated distribution of students, and lack of unserved SHLC limit the potential for new service.


ANDREWS
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


ACCESS TIMES TO ANDREWS
TRAVEL TIME IN MINUTES
0. - 29.
30. - 59.
60. - 89.
90. - 119.
120. - 179.
180. - 999999.

SIMULATED STUDENT TRAVEL PATTERNS FOR ANDREWS



AQUINAS COLLEGE

Student Distribution Patterns

1. Approximately 82% of the 2,831 students attending Aquinas College reside within 60 minutes of the campus in Grand Rapids, 84% within 90 minutes, 84% within 120 minutes, and 90% within 180 minutes.

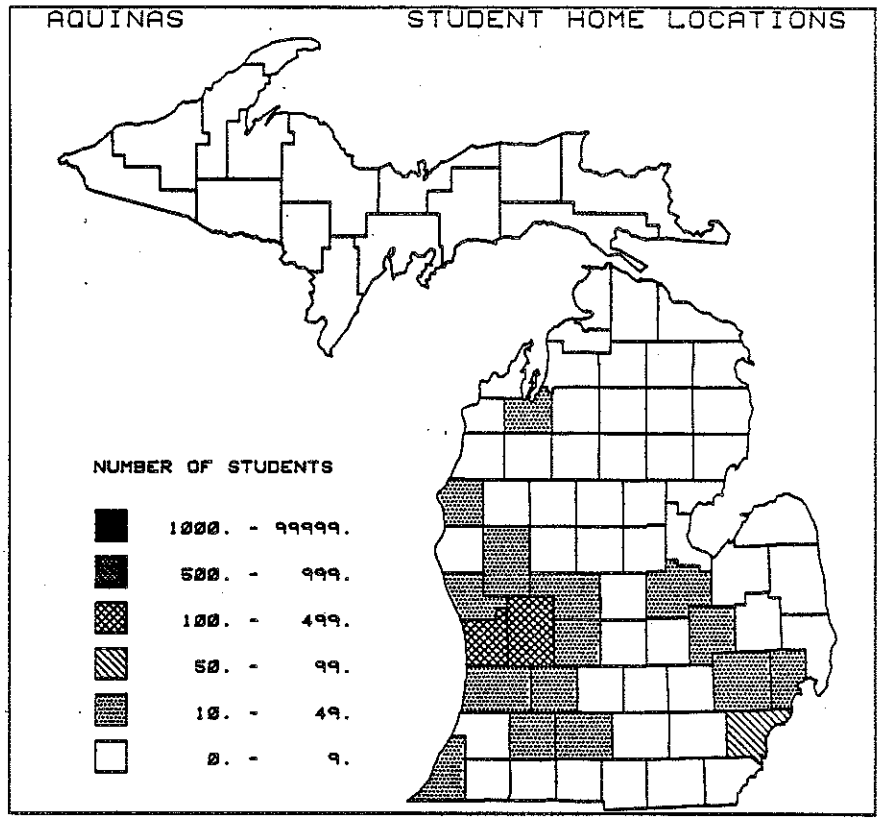
2. Student Home Location Concentrations (SHLC) are found in 1 of the 15 urbanized areas in the State of Michigan; Grand Rapids.

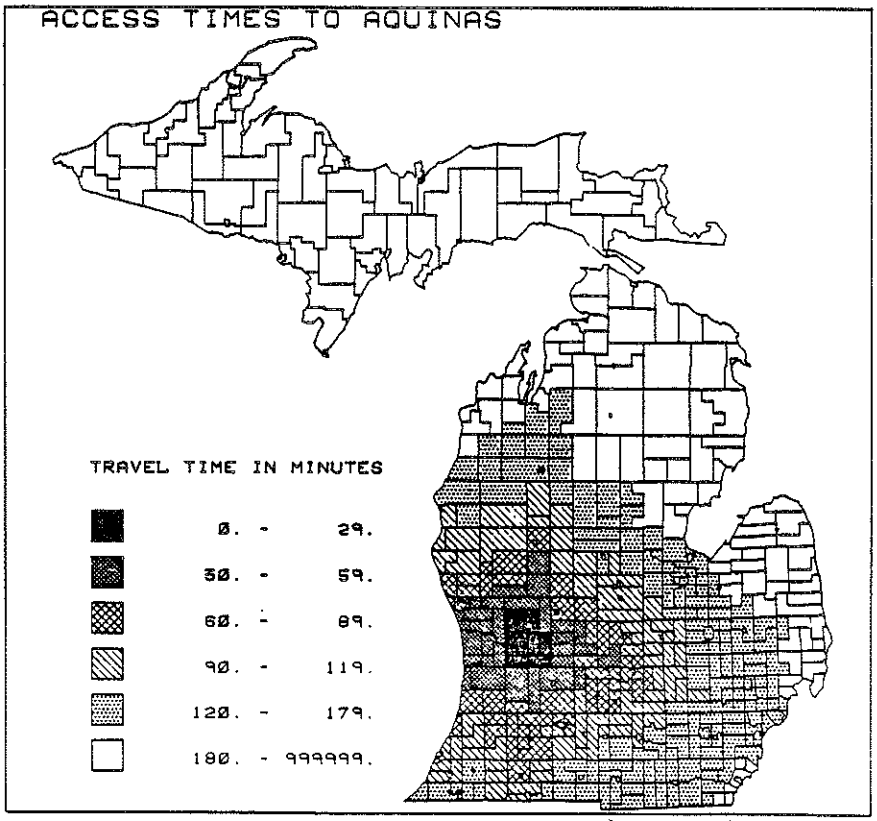
Existing Service Accommodating Student Distribution Patterns

3. Existing service accommodates travel along the I-96 corridor to Muskegon, Lansing, and Detroit; and along the US-31/I-94 corridor to Benton Harbor and Chicago; and along US-131 to Kalamazoo.

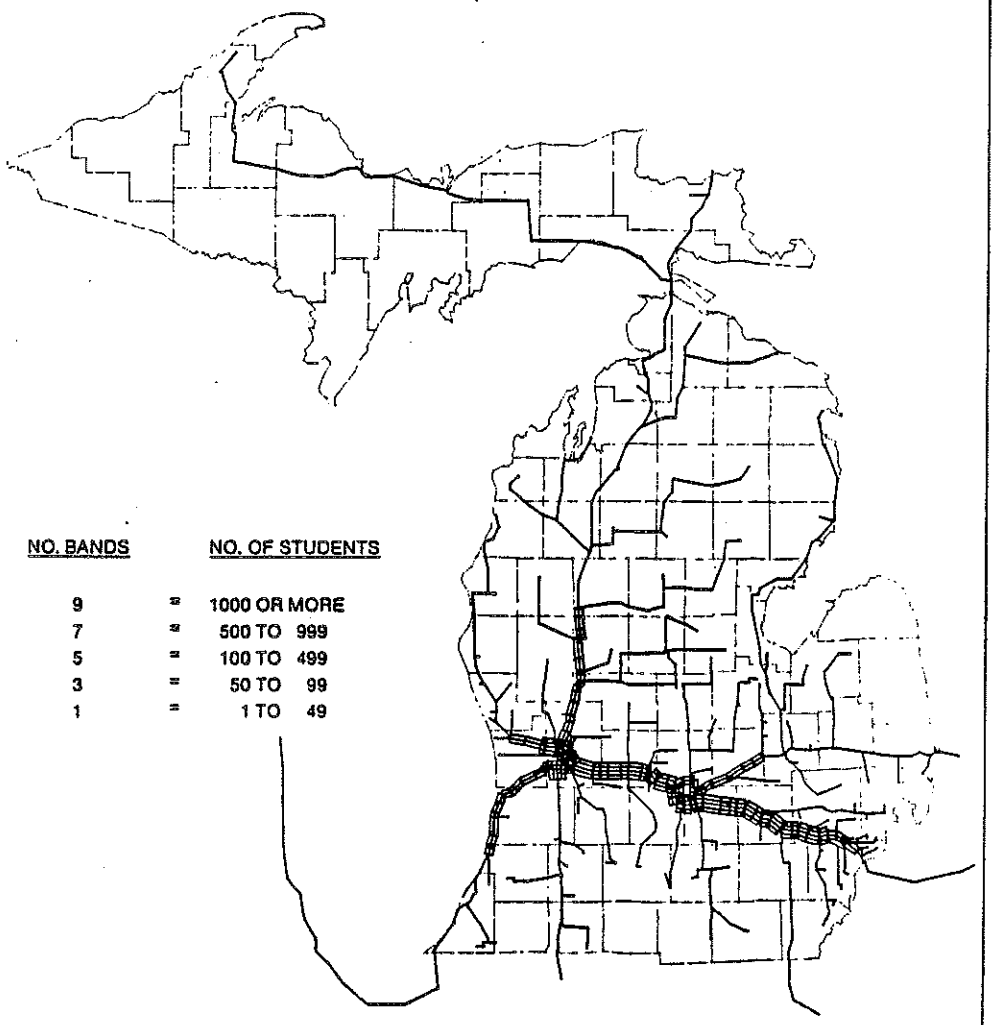
Potential Service Communities and Corridors

4. Due to its strategic location with easy access to major intercity bus routes, and concentrated student distribution pattern, there appears to be limited potential for new service.


AQUINAS
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


ACCESS TIMES TO AQUINAS
TRAVEL TIME IN MINUTES
0. - 29.
30. - 59.
60. - 89.
90. - 119.
120. - 179.
180. - 999999.

SIMULATED STUDENT TRAVEL PATTERNS FOR AQUINAS



CALVIN COLLEGE

Student Distribution Patterns

1. Approximately 74% of the 3,973 students attending Calvin College reside within 60 minutes of the campus in Grand Rapids, 78% within 90 minutes, 79% within 120 minutes, and 83% within 180 minutes.

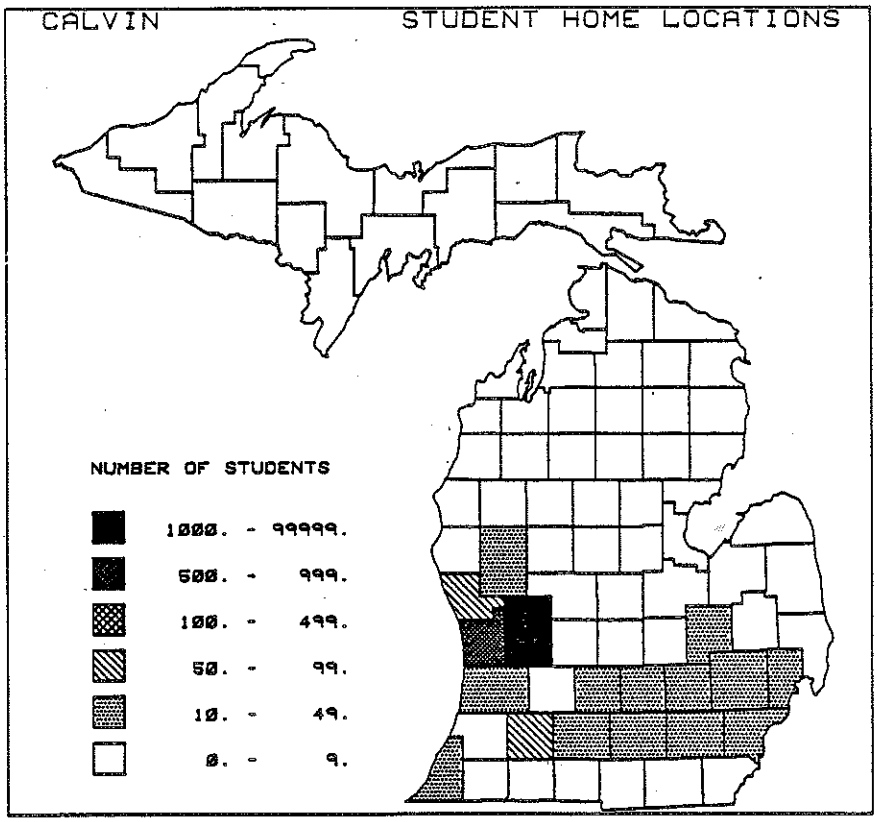
2. Student Home Location Concentrations (SHLC) are found in 1 of the 15 urbanized areas in the State of Michigan; Grand Rapids. There are also high concentrations of students residing in the State of Illinois.

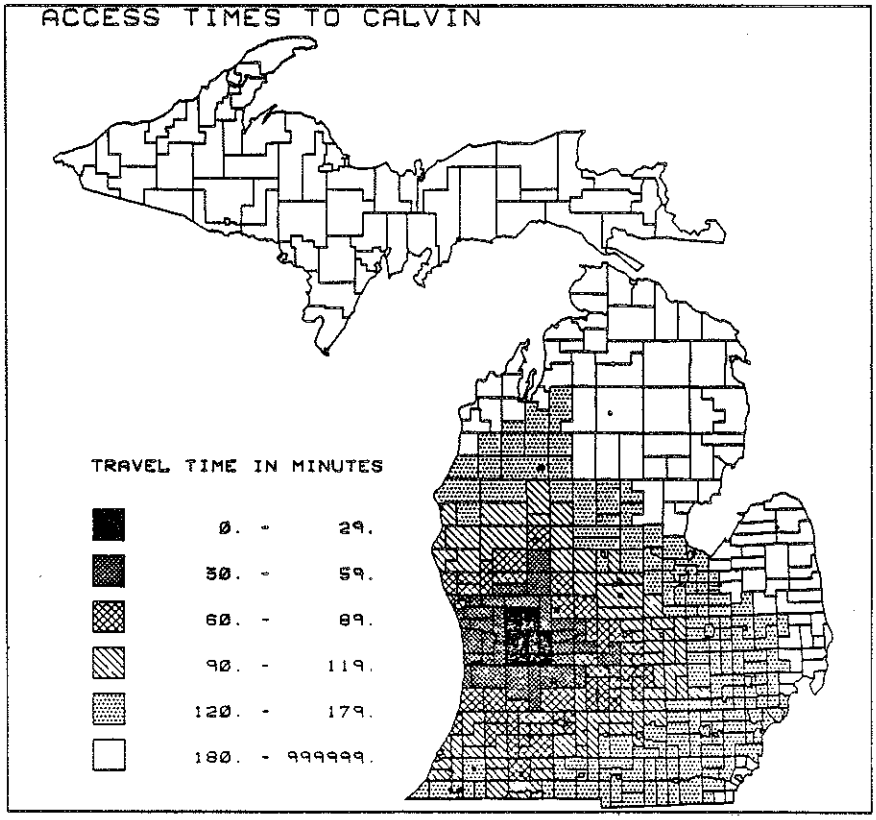
Existing Service Accommodating Student Distribution Patterns

3. Existing service provides intercity bus routes to Chicago via the I-196/I-94 corridor.

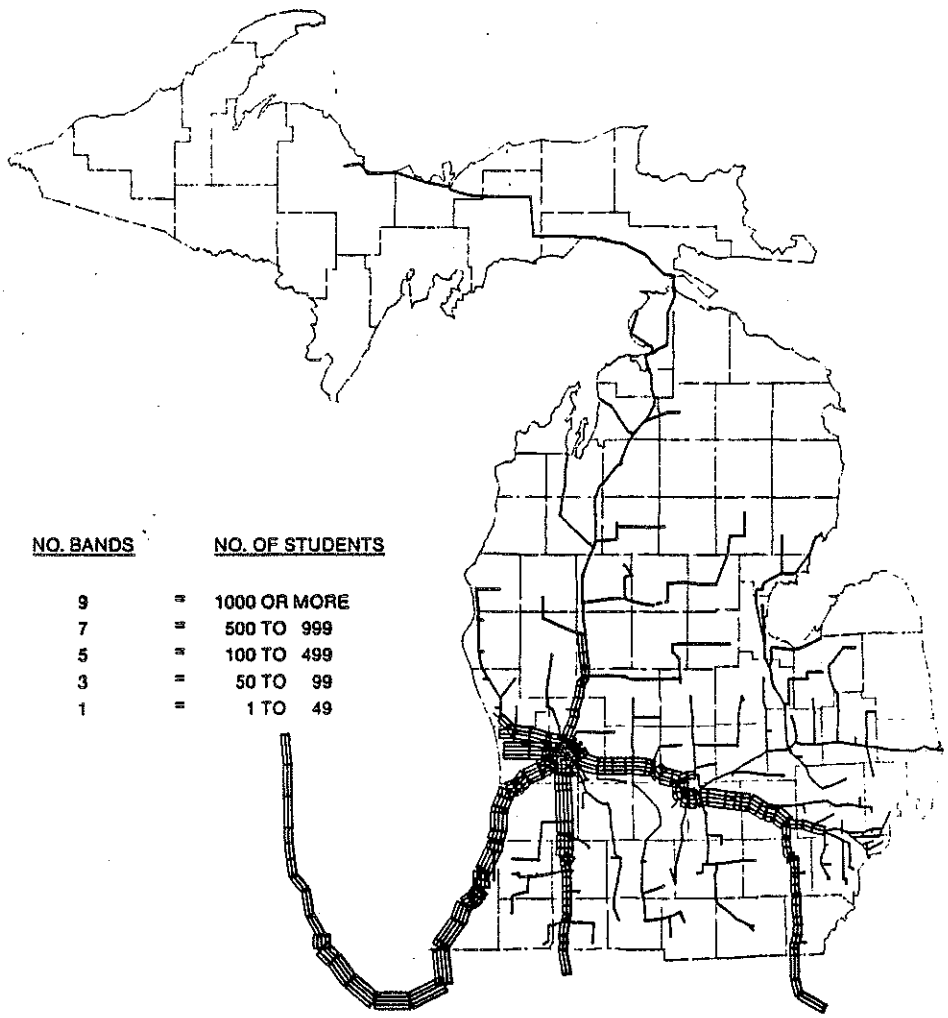
Potential Service Communities and Corridors

4. There may be potential for a direct, express service from Grand Rapids to Chicago on weekends. This service should accommodate several of the universities and colleges located in the immediate area of Grand Rapids and along the I-196/I-94 corridor; Aquinas College, Calvin College, Grand Rapids Baptist College, Grand Valley State College, and Hope College.


CALVIN
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


ACCESS TIMES TO CALVIN
TRAVEL TIME IN MINUTES
0. - 29.
30. - 59.
60. - 89.
90. - 119.
120. - 179.
180. - 999999.

SIMULATED STUDENT TRAVEL PATTERNS FOR CALVIN



NO. BANDS		NO. OF STUDENTS
9	=	1000 OR MORE
7	=	500 TO 999
5	=	100 TO 499
3	=	50 TO 99
1	=	1 TO 49

CENTRAL MICHIGAN UNIVERSITY

Student Distribution Patterns

1. Approximately 21% of the 16,882 students attending Central Michigan University reside within 60 minutes of the campus in Mt. Pleasant, 34% within 90 minutes, 43% within 120 minutes, and 91% within 180 minutes.

2. Student Home Location Concentrations (SHLC) are found in 14 of the 15 urbanized areas in the State of Michigan; Ann Arbor, Bay City, Battle Creek, Benton Harbor/St. Joseph, the Detroit Metropolitan Area, Flint, Grand Rapids, Jackson, Kalamazoo, Lansing, Muskegon, Niles/South Bend, Port Huron, and Saginaw. There are also high concentrations of students residing in the counties of Clare, Gladwin, Grand Traverse, Gratiot, Huron, Isabella, Lapeer, Lenawee, Midland, Montcalm, Otsego, Roscommon, Shiawassee, and Tuscola.

Existing Service Accommodating Student Distribution Patterns

3. Existing service accommodates much of the student travel demand in the I-75/US-10/M-20 corridor connecting Detroit, Flint, Saginaw, Bay City, and Midland with Mt. Pleasant and the CMU campus.

4. Existing service accommodates much of the student travel demand in the US-31/M-115/US-27/US-127 corridor connecting Lansing, Jackson, Ann Arbor, and Detroit with Mt. Pleasant and the CMU campus.

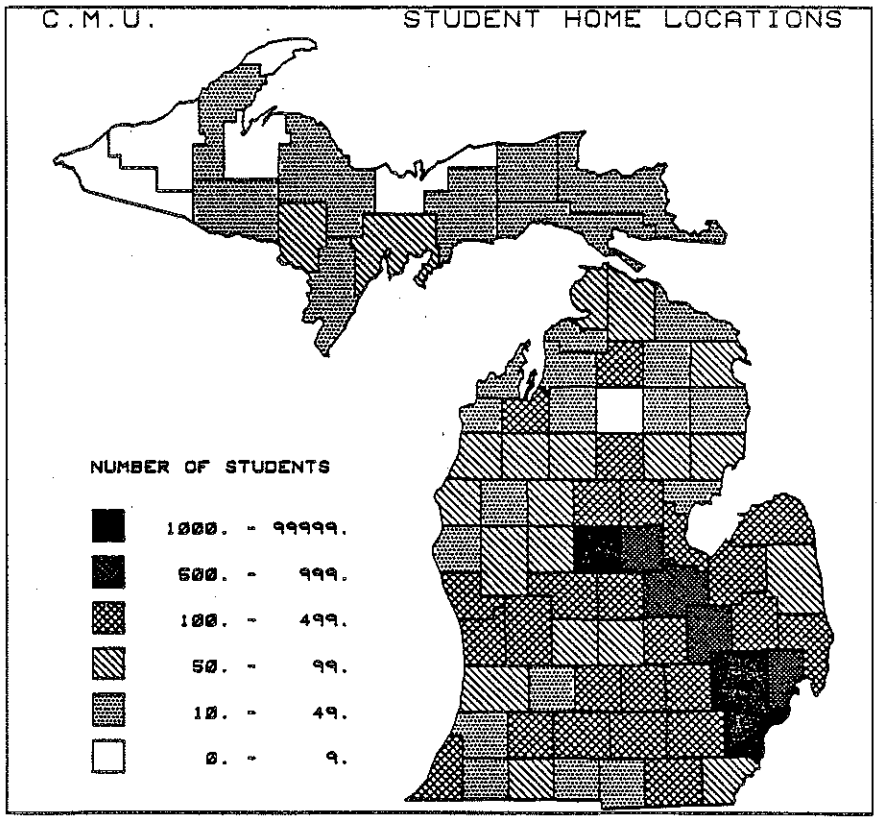
5. Special Friday and Sunday service is currently provided between the CMU campus and Midland, Bay City, and Saginaw.

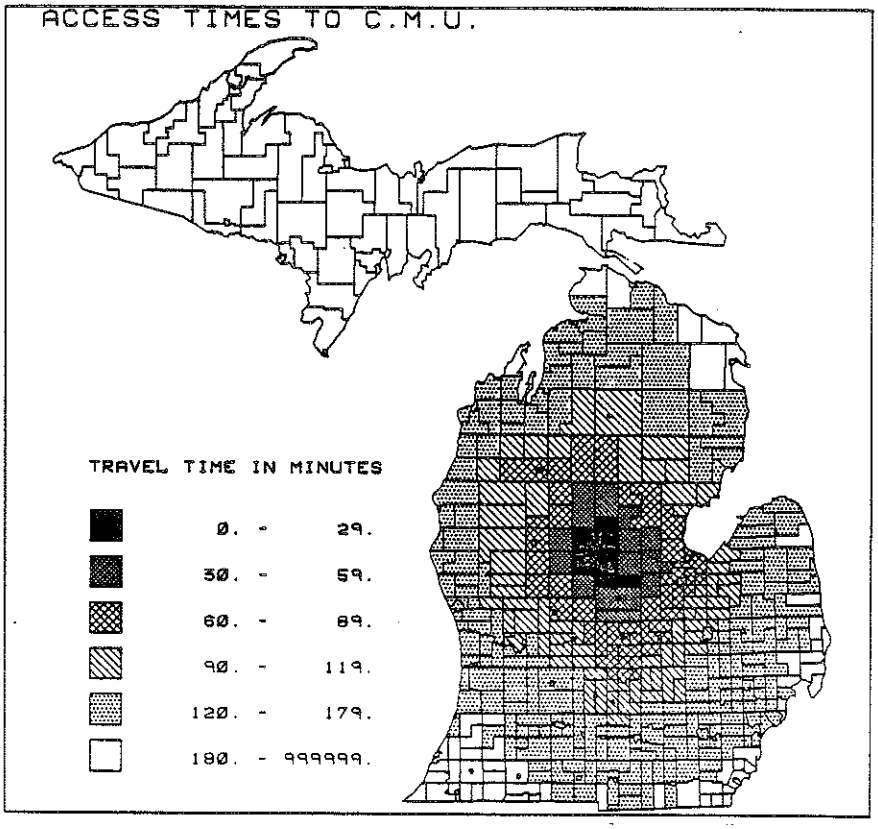
Potential Service Communities and Corridors

6. There appears to be a potential for service between Niles/South Bend, Benton Harbor/St. Joseph, Grand Rapids, and Mt. Pleasant.

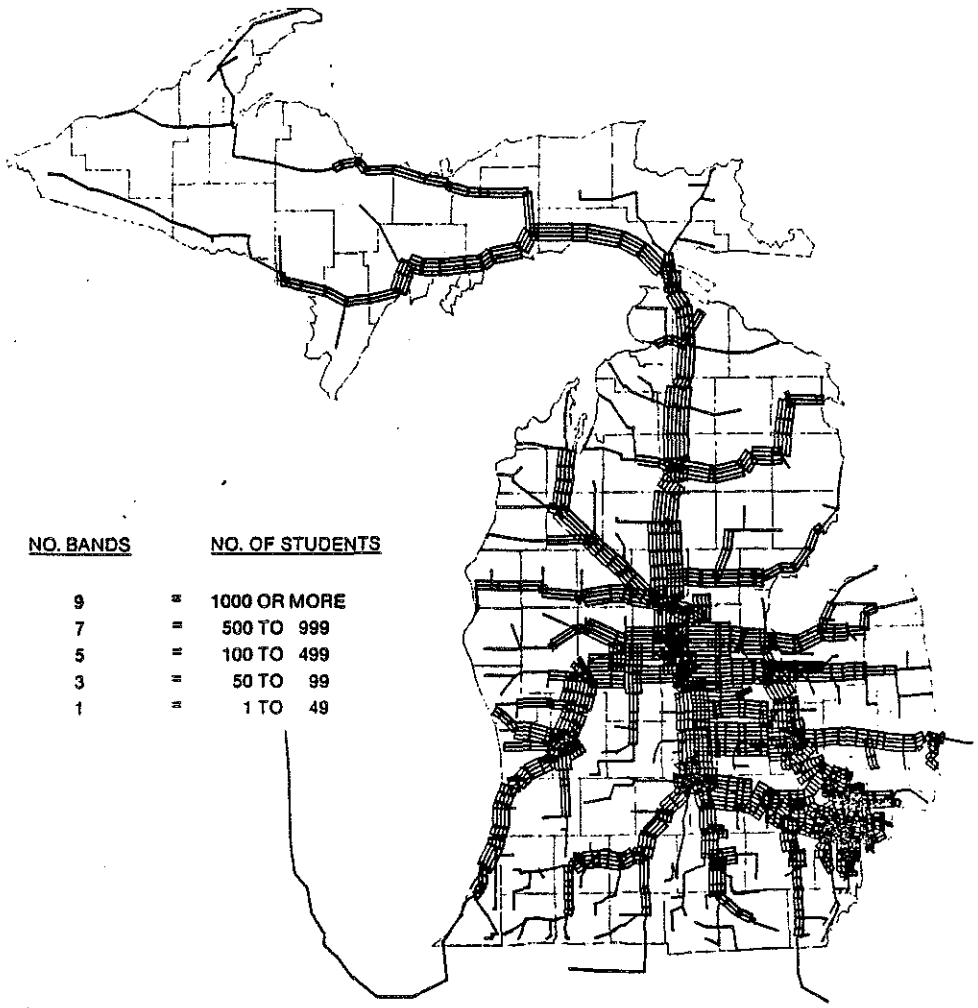
7. Potential exists for a direct route from Mt. Pleasant to Battle Creek and Kalamazoo.

8. Potential exists for a direct connection or extension of the existing service from Detroit to Port Huron.


C.M.U.
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


ACCESS TIMES TO C.M.U.
TRAVEL TIME IN MINUTES
0. - 29.
30. - 59.
60. - 89.
90. - 119.
120. - 179.
180. - 999999.

SIMULATED STUDENT TRAVEL PATTERNS FOR C.M.U.



NO. BANDS		NO. OF STUDENTS
9	=	1000 OR MORE
7	=	500 TO 999
5	=	100 TO 499
3	=	50 TO 99
1	=	1 TO 49

EASTERN MICHIGAN UNIVERSITY

Student Distribution Patterns

1. Approximately 91% of the 19,210 students attending Eastern Michigan University reside within 60 minutes of the campus in Ypsilanti, 95% within 90 minutes, 99% within 120 minutes, and 100% within 180 minutes.

2. Student Home Location Concentrations (SHLC) are found in 6 of the 15 urbanized areas in the State of Michigan; Ann Arbor, the Detroit Metropolitan Area, Flint, Jackson, Port Huron, and Toledo. There are also high concentrations of students residing in Lenawee County.

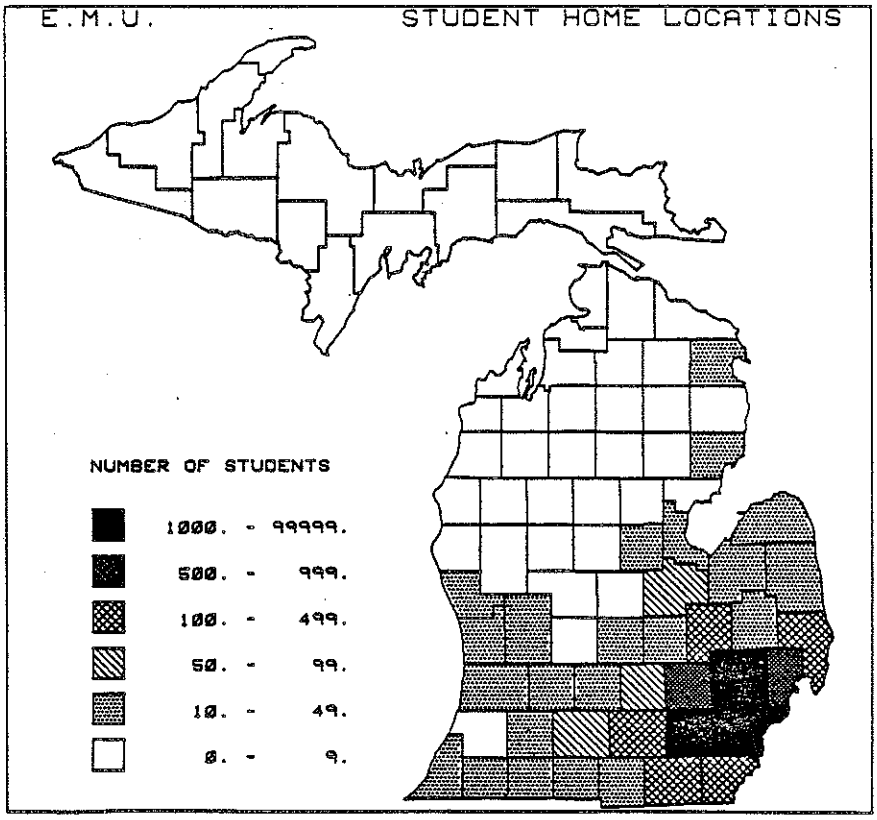
Existing Service Accommodating Student Distribution Patterns

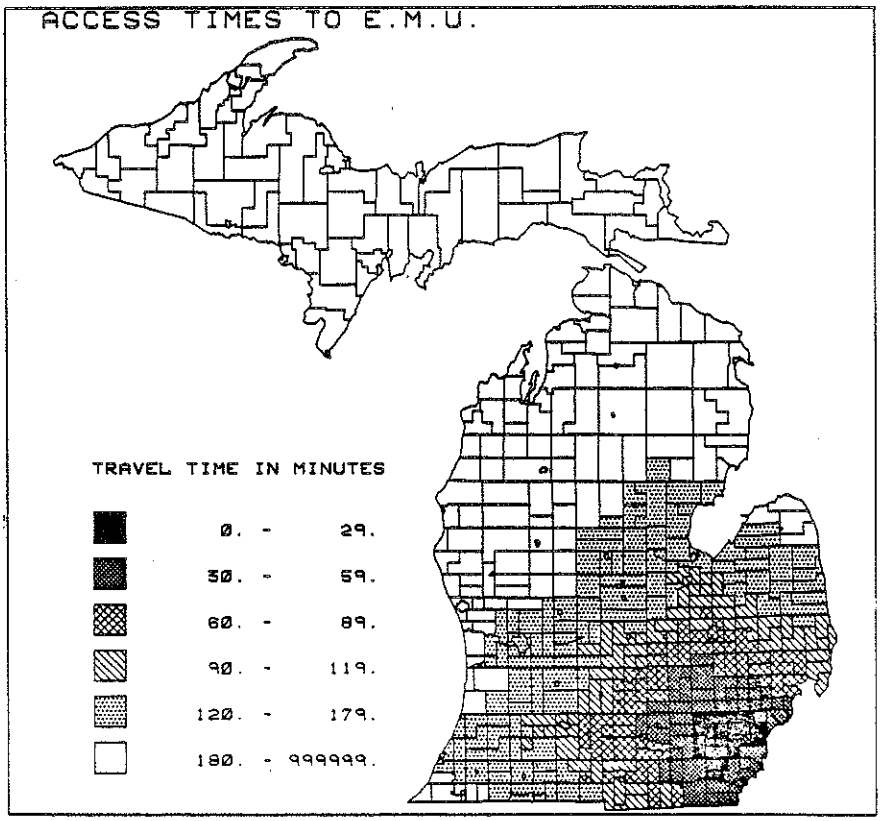
3. Existing special service connects Port Huron, Mt. Clemens, Ypsilanti, Ann Arbor, Jackson, Albion, Battle Creek, Kalamazoo, Benton Harbor/St. Joseph, South Bend, Gary, and Chicago via the I-94/I-80 corridor.

4. Existing regular service via I-94/US-127/I-96 connects Ypsilanti to Toledo, Detroit, Ann Arbor, Jackson, Lansing, Grand Rapids, and with the proper connections, north to Traverse City via US-131 from Grand Rapids.

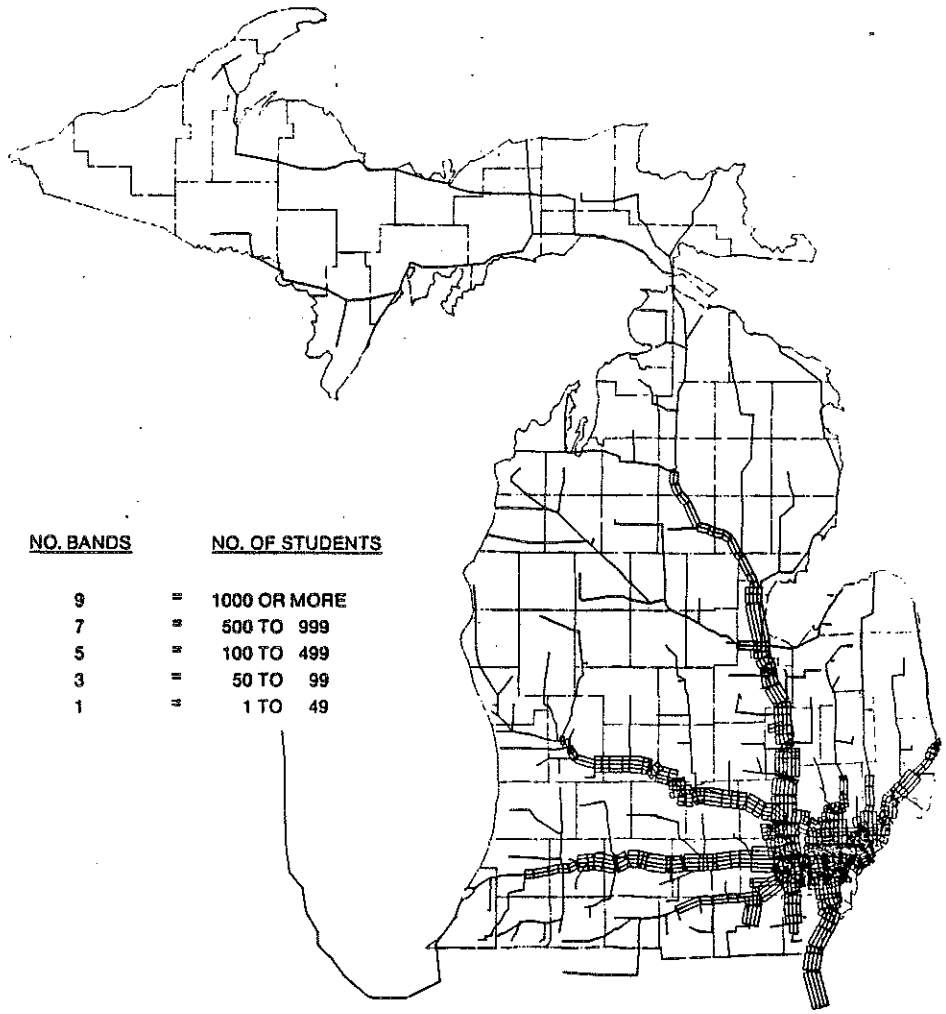
Potential Service Communities and Corridors

5. Existing and special services accommodate current demand.


E.M.U.
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


ACCESS TIMES TO E.M.U.
TRAVEL TIME IN MINUTES
0. - 29.
30. - 59.
60. - 89.
90. - 119.
120. - 179.
180. - 999999.

SIMULATED STUDENT TRAVEL PATTERNS FOR E.M.U.



NO. BANDS		NO. OF STUDENTS
9	=	1000 OR MORE
7	=	500 TO 999
5	=	100 TO 499
3	=	50 TO 99
1	=	1 TO 49

FERRIS STATE COLLEGE

Student Distribution Patterns

1. Approximately 24% of the 10,540 students attending Ferris State College reside within 60 minutes of the campus in Big Rapids, 34% within 90 minutes, 44% within 120 minutes, and 64% within 180 minutes.

2. Student Home Location Concentrations (SHLC) are found in 14 of the 15 urbanized areas in the State of Michigan; Ann Arbor, Bay City, Battle Creek, Benton Harbor/St. Joseph, the Detroit Metropolitan Area, Flint, Grand Rapids, Jackson, Kalamazoo, Lansing, Muskegon, Niles/South Bend, Port Huron, and Saginaw.

Existing Service Accommodating Student Distribution Patterns

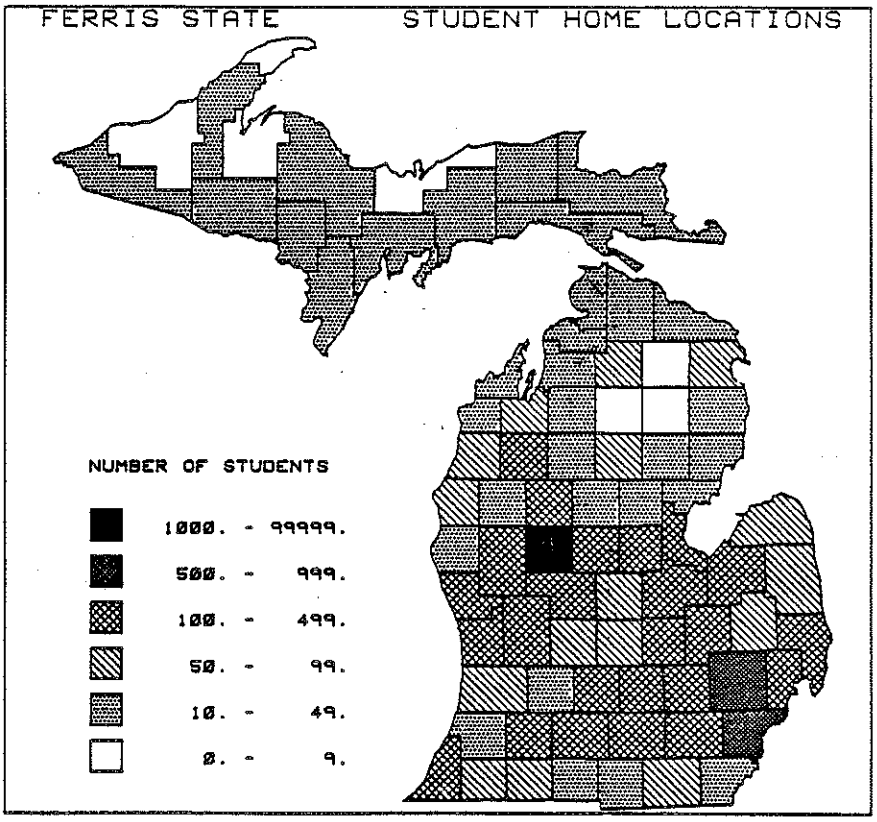
3. Existing service connects Big Rapids to Grand Rapids, Lansing, Jackson, and Adrian via the US-131/I-96/US-127 corridor. Connections can be made at Grand Rapids to Benton Harbor/St. Joseph or Muskegon and from Lansing to Detroit via I-96.

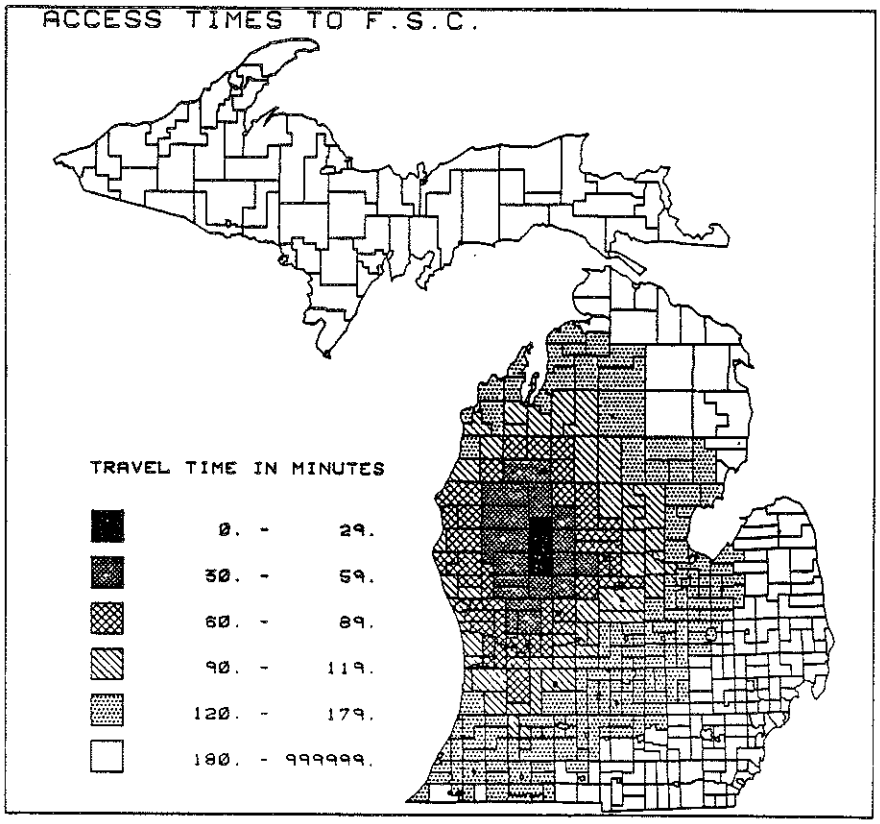
Potential Service Communities and Corridors

4. Because of the wide student distribution pattern, there is a large potential for additional special weekend routes serving Ferris State College. Potential exists from Big Rapids via Grand Rapids to Kalamazoo and Battle Creek because of long layover periods in Grand Rapids on the regularly scheduled routes. This service could be coordinated with the other universities and colleges in Grand Rapids and Kalamazoo.

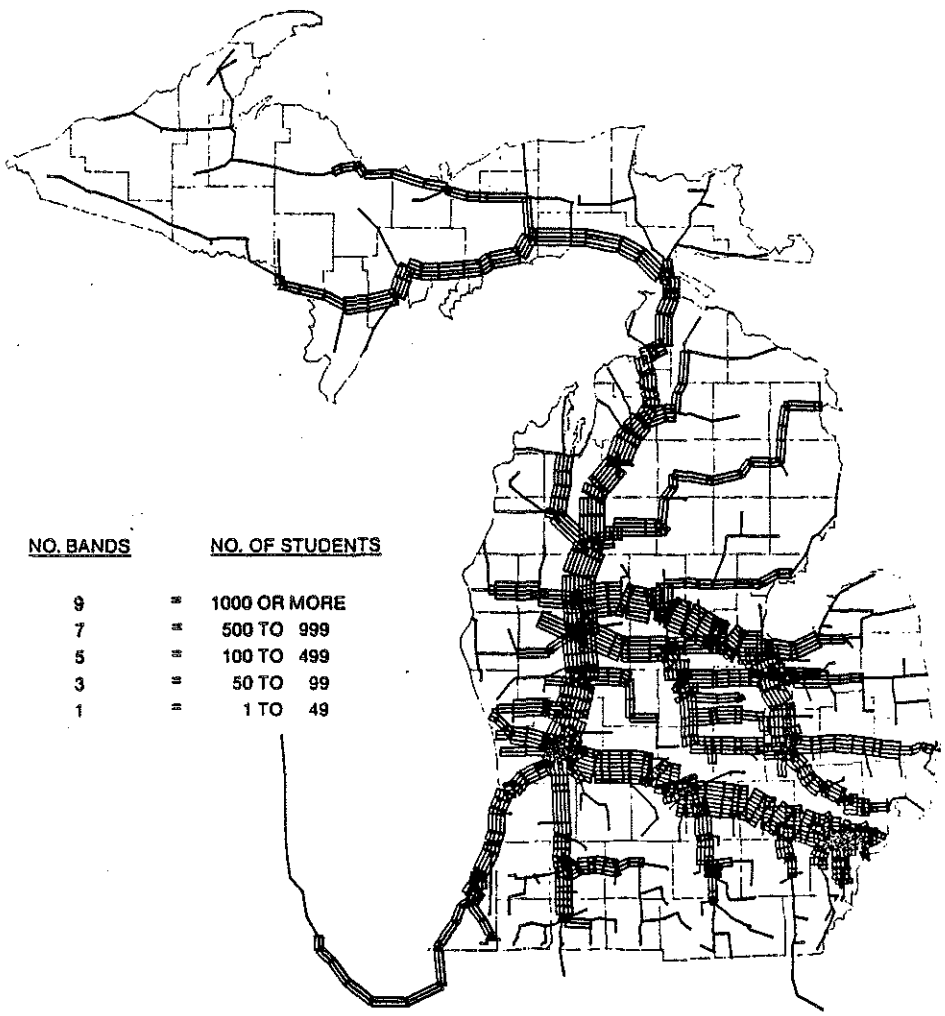
5. Potential exists for a special service from Big Rapids to Midland, Bay City, Saginaw, Flint, and possibly to Port Huron.

6. Consideration should be given to providing a direct route from Grand Rapids to Lansing to Jackson to Ann Arbor and Detroit. The current route heads south from Jackson to Toledo without stopping in Ann Arbor or Detroit. Riders headed for these destinations must transfer in Grand Rapids.


FERRIS STATE
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


ACCESS TIMES TO F.S.C.
TRAVEL TIME IN MINUTES
0. - 29.
30. - 59.
60. - 89.
90. - 119.
120. - 179.
180. - 999999.

SIMULATED STUDENT TRAVEL PATTERNS FOR FERRIS STATE



NO. BANDS		NO. OF STUDENTS
9	=	1000 OR MORE
7	=	500 TO 999
5	=	100 TO 499
3	=	50 TO 99
1	=	1 TO 49

GRAND RAPIDS BAPTIST COLLEGE

Student Distribution Patterns

1. Approximately 80% of the 951 students attending Grand Rapids Baptist College reside within 60 minutes of the campus in Grand Rapids, 82% within 90 minutes, 82% within 120 minutes, and 86% within 180 minutes.

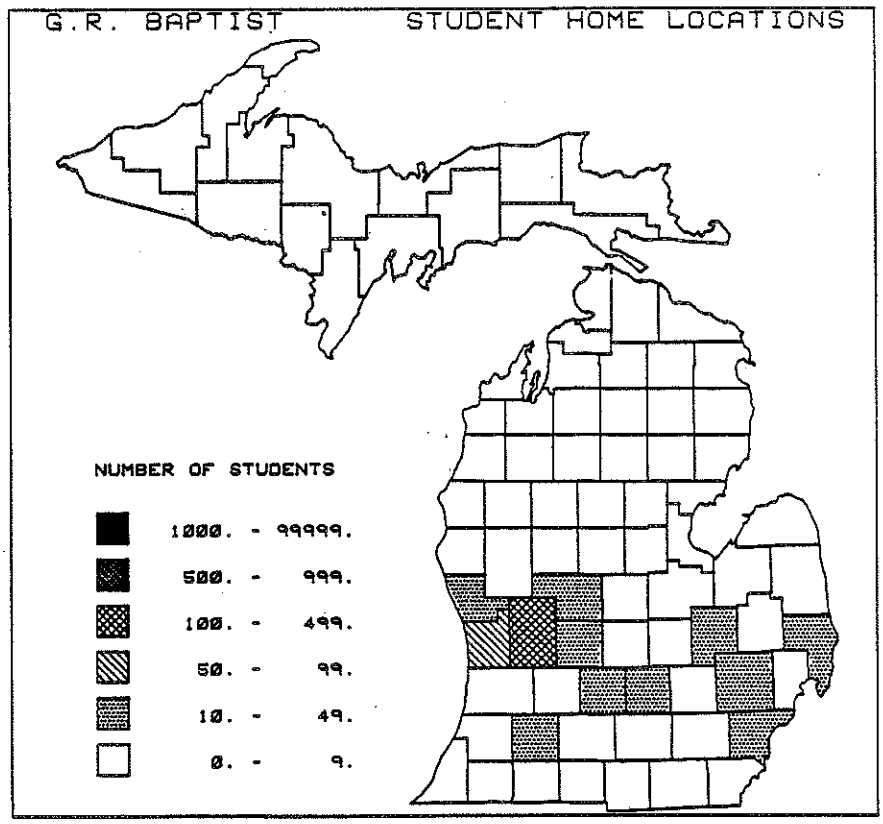
2. Student Home Location Concentrations (SHLC) are found in 1 of the 15 urbanized areas in the State of Michigan; Grand Rapids.

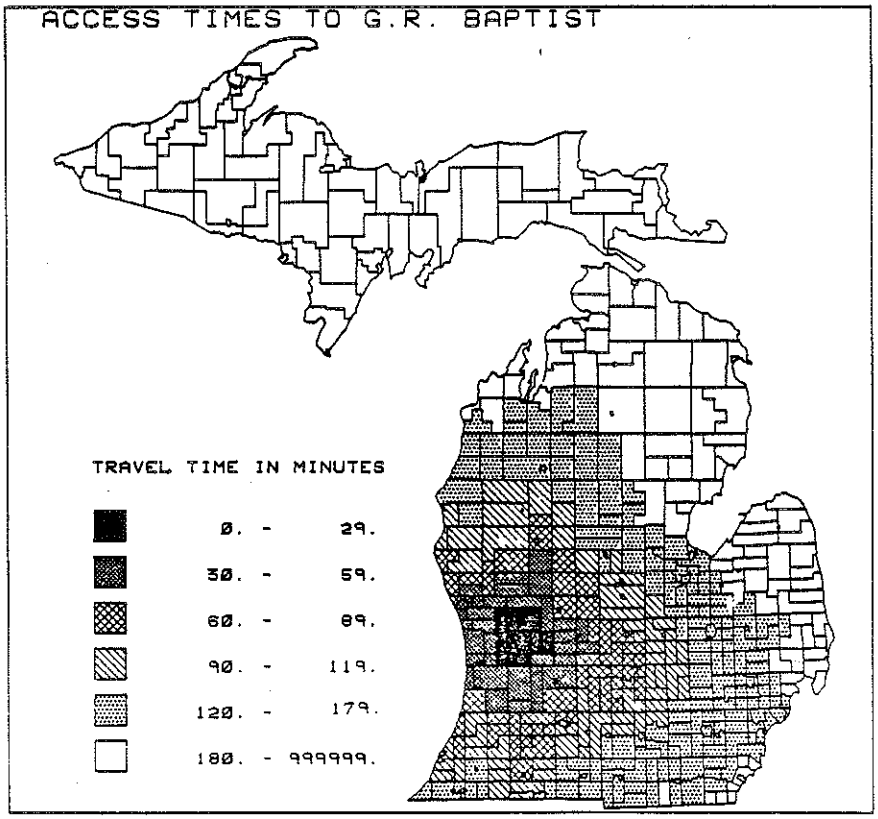
Existing Service Accommodating Student Distribution Patterns

3. There are no large concentrations of students outside of general area in which the school is located.

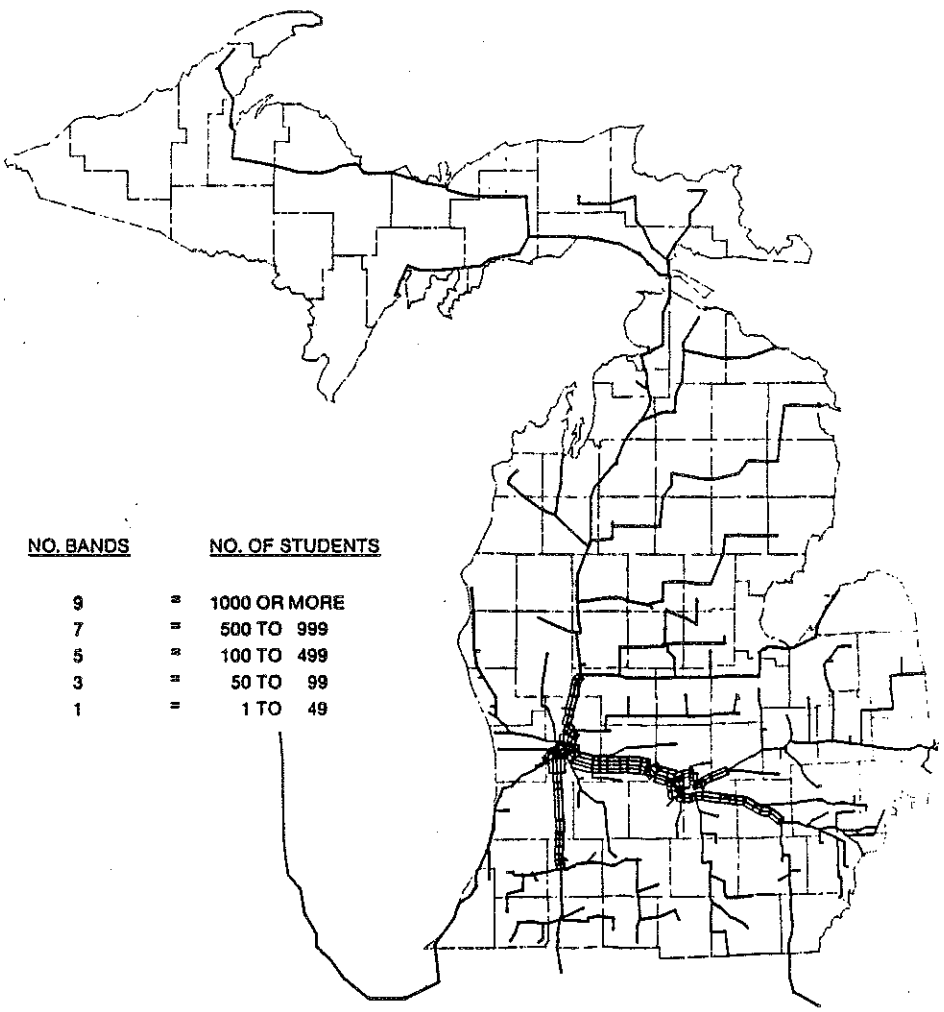
Potential Service Communities and Corridors

4. Because of the concentrated student residence distribution pattern in the vicinity of the college, there appears to be limited potential for new special services.


G.R. BAPTIST STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


ACCESS TIMES TO G.R. BAPTIST
TRAVEL TIME IN MINUTES
0. - 29.
30. - 59.
60. - 89.
90. - 119.
120. - 179.
180. - 999999.

SIMULATED STUDENT TRAVEL PATTERNS FOR GRAND RAPIDS BAPTIST



GRAND VALLEY STATE COLLEGE

Student Distribution Patterns

1. Approximately 81% of the 7,153 students attending Grand Valley State College reside within 60 minutes of the campus in Allendale, 85% within 90 minutes, 89% within 120 minutes, and 95% within 180 minutes.

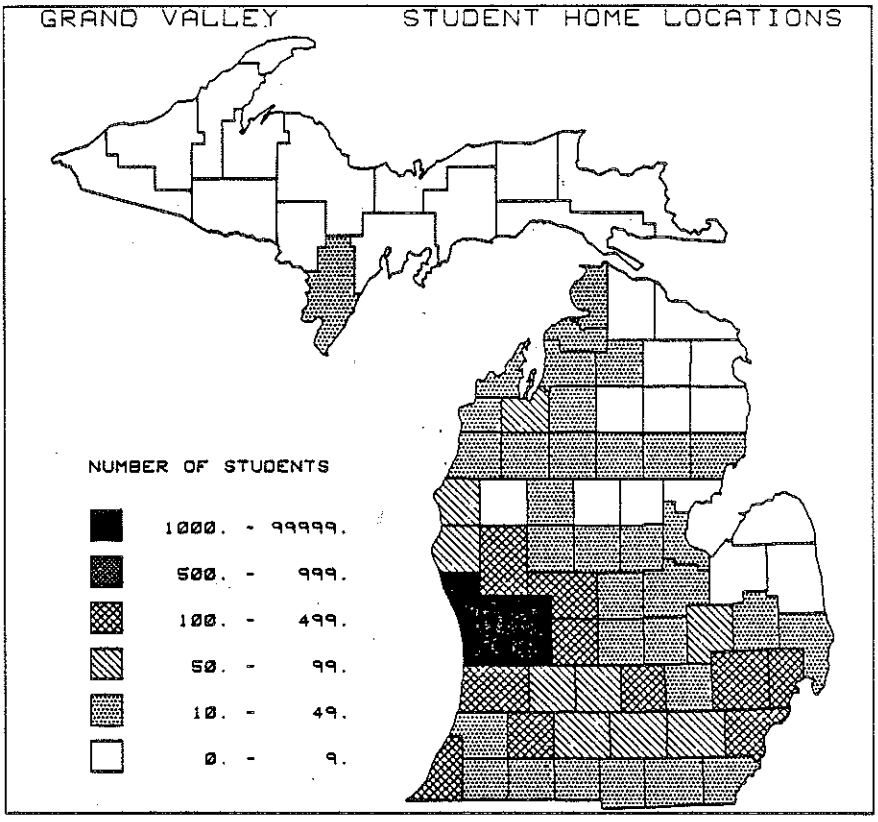
2. Student Home Location Concentrations (SHLC) are found in 7 of the 15 urbanized areas in the State of Michigan; Benton Harbor/St. Joseph, the Detroit Metropolitan Area, Grand Rapids, Kalamazoo, Lansing, Muskegon, and Niles/South Bend. There are also high concentrations of students residing in the counties of Ionia, Montcalm, and Newaygo.

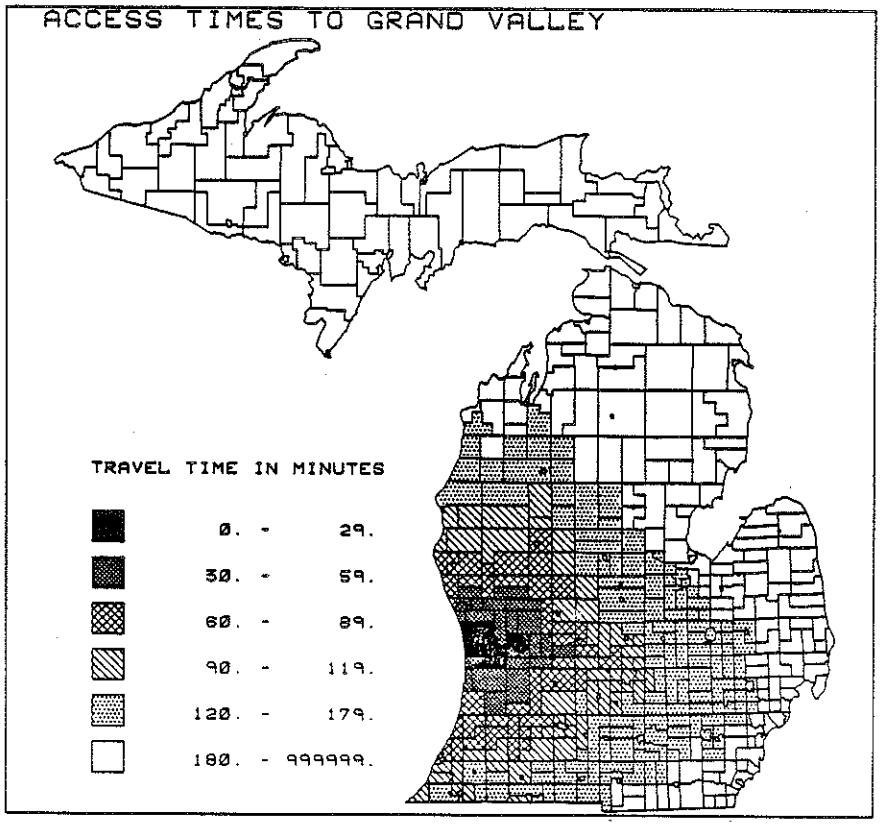
Existing Service Accommodating Student Distribution Patterns

3. Existing service from Grand Rapids provides connections to all of the SHLC areas.

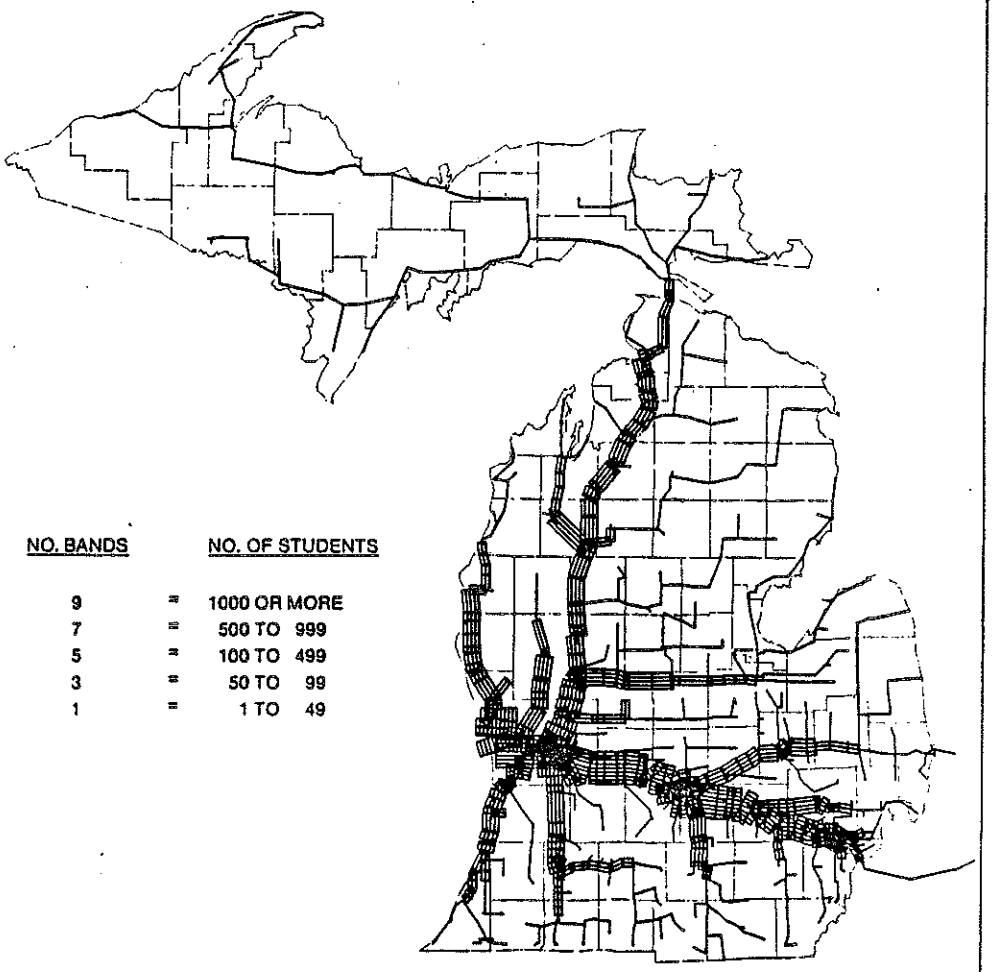
Potential Service Communities and Corridors

4. Connections from the campus in Allendale to the intercity bus terminal in Grand Rapids provides access to the regular routes serving the major SHLC for Grand Valley State.


GRAND VALLEY STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


ACCESS TIMES TO GRAND VALLEY
TRAVEL TIME IN MINUTES
0. - 29.
30. - 59.
60. - 89.
90. - 119.
120. - 179.
180. - 999999.

SIMULATED STUDENT TRAVEL PATTERNS FOR GRAND VALLEY STATE



NO. BANDS		NO. OF STUDENTS
9	=	1000 OR MORE
7	=	500 TO 999
5	=	100 TO 499
3	=	50 TO 99
1	=	1 TO 49

HILLSDALE COLLEGE

Student Distribution Patterns

1. Approximately 22% of the 1,032 students attending Hillsdale College reside within 60 minutes of the campus in Hillsdale, 22% within 90 minutes, 24% within 120 minutes, and 94% within 180 minutes.

2. Student Home Location Concentrations (SHLC) are found in 1 of the 15 urbanized areas in the State of Michigan; the Detroit Metropolitan Area, specifically Oakland County. There are also high concentrations of students residing in the State of Ohio.

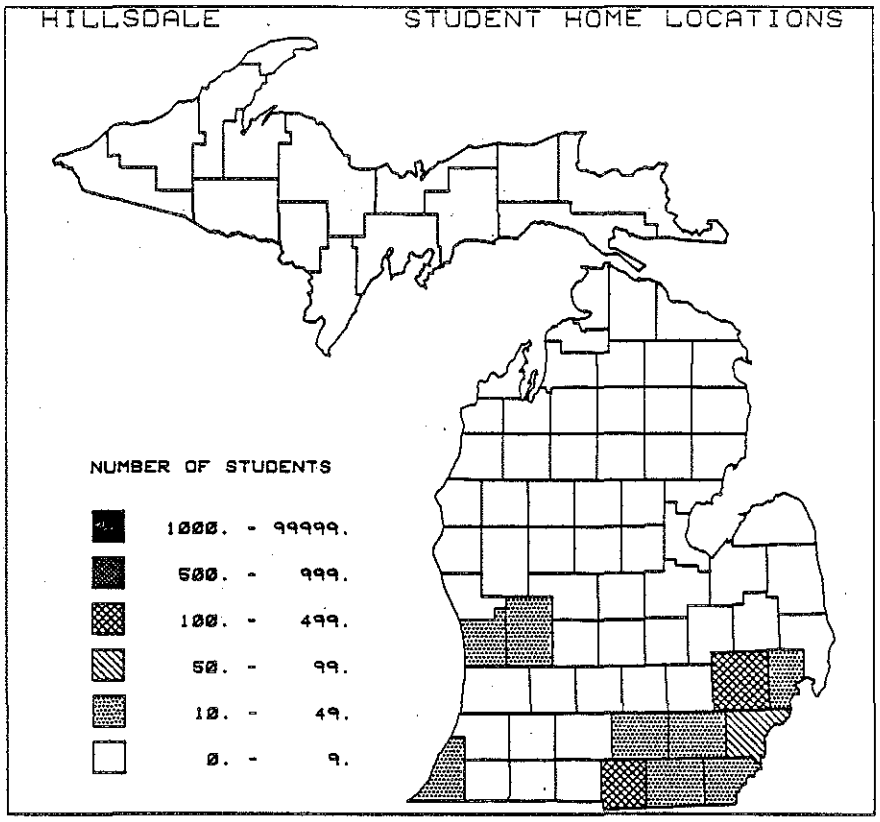
Existing Service Accommodating Student Distribution Patterns

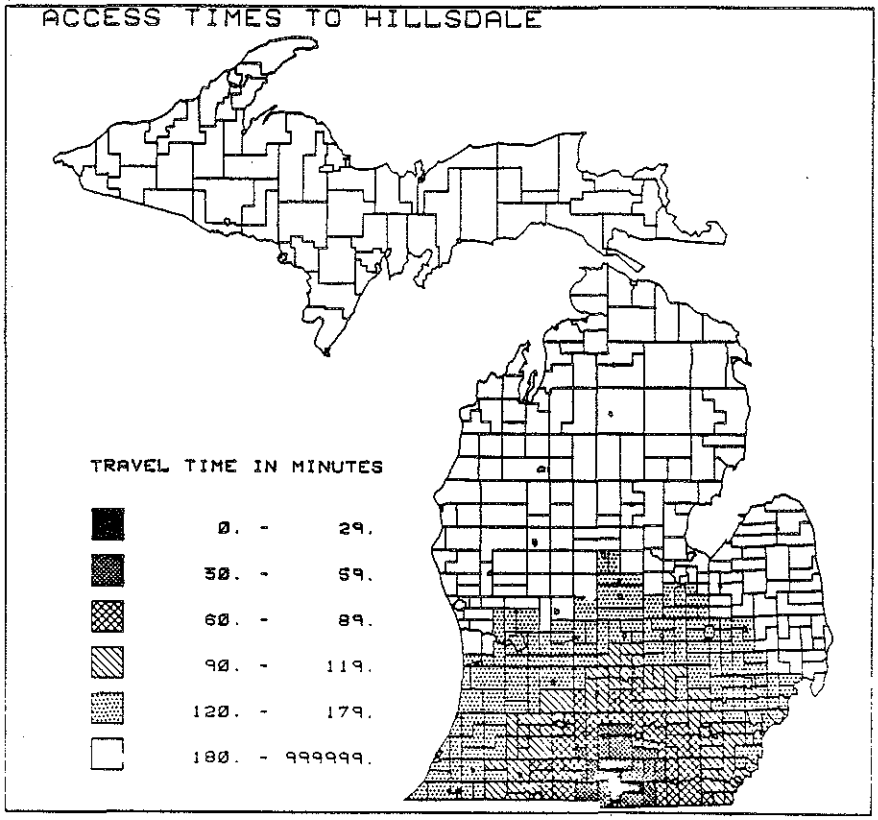
3. There is no regular intercity bus service serving the Hillsdale campus.

Potential Service Communities and Corridors

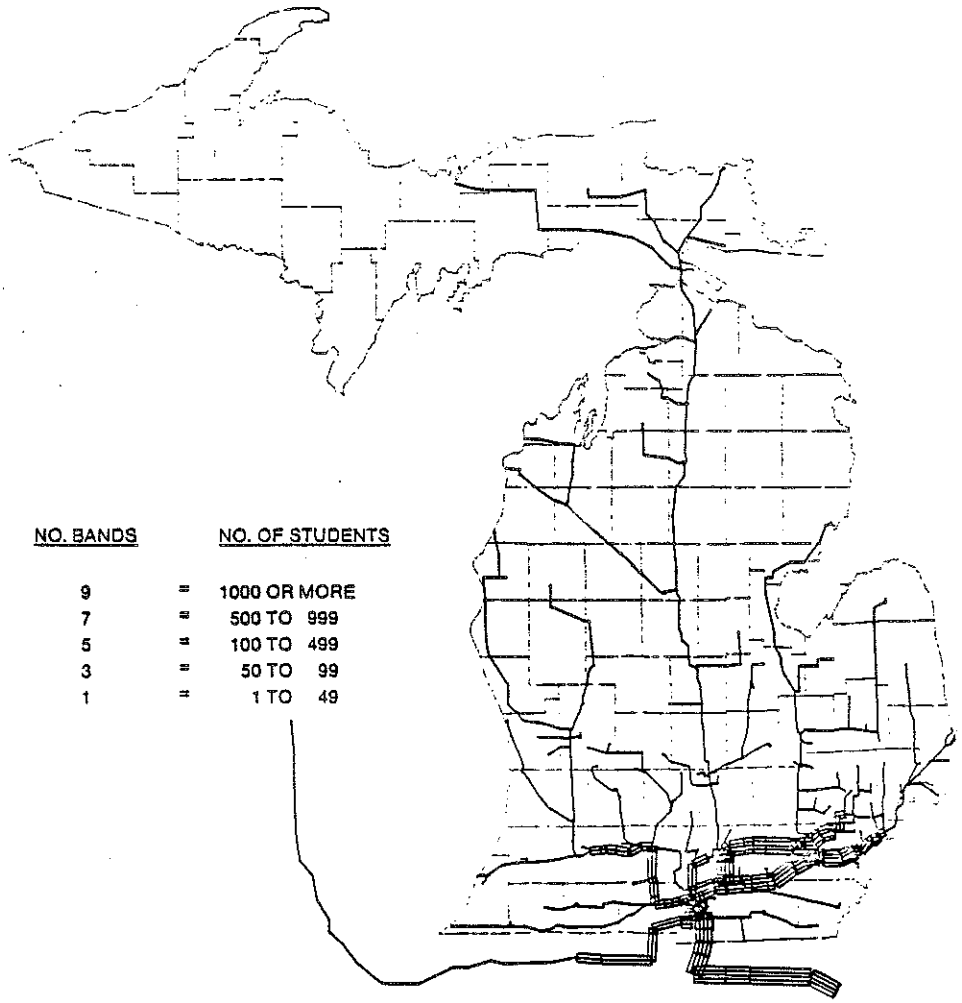
4. The potential exists for special service from the Hillsdale campus to Detroit and Pontiac via US-12/I-94/I75.

5. The potential exists for special service from the Hillsdale campus to Toledo via I-69/I-80. This route would serve as a connection to points in the State of Ohio.


HILLSDALE
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


ACCESS TIMES TO HILLSDALE
TRAVEL TIME IN MINUTES
0. - 29.
30. - 59.
60. - 89.
90. - 119.
120. - 179.
180. - 999999.

SIMULATED STUDENT TRAVEL PATTERNS FOR HILLSDALE



HOPE COLLEGE

Student Distribution Patterns

1. Approximately 62% of the 2,550 students attending Hope College reside within 60 minutes of the campus in Holland, 70% within 90 minutes, 72% within 120 minutes, and 76% within 180 minutes.

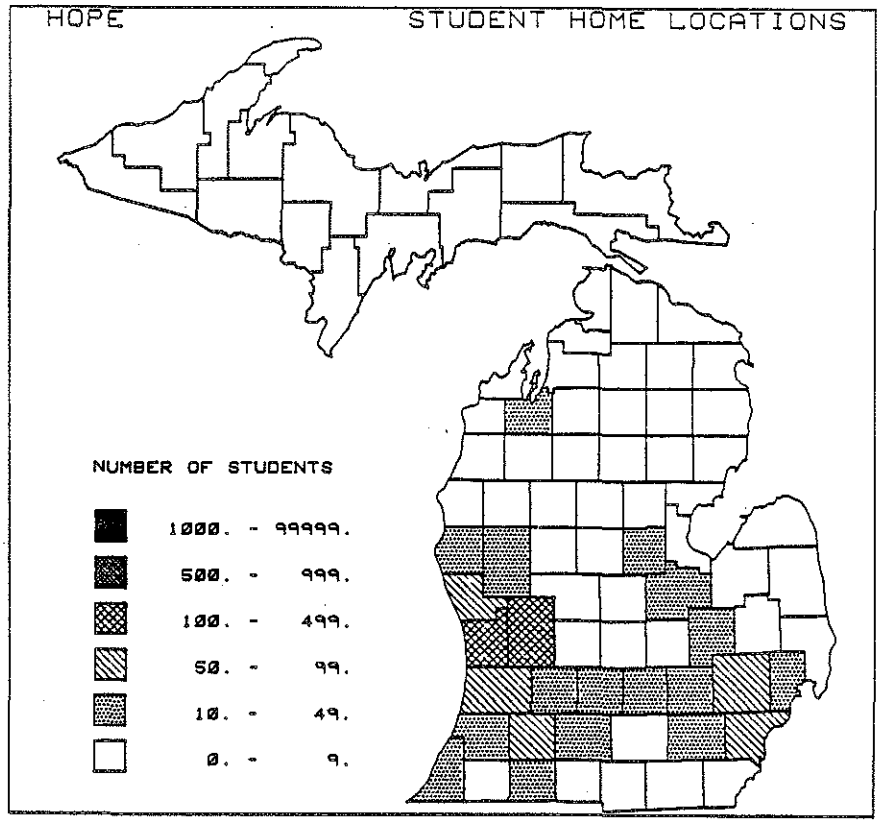
2. Student Home Location Concentrations (SHLC) are found in 1 of the 15 urbanized areas in the State of Michigan; Grand Rapids. There is also a large number of students who reside in the State of Illinois.

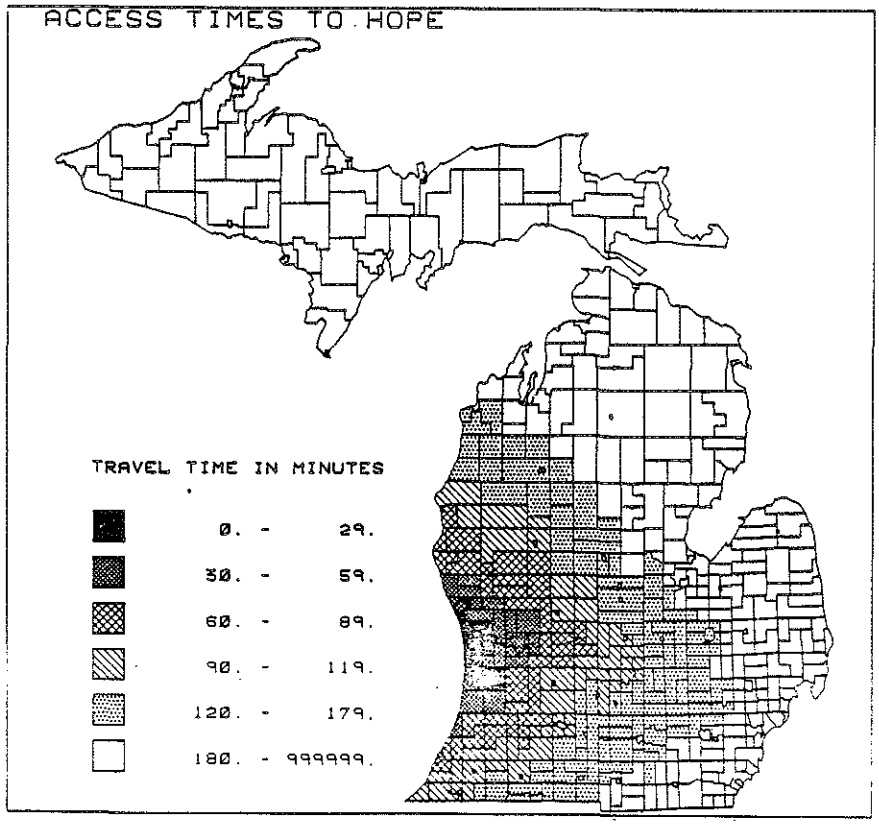
Existing Service Accommodating Student Distribution Patterns

3. Existing service connects Holland to Grand Rapids and to Chicago via I-196.

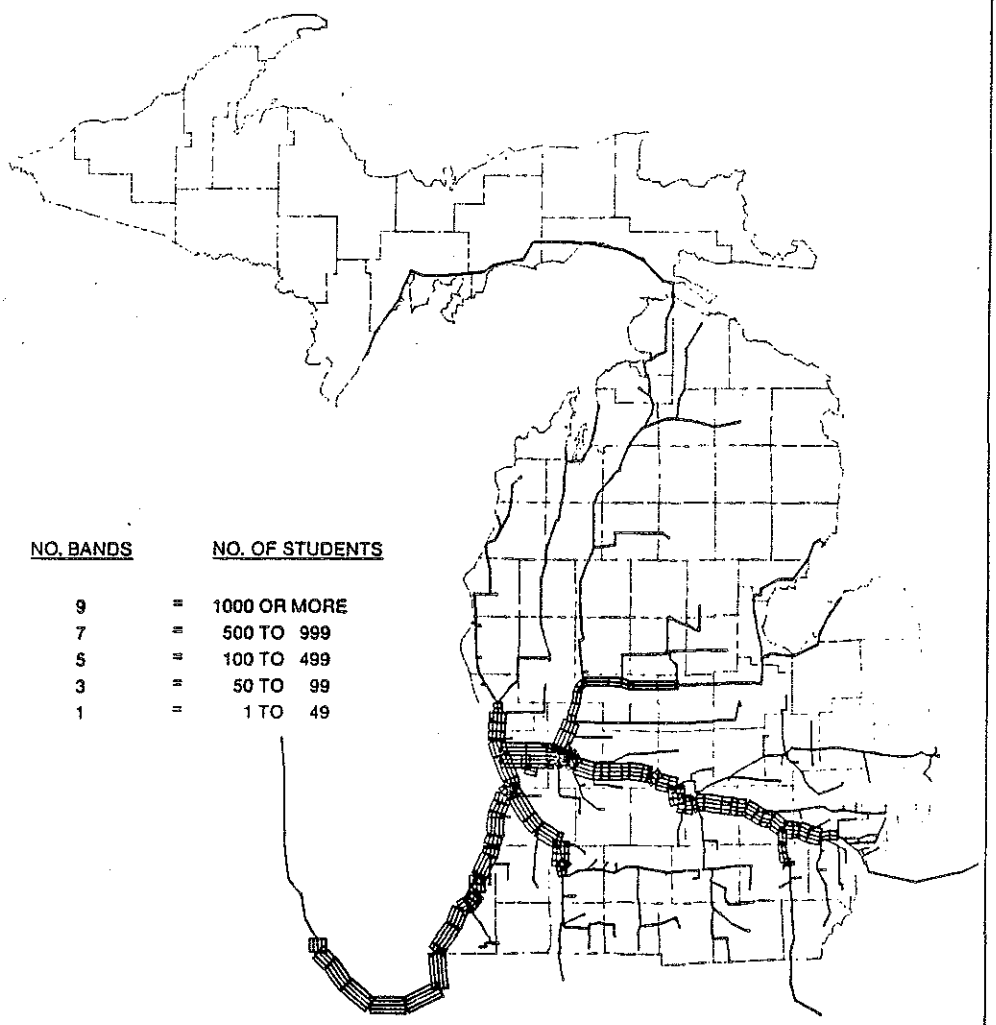
Potential Service Communities and Corridors

4. Existing service appears to serve the student distribution pattern well. There is limited potential for new service.


HOPE
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


ACCESS TIMES TO HOPE
TRAVEL TIME IN MINUTES
0. - 29.
30. - 59.
60. - 89.
90. - 119.
120. - 179.
180. - 999999.

SIMULATED STUDENT TRAVEL PATTERNS FOR HOPE



NO. BANDS		NO. OF STUDENTS
9	=	1000 OR MORE
7	=	500 TO 999
5	=	100 TO 499
3	=	50 TO 99
1	=	1 TO 49

KALAMAZOO COLLEGE

Student Distribution Patterns

1. Approximately 33% of the 1,106 students attending Kalamazoo College reside within 60 minutes of the campus in Kalamazoo, 39% within 90 minutes, 45% within 120 minutes, and 84% within 180 minutes.

2. Student Home Location Concentrations (SHLC) are found in 2 of the 15 urbanized areas in the State of Michigan; the Detroit Metropolitan Area, and Kalamazoo.

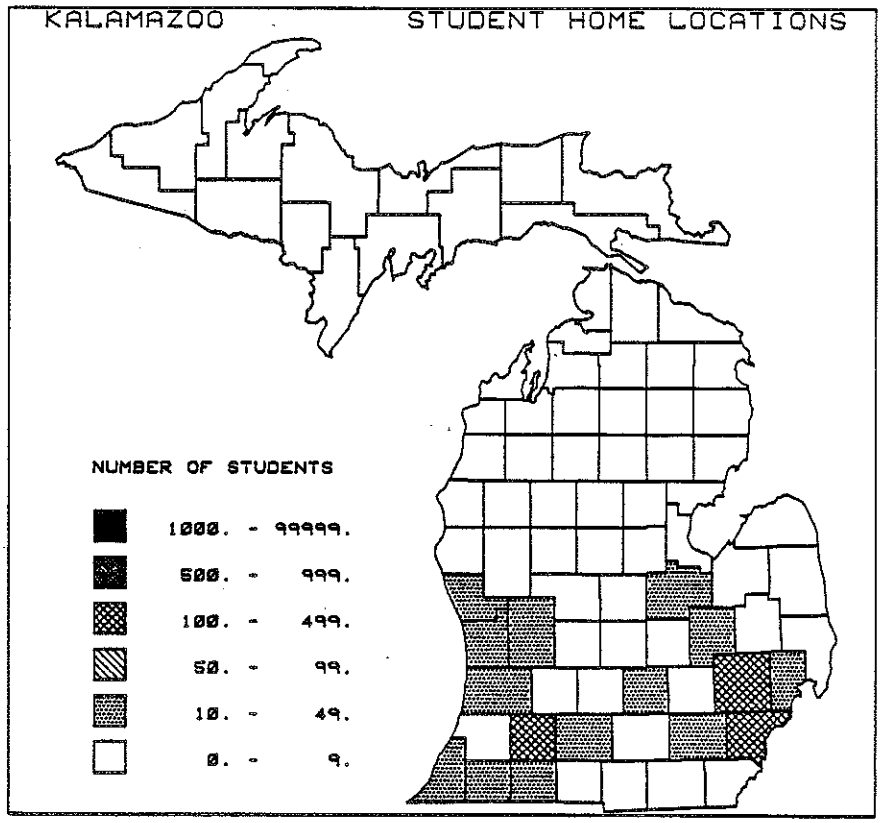
Existing Service Accommodating Student Distribution Patterns

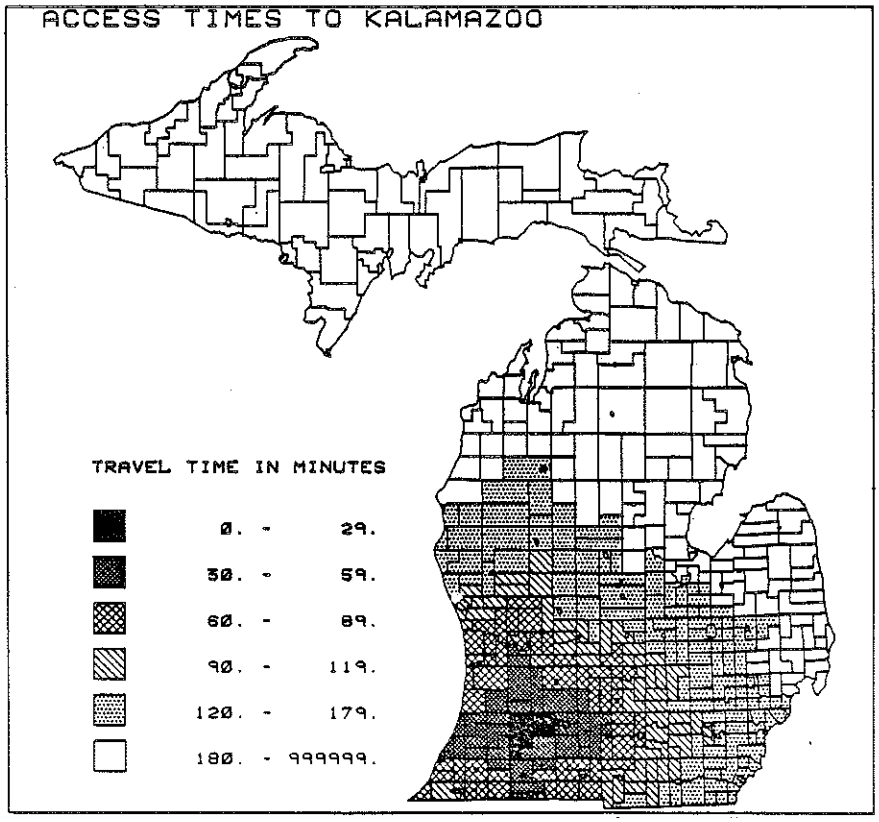
3. Existing service connects Kalamazoo to Detroit via I-94.

4. Connections can be made from Detroit to Pontiac, serving the northern Metropolitan Detroit Area, but the connection is poor, with a long layover in Detroit.

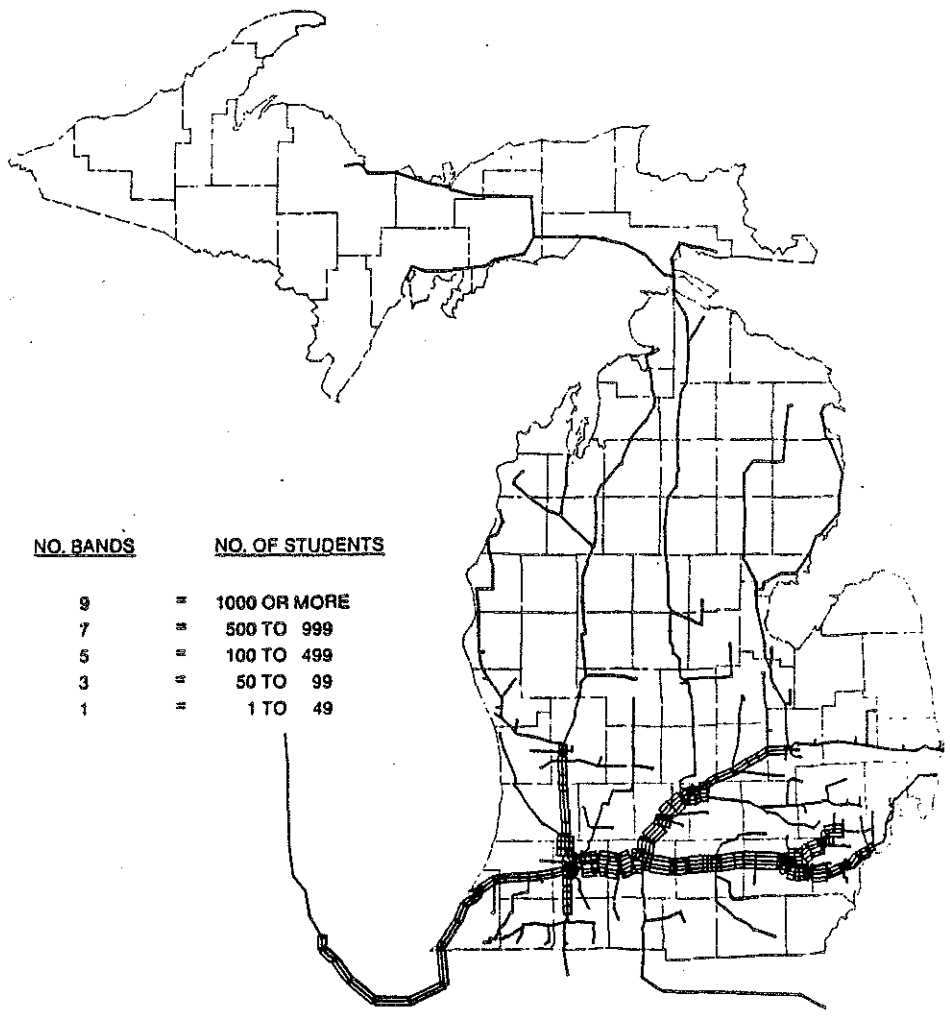
Potential Service Communities and Corridors

5. Improved connections from Detroit to Pontiac on weekends has the potential for improving ridership on both the Kalamazoo to Detroit and Detroit to Pontiac routes.


KALAMAZOO
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


ACCESS TIMES TO KALAMAZOO
TRAVEL TIME IN MINUTES
0. - 29.
30. - 59.
60. - 89.
90. - 119.
120. - 179.
180. - 999999.

SIMULATED STUDENT TRAVEL PATTERNS FOR KALAMAZOO



LAKE SUPERIOR STATE COLLEGE

Student Distribution Patterns

1. Approximately 41% of the 2,783 students attending Lake Superior State College reside within 60 minutes of the campus in Sault Ste. Marie, 44% within 90 minutes, 52% within 120 minutes, and 64% within 180 minutes.

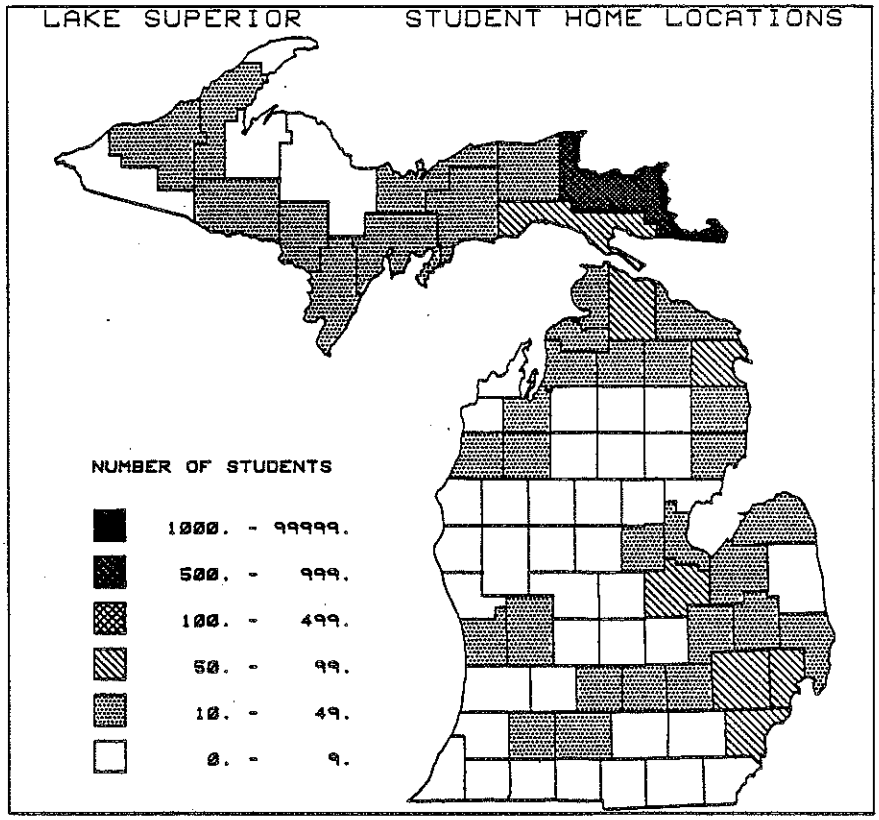
2. Student Home Location Concentrations (SHLC) are found in 0 of the 15 urbanized areas in the State of Michigan. There are high concentrations of students residing in Chippewa County.

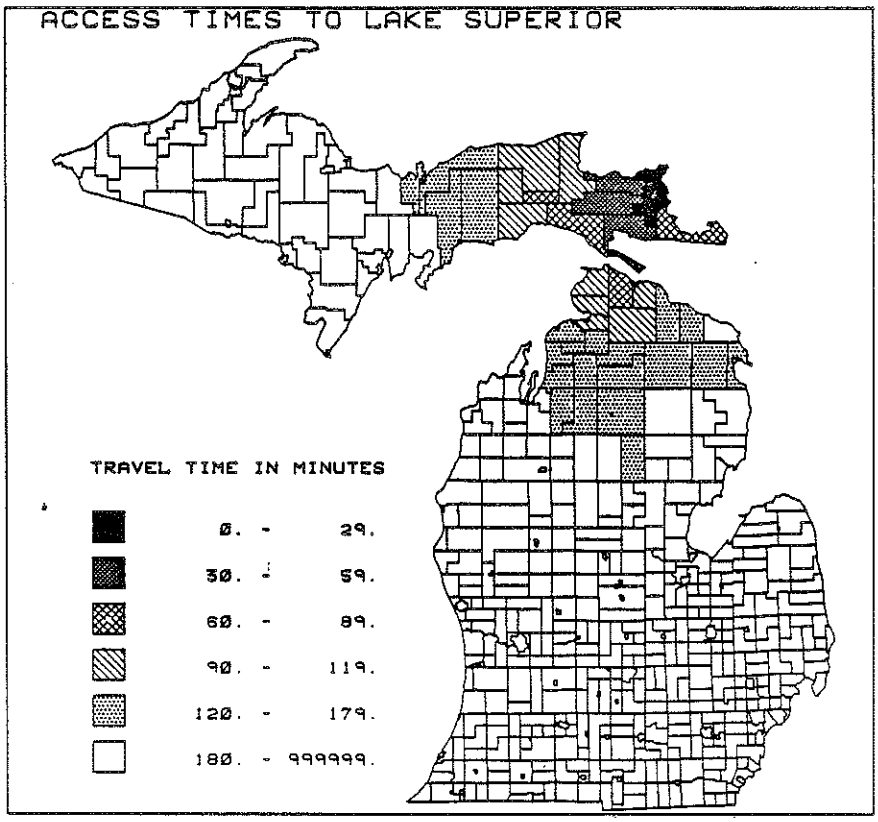
Existing Service Accommodating Student Distribution Patterns

3. There is no existing regular-route service accommodating the student distribution patterns for Lake Superior State College.

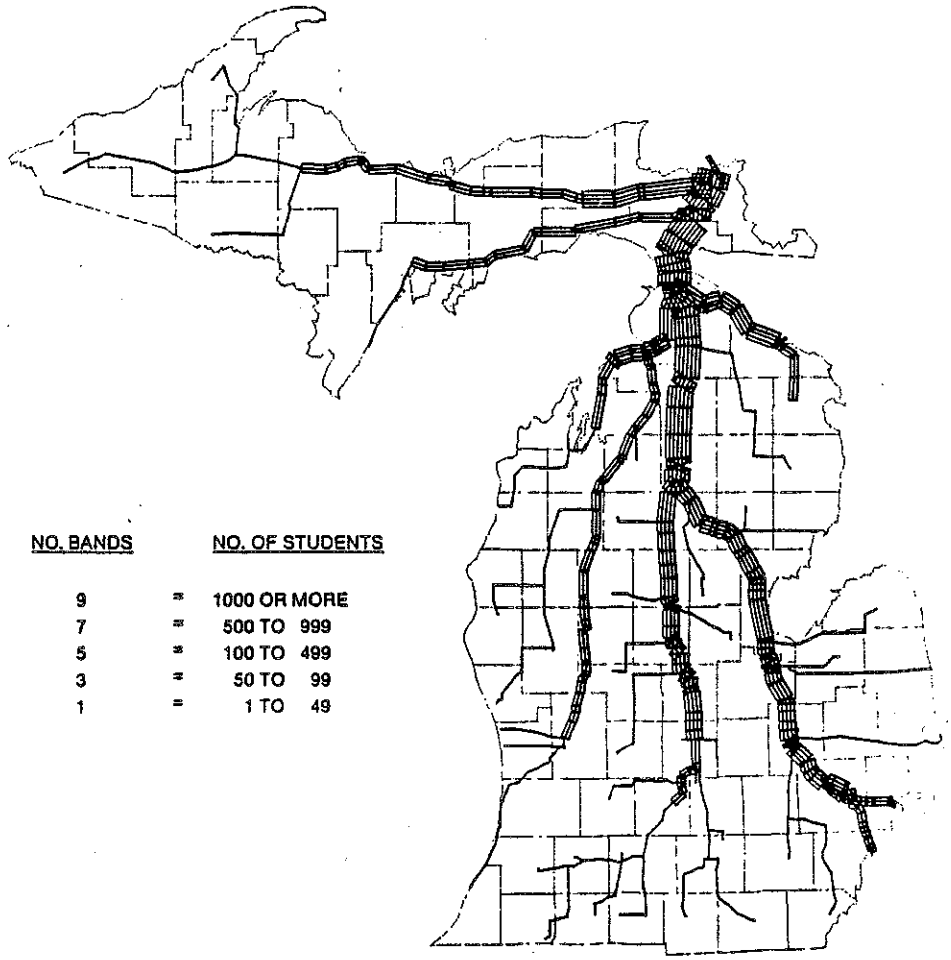
Potential Service Communities and Corridors

4. Because of the wide student distribution pattern, potential for special intercity bus services is limited.


LAKE SUPERIOR STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


ACCESS TIMES TO LAKE SUPERIOR
TRAVEL TIME IN MINUTES
0. - 29.
30. - 59.
60. - 89.
90. - 119.
120. - 179.
180. - 999999.

SIMULATED STUDENT TRAVEL PATTERNS FOR LAKE SUPERIOR STATE



NO. BANDS		NO. OF STUDENTS
9	=	1000 OR MORE
7	=	500 TO 999
5	=	100 TO 499
3	=	50 TO 99
1	=	1 TO 49

MERCY COLLEGE

Student Distribution Patterns

1. Approximately 96% of the 2,465 students attending Mercy College reside within 60 minutes of the campus in Detroit, 97% within 90 minutes, 99% within 120 minutes, and 100% within 180 minutes.

2. Student Home Location Concentrations (SHLC) are found in 1 of the 15 urbanized areas in the State of Michigan; the Detroit Metropolitan Area.

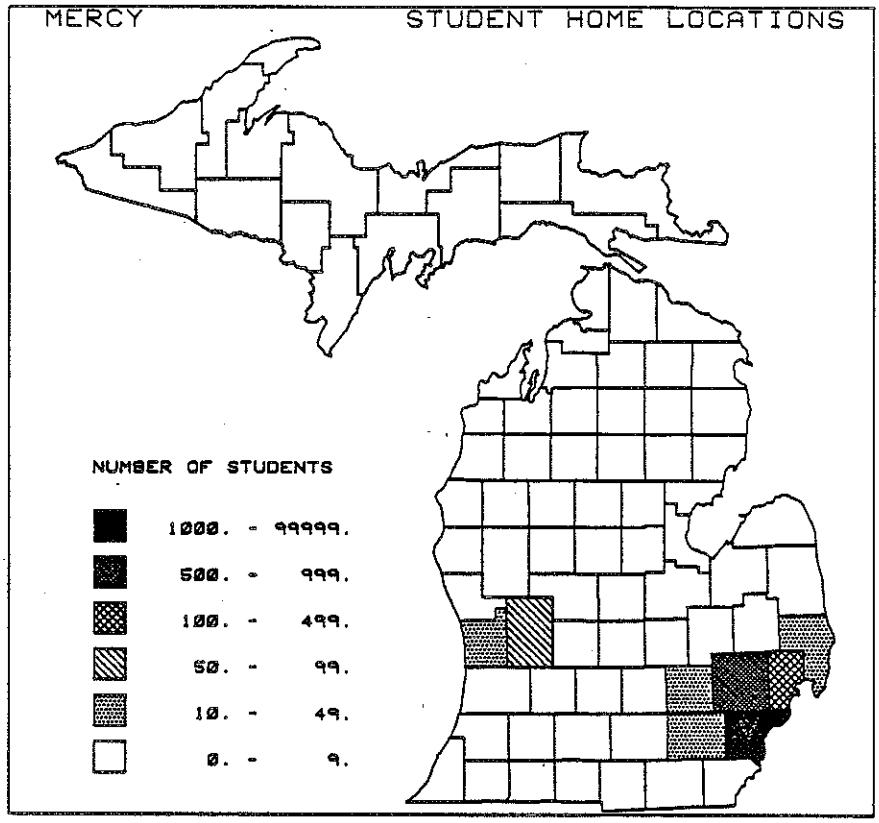
Existing Service Accommodating Student Distribution Patterns

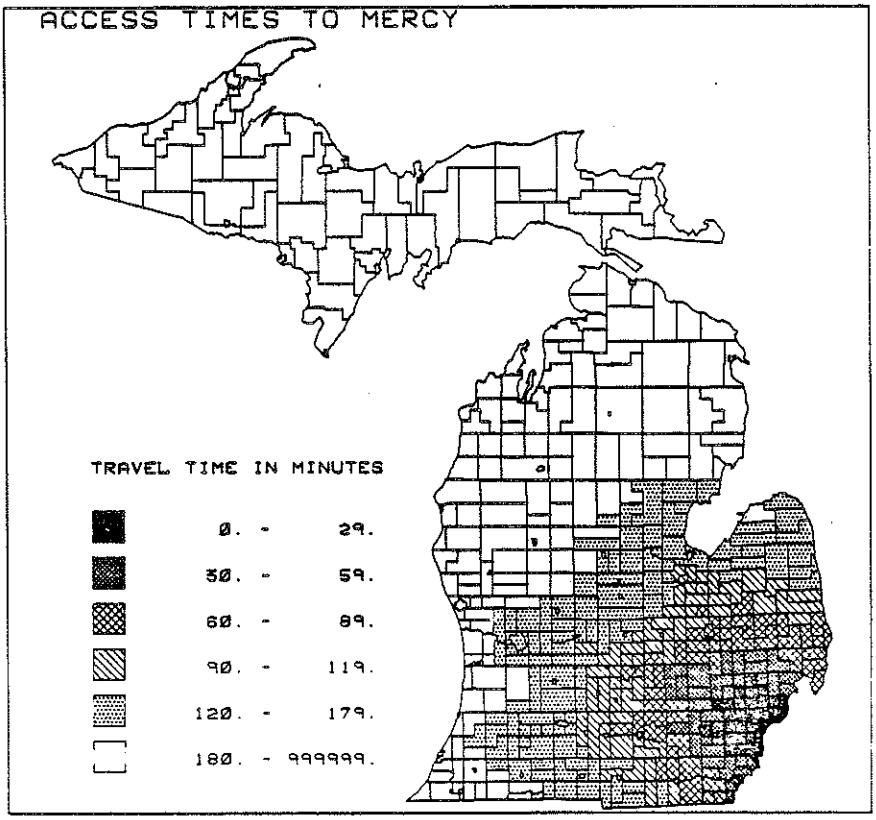
3. There is no existing regular service accommodating the student distribution patterns for Mercy College.

Potential Service Communities and Corridors

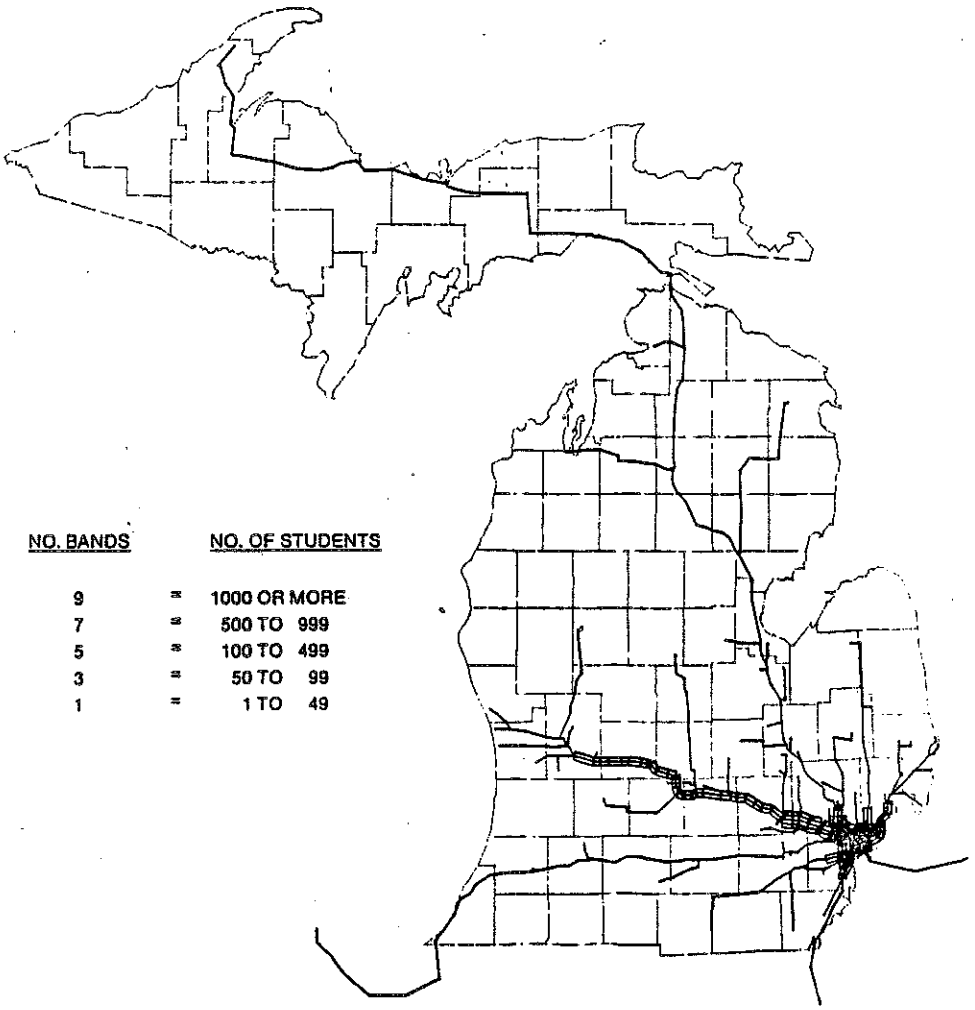
4. Because of the compact student residence distribution, potential for special intercity bus services is limited.

5. Special transportation needs of the Mercy College students may best be met by intracity bus service such as provided by the Detroit Department of Transportation (DDOT) or the Southeastern Michigan Transportation Authority (SEMTA).


MERCY
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


ACCESS TIMES TO MERCY
TRAVEL TIME IN MINUTES
0. - 29.
30. - 59.
60. - 89.
90. - 119.
120. - 179.
180. - 999999.

SIMULATED STUDENT TRAVEL PATTERNS FOR MERCY



NO. BANDS		NO. OF STUDENTS
9	=	1000 OR MORE
7	=	500 TO 999
5	=	100 TO 499
3	=	50 TO 99
1	=	1 TO 49

MICHIGAN STATE UNIVERSITY

Student Distribution Patterns

1. Approximately 33% of the 42,193 students attending Michigan State University reside within 60 minutes of the campus in East Lansing, 65% within 90 minutes, 90% within 120 minutes, and 95% within 180 minutes.

2. Student Home Location Concentrations (SHLC) are found in 15 of the 15 urbanized areas in the State of Michigan; Ann Arbor, Bay City, Battle Creek, Benton Harbor/St. Joseph, the Detroit Metropolitan Area, Flint, Grand Rapids, Jackson, Kalamazoo, Lansing, Muskegon, Niles/South Bend, Port Huron, Saginaw, and Toledo. There are also high concentrations of students residing in most of the counties in the Southern Lower Peninsula, the counties of Emmet and Grand Traverse in the Northern Lower Peninsula, and the states of Illinois, Indiana, and Ohio.

Existing Service Accommodating Student Distribution Patterns

3. Existing service accommodates much of the student travel demand in the I-94/I-69 corridor connecting Kalamazoo and Battle Creek with the MSU campus.

4. Existing service accommodates much of the student travel demand in the I-75/I-69 corridor connecting Bay City, Saginaw, and Flint with the MSU campus.

5. Existing service accommodates much of the student travel demand in the I-94/US-127 corridor connecting Ann Arbor and Jackson with the MSU campus.

6. Existing service accommodates much of the student travel demand in the I-96/I-696 corridor connecting Detroit and Southfield with the MSU campus.

7. Existing service accommodates much of the student travel demand in the I-96 corridor connecting Muskegon and Grand Rapids with the MSU campus.

8. Existing service accommodates much of the student travel demand in the US-131/M-115/US-27/US-127 corridor connecting Traverse City, Cadillac, Clare, Mt. Pleasant, and Alma with the MSU campus.

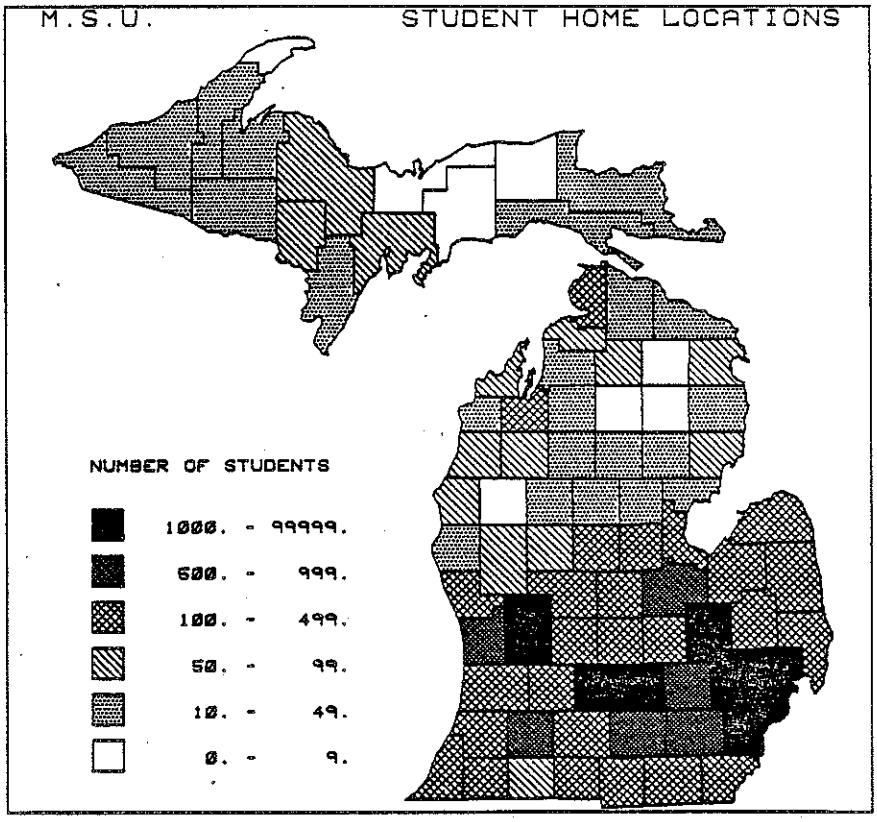
Potential Service Communities and Corridors

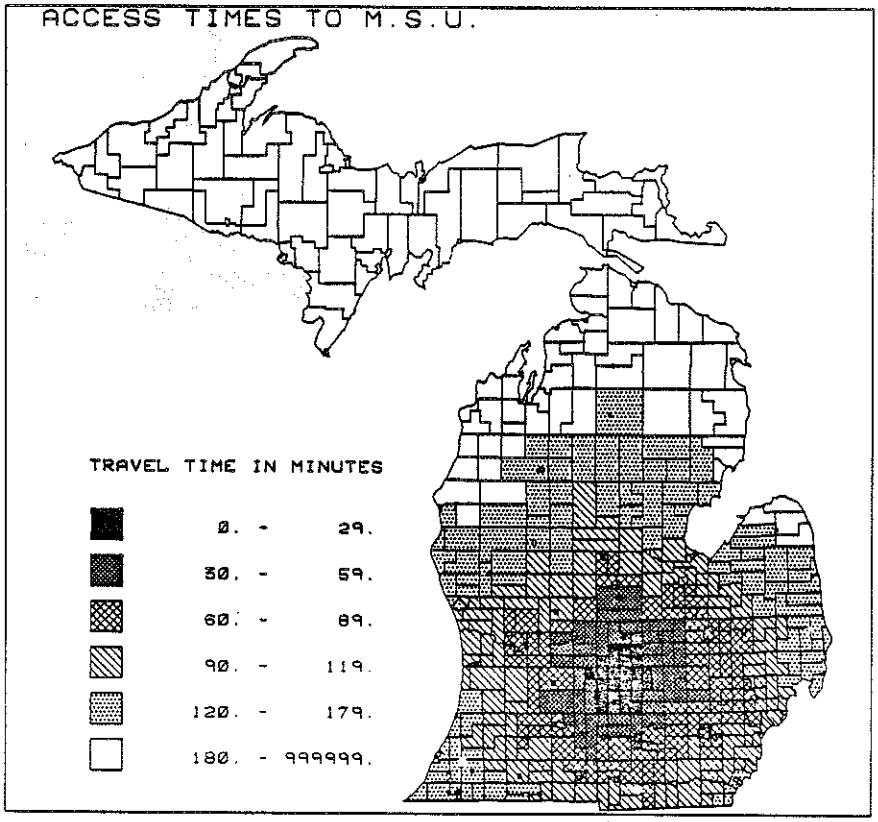
9. The potential exists to provide service to Holland from Grand Rapids. Existing connection times do not provide for

a convenient route.

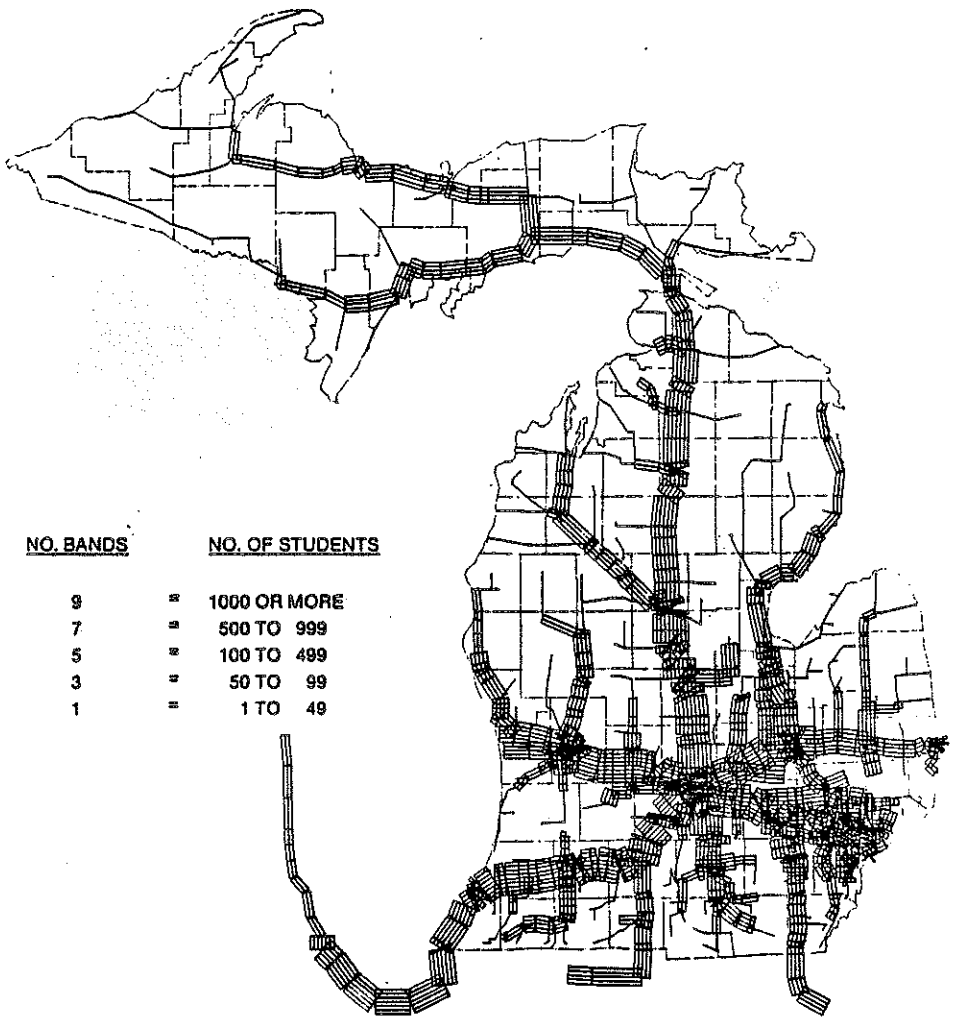
10. The potential exists to provide service to Benton Harbor/St. Joseph and Niles/South Bend.

11. The potential exists for improved connections from Detroit to Port Huron and from Detroit to Toledo.


M.S.U.
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


ACCESS TIMES TO M.S.U.
TRAVEL TIME IN MINUTES
0. - 29.
30. - 59.
60. - 89.
90. - 119.
120. - 179.
180. - 999999.

SIMULATED STUDENT TRAVEL PATTERNS FOR M.S.U.



MICHIGAN TECHNOLOGICAL UNIVERSITY

Student Distribution Patterns

1. Approximately 22% of the 6,935 students attending Michigan Technological University reside within 60 minutes of the campus in Houghton, 23% within 90 minutes, 24% within 120 minutes, and 31% within 180 minutes.

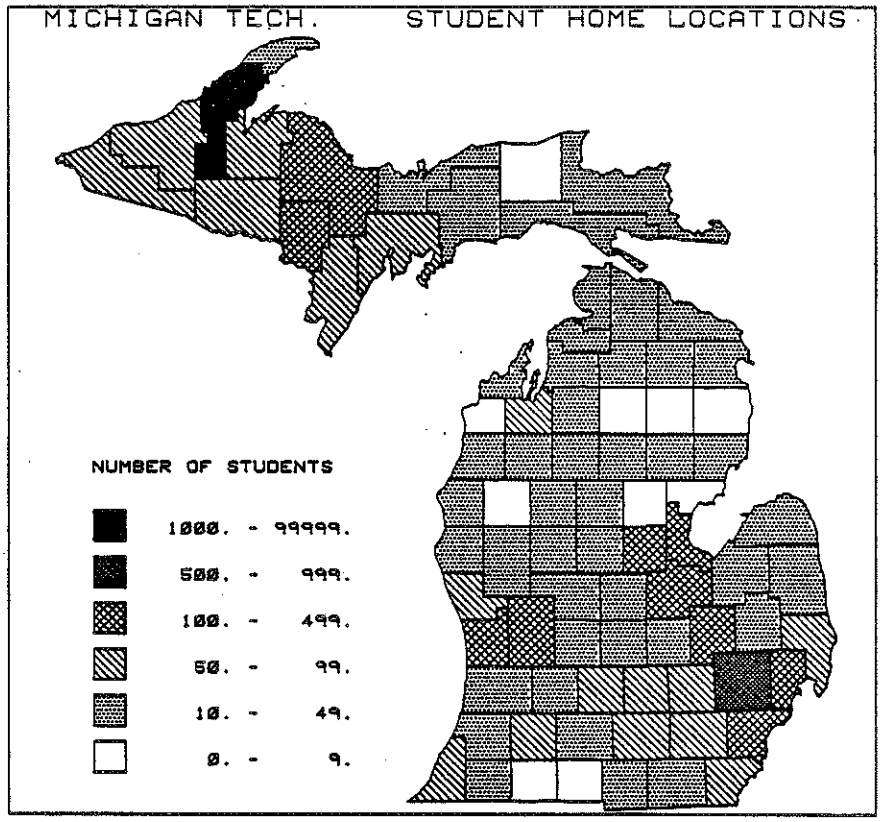
2. Student Home Location Concentrations (SHLC) are found in 5 of the 15 urbanized areas in the State of Michigan; Bay City, the Detroit Metropolitan Area, Flint, Grand Rapids, and Saginaw. There are also high concentrations of students residing in the counties of Dickinson, Houghton, Marquette, and Midland and from the states of Illinois and Wisconsin.

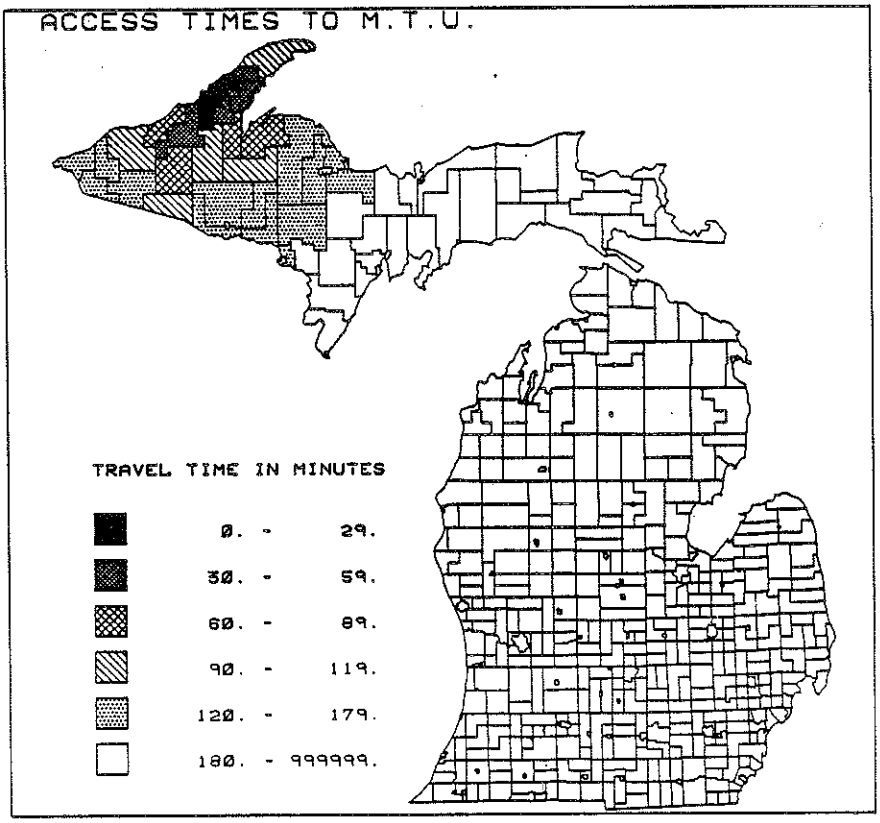
Existing Service Accommodating Student Distribution Patterns

3. Existing service is limited and inconvenient, running only during early morning hours.

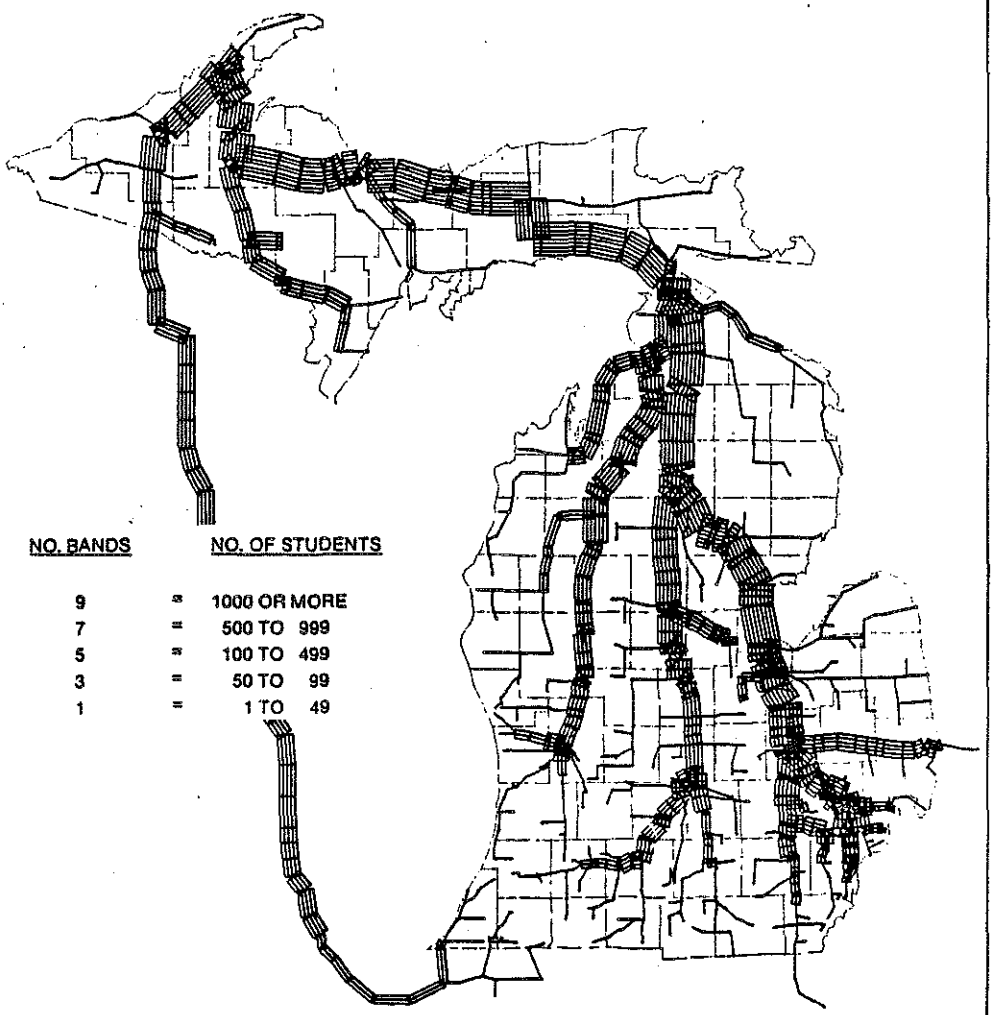
Potential Service Communities and Corridors

4. There is limited potential for special express service from Houghton to the Detroit Metropolitan Area via Midland, Bay City, Saginaw, and Flint. This route may be impractical for weekend service because of the trip length.


MICHIGAN TECH. STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


ACCESS TIMES TO M.T.U.
TRAVEL TIME IN MINUTES
0. - 29.
30. - 59.
60. - 89.
90. - 119.
120. - 179.
180. - 999999.

SIMULATED STUDENT TRAVEL PATTERNS FOR MICHIGAN TECH.



NORTHERN MICHIGAN UNIVERSITY

Student Distribution Patterns

1. Approximately 56% of the 7,824 students attending Northern Michigan University reside within 60 minutes of the campus in Marquette, 59% within 90 minutes, 68% within 120 minutes, and 79% within 180 minutes.

2. Student Home Location Concentrations (SHLC) are found in 2 of the 15 urbanized areas in the State of Michigan; the Detroit Metropolitan Area, and Flint. There are also high concentrations of students residing in the Western Upper Peninsula and in the State of Wisconsin.

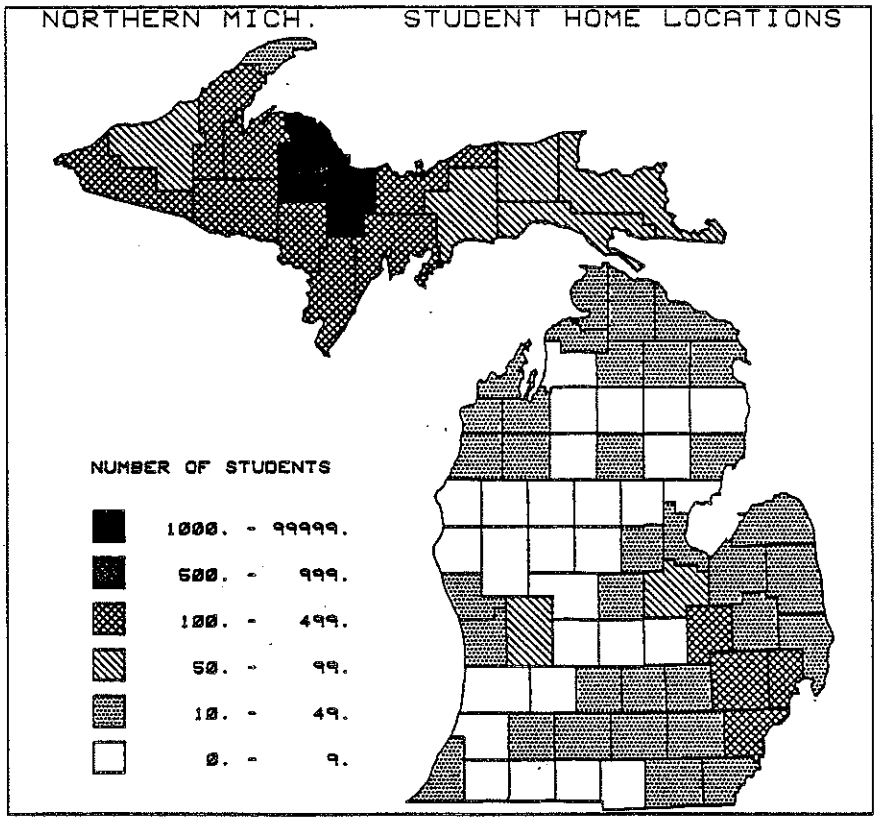
Existing Service Accommodating Student Distribution Patterns

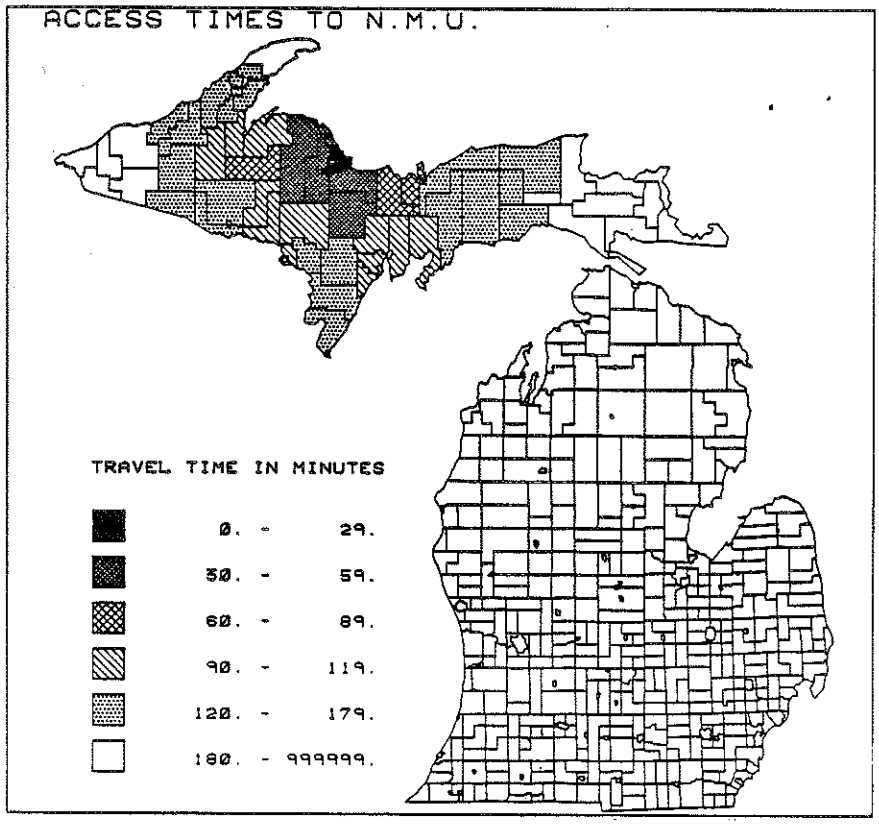
3. Existing service is limited and inconvenient, running only during early morning hours.

Potential Service Communities and Corridors

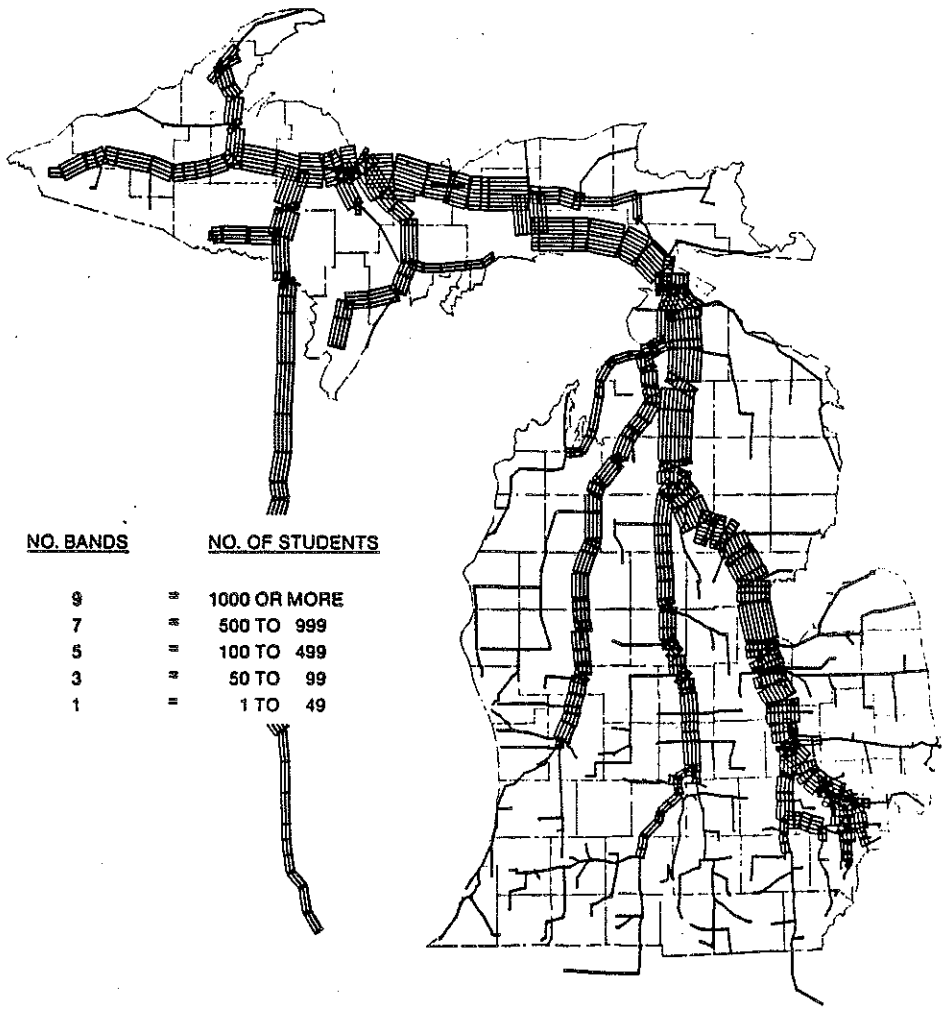
4. A route serving the western portion of the Upper Peninsula and northeastern Wisconsin has the potential for service. The widespread distribution of student residences throughout the area makes it difficult to determine an exact route that would be most effective. One potential would be from Marquette to Escanaba to Menominee via US-41 and then either to Iron Mountain or to Green Bay from Menominee. Time and distance constraints may make this routing impractical for weekend travel.

5. Service to the Detroit Metropolitan Area and Flint may have potential although time and distance constraints may make this routing impractical for weekend travel.


NORTHERN MICH. STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


ACCESS TIMES TO N.M.U.
TRAVEL TIME IN MINUTES
0. - 29.
30. - 59.
60. - 89.
90. - 119.
120. - 179.
180. - 999999.

SIMULATED STUDENT TRAVEL PATTERNS FOR NORTHERN MICHIGAN



OAKLAND UNIVERSITY

Student Distribution Patterns

1. Approximately 98% of the 11,971 students attending Oakland University reside within 60 minutes of the campus in Rochester, 100% within 90 minutes, 100% within 120 minutes, and 100% within 180 minutes.

2. Student Home Location Concentrations (SHLC) are found in 3 of the 15 urbanized areas in the State of Michigan; the Detroit Metropolitan Area, Flint, and Port Huron.

Existing Service Accommodating Student Distribution Patterns

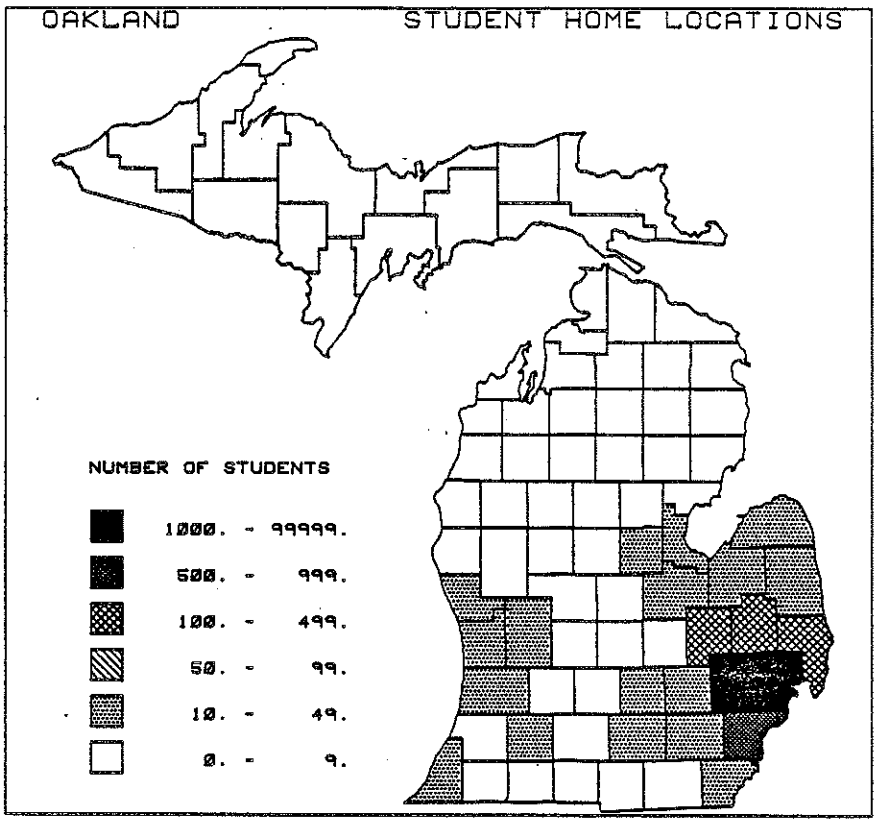
3. Existing service connects Flint, Pontiac, and Detroit to the campus in Rochester along the I-75 corridor.

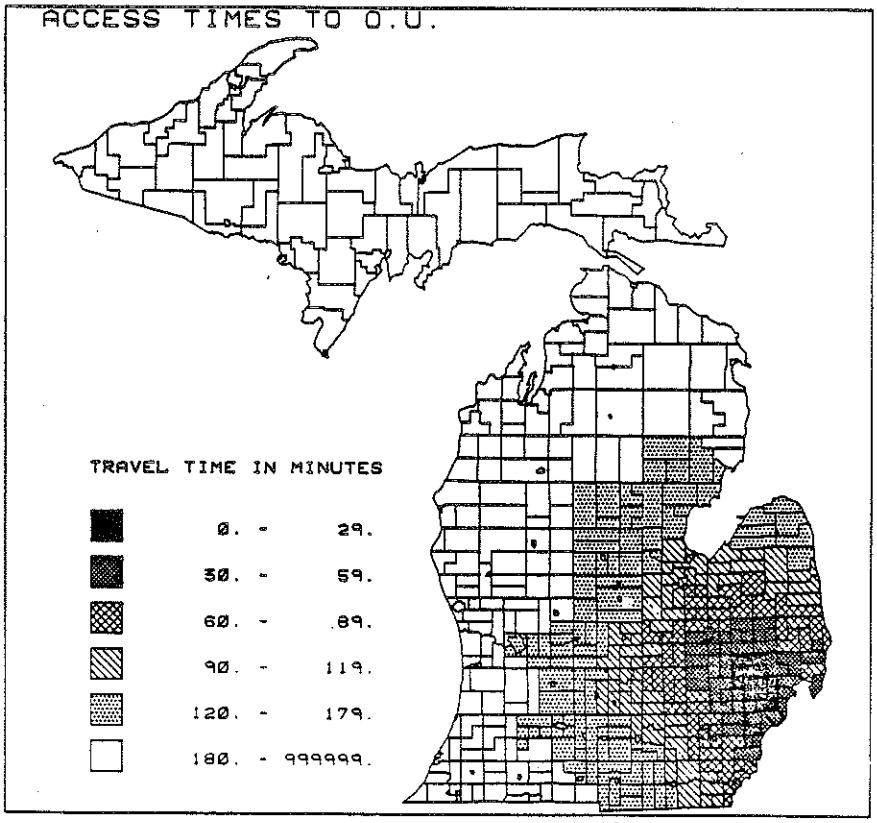
4. Connections can be made between Port Huron and Mt. Clemens from Flint, Pontiac, and Detroit.

Potential Service Communities and Corridors

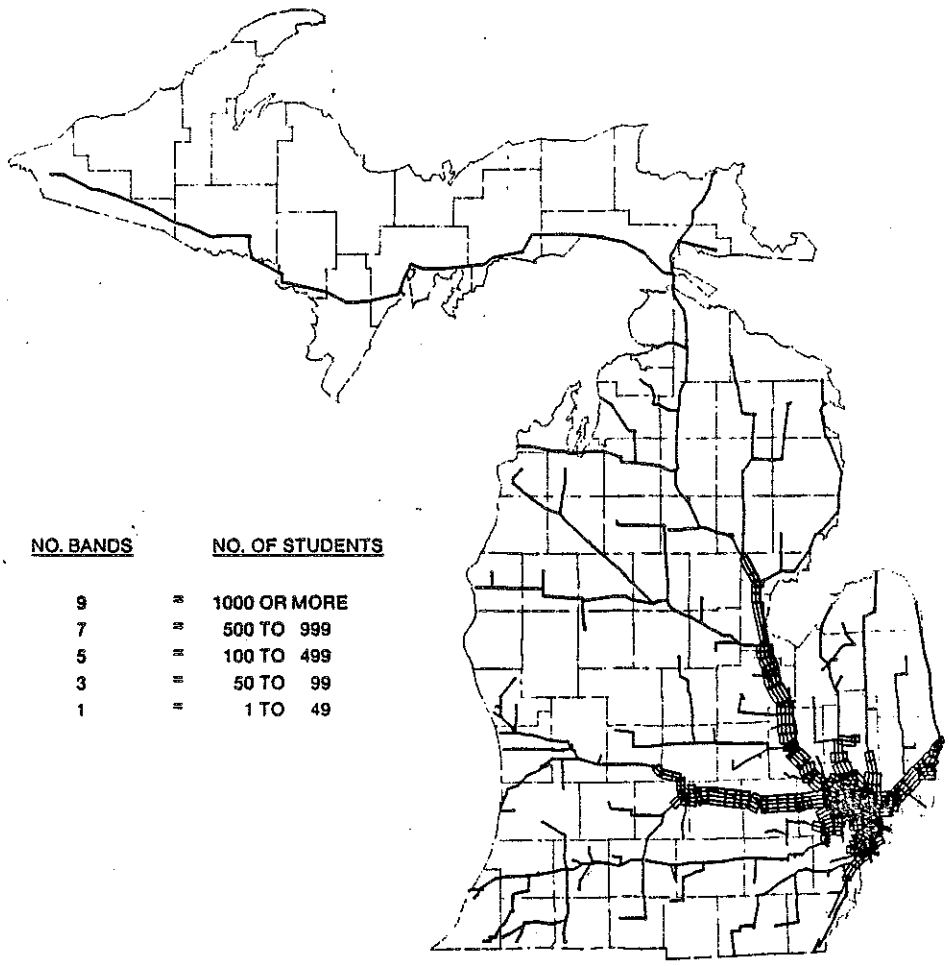
5. Potential for new special services is limited because the concentration of student residences is in the Detroit Metropolitan area.

6. The most effective potential for special service may be to combine service to Oakland University with other universities with a wider distribution pattern.


OAKLAND
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


ACCESS TIMES TO O.U.
TRAVEL TIME IN MINUTES
0. - 29.
30. - 59.
60. - 89.
90. - 119.
120. - 179.
180. - 999999.

SIMULATED STUDENT TRAVEL PATTERNS FOR OAKLAND



NO. BANDS		NO. OF STUDENTS
9	=	1000 OR MORE
7	=	500 TO 999
5	=	100 TO 499
3	=	50 TO 99
1	=	1 TO 49

SAGINAW VALLEY STATE COLLEGE

Student Distribution Patterns

1. Approximately 0% of the 460 students attending Saginaw Valley State College reside within 60 minutes of the campus in University Center, 0% within 90 minutes, 50% within 120 minutes, and 100% within 180 minutes (see **Note** below).

2. Student Home Location Concentrations (SHLC) are found in 0 of the 15 urbanized areas in the State of Michigan.

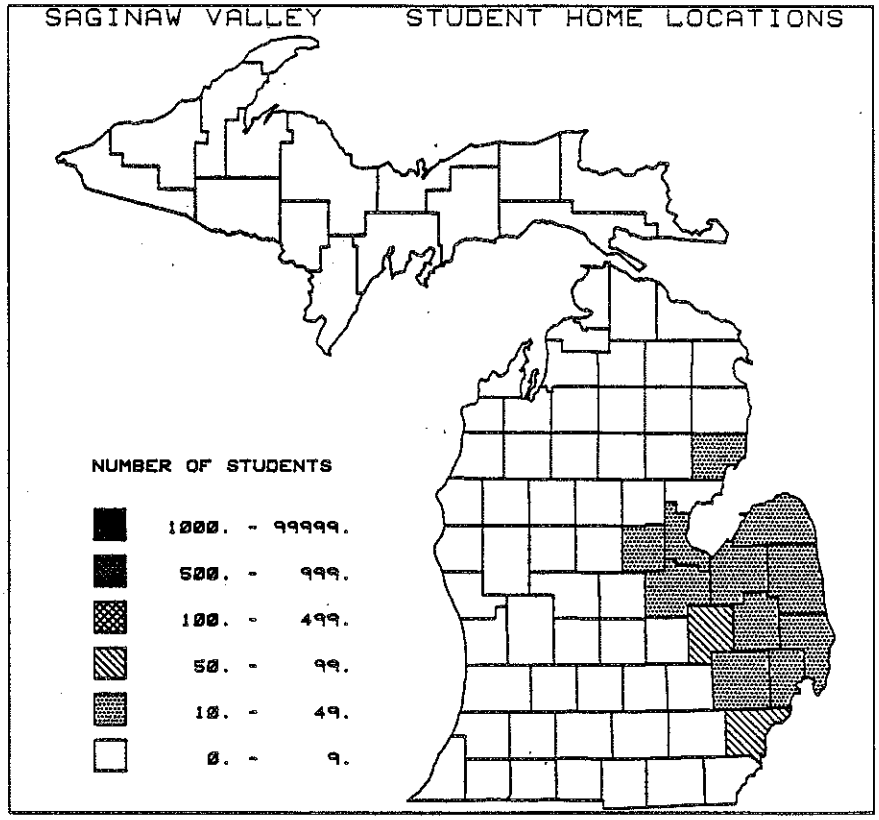
Note: The information provided by Saginaw Valley State College is for on-campus dormitory students only. The majority of students commute daily to school at SVSC. These students are not included in the analysis. The actual number of enrolled students is 4,833.

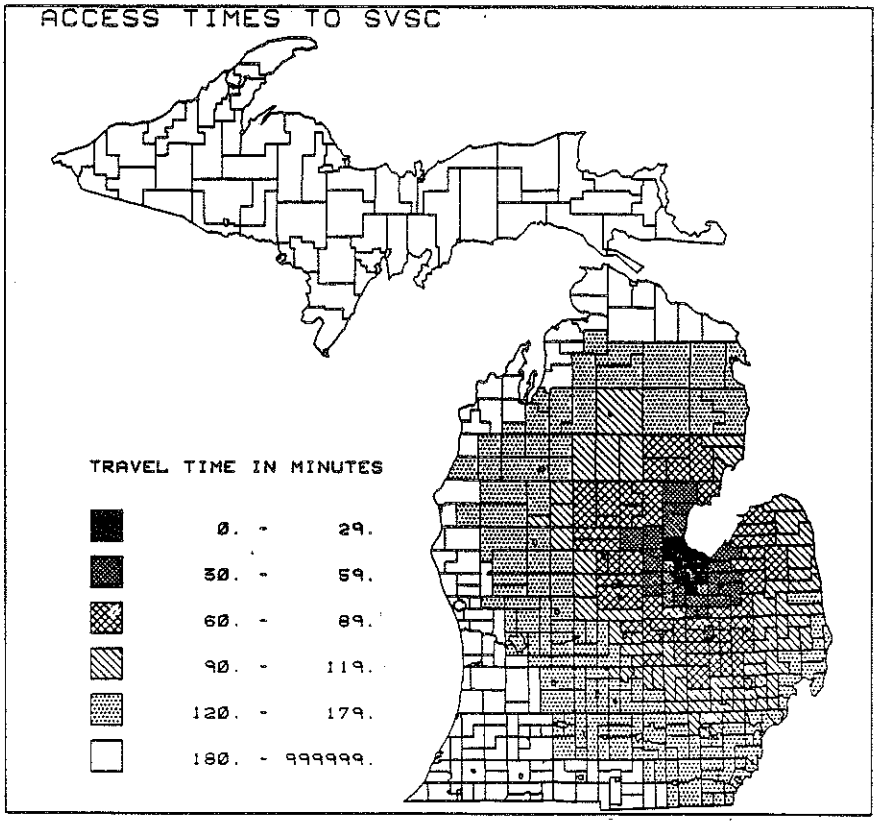
Existing Service Accommodating Student Distribution Patterns

3. There is no existing regular service connecting Saginaw Valley State College to the urbanized areas of the state.

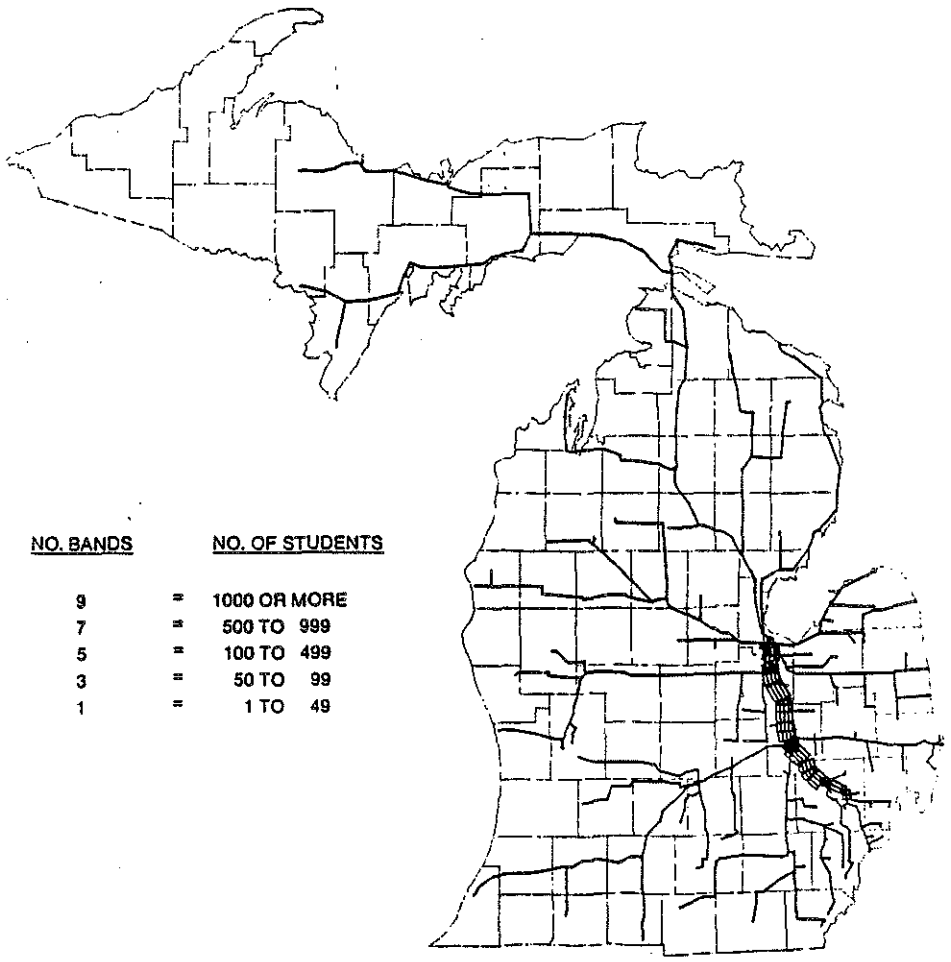
Potential Service Communities and Corridors

4. Because of limited student home distribution patterns for dormitory students, there is a low potential for special weekend service.


SAGINAW VALLEY STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


ACCESS TIMES TO SVSC
TRAVEL TIME IN MINUTES
0. - 29.
30. - 59.
60. - 89.
90. - 119.
120. - 179.
180. - 999999.

SIMULATED STUDENT TRAVEL PATTERNS FOR SAGINAW VALLEY STATE



NO. BANDS		NO. OF STUDENTS
9	=	1000 OR MORE
7	=	500 TO 999
5	=	100 TO 499
3	=	50 TO 99
1	=	1 TO 49

UNIVERSITY OF MICHIGAN

Student Distribution Patterns

1. Approximately 59% of the 34,467 students attending the University of Michigan reside within 60 minutes of the campus in Ann Arbor, 79% within 90 minutes, 84% within 120 minutes, and 95% within 180 minutes (see **Note** below).

2. Student Home Location Concentrations (SHLC) are found in 15 of the 15 urbanized areas in the State of Michigan; Ann Arbor, Bay City, Battle Creek, Benton Harbor/St. Joseph, the Detroit Metropolitan Area, Flint, Grand Rapids, Jackson, Kalamazoo, Lansing, Muskegon, Niles/South Bend, Port Huron, Saginaw, and Toledo. There are also high concentrations of students residing in the Traverse City area and the State of Illinois.

Note: Data was unavailable for the proximity analysis for areas outside of the State of Michigan, except for Chicago and Toledo, which are included. Out-of-state students are included in the remainder of the analysis.

Existing Service Accommodating Student Distribution Patterns

3. Existing service connects Jackson, Battle Creek, Kalamazoo, Benton Harbor, and Chicago from to the U of M campus via I-94.

4. Existing service connects Bay City, Saginaw, Flint, Brighton, the Detroit Metropolitan Airport, Monroe, and Toledo to the U of M campus via I-75.

5. Existing service connects Traverse City (limited service), Grand Rapids, Lansing, Jackson, Ypsilanti, Detroit, and Toledo to the U of M campus via M-37/M-113/US-131/I-96/US-127/I-94.

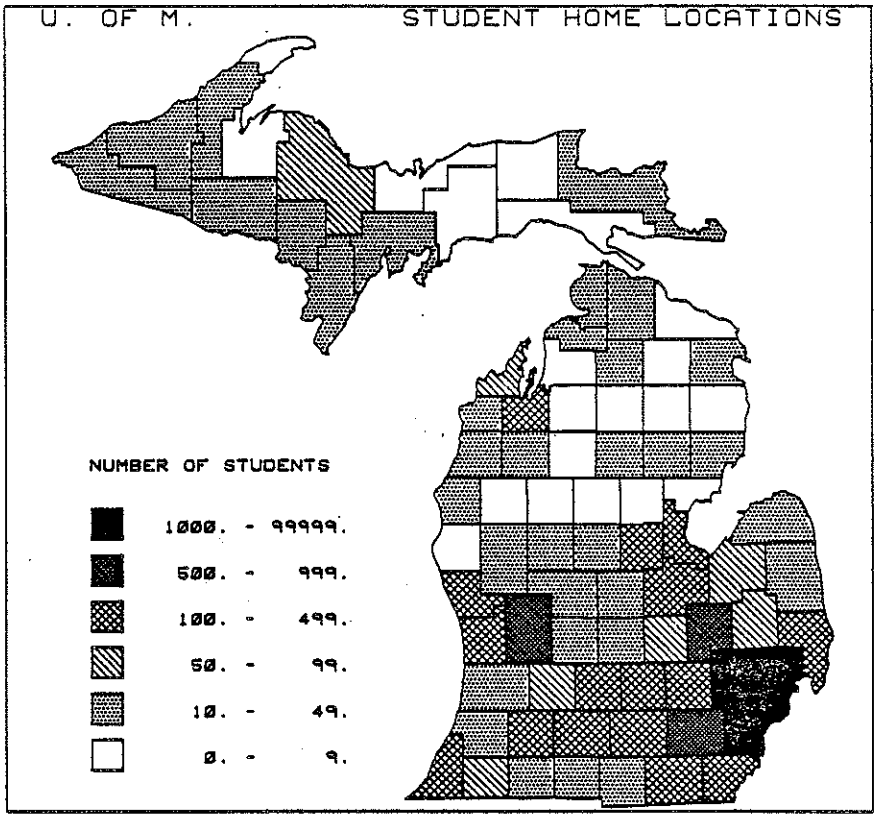
6. Existing service connects Mt. Clemens, Pontiac, and Farmington to the U of M campus via M-59/US-23.

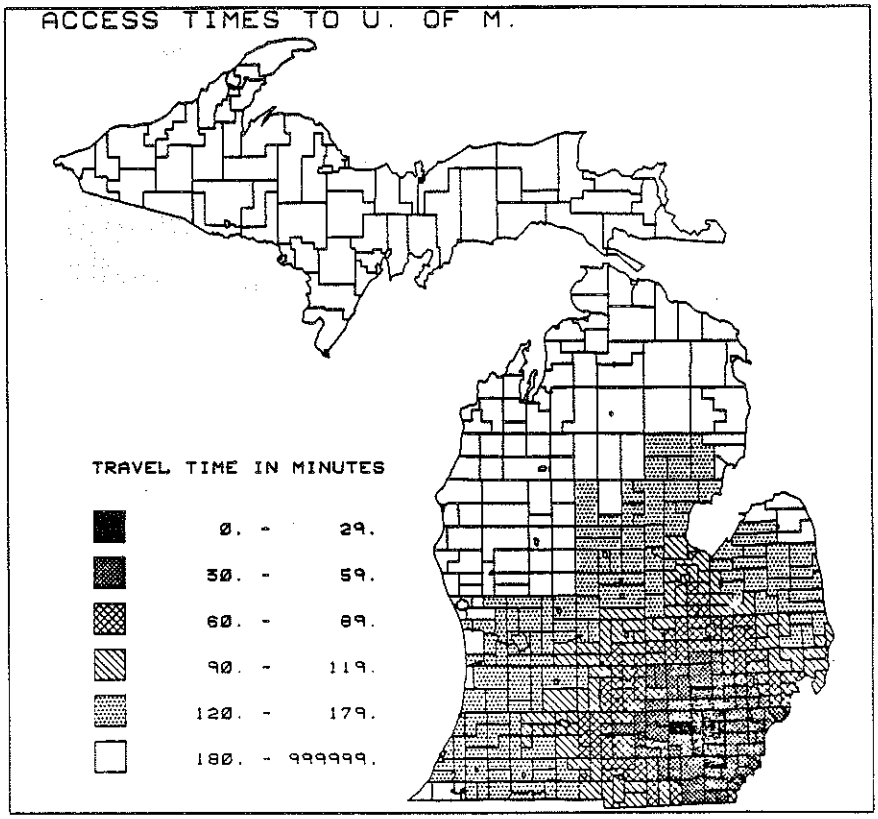
Potential Service Communities and Corridors

7. The potential exists for new special weekend service to Port Huron. This trip could be combined with stops at Eastern Michigan University in Ypsilanti and the Detroit Metropolitan Area.

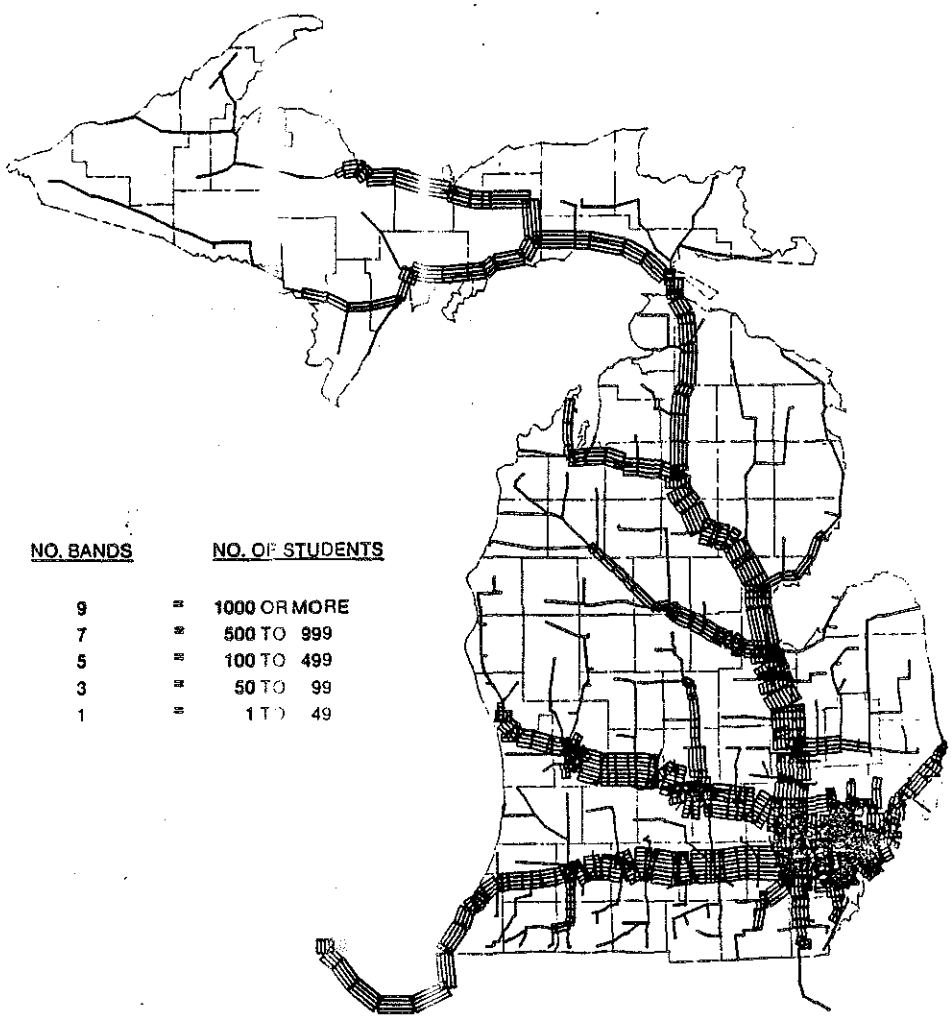
8. The potential exists for special weekend deviation service

to Niles/South Bend from Benton Harbor/St. Joseph and to Muskegon from Grand Rapids.


U. OF M.
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


ACCESS TIMES TO U. OF M.
TRAVEL TIME IN MINUTES
0. - 29.
30. - 59.
60. - 89.
90. - 119.
120. - 179.
180. - 999999.

SIMULATED STUDENT TRAVEL PATTERNS FOR U.M.



NO. BANDS		NO. OF STUDENTS
9	=	1000 OR MORE
7	=	500 TO 999
5	=	100 TO 499
3	=	50 TO 99
1	=	1 TO 49

UNIVERSITY OF MICHIGAN, DEARBORN

Student Distribution Patterns

1. Approximately 100% of the 6,321 students attending the University of Michigan, Dearborn reside within 60 minutes of the campus in Dearborn, 100% within 90 minutes, 100% within 120 minutes, and 100% within 180 minutes.

2. Student Home Location Concentrations (SHLC) are found in 1 of the 15 urbanized areas in the State of Michigan; the Detroit Metropolitan Area.

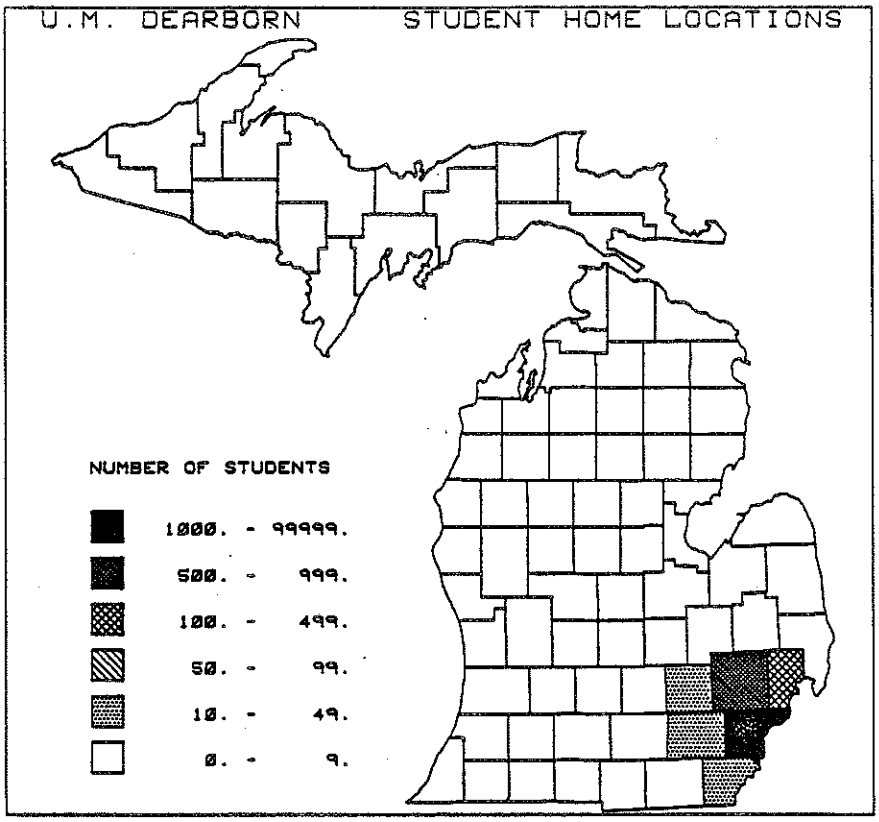
Existing Service Accommodating Student Distribution Patterns

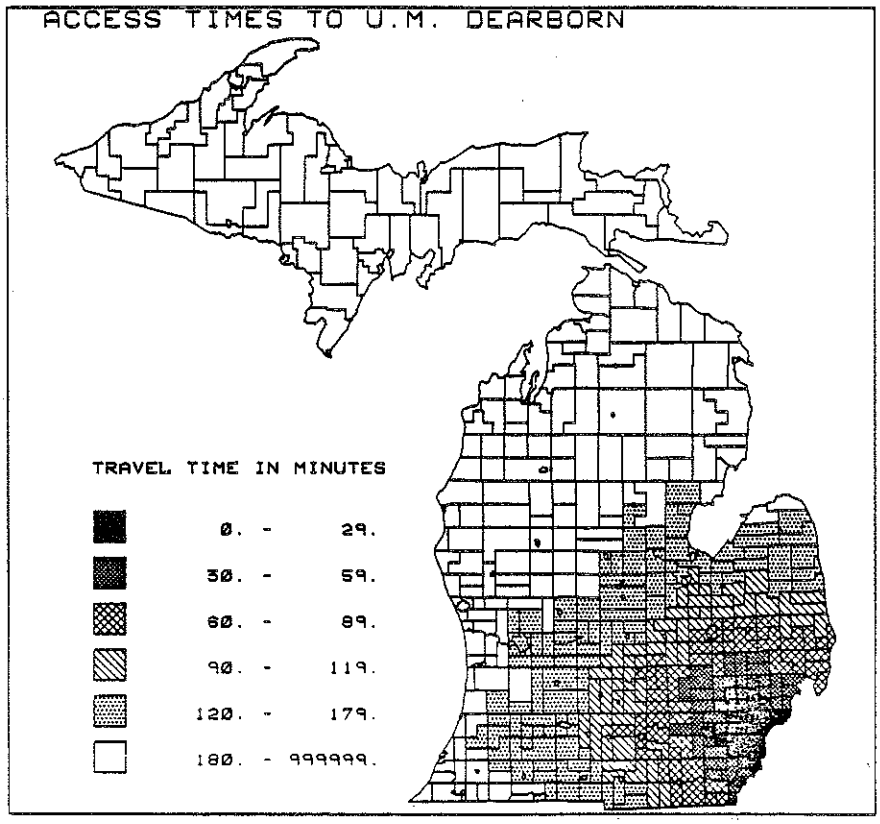
3. Existing service does not provide connections between the campus at U of M Dearborn and the SHLC.

Potential Service Communities and Corridors

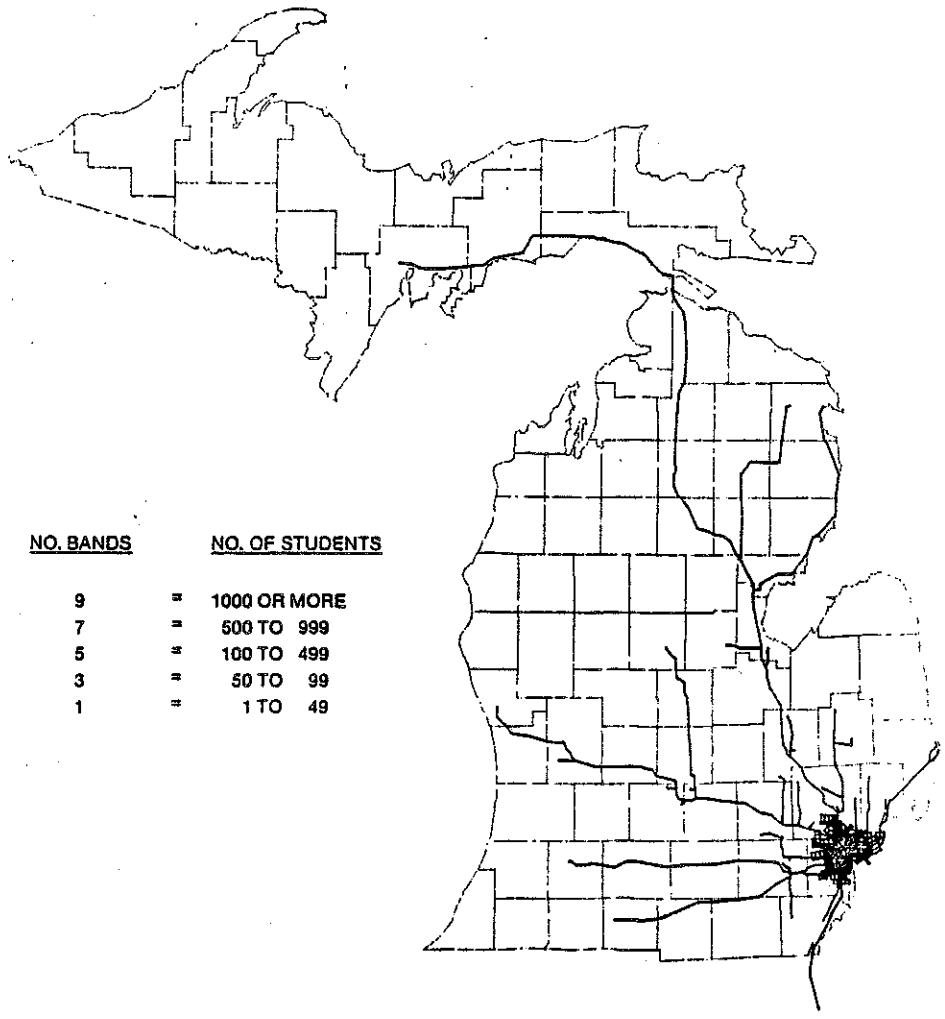
4. Because of the compact student residence distribution, potential for special intercity bus services appears to be limited.

5. Special transportation needs of U of M Dearborn students may be met by intracity bus service such as provided by the Detroit Department of Transportation or the Southeastern Michigan Transportation Authority.


U.M. DEARBORN STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


ACCESS TIMES TO U.M. DEARBORN
TRAVEL TIME IN MINUTES
0. - 29.
30. - 59.
60. - 89.
90. - 119.
120. - 179.
180. - 999999.

SIMULATED STUDENT TRAVEL PATTERNS FOR U.M. DEARBORN



NO. BANDS		NO. OF STUDENTS
9	=	1000 OR MORE
7	=	500 TO 999
5	=	100 TO 499
3	=	50 TO 99
1	=	1 TO 49

UNIVERSITY OF MICHIGAN, FLINT

Student Distribution Patterns

1. Approximately 99% of the 5,596 students attending the University of Michigan, Flint reside within 60 minutes of the campus in Flint, 100% within 90 minutes, 100% within 120 minutes, and 100% within 180 minutes.

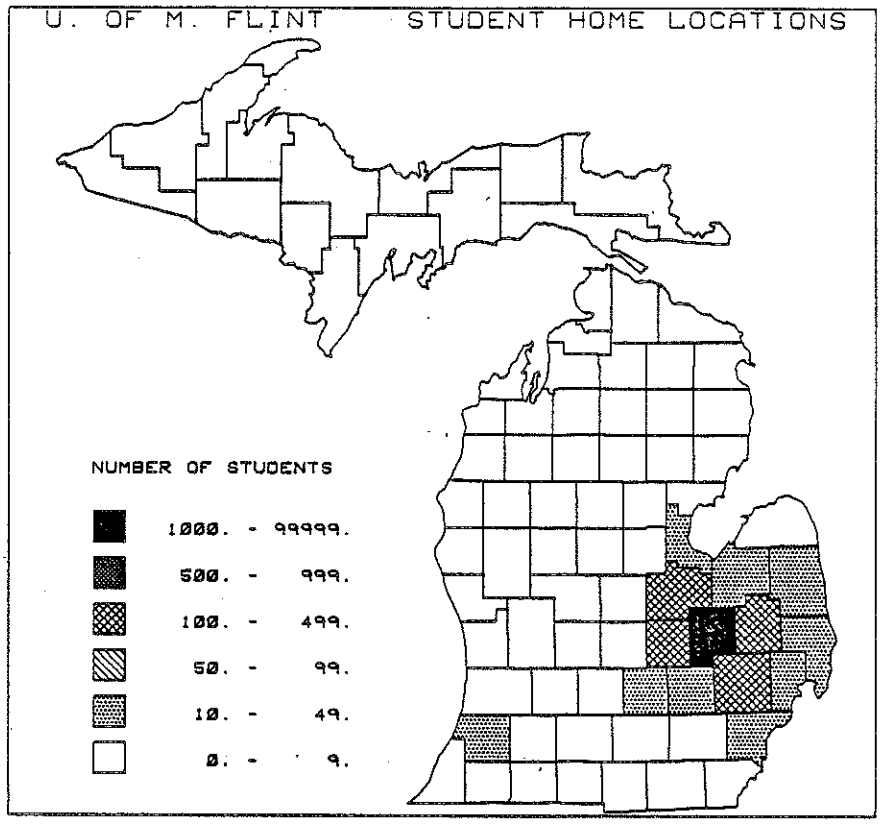
2. Student Home Location Concentrations (SHLC) are found in 3 of the 15 urbanized areas in the State of Michigan; the Detroit Metropolitan Area (specifically Oakland County), Flint, and Saginaw.

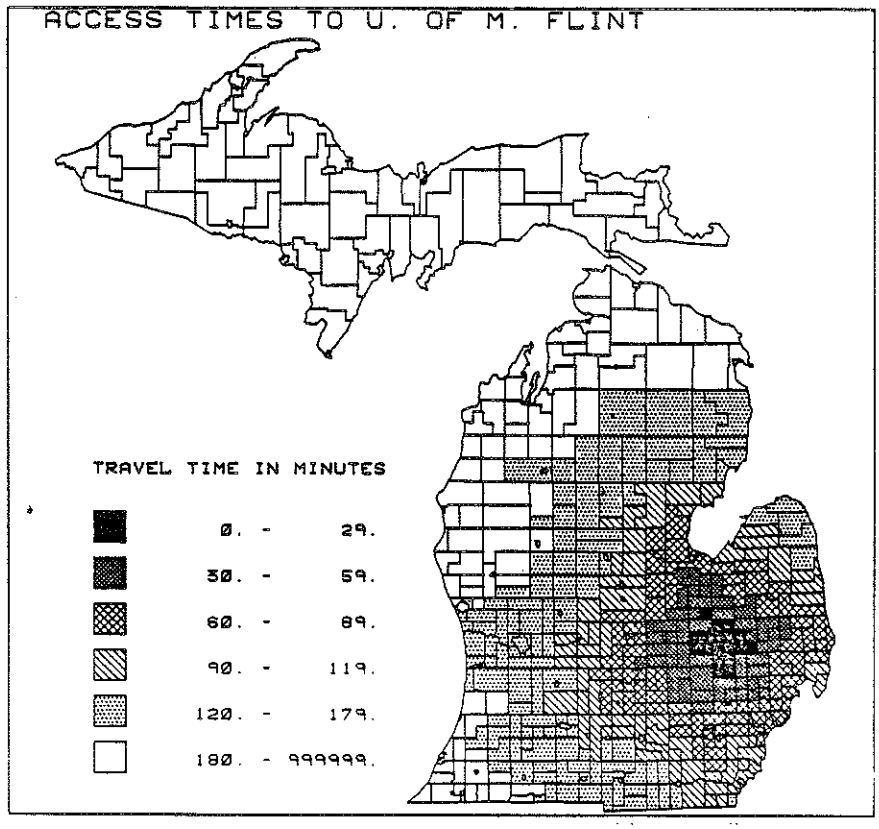
Existing Service Accommodating Student Distribution Patterns

3. Existing service connects Saginaw, Pontiac, and Detroit to the U of M Flint campus via I-75.

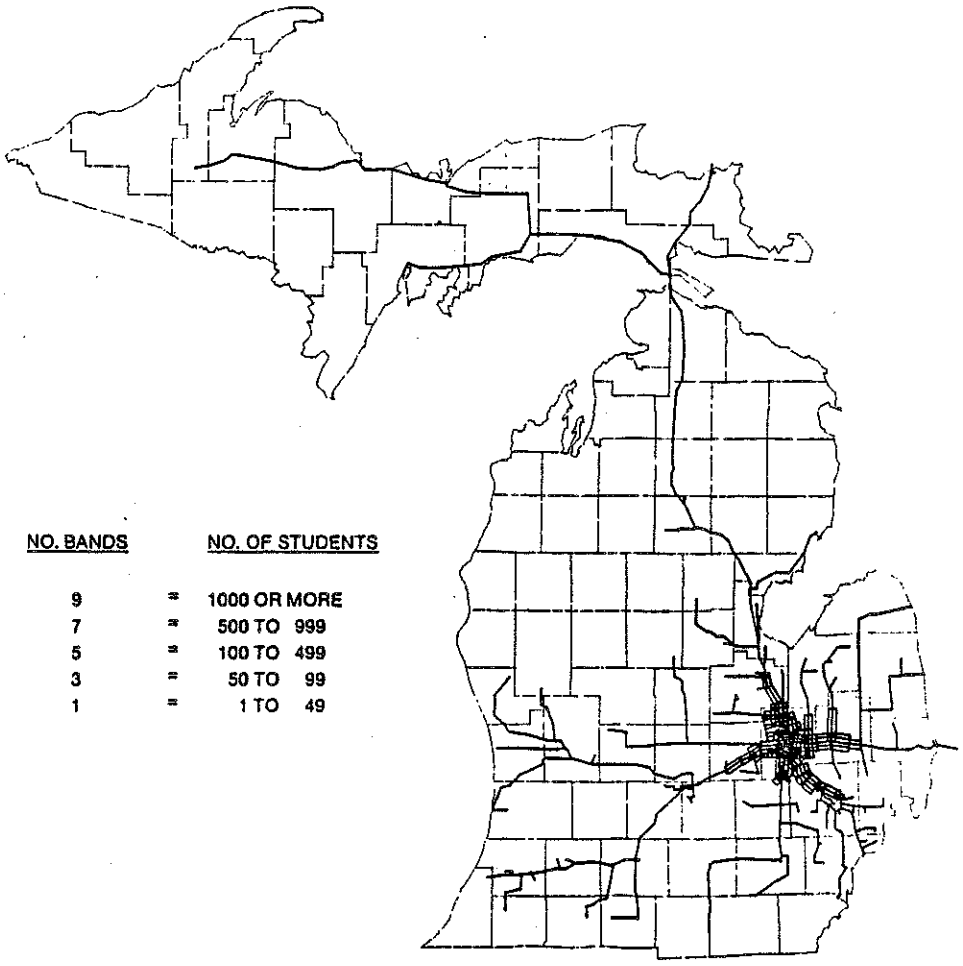
Potential Service Communities and Corridors

4. Because of the concentrated student residence distribution, the potential for special intercity bus services appears to be limited.


U. OF M. FLINT STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


ACCESS TIMES TO U. OF M. FLINT
TRAVEL TIME IN MINUTES
0. - 29.
30. - 59.
60. - 89.
90. - 119.
120. - 179.
180. - 999999.

SIMULATED STUDENT TRAVEL PATTERNS FOR U.M., FLINT



NO. BANDS		NO. OF STUDENTS
9	=	1000 OR MORE
7	=	500 TO 999
5	=	100 TO 499
3	=	50 TO 99
1	=	1 TO 49

WAYNE STATE UNIVERSITY

Student Distribution Patterns

1. Approximately 99% of the 29,070 students attending Wayne State University reside within 60 minutes of the campus in Detroit, 100% within 90 minutes, 100% within 120 minutes, and 100% within 180 minutes.

2. Student Home Location Concentrations (SHLC) are found in 3 of the 15 urbanized areas in the State of Michigan; Ann Arbor, the Detroit Metropolitan Area, and Port Huron.

Existing Service Accommodating Student Distribution Patterns

3. Existing service connects Ann Arbor to the campus in Detroit.

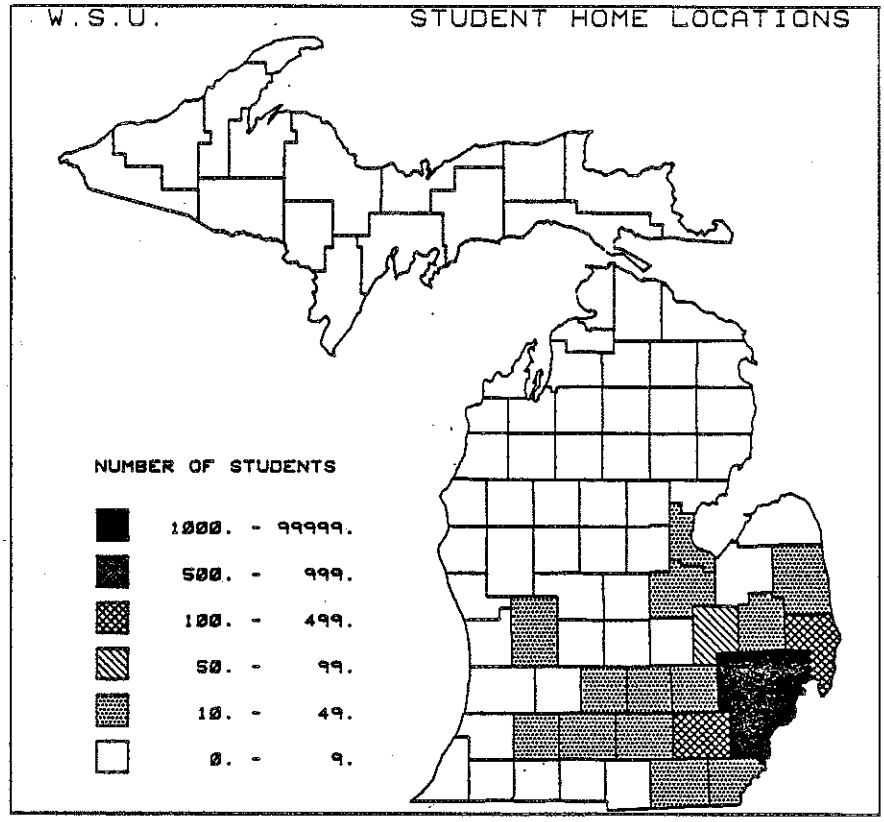
4. Service from Detroit to Port Huron does not currently exist on weekends or holidays.

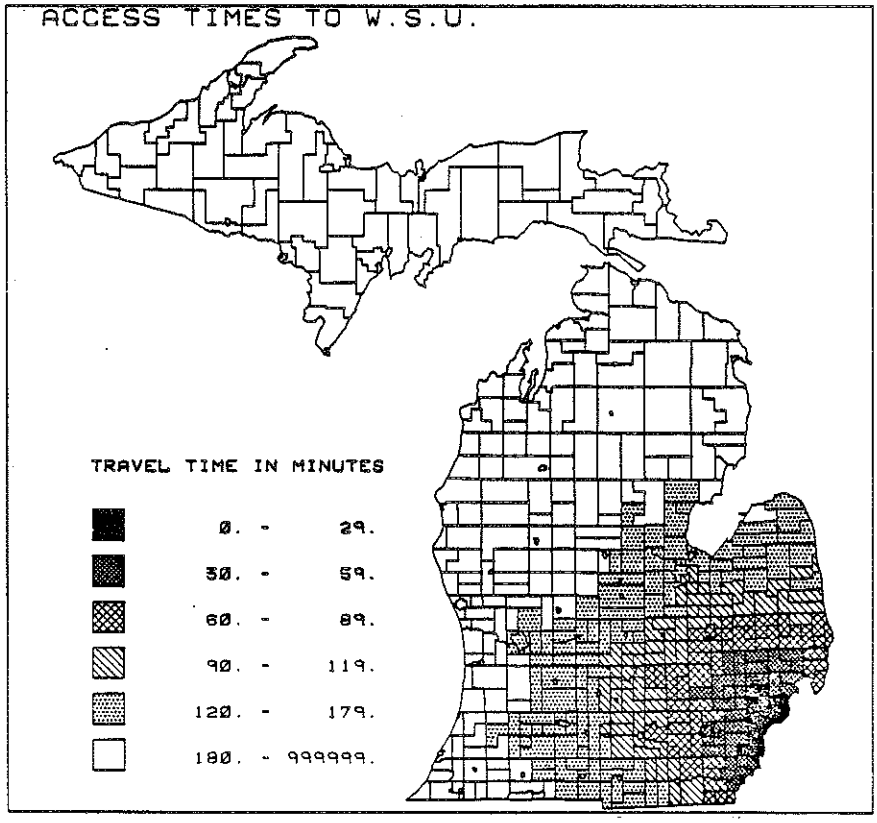
Potential Service Communities and Corridors

5. Because of the concentrated student residence distribution pattern, the potential for special intercity bus services appears to be limited.

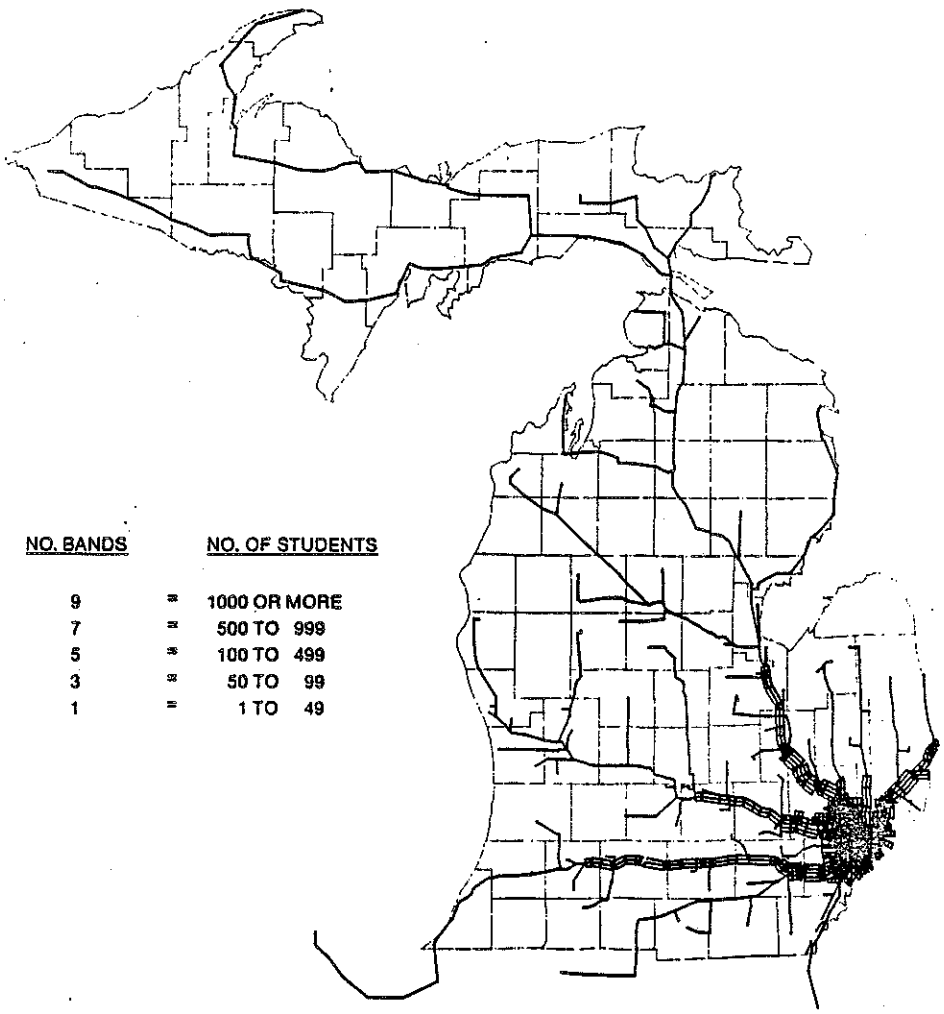
6. Special transportation needs of Wayne State University students may be met by intracity bus service such as provided by the Detroit Department of Transportation or the Southeastern Michigan Transportation Authority.

7. A limited potential may exist for special weekend service to Port Huron.


W.S.U.
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


ACCESS TIMES TO W.S.U.
TRAVEL TIME IN MINUTES
0. - 29.
30. - 59.
60. - 89.
90. - 119.
120. - 179.
180. - 999999.

SIMULATED STUDENT TRAVEL PATTERNS FOR W.S.U.



WESTERN MICHIGAN UNIVERSITY

Student Distribution Patterns

1. Approximately 49% of the 20,233 students attending Western Michigan University reside within 60 minutes of the campus in Kalamazoo, 66% within 90 minutes, 72% within 120 minutes, and 93% within 180 minutes.

2. Student Home Location Concentrations (SHLC) are found in 14 of the 15 urbanized areas in the State of Michigan; Ann Arbor, Bay City, Battle Creek, Benton Harbor/St. Joseph, the Detroit Metropolitan Area, Flint, Grand Rapids, Jackson, Kalamazoo, Lansing, Muskegon, Niles/South Bend, Port Huron, and Saginaw. There are also high concentrations of students residing in Lenawee County and the states of Indiana and Illinois.

Existing Service Accommodating Student Distribution Patterns

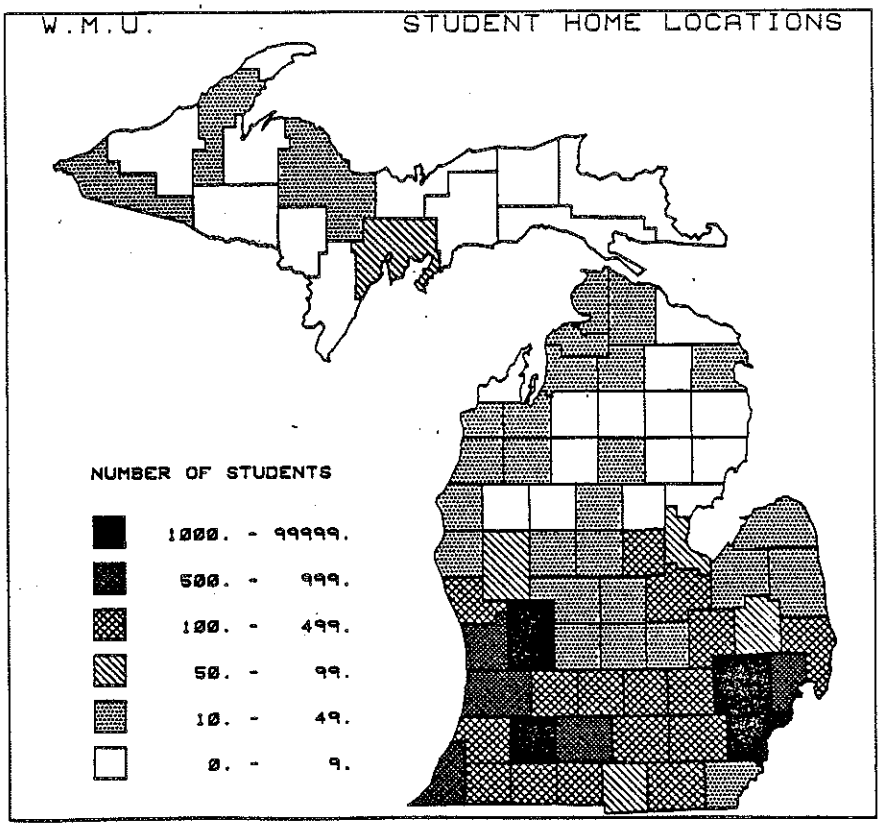
3. Existing service connects Grand Rapids to the campus in Kalamazoo via US-131.

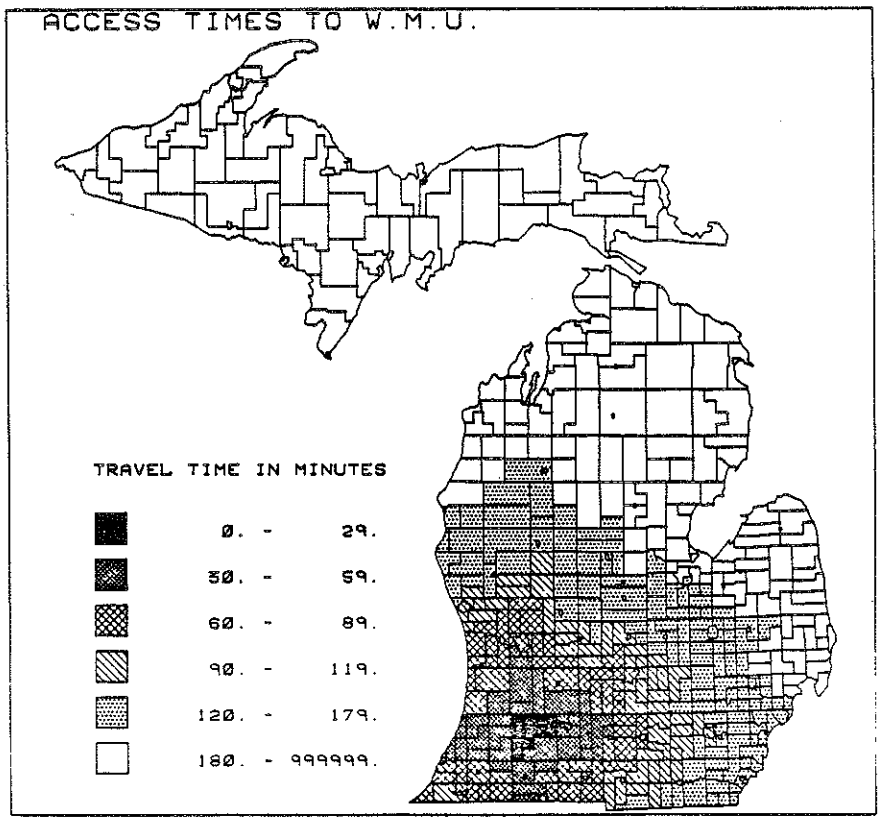
4. Existing service connects Detroit, Ypsilanti, Ann Arbor, Jackson, Battle Creek, Benton Harbor/St. Joseph, and Chicago to the campus in Kalamazoo via I-94.

5. Existing service connects Battle Creek, Lansing, Owosso, Flint, Saginaw, and Bay City to the campus in Kalamazoo via I-69/I-75.

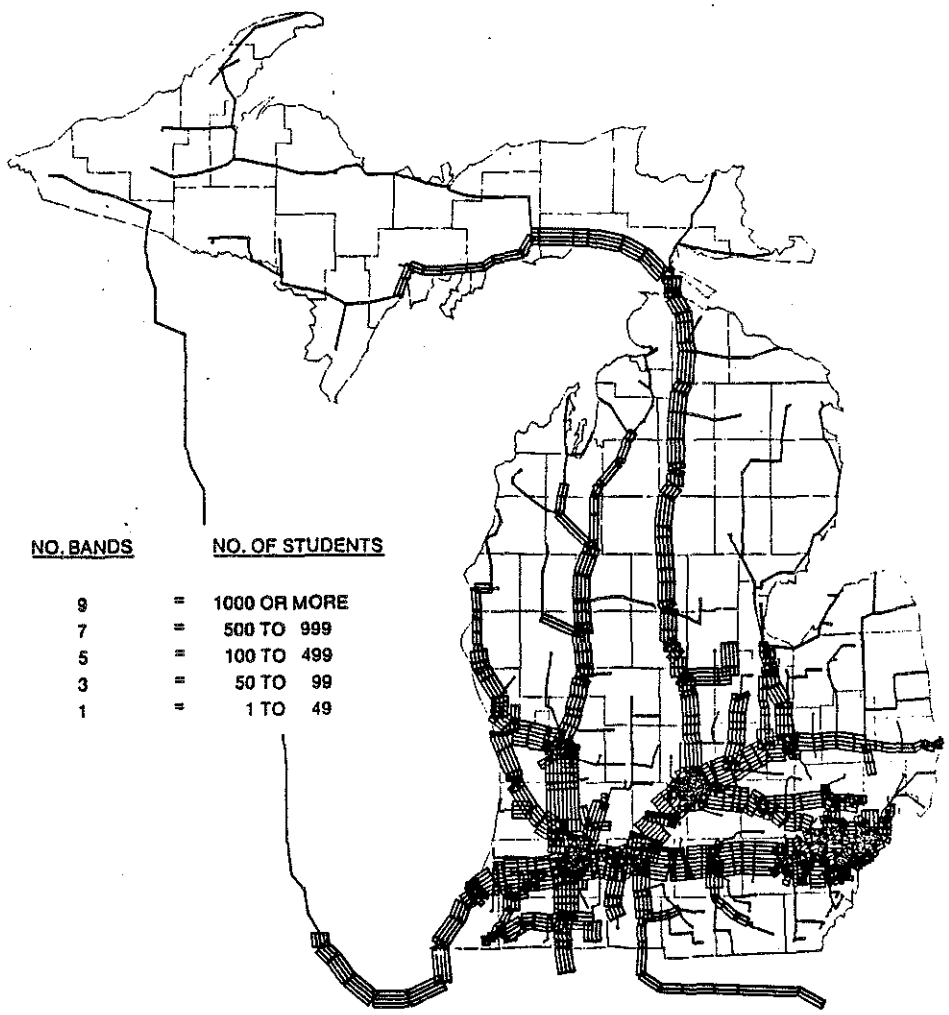
Potential Service Communities and Corridors

6. Existing service accommodates the needs of a majority of the SHLC for Western Michigan. Service deviations or extensions on special weekend routes have potential for Muskegon (from Grand Rapids), Niles/South Bend (from Benton Harbor/St. Joseph), and Port Huron (from Detroit).


W.M.U.
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


ACCESS TIMES TO W.M.U.
TRAVEL TIME IN MINUTES
0. - 29.
30. - 59.
60. - 89.
90. - 119.
120. - 179.
180. - 999999.

SIMULATED STUDENT TRAVEL PATTERNS FOR W.M.U.



NO. BANDS		NO. OF STUDENTS
9	=	1000 OR MORE
7	=	500 TO 999
5	=	100 TO 499
3	=	50 TO 99
1	=	1 TO 49

PART IV
FINDINGS AND LIMITATIONS

IV. FINDINGS AND LIMITATIONS

IVA. INTRODUCTION

A summary of the data presented in **Part III, Individual School Analysis**, indicates the routes, by school, that have either a strong, moderate, or limited potential for successful new special weekend intercity bus service (see Table 2 and Figure 3). This potential is based on the number of students residing in a similar geographical area who attend the same university or college.

Many of the potential routes suggested in this study overlap. The total picture should be considered when determining possible new routes. Each finding should be viewed in light of how it might complement existing service or how it could serve other college communities along the route. It is not necessarily true that new service will be needed for each of the potential routes listed below. In some instances, only a time change or route deviation for the weekend run of regularly scheduled service need be considered.

Potential routes are presented in three categories, strong potential (500 or more students residing in an area), moderate potential (100-400 students residing in an area), and limited potential (less than 100 students living in an area). Routes with strong potential have the best possibilities for new service based upon student home location concentrations, students enroll-

TABLE 2

URBANIZED AREA STUDENT HOME LOCATION CONCENTRATIONS (SHLC) FOR SELECTED MICHIGAN UNIVERSITIES/COLLEGES

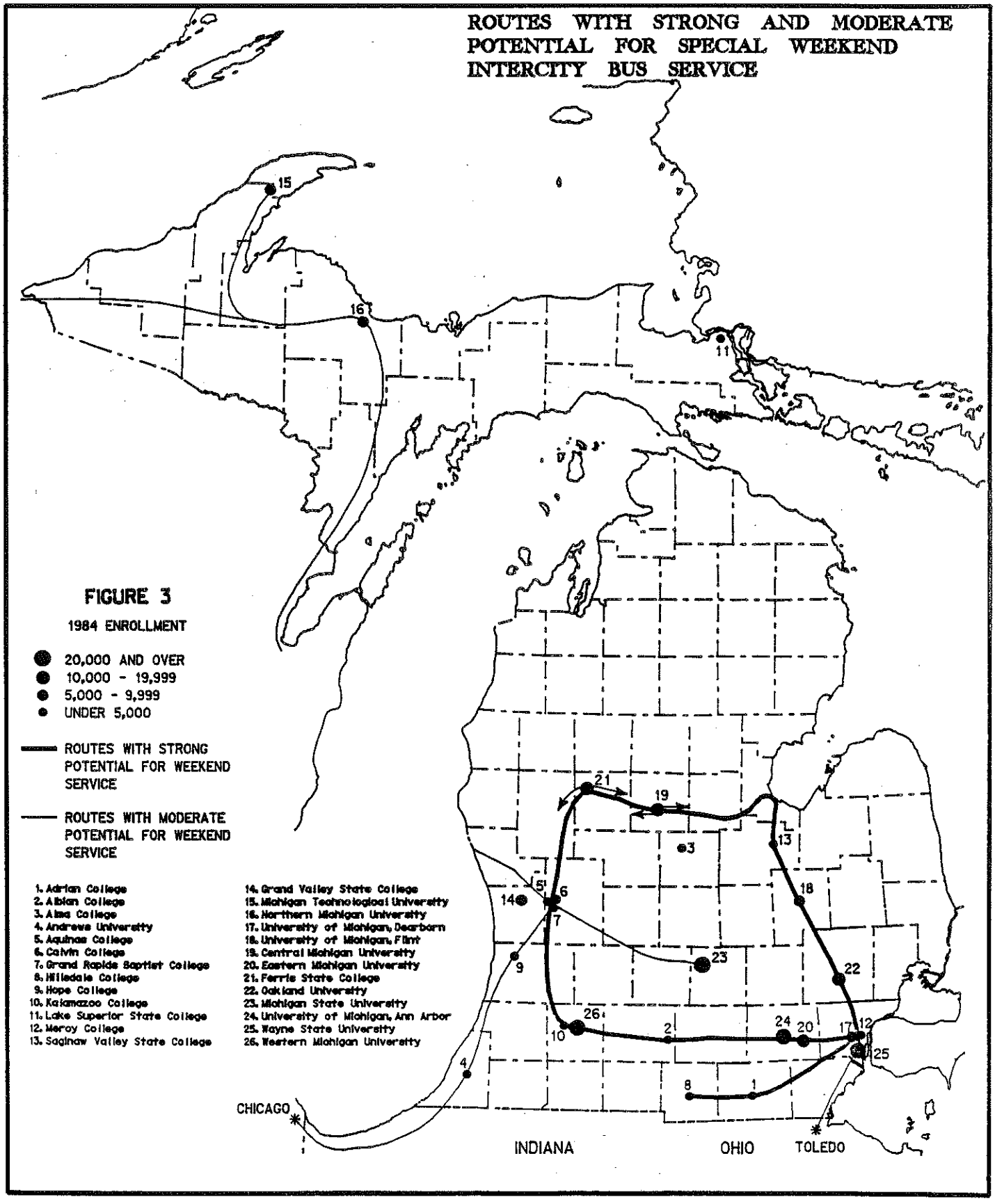
School	Ann Arbor	Bay City	Battle Creek	Benton Harbor/ St. Joe.	Detroit	Flint	Grand Rapids	Jackson	Kalamazoo
Adrian	-	-	-	-	●	-	-	-	-
Albion	-	-	0	-	0[1]	-	-	-	-
Alma	-	-	-	-	0	-	-	-	-
Andrews	-	-	-	0	-	-	-	-	-
Aquinas	-	-	-	-	-	-	0	-	-
Calvin	-	-	-	-	-	-	[ ]	-	-
Central Michigan	0	[ ]	●	●	[ ]	[ ]	●	0	●
Eastern Michigan	[ ]	-	-	-	[ ]	●	-	0	-
Ferris State	●	●	●	0	[ ][2]	●	0	0	●
Gd. Rapids Baptist	-	-	-	-	-	-	0[4]	-	-
Gd. Valley State[5]	-	-	-	0	0	-	[ ]	-	0
Hillsdale	-	-	-	-	●	-	-	-	-
Hope	-	-	-	-	-	-	0	-	-
Kalamazoo	-	-	-	-	0	-	-	-	0[4]
Lk. Superior State	-	-	-	-	-	-	-	-	-
Mercy	-	-	-	-	0[4]	-	-	-	-
Michigan State	[ ]	0	0	●	[ ]	[ ]	[ ]	[ ]	[ ]
Michigan Tech.	-	●	-	-	[●]	●	●	-	-
Northern Mich.	-	-	-	-	●	●	-	-	-
Oakland	-	-	-	-	[ ][4]	0	-	-	-
Saginaw Valley St.[7]	-	-	-	-	-	-	-	-	-
Michigan	[ ][6]	0	0	0	[ ]	[ ]	[ ]	0	0
Michigan,Dearborn	-	-	-	-	[ ][4]	-	-	-	-
Michigan, Flint	-	-	-	-	0	[ ][6]	-	-	-
Western Michigan	0	0	[ ]	[ ]	[ ]	0	[ ]	0	[ ][6]
Wayne State	0	-	-	-	[ ][4]	-	-	-	-
Total SHLC	7	6	6	7	19	10	11	6	7
With Service	6	4	4	5	15	6	9	6	5
Without Service	1	2	2	2	4	4	2	-	2

Legend: ● = 100 - 499 students residing in the urbanized area, no existing service to meet their needs.
0 = 100 - 499 students residing in the urbanized area, service does exist to meet their needs.
[●] = 500 + students residing in the urbanized area, no existing service to meet their needs.
[ ] = 500 + students residing in the urbanized area, service does exist to meet their needs.
- = no SHLC exists

[1]No direct connection from Detroit to Oakland County, an area with high SHLC.
[2]Riders must transfer in Lansing.
[3]Riders must transfer in Grand Rapids.
[4]Probably best served by local transit facilities.
[5]All trips begin and end in Grand Rapids.
[6]Riders must transfer in Flint, Pontiac, or Detroit to get to Port Huron.
[7]Based on residency information for 460 dormitory students only.

Source: MDOT, Bureau of Transportation Planning, Passenger Transportation Planning Section.

School	Lansing	Muskegon	Niles/ S. Bend	Port Huron	Saginaw	Toledo	Total With Service 0 100-499	Total With Service [ ] 500+	Total W/O Service ● 100-499	Total W/O Service ■ 500+	Grand Total
Adrian	-	-	-	-	-	0	1	-	1	-	2
Albion	-	-	-	-	-	-	2	-	-	-	2
Alma	-	-	-	-	-	-	1	-	-	-	1
Andrews	-	-	0	-	-	-	2	-	-	-	2
Aquinas	-	-	-	-	-	-	1	-	-	-	1
Calvin	-	-	-	-	-	-	-	1	-	-	1
Central Michigan	0	●	●	●	[ ]	-	3	4	7	-	14
Eastern Michigan	-	-	-	0	-	0	3	2	1	-	6
Ferris State	0	0[3]	●	●	●	-	5	1	8	-	14
Gd. Rapids Baptist	-	-	-	-	-	-	1	-	-	-	1
Gd. Valley State[4]	0	[ ]	0	-	-	-	5	2	-	-	7
Hillsdale	-	-	-	-	-	●	-	-	2	-	2
Hope	-	-	-	-	-	-	1	-	-	-	1
Kalamazoo	-	-	-	-	-	-	2	-	-	-	2
Lk. Superior State	-	-	-	-	-	-	-	-	-	-	-
Mercy	-	-	-	-	-	-	1	-	-	-	1
Michigan State	[ ][4]	0	●	●	[ ]	●	3	8	4	-	15
Michigan Tech.	-	-	-	-	●	-	-	-	4	1	5
Northern Mich.	-	-	-	-	-	-	-	-	2	-	2
Oakland	-	-	-	0[6]	-	-	2	1	-	-	3
Saginaw Valley St.[2]	-	-	-	-	-	-	-	-	-	-	-
Michigan	0	●	●	●	0	0	8	4	3	-	15
Michigan,Dearborn	-	-	-	-	-	-	-	1	-	-	1
Michigan, Flint	-	-	-	-	0	-	2	1	-	-	3
Western Michigan	0	●	■	●	0	-	6	5	2	1	14
Wayne State	-	-	-	●	-	-	1	1	1	-	3
Total SHLC	6	6	7	8	7	5	50	31	35	2	118
With Service	6	3	2	2	5	3	50	31	-	-	81
Without Service	-	3	5	6	2	2	-	-	35	2	37


ROUTES WITH STRONG AND MODERATE POTENTIAL FOR SPECIAL WEEKEND INTERCITY BUS SERVICE
FIGURE 3
1984 ENROLLMENT
20,000 AND OVER
10,000 - 19,999
5,000 - 9,999
UNDER 5,000
ROUTES WITH STRONG POTENTIAL FOR WEEKEND SERVICE
ROUTES WITH MODERATE POTENTIAL FOR WEEKEND SERVICE
1. Adrian College
2. Albion College
3. Alma College
4. Andrews University
5. Aquinas College
6. Calvin College
7. Grand Rapids Baptist College
8. Hillsdale College
9. Hope College
10. Kalamazoo College
11. Lake Superior State College
12. Mercy College
13. Saginaw Valley State College
14. Grand Valley State College
15. Michigan Technological University
16. Northern Michigan University
17. University of Michigan, Dearborn
18. University of Michigan, Flint
19. Central Michigan University
20. Eastern Michigan University
21. Ferris State College
22. Oakland University
23. Michigan State University
24. University of Michigan, Ann Arbor
25. Wayne State University
26. Western Michigan University
CHICAGO
INDIANA
OHIO
TOLEDO

ed, and lack of existing weekend service that meets the needs of the students for the one school being considered.

Moderate potential generally indicates that service would have a larger ridership and better potential if combined with other schools in the area or along the route. A moderate potential rating indicates lower student home concentrations, lower number of students enrolled, or existing service meets a significant portion of the existing student weekend home trips.

Limited potential generally indicates that additional weekend home service would not be profitable because of lack of student home distribution concentrations, existing service meets student weekend home travel demand, or too great a distance between the school and its student home location concentration.

IVB. ROUTES WITH STRONG POTENTIAL FOR NEW OR IMPROVED SERVICE

With this information in mind, the following schools were found to have the strongest potential for some variety of new or improved weekend service...

1. Adrian College. Weekend service to the Detroit Metropolitan Area, with connections at the University of Michigan, Ann Arbor and Eastern Michigan University in Ypsilanti.

2. Central Michigan University. Several routes are possible from Mount Pleasant to: 1) Grand Rapids, 2) Battle Creek and Kalamazoo, perhaps via an extension of existing service to Lansing or Grand Rapids, and 3) extension of service from Detroit to Port Huron.

3. Ferris State College. This college has a wide distribution pattern, several routes have potential. One is an express from Big Rapids to Kalamazoo and Battle Creek via Grand Rapids. Currently,

layovers in Grand Rapids make travel to Kalamazoo and Battle Creek tedious. This route could be scheduled to connect with the bus arriving in Grand Rapids from Central Michigan providing service connections for both schools. A second is service between Big Rapids and Midland, Bay City, Saginaw, Flint, and possibly Port Huron. A third is a direct route from Big Rapids to the Detroit Metropolitan Area. Current routes head south in Jackson to Toledo, omitting Ann Arbor, Ypsilanti, and Detroit.

4. Hillsdale College. Service to the Detroit Metropolitan Area, particularly Oakland County; and to Toledo.

IVC. ROUTES WITH MODERATE POTENTIAL FOR NEW OR IMPROVED SERVICE

Some schools have the possibility for new or improved weekend service, but are given moderate potential because of lower levels of student residence concentrations, existing intercity bus service, or because the school is dependent upon combinations with other schools to have a sufficient number of students living in an area to make special service feasible. These schools are considered to have moderate potential for new or improved weekend service...

1. Albion College. From Albion to Oakland County combined with service from Western Michigan University and Kalamazoo College. This could be an extension of existing service to Detroit.

2. Aquinas College. Possibilities exist to combine service for Aquinas with other colleges and universities, especially on a Grand Rapids to Chicago route. But, because of its location on a heavily traveled intercity bus corridor, and the availability of existing service, special service for this school alone has moderate potential.

3. Calvin College. The concentrated student home distribution pattern of this school reduces the potential for special service to this school alone. Calvin College is mentioned as a possibility for combination service with other schools in the Grand Rapids Area.

4. Eastern Michigan University. Existing regular and special routes service this university well although it is a possible school for several additional combination routes since it is located between Ann Arbor and Detroit in the I-94 corridor.

5. Grand Rapids Area Schools. A Chicago weekend express service serving a combination of the schools clustered along the Grand Rapids to Chicago route: Aquinas College, Calvin College, Grand Rapids Baptist College, Grand Valley State College, and Hope College.

6. Grand Rapids Baptist College and Seminary. The concentrated student home distribution pattern of this school reduces the potential for special service. Grand Rapids Baptist College is mentioned as a possibility for combination service with other schools in the Grand Rapids Area.

7. Hope College. Although Hope College is a candidate for combination service, with the Grand Rapids Area schools, it appears to be served adequately by the existing routes.

8. Kalamazoo College. Existing service accommodates most needs although improved connections from Detroit to Pontiac or another Oakland County location may have some potential.

9. Michigan State University. Although currently well served by special service, improved connections for weekend routes between Grand Rapids, Holland, and Benton Harbor/St. Joseph; from Detroit to Port Huron (or possibly from Flint to Port Huron); and Detroit to Toledo have moderate potential.

10. Northern Michigan University. Although the student home locations are widely distributed, potential exists for service throughout the western Upper Peninsula; perhaps extending into Wisconsin. However, the time/distance factor becomes a concern reducing the possibility of weekend home travel.

11. University of Michigan. Although currently well served, special service to Port Huron, possibly an extension of existing service from Detroit; to Niles/South Bend from Benton Harbor/St. Joseph; and from Grand Rapids to Muskegon could improve weekend student travel.

12. Wayne State University. Intercity bus service has moderate potential because student home residences are concentrated in the Detroit Metropolitan Area. Student travel needs can possibly be met by either the Southeastern Michigan Transportation Authority

or the Detroit Department of Transportation, although there is a slight potential for service to Port Huron.

13. Western Michigan University. Existing service appears to accommodate most needs adequately. Some possible combination routes with other schools are possible which would add to the variety of the existing service and increase the ridership pool.

IVD. ROUTES WITH LIMITED POTENTIAL FOR NEW OR IMPROVED SERVICE

The following schools are identified as having a limited potential for new or improved special weekend service. Because they have either an exceptionally wide or concentrated student home distribution pattern, a limited number of students, adequate existing service, or time/distance limitations, the potential for additional service for these schools is considered to be limited...

1. Alma College. Existing intercity bus service appeares to provide adequate service to Alma.

2. Andrews University. Existing intercity bus service, and a concentrated distribution pattern of student home locations limits the possibility for special service to this school.

3. Grand Valley State College. As long as connections between the campus in Allendale and the existing intercity bus terminal in Grand Rapids can be made, as they currently can, Grand Valley State College appears to be well served by existing regular routes.

4. Lake Superior State College. Because of a wide student distribution pattern, the potential for special service at Lake Superior State is limited.

5. Mercy College. Most of the student distribution pattern for this college is within the Detroit Metropolitan Area. Student travel needs can possibly be met by the services of the Southeastern Michigan Transportation Authority or by the Detroit Department of Transportation.

6. Michigan Technological University. While the potential exists for service from Houghton to the

Detroit Metropolitan Area, the time/distance factor for the trip makes this service infeasible for weekend home trips, as defined in this report.

7. Oakland University. Potential for this school appears limited. There is the possibility service can be combined with other schools coming from the north to Detroit, but a majority of the students reside near the campus.

8. Saginaw Valley State College. Potential for this school is limited, based on the low number and wide home distribution pattern of students who reside on-campus.

9. University of Michigan, Dearborn. Intercity bus service potential is limited to this school. Student travel needs can possibly be met by either the Southeastern Michigan Transportation Authority or the Detroit Department Of Transportation.

10. University of Michigan, Flint. Due to a concentrated student distribution pattern, service potential for this school is limited.

IVE. LIMITATIONS OF THE STUDY

Listed below are some of the limitations of this study, both for the data and results...

1. The study uses 1984 enrollment data. There is every possibility that the student distribution patterns will change, or indeed have already changed, since this data was collected. No attempt has been made to determine an average student residence pattern over an extended period of time for this report.

2. Some schools which met criteria for inclusion in the study did not report student home location data. This could have excluded significant potential routes from consideration.

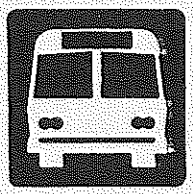
3. The maps and data used to determine potential routes are not based on the actual desires of students of each school for weekend home transportation, but on the number of students residing in an area, and generalized figures of student ridership collected in previous intercity bus surveys. The actual demand by students for each school may be different.

4. The study does not consider student needs. There is no way of knowing by the data used in this

report how many students at each of the schools have an automobile or alternate arrangement for transportation home on weekends, eliminating the students from consideration for intercity bus trips.

5. Intercity bus companies may find it difficult to promote new services through direct, targeted mailings. Most universities and colleges in Michigan are sensitive about releasing student residence information to for-profit businesses. Without this information, intercity bus companies may be required to find alternative marketing methods, which may be less successful and perhaps more expensive (see **Part V. User's Guide**).

PART V
USER'S GUIDE



V. USER'S GUIDE

VA. INTRODUCTION

The purpose of this user's guide is to assist the reader in interpreting and applying the data provided in this study, not to prescribe specific routes or actions. Sometimes graphs, tables, and maps presented in a study of this nature can be difficult to interpret. This guide, using an example, helps familiarize readers with how the data and study findings can be used to design specific routes.

VB. REVIEW THE REPORT

The first step is to read the entire report. If you just can not read it, at least familiarize yourself with its contents by scanning each page. See if you can follow what is being said. Look over all of the maps, tables, and charts. See if you can understand what each graphic means, and what important points are being made in each. If not, read the text just before and after the graphics to see what explanation is provided. Realize that maps and tables often summarize a great deal of information in one place. This may make them more difficult to understand at first glance. The benefit is that you can view several patterns and variables at one time in one location.

Knowing what the entire report contains will help when you attempt to look at specific details. You will have a general idea where to look for a particular detail, and what general information is available. It should also help stimulate your

thinking as to the various possibilities available when considering special weekend service you may wish to establish.

VC. DETERMINE THE ROUTE

VC1. USING SUMMARY STATEMENTS

The next step is to decide if you would like to start service. If so, you will need to determine where the new service should be. Perhaps you currently have a route in mind for new service, or have an existing route that passes through or near a college community. Or perhaps you hadn't really thought about providing special weekend college service. Either way, you could begin by looking at the summary statements found in sections IVB, IVC, and IVD of **Part IV, Findings and Limitations** to get some idea as to the best places to start service.

These summaries group the 26 schools included in the study into three categories; strong potential for new or improved special weekend service, moderate potential for new or improved special weekend service, and limited potential for new or improved special weekend service. Short explanations, based on the data presented in the beginning of the study, describe why each school is included in the category and suggest which counties in the state have the best service potential for each school. Looking over these summaries, you will start to get some idea of where special weekend service might be lacking and if it is feasible for your company to provide the service.

Pretend that you are the scheduling agent for The Winter Water

Wonderland (W-3) bus company serving the intercity bus transportation needs of Michigan's residents. For a long time you have felt that there is the potential for additional transportation of students at Ferris State College (5). You currently have service from Traverse City to Saginaw using M-37 and US-10. A slight route adjustment would allow you to pick up students at Ferris State. With the current economic situation in your company, you do not want to suggest the change to the owner unless you are sure it will prove to be profitable. You need some concrete evidence to support your suggestion and to convince the company owner that there are enough potential students to make the route change worth the investment. Looking at the summary statements, you see that Ferris State is mentioned as having strong potential for new or improved service.

VC2. USING SUMMARY TABLE

At this point, you may wish to look at Table 2, which condenses the significant points of the summary statements onto one page. Each of the 15 urbanized areas in Michigan are shown as are the 26 universities included in this study. Symbols indicate which urbanized areas have concentrations of student residents for each university. This information can be used to determine if there are enough students living in an area to make special service feasible.

Let us look further at the example from Ferris State to Saginaw to see how Table 2 might be used. Turning to Table 2, you look down the "**School**" column until you find "**Ferris State.**" Going

across the row, you come to the first symbol, a filled-in circle (●). This filled-in circle in under the column labeled "**Ann Arbor.**" You can tell by the legend at the bottom of the table that the filled-in circle indicates there are 100-499 students residing in the Ann Arbor urbanized area who attend Ferris State and that there is currently no existing service to meet these students' weekend home transportation needs.

Looking closely at the legend, you notice that a circle (0) in the table <u>always</u> means that there are 100-499 students residing in an urbanized area who attend the particular school, a condition identified in this report as having moderate potential for special weekend home service. A set of brackets ([]) <u>always</u> means that there are 500 or more students residing in the urbanized area, a condition identified in this report as having strong potential for special weekend service.

Whenever the circle or brackets are empty or white (0,[]), existing regular or special bus service currently exists to meet the needs of student weekend home trips. A filled-in or black circle or set of brackets (●,[●]) indicates that there is no existing bus service to the urbanized area that meets the needs of student weekend home trips. (There may be service to the community, but scheduled times or route patterns make them unsuitable for weekend home trips.)

A hyphen (-) indicates that there are less than 100 students residing in an area, a condition identified in this report as

having a limited potential for special service. You should realize that whenever you look at Table 2, the areas that are filled-in (black) have the greatest potential. The filled-in bracketed areas are the best of all because they have the most students and the least existing service.

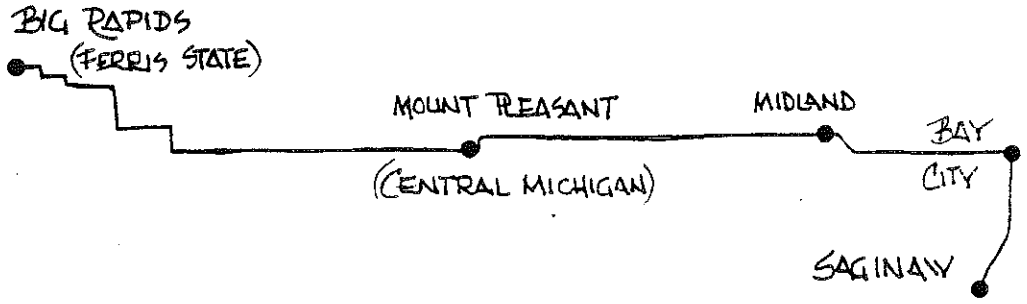
Now continue running your finger across the "**Ferris State**" row until you are underneath the "**Saginaw**" column. There is a filled-in circle (●), indicating 100-499 students reside in Saginaw who attend school at Ferris State, and that no service currently exists that meets their weekend home travel needs. This is a good indication that there are enough students to take advantage of the service to make it profitable if you do make your route adjustment to pick up students at the Ferris State Union Building at say 3 p.m. on Friday and return at 7 p.m. on Sunday.

What else you can learn from Table 2? Looking across the row for Ferris State, you notice that at least 100 students reside in Bay City and attend school at Ferris State, and that there is currently no service to meet their weekend home travel needs either. (You know this because there is a filled-in circle (●) in the "**Ferris State**" row under the "**Bay City**" heading.) It might be wise to make a stop in Bay City on the way to and from Ferris State. You could pick up some additional students destined for Bay City without going far out of your way.

Next, run your finger up and down the "**Saginaw**" column. You see a filled-in circle for "**Michigan Tech.**" This indicates there is

a moderate potential for service from Michigan Technological University to Saginaw, but Michigan Technological University is not at all close to your route, so you can not combine service to Michigan Technological University with this route.

Looking at a highway map for Michigan, you see that you drive past Mount Pleasant on your way from Big Rapids to Saginaw. You know that Central Michigan University is located in Mount Pleasant, and wonder if it would be worthwhile to stop there. You notice that there is an empty set of brackets across from the **"Central Michigan"** listing in the **"Saginaw"** column. You realize that this means there are at least 500 students living in Saginaw who attend Central Michigan University. But, since the brackets are empty, current service exists.



Some schedule checking indicates that the existing service leaves Central Michigan University two hours before you will drive past on your way to Saginaw. You feel that your later bus may be able to serve those students who can not make the earlier departure. Since Mount Pleasant is directly on the route, it seems like a good idea to stop, at least on a trial basis, to see if you can pick up additional students at Central Michigan University.

VC3. USING INDIVIDUAL SCHOOL SUMMARIES

You now have a pretty good idea that the route between Ferris State and Bay City/Saginaw, with a stop in Mount Pleasant, would be successful. Now you are ready to look into some specifics. Turning to **Part III, Individual School Analysis** you find Ferris State, which is in alphabetical order along with the rest of the schools. The first part of each individual school summary provides a verbal description of the information found in tables 1 and 2.

Item #1, time distance, of the Ferris State individual analysis (and of all the other individual analyses) talks about the general distribution of student residences according to travel time from the school. In the study, a three hour (180 minute), 150 mile limit was used to define the farthest practical distance for regular weekend home trips by students. Anything over this distance was considered too long for regular trips home for a short period such as a weekend. Students living outside of the United States and Canada were excluded for the same reason.

The numbers provided give an idea of how many students who attend Ferris State live within the three hour, 150 mile limitation. Obviously, you would not have as successful weekend service if a significant portion of the students resided outside of this limitation. You notice that 64% of the students who attend Ferris State live within the three hours, so there should be no problem with the distribution pattern.

You should also check to see if Mount Pleasant, Bay City, and Saginaw are all within the 150 mile limit. Turn the page from the individual summary of Ferris State, and you will find a series of maps. The second map is titled "**Access Times to F.S.C.**" This map presents graphically the distances from Ferris State to every location within the state.

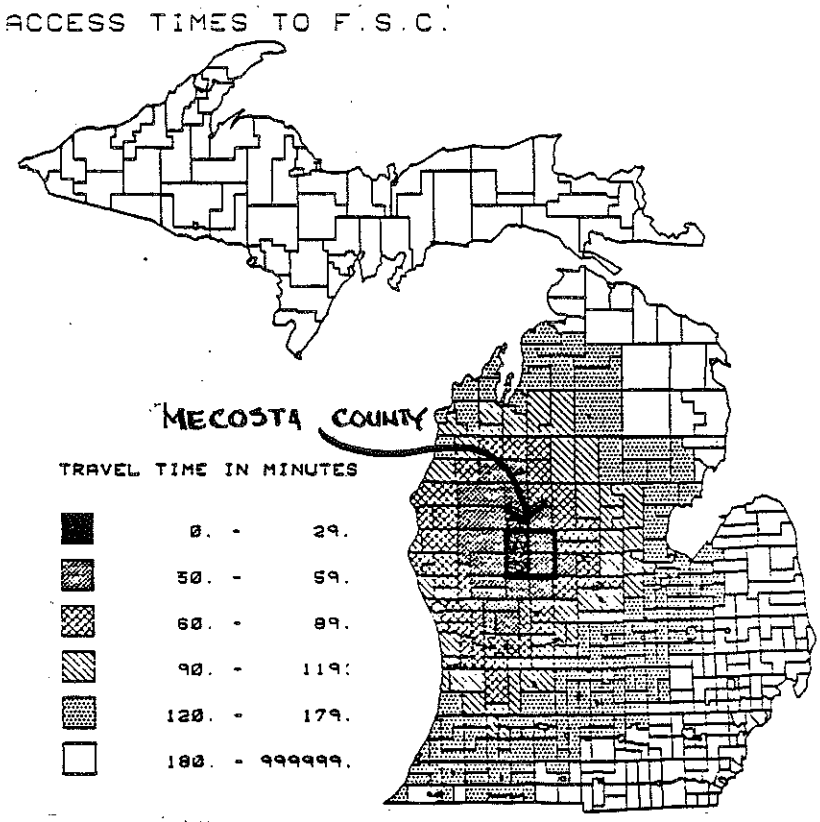
The map is divided into several different areas that will not look familiar to you. These areas do not represent the political or geographical boundaries you may be used to, although they do represent parts of counties. In other words, each county is divided into several parts and shown on the map.

This is done to help provide an accurate picture. If time information was presented only by county, the access times for each area in the county would be averaged together to get only one time, although one county may contain two or three different access times in different locations.

To help determine where each city is, you can compare the access times map to the map above it, which portrays the counties. You may wish to draw in the county boundary by hand to help identify the area (see Figure 4). Each community, Mount Pleasant, Bay City, and Saginaw, falls within the three hour 150 mile limit. You should avoid areas on this map with no pattern, they represent locations over three hours from Ferris State.

Item #2 describes which urbanized areas in the state have 100 or

more student residents, who attend Ferris State. This is called the Student Home Location Concentration, or SHLC for short. You see that both Bay City and Saginaw are included in the listing, but Mount Pleasant is not. This is because Mount Pleasant is not considered an "urbanized area." There are 15 official urbanized areas in Michigan. They are defined based on population and other criteria by the U.S. Bureau of Census.



The emphasis is on the urbanized areas because most of the state's university and college students live in or go to school in urbanized areas. You have greater chance for successful service to urbanized areas because of the higher population density. If you are not sure where the 15 official urbanized areas are, you can check **Appendix C.**

The information in item #2 is presented in the map titled "**Ferris State Student Home Locations.**" From this map you can see that 100 or more students do indeed reside in Isabella County, where Mount Pleasant is located; Bay County, where Bay City is located; and Saginaw County, where Saginaw is located. This map also shows other areas in the state with high student home location concentrations.

Maps that include the surrounding states and the Province of Ontario (3) for selected schools can be found in **Appendix E.** Only schools that have concentrations in the bordering states/province are included in this appendix. Excluded schools can be assumed to have no SHLC in the surrounding states/province.

The third and final map titled "**Simulated Student Travel Patterns for Ferris State**" is helpful when used in combination with the student home locations map. It shows generalized travel patterns and travel volumes for Ferris State from each area of student residence. These maps were generated using a "minimum time path" method. This method assumes that passengers will take the state trunk line highways that allows them to reach their destination in the least amount of time.

The travel patterns map gives an indication of the direction and volume of students from home to school. As the number of lines or "band-widths" increases, the number of students traveling on the road increases. Be careful how you interpret this map,

however. The band-widths are **cumulative.** All trips along the road are added as you move closer to the destination, such as Ferris State.

To illustrate this, look at the simulated student travel patterns map for Ferris State. There is a wide pattern leading directly from Saginaw to the college. Counting the number of bands in the pattern, you get nine, which, according to the legend, seems to indicate there are 1000 or more students traveling from Saginaw. **This perception is not correct.**

Notice that there is a pattern of seven bands coming up into Saginaw from the direction of Flint and Detroit. These trips are included in the band-width that heads to Ferris State from Saginaw, but you can not include the passengers from Flint or Detroit on your service if you are only going as far as Saginaw.

Notice also that there are two patterns that emanate from Saginaw/Bay City to Ferris State. One pattern heads west along US-10 to US-131 while the other takes M-20 across to Ferris State. You should realize that a portion of each of these two routes are coming from Saginaw and Bay City. You had planned on taking the M-20 route with your bus so you can conveniently stop at Bay City, Midland, and Mount Pleasant before heading to Ferris State. Since there will be only one route, you can assume that a portion of the trips placed on the US-10 route would be included in the M-20 route ridership.

The two different routes are shown on the map because of a slight time advantage for one route or the other from each students' home to the school (assuming each student was able to drive individually). Since you will providing bus service on only one route, the option of taking a different route will not be available to the students which is why you can combine the two patterns. It seems confusing, but with a little careful thought you should be able to use the travel pattern maps to locate the heaviest traveled routes and to follow the travel trends for each school.

Item #3 of the individual school analysis describes the existing intercity bus service accommodating weekend home travel between Ferris State and the rest of Michigan. This information is subject to change, you should check the most recent issue of Russell's Official Bus Guide or a similar schedule to assure you have the most accurate information. A map of the intercity bus system in Michigan, as of June 1986, is presented in **Appendix F.**

The remaining items (#4 and on) describe some of the routes that have the best potential for new or improved special weekend service to the school. These items compare the service needs identified in items #1 and #2 with the existing service identified in item #3 and suggests where there may be deficiencies in service. The summary statements in sections IVB-IVD are based on these statements.

VC4. SUMMARY

This has been a quick look at one method using this study to determine the feasibility of special weekend university/college service. The intent has been to explain in better detail how to interpret and utilize the information presented in the report. Other methods to use this information are possible, and they could be just as useful, if not more so. For example, some may prefer to look at each of the student home location maps instead of Table 2 to determine where the best new routes could be established. This takes a little longer, but the ultimate decision has the same chance of being legitimate as if the procedure described above was used.

Hopefully, this description will help you become comfortable with the information presented so that you can discover which method is best for you to use. It should also serve as a guide to prevent you from making incorrect or misdirected conclusions based on the data.

VD. MARKET THE ROUTE

Once you have determined that a new route is feasible, you need to market it to potential users in a cost-effective manner. There are many methods at your disposal: advertise in the school newspaper, radio spots on campus and local stations, flyers distributed to students and posted on bulletin boards throughout the campus, and so forth.

One method that may be effective is a direct mailing--to both the student at his or her campus address, and to the student's

parents at the home address. Student address information is generally handled by the Registrar of each school (see **Appendix A**). Unfortunately for you, many schools will not provide student residence information to companies for commercial purposes. This is a fairly standard policy to protect the privacy rights of the students.

There is a way around this problem, although it will take slightly more work on your part. Almost every school publishes a student directory near the beginning of the fall semester of each year. This directory generally contains both the local and home address of all students enrolled at the school, and can be purchased relatively inexpensively (in the general vicinity of $5.00). You could purchase a directory, locate the students whose home residence is along the route you plan to start, and type out a mailing list to both the student's home and campus address.

This procedure should take a few days at most, as you will be contacting only a percentage of the school's student population for each route. Using a microcomputer with word processing or data base software to generate the mailing labels would speed up the process, and make updating the data or second mailings easier and faster. While this is obviously more work than having the school provide pre-printed mailing labels, it is quick, inexpensive, and assures that nearly all of the students (and their parents) residing in the targeted communities will be informed of the new service.

Another option available is to locate a private company that provides mailing labels. In addition to regular publishing firms, many enterprising college students provide a similar service. They have already entered the student directory into a microcomputer, and can generate a selected list of mailing labels based on a certain home city, zip code, or whatever criteria you specify. The charge is usually a small fee per label. Advertisements for these services can often be found in the classified section of school newspapers.

A final inexpensive option, that may work best in conjunction with the procedures suggested above, is to hire an on-campus student marketing director. This student could be a business, marketing, advertising, or some similar major who would be responsible for promoting the intercity bus routes that served his or her school. The placement services or student services department of each school is likely to have names of individuals looking for this type of experience.

VE. NAVIGATE THE LEGALITIES

After determining you would like to start service, make sure that you have the proper authority to begin intercity bus transportation services in Michigan. With the deregulation of the industry, this is a fairly simple operation, but there are still some steps involved. Be aware of them. The steps are generally designed to assure that equipment you intend to use meets Michigan safety standards and that your company is certified as a motor common carrier of passengers. There are two different

procedures to follow, one if you are currently a certified motor common carrier of passengers, and the other if you are not certified.

VE1. CERTIFIED COMPANIES

If your company is currently certified as a motor common carrier of passengers in Michigan, for either regular route or charter service, the procedure you must follow is:

1. File a letter with the Michigan Department of Transportation that describes the route you intend to take. This letter must identify the origin and destination points to be served, the major state trunk line highways that will be used, and the scheduled service times.

This letter should be sent to the:

Michigan Department of Transportation
Bureau of Urban and Public Transportation (UPTRAN)
Intercity Division
Intercity Bus Programs & Regulatory Affairs
P.O. Box 30050
425 W. Ottawa Street
Lansing, MI 48909

Telephone: (517) 335-2560

2. A check for $25.00, made payable to the State of Michigan, for the application extension fee must accompany the letter.

VE2. NON-CERTIFIED COMPANIES

The procedure for non-certified companies is a little more involved because you must first receive certification before you can begin passenger service. Certification is required, with a few exceptions, if you operate a vehicle with a maximum passenger capacity of ten or more persons on a public highway in Michigan.

The steps described in this procedure are based on Public Act 432 of 1982, as amended (see **Appendix G**).

First, you should contact the Michigan Department of Transportation, Bureau of Urban and Public Transportation, Intercity Bus Operations Section, to obtain a packet of information (see **Appendix G**). The packet will contain:

1. A list of the procedures involved in applying for certification.
2. An example of a Certificate of Insurance.
3. An equipment vehicle roster.
4. A copy of Public Act 432 of 1982 as amended.

You may contact the Michigan Department of Transportation at:

Michigan Department of Transportation
Bureau of Urban and Public Transportation (UPTRAN)
Intercity Division
Intercity Bus Programs & Regulatory Affairs
P.O. Box 30050
425 W. Ottawa Street
Lansing, MI 48909

Telephone: (517) 335-2560

Review the packet carefully. It describes what you must provide to receive certification which includes:

1. A letter outlining a description of the authority sought (charter service or regular route), identifying the origin and destination points to be served, the major state trunk line highways that will be used, and the scheduled service times.
2. A completed vehicle roster, which includes a signed statement on the back if each of the

vehicles listed has been safety inspected and approved (see **Appendix G**).

3. A Certificate of Insurance which specifies that your company has at least $5 million bodily injury protection and property damage coverage, and $1 million personal injury protection (no-fault) coverage, for one year (see **Appendix G**).

4. A $300 check, made payable to the State of Michigan, for the application fee, plus $20 for every vehicle listed on the vehicle roster.

If you have any questions or problems, be sure to contact the Intercity Bus Operations Section at the address or telephone number listed above. Remember that the information provided here is to be used only as a guide. All official requirements, forms, and procedures are established by MDOT, Bureau of Urban and Public Transportation. Be sure to contact them at the above number to obtain specific information and the proper forms.

VF. CONCLUSION

This section was written to help you interpret the information provided in the previous chapters of this study. Its main purpose is to offer suggestions and ideas for using the data in establishing new or improved special weekend intercity bus service to college students in the state. The methods offered here are not intended to be complete, but to provide general guidance.

If you are successful in establishing this type of service we would be most interested in learning of your experiences. Knowing the success or failure of the ideas offered here would be

most helpful in developing future versions of this report. Kindly send comments to the address in the acknowledgments in the front of this report.

APPENDICES

APPENDIX A

LISTING OF SCHOOLS

LISTING OF SCHOOLS

ADRIAN COLLEGE
Mrs. O. Ioan Stepp
Office of the Registrar
Adrian, MI 49221-2575
(517) 265-5161

ALBION COLLEGE
Mrs. Elizabeth Hileman
Office of the Registrar
Albion, MI 49224-1899
(517) 629-5511

ALMA COLLEGE
Mr. William Potter
Office of the Registrar
Alma, MI 48801
(517) 463-7111

ANDREWS UNIVERSITY
Mr. Norman J. Roy
Acting Director, Admissions & Records
Berrien Springs, MI 49104
(616) 471-7771

AQUINAS COLLEGE
Mrs. Lois Kalman
Office of the Registrar
1607 Robinson Road, S.E.
Grand Rapids, MI 49506
(616) 459-8281

CALVIN COLLEGE
Mr. Ernest Van Vugt
Office of the Registrar
Grand Rapids, MI 49506
(616) 957-6000

CENTRAL MICHIGAN UNIVERSITY
Ms. Alice N. St. Clair
Office of the Registrar
Mount Pleasant, MI 48859
(517) 774-3151

EASTERN MICHIGAN UNIVERSITY
Dr. George W. Linn
Director of Records
Ypsilanti, MI 48197
(313) 487-1849

FERRIS STATE COLLEGE
Mr. Paul G. Schnepf
Office of the Registrar
Big Rapids, MI 49307
(616) 796-0461

GRAND RAPIDS BAPTIST COLLEGE AND SEMINARY
Mr. William Kellaris
Admissions Officer
1001 E. Beltline Avenue, N.E.
Grand Rapids, MI 49505
(616) 949-5300

GRAND VALLEY STATE COLLEGE
Ms. Lynn Bresky
Office of the Registrar
College Landing
Allendale, MI 49401
(616) 895-6611

HILLSDALE COLLEGE
Miss Kay Cosgrove
Office of the Registrar
33 East College
Hillsdale, MI 49242
(517) 437-7341

HOPE COLLEGE
Mr. Jon Huisken
Office of the Registrar
Holland, MI 49423
(616) 392-5111

KALAMAZOO COLLEGE
Mrs. Ruth L. Collins
Office of the Registrar
1200 Academy Street
Kalamazoo, MI 49007
(616) 383-8400

LAKE SUPERIOR STATE COLLEGE
Mr. Duane R. Graham
Office of the Registrar
Sault Ste. Marie, MI
49783-9981
(906) 632-6841

MERCY COLLEGE OF DETROIT
The Reverend Mother Superior, S.C.
Office of the Registrar
8200 W. Outer Drive
Detroit, MI 48219
(313) 592-6000

MICHIGAN STATE UNIVERSITY
Dr. Horace C. King
Office of the Registrar
East Lansing, MI 48824-1046
(517) 355-1855

MICHIGAN TECHNOLOGICAL UNIVERSITY
Mr. Gary A. Wickstrom
Office of the Registrar
Houghton, MI 49931
(906) 487-1885

NORTHERN MICHIGAN UNIVERSITY
Mr. Harry A. Rajala
Office of the Registrar
Marquette, MI 49855
(906) 227-1000

OAKLAND UNIVERSITY
Mr. Lawrence R. Bartalucci
Office of the Registrar
Rochester, MI 48063
(313) 377-2100

SAGINAW VALLEY STATE COLLEGE
Mr. Paul H. Saft
Office of the Registrar
University Center, MI 48710
(517) 790-4000

UNIVERSITY OF MICHIGAN
Mr. Alfred Stuart
Office of the Registrar
1521 LS & A Building
500 S. State
Ann Arbor, MI 48109
(313) 764-1817

UNIVERSITY OF MICHIGAN, DEARBORN
Ms. Linda Ellis-Brown
4901 Evergreen Road
Dearborn, MI 48128
(313) 593-5000

UNIVERSITY OF MICHIGAN, FLINT
Mr. Mogens F. Jensen
Office of the Registrar
Flint, MI 48503
(313) 762-3000

WAYNE STATE UNIVERSITY
Ms. Selma R. Marshall
Office of the Registrar
Detroit, MI 48202
(313) 577-2424

WESTERN MICHIGAN UNIVERSITY
Mr. Dennis E. Boyle
Kalamazoo, MI 49008
(616) 383-1600

APPENDIX B

ENROLLMENT OF MICHIGAN'S COLLEGES AND UNIVERSITIES

FALL 1984 ENROLLMENT OF FOUR YEAR UNIVERSITIES/COLLEGES IN MICHIGAN WITH 1,000 OR MORE ENROLLMENT 1/

University/College	Freshmen No.	Freshmen %	Sophomores No.	Sophomores %	Juniors No.	Juniors %	Seniors No.	Seniors %	Other No.	Other %	Total No.	Total %	Fall 1984 Enrollment 2/
Under 5,000													
Adrian	395	37.5	241	22.9	241	22.9	175	16.6	1	0.1	1,053	100.0	1,220
Albion	447	28.2	426	26.9	338	21.3	375	23.6	0	0.0	1,586	100.0	1,569
Alma	293	32.0	215	23.5	197	21.5	212	23.1	0	0.0	917	100.0	1,016
Andrews	177	24.7	104	14.5	93	13.0	172	24.0	171	23.9	717	100.0	3,034
Aquinas	355	31.0	288	25.2	303	26.5	199	17.4	0	0.0	1,145	100.0	2,831
Calvin	964	27.4	910	25.9	726	20.7	782	22.3	131	3.7	3,513	100.0	3,973
Center for Creative Art 5/	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1,141
Cleary 5/	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	970
Detroit Col. of Business 4/	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3,318
G.M.I. Eng. & Mgmt. 5/	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2,998
Grand Rapids Baptist	333	35.9	167	18.0	110	11.9	107	11.5	211	22.7	928	100.0	951
Hillsdale	322	31.2	233	22.6	212	20.6	264	25.6	0	0.0	1,031	100.0	1,032
Hope	629	29.8	498	23.6	561	26.5	426	20.2	0	0.0	2,114	100.0	2,550
Jordan 5/	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1,703
Kalamazoo	318	30.1	266	25.2	232	22.0	241	22.8	0	0.0	1,057	100.0	1,106
Lake Superior State	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2,152	100.0	2,783
Madonna 4/	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3,979
Marygrove 4/	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	971	100.0	1,182
Mercy	375	23.1	562	22.6	537	21.6	433	17.4	381	15.3	2,488	100.0	2,465
Northwood Institute 5/	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1,936
Saginaw Valley State 3/	289	62.8	84	18.3	66	14.4	21	4.6	0	0.0	460	100.0	4,833
Siena Heights 5/	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1,480
Spring Arbor 5/	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1,046
Thomas Cooley Law School 5/	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1,128
Walsh 5/	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2,025
5,000-9,999													
Grand Valley State 5/	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	7,153
Lawrence Inst. of Tech. 5/	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	6,121
Michigan Tech.	1,420	22.0	1,375	21.3	1,551	24.0	1,698	26.3	411	6.4	6,455	100.0	6,935
Northern Michigan	2,832	35.6	1,312	16.5	1,343	16.9	1,601	20.2	858	10.8	7,946	100.0	7,824
University of Detroit 5/	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5,828
Univ. of Mich. Dearborn	1,100	20.1	1,238	22.6	1,377	25.1	1,222	22.3	549	10.0	5,486	100.0	6,321
Univ. of Mich. Flint 5/	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5,596
10,000-19,999													
Central Michigan	3,673	23.4	3,328	21.2	3,215	20.5	3,981	25.4	1,487	9.5	15,684	100.0	16,882
Eastern Michigan	2,791	15.6	3,093	17.3	3,290	18.4	4,684	26.2	4,013	22.5	17,871	100.0	19,210
Ferris State	3,170	31.6	2,096	20.9	1,889	18.9	2,749	27.4	133	1.3	10,037	100.0	10,540
Oakland	1,952	16.4	2,172	18.3	2,616	22.0	3,308	27.8	1,855	15.6	11,903	100.0	11,971
20,000 and Over													
Michigan State	9,198	22.4	7,340	17.9	7,946	19.3	7,447	18.1	9,197	22.4	41,128	100.0	42,193
U. of M. Ann Arbor 6/	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	17,747	100.0	34,467
Wayne State	3,357	12.2	3,717	13.5	4,079	14.8	4,690	17.0	11,738	42.6	27,581	100.0	29,070
Western Michigan	3,633	18.1	3,323	16.5	4,192	20.9	4,444	22.1	4,513	22.5	20,105	100.0	20,233

Notes: 1/ Schools surveyed with an enrollment of over 1,000 as of fall 1984. Two schools, Cleary and Grand Rapids Baptist, did not meet the 1,000 enrollment criteria in 1984, but did meet the criteria in 1983, and were included for this reason.
2/ Official enrollment figures as reported by the Michigan Department of Education.
3/ Information was provided, but only for dormitory students.
4/ Majority of enrolled students commute daily.
5/ Enrollment information was not provided by college.
6/ Most out-of-state students are missing from the data collected.

Source: MDOT, Bureau of Transportation Planning, Surface Systems Unit

FALL 1984 ENROLLMENT OF TWO-YEAR UNIVERSITIES/COLLEGES IN MICHIGAN WITH 1,000 OR MORE ENROLLMENT 1/

University/College	Freshmen No.	%	Sophomores No.	%	Other No.	%	Total No.	%	Fall 1984 Enrollment 2/
Under 5,000									
Alpena	1,204	64.5	662	35.5			1,866	100.0	1,878
Baker Junior	1,868	77.0	558	23.0			2,426	100.0	2,424
Bay De Noc 3/	0	0.0	0	0.0			1,806	100.0	1,801
Davenport 5/	0	0.0	0	0.0			0	0.0	4,219
Glen Oaks 5/	0	0.0	0	0.0			0	100.0	1,181
Gogebic	451	46.0	530	54.0			981	100.0	1,600
Highland Park	744	33.6	1,472	66.4			2,216	100.0	2,416
Kellogg 5/	0	0.0	0	0.0			0	0.0	4,553
Kirtland 5/	0	0.0	0	0.0			0	0.0	1,333
Lake Michigan 5/	0	0.0	0	0.0			0	0.0	3,199
Mid Michigan 5/	0	0.0	0	0.0			0	0.0	1,762
Monroe 4/	0	0.0	0	0.0			0	0.0	2,580
Montcalm 4/	0	0.0	0	0.0			0	0.0	1,398
Muskegon 5/	0	0.0	0	0.0			0	0.0	4,623
Muskegon Business	738	65.5	389	34.5			1,127	100.0	1,464
North Central 5/	0	0.0	0	0.0			0	0.0	1,692
Northwestern	2,269	73.6	816	26.5			3,085	100.0	3,222
St. Clair	2,517	60.0	1,678	40.0			4,195	100.0	3,385
Southwestern 4/	0	0.0	0	0.0			0	0.0	2,365
West Shore	605	70.1	258	29.9			863	100.0	1,083
5,000-9,999									
Grand Rapids 5/	0	0.0	0	0.0			0	0.0	8,913
Jackson	3,535	69.5	1,551	30.5			5,086	100.0	6,071
Kalamazoo	4,775	63.6	2,733	36.4			7,508	100.0	8,231
Schoolcraft 4/	0	0.0	0	0.0			0	0.0	8,512
Washtenaw 5/	0	0.0	0	0.0			0	0.0	7,858
10,000-19,999									
C.S. Mott 4/	0	0.0	0	0.0			0	0.0	11,158
Delta 3/	0	0.0	0	0.0			12,014	100.0	10,243
Henry Ford	12,188	71.6	4,774	28.1	1	0.0	16,963	100.0	14,338
Lansing	13,252	58.8	9,278	41.2			22,530	100.0	19,157
Wayne 5/	0	0.0	0	0.0			0	0.0	12,408
20,000 and Over									
Macomb	15,792	57.6	11,647	42.5			27,439	100.0	30,100
Oakland	22,083	75.7	7,104	24.3			29,187	100.0	26,605

Notes: 1/ Schools surveyed with an enrollment of over 1,000 as of fall 1983.
2/ Official enrollment figures as reported by the Michigan Department of Education.
3/ Information was provided, but not in a useable format for this study.
4/ Majority of enrolled students commute daily.
5/ Enrollment information was not provided by college.

Source: MDOT, Bureau of Transportation Planning, Surface Systems Unit

TRENDS IN FALL HEADCOUNT ENROLLMENT, 1977-1985
MICHIGAN FOUR YEAR COLLEGES & UNIVERSITIES

INSTITUTION	1977	1978	1979	1980	1981	1982	1983	1984	1985	CHANGE 1985-1984	PERCENT CHANGE
Adrian College	912	824	945	1,116	1,242	1,222	1,192	1,220	1,139	-81	-6.6
Albion College	1,705	1,784	1,781	1,860	1,876	1,742	1,662	1,569	1,571	2	0.1
Alma College	1,170	1,183	1,201	1,198	1,110	1,059	1,004	1,016	1,012	-4	-0.4
Andrews University	2,837	2,924	2,983	3,018	3,083	2,851	2,878	3,034	3,032	-2	-0.1
Aquinas College	1,684	1,918	2,163	2,529	2,753	2,743	2,787	2,831	2,724	-107	-3.8
Calvin College	4,075	3,977	3,988	4,058	3,919	3,806	3,938	3,973	4,012	39	1.0
Calvin Theol. Seminary	220	210	209	190	185	210	240	238	235	-3	-1.3
Central Michigan	17,973	17,802	17,779	18,269	17,653	17,132	17,259	16,882	17,070	188	1.1
Eastern Michigan	19,104	18,655	18,865	19,323	18,766	18,078	18,880	19,210	20,166	956	5.0
Ferris State	9,965	10,208	10,596	11,112	11,261	11,008	10,767	10,540	10,909	369	3.5
Grand Rapids Baptist	1,048	1,137	1,144	1,216	1,132	1,077	1,029	951	910	-41	-4.3
Grand Valley State	7,469	7,065	7,142	6,984	6,699	6,366	6,710	7,153	7,667	514	7.2
Hillsdale College	1,048	989	1,035	1,035	1,043	1,044	992	1,032	1,006	-26	-2.5
Hope College	2,330	2,371	2,355	2,464	2,458	2,530	2,519	2,550	2,522	-28	-1.1
Kalamazoo College	1,534	1,444	1,438	1,452	1,367	1,234	1,126	1,106	1,115	9	0.8
Kendall School Of Design			416	482	505	577	644	687	680	-7	-1.0
Lake Superior State	2,261	2,401	2,309	2,501	2,559	2,425	2,820	2,783	2,692	-91	-3.3
Marygrove College	811	871	958	1,025	1,149	1,189	1,237	1,182	1,232	50	4.2
Mercy College	2,226	2,272	2,281	2,484	2,119	2,106	2,204	2,465	2,402	-63	-2.6
Michigan State	47,383	46,567	47,350	47,316	44,887	42,730	41,765	42,193	42,746	553	1.3
Michigan Tech	6,807	7,130	7,690	7,865	7,779	7,640	7,414	6,935	6,537	-398	-5.7
Northern Michigan	8,844	8,995	9,452	9,379	9,073	8,377	8,054	7,824	7,599	-225	-2.9
Oakland University	11,051	11,220	11,729	12,006	11,644	11,721	12,084	11,971	12,586	615	5.1
Saginaw Valley State	3,529	3,706	3,818	4,285	4,324	4,370	4,612	4,833	4,936	103	2.1
U of M, Ann Arbor	35,954	36,577	36,158	37,117	35,677	34,907	34,593	34,467	34,456	-11	0.0
U of M, Dearborn	5,480	5,955	6,406	6,291	6,575	6,390	6,399	6,321	6,597	276	4.4
U of M, Flint	3,801	3,884	4,122	4,410	4,609	5,025	5,707	5,596	5,672	76	1.4
Wayne State	34,389	34,514	34,337	33,408	31,522	29,775	29,639	29,070	28,424	-646	-2.2
Western Michigan	22,496	22,447	22,842	22,641	21,999	20,580	20,296	20,233	20,963	730	3.6
TOTAL	154,434	153,925	157,788	160,862	156,243	150,849	151,188	151,329	153,549	2220	1.5

Note: A blank indicates data is not available.

Source: Michigan Department Of Education, Higher Education Management Services, Hegis Fall Enrollment Reports

TRENDS IN FALL HEADCOUNT ENROLLMENT 1977-1985
MICHIGAN TWO YEAR COLLEGES

INSTITUTION	1977	1978	1979	1980	1981	1982	1983	1984	1985	CHANGE 1985-1984	PERCENT CHANGE
Allan/Touro College					20						
Alpena	1,765	1,752	1,695	2,097	1,946	1,842	2,006	1,878	1,816	-62	-3.3
Baker Jr. College of Bus.	1,050	1,312	1,171	1,311	1,427	1,762	1,949	2,424	2,559	135	5.6
Bay De Noc	1,163	1,192	1,480	1,531	1,621	1,626	1,616	1,801	1,893	92	5.1
Central Bible College				94	87	79	82	73			
Chapin Jr. Col. of Bus.				8	9	16					
Chrysler Inst. of Tech.							275	424	637	213	50.2
Cleary College	461	459	586	765	416	1,006	1,089	970	881	-89	-9.2
College of Art & Design	983	1,009	1,034	1,086	1,103	1,113	1,124	1,141	1,166	25	2.2
Concordia College	615	556	552	526	550	540	525	487	433	-54	-11.1
Cranbrook Acad. of Art	155	145	158	148	150	140	140	147	131	-16	-10.9
Ctr. For Humanistic Studies					55	69	68	66	66	0	0.0
C. S. Mott	9,097	9,045	9,754	10,698	10,787	10,865	11,432	11,158	10,205	-953	-8.5
Davenport Col. of Bus.	2,174	2,243	2,570	3,047	4,265	4,511	4,684	4,219	4,361	142	3.4
Delta	8,802	9,148	9,595	9,996	10,013	10,279	10,607	10,243	10,356	113	1.1
Detroit Baptist Theol. Sem.				60	61	65	44	41	42	1	2.4
Detroit Col. of Bus.	2,065	1,987	2,198	2,368	2,789	2,965	3,496	3,318	3,216	-102	-3.1
Detroit Col. of Law	957	845	816	848	874	877	839	809	770	-39	-4.8
D'etre University					40	89	52	70	114	44	62.9
Economical Theo. Seminary								70	85	15	21.4
Glen Oaks	721	1,031	1,224	1,224	1,173	1,244	1,280	1,213	1,168	-45	-3.7
Goebec	1,066	1,004	1,308	1,130	1,591	1,600	1,600	1,600	1,329	-271	-16.9
Grace Bible College	159	215	198	176	241	170	152	141	126	-15	-10.6
Grand Rapids	8,121	7,516	7,834	8,871	8,905	9,207	9,254	8,913	9,790	877	9.8
Great Lakes Bible Col.	200	232	206	182	178	176	155	141	155	14	9.9
Great Lakes Jr. Col. Bus.								542	681	139	25.6
G. M. I. Eng. & Mgt. Inst.	2,354	2,248	2,241	2,327	2,389	2,433	2,494	2,998	3,442	444	14.8
Henry Ford	16,953	17,191	17,191	16,231	15,946	16,403	16,555	14,338	15,577	1239	8.6
Highland Park	2,758	2,233	2,323	2,654	2,706	2,625	2,623	2,416	2,075	-341	-14.1
Jackson	5,507	6,596	8,554	7,085	7,846	5,259	6,146	6,071	6,029	-42	-0.7
Jordon College	179	281	914	683	654	1,026	1,460	1,703	1,931	228	13.4
Kalamazoo	5,742	6,490	6,663	7,069	7,471	7,895	8,141	8,281	8,426	145	1.8
Kellogg	4,591	4,304	7,368	5,955	5,369	5,197	4,660	4,553	4,284	-269	-5.9
Kirtland	1,058	1,118	1,075	1,699	1,418	1,335	1,306	1,333	1,426	93	7.0
Lake Michigan	3,345	3,250	3,301	3,602	3,013	2,977	3,025	3,199	3,384	185	5.8
Lansing	18,345	18,313	20,129	18,884	19,143	19,779	20,808	19,157	19,548	391	2.0
Lawrence Inst. of Tech.	4,714	4,861	4,991	5,260	5,703	5,868	6,220	6,121	6,271	150	2.5
Lewis College of Bus.	164	560	455	487	609	515	652	377	269	-108	-28.6
Macomb	24,356	25,032	25,619	30,094	29,141	30,410	31,152	30,992	29,491	-1401	-4.5
Madonna College	2,521	3,011	3,131	3,213	3,385	3,409	3,924	3,879	3,974	95	2.4

INSTITUTION	1977	1978	1979	1980	1981	1982	1983	1984	1985	CHANGE 1985-1984	PERCENT CHANGE
Mich. Christian College	400	312	262	338	319	343	372	360	329	-31	-8.6
Mid Michigan	1,303	1,632	1,660	2,007	1,582	1,573	1,693	1,762	1,847	85	4.8
Midrasha Col. of Jewish St.				545	711	1,085			25		
Monroe	2,200	2,020	1,994	2,151	2,470	2,702	2,937	2,880	2,902	22	0.8
Montcalm	1,199	1,333	1,650	1,544	1,223	1,237	1,361	1,398	1,727	329	23.5
Muskegon	4,555	5,011	5,353	5,171	5,100	5,009	4,908	4,623	5,145	522	11.3
Muskegon Business College	1,002	1,017	994	1,125	1,175	1,253	1,430	1,464	1,370	-94	-6.4
Nazareth College	538	620	524	531	528	571	663	820	856	36	4.4
North Central	1,502	1,519	1,836	1,881	1,957	1,681	1,832	1,692	1,542	-150	-8.9
Northwestern	2,628	2,731	2,971	3,389	3,432	3,448	3,354	3,222	3,017	-205	-6.4
Northwood Institute	1,510	1,653	1,789	1,945	1,929	1,846	1,870	1,836	1,848	12	0.7
Oakland	18,825	19,995	20,683	23,554	24,000	25,359	26,939	26,605	26,553	-52	-0.2
Olivet College	708	671	628	668	637	561	615	679	680	1	0.1
Reformed Bible College	213	235	234	209	206	222	206	219	187	-32	-14.6
Sacred Heart Col. & Sem.	164	119	108	142	172	198	242	204	318	114	55.9
Saint John's Prov. Sem.	98	110	141	149	211	190	168	200	124	-76	-38.0
Saint Mary's College	213	196	205	185	216	195	224	241	221	-20	-8.3
Schoolcraft	8,239	9,410	7,904	8,077	8,527	8,509	9,012	8,512	8,374	-138	-1.6
Shaw College At Detroit	1,039	805	603	632	655	455					
Siena Heights College	1,070	1,131	1,327	1,420	1,478	1,481	1,404	1,480	1,487	7	0.5
Southwestern	1,737	1,844	2,001	2,135	2,328	2,465	2,517	2,385	2,481	116	4.9
Spring Arbor College	825	845	1,048	1,086	1,011	976	1,012	1,046	1,072	26	2.5
SS. Cyril and Methodius				116	73	90	47	53	62	9	17.0
St. Clair	3,258	3,165	3,350	3,634	3,655	3,879	3,871	3,885	3,498	-387	-10.0
Suomi College	403	537	440	578	510	559	598	659	697	38	5.8
Thomas Cooley Law	998	1,046	1,079	1,052	1,045	1,115	1,159	1,128	1,028	-100	-8.9
University Of Detroit	8,094	7,948	7,025	6,397	6,187	5,967	6,015	5,828	5,866	38	0.7
Walsh College	1,287	1,393	1,583	1,583	1,707	1,811	2,053	2,025	2,101	76	3.8
Washtenaw	7,172	7,465	7,622	8,445	8,343	8,247	8,351	7,858	8,087	229	2.9
Wayne	15,636	15,610	20,101	18,386	20,325	19,475	17,003	12,408	12,214	-194	-1.6
West Shore	912	769	927	1,011	933	1,081	1,141	1,083	1,067	-16	-1.5
Western Theol. Sem.	122	141	124	104	130	122	150	177	180	3	1.7
William Tyndal College	335	301	388	375	311	318	319	302	326	24	7.9
Yeshivath Beth Yehudah				248	250	231		62			
TOTAL	220,326	226,493	242,878	252,122	256,430	259,625	265,111	254,283	255,338	1055	0.4

Note: A blank indicates data is not available.

Source: Michigan Department Of Education, Higher Education Management Service, Hegis Fall Enrollment Report

APPENDIX C

URBANIZED AREAS IN MICHIGAN

Urbanized areas are considered a contiguous developed area, including the immediate surrounding area, where transportation services should reasonably be provided and with a population of 50,000 or more persons. The following are defined as the 15 urbanized areas within the State of Michigan:

Ann Arbor

Bay City

Battle Creek

Benton Harbor/St. Joseph

the Detroit Metropolitan Area

Flint

Grand Rapids

Jackson

Kalamazoo

Lansing

Muskegon

Niles/South Bend

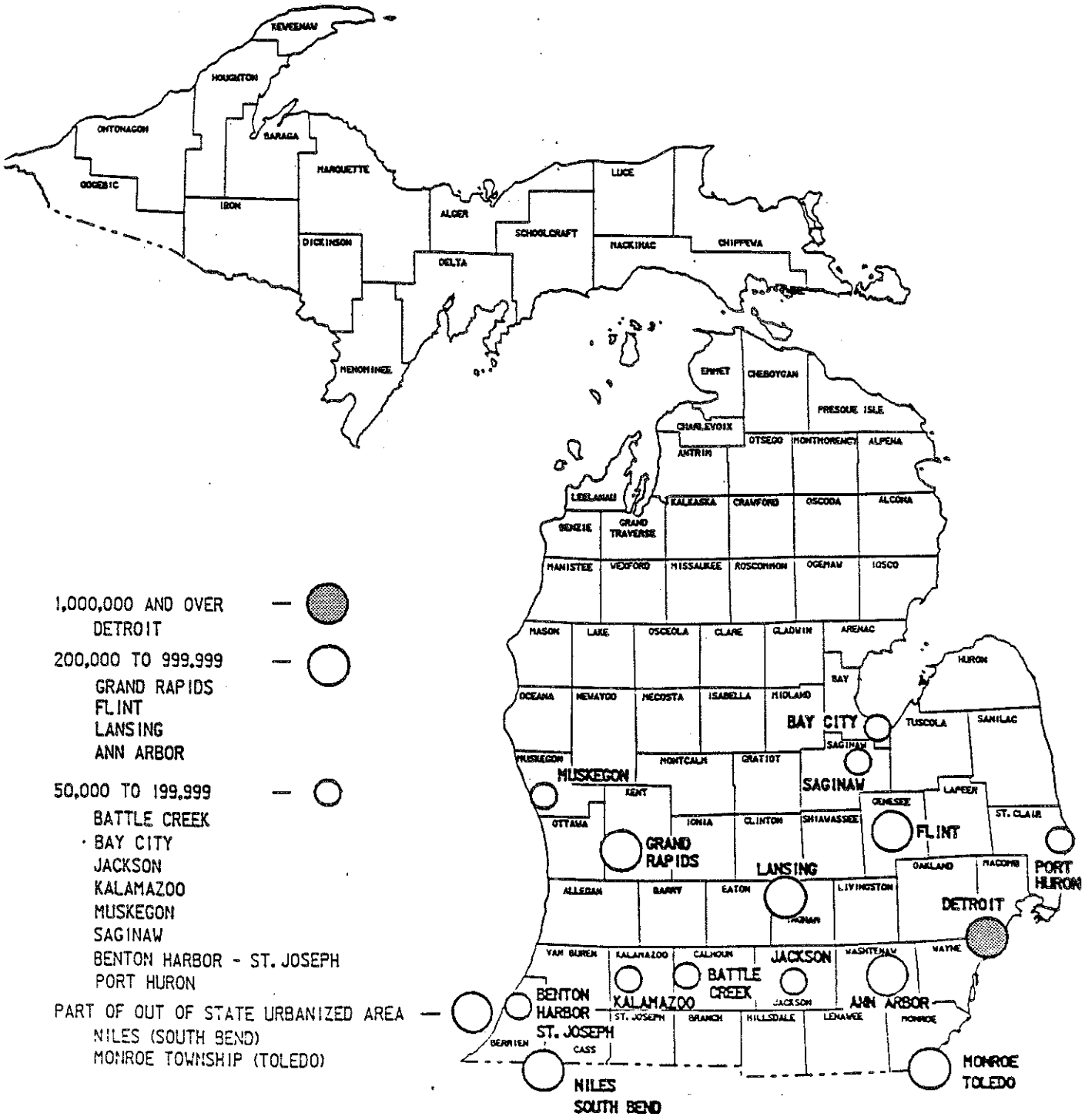
Port Huron

Saginaw

Toledo

The following map will assist in identifying the locations of these communities within the state.

MICHIGAN URBANIZED AREAS



APPENDIX D

METHODOLOGY EVALUATION

As a part of each study the Surface Systems Unit conducts, an evaluation of the procedures used is presented. This is done after the study is substantially complete. Methods to improve similar studies that may be conducted in the future and general comments are suggested based on the experiences of the current study. The following comments were suggested at the evaluation of this report's conclusion...

1. The cooperation of the universities and colleges was a necessary and important aspect of the study.

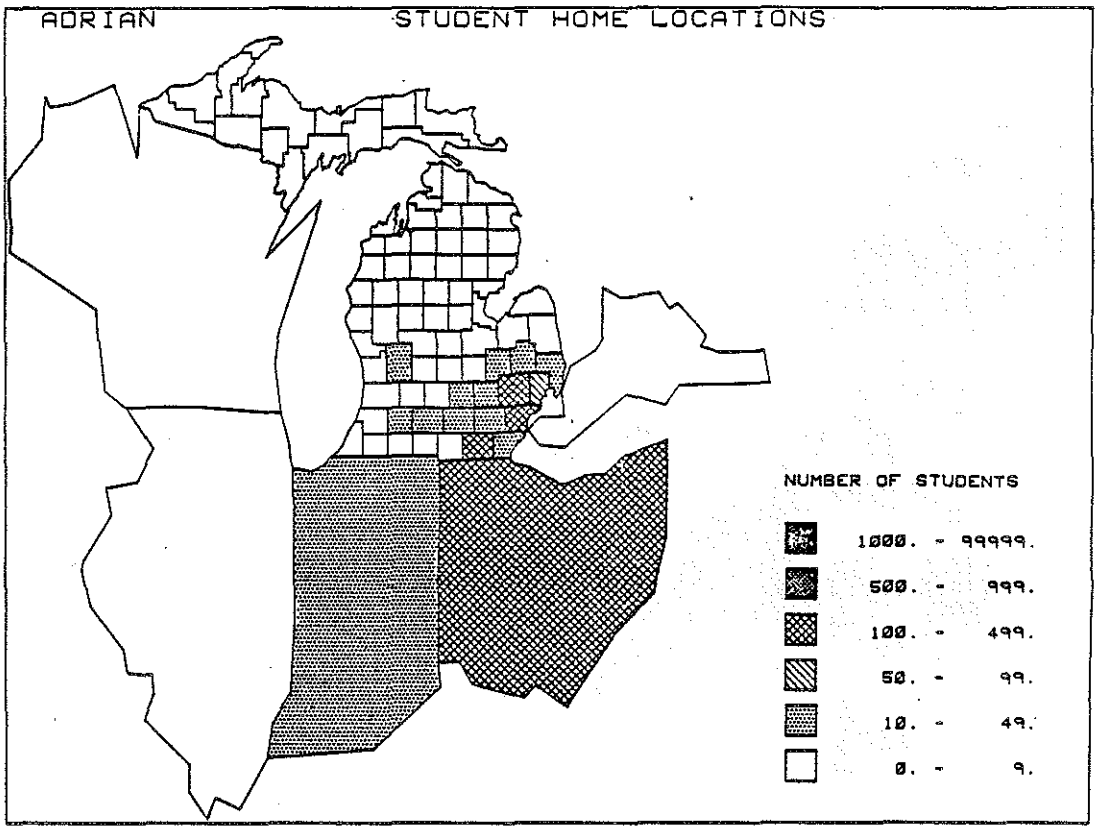
2. The sample size and accuracy of the data included in the analysis is extremely good. The sample size approaches 90% of all students enrolled at four-year schools during 1984, and all data was checked for accuracy at least twice, with several additional sampling checks before it was used in an analysis.

3. On a technical note, it may have been easier, if less exacting, to request the community name of the student's home residence rather than the zip code. While the zip code provided detailed results of residence patterns, it required the development of a special computer program which involved considerable additional effort. Special codes for communities currently exist and can be used with greater ease if sub-community detail is not required.

4. If this study is useful to the intercity bus carriers serving Michigan, the information it contains should be updated approximately every five years.

APPENDIX E

REGIONAL STUDENT HOME LOCATION MAPS FOR SELECTED SCHOOLS


ADRIAN
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
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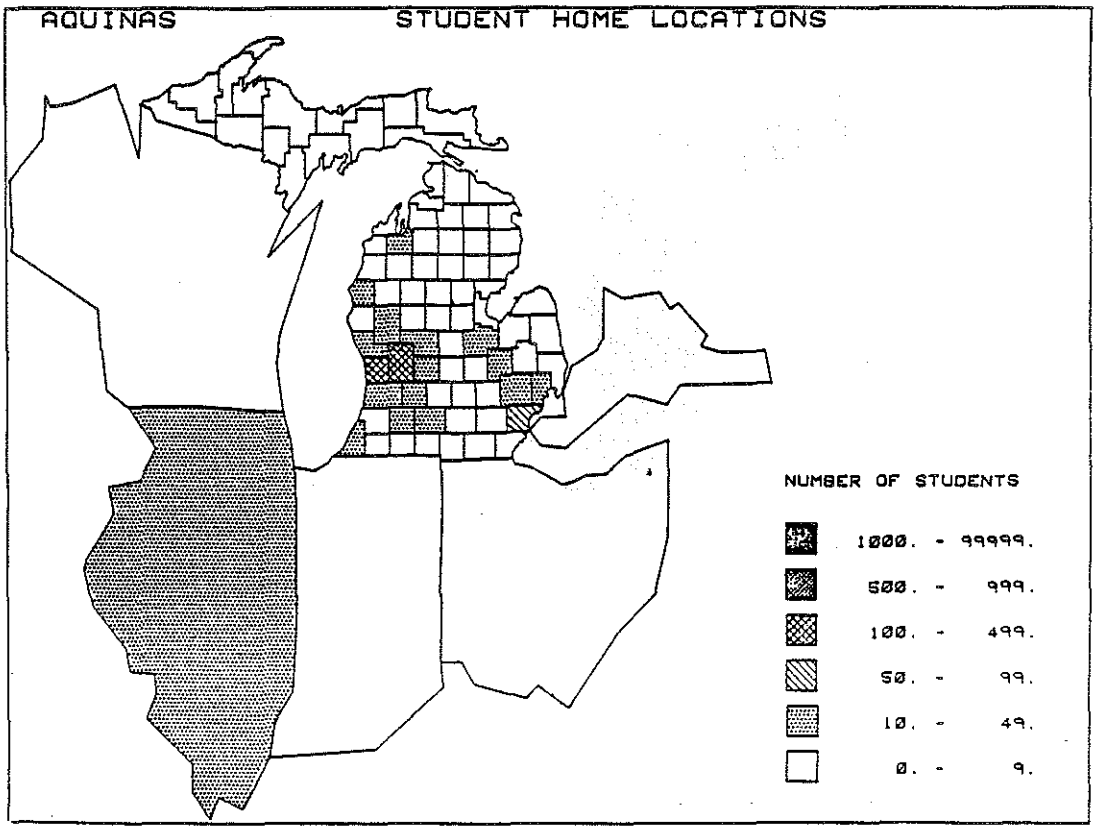
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


AQUINAS
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
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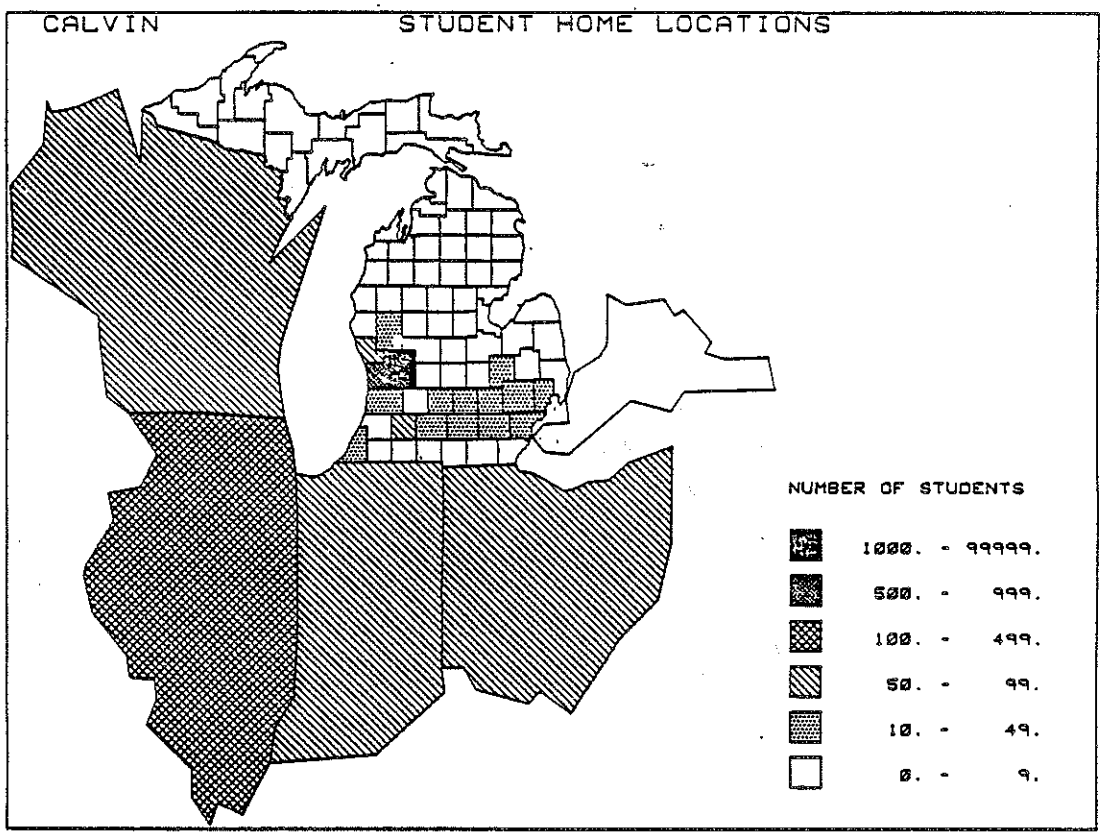
0. - 9.


CALVIN
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
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50. - 99.
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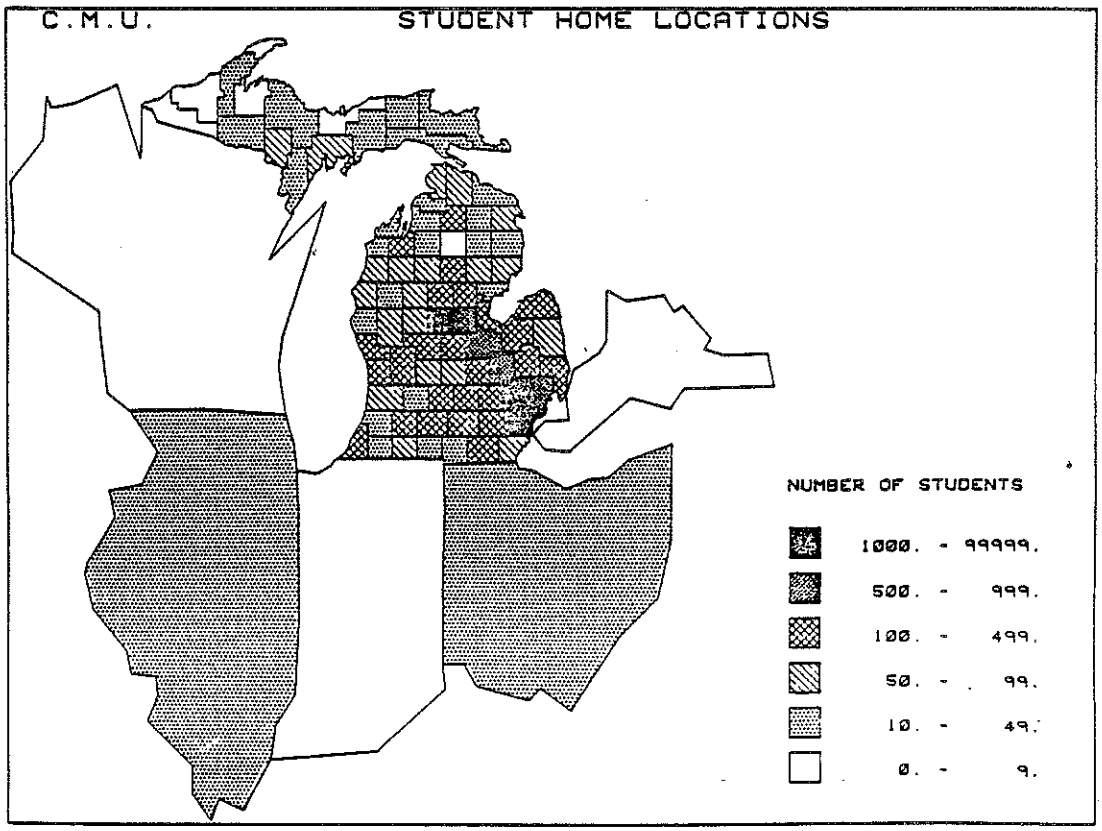
0. - 9.


C.M.U.
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
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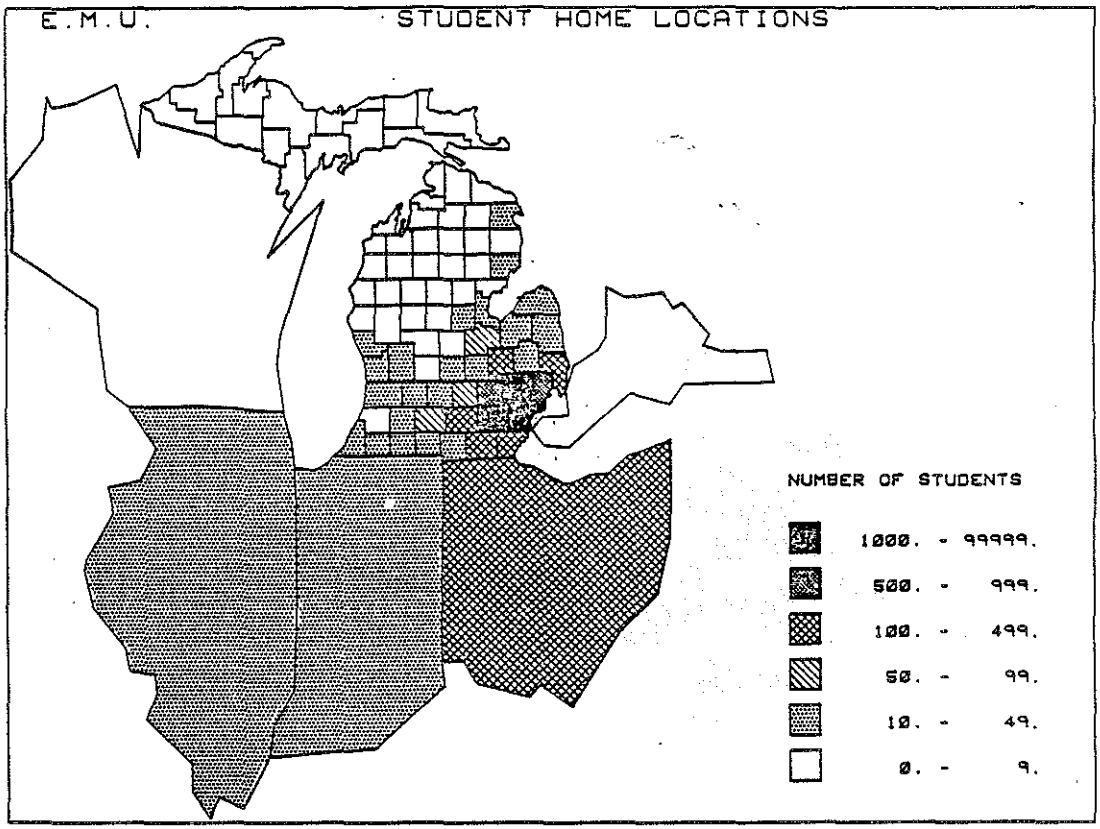
100. - 499.
50. - 99.
10. - 49.
0. - 9.


E.M.U.
STUDENT HOME LOCATIONS
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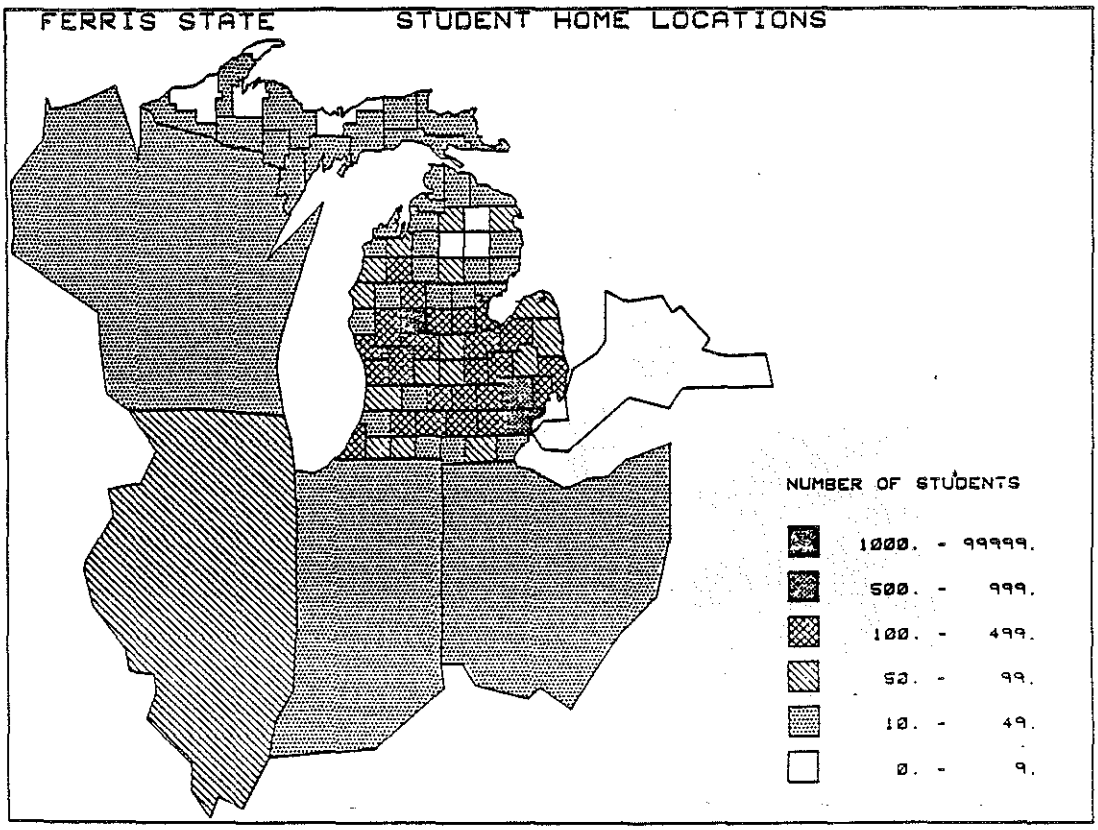
0. - 9.


FERRIS STATE
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
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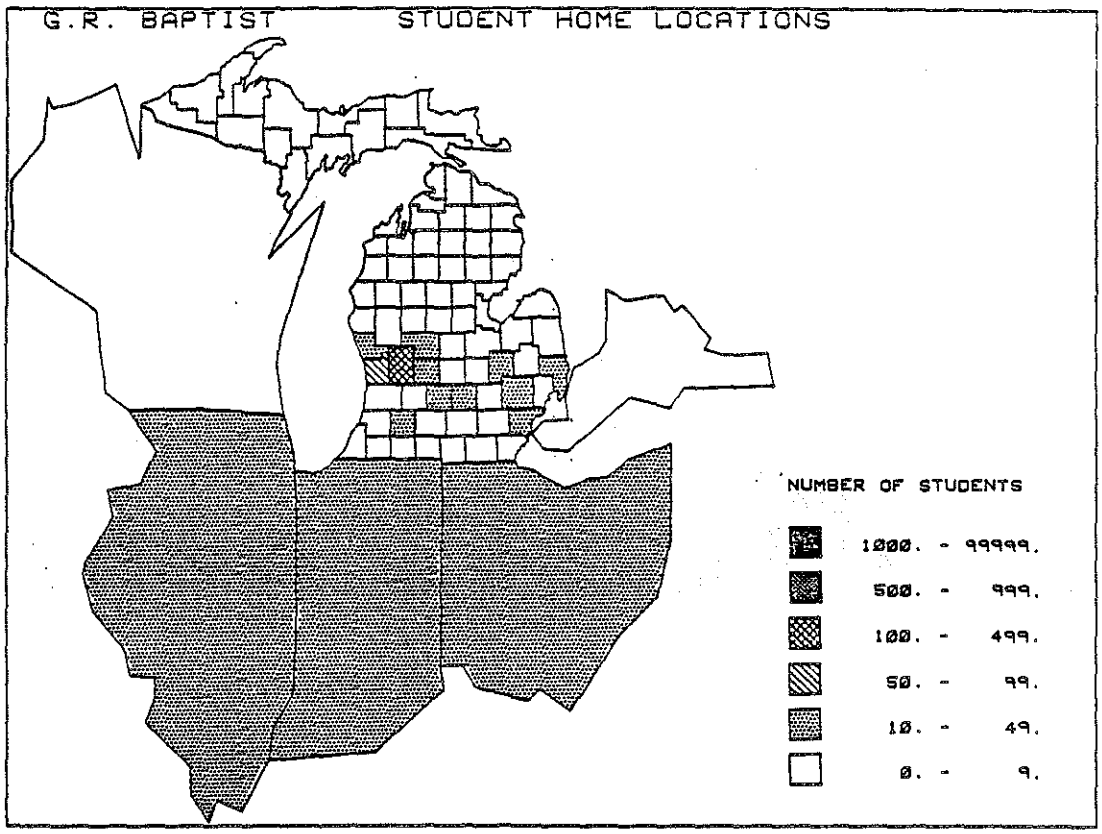
10. - 49.
0. - 9.


G.R. BAPTIST
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
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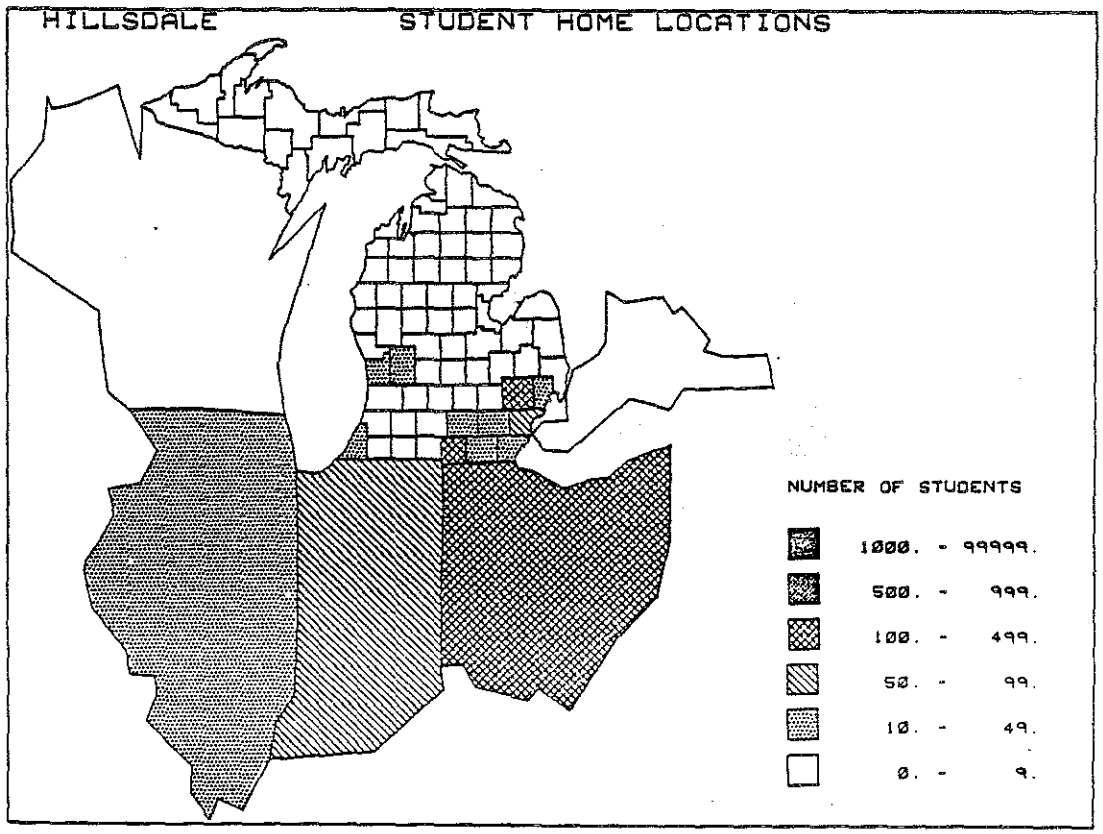
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


HILLSDALE
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
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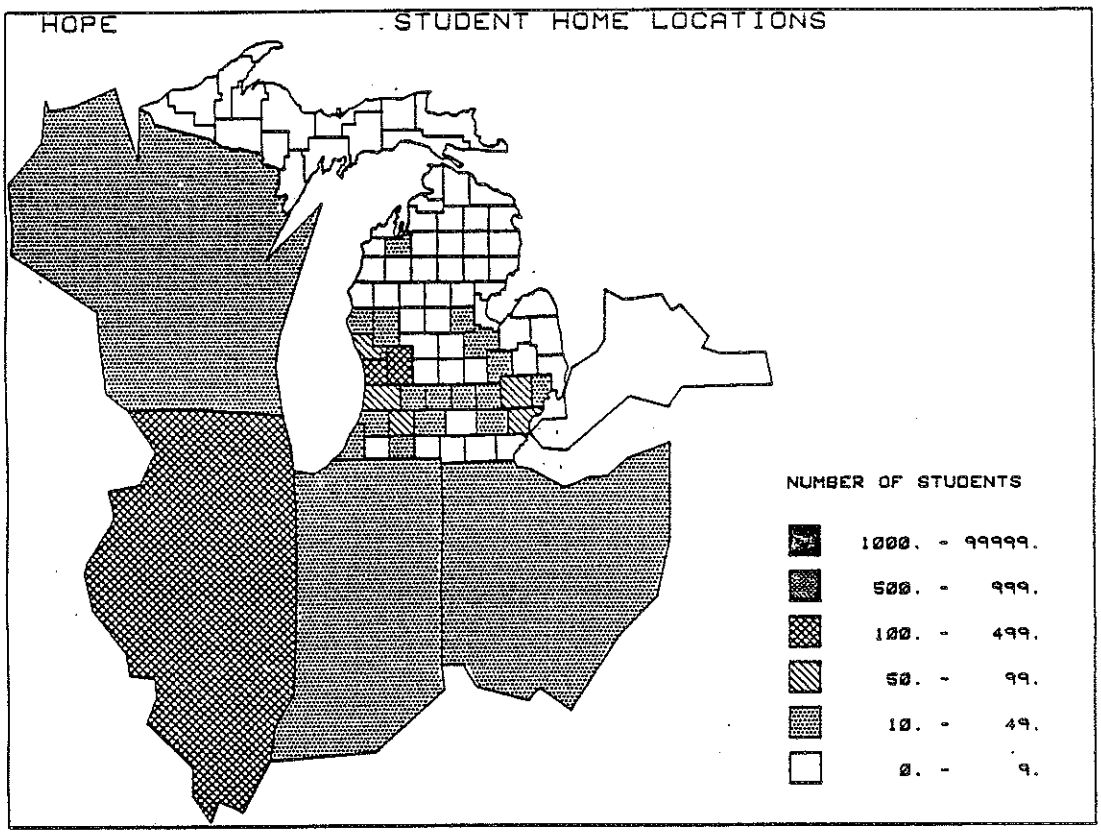
10. - 49.
0. - 9.


HOPE
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
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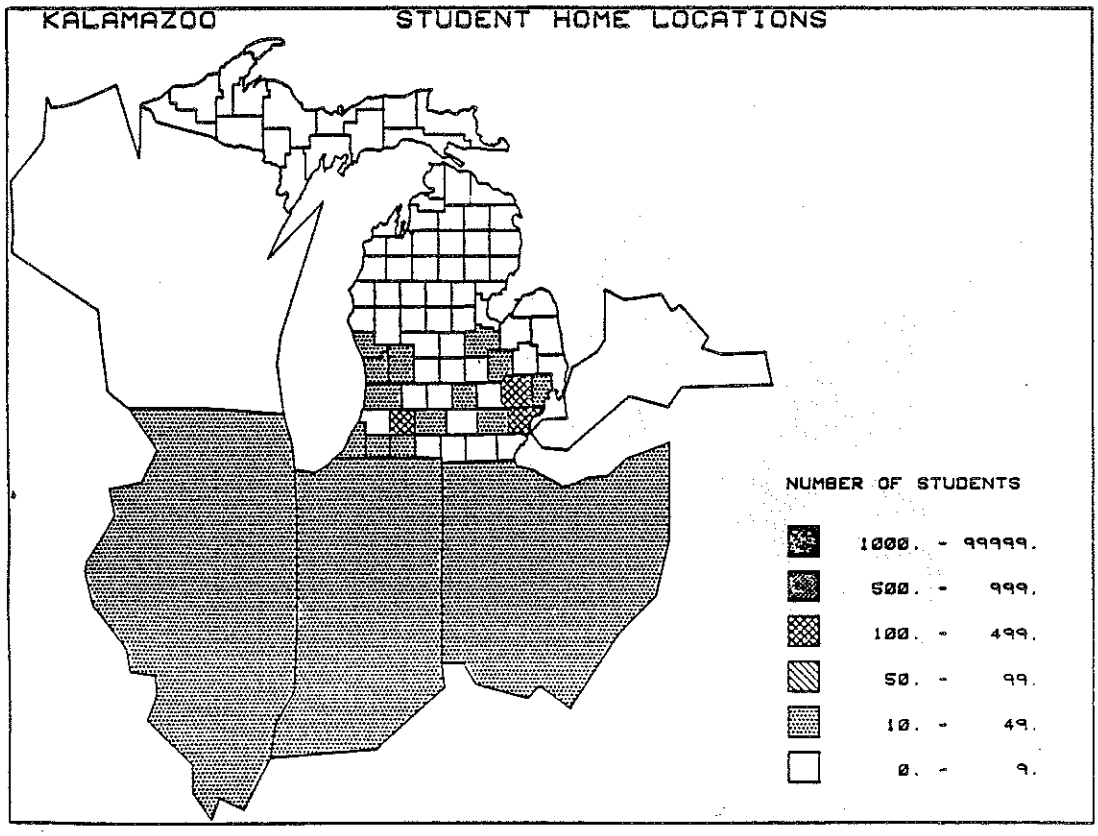
50. - 99.
10. - 49.
0. - 9.


KALAMAZOO
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
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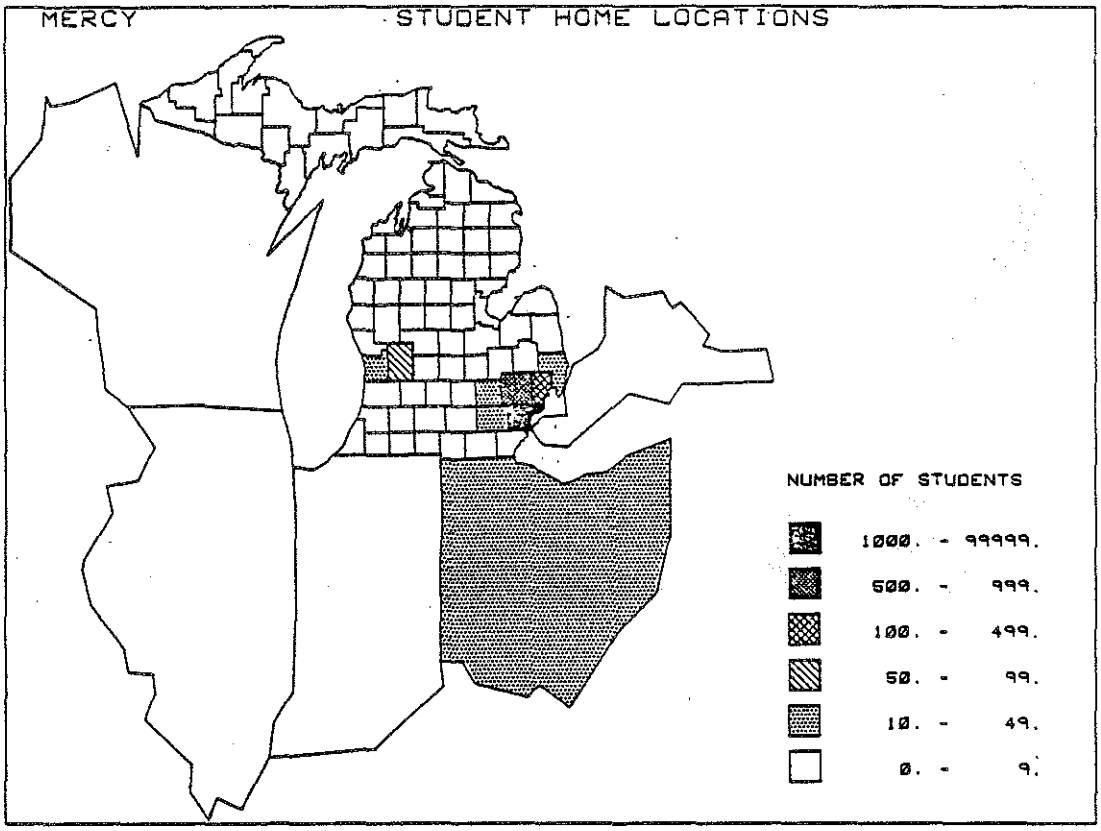
50. - 99.
10. - 49.
0. - 9.


MERCY
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
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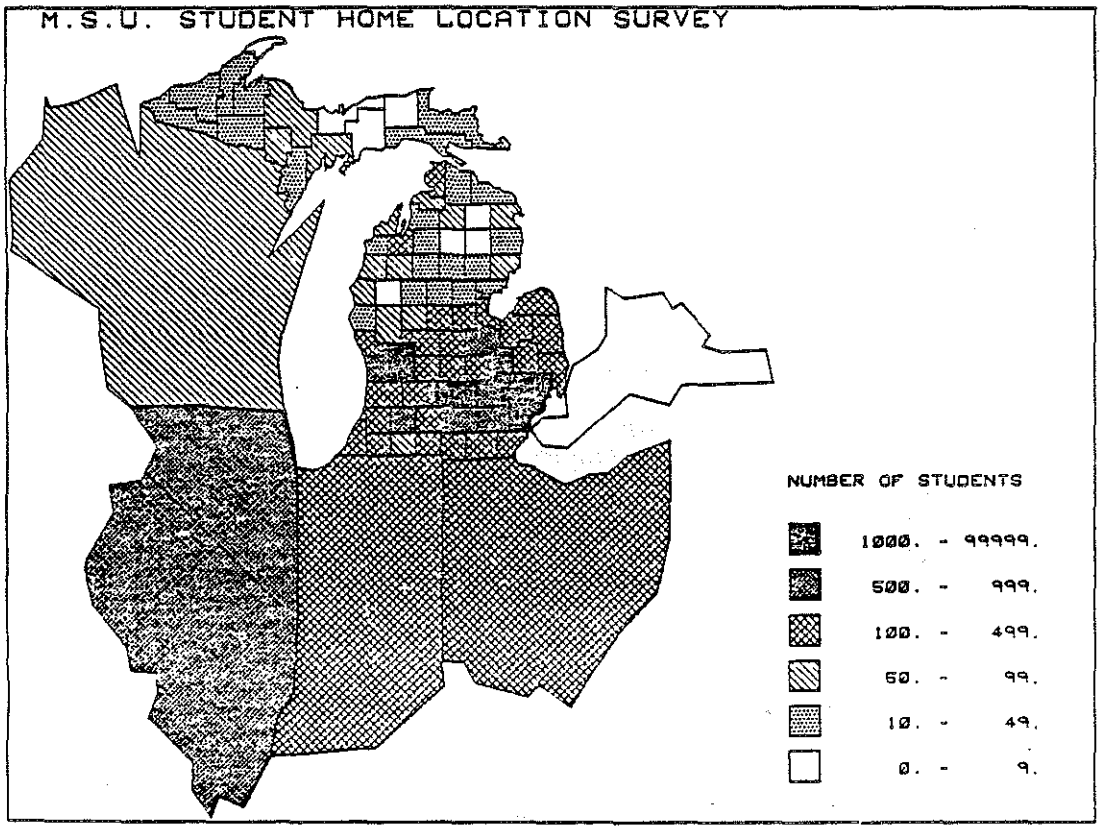
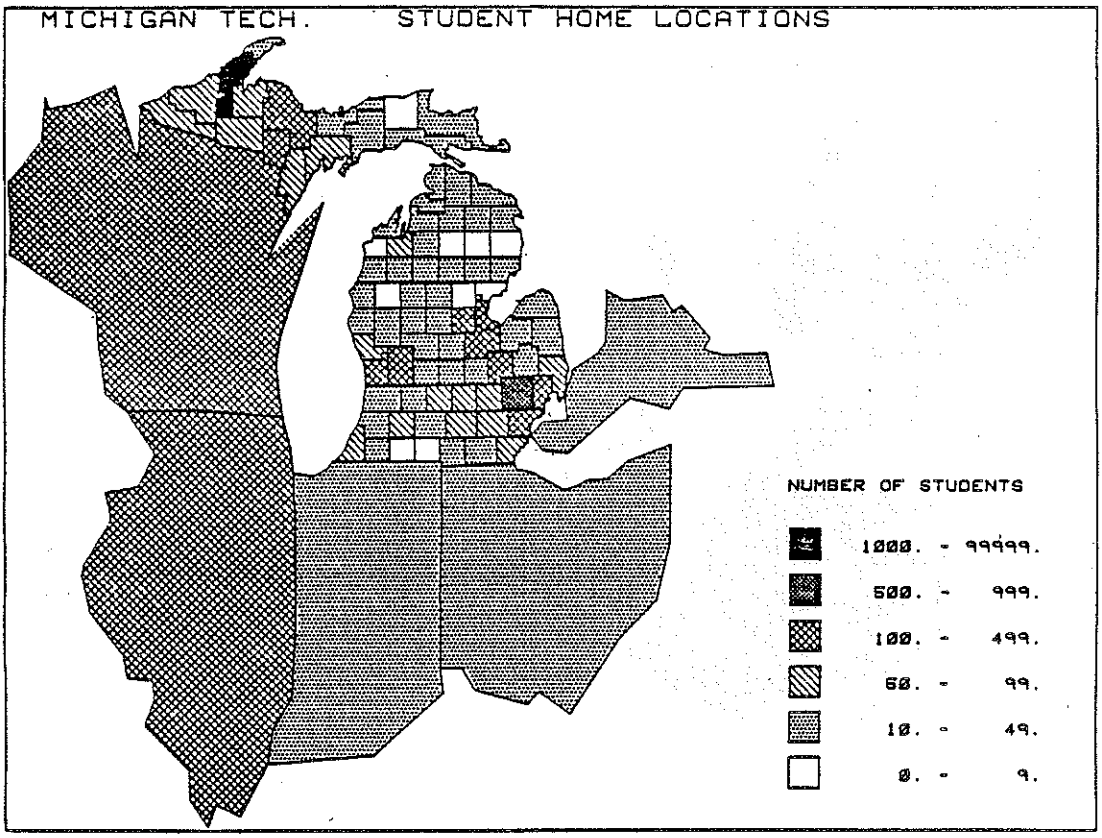
50. - 99.
10. - 49.
0. - 9.


M.S.U. STUDENT HOME LOCATION SURVEY
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


MICHIGAN TECH. STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
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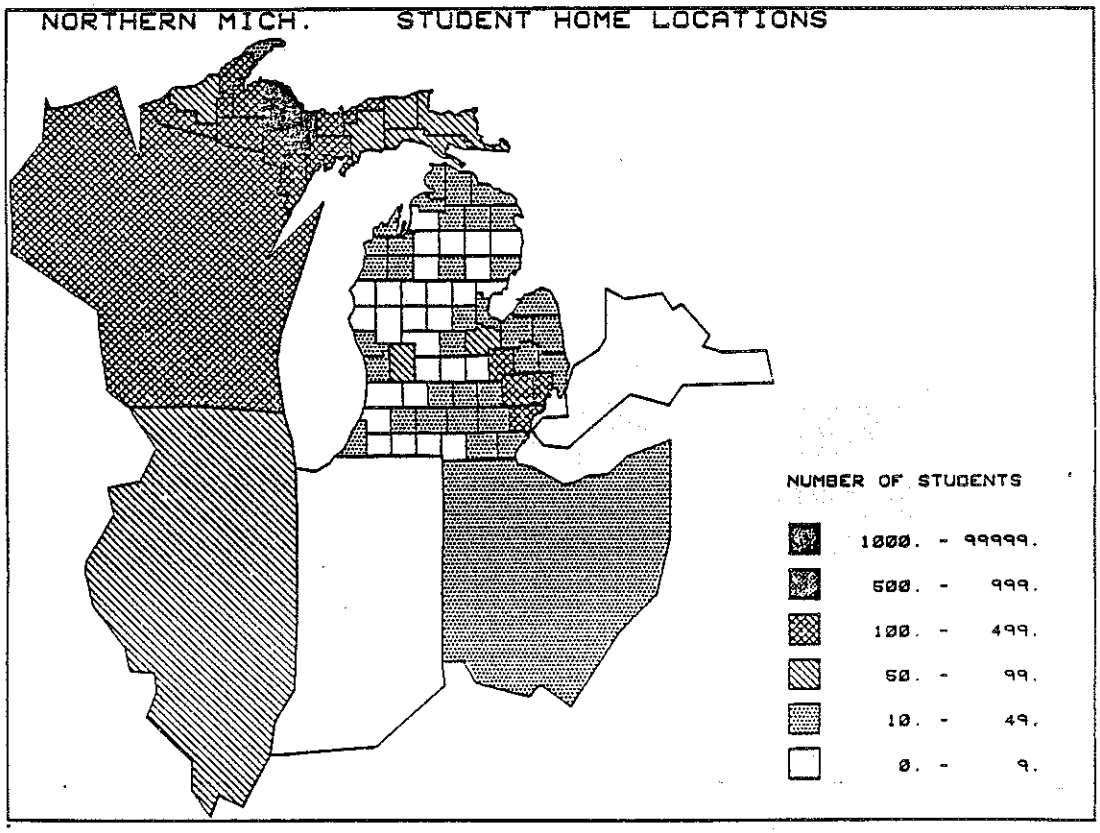
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


NORTHERN MICH. STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
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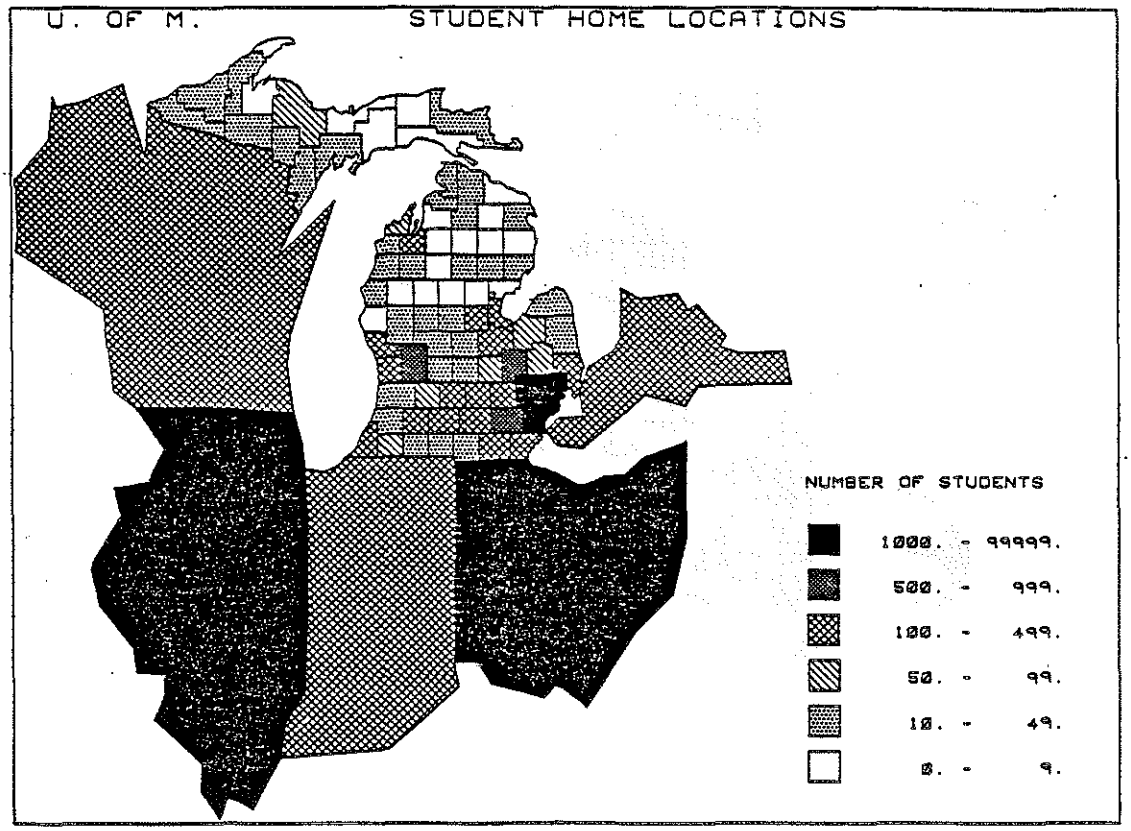
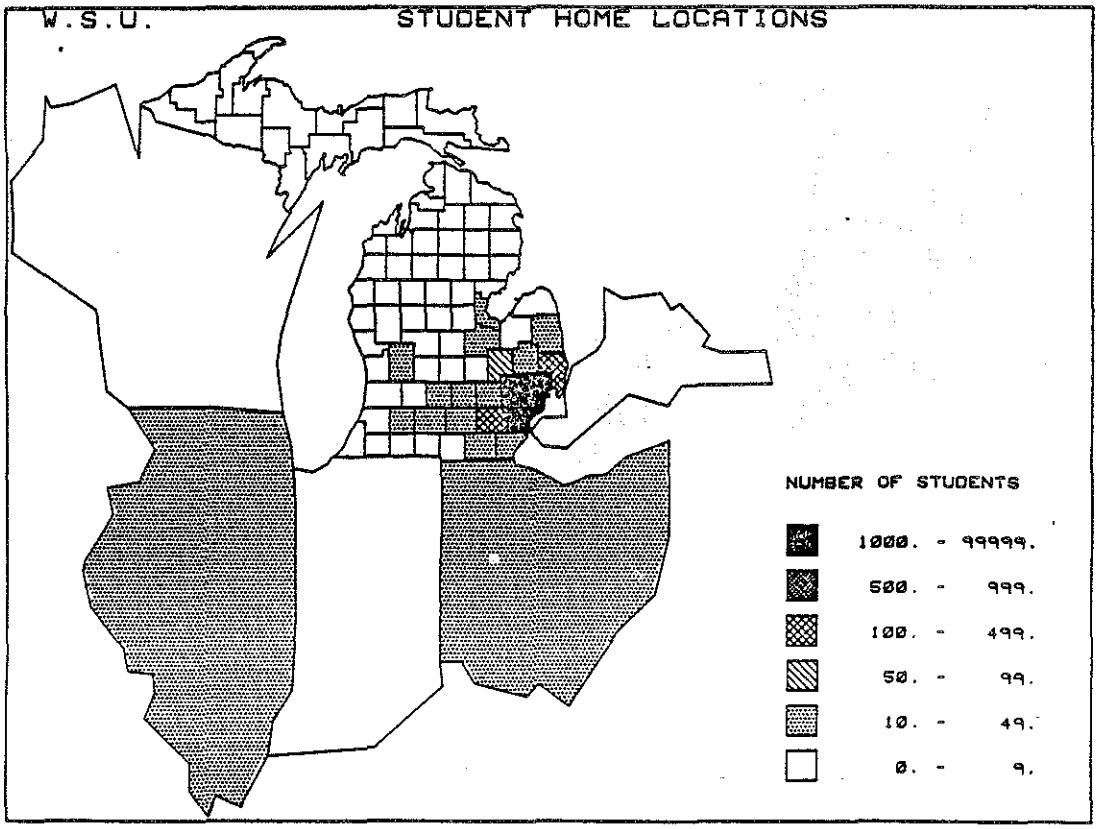
100. - 499.
50. - 99.
10. - 49.
0. - 9.


U. OF M.
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


W.S.U.
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
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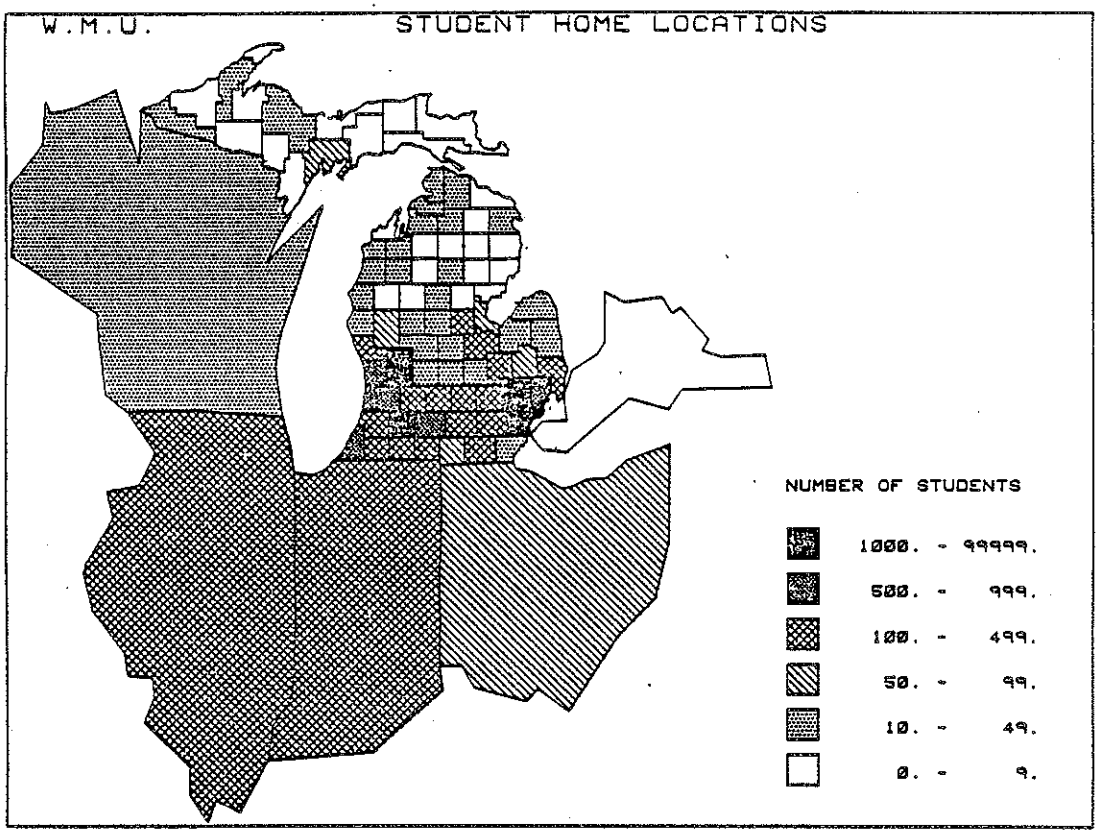
500. - 999.
100. - 499.
50. - 99.
10. - 49.
0. - 9.


W.M.U.
STUDENT HOME LOCATIONS
NUMBER OF STUDENTS
1000. - 99999.
500. - 999.
100. - 499.
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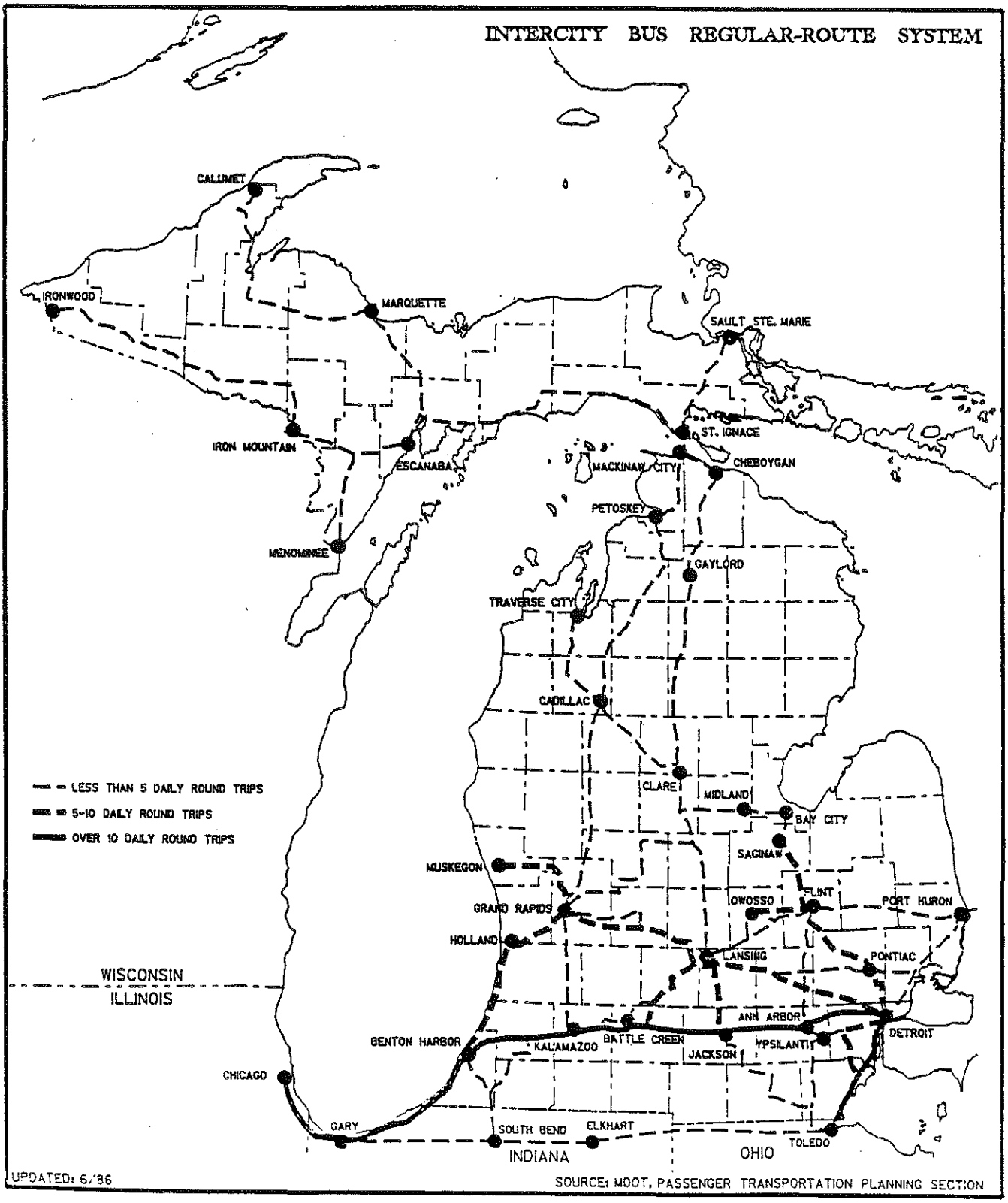
10. - 49.
0. - 9.

APPENDIX F

MICHIGAN'S INTERCITY BUS SYSTEM, JUNE 1986


INTERCITY BUS REGULAR-ROUTE SYSTEM
CALUMET
IRONWOOD
MARQUETTE
SAULT STE. MARIE
IRON MOUNTAIN
ESCANABA
ST. IGNACE
MACKINAW CITY
CHEBOYGAN
PETOSKEY
MENOMINEE
GAYLORD
TRAVERSE CITY
CADILLAC
CLARE
MIDLAND
BAY CITY
SAGINAW
MUSKEGON
GRAND RAPIDS
OWOSSO
FLINT
PORT HURON
HOLLAND
LANSING
PONTIAC
WISCONSIN
ILLINOIS
ANN ARBOR
DETROIT
BENTON HARBOR
KALAMAZOO
BATTLE CREEK
JACKSON
YPSILANTI
CHICAGO
GARY
SOUTH BEND
ELKHART
TOLEDO
INDIANA
OHIO
LESS THAN 5 DAILY ROUND TRIPS
5-10 DAILY ROUND TRIPS
OVER 10 DAILY ROUND TRIPS
UPDATED: 6/86
SOURCE: MDOT, PASSENGER TRANSPORTATION PLANNING SECTION

APPENDIX G

CERTIFICATION PROCEDURES AND REGULATORY INFORMATION

PROCEDURE FOR APPLICATION
FILING INTRASTATE CHARTER
OR REGULAR ROUTE AUTHORITY

1. A letter outlining a description of the authority sought, either charter or regular route, specifically identifying origin/destination points to be served.

2. A list of equipment (vehicle roster) to be used by the applicant and the location of same for state inspection services or evidence of current equipment inspections from the states of New York, Pennsylvania, California, or the Michigan State Police (school bus type equipment only) will be accepted as competent evidence that the equipment may be operated safely upon public highways.

3. A certificate of insurance, paid up for one year, with specific personal injury protection coverage of $5 million and property damage coverage of $1 million.

4. A $300 check as an application fee for new/original authroity and $25 for an extension of an existing certificate made out to the State of Michigan.

MICHIGAN DEPARTMENT OF TRANSPORTATION

EQUIPMENT VEHICLE ROSTER
1986 Motor Bus Registration

INSTRUCTIONS FOR FILLING OUT EQUIPMENT LIST:
*ALL revenue motor vehicles having a manufacturers rated seating capacity of ten (10) persons or more must be registered and listed.
*COMPLETE safety inspection information for each vehicle listed, if applicable.
*COMPLETE safety inspection verification on reverse, if applicable.
*ENCLOSE PAYMENT for annual registration of $20 per vehicle. (Checks should be made out to the "State of Michigan" and noted "1986 Motor Bus Registration.")

COMPLETE AND RETURN TO:
Michigan Department of Transportation
Intercity Bus Operations Section
Intercity Division/UPTRAN
P.O. Box 3005
Lansing, MI 48909

FLEET NO.	YEAR	MAKE	MODEL	VEHICLE TYPE	V.I.N.	CURRENT LICENSE NO.	CURRENT YEAR INSPECTION DONE BY: SEE CODE 1	DATE OF INSPECTION	EXPIRATION OF INSPECTION

CODE 1

1.	NEW YORK	3.	CALIFORNIA	5.	PROVINCE OF ONTARIO
2.	PENNSYLVANIA	4.	DISTRICT OF COLUMBIA	6.	MICHIGAN STATE POLICE

NOTE: This form must be completed and returned no later than the close of business on March 31, 1986, or before placing motor bus into revenue service, under penalty of law. Failure to do so will result in your Michigan intrastate certificate of authority being revoked, a $500 fine, and/or 90 days' imprisonment.

COMPANY NAME: _____

ADDRESS: _____

CITY/STATE: _____

PHONE: ( ) _____

(To be completed only if current safety inspection has been performed by one or more governmental jurisdictions as shown on the Equipment Vehicle Roster--SEE CODE 1.)

VERIFICATION OF SAFETY INSPECTION

In compliance with Rule 3, Subrule 4 of the Administrative Rules pursuant to Public Act 432, of the Public Acts of 1982, I _____, being duly sworn upon oath, verify that the facts asserted on the reverse side of this document are true and correct. If representing a company, corporation, or organization, I further certify that I am authorized and qualified to submit this information.

_____ _____
Date Signature of Person Verifying

Subscribed and sworn to before me, a notary public in and for the county of _____, acting in the county of _____, State of _____, this _____ day of _____, 19___.

_____
(Signature of Notary Public)

(Notary Public's stamp.) _____ (Expiration date of Notary's Commission)

2032-1/tb

NOTE: THIS SHEET IS PRINTED ON THE BACK OF THE EQUIPMENT VEHICLE ROSTER (FACING PAGE).

acord. CERTIFICATE OF INSURANCE — ISSUE DATE (MM/DD/YY)

PRODUCER

ABC INSURANCE AGENCY

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

COMPANIES AFFORDING COVERAGE

COMPANY LETTER A	PRIMARY INSURANCE COMPANY
COMPANY LETTER B	EXCESS INSURANCE COMPANY
COMPANY LETTER C	MICHIGAN NO-FAULT INSURANCE COMPANY
COMPANY LETTER D	
COMPANY LETTER E	

INSURED

ANY BUS COMPANY

COVERAGES

THIS IS TO CERTIFY THAT POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS, AND CONDITIONS OF SUCH POLICIES.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIABILITY LIMITS IN THOUSANDS	EACH OCCURRENCE	AGGREGATE
	GENERAL LIABILITY [ ] COMPREHENSIVE FORM [ ] PREMISES/OPERATIONS [ ] UNDERGROUND EXPLOSION & COLLAPSE HAZARD [ ] PRODUCTS/COMPLETED OPERATIONS [ ] CONTRACTUAL [ ] INDEPENDENT CONTRACTORS [ ] BROAD FORM PROPERTY DAMAGE [ ] PERSONAL INJURY				BODILY INJURY	$	$
					PROPERTY DAMAGE	$	$
					BI & PD COMBINED	$	$
					PERSONAL INJURY		$
A	AUTOMOBILE LIABILITY [ ] ANY AUTO [ ] ALL OWNED AUTOS (PRIV. PASS.) [XXX] ALL OWNED AUTOS (OTHER THAN PRIV. PASS.) [ ] HIRED AUTOS [ ] NON-OWNED AUTOS [ ] GARAGE LIABILITY [XXX] or SPECIFY BUS SERIAL NUMBER (s) COVERED	XX POLICY NUMBER XXXXXXXX	XX/XX/XX	XX/XX/XX	BODILY INJURY (PER PERSON)	$	
					BODILY INJURY (PER ACCIDENT)	$	
					PROPERTY DAMAGE	$	
					BI & PD COMBINED	$5,000,	
B	EXCESS LIABILITY [ ] UMBRELLA FORM [ ] OTHER THAN UMBRELLA FORM	(OPTIONAL) XX POLICY NUMBER XXXXXXXX	XX/XX/XX	XX/XX/XX	BI & PD COMBINED	$	$
	WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY	The aggregation of the primary and the excess policies must total $5,000,000 min.			STATUTORY		
						$	(EACH ACCIDENT)
						$	(DISEASE-POLICY LIMIT)
						$	(DISEASE-EACH EMPLOYEE)
C	OTHER MICHIGAN NO - FAULT	XX POLICY NUMBER XXXXXXXX	XX/XX/XX	XX/XX/XX			

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

NOTE: P.A. of 1986 states, In addition to basic Michigan No-Fault coverage there must also be Bodily injury and Property Damage Liability Insurance with a minimum combined single limit of $5,000,000. for all persons injured or for property damage.

CERTIFICATE HOLDER

Michigan Department of Transportation
Intercity Division - UPTRAN
P.O. Box 30050
425 W. Ottawa
Lansing, MI 48909

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL XXXXXXXXXX MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT. XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

AUTHORIZED REPRESENTATIVE

NOTE THE POSITIVE 30 DAY NOTICE TO THE DEPARTMENT

ACT NO. 432 OF THE PUBLIC
ACTS OF 1982, AS
AMENDED THRU APRIL 1986

474.101

AN ACT to regulate persons who transport passengers by motor bus; to prescribe powers and duties for the state transportation department; to impose certain fees; and to impose penalties.

The People of the State of Michigan enact:

Sec. 1. This act shall be known and may be cited as the "motor bus transportation act".

Sec. 3. As used in this act:

(a) "Certificate of authority" means a certificate of authority issued under the terms of this act unless the context indicates otherwise.

(b) "Department" means the state transportation department.

(c) "For hire" means for remuneration or reward of any kind, paid or promised, either directly or indirectly.

(d) "Motor bus" means a self-propelled motor vehicle used in the transportation of passengers and their baggage for hire upon any public highway of this state with a maximum seating capacity of 10 persons or more, including the driver. Motor bus does not include a self-propelled motor vehicle having a seating capacity of 15 passengers or less which is used by or on behalf of an employer to transport its employees to and from their place of employment.

(e) "Motor common carrier of passengers" means any person who, either directly or through any device or arrangement, holds himself or herself out to the public as willing to undertake for hire to transport by motor bus from place to place over the public highways of this state persons who may choose to employ him or her for such purpose or for the purpose of transporting package express, baggage of passengers, newspapers, or United States mail in the same vehicle used to transport passengers.

(f) "Person" means an individual, partnership, association, corporation, or the lessee, trustee, or receiver of any of these entities.

(g) "Public highway" means any highway, road, street, avenue, alley, or thoroughfare of any kind, or any bridge, tunnel, or subway used by the public.

(h) "The public" means that part or portion of the general public which the motor carrier is ready, able, willing, and equipped to serve.

(i) "Through any device or arrangement" means any and all methods, means, agreements, circumstances, operations, or subterfuges under which any person undertakes for hire to conduct, direct, control, or otherwise perform the transportation of passengers by motor bus upon the public highways of this state.

Sec. 4. This act shall not apply to a motor common carrier of passengers which is an authority under Act No. 55 of the Public Acts of 1963, as amended, being sections 124.351 to 124.359 of the Michigan Compiled Laws, or the metropolitan transportation authorities act of 1967, Act No. 204 of the Public Acts of 1967, as amended, being sections 124.401 to 124.425 of the Michigan Compiled Laws, or which operates a transportation service pursuant to

an inter-local agreement under the urban cooperation act of 1967, Act No. 7 of the Public Acts of the Extra Session of 1967, as amended, being sections 124.501 to 124.512 of the Michigan Compiled Laws, and which uses motor buses, facilities, or equipment funded in whole or in part with state or federal funds.

Sec. 5. A motor common carrier of passengers shall not operate any motor bus for the transportation of persons for hire on any public highway in this state except in accordance with this act. A motor common carrier of passengers shall not operate upon any public highway without first having obtained from the department a certificate of authority.

Sec. 7. The department shall issue without a hearing a certificate of authority to a motor common carrier of passengers authorizing that carrier to provide transportation services subject to the jurisdiction of the department under this act, if the department finds pursuant to section 9(1) that the carrier is fit, willing, and able to provide the transportation service authorized by the certificate of authority and to comply with this act and if the applicant presents evidence of the acquisition of personal injury protection and property damage liability insurance as required by section 9(2). The department may attach to the exercise of the privilege granted by a certificate of authority such terms or conditions as the department considers appropriate.

Sec. 9. (1) In determining the fitness, willingness, and ability of an applicant for a certificate of authority to provide transportation service, the department shall consider all of the following:

(a) The applicant's safety record.

(b) The character and condition of the motor buses proposed to be operated by the applicant and presentation of competent evidence that they may be operated safely upon the public highways.

(c) The applicant's financial ability to provide continuous insurance coverage as required by subsection (2) and have adequate financial resources in order to pay for damage claims against the applicant.

(2) An applicant shall acquire the following insurance coverage of liability for acts or omissions of the applicant as a motor common carrier of passengers:

(a) Bodily injury and property damage liability insurance with a minimum combined single limit of $5,000,000 for all persons injured or for property damage.

(b) Personal protection insurance and property protection insurance as required by Sections 3101 to 3179 of the insurance code of 1956, Act No. 218 of the Public Acts of 1956, being Sections 500.3101 to 500.3179 of the Michigan Compiled Laws.

Sec. 11. (1) The department shall approve or deny an application for a certificate of authority within 90 days after the complete application is filed with the department.

(2) If the department denies an application for a certificate of authority, the department shall notify the applicant in writing of the reason or reasons for the denial, and the applicant shall have 30 days from the date of denial to correct any deficiency and reapply without payment of an additional application fee.

Sec. 13. An applicant for an original certificate of authority shall pay to the department a filing fee of $300.00.

Sec. 15. The department shall issue a certificate of authority as provided in this act to a motor common carrier of passengers who holds either a valid permit as a contract motor carrier of passengers or a valid certificate of authority as a common motor carrier of passengers under the motor carrier act, Act No. 254 of the Public Acts of 1933, as amended, being sections 475.1 to 479.49 of the Michigan Compiled Laws, on the day immediately before the effective date of this act, without making the determination required by section 9(1) if the department determines that the carrier has met the insurance requirements of section 9(2).

Sec. 17. Each motor common carrier of passengers who holds a certification of authority issued under this act shall pay to the department an annual renewal fee equal to $20.00 times the number of motor buses used exclusively by the carrier to provide transportation of passengers for hire.

Sec. 21. Upon request of a motor common carrier of passengers, a certificate of authority issued to the motor common carrier of passengers shall include authority to transport newspapers, baggage of passengers, package express, or United States mail in the same motor bus with the passengers and, in addition, shall include authority to transport in a separate motor vehicle baggage of passengers and package express having a prior or subsequent movement by motor bus.

Sec. 23. If there is an immediate and urgent need for the transportation of passengers to a point or between points within this state, the department may grant upon a proper application temporary authority for such service by a motor common carrier of passengers having a certificate of authority or by an applicant for a certificate of authority. Any temporary authority granted by the department under this section, unless suspended or revoked for good cause, shall be valid for the time which the department specifies, but in no event for a period exceeding 90 days.

Sec. 25. Upon application and the filing of a $25.00 fee, the department may grant a motor common carrier of passengers holding a certificate of authority under this act an extension of authority for regular route service between points within this state or for charter service within this state, if the department determines that the carrier has met the requirements of section 9.

Sec. 27. (1) A motor common carrier of passengers holding a certificate of authority for regular route service between points within this state or for charter service within this state may apply to discontinue all or a portion of its service under this certificate of authority by filing written application with the department, and within 10 days thereafter by publishing notice of the application once a day for 2 different days in a newspaper of general circulation published in the county seat of each county to which the service proposed to be discontinued extends. Within 20 days after the last date of publication, any person opposing the application shall file written notice of protest with the department. If the application is not opposed, the motor common carrier of passengers holding a certificate of authority may immediately discontinue the service. If the application is opposed, the

department shall, within 20 days, conduct a hearing on the application, providing at least 10 days' notice to all interested parties.

(2) The department shall grant an application for authority to discontinue if the applicant demonstrates that intrastate revenue per mile derived from the route or routes proposed to be discontinued is less than the fully allocated cost per mile including depreciation. If the department's final determination on the application is not issued within 90 days after the last date of publication, the applicant may discontinue the service described in the application.

Sec. 29. A motor common carrier of passengers authorized to provide a transportation service under this act shall not abandon or discontinue any service established under this act without the approval of the department, except as provided in section 27(2). If a motor common carrier of passengers discontinues service for more than 10 days without the previous approval of the department authorizing the discontinuance, the certificate of authority issued to that carrier shall be considered revoked without any further action upon the part of the department.

Sec. 33. Every motor common carrier of passengers subject to this act who operates a passenger service without obtaining a certificate of authority required under this act or without meeting the insurance requirements provided in this act shall be subject to a fine of not more than $500.00. Each violation constitutes a separate offense.

Sec. 34. A motor common carrier of passengers, or an officer or agent of a motor common carrier of passengers, who requires or permits a driver to operate to drive or operate a motor bus in violation of this act, or a rule promulgated under this act, is guilty of a misdemeanor punishable by a fine of not more than $500.00 or by imprisonment for not more than 90 days, or both.

Sec. 35. The department may alter, suspend, or revoke a certificate of authority issued under this act if the department determines in a contested case hearing held pursuant to chapter 4 of the administrative procedures act of 1969, Act No. 306 of the Public Acts of 1969, as amended, being sections 24.271 to 24.287 of the Michigan Compiled Laws, that a motor common carrier of passengers to whom a certificate of authority has been issued has wilfully violated or refused to comply with this act.

Sec. 37. A person shall not violate or evade the provisions of this act through any device or arrangement.

Sec. 39. The department may promulgate rules to implement this act pursuant to Act No. 306 of the Public Acts of 1969, as amended, being sections 24.201 to 24.315 of the Michigan Compiled Laws.

Sec. 41. This act shall not take effect unless House Bill No. 5669 of the 81st Legislature is enacted into law.

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NOTES & BIBLIOGRAPHY

NOTES

1. MDOT, Passenger Transportation Planning Section, Surface Systems Units, Michigan Intercity Bus Study: A Comparison of 1985 and 1977 User and Ticket Surveys, December, 1985. Origin, destination, and residence information from the user survey was analyzed for those intercity bus riders who indicated they were college students. This information provides some indication of the demand for school-to-home service. User data for 1985 was not collected during weekend periods, thus the demand estimate should be considered conservative.

2. The expressions "school" or "schools" are used throughout this report as a concise substitute for the cumbersome expression university/college. When used in this report, the expressions should be interpreted to mean a four-year university or college.

3. Although 26 schools were analyzed in the study, the sum of the schools in the three potential groupings equals 27 (4 strong potential + 13 moderate potential + 10 limited potential = 27 total). This is because the combination group **"Grand Rapids Area Schools"** was added to the moderate potential category.

4. The Province of Ontario is shown reduced in proportionate size and located to the east of the State of Michigan for ease of presentation of the regional map. The scale and location are not geographically correct.

5. The route described is for example purposes only. Its use does not necessarily indicate that the route is recommended or in any way preferred by MDOT. Any route or schedule information presented as a part of the example is fictitious and not intended to represent the existing conditions of any intercity bus company.

BIBLIOGRAPHY

Higher Education Publications, Inc. 1984 Higher Education Directory. Washington, D.C.: Higher Education Publications, Inc. 1984.

Michigan Department of Transportation, Surface Systems Unit. Michigan Intercity Bus Study: A Comparison of 1985 and 1977 User and Ticket Surveys. December, 1985.

Russell's Guides, Inc. Russell's Official National Motor Coach Guide, Part 1. Cedar Rapids, Iowa: Russell's Guides, Inc. March, 1986.