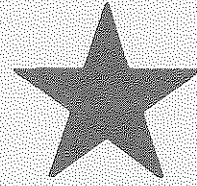


HE
147.6
.M5
RH3-1

Statewide

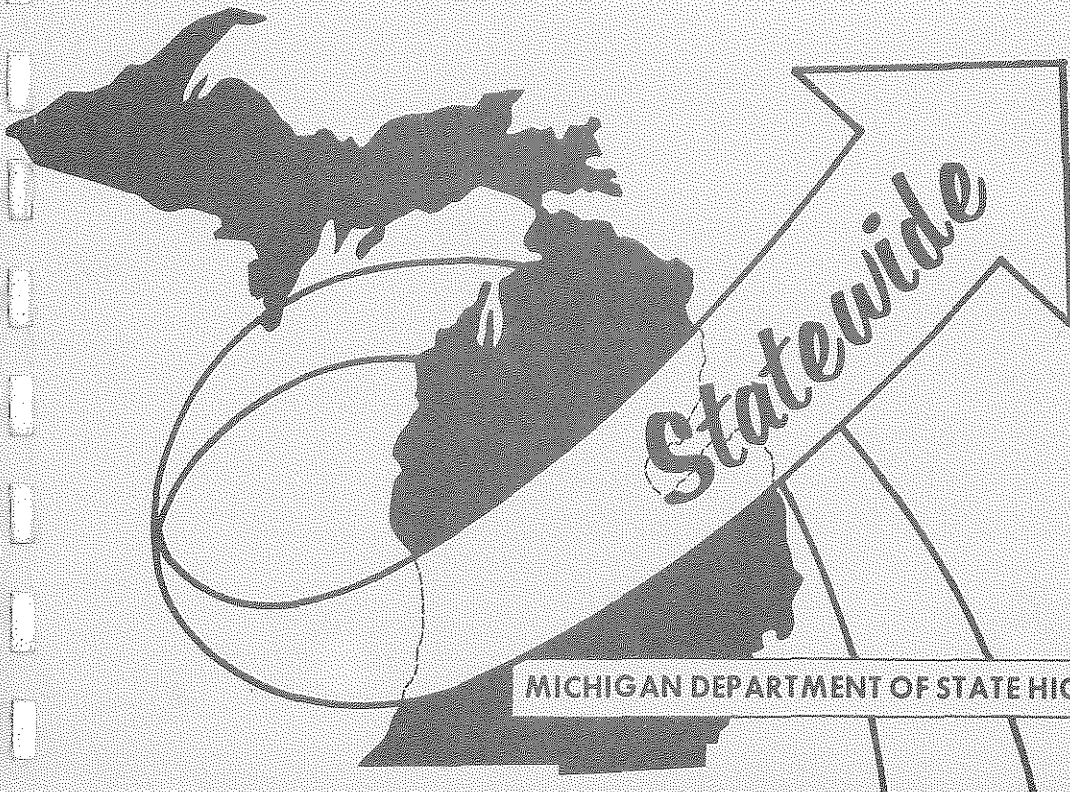


Transportation Analysis & Research

MICHIGAN'S STATEWIDE
TRANSPORTATION MODELING SYSTEM
REFERENCE HANDBOOK NO. 3
MINOR ORIGIN & DESTINATION
TRAVEL CHARACTERISTICS
REGION 1

STATEWIDE PROCEDURES SECTION

SEPTEMBER, 1978



MICHIGAN DEPARTMENT OF STATE HIGHWAYS AND TRANSPORTATION

**MICHIGAN DEPARTMENT OF STATE
HIGHWAYS AND TRANSPORTATION**

BUREAU OF TRANSPORTATION PLANNING

**MICHIGAN'S STATEWIDE
TRANSPORTATION MODELING SYSTEM**

REFERENCE HANDBOOK NO. 3

**MINOR ORIGIN & DESTINATION
TRAVEL CHARACTERISTICS
REGION 1**

STATEWIDE PROCEDURES SECTION

SEPTEMBER, 1978

STATE HIGHWAY COMMISSION

PETER B. FLETCHER

Chairman

CARL V. PELLONPAA

Vice Chairman

HANNES MEYERS, JR.

WESTON E. VIVIAN

DIRECTOR

John P. Woodford

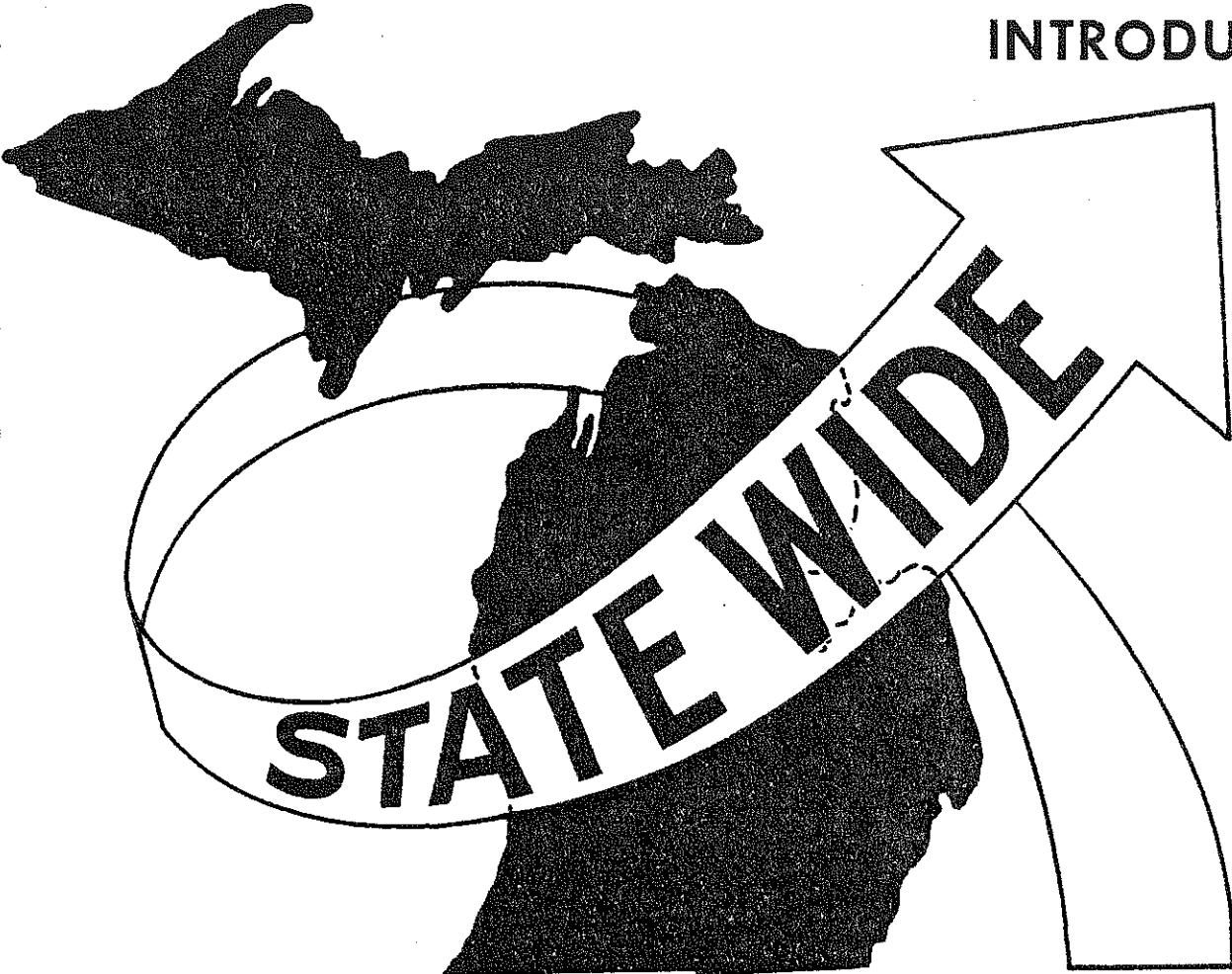
TABLE OF CONTENTS

MINOR ORIGIN AND DESTINATION TRAVEL CHARACTERISTICS

BY: DAVID R SCHADE

INTRODUCTION	1
SPECIAL INFORMATION	8
STATEWIDE TRIP CHARACTERISTICS17
REGIONAL TRIP CHARACTERISTICS34
CITY TRIP CHARACTERISTICS44
APPENDIX "A" - EQUIVALENCE LIST55

INTRODUCTION



INTRODUCTION

The Statewide Procedures Section, Bureau of Transportation Planning, Department of State Highways and Transportation, has prepared a travel characteristics handbook in order to fully utilize information collected in minor origin and destination studies. The conversion of minor O&D studies to a single format made this handbook possible and is intended to supply the user with travel characteristics about a specific minor O&D study or a group of studies by region. The geographical locations of the minor O&D studies appear in Figure 1.

This handbook was organized at the regional level, with an individual book for each of the 14 planning regions. This format will allow the user to compare one region to another. There were no minor O&D studies taken in Regions 6 and 14; thus, no handbook is presently available for these regions. Each handbook contains the following sections:

1. Statewide Travel Characteristics Summaries
2. Regional Travel Characteristics Summaries
3. City Travel Characteristics Summaries in Alphabetical Order

The O&D data collection process is based upon the 547-zone system with Michigan consisting of 508 zones (Figure 2) and the remaining zones representing out-of-state locations (Figure 3). Each zone number corresponds to a specific city or area. Appendix A is a list of the zone number and its corresponding area. Basing the O&D data collection process around a single zone system allows the Department to fully utilize many of the analysis routines that were developed in conjunction with the statewide transportation modeling system. A list documenting other utilizations of the statewide modeling system follows on the next pages.

STATEWIDE SYSTEM DEVELOPMENT REPORTS

- VOLUME I - OBJECTIVES AND WORK PROGRAM
- VOLUME I-A - REGION 4 WORKSHOP TOPIC SUMMARIES
- VOLUME I-B - SINGLE AND MULTIPLE CORRIDOR ANALYSIS
- VOLUME I-D - PROXIMITY ANALYSIS
- VOLUME I-E - MODEL APPLICATION: COST-BENEFIT ANALYSIS
- VOLUME I-F - AIR AND NOISE POLLUTION
- VOLUME I-G - PSYCHOLOGICAL IMPACT MODEL
- VOLUME I-H - LEVEL OF SERVICE MODEL
- VOLUME I-I - STATEWIDE SOCIO-ECONOMIC AND TRANSPORTATION RESOURCES
- VOLUME I-J - SERVICE AREA MODEL
- VOLUME I-K - EFFECTIVE SPEED MODEL
- VOLUME I-L - SYSTEM IMPACT ANALYSIS GRAPHIC DISPLAY
- VOLUME I-M - MODELING GASOLINE CONSUMPTION
- VOLUME I-O - ACCIDENT RATES 547 ZONE SYSTEM
- VOLUME I-P - POPULATION PROJECTIONS 547 ZONE SYSTEM
- VOLUME II - DEVELOPMENT OF NETWORK MODELS
- VOLUME II-A - EFFICIENT NETWORK UPDATING WITH INTERACTIVE GRAPHICS
- VOLUME II-B - TREE PLOTTING WITH INTERACTIVE GRAPHICS
- VOLUME II-C - CALIBRATION OF MICHIGAN'S STATEWIDE TRAFFIC FORECASTING MODEL
- VOLUME III - SEGMENTAL MODEL
- VOLUME III-A - SEMI-AUTOMATIC NETWORK GENERATOR USING A "DIGITIZER"
- VOLUME III-B - AUTOMATIC NETWORK GENERATOR USING INTERACTIVE GRAPHICS
- VOLUME IV - AASHTO REPORT
- VOLUME IV-A - MICHIGAN'S STATEWIDE MODELING SYSTEM - SYNOPSIS
- VOLUME V - PART A - REFORMATION - TRIP DATA BANK PREPARATION
- VOLUME V - PART B - DEVELOPMENT OF SOCIO-ECONOMIC DATA BANK FOR TRIP GENERATION - DISTRIBUTION
- VOLUME V-A - SINGLE STATION O&D PROCEDURES MANUAL
- VOLUME V-B - EXTERNAL O&D PROCEDURES MANUAL
- VOLUME VI - CORRIDOR LOCATION DYNAMICS
- VOLUME VI-A - ENVIRONMENTAL SENSITIVITY COMPUTER MAPPING
- VOLUME VII - DESIGN HOUR VOLUME MODEL
- VOLUME VII-A - CAPACITY ADEQUACY FORECASTING MODEL
- VOLUME VII-B - MODELING MAJOR FACILITY OPENING IMPACT ON DHV
- VOLUME VIII - PUBLIC AND PRIVATE FACILITY FILE
- VOLUME VIII-A - CONVERSION OF INDUSTRIAL EXPANSION FILE
- VOLUME IX - SOCIO-ECONOMIC DATA FILE
- VOLUME IX-A - MAPPING SOCIO-ECONOMIC DATA WITH SYMAP
- VOLUME IX-B - CONVERSION OF THE AGRICULTURAL CENSUS FILE
- VOLUME IX-C - TAX RATE AND ASSESSED VALUATION INFORMATION
- VOLUME IX-D - SCHOOL DISTRICT DATA FILE
- VOLUME X-A - TRAVEL IMPACT ANALYSIS PROCEDURES
- VOLUME X-A-1 - AUTOMATED DESIRELINE PLOTTING
- VOLUME X-A-2 - TRAFFIC FORECASTING FOR A SPECIAL GENERATOR
- VOLUME X-B - SOCIAL IMPACT ANALYSIS PROCEDURES
- VOLUME X-C - ECONOMIC IMPACT ANALYSIS PROCEDURES
- VOLUME XI - COMPUTER RUN TIMES
- VOLUME XIII - MICHIGAN GOES MULTI-MODAL

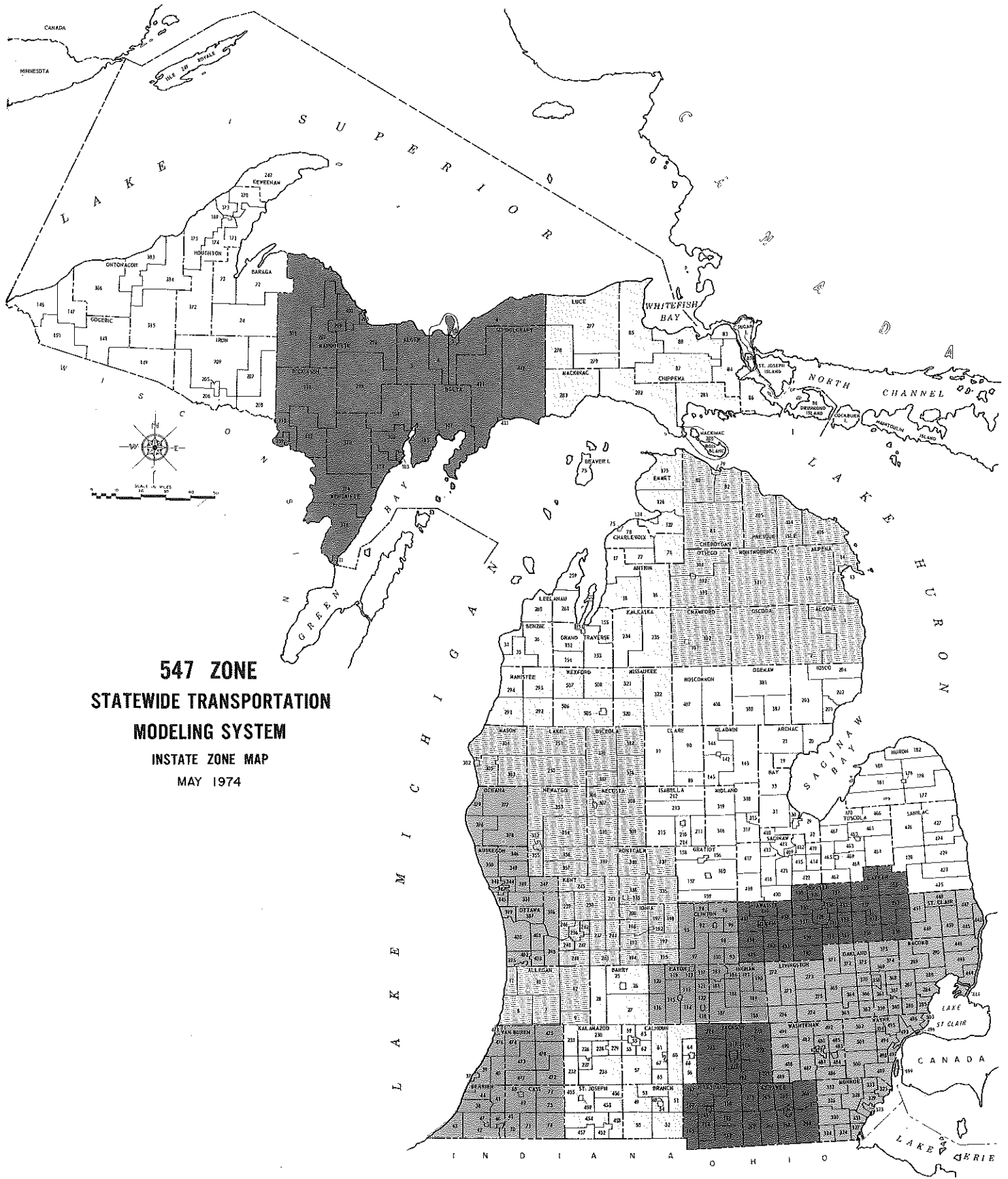
VOLUME XIII-A - MULTI-MODAL MOBILITY AND ACCESSIBILITY ANALYSIS
 VOLUME XIII-B - 1972 STATEWIDE RAIL NETWORK - SUMMARY TABULATIONS
 VOLUME XIII-C - MICHIGAN'S RAIL CROSSING INVENTORY AND ANALYSIS PROCESS
 VOLUME XIII-D - IMPACT OF POPULATION AND ENERGY ON TRANSPORTATION
 NEEDS - A MULTI-MODAL APPROACH
 VOLUME XIV-A - COMMODITY FLOW MATRIX - ANN ARBOR RAILROAD
 VOLUME XIV-B - COMMODITY FLOW MATRIX - PENN CENTRAL RAILROAD
 VOLUME XIV-C - COMMODITY FLOW MATRIX - MICHIGAN RAILROADS 1% SAMPLE
 VOLUME XV-A - RAILROAD FINANCIAL IMPACT ANALYSIS
 VOLUME XV-B - RAILROAD COMMUNITY IMPACT ANALYSIS
 VOLUME XVI - DIAL-A-RIDE
 VOLUME XVII - INTERMODAL IMPACT ANALYSIS - TRUCK AND RAILROAD
 VOLUME XVIII - CUTLINE ANALYSIS PROGRAM

STATEWIDE SYSTEM APPLICATION REPORTS

- REPORT 1 - COMMUNITY COLLEGE SERVICE - AREA ANALYSIS
- REPORT 2 - PROXIMITY OF PEOPLE TO GENERAL PURPOSE HOSPITALS
- REPORT 3 - INDUSTRIAL PARK PROXIMITY ANALYSIS
- REPORT 4 - PROXIMITY OF AUTOMOBILE INJURY ACCIDENTS TO HOSPITALS
- REPORT 5 - PROXIMITY OF AIRPORTS WITH SCHEDULED SERVICE TO POPULATION
- REPORT 6 - REGIONAL PARK PROXIMITY ANALYSIS
- REPORT 7 - RIFLE RANGE PROXIMITY ANALYSIS
- REPORT 8 - AMBULANCE SERVICE - AREA ANALYSIS
- REPORT 9 - COMPREHENSIVE STATEWIDE PLANNING
- REPORT 10 - GRAPHIC DISPLAY OF FIXED-OBJECT ACCIDENT DATA
- REPORT 11 - PRELIMINARY INVESTIGATION: A TECHNIQUE FOR THE PROJECTION OF ACCIDENT RATES
- REPORT 12 - IMPACT OF 50, 55, OR 60 M.P.H. STATEWIDE SPEED LIMIT
- REPORT 13 - A METHOD FOR FUNCTIONALLY CLASSIFYING RURAL ARTERIAL HIGHWAYS
- REPORT 14 - ECONOMIC AND TRAVEL IMPACTS OF SPEED LIMIT REDUCTION USING A STATEWIDE TRANSPORTATION MODELING SYSTEM
- REPORT 15 - I-69 IMPACT ON THE ACCESSIBILITY OF HEALTH, FIRE, AND AMBULANCE SERVICES TO RESIDENTIAL AREAS
- REPORT 16 - CRISIS OR OPPORTUNITY: APPLICATION OF AN OPERATIONAL STATEWIDE TRANSPORTATION MODELING SYSTEM
- REPORT 17 - US-23 CORRIDOR LOCATION STUDY - PRELIMINARY TRAVEL IMPACT ANALYSIS
- REPORT 19 - GRAPHIC DISPLAY OF ACCIDENT DATA
- REPORT 20 - DEMOGRAPHIC INFORMATION FOR THE NORTHWEST REGION
- REPORT 21 - AMTRAK MARKET AREA ANALYSIS - SYSTEM APPLICATION

STATEWIDE SYSTEM REFERENCE HANDBOOKS

- REFERENCE HANDBOOK #1 - STATEWIDE BUS TICKET SURVEY TRAVEL CHARACTERISTICS
- REFERENCE HANDBOOK #2 - MICHIGAN'S PERMANENT TRAFFIC RECORDER TRENDS - POTENTIAL APPLICATION IN TRANSPORTATION PLANNING - ENERGY ANALYSIS
- REFERENCE HANDBOOK #3 - MINOR ORIGIN & DESTINATION TRAVEL CHARACTERISTICS - PART A



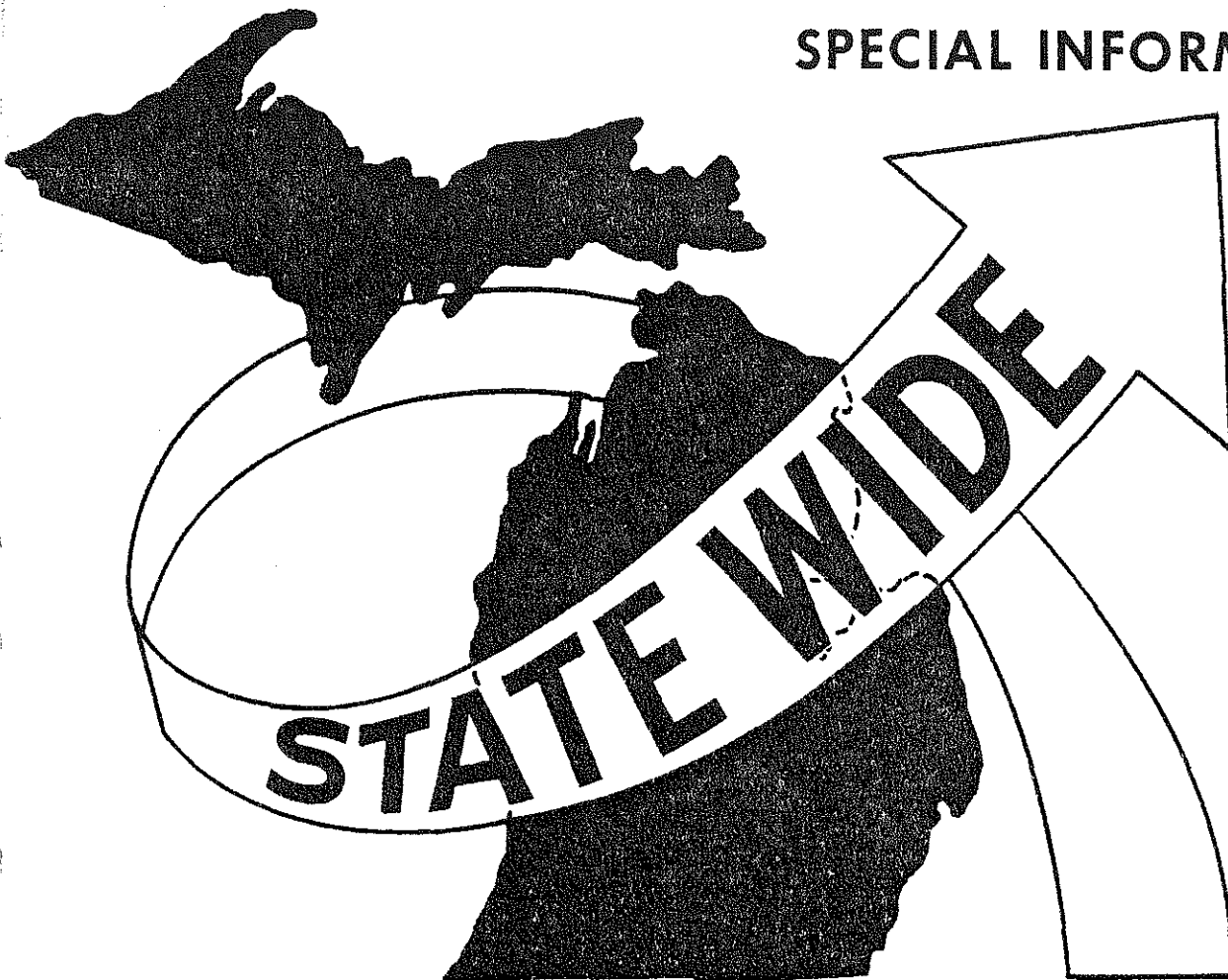
547 ZONE
STATEWIDE TRANSPORTATION
MODELING SYSTEM
INSTATE ZONE MAP
MAY 1974

MICHIGAN'S TRANSPORTATION MODELING SYSTEM

547 ZONE
OUTSTATE ANALYSIS ZONES



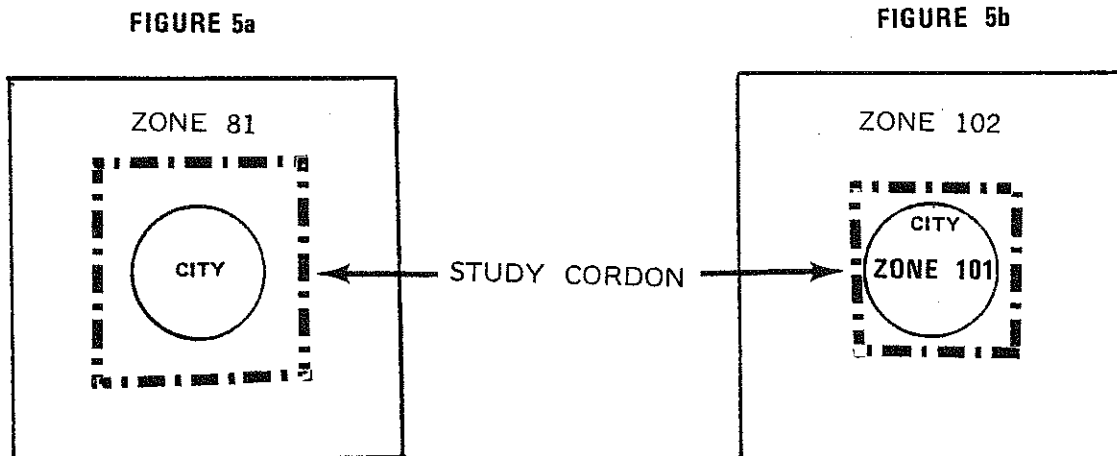
SPECIAL INFORMATION



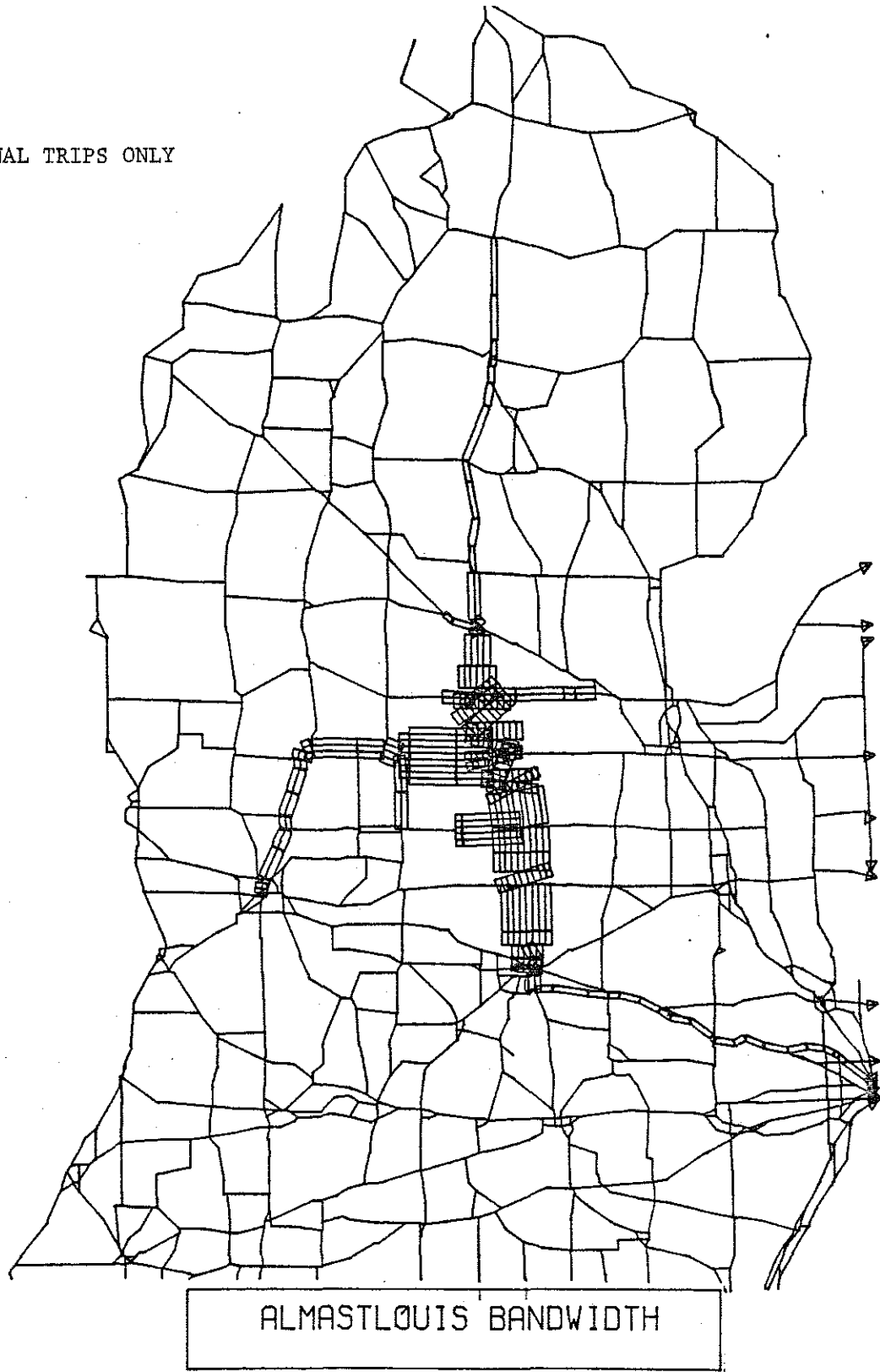
SPECIAL INFORMATION

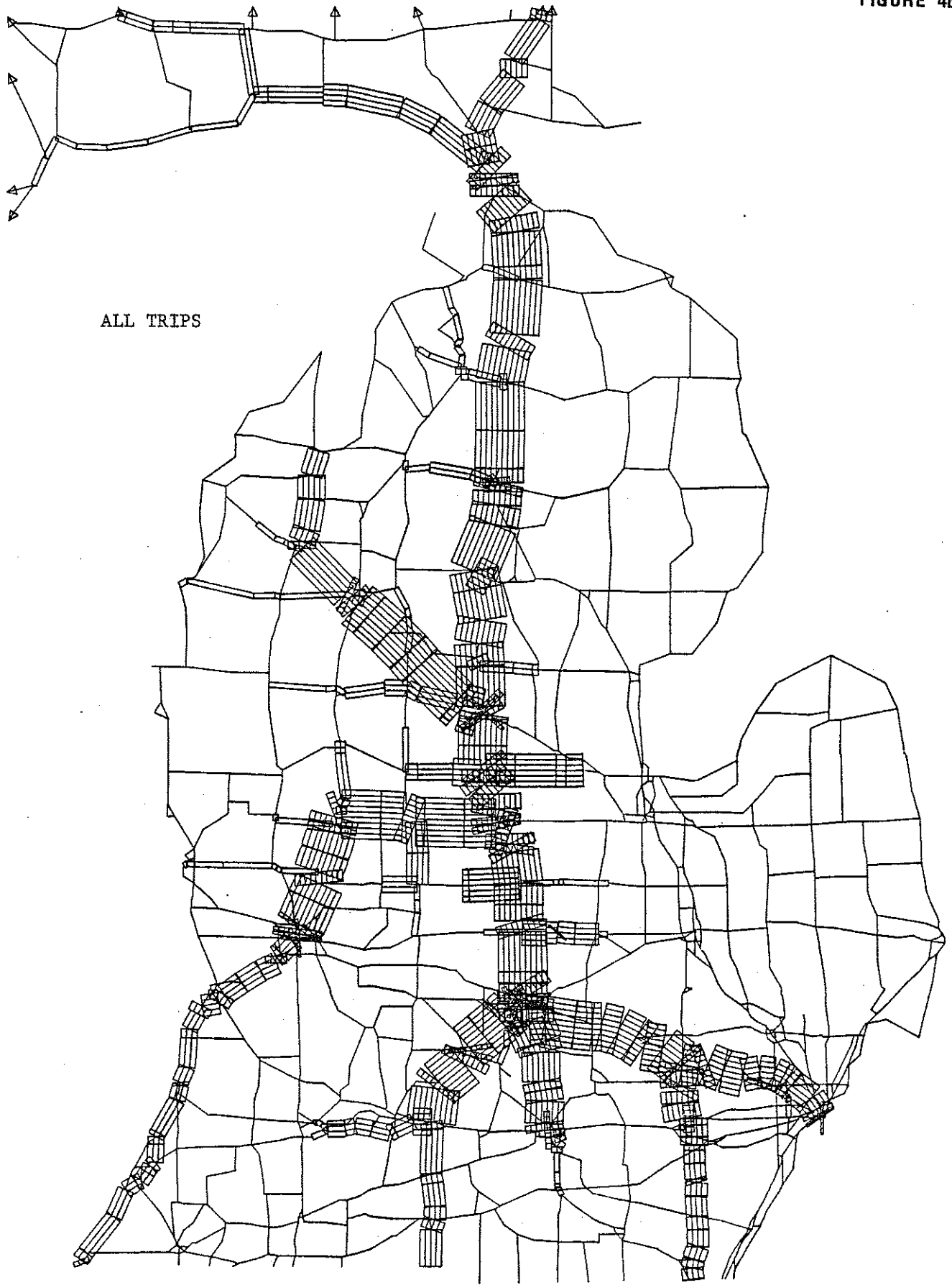
To properly evaluate the following handbook information, it is important to understand how the data is used. Each handbook has been set up to analyze the travel characteristics of minor O&D studies. It was necessary to use only terminal trips to analyze the travel impacts generated as a result of a specific city. These are trips that have an origin and/or destination in that city or study area. Any trips that were not terminal in relation to the study area were not used. Nonterminal trips are classified as "thru trips", those which pass through a given city or study area. Figures 4a and 4b show the effect thru trips would have on a city's true travel characteristics. It is obvious that including thru trips could greatly distort the travel pattern and the actual impacts a specific city has on its region.

There are some instances where the O&D city is not a statewide model zone in itself, such as in Figure 5a. Generally, this does not present a problem, but the reader should be made aware of it. The trips that go into the study city will be shown as going to the zone that surrounds the city. The ideal situation arises when the study cordon is set up as close to the city boundary as possible and the city represents its own zone, such as in Figure 5b.



TERMINAL TRIPS ONLY





ALL TRIPS

ALMASTLOUIS BANDWIDTH

The travel analysis in this handbook is based on three main computer routines. These routines deal with three types of transportation analysis:

1. General Purpose Summary Program Tables
2. Trip Length Distribution Graphs
3. Selected Link Plots

The following is a brief explanation of the three areas:

General Purpose Summary Program (GPSP)

Terminal trips were summarized by vehicle type, trip purpose, number of occupants, and by where the vehicle is garaged (Figure 6). For example, in Figure 6, 34.8% of all trips to and from Cheboygan are work trips (4095 trips).

In addition to the straight percentage breakdowns and actual trips, cross tabulations of trip purpose versus vehicle occupancy and trip purpose versus vehicle type were supplied. Figure 7 shows that 75.1% of all work trips to and from Cheboygan have one person in the vehicle (3075 trips). These summaries like the previous data appear at the statewide, regional, and city levels.

Trip Length Distribution (TLD)

A trip length frequency distribution (TLD) is a graph that summarizes the distribution of the length of trips in minutes for each study. In each handbook, TLD's are available at three levels:

1. Statewide
2. Regional
3. City

CHEBOYGAN

EXTERNAL ORIGIN-DESTINATION INTERVIEW

TERMINAL-TRIP SUMMARY TABLE

VEHICLE TYPE

CAR W/O TRLR	CAR W/ TRLR	PICK-UP W/O/TRLR	PICK-UP W/ TRLR	SINGLE-UNIT TRUCKS	COMBINATION TRUCKS
80.9%	1.0%	13.9%	0.4%	2.6%	1.3%
9533	113	1632	52	303	150

TRIP PURPOSE

WORK PERCENT OF TRIPS	PERS BIZ	SHOP	VACATION	SOC=REC	OTHER
34.8%	7.2%	30.5%	3.8%	17.2%	6.6%
4095	848	3595	446	2021	779

NUMBER OF TRIPS

NUMBER IN VEHICLE

1	2	3	4	5	6+
46.5%	27.7%	11.4%	7.5%	3.7%	3.2%
5479	3260	1342	883	440	379

VEHICLE GARAGED AT

ORIGIN	DESTIN	OTHER
40.4%	27.5%	32.1%
4762	3244	3777

TOTAL TRIPS = 11783

MINOR

EXTERNAL ORIGIN-DESTINATION INTERVIEW
 TERMINAL-TRIP SUMMARY TABLE FOR CHEBOYGAN

TRIP PURPOSE

# IN VEH.	WORK	PERS BIZ	SHCP	VACATION	SOC-REC	OTHER
	PERCENT OF TOTAL WORK TRIPS					
	75.1%	43.3%	30.4%	8.6%	29.9%	39.0%
	NUMBER OF TRIPS					
1	3075	367	1091	38	604	304
2	688	306	1191	180	644	251
3	192	96	570	65	296	123
4	99	41	402	68	212	60
5	19	23	205	54	113	27
6+	22	15	135	41	151	15
TOTAL	4095	848	3595	446	2021	779

TOTAL TERMINAL-TRIPS FOR CHEBOYGAN = 11783

The left hand column of the chart (Figure 8) is the trip length in 10-minute increments. If a trip is less than 10 minutes, it was recorded as a 10-minute trip. All trips over the maximum time allowed by the program were recorded in the last time span.

The top row of the chart is the percent of total travel for that TLD. Figure 8 indicates that 40.460% of all work trips to and from Cheboygan are between 30-40 minutes. Each graph is for a specific trip purpose with the last chart showing all purposes combined.

At the bottom left of the TLD, the "volume table number" designates the trip purpose:

- 201 = work trips
- 202 = business trips
- 203 = shopping trips
- 204 = vacation trips
- 205 = other social or recreational trips
- 206 = all other trips
- 207 = total trips

Selected Link Plots

Selected link plots are available at the city level only. These plots are a diagram of the distribution of travel that has an origin or destination in the city and the probable routes on the state trunkline system this traffic used.

The magnitude of the travel on each highway link is shown by the bandwidths with each band's value representing 100 trips. The value assigned to the bands

6F6578 TRIP LENGTH FREQUENCY DISTRIBUTION-CHEBOYGAN

MINUTES	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60	P.C.	CUM	
10.																						0.024	0.0
20.																						33.121	33.1
30.																						0.000	33.1
40.																						40.450	73.6
50.																						8.146	81.7
60.																						9.416	91.1
70.																						2.128	93.2
80.																						0.354	93.6
90.																						1.272	95.3
100.																						0.294	95.4
110.																						1.125	96.4
120.																						0.049	96.6
130.																						0.000	96.6
140.																						0.195	97.1
150.																						0.259	97.4
160.																						0.147	97.6
170.																						0.098	97.7
180.																						0.132	97.7
190.																						0.485	98.2
200.																						0.122	98.2
210.																						0.098	98.3
220.																						0.171	98.6
230.																						0.024	98.7
240.																						0.122	98.8
250.																						0.313	99.1
260.																						0.098	99.2
270.																						0.000	99.2
280.																						0.171	99.4
290.																						0.098	99.5
300.																						0.049	99.5
310.																						0.122	99.6
320.																						0.000	99.6
330.																						0.000	99.6
340.																						1.024	99.7
350.																						0.000	99.7
360.																						1.000	99.7
370.																						0.024	99.7
380.																						0.000	99.7
390.																						0.000	99.7
400.																						0.000	99.7
410.																						0.000	99.7
420.																						0.000	99.7
430.																						0.000	99.7
440.																						0.000	99.7
450.																						0.000	99.7
460.																						0.171	99.8
470.																						0.000	99.8
480.																						0.000	99.8
490.																						0.000	99.8
500.																						0.000	99.8
510.																						0.000	99.8
520.																						0.000	99.8
530.																						0.000	99.8
540.																						0.000	99.8
550.																						0.000	99.8
560.																						0.000	99.8
570.																						0.000	99.8
580.																						0.073	99.8
590.																						0.000	99.8
600.																						0.024	100.0

← PERCENT OF TRIPS →

REMAINING VALUES ARE ALL ZERO
 NUMBER OF OBSERVATIONS= 4028 SUM= 159647 MEAN= 39.653 VAR= 1334.962 SD

TOTAL TRIPS OVER MAXP = 0
 TOTAL TRIPS OVER 255 = 0
 VOLUME TABLE NUMBER = 201 ← WORK TRIPS
 SKIM TREE NUMBER = 191

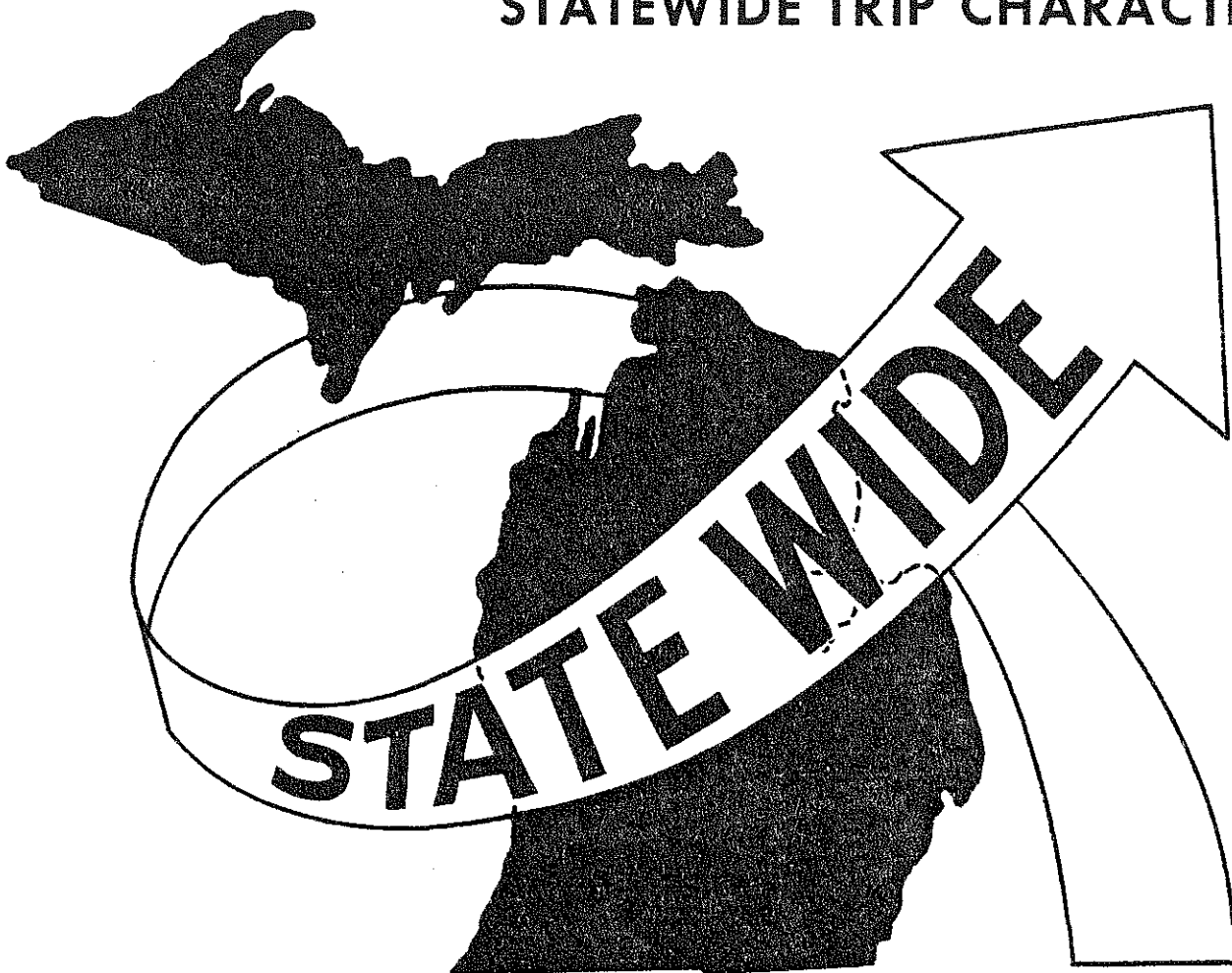
SD=42.8

is the same for all cities. Using the same value accomplishes two purposes:

1. simplifies the reading of the plots
2. shows the importance of one city relative to another

These plots, using the constant bandwidth values, can be used to identify the service area of a city and the function one city plays relative to another.

STATEWIDE TRIP CHARACTERISTICS



MINOR
EXTERNAL ORIGIN-DESTINATION INTERVIEW
TERMINAL-TRIP SUMMARY TABLE

VEHICLE TYPE

REGION	CAR W/O TRLR	CAP W/ TRLR	PICK-UP W/O/TRLR	PICK-UP W/ TRLR	SINGLE-UNIT TRUCKS	COMBINATION TRUCKS
1	81.1% 26968	0.4% 119	14.6% 4859	0.2% 64	2.8% 924	1.0% 324
2	78.3% 16424	0.2% 50	16.3% 3425	0.2% 49	3.3% 686	1.6% 343
3	79.6% 57205	0.3% 203	14.5% 10427	0.2% 145	3.7% 2669	1.8% 1261
4	80.6% 13958	0.3% 50	15.2% 2627	0.2% 41	2.8% 479	1.0% 172
5	77.6% 22200	0.4% 100	15.3% 4390	0.2% 54	4.2% 1192	2.4% 675
6	0.0% 0	0.0% 0	0.0% 0	0.0% 0	0.0% 0	0.0% 0
7	78.1% 59871	0.8% 646	14.9% 11455	0.4% 282	3.8% 2936	2.0% 1508
8	79.8% 50406	0.7% 463	14.2% 8987	0.4% 222	3.4% 2139	1.5% 959
9	78.4% 43329	2.0% 1096	12.9% 7134	0.4% 232	4.8% 2625	1.5% 845
10	79.8% 40959	0.8% 416	14.0% 7210	0.3% 142	3.6% 1841	1.5% 762
11	78.8% 9864	3.3% 416	12.7% 1592	0.5% 69	4.1% 508	0.6% 73
12	76.8% 21307	1.5% 409	15.5% 4303	0.5% 133	3.5% 961	2.2% 614
13	76.1% 19369	1.1% 278	17.3% 4399	0.4% 114	3.8% 960	1.4% 348
14	0.0% 0	0.0% 0	0.0% 0	0.0% 0	0.0% 0	0.0% 0
STATE	78.9% 381860	0.9% 4247	14.6% 70806	0.3% 1546	3.7% 17922	1.6% 7884

TABLE SHOWS PCT OF EXPANDED ORIGIN-DESTINATION INTERVIEWS FOR EACH CATEGORY IN THE REGION. ACTUAL TRIPS BELOW EACH PCT DOES NOT REPRESENT ALL TRAVEL IN THE REGION--ONLY THAT INTERVIEWED.

MINOR
EXTERNAL ORIGIN-DESTINATION INTERVIEW
TERMINAL-TRIP SUMMARY TABLE

TRIP PURPOSE

REGION	WORK	PERS BIZ	SHOP	VACATION	SOC-REC	OTHER
1	40.7% 13537	19.7% 3573	19.1% 6350	0.7% 229	16.6% 5512	12.2% 4056
2	48.1% 10082	7.1% 1486	19.8% 4147	0.1% 22	12.1% 2540	12.9% 2702
3	46.7% 33564	7.2% 5146	18.2% 13123	0.8% 607	15.4% 11098	11.6% 8372
4	34.8% 6026	9.5% 1653	23.5% 4077	2.4% 416	16.7% 2886	13.1% 2268
5	51.9% 14847	9.3% 2662	14.5% 4160	0.2% 71	12.9% 3693	11.1% 3179
6	0.0% 0	0.0% 0	0.0% 0	0.0% 0	0.0% 0	0.0% 0
7	38.8% 29779	9.9% 7609	20.7% 15856	3.5% 2723	16.2% 12429	10.8% 8302
8	39.4% 24916	8.0% 5070	22.4% 14124	2.7% 1690	17.1% 10810	10.4% 6565
9	33.4% 18432	7.0% 3852	27.9% 15443	7.4% 4108	15.9% 8782	8.4% 4645
10	35.5% 13224	8.1% 4140	19.9% 10189	6.6% 3371	19.8% 10168	10.2% 5237
11	19.0% 2380	4.3% 536	12.3% 1536	36.1% 4516	18.8% 2354	9.6% 1200
12	32.7% 9072	8.0% 2208	22.5% 6240	7.0% 1934	21.4% 5942	8.4% 2331
13	29.5% 7520	6.9% 1762	23.7% 6047	6.9% 1754	21.4% 5452	11.5% 2933
14	0.0% 0	0.0% 0	0.0% 0	0.0% 0	0.0% 0	0.0% 0
STATE	38.9% 188380	8.2% 39698	20.9% 101291	4.4% 21441	16.9% 81666	10.7% 51789

TABLE SHOWS PCT OF EXPANDED ORIGIN-DESTINATION INTERVIEWS FOR EACH CATEGORY IN THE REGION. ACTUAL TRIPS BELOW EACH PCT DOES NOT REPRESENT ALL TRAVEL IN THE REGION--ONLY THAT INTERVIEWED.

MINOR
EXTERNAL ORIGIN-DESTINATION INTERVIEW
TERMINAL-TRIP SUMMARY TABLE

NUMBER IN VEHICLE

REGION	1	2	3	4	5	6+
1	60.5% 20136	23.2% 7713	8.9% 2968	4.3% 1424	1.7% 575	1.3% 440
2	64.1% 13437	24.0% 5044	7.6% 1596	2.8% 589	0.9% 183	0.6% 129
3	62.6% 45020	23.7% 17048	7.6% 5476	3.6% 2562	1.5% 1100	1.0% 703
4	56.8% 9848	25.4% 4399	9.5% 1638	5.3% 911	1.9% 337	1.1% 194
5	65.9% 18855	22.4% 6399	6.9% 1982	3.1% 882	1.0% 290	0.7% 204
6	0.0% 0	0.0% 0	0.0% 0	0.0% 0	0.0% 0	0.0% 0
7	53.8% 41250	26.0% 19974	9.8% 7530	5.8% 4455	2.5% 1906	2.1% 1582
8	53.9% 34083	26.3% 16585	9.7% 6113	5.6% 3554	2.5% 1552	2.0% 1289
9	44.4% 24536	28.7% 15864	11.3% 6246	8.2% 4551	3.8% 2094	3.6% 1971
10	50.6% 25964	27.7% 14196	10.3% 5275	6.5% 3340	2.7% 1410	2.2% 1144
11	27.5% 3445	30.5% 3815	14.1% 1767	14.3% 1785	7.0% 878	6.7% 833
12	44.9% 12450	28.8% 7980	11.7% 3244	7.6% 2115	4.0% 1118	3.0% 820
13	47.8% 12184	30.5% 7779	10.8% 2738	6.0% 1520	2.9% 728	2.0% 520
14	0.0% 0	0.0% 0	0.0% 0	0.0% 0	0.0% 0	0.0% 0
STATE	53.9% 261207	26.2% 126796	9.6% 46574	5.7% 27688	2.5% 12170	2.0% 9829

TABLE SHOWS PCT OF EXPANDED ORIGIN-DESTINATION INTERVIEWS FOR EACH CATEGORY IN THE REGION. ACTUAL TRIPS BELOW EACH PCT DOES NOT REPRESENT ALL TRAVEL IN THE REGION--ONLY THAT INTERVIEWED.

MINOR
EXTERNAL ORIGIN-DESTINATION INTERVIEW
TERMINAL-TRIP SUMMARY TABLE

VEHICLE GARAGED AT

REGION	ORIGIN	DESTIN	OTHER
1	44.6% 14820	35.1% 11660	20.4% 6777
2	46.9% 9845	37.2% 7801	15.9% 3332
3	46.1% 33165	37.0% 26580	16.9% 12164
4	44.4% 7686	34.4% 5966	21.2% 3675
5	50.0% 14319	39.4% 11277	10.5% 3015
6	0.0% 0	0.0% 0	0.0% 0
7	44.1% 33808	35.2% 27011	20.7% 15879
8	43.6% 27521	35.0% 22118	21.4% 13536
9	37.0% 20468	27.9% 15401	35.1% 19392
10	38.1% 19557	30.5% 15640	31.4% 16132
11	20.7% 2589	19.5% 2445	59.8% 7488
12	42.6% 11810	32.6% 9034	24.8% 6883
13	38.9% 9902	33.4% 9504	27.7% 7063
14	0.0% 0	0.0% 0	0.0% 0
STATE	42.4% 205492	33.7% 163438	23.8% 115335

TABLE SHOWS PCT OF EXPANDED ORIGIN-DESTINATION INTERVIEWS FOR EACH CATEGORY IN THE REGION. ACTUAL TRIPS BELOW EACH PCT DOES NOT REPRESENT ALL TRAVEL IN THE REGION--ONLY THAT INTERVIEWED.

MINOR

EXTERNAL ORIGIN-DESTINATION INTERVIEW

TERMINAL-TRIP SUMMARY TABLE FOR STATE

TRIP PURPOSE

# IN VEH.	WORK	PERS BIZ	SHOP	VACATION	SOC-REC	OTHER
1	79.7% 150202	49.5% 19644	38.5% 39042	6.8% 1468	35.5% 29020	42.2% 21831
2	15.1% 28469	31.1% 12354	33.7% 34147	37.9% 8123	33.0% 26925	32.4% 16777
3	3.4% 6354	10.6% 4202	14.0% 14150	17.2% 3690	13.9% 11381	13.1% 6796
4	1.2% 2215	5.3% 2107	7.7% 7821	20.3% 4353	9.3% 7575	7.0% 3617
5	0.4% 697	2.1% 844	3.5% 3544	9.5% 2036	4.3% 3495	3.0% 1554
6+	0.2% 442	1.4% 546	2.6% 2586	8.3% 1770	4.0% 3270	2.3% 1214
TOTAL	100% 188380	100% 39698	100% 101291	100% 21441	100% 81666	100% 51789

TOTAL TERMINAL-TRIPS FOR ALL STUDIES IN REGION = 484264

TABLE SHOWS PCT OF EXPANDED ORIGIN-DESTINATION INTERVIEWS FOR EACH CATEGORY IN THE REGION. ACTUAL TRIPS BELOW EACH PCT DOES NOT REPRESENT ALL TRAVEL IN THE REGION--ONLY THAT INTERVIEWED.

MINOR
EXTERNAL ORIGIN-DESTINATION INTERVIEW
TERMINAL-TRIP SUMMARY TABLE FOR STATE

TRIP PURPOSE

VEH TYPE	WORK	PERS BTZ	SHOP	VACATION	SOC-WFC	OTHER
CAR W/O TRLR	66.1% 124466	85.0% 33758	86.4% 87559	82.9% 17775	89.4% 73046	87.4% 45256
CAR W/ TRLR	0.2% 422	0.6% 226	0.8% 805	7.0% 1501	1.1% 922	0.7% 371
PICK-UP W/O/TRLR	21.1% 39816	13.5% 5367	11.8% 11931	5.5% 1171	8.5% 6937	10.8% 5583
PICK-UP W/ TRLR	0.4% 670	0.2% 71	0.2% 171	1.3% 280	0.3% 250	0.2% 104
SINGLE-UNIT TRUCKS	8.2% 15420	0.6% 250	0.7% 754	3.0% 634	0.5% 443	0.8% 421
COMBINATION TRUCKS	4.0% 7585	0.1% 27	0.1% 71	0.4% 80	0.1% 68	0.1% 54
TOTAL	100% 188380	100% 39698	100% 101291	100% 21441	100% 81666	100% 51789

TOTAL TERMINAL-TRIPS FOR ALL STUDIES IN REGION = 484264

TABLE SHOWS PCT OF EXPANDED ORIGIN-DESTINATION INTERVIEWS FOR EACH CATEGORY IN THE REGION. ACTUAL TRIPS BELOW EACH PCT DOES NOT REPRESENT ALL TRAVEL IN THE REGION--ONLY THAT INTERVIEWED.

1MAR78

TRIP LENGTH FREQUENCY DISTRIBUTION-TOT

PAGE 2

TRIP LENGTH	FREQUENCY	P.C.	CUM.	ACTUAL
0	17	17.038	17.038	31407
2	31	31.697	48.735	59361
4	16	16.806	65.541	31474
6	13	13.658	79.199	25578
10	7	7.157	86.356	13403
12	5	5.848	92.204	72061
14	4	4.908	97.113	30491
16	3	3.561	98.674	2924
18	2	1.170	99.844	2192
20	1	0.637	99.952	11921
22	1	0.908	98.429	17011
24	1	0.591	97.020	1107
26	1	0.399	97.420	7481
28	1	0.232	97.652	434
30	1	0.214	97.865	400
32	1	0.372	98.237	6961
34	1	0.140	98.377	252
36	1	0.140	98.523	274
38	1	0.173	98.696	324
40	1	0.135	98.831	253
42	1	0.075	98.906	141
44	1	0.088	98.994	184
46	1	0.133	99.127	250
48	1	0.075	99.203	141
50	1	0.138	99.341	259
52	1	0.061	99.402	114
54	1	0.056	99.457	104
56	1	0.029	99.486	54
58	1	0.059	99.545	110
60	1	0.030	99.575	37
62	1	0.022	99.597	41
64	1	0.035	99.635	71
66	1	0.028	99.661	49
68	1	0.024	99.685	45
70	1	0.034	99.720	64
72	1	0.014	99.734	27
74	1	0.034	99.768	64
76	1	0.011	99.779	21
78	1	0.010	99.789	16
80	1	0.014	99.803	27
82	1	0.004	99.807	7
84	1	0.011	99.818	20
86	1	0.008	99.826	15
88	1	0.036	99.862	66
90	1	0.012	99.874	22
92	1	0.015	99.889	28
94	1	0.017	99.905	31
96	1	0.006	99.912	12
98	1	0.011	99.923	20
100	1	0.003	99.925	5
102	1	0.004	99.930	8
104	1	0.008	99.938	15
106	1	0.002	99.940	4
108	1	0.006	99.946	11
110	1	0.003	99.948	5
112	1	0.005	99.953	9
114	1	0.002	99.955	3
116	1	0.008	99.963	15
118	1	0.006	99.968	11
120	1	0.003	99.971	5
122	1	0.005	99.977	10
124	1	0.001	99.978	2
126	1	0.000	99.978	0
128	1	0.000	99.978	0
130	1	0.001	99.978	1
132	1	0.003	99.981	5
134	1	0.002	99.982	3
136	1	0.001	99.983	1
138	1	0.005	99.985	9
140	1	0.001	99.989	2
142	1	0.000	99.989	0
144	1	0.000	99.989	0
146	1	0.000	99.989	0
148	1	0.002	99.991	4
150	1	0.009	100.000	17

(MINING VALUES ARE ALL ZERO)
NUMBER OF OBSERVATIONS: 197274

SUM= 6066433. MEAN= 32.393 VAR= 1745.297 SD= 41.784

NO. TRIPS OVER MAXP = 17
NO. TRIPS OVER 255 = 0
TIME TABLE NUMBER = 201
TABLE NUMBER = 101

WORK TRIPS

1MAR78 TRIP LENGTH FREQUENCY DISTRIBUTION-TOT

TRIP LENGTH	FREQ	P.C.	CUM.	ACTUAL
0	20.889	20.889	20.889	21022
2	17.583	37.583	58.473	37022
4	15.472	53.055	73.944	15570
6	12.236	65.291	86.181	12314
8	4.805	70.096	90.986	4836
10	2.457	72.549	93.443	2475
12	0.927	73.476	94.371	933
14	1.060	74.536	95.431	1087
16	0.554	75.090	96.005	558
18	0.263	75.353	96.269	265
20	0.662	76.015	97.130	667
22	0.288	76.303	97.418	290
24	0.281	76.584	97.700	283
26	0.215	76.799	97.914	216
28	0.064	76.863	97.978	64
30	0.199	77.062	98.177	200
32	0.063	77.125	98.239	63
34	0.125	77.250	98.364	126
36	0.180	77.430	98.544	181
38	0.106	77.536	98.651	107
40	0.095	77.631	98.746	96
42	0.067	77.698	98.813	67
44	0.178	77.876	98.990	179
46	0.090	77.966	99.081	91
48	0.093	78.059	99.174	94
50	0.201	78.260	99.375	202
52	0.075	78.335	99.449	75
54	0.049	78.384	99.498	49
56	0.023	78.407	99.521	23
58	0.079	78.486	99.600	79
60	0.063	78.549	99.662	63
62	0.022	78.571	99.684	22
64	0.044	78.615	99.728	44
66	0.010	78.625	99.738	10
68	0.013	78.638	99.751	13
70	0.010	78.648	99.761	10
72	0.042	78.690	99.802	42
74	0.005	78.695	99.807	5
76	0.022	78.717	99.829	22
78	0.011	78.728	99.840	11
80	0.000	78.728	99.840	0
82	0.012	78.740	99.852	12
84	0.008	78.748	99.860	8
86	0.023	78.771	99.883	23
88	0.018	78.789	99.901	18
90	0.017	78.806	99.918	17
92	0.001	78.807	99.919	1
94	0.003	78.810	99.921	3
96	0.008	78.818	99.929	8
98	0.015	78.833	99.942	15
100	0.001	78.834	99.943	1
102	0.011	78.845	99.954	11
104	0.008	78.853	99.962	8
106	0.002	78.855	99.964	2
108	0.008	78.863	99.972	8
110	0.003	78.866	99.975	3
112	0.003	78.869	99.978	3
114	0.002	78.871	99.980	2
116	0.000	78.871	99.980	0
118	0.001	78.872	99.981	1
120	0.001	78.873	99.982	1
122	0.003	78.876	99.985	3
124	0.000	78.876	99.985	0
126	0.000	78.876	99.985	0
128	0.002	78.878	99.987	2
130	0.000	78.878	99.987	0
132	0.004	78.882	99.991	4
134	0.000	78.882	99.991	0
136	0.002	78.884	99.993	2
138	0.001	78.885	99.994	1
140	0.000	78.885	99.994	0
142	0.000	78.885	99.994	0
144	0.000	78.885	99.994	0
146	0.000	78.885	99.994	0
148	0.000	78.885	99.994	0
150	0.000	78.885	99.994	0

MINIMUM VALUES ARE ALL ZERO
 NUMBER OF OBSERVATIONS: 100035 SUM: 2616970 MEAN: 27.992 VAR: 1603.356 SD: 40.042

L TRIPS OVER MAXP * 0
 L TRIPS OVER PPS * 1
 THE TABLE NUMBER = 203
 TREE NUMBER * 101

SHOPPING TRIPS

IMAR78

TRIP LENGTH FREQUENCY DISTRIBUTION-TOT

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	P.C.	CUM.	ACTUAL	
10																								1192	
20																									1826
30																									1173
40																									2552
50																									701
60																									1602
70																									538
80																									1155
90																									861
100																									385
110																									668
120																									373
130																									463
140																									368
150																									185
160																									531
170																									302
180																									296
190																									393
200																									290
210																									324
220																									138
230																									320
240																									259
250																									455
260																									371
270																									313
280																									207
290																									179
300																									235
310																									203
320																									169
330																									228
340																									49
350																									97
360																									67
370																									86
380																									53
390																									67
400																									62
410																									56
420																									102
430																									68
440																									215
450																									58
460																									40
470																									72
480																									68
490																									42
500																									37
510																									49
520																									62
530																									8
540																									82
550																									35
560																									29
570																									30
580																									7
590																									23
600																									5
610																									51
620																									21
630																									19
640																									6
650																									2
660																									42
670																									2
680																									25
690																									12
700																									8
710																									12
720																									8
730																									12
740																									12
750																									87

INITIAL VALUES ARE ALL ZERO
 NUMBER OF OBSERVATIONS= 21975 SUM= 2821726 MEAN= 134.528 VAR= 20258.072 SD= 142.333

L TRIPS OVER MAXP = 87
 L TRIPS OVER 255 = 0
 ME TABLE NUMBER = 204
 TREE NUMBER = 101

VACATION TRIPS

1MAR79

TRIP LENGTH FREQUENCY DISTRIBUTION-TOT

PAGE 6

0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	P.C.	CUM.	ACTUAL
10																					17.917	17.917	14496
20																					34.385	52.301	27420
30																					15.558	67.860	12588
40																					10.738	78.598	8688
50																					4.744	83.342	3636
60																					3.420	86.762	2767
70																					1.667	88.429	1349
80																					1.608	90.034	1299
90																					1.175	91.210	951
100																					0.735	91.945	595
110																					1.649	91.945	1334
120																					0.787	92.381	637
130																					0.666	92.047	539
140																					0.428	92.475	346
150																					0.177	92.652	145
160																					0.492	92.144	398
170																					0.264	92.608	214
180																					0.240	92.848	194
190																					0.374	97.221	303
200																					0.292	97.514	236
210																					0.197	97.711	159
220																					0.130	97.841	105
230																					0.251	98.092	203
240																					0.159	98.251	129
250																					0.187	98.438	151
260																					0.185	98.623	150
270																					0.137	98.760	111
280																					0.053	98.813	43
290																					0.125	98.938	101
300																					0.091	99.030	74
310																					0.087	99.116	70
320																					0.061	99.177	49
330																					0.069	99.246	56
340																					0.016	99.262	13
350																					0.044	99.307	36
360																					0.017	99.324	14
370																					0.052	99.376	42
380																					0.027	99.403	22
390																					0.028	99.431	23
400																					0.025	99.456	20
410																					0.007	99.464	6
420																					0.047	99.511	38
430																					0.025	99.511	20
440																					0.060	99.516	48
450																					0.023	99.539	19
460																					0.015	99.554	12
470																					0.042	99.596	35
480																					0.022	99.716	18
490																					0.019	99.757	15
500																					0.026	99.763	21
510																					0.041	99.803	33
520																					0.016	99.820	13
530																					0.002	99.822	2
540																					0.026	99.848	21
550																					0.021	99.869	17
560																					0.009	99.878	7
570																					0.010	99.888	8
580																					0.004	99.891	3
590																					0.004	99.895	3
600																					0.010	99.905	8
610																					0.009	99.913	7
620																					0.004	99.917	3
630																					0.010	99.927	8
640																					0.006	99.933	5
650																					0.026	99.959	21
660																					0.000	99.959	0
670																					0.007	99.967	6
680																					0.001	99.968	1
690																					0.000	99.968	0
700																					0.000	99.968	0
710																					0.001	99.969	1
720																					0.002	99.972	2
730																					0.000	99.972	0
740																					0.005	99.977	4
750																					0.023	100.000	18

MINING VALUES ARE ALL ZERO
 NO. OF OBSERVATIONS = 24908 SUM = 3228356. MEAN = 37.430 VAR = 3367.270 SD = 58.028

L TRIPS OVER MAX = 19
 L TRIPS OVER 255 = 0
 SHE TABLE NUMBER = 205
 TREE NUMBER = 181

OTHER SOC. OR REC. TRIPS

14AR78 TRIP LENGTH FREQUENCY DISTRIBUTION-TOT

TRIP LENGTH	F.C.	CUM.	ACTUAL
10	20.460	20.460	10500
20	35.123	55.583	18030
30	15.978	71.561	8200
40	11.242	82.803	5770
50	5.050	87.853	2590
60	2.807	90.659	1440
70	1.313	91.972	670
80	1.190	93.162	610
90	0.843	94.005	430
100	0.510	94.516	260
110	0.395	95.310	200
120	0.271	95.581	140
130	0.507	96.088	260
140	0.251	96.339	120
150	0.259	96.598	130
160	0.505	97.103	260
170	0.148	97.251	70
180	0.179	97.430	90
190	0.208	97.638	100
200	0.105	97.743	50
210	0.105	97.848	50
220	0.082	97.930	40
230	0.156	98.086	80
240	0.107	98.193	50
250	0.175	98.368	90
260	0.109	98.477	50
270	0.105	98.582	50
280	0.047	98.629	20
290	0.082	98.711	40
300	0.045	98.756	20
310	0.027	98.783	10
320	0.029	98.812	10
330	0.058	98.870	30
340	0.019	98.889	10
350	0.025	98.914	10
360	0.014	98.928	5
370	0.031	98.959	10
380	0.019	98.978	10
390	0.010	98.988	5
400	0.014	99.002	5
410	0.016	99.018	5
420	0.019	99.037	10
430	0.021	99.058	10
440	0.039	99.097	20
450	0.012	99.109	5
460	0.008	99.117	5
470	0.021	99.138	10
480	0.019	99.157	10
490	0.012	99.169	5
500	0.018	99.187	5
510	0.018	99.205	5
520	0.006	99.211	5
530	0.006	99.217	5
540	0.006	99.223	5
550	0.000	99.223	5
560	0.000	99.223	5
570	0.004	99.227	5
580	0.008	99.235	5
590	0.000	99.235	5
600	0.002	99.237	5
610	0.008	99.245	5
620	0.010	99.255	5
630	0.000	99.255	5
640	0.002	99.257	5
650	0.014	99.271	5
660	0.000	99.271	5
670	0.012	99.283	5
680	0.000	99.283	5
690	0.002	99.285	5
700	0.010	99.295	5
710	0.000	99.295	5
720	0.004	99.299	5
730	0.008	99.307	5
740	0.000	99.307	5
750	0.002	99.309	5
760	0.000	99.309	5
770	0.000	99.309	5
780	0.000	99.309	5
790	0.000	99.309	5
800	0.000	99.309	5
810	0.000	99.309	5
820	0.000	99.309	5
830	0.000	99.309	5
840	0.000	99.309	5
850	0.000	99.309	5
860	0.000	99.309	5
870	0.000	99.309	5
880	0.000	99.309	5
890	0.000	99.309	5
900	0.000	99.309	5
910	0.000	99.309	5
920	0.000	99.309	5
930	0.000	99.309	5
940	0.000	99.309	5
950	0.000	99.309	5
960	0.000	99.309	5
970	0.000	99.309	5
980	0.000	99.309	5
990	0.000	99.309	5
1000	0.000	99.309	5

INING VALUES ARE ALL ZERO
 EP OF OBSERVATIONS= 51345 SUM= 1622116 MEAN= 31.592 VAR= 2262.102 SD= 47.562

L TRIPS OVER 1000 # 3
 L TRIPS OVER 200 # 0
 ME TABLE NUMBER # 200
 TREE NUMBER # 101

ALL OTHER TRIPS

IMARTS TRIP LENGTH FREQUENCY DISTRIBUTION-TOT

TRIP LENGTH	FREQUENCY	P.C.	CUM.	ACTUAL
0	18.026	18.026	66621
2	33.044	51.070	158793
4	15.773	66.843	75798
6	12.458	79.301	59668
8	5.661	84.963	27102
10	3.470	88.433	16674
12	1.613	90.046	7750
14	1.563	91.609	7512
16	1.146	92.755	5315
18	0.692	93.447	2891
20	1.145	94.592	5308
22	0.624	95.216	1080
24	0.504	95.720	2424
26	0.326	96.046	1567
28	0.244	96.290	1173
30	0.461	96.751	2310
32	0.202	96.953	972
34	0.214	97.167	1029
36	0.286	97.453	1373
38	0.207	97.660	994
40	0.170	97.830	615
42	0.114	97.944	549
44	0.220	98.164	1057
46	0.146	98.310	702
48	0.182	98.492	676
50	0.192	98.684	921
52	0.144	98.828	692
54	0.081	98.909	391
56	0.097	99.006	464
58	0.102	99.108	490
60	0.023	99.131	399
62	0.070	99.201	337
64	0.047	99.248	177
66	0.047	99.295	177
68	0.029	99.324	136
70	0.048	99.372	233
72	0.026	99.398	125
74	0.054	99.452	260
76	0.025	99.477	118
78	0.029	99.506	137
80	0.027	99.533	129
82	0.017	99.550	80
84	0.039	99.589	189
86	0.026	99.615	128
88	0.062	99.677	393
90	0.026	99.703	123
92	0.022	99.725	105
94	0.033	99.758	157
96	0.024	99.782	114
98	0.019	99.801	91
100	0.019	99.820	89
102	0.021	99.841	102
104	0.027	99.868	129
106	0.006	99.874	28
108	0.025	99.899	122
110	0.015	99.914	72
112	0.010	99.924	48
114	0.010	99.934	48
116	0.007	99.941	33
118	0.006	99.947	39
120	0.005	99.952	23
122	0.015	99.967	74
124	0.007	99.974	35
126	0.006	99.980	31
128	0.002	99.982	12
130	0.006	99.988	36
132	0.001	99.989	7
134	0.013	99.992	63
136	0.002	99.994	9
138	0.006	99.997	40
140	0.005	99.992	22
142	0.001	99.993	3
144	0.002	99.995	10
146	0.003	99.998	16
148	0.004	99.992	21
150	0.426	100.000	134

MINING VALUES ARE ALL ZERO
 EP OF OBSERVATIONS 489547

SUM# 17521382. MEAN# 36.461 VAR# 3294.507 SD# 57.398

L TRIPS OVER MAXP = 134
 L TRIPS OVER 255 = 0
 ME TABLE NUMBER = 207
 TREE NUMBER = 101

TOTAL TRIPS

MINOR ORIGIN AND DESTINATION STUDIES

MEAN TRIP LENGTHS BY PURPOSE

REGION 1

<u>TRIP PURPOSE</u>	<u>MINUTES</u>	<u>PERCENT OF TOTAL TRIPS</u>
1	26	41
2	21	11
3	18	19
4	119	1
5	22	17
6	20	12
ALL	23	

REGION 2

<u>TRIP PURPOSE</u>	<u>MINUTES</u>	<u>PERCENT OF TOTAL TRIPS</u>
1	27	48
2	25	7
3	20	20
4	197	0
5	22	12
6	25	13
ALL	25	

REGION 3

<u>TRIP PURPOSE</u>	<u>MINUTES</u>	<u>PERCENT OF TOTAL TRIPS</u>
1	25	47
2	20	7
3	18	18
4	149	1
5	24	15
6	25	12
ALL	24	

<u>TRIP PURPOSE</u>
1 WORK
2 PERS. BUSINESS
3 SHOPPING
4 VACATION
5 OTHER SOC. OR REC.
6 ALL OTHER

REGION 4

<u>TRIP PURPOSE</u>	<u>MINUTES</u>	<u>PERCENT OF TOTAL TRIPS</u>
1	33	35
2	35	10
3	20	24
4	124	2
5	41	17
6	36	13
ALL	34	

REGION 5

<u>TRIP PURPOSE</u>	<u>MINUTES</u>	<u>PERCENT OF TOTAL TRIPS</u>
1	35	52
2	30	9
3	26	15
4	193	0
5	32	13
6	30	11
ALL	33	

REGION 7

<u>TRIP PURPOSE</u>	<u>MINUTES</u>	<u>PERCENT OF TOTAL TRIPS</u>
1	33	39
2	31	10
3	26	21
4	115	3
5	38	16
6	33	11
ALL	35	

REGION 8

<u>TRIP PURPOSE</u>	<u>MINUTES</u>	<u>PERCENT OF TOTAL TRIPS</u>
1	32	39
2	26	8
3	24	22
4	145	3
5	33	17
6	27	10
ALL	32	

REGION 9

<u>TRIP PURPOSE</u>	<u>MINUTES</u>	<u>PERCENT OF TOTAL TRIPS</u>
1	34	33
2	35	7
3	47	28
4	136	7
5	52	16
6	47	8
ALL	49	

REGION 10

<u>TRIP PURPOSE</u>	<u>MINUTES</u>	<u>PERCENT OF TOTAL TRIPS</u>
1	31	36
2	29	8
3	23	20
4	92	7
5	31	20
6	26	10
ALL	33	

REGION 11

<u>TRIP PURPOSE</u>	<u>MINUTES</u>	<u>PERCENT OF TOTAL TRIPS</u>
1	51	19
2	50	4
3	48	12
4	125	36
5	76	19
6	52	10
ALL	82	

REGION 12

<u>TRIP PURPOSE</u>	<u>MINUTES</u>	<u>PERCENT OF TOTAL TRIPS</u>
1	58	33
2	51	8
3	45	23
4	201	7
5	64	21
6	53	8
ALL	65	

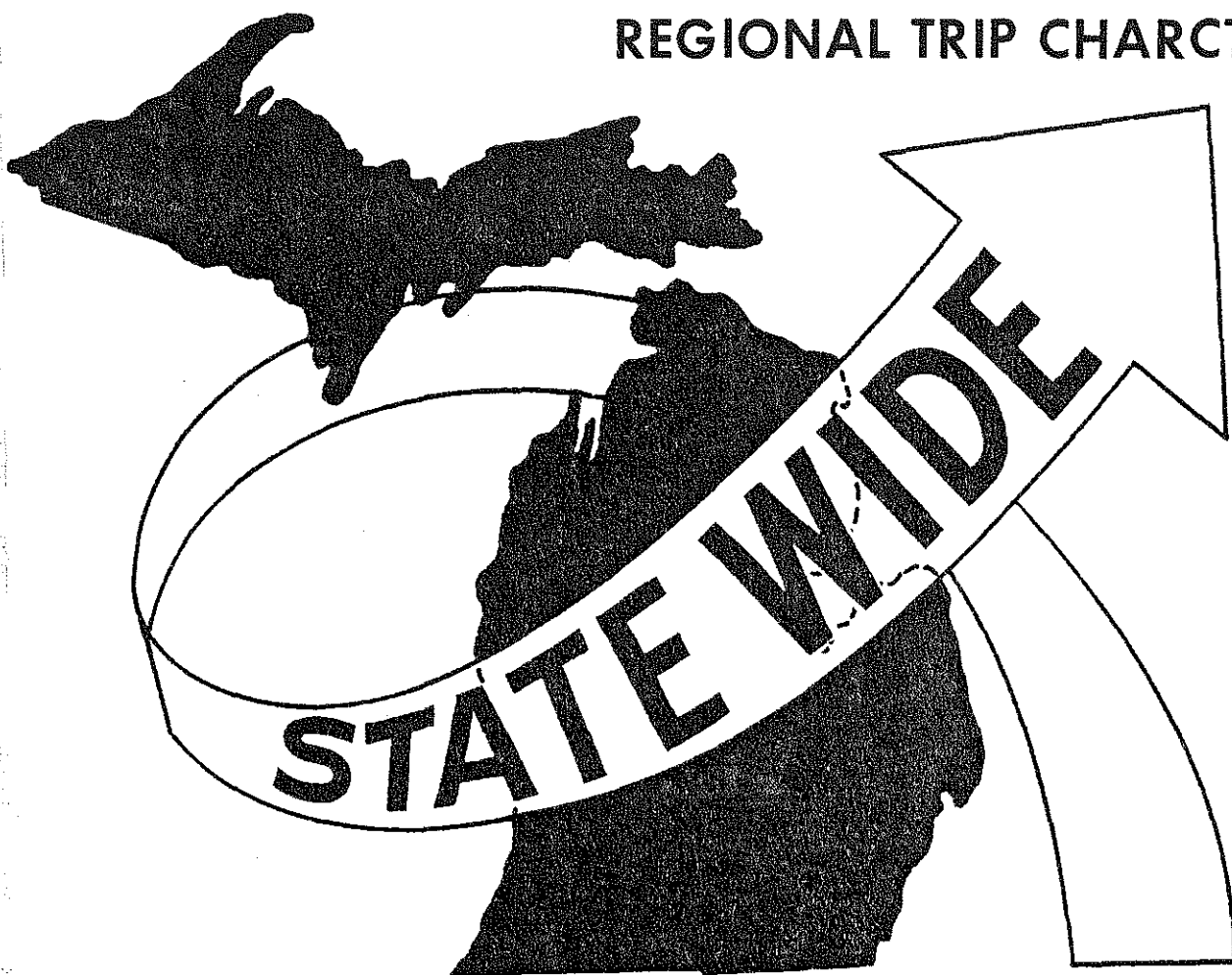
REGION 13

<u>TRIP PURPOSE</u>	<u>MINUTES</u>	<u>PERCENT OF TOTAL TRIPS</u>
1	42	30
2	35	7
3	24	24
4	179	7
5	40	21
6	37	12
ALL	46	

STATEWIDE AVERAGE

<u>TRIP PURPOSE</u>	<u>MINUTES</u>	<u>PERCENT OF TOTAL TRIPS</u>
1	32	39
2	30	8
3	28	21
4	135	4
5	37	17
6	32	11
ALL	36	

REGIONAL TRIP CHARACTERISTICS



REGION 1

EXTERNAL ORIGIN-DESTINATION INTERVIEW

TERMINAL-TRIP SUMMARY TABLE

VEHICLE TYPE

CAR W/O TRLR	CAR W/ TRLR	PICK-UP W/O/TRLR	PICK-UP W/ TRLR	SINGLE-UNIT TRUCKS	COMBINATION TRUCKS
81.1%	0.4%	14.6%	0.2%	2.8%	1.0%
26968	119	4859	64	924	324

TRIP PURPOSE

WORK	PERS BIZ	SHOP	VACATION	SOC-REC	OTHER
40.7%	10.7%	19.1%	0.7%	16.6%	12.2%
13537	3573	6350	229	5512	4056

NUMBER IN VEHICLE

1	2	3	4	5	6+
60.5%	23.2%	8.9%	4.3%	1.7%	1.3%
20136	7713	2968	1424	575	440

VEHICLE GARAGED AT

ORIGIN	DESTIN	OTHER
44.6%	35.1%	20.4%
14820	11660	6777

TOTAL TRIPS = 33257

MINOR

EXTERNAL ORIGIN-DESTINATION INTERVIEW
 TERMINAL-TRIP SUMMARY TABLE FOR REGION 1

TRIP PURPOSE

# IN VEH.	WORK	PERS BIZ	SHOP	VACATION	SOC-REC	OTHER
1	83.0% 11234	53.0% 1892	46.6% 2962	18.0% 41	40.1% 2208	44.3% 1798
2	13.0% 1763	29.2% 1045	29.9% 1897	39.0% 89	28.9% 1590	32.8% 1329
3	2.9% 390	9.5% 341	13.5% 859	16.6% 38	14.7% 810	13.1% 530
4	0.8% 105	4.7% 166	6.2% 393	13.0% 30	8.7% 481	6.1% 249
5	0.2% 28	2.0% 71	2.4% 152	7.8% 18	3.8% 211	2.3% 95
6+	0.1% 17	1.6% 58	1.4% 86	5.6% 13	3.8% 212	1.3% 54
TOTAL	100% 13537	100% 3573	100% 6350	100% 229	100% 5512	100% 4056

TOTAL TERMINAL-TRIPS FOR ALL STUDIES IN REGION = 33257

TABLE SHOWS PCT OF EXPANDED ORIGIN-DESTINATION INTERVIEWS FOR EACH CATEGORY IN THE REGION. ACTUAL TRIPS BELOW EACH PCT DOES NOT REPRESENT ALL TRAVEL IN THE REGION--ONLY THAT INTERVIEWED.

MINOR

EXTERNAL ORIGIN=DESTINATION INTERVIEW
 TERMINAL=TRIP SUMMARY TABLE FOR REGION 1

TRIP PURPOSE

VEH TYPE	WORK	PERS BIZ	SHOP	VACATION	SOC=RFC	OTHER
CAR W/O TRLR	71.7% 9702	87.2% 3117	86.0% 5458	82.0% 188	89.7% 4943	87.8% 3560
CAR W/ TRLR	0.1% 15	0.5% 18	0.4% 24	8.1% 18	0.3% 14	0.7% 30
PICK-UP W/O/TRLR	19.4% 2623	12.0% 428	13.2% 835	3.4% 8	9.8% 538	10.5% 427
PICK-UP W/ TRLR	0.2% 27	0.2% 6	0.1% 7	2.6% 6	0.2% 10	0.2% 7
SINGLE-UNIT TRUCKS	6.3% 852	0.1% 5	0.3% 22	2.7% 6	0.1% 6	0.8% 32
COMBINATION TRUCKS	2.3% 318	0.0% 0	0.0% 3	1.3% 3	0.0% 0	0.0% 0
TOTAL	100% 13537	100% 3573	100% 6350	100% 229	100% 5512	100% 4056

TOTAL TERMINAL=TRIPS FOR ALL STUDIES IN REGION = 33257

TABLE SHOWS PCT OF EXPANDED ORIGIN=DESTINATION INTERVIEWS FOR EACH CATEGORY IN THE REGION. ACTUAL TRIPS BELOW EACH PCT DOES NOT REPRESENT ALL TRAVEL IN THE REGION--ONLY THAT INTERVIEWED.

23FEB78 TRIP LENGTH FREQUENCY DISTRIBUTION-REG1

0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	P.C.	CUM.	ACT.
10																					22.169	22.169	
20																					36.360	58.549	
30																					16.085	74.634	
40																					8.253	82.888	
50																					7.736	90.624	
60																					2.845	93.468	
70																					4.286	97.754	
80																					0.465	98.219	
90																					0.126	98.345	
100																					0.251	98.596	
110																					0.140	98.737	
120																					0.591	99.328	
130																					0.140	99.468	
140																					0.059	99.527	
150																					0.030	99.557	
160																					0.148	99.704	
170																					0.007	99.712	
180																					0.452	99.764	
190																					0.007	99.771	
200																					0.000	99.771	
210																					0.000	99.771	
220																					0.015	99.786	
230																					0.022	99.808	
240																					0.037	99.845	
250																					0.000	99.845	
260																					0.022	99.867	
270																					0.030	99.897	
280																					0.000	99.897	
290																					0.000	99.897	
300																					0.000	99.897	
310																					0.044	99.941	
320																					0.000	99.941	
330																					0.000	99.941	
340																					0.015	99.956	
350																					0.000	99.956	
360																					0.000	99.956	
370																					0.022	99.978	
380																					0.000	99.978	
390																					0.000	99.978	
400																					0.000	99.978	
410																					0.000	99.978	
420																					0.000	99.978	
430																					0.000	99.978	
440																					0.000	99.978	
450																					0.007	99.985	
460																					0.000	99.985	
470																					0.000	99.985	
480																					0.000	99.985	
490																					0.000	99.985	
500																					0.000	99.985	
510																					0.000	99.985	
520																					0.000	99.985	
530																					0.000	99.985	
540																					0.000	99.985	
550																					0.000	99.985	
560																					0.000	99.985	
570																					0.000	99.985	
580																					0.000	99.985	
590																					0.000	99.985	
600																					0.000	99.985	
610																					0.015	100.000	

REMAINING VALUES ARE ALL ZERO
 NUMBER OF OBSERVATIONS= 13534 SUM= 346668 MEAN= 25.615 VAR= 579.370 SD= 24.
 TOTAL TRIPS OVER 444P = 0
 TOTAL TRIPS OVER 255 = 0
 VOLUME TABLE NUMBER = 201
 SKIM TREE NUMBER = 101

23FERT8

TRIP LENGTH FREQUENCY DISTRIBUTION-REG1

PAGE 3

	0	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60	P.C.	CUM.	ACTL		
10																						24.790	24.790		
20																						41.718	66.508	
30																					10.719	77.227	
40																				6.883	84.110	
50																			3.665	87.775	
60																		1.399	89.174	
70																	2.098	91.273	
80																0.000	91.273	
90															0.084	91.356	
100														0.112	91.468	
110													0.028	91.496	
120												0.280	91.776	
130											0.000	91.776	
140										0.024	91.800	
150									0.024	91.824	
160								0.028	91.852	
170							0.000	91.852	
180						0.056	91.908	
190					0.000	91.908	
200				0.000	91.908	
210			0.000	91.908	
220			0.000	91.908	
230			0.000	91.908	
240			0.000	91.908	
250			0.000	91.908	
260			0.028	91.936	
270			0.000	91.936	
280			0.056	100.000	

REMAINING VALUES ARE ALL ZERO
 NUMBER OF OBSERVATIONS= 3570 SUM= 74243 MEAN= 20.773 VAR= 259.578 SD= 16.1

TOTAL TRIPS OVER MAXP = 0
 TOTAL TRIPS OVER 255 = 0
 VOLUME TABLE NUMBER = 202
 SKIM TREE NUMBER = 101

23FEB78

TRIP LENGTH FREQUENCY DISTRIBUTION-REG1

PAGE 4

	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	P.C.	CUM.	ACTUA		
10																							35.150	35.150		
20																								19.039	74.189	
30																								18.346	92.535	
40																								2.016	94.551	
50																								3.276	97.827	
60																								0.441	98.268	
70																								1.024	99.291	
80																								0.031	99.323	
90																								0.063	99.386	
100																								0.047	99.433	
110																								0.000	99.433	
120																								0.205	99.638	
130																								0.027	99.665	
140																								0.863	99.748	
150																								0.000	99.748	
160																								0.031	99.780	
170																								0.000	99.780	
180																								0.000	99.780	
190																								0.016	99.795	
200																								0.031	99.827	
210																								0.000	99.827	
220																								0.047	99.874	
230																								0.000	99.874	
240																								0.000	99.874	
250																								0.000	99.874	
260																								0.000	99.874	
270																								0.000	99.874	
280																								0.000	99.874	
290																								0.000	99.874	
300																								0.000	99.874	
310																								0.000	99.874	
320																								0.000	99.874	
330																								0.000	99.874	
340																								0.031	99.906	
350																								0.031	99.937	
360																								0.000	99.937	
370																								0.031	99.969	
380																								0.000	99.969	
390																								0.000	99.969	
400																								0.000	99.969	
410																								0.000	99.969	
420																								0.000	99.969	
430																								0.000	99.969	
440																								0.000	99.969	
450																								0.000	99.969	
460																								0.000	99.969	
470																								0.000	99.969	
480																								0.000	99.969	
490																								0.000	99.969	
500																								0.000	99.969	
510																								0.000	99.969	
520																								0.000	99.969	
530																								0.000	99.969	
540																								0.000	99.969	
550																								0.000	99.969	
560																								0.000	99.969	
570																								0.000	99.969	
580																								0.000	99.969	
590																								0.000	99.969	
600																								0.000	99.969	
610																								0.380	99.969	
620																								0.000	99.969	
630																								0.000	99.969	
640																								0.800	99.969	
650																								0.000	99.969	
660																								0.000	99.969	
670																								0.000	99.969	
680																								0.031	100.000	

REMAINING VALUES ARE ALL ZERO
 NUMBER OF OBSERVATIONS= 6350 SUM= 116325 MEAN= 18.319 VAR= 416.011 SD= 20.35

TOTAL TRIPS OVER MAXP = 0
 TOTAL TRIPS OVER 255 = 0
 VOLUME TABLE NUMBER = 203
 SKIM TREE NUMBER = 101

23FEB78

TRIP LENGTH FREQUENCY DISTRIBUTION-PEGI

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	P.C.	CUM.	ACTU
10																					5.361	5.361	
20																					10.592	21.973	
30																					7.623	29.596	
40																					1.794	31.390	
50																					7.623	39.013	
60																					0.897	39.910	
70																					9.865	49.776	
80																					2.242	52.018	
90																					0.000	52.018	
100																					4.933	56.951	
110																					0.000	56.951	
120																					5.830	62.781	
130																					3.587	66.368	
140																					1.345	67.713	
150																					0.897	68.610	
160																					4.836	72.446	
170																					0.897	73.343	
180																					3.587	77.130	
190																					0.897	78.027	
200																					1.345	79.372	
210																					0.448	79.821	
220																					4.933	84.753	
230																					0.448	85.202	
240																					0.897	86.099	
250																					1.345	87.444	
260																					2.242	89.686	
270																					0.000	89.686	
280																					0.000	89.686	
290																					0.897	90.583	
300																					0.000	90.583	
310																					1.345	91.928	
320																					1.345	93.273	
330																					0.448	93.722	
340																					0.897	94.619	
350																					1.794	96.413	
360																					0.000	96.413	
370																					1.345	97.758	
380																					0.448	98.206	
390																					0.000	98.206	
400																					0.000	98.206	
410																					0.000	98.206	
420																					0.000	98.206	
430																					0.000	98.206	
440																					0.000	98.206	
450																					0.000	98.206	
460																					0.000	98.206	
470																					0.000	98.206	
480																					0.000	98.206	
490																					0.000	98.206	
500																					0.000	98.206	
510																					0.448	98.655	
520																					0.000	98.655	
530																					0.000	98.655	
540																					0.000	98.655	
550																					0.000	98.655	
560																					0.000	98.655	
570																					0.000	98.655	
580																					0.000	98.655	
590																					0.000	98.655	
600																					0.000	98.655	
610																					0.448	99.103	
620																					0.000	99.103	
630																					0.000	99.103	
640																					0.000	99.103	
650																					0.000	99.103	
660																					0.000	99.103	
670																					0.000	99.103	
680																					0.000	99.103	
690																					0.897	100.000	

REMAINING VALUES ARE ALL ZERO
 NUMBER OF OBSERVATIONS# 223 SUM# 26495 MEAN# 118.812 VAR# 14135.332 SD# 118.7

TOTAL TRIPS OVER MAXP * 0
 TOTAL TRIPS OVFR 255 * 0
 VOLUME TABLE NUMBER * 204
 SKIM TREE NUMBER * 101

23FEB78

TRIP LENGTH FREQUENCY DISTRIBUTION-REG1

PAGE 6

	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	P.C.	CUM.	ACTUAL		
10																						29.771	29.771		
20																							38.752	68.523	
30																							16.927	85.450	
40																							1.737	87.187	
50																							1.411	88.598	
60																							1.778	90.376	
70																							1.447	91.823	
80																							0.236	92.059	
90																							0.181	92.240	
100																							0.145	92.385	
110																							0.200	92.585	
120																							0.327	92.911	
130																							0.163	93.075	
140																							0.181	93.256	
150																							0.127	93.383	
160																							0.200	93.583	
170																							0.036	93.619	
180																							0.091	93.710	
190																							0.000	93.710	
200																							0.059	93.769	
210																							0.000	93.769	
220																							0.036	93.805	
230																							0.036	93.841	
240																							0.000	93.841	
250																							0.000	93.841	
260																							0.000	93.841	
270																							0.000	93.841	
280																							0.000	93.841	
290																							0.000	93.841	
300																							0.000	93.841	
310																							0.000	93.841	
320																							0.018	93.859	
330																							0.000	93.859	
340																							0.000	93.859	
350																							0.091	93.950	
360																							0.000	93.950	
370																							0.000	93.950	
380																							0.000	93.950	
390																							0.000	93.950	
400																							0.000	93.950	
410																							0.000	93.950	
420																							0.000	93.950	
430																							0.000	93.950	
440																							0.000	93.950	
450																							0.000	93.950	
460																							0.000	93.950	
470																							0.000	93.950	
480																							0.000	93.950	
490																							0.000	93.950	
500																							0.000	93.950	
510																							0.036	93.986	
520																							0.000	93.986	
530																							0.018	94.004	

REMAINING VALUES ARE ALL ZERO

NUMBER OF OBSERVATIONS= 5512 SUM= 123337 MEAN= 22.376 VAR= 655.498 SD= 25.60

TOTAL TRIPS OVER MAXP = 0
TOTAL TRIPS OVER 255 = 0
VOLUME TABLE NUMBER = 205
SKIM TREE NUMBER = 1.1

23FEB78

TRIP LENGTH FREQUENCY DISTRIBUTION=REG1

PAGE 7

	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	P.C.	CUM.	ACTUA																						
10.....																							32,107	32,107																						
20.....																								37,219	69,326																					
30.....																								17,149	86,466																					
40.....																								5,409	91,875																					
50.....																								3,982	95,777																					
60.....																								1,210	96,987																					
70.....																								1,926	98,913																					
80.....																								0,321	99,234																					
90.....																								0,025	99,259																					
100.....																								0,173	99,432																					
110.....																								0,025	99,457																					
120.....																								0,296	99,753																					
130.....																								0,025	99,778																					
140.....																								0,025	99,802																					
150.....																								0,000	99,802																					
160.....																								0,025	99,827																					
170.....																								0,874	99,901																					
180.....																								0,049	99,951																					
190.....																								0,000	99,951																					
200.....																								0,000	99,951																					
210.....																								0,000	99,951																					
220.....																								0,000	99,951																					
230.....																								0,000	99,951																					
240.....																								0,000	99,951																					
250.....																								0,000	99,951																					
260.....																								0,000	99,951																					
270.....																								0,000	99,951																					
280.....																								0,000	99,951																					
290.....																								0,000	99,951																					
300.....																								0,000	99,951																					
310.....																								0,000	99,951																					
320.....																								0,000	99,951																					
330.....																								0,000	99,951																					
340.....																								0,000	99,951																					
350.....																								0,049	100,000																					
REMAINING VALUES ARE ALL ZERO																																														
NUMBER OF OBSERVATIONS#																							4049																							
SUM#																								81066.																						
MEAN#																									20,026																					
VAR#																										287,332																				
SD#																										16,95																				
TOTAL TRIPS OVER MAXP																							=		0																					
TOTAL TRIPS OVER 255																							=		0																					
VOLUME TABLE NUMBER																							=		206																					
SKIM TREE NUMBER																							=		101																					

23FEB78

TRIP LENGTH FREQUENCY DISTRIBUTION-REG1

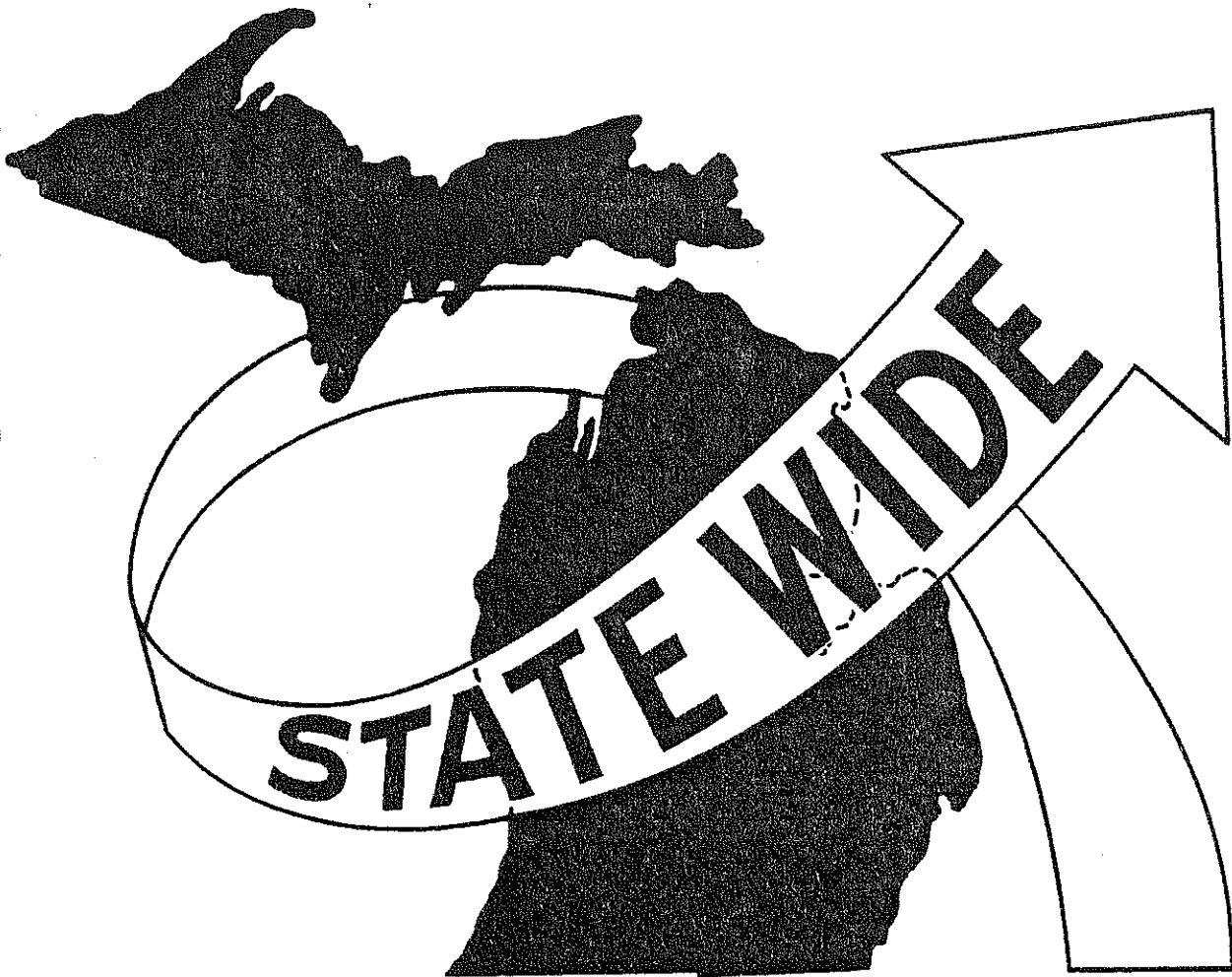
PAGE 8

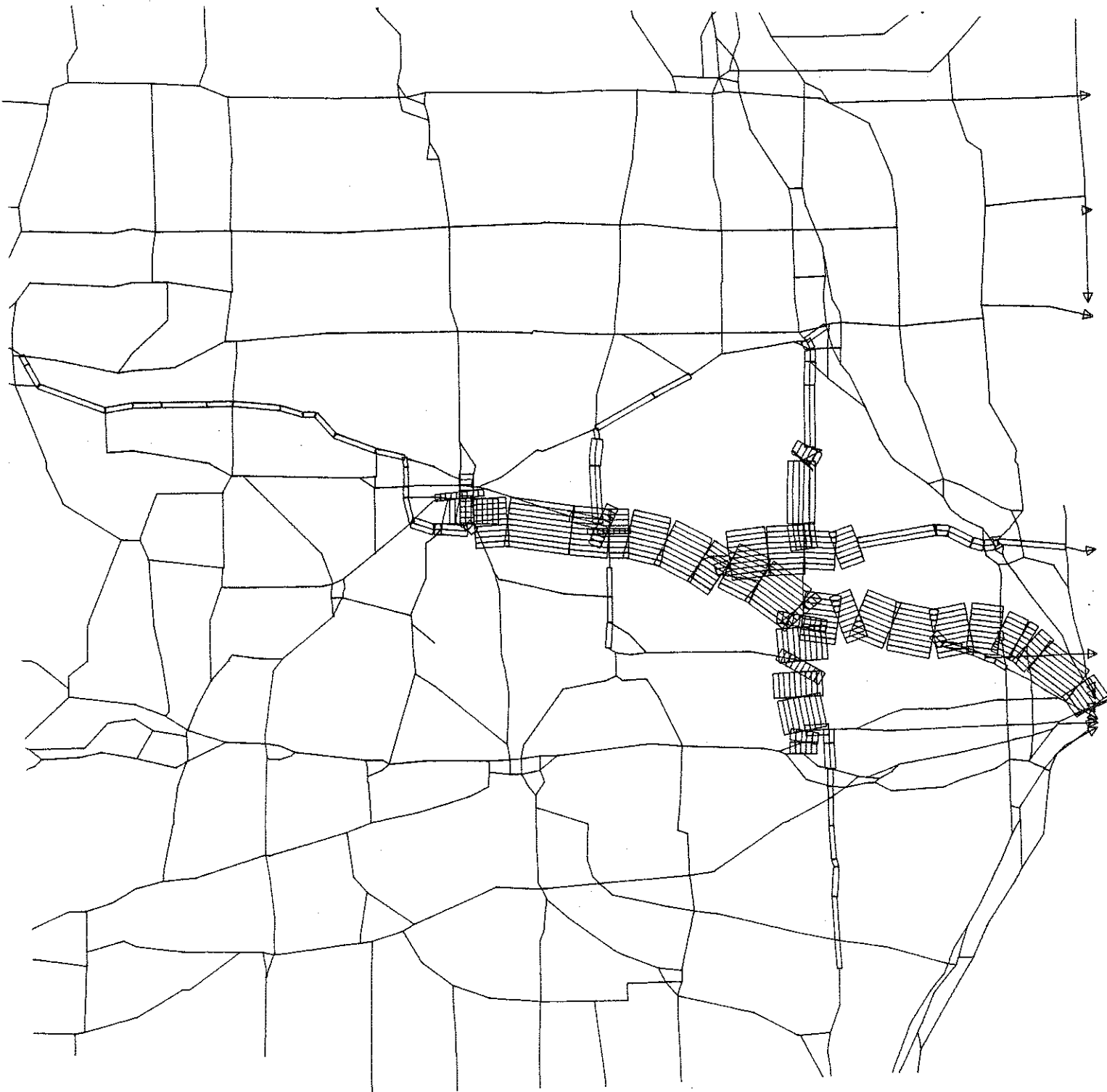
0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	P.C.	CUM.	ACTUAL	
10																					27.297	27.297		
20																						37.917	65.115	
30																						17.012	82.125	
40																						5.778	87.903	
50																						5.261	93.162	
60																						1.841	95.003	
70																						3.038	98.042	
80																						0.289	98.330	
90																						0.105	98.436	
100																						0.202	98.637	
110																						0.096	98.734	
120																						0.439	99.173	
130																						0.120	99.293	
140																						0.081	99.374	
150																						0.042	99.416	
160																						0.132	99.549	
170																						0.024	99.573	
180																						0.072	99.645	
190																						0.012	99.657	
200																						0.024	99.681	
210																						0.003	99.684	
220																						0.054	99.738	
230																						0.018	99.756	
240																						0.021	99.777	
250																						0.008	99.786	
260																						0.027	99.813	
270																						0.012	99.826	
280																						0.008	99.832	
290																						0.006	99.838	
300																						0.000	99.838	
310																						0.027	99.865	
320																						0.012	99.877	
330																						0.003	99.880	
340																						0.018	99.898	
350																						0.039	99.937	
360																						0.000	99.937	
370																						0.024	99.961	
380																						0.003	99.964	
390																						0.008	99.964	
400																						0.008	99.964	
410																						0.000	99.964	
420																						0.000	99.964	
430																						0.000	99.964	
440																						0.000	99.964	
450																						0.003	99.967	
460																						0.000	99.967	
470																						0.000	99.967	
480																						0.000	99.967	
490																						0.006	99.967	
500																						0.000	99.967	
510																						0.009	99.976	
520																						0.000	99.976	
530																						0.003	99.979	
540																						0.000	99.979	
550																						0.000	99.979	
560																						0.000	99.979	
570																						0.000	99.979	
580																						0.000	99.979	
590																						0.000	99.979	
600																						0.000	99.979	
610																						0.000	99.979	
620																						0.000	99.984	
630																						0.000	99.984	
640																						0.000	99.984	
650																						0.000	99.984	
660																						0.000	99.984	
670																						0.000	99.984	
680																						0.008	99.994	
690																						0.008	100.000	

REMAINING VALUES ARE ALL ZERO
 NUMBER OF OBSERVATIONS= 13242 SUM= 768154 MEAN= 23.106 VAR= 651.987 SD= 25.5

TOTAL TRIPS OVER MAXP = 0
 TOTAL TRIPS OVER 255 = 0
 VOLUME TABLE NUMBER = 207
 SKIM TREE NUMBER = 101

**CITY TRIP CHARACTERISTICS
BY ALPHA NAME**





HOWELL BANDWIDTH

HOWELL

EXTERNAL ORIGIN-DESTINATION INTERVIEW

TERMINAL-TRIP SUMMARY TABLE

VEHICLE TYPE

CAR W/O TRLR	CAR W/ TRLR	PICK-UP W/O/TRLR	PICK-UP W/ TRLR	SINGLE-UNIT TRUCKS	COMBINATION TRUCKS
81.1%	0.4%	14.6%	0.2%	2.8%	1.0%
26968	119	4859	64	924	324

TRIP PURPOSE

WORK	PERS BIZ	SHOP	VACATION	SOC-REC	OTHER
40.7%	10.7%	19.1%	0.7%	16.6%	12.2%
13537	3573	6350	229	5512	4056

NUMBER IN VEHICLE

1	2	3	4	5	6+
60.5%	23.2%	8.9%	4.3%	1.7%	1.3%
20136	7713	2968	1424	575	440

VEHICLE GARAGED AT

ORIGIN	DESTIN	OTHER
44.6%	35.1%	20.4%
14820	11660	6777

TOTAL TRIPS = 33257

MINOR

EXTERNAL ORIGIN-DESTINATION INTERVIEW

TERMINAL-TRIP SUMMARY TABLE FOR HOWELL

TRIP PURPOSE

# IN VEH.	WORK	PERS BIZ	SHCP	VACATION	SOC-REC	OTHER
1	83.0% 11234	53.0% 1892	46.6% 2962	18.0% 41	40.1% 2208	44.3% 1798
2	13.0% 1763	29.2% 1045	29.9% 1897	39.0% 89	28.9% 1590	32.8% 1329
3	2.9% 390	9.5% 341	13.5% 859	16.6% 38	14.7% 810	13.1% 530
4	0.8% 105	4.7% 166	6.2% 393	13.0% 30	8.7% 481	6.1% 249
5	0.2% 28	2.0% 71	2.4% 152	7.8% 18	3.8% 211	2.3% 95
6+	0.1% 17	1.6% 58	1.4% 86	5.6% 13	3.8% 212	1.3% 54
TOTAL	100% 13537	100% 3573	100% 6350	100% 229	100% 5512	100% 4056

TOTAL TERMINAL-TRIPS FOR HOWELL = 33257

MINOR

EXTERNAL ORIGIN-DESTINATION INTERVIEW
 TERMINAL-TRIP SUMMARY TABLE FOR HOWELL

TRIP PURPOSE

VEH TYPE	WORK	PERS BIZ	SHCP	VACATION	SOC-REC	OTHER
CAR W/O TRLR	71.7% 9702	87.2% 3117	86.0% 5458	82.0% 188	89.7% 4943	87.8% 3560
CAR W/ TRLR	0.1% 15	0.5% 18	0.4% 24	8.1% 18	0.3% 14	0.7% 30
PICK-UP W/O/TRLR	19.4% 2623	12.0% 428	13.2% 835	3.4% 8	9.8% 538	10.5% 427
PICK-UP W/ TRLR	0.2% 27	0.2% 6	0.1% 7	2.6% 6	0.2% 10	0.2% 7
SINGLE-UNIT TRUCKS	6.3% 852	0.1% 5	0.3% 22	2.7% 6	0.1% 6	0.8% 32
COMBINATION TRUCKS	2.3% 318	0.0% 0	0.0% 3	1.3% 3	0.0% 0	0.0% 0
TOTAL	100% 13537	100% 3573	100% 6350	100% 229	100% 5512	100% 4056

TOTAL TERMINAL-TRIPS FOR HOWELL = 33257

0FEB78 TRIP LENGTH FREQUENCY DISTRIBUTION-HOELL

TRIP LENGTH	FREQUENCY	P.C.	CUM.	ACTUAL
0				
2				
4				
6				
8				
10				
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				
36				
38				
40				
10				
20				
30				
40				
50				
60				
70				
80				
90				
100				
110				
120				
130				
140				
150				
160				
170				
180				
190				
200				
210				
220				
230				
240				
250				
260				
270				
280				
290				
300				
310				
320				
330				
340				
350				
360				
370				
380				
390				
400				
410				
420				
430				
440				
450				
460				
470				
480				
490				
500				
510				
520				
530				
540				
550				
560				
570				
580				
590				
600				
610				
REMAINING VALUES ARE ALL ZERO				
NUMBER OF OBSERVATIONS*	13534	SUM*	346660	MEAN* 25.615
				VAR* 579.370
				SD* 24.07
TOTAL TRIPS OVER MAXP	=	0		
TOTAL TRIPS OVER 255	=	0		
VOLUME TABLE NUMBER	=	201		
KIM TREE NUMBER	=	101		

0FEB78 TRIP LENGTH FREQUENCY DISTRIBUTION-HOWELL

0	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60	P.C.	CUM.	ACTU
10																						24,790	24,790
20																						41,718	66,508
30																						18,719	85,227
40																						6,883	92,110
50																						3,865	95,975
60																						1,399	97,374
70																						2,098	99,473
80																						4,000	99,473
90																						0,084	99,557
100																						0,112	99,669
110																						0,028	99,697
120																						0,280	99,977
130																						0,000	99,977
140																						0,028	99,804
150																						0,028	99,832
160																						0,028	99,860
170																						0,000	99,860
180																						0,056	99,916
190																						0,000	99,916
200																						0,000	99,916
210																						0,000	99,916
220																						0,000	99,916
230																						0,000	99,916
240																						0,000	99,916
250																						0,000	99,916
260																						0,028	99,944
270																						0,000	99,944
280																						0,056	100,000

REMAINING VALUES ARE ALL ZERO
 NUMBER OF OBSERVATIONS# 3574 SUM# 74243 MEAN# 20.773 VARB 259,578 SD# 16.1

TOTAL TRIPS OVER MAXP # 0
 TOTAL TRIPS OVER 255 # 0
 VOLUME TABLE NUMBER # 202
 KIM TREE NUMBER # 101

09FEB78

TRIP LENGTH FREQUENCY DISTRIBUTION-HOWELL

TRIP LENGTH	P.C.	CUM.	ACTUAL
0			
2			
4			
6			
8			
10			
12			
14			
16			
18			
20			
22			
24			
26			
28			
30			
32			
34			
36			
38			
40			
10	35.150	35.150	
20	39.039	74.189	
30	18.346	92.535	
40	2.016	94.551	
50	3.276	97.827	
60	0.441	98.268	
70	1.024	99.291	
80	0.031	99.323	
90	0.063	99.386	
100	0.047	99.433	
110	0.000	99.433	
120	0.205	99.638	
130	0.047	99.685	
140	0.063	99.748	
150	0.000	99.748	
160	0.031	99.780	
170	0.000	99.780	
180	0.000	99.780	
190	0.016	99.795	
200	0.031	99.827	
210	0.000	99.827	
220	0.047	99.874	
230	0.000	99.874	
240	0.000	99.874	
250	0.000	99.874	
260	0.000	99.874	
270	0.000	99.874	
280	0.000	99.874	
290	0.000	99.874	
300	0.000	99.874	
310	0.000	99.874	
320	0.000	99.874	
330	0.000	99.874	
340	0.000	99.874	
350	0.031	99.906	
360	0.031	99.937	
370	0.000	99.937	
380	0.031	99.969	
390	0.000	99.969	
400	0.000	99.969	
410	0.000	99.969	
420	0.000	99.969	
430	0.000	99.969	
440	0.000	99.969	
450	0.000	99.969	
460	0.000	99.969	
470	0.000	99.969	
480	0.000	99.969	
490	0.000	99.969	
500	0.000	99.969	
510	0.000	99.969	
520	0.000	99.969	
530	0.000	99.969	
540	0.000	99.969	
550	0.000	99.969	
560	0.000	99.969	
570	0.000	99.969	
580	0.000	99.969	
590	0.000	99.969	
600	0.000	99.969	
610	0.000	99.969	
620	0.000	99.969	
630	0.000	99.969	
640	0.000	99.969	
650	0.000	99.969	
660	0.000	99.969	
670	0.000	99.969	
680	0.000	99.969	
690	0.000	99.969	
700	0.031	100.000	

REMAINING VALUES ARE ALL ZERO
 NUMBER OF OBSERVATIONS= 6350 SUM= 116325 MEAN= 18.319 VAR= 416.011 SD= 20.39

TOTAL TRIPS OVER MAXP = 0
 TOTAL TRIPS OVER 255 = 0
 VOLUME TABLE NUMBER = 203
 KIM TREE NUMBER = 101

8FEB78

TRIP LENGTH FREQUENCY DISTRIBUTION-HOWELL

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	P.C.	CUM.	ACTUAL	
10.....																						5.381	5.381		
20.....																						16.592	21.973		
30.....																						7.823	29.596		
40.....																						1.794	31.390		
50.....																						7.823	39.013		
60.....																						0.897	39.910		
70.....																						9.885	49.795		
80.....																						2.282	52.078		
90.....																						0.000	52.078		
100.....																						4.933	56.951		
110.....																						0.000	56.951		
120.....																						5.810	62.760		
130.....																						3.587	66.368		
140.....																						1.345	67.713		
150.....																						0.897	68.610		
160.....																						4.036	72.646		
170.....																						0.897	73.543		
180.....																						3.587	77.130		
190.....																						0.897	78.027		
200.....																						1.345	79.372		
210.....																						0.448	79.821		
220.....																						4.933	84.753		
230.....																						0.448	85.202		
240.....																						0.897	86.099		
250.....																						1.345	87.444		
260.....																						2.282	89.686		
270.....																						0.000	89.686		
280.....																						0.000	89.686		
290.....																						0.897	90.583		
300.....																						0.000	90.583		
310.....																						1.345	91.928		
320.....																						1.345	93.274		
330.....																						0.448	93.722		
340.....																						0.897	94.619		
350.....																						1.794	96.413		
360.....																						0.000	96.413		
370.....																						1.345	97.758		
380.....																						0.448	98.206		
390.....																						0.000	98.206		
400.....																						0.000	98.206		
410.....																						0.000	98.206		
420.....																						0.000	98.206		
430.....																						0.000	98.206		
440.....																						0.000	98.206		
450.....																						0.000	98.206		
460.....																						0.000	98.206		
470.....																						0.000	98.206		
480.....																						0.000	98.206		
490.....																						0.000	98.206		
500.....																						0.000	98.206		
510.....																						0.448	98.655		
520.....																						0.000	98.655		
530.....																						0.000	98.655		
540.....																						0.000	98.655		
550.....																						0.000	98.655		
560.....																						0.000	98.655		
570.....																						0.000	98.655		
580.....																						0.000	98.655		
590.....																						0.000	98.655		
600.....																						0.000	98.655		
610.....																						0.448	99.103		
620.....																						9.000	99.103		
630.....																						0.000	99.103		
640.....																						0.000	99.103		
650.....																						0.000	99.103		
660.....																						0.000	99.103		
670.....																						0.000	99.103		
680.....																						0.000	99.103		
690.....																						0.000	99.103		
REMAINING VALUES ARE ALL ZERO																									
NUMBER OF OBSERVATIONS=																						223			
SUM=																						26495.			
MEAN=																						118.812			
VAR=																						14135.332			
SD=																						118.81			
TOTAL TRIPS OVER MAXP =																						0			
TOTAL TRIPS OVER 255 =																						0			
VOLUME TABLE NUMBER =																						204			
KIM TREE NUMBER =																						101			

07E876 TRIP LENGTH FREQUENCY DISTRIBUTION-HOWELL

TRIP LENGTH	FREQUENCY	P.C.	CUM.	ACTUAL
0				
2				
4				
6				
8				
10				
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				
36				
38				
40				
10.		29.771	29.771	
20.		38.752	68.523	
30.		16.927	85.450	
40.		3.737	89.187	
50.		3.411	92.598	
60.		1.778	94.376	
70.		3.447	97.823	
80.		0.236	98.059	
90.		0.181	98.240	
100.		0.145	98.385	
110.		0.200	98.585	
120.		0.327	98.911	
130.		0.163	99.075	
140.		0.181	99.256	
150.		0.127	99.383	
160.		0.200	99.583	
170.		0.036	99.619	
180.		0.091	99.710	
190.		0.000	99.710	
200.		0.054	99.764	
210.		0.000	99.764	
220.		0.036	99.800	
230.		0.036	99.837	
240.		0.000	99.837	
250.		0.000	99.837	
260.		0.000	99.837	
270.		0.000	99.837	
280.		0.000	99.837	
290.		0.000	99.837	
300.		0.000	99.837	
310.		0.000	99.837	
320.		0.018	99.855	
330.		0.000	99.855	
340.		0.000	99.855	
350.		0.091	99.946	
360.		0.000	99.946	
370.		0.000	99.946	
380.		0.000	99.946	
390.		0.000	99.946	
400.		0.000	99.946	
410.		0.000	99.946	
420.		0.000	99.946	
430.		0.000	99.946	
440.		0.000	99.946	
450.		0.000	99.946	
460.		0.000	99.946	
470.		0.000	99.946	
480.		0.000	99.946	
490.		0.000	99.946	
500.		0.000	99.946	
510.		0.036	99.982	
520.		0.000	99.982	
530.		0.018	100.000	

REMAINING VALUES ARE ALL ZERO
 NUMBER OF OBSERVATIONS= 5512 SUM= 123337 MEAN= 22.376 VAR= 655.498 SD= 25.601

TOTAL TRIPS OVER MAXP * 0
 TOTAL TRIPS OVER 255 * 0
 VOLUME TABLE NUMBER * 205
 KIM TREE NUMBER * 101

8PE878 TRIP LENGTH FREQUENCY DISTRIBUTION-HOWELL

TRIP LENGTH	FREQUENCY	P.C.	CUM.	ACTUAL
0				
2				
4				
6				
8				
10				
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				
36				
38				
40				
50				
60				
70				
80				
90				
100				
110				
120				
130				
140				
150				
160				
170				
180				
190				
200				
210				
220				
230				
240				
250				
260				
270				
280				
290				
300				
310				
320				
330				
340				
350				

REMAINING VALUES ARE ALL ZERO

NUMBER OF OBSERVATIONS# 4049 SUM# 81066 MEAN# 20.026 VAR# 287,332 SD# 16.95

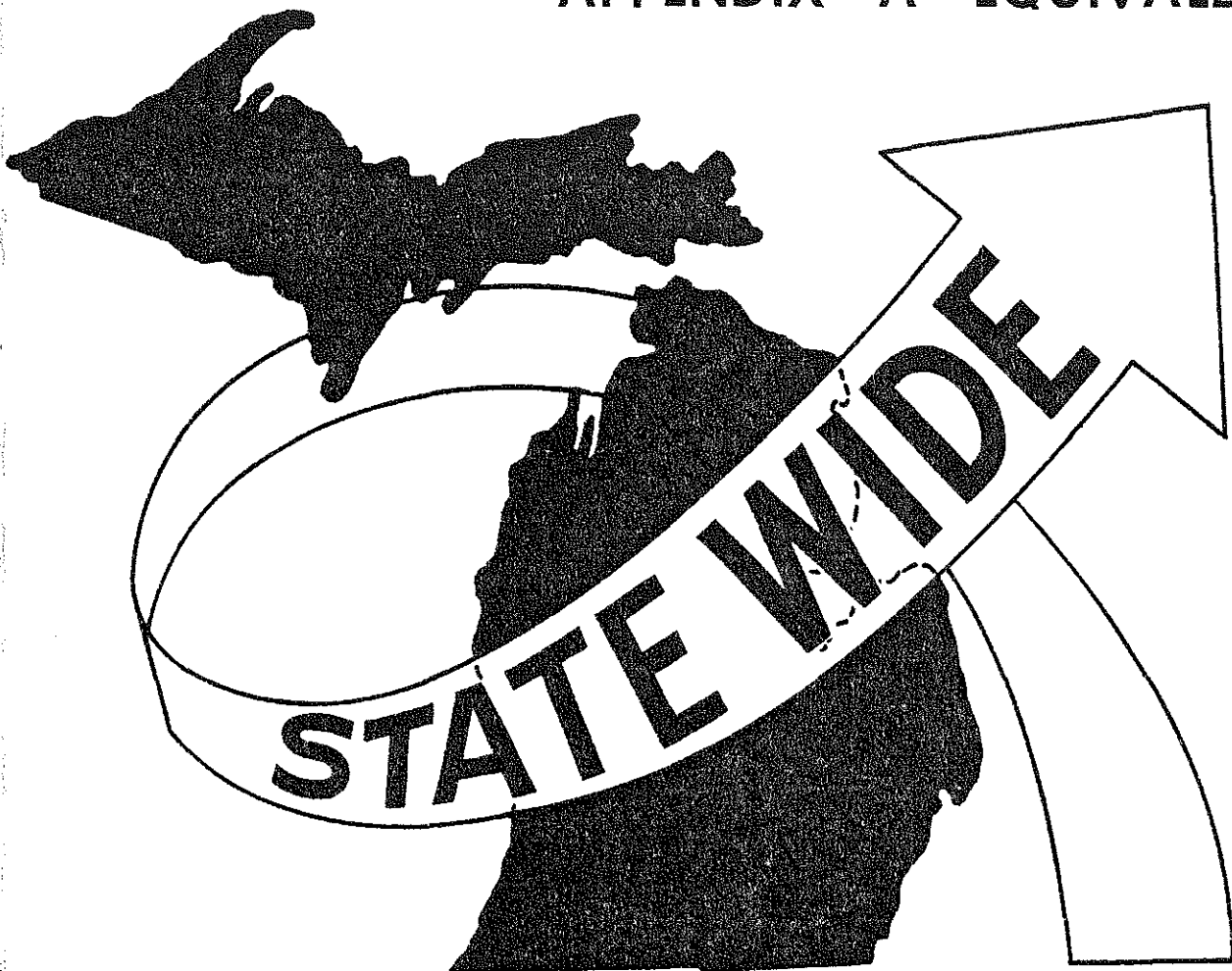
TOTAL TRIPS OVER MAXP * 0
 TOTAL TRIPS OVER 255 * 0
 VOLUME TABLE NUMBER * 206
 KIM TREE NUMBER * 101

TRIP LENGTH	FREQ	P.C.	CUM.	ACTUAL
0				
2				
4				
6				
8				
10				
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				
32				
34				
36				
38				
40				
10	27.297	27.297	
20	37.817	65.115	1
30	17.012	82.125	
40	5.776	87.901	
50	5.261	93.162	
60	1.841	95.003	
70	3.038	98.042	
80	0.289	98.330	
90	0.105	98.436	
100	0.202	98.637	
110	0.096	98.734	
120	0.439	99.173	
130	0.120	99.293	
140	0.081	99.374	
150	0.042	99.416	
160	0.132	99.549	
170	0.020	99.573	
180	0.072	99.645	
190	0.012	99.657	
200	0.024	99.681	
210	0.003	99.684	
220	0.054	99.738	
230	0.018	99.756	
240	0.021	99.777	
250	0.009	99.786	
260	0.027	99.813	
270	0.012	99.826	
280	0.006	99.832	
290	0.006	99.838	
300	0.000	99.838	
310	0.027	99.865	
320	0.012	99.877	
330	0.003	99.880	
340	0.018	99.898	
350	0.039	99.937	
360	0.000	99.937	
370	0.024	99.961	
380	0.003	99.964	
390	0.000	99.964	
400	0.000	99.964	
410	0.000	99.964	
420	0.000	99.964	
430	0.000	99.964	
440	0.000	99.964	
450	0.003	99.967	
460	0.000	99.967	
470	0.000	99.967	
480	0.000	99.967	
490	0.000	99.967	
500	0.000	99.967	
510	0.009	99.976	
520	0.004	99.976	
530	0.003	99.979	
540	0.000	99.979	
550	0.000	99.979	
560	0.000	99.979	
570	0.000	99.979	
580	0.000	99.979	
590	0.000	99.979	
600	0.000	99.979	
610	0.009	99.988	
620	0.000	99.988	
630	0.000	99.988	
640	0.000	99.988	
650	0.000	99.988	
660	0.000	99.988	
670	0.000	99.988	
680	0.006	99.994	
690	0.006	100.000	

REMAINING VALUES ARE ALL ZERO
NUMBER OF OBSERVATIONS= 33242 SUM= 768154 MEAN= 23,108 VAR= 651,987 SD= 25,51

TOTAL TRIPS OVER MAXP = 0
TOTAL TRIPS OVER 255 = 0
VOLUME TABLE NUMBER = 207
MTH TREE NUMBER = 101

APPENDIX "A"-EQUIVALENCE LIST



ZONE	COUNTY	TOWNSHIP OR CITY
-----	-----	-----
001	ALCONA	ALCONA, CALEDONIA, GREENBUSH, GUSTIN, HARRISVILLE, HAWES, HAYNES, MIKADO.
002	ALCONA	CURTIS, MILLEN, MITCHELL.
003	ALGER	MUNISING(CITY).
004	ALGER	BURT, MUNISING.
005	ALGER	LIMESTONE, MATHIAS, ONOTA, ROCK RIVER.
006	ALGER	AU TRAIN, GRAND ISLAND.
007	ALLEGAN	ALLEGAN, CHESHIRE, TROWBRIDGE, VALLEY.
008	ALLEGAN	CASCO, CLYDE, GANGES, LEE.
009	ALLEGAN	GUNPLAIN, OTSEGO.
010	ALLEGAN	FILLMORE, HEATH, MANLIUS, MONTEREY, OVERISEL, SALEM.
011	ALLEGAN	LAKETOWN, SAUGATUCK.
012	ALLEGAN	DORR, HOPKINS, LEIGHTON, MARTIN, WATSON, WAYLAND.
013	ALPENA	ALPENA(CITY).
014	ALPENA	ALPENA, SANBORN.
015	ALPENA	GREEN, LONG RAPIDS, MAPLE RIDGE, OSSINEKE, WELLINGTON, WILSON.
016	ANTRIM	CHESTONIA, JORDAN, MANCELONA, STAR, WARNER.
017	ANTRIM	BANKS, CENTRAL LAKE, ECHO, TORCH LAKE.
018	ANTRIM	CUSTER, ELK RAPIDS, FOREST HOME, HELENA, KEARNEY, MILTON.
019	ARENAC	LINCOLN, STANDISH.
020	ARENAC	AU GRES, SIMS, TURNER, WHITNEY.
021	ARENAC	ADAMS, ARENAC, CLAYTON, DEEP RIVER, MASON, MOFFATT.
022	BARAGA	ARVON, LANSE.
023	BARAGA	BARAGA.
024	BARAGA	COVINGTON, SPURF.
025	BARRY	HASTINGS(CITY).
026	BARRY	CARLTON, CASTLETON, HASTINGS, IRVING, RUTLAND, WOODLAND.
027	BARRY	ASSYRIA, BALTIMORE, BARPY, HOPE, JOHNSTOWN, MAPLE GROVE.
028	BARRY	ORANGEVILLE, PRAIRIEVILLE, THORNAPPLE, YANKEE SPRINGS.
029	RAY	BAY CITY.
030	RAY	BANGOR.
031	RAY	BEAVER, KAWKAWLIN, MONITOR, WILLIAMS.
032	RAY	FRANKENLUST, HAMPTON, MERRITT, PORTSMOUTH.
033	RAY	FRASER, GARFIELD, GIBSON, MT. FOREST, PINCONNING.
034	BENZIE	CRYSTAL LAKE, LAKE.
035	BENZIE	BENZONIA, BLAINE, GILMORE, JOYFIELD, WELDON.
036	BENZIE	ALMIRA, COLFAX, HOMESTEAD, INLAND, PLATTE.
037	BERRIEN	BENTON HARBOR(CITY), ST. JOE(CITY).
038	BERRIEN	BARODA, LAKE, ORONOKO.
039	BERRIEN	BENTON, HAGAR, ST. JOSEPH.
040	BERRIEN	BAINBRIDGE, COLOMA, WATERVLIET.
041	BERRIEN	BERRIEN, PIPESTONE.
042	BERRIEN	BERTRAND, BUCHANAN, GAIEN, WEESAW.
043	BERRIEN	CHIKAMING, NEW RUFFALO, THREE OAKS.
044	BERRIEN	LINCOLN, ROYALTON, SODUS.
045	BERRIEN	NILES(CITY).
046	BERRIEN	NILES.
047	BERRIEN	BUCHANAN(CITY).

048	BRANCH	COLDWATER(CITY).
049	BRANCH	BATAVIA, MATTESON, SHERWOOD.
050	BRANCH	BETHEL, BRONSON, GILEAD, NOBLE.
051	BRANCH	BUTLER, QUINCY.
052	BRANCH	ALGANSEE, CALIFORNIA, KINDERHOOK, OVID.
053	BRANCH	GIRARD, UNION.
054	BRANCH	COLDWATER.
055	CALHOUN	BATTLE CREEK(CITY).
056	CALHOUN	ALBION, HOMER.
057	CALHOUN	ATHENS, BURLINGTON, LEROY, NEWTON.
058	CALHOUN	BATTLE CREEK.
059	CALHOUN	BEDFORD.
060	CALHOUN	CLARENCE, CLARENDON, ECKFORD, LEE, MARENGO,
061	CALHOUN	CONVIS, FREDONIA, MARSHALL.
062	CALHOUN	EMMETT.
063	CALHOUN	PENNFIELD.
064	CALHOUN	SHERIDAN.
065	CALHOUN	TEKONSHA.
066	CALHOUN	ALBION(CITY).
067	CALHOUN	MARSHALL(CITY).
068	CASS	DOWAGIAC(CITY).
069	CASS	LA GRANGE, POKAGON, SILVER CREEK, WAYNE.
070	CASS	HOWARD, MILTON.
071	CASS	JEFFERSON, ONTWA.
072	CASS	MARCELLUS, VOLINIA.
073	CASS	NEWBERG, PENN.
074	CASS	CALVIN, MASON, PORTER.
075	CHARLEVOIX	CHARLEVOIX(CITY), PEAINE, ST. JAMES.
076	CHARLEVOIX	BOYNE VALLEY, CHANDLER, HUDSON, MELROSE.
077	CHARLEVOIX	SOUTH ARM, WILSON.
078	CHARLEVOIX	BAY, CHARLEVOIX, EVANGELINE, EVELINE, HAYES, MARION, NORWOOD.
079	CHEBOYGAN	CHEBOYGAN.
080	CHEBOYGAN	BEAUGRAND, BURT, HEBRON, INVERNESS, MACKINAW, MULLETT, MUNRO.
081	CHEBOYGAN	ELLIS, FOREST, KOEHLER, MENTOR, NUNDA, TUSCARORA, WALKER, WAVERLY, WILMOT.
082	CHEBOYGAN	ALOHA, BENTON, GRANT.
083	CHIPPEWA	SAULT STE. MARIE, SUGAR ISLAND.
084	CHIPPEWA	BRUCE, PICKFORD.
085	CHIPPEWA	CHIPPEWA, HULBERT, WHITEFISH.
086	CHIPPEWA	DETOUR, DRUMMOND, PABER.
087	CHIPPEWA	KINROSS, RUDYARD, TROUT LAKE.
088	CHIPPEWA	BAY MILLS, DAFTER, SUPERIOR.
089	CLARE	GRANT, SHERIDAN.
090	CLARE	ARTHUR, FRANKLIN, FROST, HAMILTON, HATTON, HAYES.
091	CLARE	FREEMAN, GARFIELD, GREENWOOD, LINCOLN, REDDING, SUMMERFIELD, SURREY, WINTERFIELD.
092	CLINTON	ST. JOHNS(CITY).
093	CLINTON	BATH.
094	CLINTON	BENGAL, BINGHAM, ESSEX.
095	CLINTON	DALLAS, LEBANON, WESTPHALIA.
096	CLINTON	DUPLAIN, GREENRUSH.
097	CLINTON	EAGLE, RILEY, WATERTOWN.
098	CLINTON	OLIVE, VICTOR.
099	CLINTON	OVID.
100	CLINTON	DEWITT.

101 CRAWFORD	GRAYLING(CITY).
102 CRAWFORD	BEAVER CREEK, FREDERIC, GRAYLING, LOVELLS, MAPLE FOREST, SOUTH BRANCH.
103 DELTA	ESCANABA(CITY).
104 DELTA	BARK RIVER, FORD RIVER.
105 DELTA	BAY DE NOC, ENSIGN, MASONVILLE.
106 DELTA	ESCANABA, WELLS.
107 DELTA	FAIRBANKS, GARDEN, NAHMA.
108 DELTA	BALDWIN, BRAMPTON, CORNELL, MAPLE RIDGE.
109 DICKINSON	IRON MOUNTAIN(CITY).
110 DICKINSON	BREITUNG.
111 DICKINSON	BREEN, FELCH, SAGOLA, WEST BRANCH.
112 DICKINSON	NORWAY, WAUCEDAH.
113 EATON	CHARLOTTE(CITY).
114 EATON	BENTON, BROOKFIELD, EATON.
115 EATON	CARMEL, CHESTER, WALTON.
116 EATON	BELLEVUE, KALAMO.
117 EATON	DELTA.
118 EATON	EATON RAPIDS, HAMLIN.
119 EATON	ONEIDA, ROXAND.
120 EATON	SUNFIELD, VERMONTVILLE.
121 EATON	WINDSOR.
122 EATON	EATON RAPIDS(CITY).
123 EATON	GRAND LEDGE(CITY).
124 EMMET	PETOSKEY(CITY).
125 EMMET	BLISS, CARP LAKE, CROSS VILLAGE, CENTER, MCKINLEY, READMOND, WAWATAM.
126 EMMET	FRIENDSHIP, LITTLEFIELD, LITTLE TRAVERSE, MAPLE RIVER, PLEASANT VIEW, WEST TRAVERSE.
127 EMMET	BEAR CREEK, RESORT, SPRINGVALE.
128 GENESEE	FLINT(CITY).
129 GENESEE	VIENNA.
130 GENESEE	FLUSHING, MT MORRIS.
131 GENESEE	CLAYTON, FLINT.
132 GENESEE	GRAND BLANC.
133 GENESEE	BURTON(CITY).
134 GENESEE	DAVISON.
135 GENESEE	RICHFIELD.
136 GENESEE	GENESEE.
137 GENESEE	FOREST, THETFORD.
138 GENESEE	MONTROSE.
139 GENESEE	GAINES, MUNDY.
140 GENESEE	ARGENTINE, FENTON.
141 GENESEE	ATLAS.
142 GLADWIN	GLADWIN(CITY).
143 GLADWIN	BENTLEY, BILLINGS, BOURRET, BUTMAN, CLEMENT, GRIM, HAY, SECORD, SHERIDAN, TOBACCO.
144 GLADWIN	GLADWIN, SAGE, SHERMAN.
145 GLADWIN	BEAVERTON, BUCKEYE, GROUT.
146 GOGEBIC	IRONWOOD.
147 GOGEBIC	WAKEFIELD.
148 GOGEBIC	MARENISCO.
149 GOGEBIC	WATERSMEET.
150 GOGEBIC	BESSEMER, ERWIN.
151 GRAND TRAVERSE	TRAVERSE CITY(CITY)ANDPENINSULA.
152 GRAND TRAVERSE	BLAIR, GARFIELD, GREEN LAKE, LONG LAKE.

153	GRAND TRAVERSE	EAST BAY, PARADISE, UNION.
154	GRAND TRAVERSE	GRANT, MAYFIELD.
155	GRAND TRAVERSE	ACME, WHITEWATER.
156	GRATIOT	ALMA(CITY).
157	GRATIOT	ARCADA, EMERSON, HAMILTON, LAFAYETTE, NORTH STAR, NEW HAVEN, NEWARK, SUMNER.
158	GRATIOT	BETHANY, PINE RIVER, SEVILLE, WHEELER.
159	GRATIOT	ELBA, FULTON, NORTH SHADE, WASHINGTON.
160	GRATIOT	ITHACA(CITY).
161	HILLSDALE	HILLSDALE(CITY).
162	HILLSDALE	ALLEN, FAYETTE.
163	HILLSDALE	AMBOY, RANSOM, WRIGHT.
164	HILLSDALE	CAMBRIA, HILLSDALE, WOODBRIDGE.
165	HILLSDALE	CAMDEN, READING.
166	HILLSDALE	JEFFERSON, PITTSFORD.
167	HILLSDALE	LITCHFIELD, MOSCOW, SCIPO.
168	HILLSDALE	ADAMS, SOMERSET, WHEATLAND.
169	HOUGHTON	HOUGHTON(CITY).
170	HOUGHTON	CALUMET, OSCEOLA, SCHOOLCRAFT.
171	HOUGHTON	CHASSELL, TORCH LAKE
172	HOUGHTON	DUNCAN, LAIRD.
173	HOUGHTON	FRANKLIN, HANCOCK, QUINCY.
174	HOUGHTON	PORTAGE.
175	HOUGHTON	ADAMS, ELM RIVER, STANTON.
176	HURON	BAD AXE(CITY).
177	HURON	BINGHAM, PARIS, SAND BEACH, SHERMAN.
178	HURON	BLOOMFIELD, LINCOLN, RIBICON, SIGEL, VERONA.
179	HURON	BROOKFIELD, GRANT, SEBWAING, SHERIDAN.
180	HURON	CASEVILLE, CHANDLER, LAKE, MCKINLEY, MEADE.
181	HURON	COLFAX, FAIRHAVEN, OLIVER, WINSOR.
182	HURON	DWIGHT, GORE, HUME, HURON, PORT AUSTIN, POINT AUX BARQUES.
183	INGHAM	LANSING(CITY), E.LANSING(CITY).
184	INGHAM	MERIDIAN.
185	INGHAM	DELHI.
186	INGHAM	ALAIEDON, VEVAY.
187	INGHAM	AURELIUS, LESLIE, ONONDAGA.
188	INGHAM	BUNKER HILL, STOCKBRIDGE.
189	INGHAM	INGHAM, WHITE OAK.
190	INGHAM	LEROY, LOCKE.
191	INGHAM	WHEATFIELD, WILLIAMSTON.
192	IONIA	IONIA(CITY).
193	IONIA	BERLIN, BOSTON.
194	IONIA	CAMPBELL, ODESSA.
195	IONIA	DANBY, SEBEWA.
196	IONIA	EASTON, KEENE.
197	IONIA	IONIA, RONALD.
198	IONIA	LYONS, NORTH PLAINS.
199	IONIA	ORANGE, PORTLAND.
200	IONIA	ORLEANS, OTISCO.
201	IOSCO	ALABASTER, TAWAS.
202	IOSCO	AU SABLE, BALDWIN, WILBER.
203	IOSCO	BURLEIGH, GRANT, PLAINFIELD, RENO, SHERMAN.
204	IOSCO	OSCODA.
205	IRON	IRON RIVER(CITY).
206	IRON	STAMBAUGH.
207	IRON	CRYSTAL FALLS.
208	IRON	MANSFIELD, MASTODON.

209	IRON	DATES, HEMATITE, IRON RIVER.
210	ISABELLA	MT PLEASANT.
211	ISABELLA	CHIPPEWA, COF.
212	ISABELLA	COLDWATER, GILMORE, VERNON, WISE,
213	ISABELLA	DENVER, ISABELLA, NOTTAWA, SHERMAN.
214	ISABELLA	LINCOLN, UNION.
215	ISABELLA	BROOMFIELD, DEERFIELD, FREMONT, ROLLAND.
216	JACKSON	JACKSON(CITY),
217	JACKSON	SUMMIT.
218	JACKSON	CONCORD, HANOVER, PULASKI, SPRING ARBOR.
219	JACKSON	BLACKMAN, RIVES.
220	JACKSON	GRASS LAKE, LEONI.
221	JACKSON	NAPOLEON, NORVELL.
222	JACKSON	COLUMBIA, LIBERTY.
223	JACKSON	PARMA, SANDSTONE.
224	JACKSON	SPRINGPORT, TOMKINS.
225	JACKSON	HENRIETTA, WATERLOO.
226	KALAMAZOO	KALAMAZOO.
227	KALAMAZOO	PORTAGE.
228	KALAMAZOO	COMSTOCK.
229	KALAMAZOO	CHARLESTON.
230	KALAMAZOO	COOPER, RICHLAND, ROSS.
231	KALAMAZOO	ALAMO, OSHEMO.
232	KALAMAZOO	PRAIRIE RONDE, TEXAS.
233	KALAMAZOO	BRADY, CLIMAX, PAVILION, SCHOOLCRAFT, WAKESHMA.
234	KALKASKA	BOARDMAN, CLEARWATER, KALKASKA, ORANGE, RAPID RIVER, SPRINGFIELD.
235	KALKASKA	BEAR LAKE, BLUE LAKE, COLD SPRINGS, EXCELSIOR, GARFIELD, OLIVER.
236	KENT	GRAND RAPIDS(CITY).
237	KENT	ADA, CASCADE,
238	KENT	ALGOMA, CANNON, COURTLAND, PLAINFIELD.
239	KENT	ALPINE, SPARTA.
240	KENT	BOWNE, CALEDONIA.
241	KENT	BYRON, GAINES.
242	KENT	GRAND RAPIDS.
243	KENT	GRATTAN, OAKFIELD, SPENCER.
244	KENT	LOWELL, VERGENNES.
245	KENT	NELSON, SOLON, TYRONE.
246	KENT	WALKER.
247	KENT	KENTWOOD.
248	KENT	WYOMING(CITY).
249	KEWEENAW	ALLOUEZ, EAGLE HARBOR, GRANT, HOUGHTON, SHERMAN.
250	LAKE	CHASE, CHERRY VALLEY, LAKE, PINORA, PLEASANT PLAIN, SWEETWATER, WEBBER, YATES.
251	LAKE	DOVER, EDEN, ELK, ELLSWORTH, NEWKIRK, PEACOCK, SAUBLE.
252	LAPEER	LAPEER(CITY).
253	LAPEER	ARCADIA, ATTICA, GOODLAND.
254	LAPEER	BURLINGTON, BURNSIDE, NORTH BRANCH.
255	LAPEER	DEERFIELD, MARATHON, RICH.
256	LAPEER	ELBA, HADLEY, METAMORA.
257	LAPEER	LAPEER, MAYFIELD, OREGON.
258	LAPEER	ALMONT, DRYDEN, IMLAY.
259	LEELANAU	LEELANAU, LELAND, SUTTONS BAY
260	LEELANAU	CLEVELAND, EMPIRE, GLEN ARBOR, KASSON.
261	LEELANAU	BINGHAM, CENTERVILLE, FLMWOOD, SOLON.

262	LENAWEE	ADRIAN(CITY).
263	LENAWEE	ADRIAN, FRANKLIN.
264	LENAWEE	BLISSFIELD, DEERFIELD, OGDEN, PALMYRA, RIGA.
265	LENAWEE	CAMBRIDGE, ROME.
266	LENAWEE	CLINTON, MACON, RAISIN, RIDGEWAY, TECUMSEH.
267	LENAWEE	DOVER, SENECA.
268	LENAWEE	FAIRFIELD, MADISON.
269	LENAWEE	HUDSON, MEDINA.
270	LENAWEE	ROLLIN, WOODSTOCK.
271	LIVINGSTON	HOWELL, MARION.
272	LIVINGSTON	COHOCTAH, CONWAY, HANDY, IOSCO.
273	LIVINGSTON	DEERFIELD, HARTLAND, OCEOLA, TYRONE.
274	LIVINGSTON	GREEN OAK, HAMBURG.
275	LIVINGSTON	BRIGHTON, GENOA.
276	LIVINGSTON	PUTNAM, UNADILLA.
277	LUCE	MCMILLAN.
278	LUCE	COLUMBUS, LAKEFIELD.
279	LUCE	PENTLAND.
280	MACKINAC	BOIS BLANC ISLAND, ST.IGNACE(CITY).
281	MACKINAC	CLARK, MARQUETTE, ST IGNACE.
282	MACKINAC	BREVORT, HENDRICKS, HUDSON, MORAN.
283	MACKINAC	GARFIELD, NEWTON, PORTAGE.
284	MACOMB	CLINTON, HARRISON.
285	MACOMB	ST CLAIR SHORES(CITY),E,DET(CITY),ROSEVILLE(CITY).
286	MACOMB	WARREN(CITY).
287	MACOMB	SHELBY.
288	MACOMB	CHESTERFIELD, MACOMB.
289	MACOMB	BRUCE, RAY, WASHINGTON.
290	MACOMB	ARMADA, LENOX, RICHMOND.
291	MANISTEE	BROWN, FILER, MANISTEE, STRONACH.
292	MANISTEE	DICKSON, NORMAN.
293	MANISTEE	CLEON, MAPLE GROVE, MARILLA, SPRINGDALE.
294	MANISTEE	ARCADIA, BEAR LAKE, ONEKAMA, PLEASANTON.
295	MARQUETTE	MARQUETTE(CITY).
296	MARQUETTE	CHOCOLAY, RICHMOND, SANDS, SKANDIA, WEST BRANCH.
297	MARQUETTE	ELY, ISHPEMING, TILDEN.
298	MARQUETTE	EWING, FORSYTH, TURIN, WELLS.
299	MARQUETTE	ISHPEMING(CITY).
300	MARQUETTE	MARQUETTE, NEGAUNEE.
301	MARQUETTE	CHAMPION, HUMBOLDT, MICHIGAMME, POWELL, REPUBLIC.
302	MASON	LUDINGTON(CITY).
303	MASON	BRANCH, CUSTER, EDEN, LOGAN.
304	MASON	FREESOIL, GRANT, HAMLIN, MEADE, SHERIDAN, SHERMAN, VICTORY.
305	MASON	AMBER, PERE MARQUETTE, RIVERTON, SUMMIT.
306	MECOSTA	BIG RAPIDS(CITY).
307	MECOSTA	BIG RAPIDS, COLFAX, GRANT, GREEN.
308	MECOSTA	CHIPPEWA, FORK, MARTINY, SHERIDAN.
309	MECOSTA	HINTON, MILLBROOK, MORTON, WHEATLAND.
310	MECOSTA	AETNA, AUSTIN, DEERFIELD, MECOSTA.
311	MENOMINEE	MENOMINEE(CITY).
312	MENOMINEE	HARRIS, MEYER, SPALDING.
313	MENOMINEE	INGALLSTON, LAKE, MELLEN, MENOMINEE, STEPHENSON.
314	MENOMINEE	CEDARVILLE, DAGGETT, FAITHORN, GOURLEY, HOLMES, MADEAU.
315	MIDLAND	MIDLAND(CITY).

316	MIDLAND	GREENDALE, JASPER, LEE, PORTER.
317	MIDLAND	HOMER, INGERSOLL, MIDLAND, MT. HALEY.
318	MIDLAND	HOPE, LARKIN, LINCOLN, MILLS.
319	MIDLAND	EDENVILLE, GENEVA, JEROME, WARREN.
320	MISSAUKEE	LAKE, REEDER, RICHLAND, RIVERSIDE.
321	MISSAUKEE	BLOOMFIELD, CALDWELL, FOREST, PIONEER.
322	MISSAUKEE	AETNA, BUTTERFIELD, CLAM UNION, ENTERPRISE, HOLLAND, NORWICH, WEST BRANCH.
323	MONROE	MONROE(CITY).
324	MONROE	BEDFORD.
325	MONROE	BERLIN.
326	MONROE	DUNDEE.
327	MONROE	ERIE.
328	MONROE	EXETER, RAISINVILLE.
329	MONROE	FRENCHTOWN, MONROE.
330	MONROE	IDA, SUMMERFIELD.
331	MONROE	LASALLE.
332	MONROE	LONDON, MILAN.
333	MONROE	ASH.
334	MONROE	WHITEFORD.
335	MONTCALM	GREENVILLE.
336	MONTCALM	BLOOMER, BUSHNELL, CRYSTAL, EVERGREEN.
337	MONTCALM	DAY, FERRIS, HOME, RICHLAND.
338	MONTCALM	EUREKA, FAIRPLAIN, MONTCALM, SIDNEY.
339	MONTCALM	MAPLE VALLEY, PIERSON, REYNOLDS, WINFIELD.
340	MONTCALM	BELVIDERE, CATO, DOUGLASS, PINE.
341	MONTMORENCY	ALBERT, AVERY, BRILEY, HILLMAN, LOUD, MONTMORENCY, RUST, VIENNA.
342	MUSKEGON	MUSKEGON(CITY).
343	MUSKEGON	LAKETON.
344	MUSKEGON	MUSKEGON.
345	MUSKEGON	NORTON SHORES.
346	MUSKEGON	BLUE LAKE, HOLTON.
347	MUSKEGON	CASNOVIA, MOORLAND.
348	MUSKEGON	CEDAR CREEK, DALTON.
349	MUSKEGON	EDELSTON.
350	MUSKEGON	FRUITLAND, MONTAGUE, WHITE RIVER, WHITEHALL.
351	MUSKEGON	FRUITPORT, RAVENNA, SULLIVAN.
352	NEWAGO	FREMONT(CITY).
353	NEWAGO	BARTON, BEAVER, DENVER, HOME, LILLEY, MERRILL, MONROE, NORWICH, TROY.
354	NEWAGO	BIG PRAIRIE, EVERETT, GOODWELL, LINCOLN, SHERMAN, WILCOX.
355	NEWAGO	BRIDGETON, DAYTON, SHERIDAN.
356	NEWAGO	BROOKS, CROTON, GARFIELD.
357	NEWAGO	ASHLAND, ENSLEY, GRANT.
358	OAKLAND	PONTIAC(CITY).
359	OAKLAND	SOUTHFIELD.
360	OAKLAND	ROYAL OAK TWP, AND THE FOLLOWING CITIES) BERKLEY, CLAWSON, FERNDALE, HAZEL PARK, HUNTINGTON WOODS, MADISON HEIGHTS, OAK PARK, PLEASANT RIDGE.
361	OAKLAND	BLOOMFIELD.
362	OAKLAND	FARMINGTON.
363	OAKLAND	LYON.
364	OAKLAND	COMMERCE.
365	OAKLAND	HIGHLAND, MILFORD, WHITE LAKE.
366	OAKLAND	WEST BLOOMFIELD.
367	OAKLAND	TROY(CITY).
368	OAKLAND	AVON.
369	OAKLAND	PONTIAC.

370 OAKLAND	WATERFURY.
371 OAKLAND	HOLLY, ROSE.
372 OAKLAND	GROVELAND, SPRINGFIELD.
373 OAKLAND	BRANDON, INDEPENDENCE.
374 OAKLAND	OAKLAND, ORION.
375 OAKLAND	ADDISON, OXFORD.
376 OCEANA	BENONA, CLAYBANKS, SHELBY.
377 OCEANA	COLFAX, CRYSTAL, ELBRIDGE, HART, LEAVITT, WEARE.
378 OCEANA	FERRY, GRANT, GREENWOOD, NEWFIELD, OTTO.
379 OCEANA	GOLDEN, PENTWATER.
380 OGEMAW	EDWARDS, HORTON, OGEMAW, WEST BRANCH.
381 OGEMAW	CUMMING, FOSTER, GOODAR, HILL, KLACKING, ROSE.
382 OGEMAW	CHURCHILL, LOGAN, MILLS, RICHLAND.
383 ONTONAGON	ONTONAGON.
384 ONTONAGON	BOHEMIA, GREENLAND, ROCKLAND.
385 ONTONAGON	HAIGHT, INTERIOR, MCMILLAN, STANNARD.
386 ONTONAGON	BERGLAND, CARP LAKE, MATCHWOOD.
387 OSCEOLA	HERSEY, RICHMOND.
388 OSCEOLA	EVART, ORIENT, OSCEOLA, SYLVAN.
389 OSCEOLA	HARTWICK, HIGHLAND, MARION, MIDDLE BRANCH.
390 OSCEOLA	BURDELL, CEDAR, LEROY, LINCOLN, ROSE LAKE, SHERMAN.
391 OSCODA	BIG CREEK, CLINTON, COMINS, ELMER, GREENWOOD, MENTOR.
392 OTSEGO	GAYLORD(CITY).
393 OTSEGO	BAGLEY, CHARLTON, CHESTER, HAYES, OTSEGO LAKE.
394 OTSEGO	CORWITH, DOVER, ELMIRA, LIVINGSTON.
395 OTTAWA	HOLLAND(CITY).
396 OTTAWA	CHESTER, TALLMADGE, WRIGHT.
397 OTTAWA	CROCKERY, POLKTON.
398 OTTAWA	GEORGETOWN, JAMESTOWN.
399 OTTAWA	SPRING LAKE.
400 OTTAWA	GRAND HAVEN, OLIVE, PORT SHELDON, ROBINSON.
401 OTTAWA	ALLENDALE, BLENDON.
402 OTTAWA	HOLLAND, PARK.
403 OTTAWA	ZEELAND.
404 PRESQUE ISLE	BELKNAP, BISMARCK, METZ, MOLTKE, ROGERS.
405 PRESQUE ISLE	ALLIS, BEARINGER, CASE, NORTH ALLIS, OCQUEOC.
406 PRESQUE ISLE	KRAKOW, POSEN, PRESQUE ISLE, PULAWSKI.
407 ROSCOMMON	DENTON, GERRISH, LAKE, LYON, MARKEY, ROSCOMMON.
408 ROSCOMMON	AU SABLE, BACKUS, HIGGINS, NESTER, RICHFIELD.
409 SAGINAW	SAGINAW(CITY).
410 SAGINAW	TITTABAWASSEE.
411 SAGINAW	CARROLLTON, KOCHVILLE, SAGINAW.
412 SAGINAW	BUENA VISTA, ZILWAUKEE.
413 SAGINAW	THOMAS.
414 SAGINAW	FRANKENMUTH.
415 SAGINAW	BRIDGEPORT.
416 SAGINAW	JAMES, ST. CHARLES, SWAN CREEK.
417 SAGINAW	FREMONT, JONESFIELD, LAKEFIELD, RICHLAND.
418 SAGINAW	BRADY, BRANT, CHAPIN, MARION.
419 SAGINAW	BLUMFIELD.
420 SAGINAW	CHESANING, MAPLE GROVE.
421 SAGINAW	ALBEE, SPAULDING.
422 SAGINAW	BIRCH RUN, TAYMOUTH.
423 SANILAC	BUEL, ELK, LEXINGTON.

424	SANILAC	BRIDGEHAMPTON, CUSTER, FORESTER.
425	SANILAC	FLYNN, FREMONT, MAPLE VALLY, SPEAKER, WORTH.
426	SANILAC	ARGYLE, AUSTIN, EVERGREEN, GREENLEAF, LAMOTTE, MOORE.
427	SANILAC	DELAWARE, MARION, MINDEN, WHEATLAND.
428	SANILAC	ELMER, MARLETTE.
429	SANILAC	SANILAC, WASHINGTON, WATERTOWN.
430	SCHOOLCRAFT	MANISTIQUE(CITY).
431	SCHOOLCRAFT	HIAWATHA, INWOOD, THOMPSON.
432	SCHOOLCRAFT	DOYLE, GERMFASK, MANISTIQUE, MUELLER, SENEY.
433	SHIAWASSEE	DWOSSO(CITY).
434	SHIAWASSEE	BENNINGTON, SCIOTA.
435	SHIAWASSEE	BURNS, VERNON.
436	SHIAWASSEE	CALEDONIA.
437	SHIAWASSEE	FAIRFIELD, MIDDLEBURY, DWOSSO.
438	SHIAWASSEE	HAZELTON, VENICE.
439	SHIAWASSEE	NEW HAVEN, RUSH.
440	SHIAWASSEE	ANTRIM, SHIAWASSEE.
441	SHIAWASSEE	PERRY, WOODHULL.
442	ST CLAIR	FORT GRATIOT, PORT HURON.
443	ST CLAIR	CASCO, CHINA, EAST CHINA, IRA.
444	ST CLAIR	CLAY, COTTRELLVILLE.
445	ST CLAIR	KIMBALL.
446	ST CLAIR	COLUMBUS, ST CLAIR.
447	ST CLAIR	BURTCHVILLE, CLYDE, GRANT.
448	ST CLAIR	BROCKWAY, GREENWOOD.
449	ST CLAIR	BERLIN, EMMETT, RILEY.
450	ST CLAIR	KENOCKEE, WALES.
451	ST CLAIR	LYNN, MUSSEY.
452	ST JOSEPH	STURGIS.
453	ST JOSEPH	COLON, NOTTAW.
454	ST JOSEPH	CONSTANTINE, FLORENCE, SHERMAN.
455	ST JOSEPH	FABIUS, FLOWERFIELD, LOCKPORT, PARK.
456	ST JOSEPH	LEONIDAS, MENDON.
457	ST JOSEPH	MOTTVILLE, WHITE PIGEON.
458	ST JOSEPH	BURR OAK, FAWN RIVER.
459	ST JOSEPH	THREE RIVERS(CITY).
460	TUSCOLA	CARO.
461	TUSCOLA	ALMER, ELLINGTON, NOVESTA.
462	TUSCOLA	ARBELA, MILLINGTON.
463	TUSCOLA	INDIANFIELDS, JUNIATA.
464	TUSCOLA	DAYTON, KINGSTON, KOYLTON, WELLS.
465	TUSCOLA	DENMARK, TUSCOLA.
466	TUSCOLA	ELKLAND, ELMWOOD.
467	TUSCOLA	FAIRGROVE, GILFORD.
468	TUSCOLA	FREMONT, VASSAR, WATERTOWN.
469	TUSCOLA	VASSAR(CITY).
470	TUSCOLA	AKRON, COLUMBIA, WISNER.
471	VAN BUREN	SOUTH HAVEN(CITY).
472	VAN BUREN	ANTWERP, DECATUR, PORTER.
473	VAN BUREN	ARLINGTON, HARTFORD, LAWRENCE.
474	VAN BUREN	BANGOR, COLUMBIA, GENEVA.
475	VAN BUREN	BLOOMINGDALE, PINE GROVE.
476	VAN BUREN	COVERT, SOUTH HAVEN.
477	VAN BUREN	HAMILTON, KEELER.
478	VAN BUREN	ALMENA, PAW PAW, WAVERLY.
479	WASHTENAW	ANN ARBOR(CITY).
480	WASHTENAW	ANN ARBOR.
481	WASHTENAW	PITTSFIELD.

482 WASHTENAW SCIO, WEBSTER.
 483 WASHTENAW YPSILANTI(CITY).
 484 WASHTENAW YPSILANTI.
 485 WASHTENAW SUPERIOR.
 486 WASHTENAW AUGUSTA, YOPK.
 487 WASHTENAW LODI, SALINE.
 488 WASHTENAW BRIDGEWATER, FREEDOM, SHARON.
 489 WASHTENAW MANCHESTER.
 490 WASHTENAW LIMA, SYLVAN.
 491 WASHTENAW DEXTER, LYNDON.
 492 WASHTENAW NORTHFIELD, SALEM.

493 WAYNE DETROIT(PART 1 OF 3), EAST OF LIVERNOIS, WEST OF JOHN R,
 SOUTH AND WEST OF EAST GRAND BLVD.
 494 WAYNE DEARBORN(CITY).
 495 WAYNE DETROIT(PART 2 OF 3), WEST OF LIVERNOIS, NORTH OF TIREMAN.
 496 WAYNE DETROIT (PART 3 OF 3), EAST OF JOHN R, EAST OF OAKLAND,
 NORTH AND EAST OF EAST GRAND BLVD.
 497 WAYNE ALLEN PARK(CITY), ECORSE(CITY), LINCOLN PARK(CITY),
 MELVINDALE(CITY), RIVER ROUGE(CITY), SOUTHGATE(CITY),
 WYANDOTTE(CITY).
 498 WAYNE TAYLOR(CITY).
 499 WAYNE BROWNSTOWN, GROSSE ISLE, HURON.
 500 WAYNE ROMULUS, SUMPTER, VAN BUREN.
 501 WAYNE CANTON.
 502 WAYNE NORTHVILLE, PLYMOUTH.
 503 WAYNE GROSSE PTE(CITY), GROSSE PTE FARMS(CITY),
 GROSSE PTE PARK(CITY), GROSSE PTE SHORES(CITY)
 GROSSE PTE WOODS(CITY), HARPER WOODS(CITY).
 504 WAYNE REDFORD.
 505 WEXFORD CADILLAC(CITY).
 506 WEXFORD BOON, CHERRY GROVE, CLAM LAKE, HARING, HENDERSON,
 SOUTH BRANCH, SELMA, SLAGLE.
 507 WEXFORD ANTIOCH, HANOVER, SPRINGVILLE, WEXFORD.
 508 WEXFORD CEDAR CREEK, COLFAX, GREENWOOD, LIBERTY.

ZONE PROVINCE MAJOR CITIES WITHIN ZONE
 ---- -

509 ONTARIO LEAMINGTON, TILBURY, WINDSOR.
 510 ONTARIO SARNIA.
 511 ONTARIO FORT FRANCES, KENORA, SAULT STE. MARIE, SUDBURY, TIMMINS.
 512 ONTARIO CHATHAM, GODFRICH, HAMILTON, KITCHNER, LONDON,
 NIAGARA FALLS, WALLACEBURG.
 513 ONTARIO KINGSTON, OTTAWA, PEMBROKE, STURGEON FALLS, TORONTO.

ZONE STATE COUNTY
 ---- -

514 WISCONSIN IRON.
 515 WISCONSIN ASHLAND, BAYFIELD.
 516 WISCONSIN ONEIDA, VILAS.
 517 WISCONSIN FOREST.
 518 WISCONSIN FLORENCE.
 519 WISCONSIN MARINETTE.
 520 WISCONSIN BURNETT, DOUGLAS, SAWYER, WASHBURN.
 521 WISCONSIN BARRON, BUFFALO, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, JACKSON,
 LANGLADE, LINCOLN, MARATHON, PEPIN, PIERCE, POLK, PORTAGE,
 PRICE, RUSK, ST CROIX, TAYLOR, TREMPLEAU, WOOD,
 522 WISCONSIN BROWN, CALUMET, DOOR, FOND DU LAC, KEWAUNEE, MANITOWOC,

MENOMINEE, DCONTO, OUTAGAMIE, SHAWANO, SHEBOYGAN, WAUPACA,
 WINNEBAGO.
 523 WISCONSIN DANE, DODGE, JEFFERSON, KENOSHA, MILWAUKEE, OZAUKEE, RACINE
 ROCK, WALWORTH, WASHINGTON, WAUKESHA.
 524 WISCONSIN ADAMS, COLUMBIA, CRAWFORD, GRANT, GREEN, GREEN LAKE, IOWA,
 JUNEAU, LA CROSSE, LAFAYETTE, MARQUETTE, MONROE, RICHLAND,
 SAUK, VERNON, WAUSHARA.
 525 ILLINOIS BOONE, COOK, DE KALB, DU PAGE, GRUNDY, KANE, KENDALL, LAKE,
 MCHENRY, WILL, WINNEBAGO.
 526 ILLINOIS BUREAU, CARROLL, CHAMPAIGN, CHRISTIAN, COLES, DE WITT,
 DOUGLAS, EDGAR, FORD, FULTON, HENDERSON, HENRY, IROQUOIS,
 JO DAVIESS, KANKAKEE, KNOX, LA SALLE, LEE, LIVINGSTON,
 LOGAN, MACON, MARSHALL, MASON, MCLFAN, MENARD, MERCER,
 MOULTRIE, OGLE, PEORIA, PIATT, PUTNAM, ROCK ISLAND,
 SANGAMON, STARK, STEPHENSON, TAZEVELL, VERMILION, WARREN,
 WHITESIDE, WOODFORD.
 527 ILLINOIS ADAMS, ALEXANDER, BOND, BROWN, CALHOUN, CASS, CLARK, CLAY,
 FAYETTE, FRANKLIN, GALLATIN, GREENE, HAMILTON, HANCOCK,
 CLINTON, CRAWFORD, CUMPERLAND, EDWARDS, EFFINGHAM,
 HARDIN, JACKSON, JASPER, JEFFERSON, JERSEY, JOHNSON,
 LAWRENCE, MACOUPIN, MADISON, MARION, MASSAC, MCDONOUGH,
 MONROE, MONTGOMERY, MORGAN, PERRY, PIKE, POPE, PULASKI,
 RANDOLPH, RICHLAND, SALINE, SCHUYLER, SCOTT, SHELBY,
 ST CLAIR, UNION, WABASH, WASHINGTON, WAYNE, WHITE,
 WILLIAMSON.
 528 INDIANA LAKE, PORTER.
 529 INDIANA LAPORTE, STARKE.
 530 INDIANA MARSHALL, ST JOSEPH.
 531 INDIANA ELKHART, KOSCIUSKO.
 532 INDIANA ALLEN, DE KALB, LAGRANGE, NOBLE, STEUBEN, WHITLEY.
 533 INDIANA ADAMS, BENTON, BLACKFORD, BOONE, CARROLL, CASS, CLINTON,
 DELAWARE, FOUNTAIN, FULTON, GRANT, HENRY, HOWARD,
 HUNTINGTON, JASPER, JAY, MADISON, MIAMI, MONTGOMERY, NEWTON
 PULASKI, RANDOLPH, TIPPECANOE, TIPTON, WABASH, WARREN,
 WAYNE, WELLS, WHITE.
 534 INDIANA BARTHOLOMEW, BROWN, CLARK, CLAY, CRAWFORD, DAVIESS,
 DEARBORN, DECATUR, DUBUIS, FAYETTE, FLOYD, FRANKLIN, GIBSON,
 GREENE, HAMILTON, HANCOCK, HARRISON, HENDRICKS, JACKSON,
 JEFFERSON, JENNINGS, JOHNSON, KNOX, LAWRENCE, MARION,
 MARTIN, MONROE, MORGAN, OHIO, ORANGE, OWEN, PARKE, PERRY,
 PIKE, POSEY, PUTNAM, RIPLEY, RUSH, SCOTT, SHELBY, SPENCER,
 SULLIVAN, SWITZERLAND, UNION, VANDERBURGH, VERMILLION, VIGO
 WARRICK, WASHINGTON.
 535 OHIO DEFIANCE, WILLIAMS.
 536 OHIO FULTON, HENRY.
 537 OHIO LUCAS, WOOD.
 538 OHIO ALLEN, AUGLAIZE, CRAWFORD, DARKE, ERIE, HANCOCK, HARDIN,
 HURON, LOGAN, MARION, MERCER, OTTAWA, PAULDING, PUTNAM,
 SANDUSKY, SENECA, SHELBY, VAN WERT, WYANDOT.
 539 OHIO ASHTABULA, BELMONT, CARROLL, COLUMBIANA, COSHOCTON,
 CUYAHOGA, DELAWARE, FAIRFIELD, FRANKLIN, GAUGA, HAMILTON,
 HARRISON, JACKSON, JEFFERSON, LAKE, LORAIN, MAHONING,
 MEDINA, PORTAGE, STARK, SUMMIT, TRUMBULL, WARREN,
 WASHINGTON.
 540 OHIO ADAMS, ASHLAND, ATHENS, BROWN, BUTLER, CHAMPAIGN, CLARK,
 CLERMONT, CLINTON, FAYETTE, GALLIA, GREENE, GUERNSEY,
 HIGHLAND, HOCKING, HOLMES, KNOX, LAWRENCE, LICKING, MADISON
 MEIGS, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM
 NOBLE, PERRY, PICKAWAY, PIKE, PREBLE, RICHLAND, ROSS,
 SCIOTO, TUSCARAWAS, UNION, VINTON, WAYNE.

ZONE

STATE

541 NORTH CAROLINA, VIRGINIA, WEST VIRGINIA.
542 ALABAMA, FLORIDA, GEORGIA, KENTUCKY, SOUTH CAROLINA,
TENNESSEE.
543 ARIZONA, ARKINSAW, KANSAS, LOUISIANA, MISSISSIPPI, MISSOURI,
NEW MEXICO, OKLAHOMA, TEXAS.
544 CALIFORNIA, COLORADO, HAWAII, IDAHO, IOWA, NEBRASKA, NEVADA,
OREGON, UTAH, WYOMING.
545 ALASKA, MINNESOTA, MONTANA, NORTH DAKOTA, SOUTH DAKOTA,
WASHINGTON.
546 DISTRICT OF COLUMBIA, DELAWARE, MARYLAND, NEW JERSEY,
PENNSYLVANIA.
547 CONNECTICUT, MAINE, MASSACHUSETTS, NEW HAMPSHIRE, NEW YORK,
RHODE ISLAND, VERMONT.