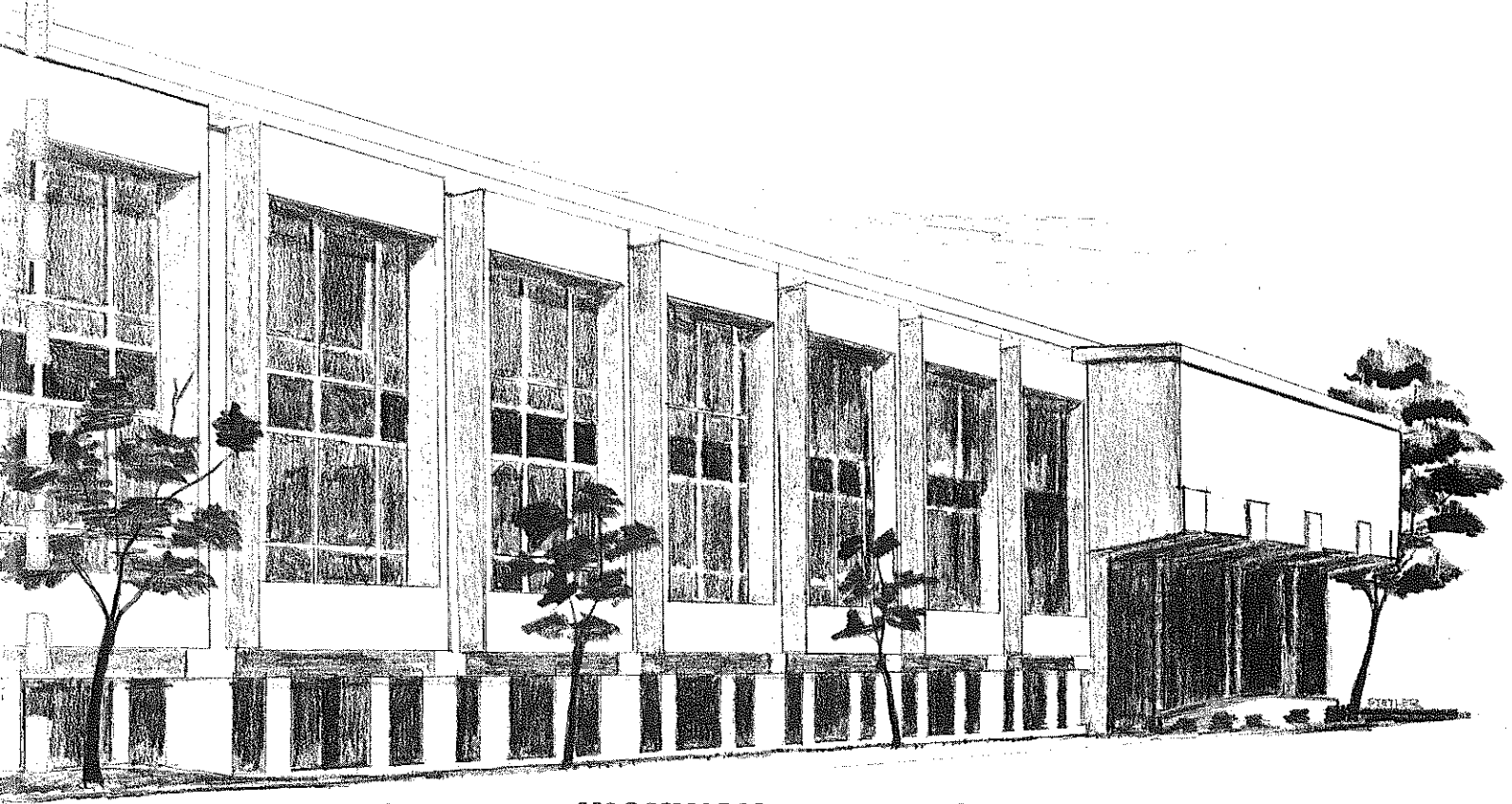


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EAST-GENESEE COUNTY TRANSPORTATION STUDY

SUMMARY REPORT
1966 Origin-Destination Study
FLINT



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FLINT-GENESEE COUNTY TRANSPORTATION STUDY

SUMMARY REPORT
1966 ORIGIN-DESTINATION STUDY
FLINT

Cooperating Agencies:
U.S. Department of Transportation
Federal Highway Administration
Bureau of Public Roads
Genesee County Metropolitan Planning Commission

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HENRIK E. STAFSETH, DIRECTOR

May 26, 1972

Sam F. Cryderman
Engineer of Transportation Planning
Transportation Planning Division

Dear Mr. Cryderman:

We are pleased to present this "Summary Report" as a part of the Flint-Genesee County Transportation Study. This report has been prepared as a way of disseminating information that has been obtained from the origin-destination study to local governments and other interested persons. Documented herein are the procedures and reports of the data collection, analysis, and model development phases of the study.

This report was prepared by Keith D. Rosbury of the Northeast Analysis Unit under the supervision of Maynard A. Christensen.

Sincerely,

A handwritten signature in cursive script that reads "Keith E. Bushnell".

Keith E. Bushnell
Engineer of Transportation
Survey and Analysis Section



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DEFINITIONS

The following terms will be mentioned in the context of this study. A brief definition of each should enable a better understanding of the processes and concepts involved in an Origin-Destination Study.

CENTRAL BUSINESS DISTRICT (CBD):

The main commercial area of a city.

CLASSIFICATION COUNTS:

Vehicles are counted and placed in categories (passenger cars, single unit trucks, etc.) at screenline and cordon line stations.

CORDON LINE:

The imaginary line enclosing the study area.

DESIRE LINE:

A straight imaginary line between stations and/or zones connecting a trip origin and destination. Actual routes of travel are not considered.

DWELLING UNIT:

Living quarters available for occupancy. The internal sample is selected on the basis of dwelling units. A dwelling unit may be a house, apartment, or an individual room.

EXTERNAL SURVEY:

One phase of the origin-destination survey. Interviews are conducted at the cordon line.

EXTERNAL TRIP:

A trip with one terminal outside the study area.

INTERNAL SURVEY:

The phase of the origin-destination study in which residents of the study area are interviewed (on a sample basis) at their place of residence. Basic travel patterns and socio-economic data are obtained.

INTERNAL TRIP:

A trip with both terminals within the study area.

NETWORK CALIBRATION:

A procedure used to adjust the computerized network to more closely resemble actual conditions.

ORIGIN-DESTINATION SURVEY:

A comprehensive survey of travel habits within a selected study area, designed to collect detailed information pertaining to trip origins and destinations.

SCREEN LINE:

A line bisecting the study area used to compare reported trips with actual classification counts.

STATION:

Point of interview and classification counts located on route crossing cordon line. Stations are also found on routes crossing the screen line for the purpose of classification.

STUDY AREA:

The geographical area selected for the origin and destination study.

THROUGH TRIP:

A trip through an external station having both terminals outside the study area.

TRAFFIC ASSIGNMENT:

The process of determining routes of travel and loading zone to zone trips to these routes.

TRAFFIC MODEL:

A mathematical equation or equations which are able to simulate travel patterns, particularly those in urban areas.

TRIP ATTRACTION:

The pull or attracting power of a zone. Attractions in a zone can be considered synonymous with trip destinations in that zone for all non-home based trips.

TRIP DISTRIBUTION:

The process by which the movement of trips between zones is estimated from trip ends. Given a production zone, this step determines the proportion of all trips originating in this zone which are destined to each zone in the study area.

TRIP GENERATION:

A general term describing the analysis and application of the relationships which exist between the trip makers, the urban area, and trips. It relates to the procedure for predicting number of trip ends in any part of the urban area.

TRIP PRODUCTIONS:

The number of home based trip ends in the zone of residence. For all non-home based trips, productions are synonymous with origins.

ZONE:

The basic subdivision of the study area.

CHAP. ONE STUDY OBJECTIVES

INTRODUCTION

PLANNING GOALS

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Introduction

The efforts of the 450,000 people of the Flint metropolitan area to live and work in one area necessitate a tremendous amount of movement of people and goods. It has long been recognized that transportation planning is essential to efforts of making people and goods move as efficiently as possible.

Planning Goals

Conceptual over-all goals for the major transportation elements have been developed by the people in the Flint region outlining basic policy guidelines for Genesee County. General goals point to the desire for a safe, balanced, varied, and quality transportation system that will achieve maximum use and involve minimum user costs while still enhancing environmental, ecological, and aesthetic values. The following specific objectives go beyond the more general goals and are stated below. These objectives are to:

1. Provide an arterial system on existing and predicted corridors which satisfies nationwide, state-wide, regional, and intrametropolitan travel characteristics. To achieve this requires the separation of roads by their function as much as possible. For example, regional traffic should be separated from local traffic.
2. Continue to improve the existing transportation facilities. To keep pace with increasing traffic volumes, Genesee County should continue to improve its existing transportation facilities through coordination with various levels of government to insure an effective metropolitan transportation network.
3. Develop a balanced transportation system in Genesee County. This requires coordinated development and improvement of highways, railroads, airports, mass transit facilities, truck terminals, and parking facilities.
4. Air transportation facilities need to be continually upgraded, in view of increasing economic growth requirements, technological improvement, demands for air cargo shipment, and the rate of air travel for personal and business purposes.

5. Assist in the improvement of railway services so as to maintain a competitive position in the structure of transportation services. Railroad crossings at grade with major traffic arteries should be eliminated.

6. Develop a metropolitan-wide public transportation system to provide efficient services for existing and predicted populated areas in the county. The objective of public transportation service would be to provide easy access to high intensity use areas such as the central business districts, shopping centers, major employment centers, and recreational and social activity areas. Public transportation also provides mobility to those who do not have reasonable access to alternative forms of transportation.

7. Assure environmental, ecological and aesthetic values in the design, routing and landscaping of future improvements to the transportation system.

Source: Genesee County 1990 Land Use-Transportation Plan, 1971

A major prerequisite to reaching these goals and objectives is to gather information concerning travel desires in the Flint Area so that facilities can be designed to match these desires in ways outlined by the goals and objectives. In 1966, the Michigan Department of State Highways furthered their assistance to local planners and conducted a comprehensive origin-destination study in conjunction with local officials. Other studies had been conducted in Flint during previous years, but the need for updated information and new forecasting procedures recently developed in the field of transportation planning necessitated a new study.

The transportation studies conducted for major urban areas take 3 to 7 years to complete the initial phase. They are then periodically updated. This report will document data gathering procedures, describe average daily traffic patterns, and present modeling procedures for forecasting future trips.

CHAP. TWO STUDY
DESIGN

**DEFINING THE STUDY AREA
THE STUDY AREA
DATA NEEDS
MOVEMENT INVENTORY
ACCURACY CHECKS**

Defining The Area Of Study

The positioning of the study area boundary was guided by 3 main factors. The first requirement is that the boundary line circumscribe the area of daily movement which means the inclusion of urban, suburban, and semi-rural areas which regularly produce trips oriented towards Flint. The second criteria involves the expansion of the urban area. Since the planning period is generally from 20 to 25 years, in order to take into consideration all factors which will effect the area in the target year, the boundary line must circumscribe all anticipated urban growth during the planning period. The third criteria involves meeting certain technical considerations necessary to carry out the study.

Figure II-1 shows the geographic location of the study area in the Great Lakes Region and its location relative to major highways. Figure II-2 indicates driving distances to several major cities.

The Study Area

The Cordon Line circumscribes Genesee County and encompasses approximately 660 square miles.

The areas first residents were the Saginaw Indians who lived in the Genesee Region for 300 years before they moved westward in the mid 17th century. The area was then used only as an area for hunting and trapping until 1650 when the Ottawa-Chippewa Indians moved into the area. The first English speaking settler in Genesee County was Jacob Stevens. He settled in Grand Blanc in 1823. Beginning in the middle 1830's, settlers began to come to the area from North-west New York and the period from 1835 to 1870 was a time of rapid growth in the county. Moderate growth occurred then for several years until about 1910. Since that time, the population has increased from 64,555 to 444,341 in 1970.

Source: Genesee County 1990 Land Use Transportation Plan, 1971.

The topography of the area is relatively flat or gently rolling. The low rolling hills border the county on the north, east and south portions. The region slopes generally from southeast to northwest with the highest elevation being 1030 feet above sea level in the city of Fenton and the lowest elevation being in Montrose Township at 600 feet above sea level.

Source: Genesee County 1990 Land Use Transportation Plan, 1971.

Data Needs

The data needs are directly related to the purpose of the study. The purpose of this study is to gather information concerning travel desires and evaluate the adequacy of the transportation system as defined by the goals and objectives listed above, to meet these desires. To plan for future years, future travel desires need to be estimated and matched with future transportation systems.

GEOGRAPHICAL LOCATION

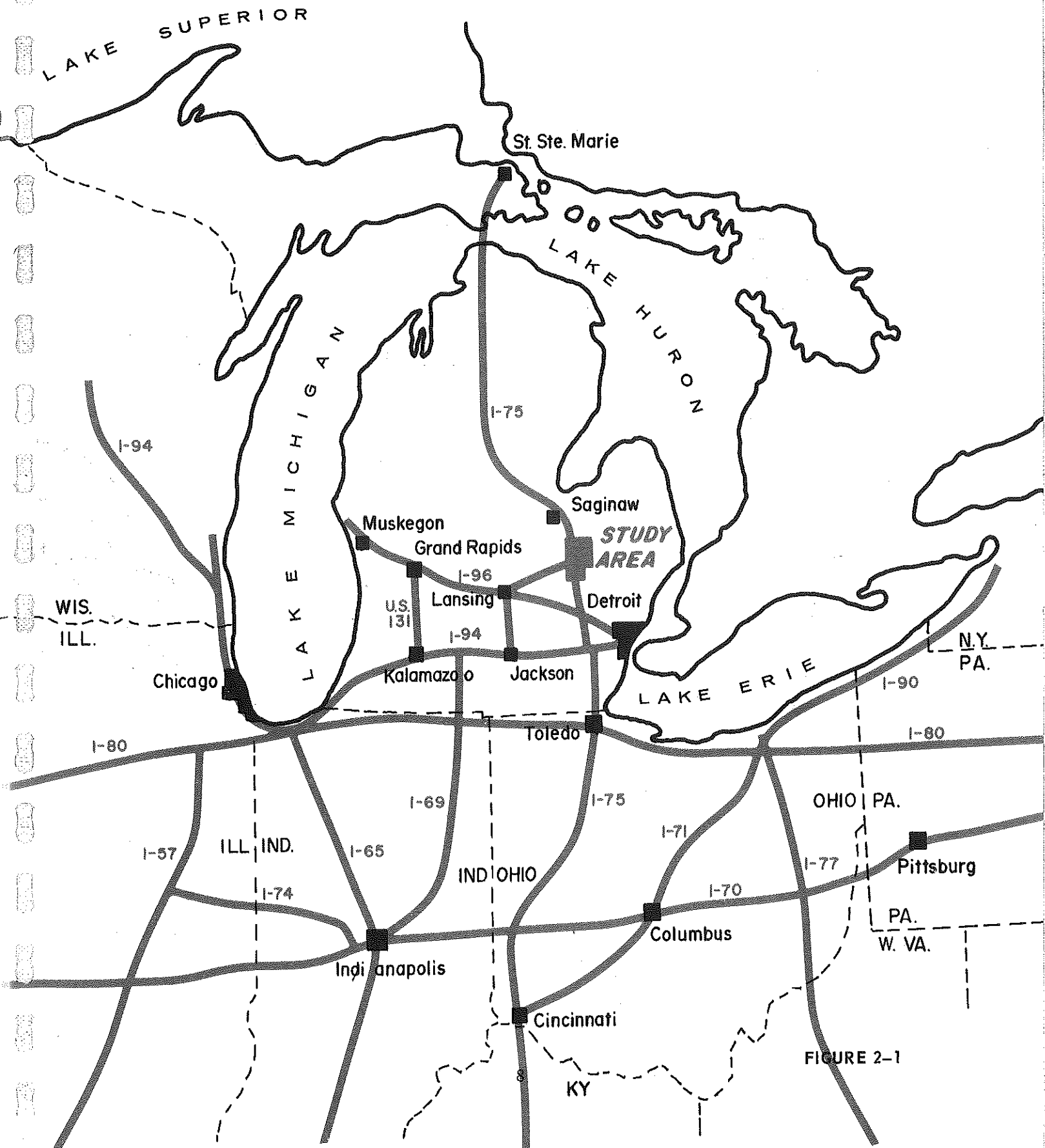


FIGURE 2-1

DISTANCES TO PRINCIPAL CITIES

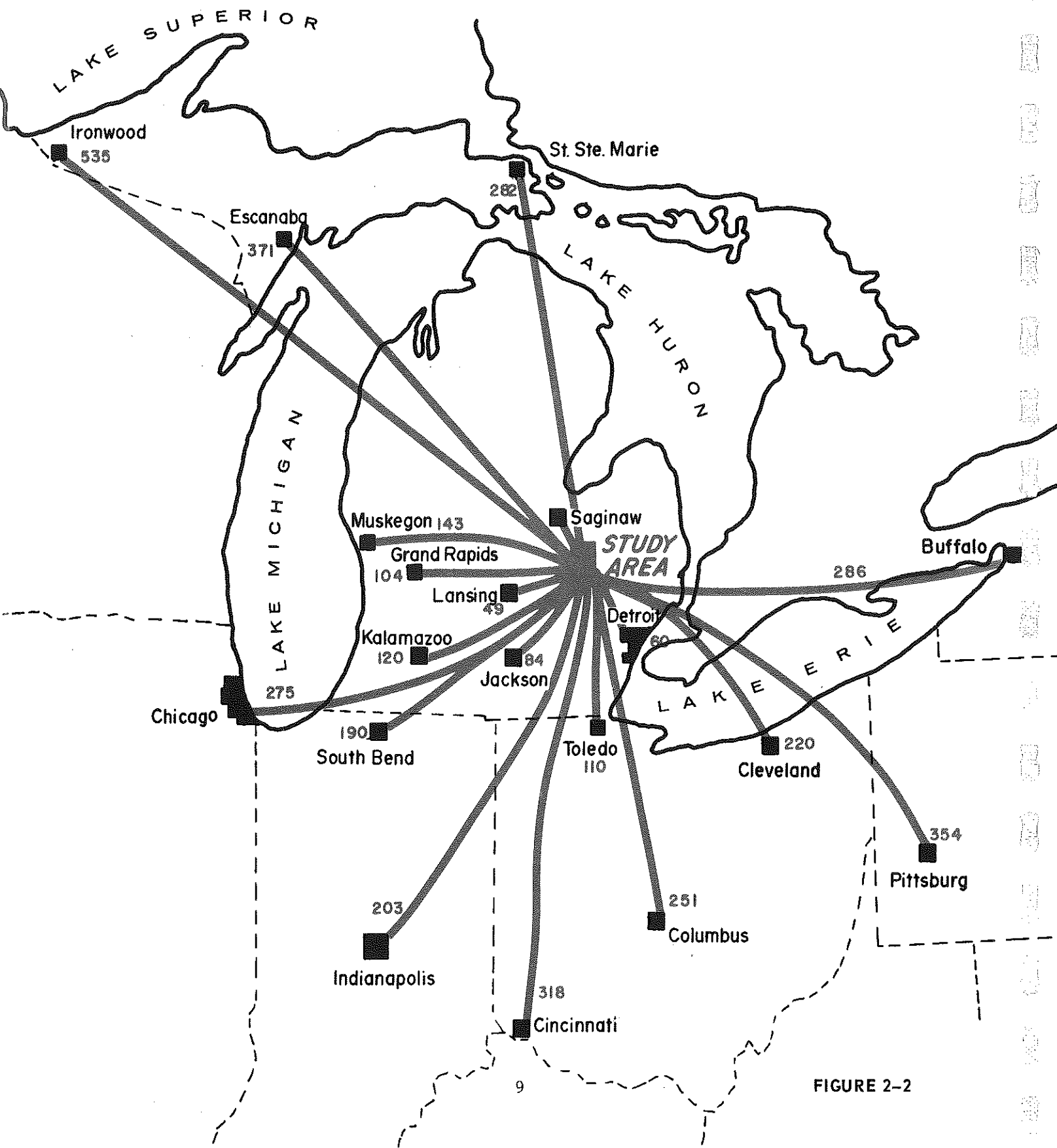
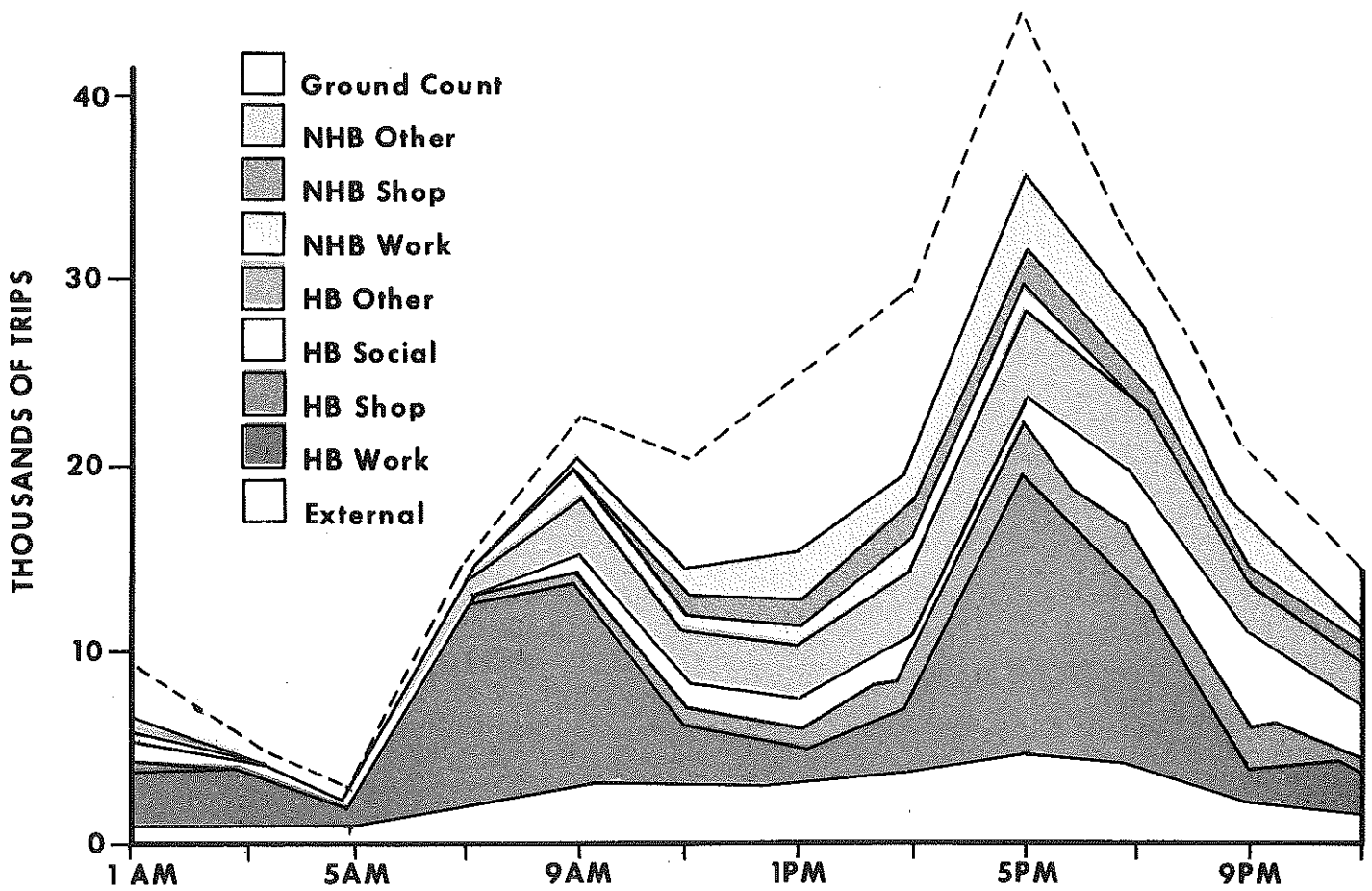


FIGURE 2-2

UNFACTORED AUTO-DRIVER SCREENLINE CROSSINGS



FACTORED AUTO-DRIVER SCREENLINE CROSSINGS

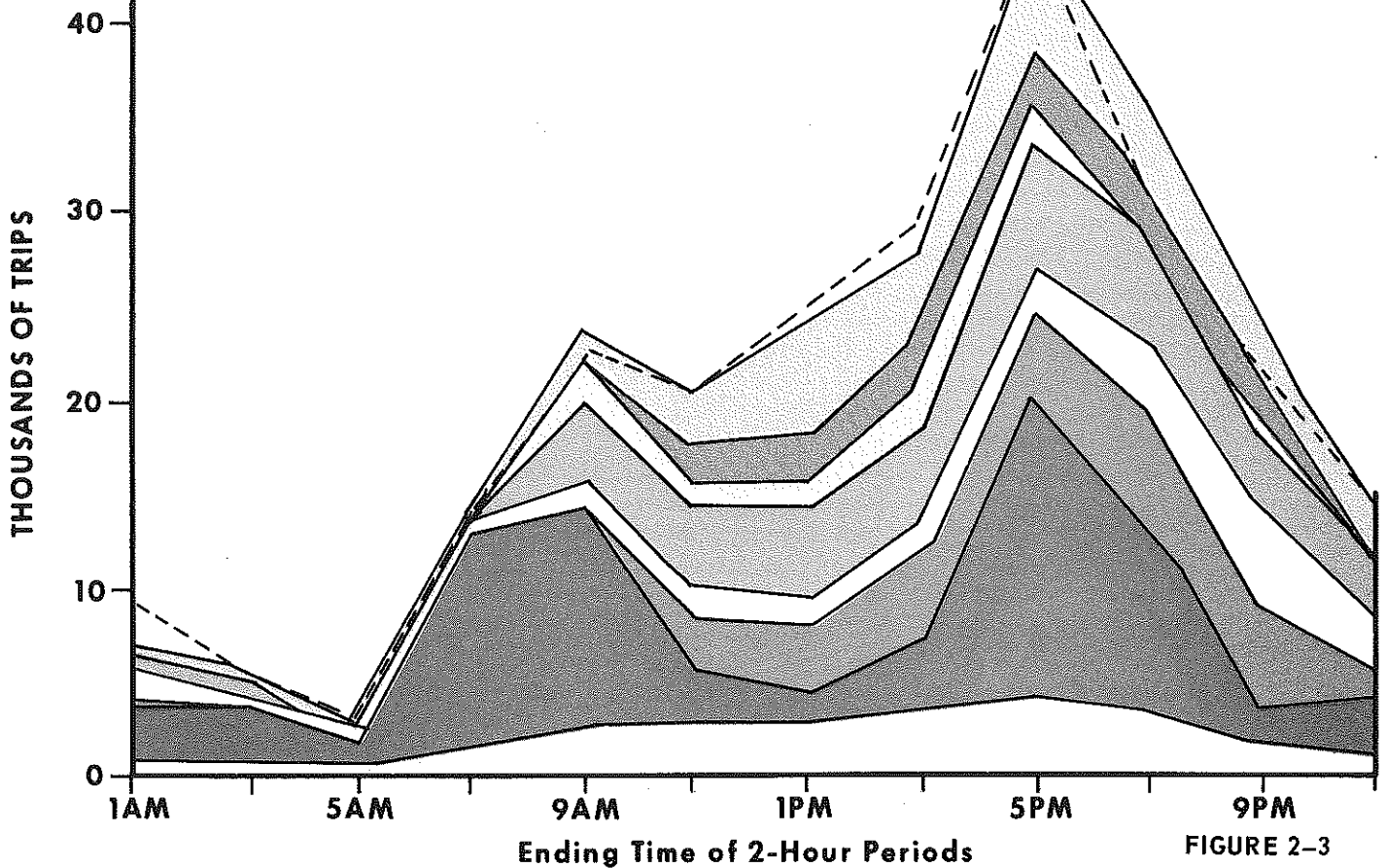


FIGURE 2-3

In order to achieve the purposes of the study, several inventories were needed. To know how the transportation system needs to be upgraded, it was first necessary to take a complete inventory of present facilities and the traffic volumes carried by these facilities. To estimate future travel, it was necessary to inventory those factors which determine travel, i.e. the population, their characteristics, and land use.

Movement Inventory

The primary modes of travel in the study area are by auto, truck, taxi, and bus. Only very small percentages of trips are made by other modes. To find out the movement of motor vehicles in the area various surveys were made including The Internal Trip Survey, The External Trip Survey, The Truck and Taxi Trip Survey, and various vehicle counts made on area highways. Trip data was obtained for persons vehicles. Data in the person trip form allows for the later development of modal split models in future year planning which permits mass transit alternatives to be considered.

It was decided that trip data would have to be obtained for a 24 hour period because of the fluctuations in travel according to the hour period. Traffic data also indicates that in urban areas, traffic volumes are higher on weekdays than on Saturday and Sunday. Peak hour traffic is also highest during the week. For these reasons, traffic data was obtained on an average weekday basis when demand for facilities is highest.

Both the Interview Address Summary and the Internal Survey were obtained by trained home interviewers. Data was obtained on a sample basis at every 15th dwelling unit. For the Interview Address Summary (I. A. S.), the interviewers asked questions pertaining to characteristics of the dwelling unit and its members such as type of structure, number of persons and age of persons at the address, number of autos, education of household head, and other information. The Internal Survey was conducted at the same time at the same dwelling units as the I.A.S. The purpose of this survey was to get trip information. A member in the household was asked to give information concerning the origin, destination, purpose, and time of all trips made by all dwelling unit members in the past 24 hours. Thus, information was gathered on a sample basis for all trips made by area residents.

The External Survey was taken at 49 higher volume roads as they crossed the Cordon Line. As many drivers were stopped as possible at the External Survey Stations, but because of traffic problems and other considerations, some cars were not interviewed. A count was taken of all vehicles crossing the station points and the 72% interview sample was expanded to equal all vehicle totals. This survey produced data pertaining to trips entering, leaving, or passing through the study area. Information was gathered on the origin and destination of the trip, stops in the area (if any), the purpose of the trip, and other pertinent information. A total of 73,110 interviews were taken from the 101,006 vehicles crossing the stations.

To complete the survey of vehicle movements, it was necessary to obtain data concerning the movement of trucks and taxis. Taxi drivers were interviewed at a 50% sample rate concerning their movements. Truck drivers were sampled and questioned at a 14% rate.

Expansion of all internal sample data to the universe was on a tract basis. External Trip Data was expanded by hour period, by direction, and by station. Commercial and taxi data was expanded according to the sample rate.

The forms on which the data was recorded for the various surveys can be found in the appendix along with a complete listing of all types of data gathered.

Fixed Feature Inventory

The fixed feature inventory involved surveys of land use, population dwelling units, and arterial streets.

Land use and intensity of use inventories are taken for transportation studies because of the well documented relationship between the type of land use and the number of trips generated. For example, an acre of industrial land use with 50 employees will generate more trips than an acre of residential with 2 single family dwellings. A survey of land use along with employment data was gathered for the total study area.

Population and dwelling unit data was obtained at the home by the trained interviewers as documented above at the same time as the trip data was obtained. The study dealt with streets of arterial classification and above, i.e., the principal traffic-carrying streets not designed exclusively for access to abutting lands. These arterial streets were defined in cooperation with local officials. Local streets used for access to abutting lands were not dealt with in this study because there is usually no congestion on this type of facility.

Accuracy Checks

Because of the time and expense that is taken to analyze the data, a complete series of accuracy checks was applied to the data collected at the dwelling unit. These accuracy checks are documented in detail in an previously issued report entitled "Flint-Genesee County Transportation Study-Accuracy Checks and Adjustment Factors." Documented in the above report are various edits and 14 checks on the data.

The various edit programs are all computerized programs which attempt to uncover coding and/or keypunch errors. Internal consistency is checked for such matters as invalid addresses, invalid zones, impossible trips, etc.

As mentioned above, since sampling techniques were used during the various surveys, the data was expanded to represent the universe. The initial series of accuracy checks was run on data obtained from the Internal Address Summary portion of the home interview. These Socio-Economic checks consisted of comparing expanded sample data with data obtained independently for the study area. The results of these comparisons at the study area level are shown in Table II-1. The accuracy ratios indicate the ratio of the O.D. data to the independent source.

SOCIO-ECONOMIC ACCURACY CHECK

Summary

	Accuracy Ratio
Total Dwelling Unit	97.48%
Occupied Dwelling Unit	103.55%
Population	107.83%
Persons/Dwelling Unit	
1 - 4	95.51%
5 - 8+	112.15%
Sex and Race	
Male	101.33%
Female	98.71%
White	99.40%
Non-White	105.56%
Age	
0 - 19	106.91%
20. - 34	94.98%
35 - 64	95.83%
65 +	90.30%
Automobiles	92.51%
Industry (where employed)	
Construction	90.87%
Manufacturing	95.67%
Transportation and Public Utilities	110.33%
Trade	100.60%
Service	111.35%
Government	106.85%
Median Income	111.74%

TABLE II-1

The next series of accuracy checks involved comparing volumes obtained from manual counts at the cordon Line and the screenline to trip volumes reported during the internal interviews at the dwelling units.

Cordon trips, those trips with one end in the study area and one end out, were reported twice. They were reported during the Internal Survey and at the external station where drivers were interviewed. The sampling rate on the Internal Survey was approximately 6% while the External Survey sampling rate was about 72%. Also, the reliability of the samples was better on the External Survey since the person at the external station being interviewed was actually making the trip while the household member reporting trips for the Internal Survey was possibly not the person who made the cordon trip and might have forgotten or never known of the trip. Therefore, it was believed that the cordon trips were best reported in the External Survey and cordon trips reported in the Internal Survey were eliminated from the trip file. This conclusion is born out in a comparison of the two sources which shows more trips being reported in the External Survey. The two counting procedures, after the data was independently expanded, are quite close however showing only 2.8% more trips being made according to the External Survey and indicate that both sources are fairly accurate.

A first work trip check was also made. This check compares the O-D Survey number of first work trips to a specific location with the number of employees actually working at that specific location. It is important to verify the accuracy of this data since work trips comprise about 30% of total trips made and also occur during peak volume hours. The check was made on the nine major General Motors plants which accounted for 52.4%¹ of the study areas total employment. Various adjustments were made to obtain average daily attendance at the plants for absentism factors. Accuracy ratios for first work trips varied from 82.0% to 115.7% among the various locations and the overall check was 99.6% which was considered acceptably accurate.

Another test is the Screenline Comparison Check, the screenline count is the actual manual ground count of vehicles crossing the screenline for a 24 hour period. The ground count was compared to the number of trips reported from the Internal Survey (the home interview) and the External Survey (interviews at the Cordon Line). The ground counts were adjusted for daily and monthly variations of the counting period. The over-all result was an increase of 0.6% trips although differences at individual screenline locations were larger.

It was assumed that the External Survey Data was well reported and would require no adjustment. In contrast, the Internal Survey Data was expected to be low after the reported trips were expanded. This discrepancy can be explained by forgotten trips, trips unknown to the family member interviewed, trips made by persons not residing in the study area, and multiple crossings. The extent of this under reporting ranged from 42.9% to -7.0%.

It became evident upon examination of the complete comparison, however, that the under-reporting differed by trip purpose and by hour period. To adjust the reported trips then, factors were used by purpose and by hour period. The results of the screenline comparison for auto-drivers are shown in figure II-3 before and after adjustment.

After all adjustments were completed, the trip totals appear as in Table II-2. As previously mentioned, external trips for all vehicle types were not adjusted.

¹ *Michigan Manpower Review, 1968.*

SCREENLINE COMPARISON – ALL VEHICLES

TABLE II-2

Auto-Driver Screenline Comparison

<u>Crossings</u>	<u>Unadjusted</u>	<u>Adjusted</u>
Internal Trips	162,832	218,835
External Trips	24,425	24,425
Total	187,257	243,260
Ground Counts	239,463	239,463
Comparison	78.2%	101.6%

Truck Screenline Comparison

<u>Combination Trucks</u>	<u>Unadjusted</u>	<u>Adjusted</u>
Internal	441	1923
External	3414	3414
Total	3855	5337
Ground Counts	5338	5338
Comparison	72.2%	100.0%

Single Unit Trucks

Internal	15,302	29,686
External	3,824	3,824
Total	19,126	33,510
Ground Counts	33,494	33,494
Comparison	57.1%	100.0%

The factors applied during the screenline comparison were then applied to all reported trips. The results appear in Table II-3.

TOTAL TRIP ADJUSTMENTS

TABLE II-3

	<u>Unfactored Trip Total</u>	<u>Factored</u>
Auto-Driver	624,270	902,150
S. U. Truck	51,604	100,112
Combination Truck	1,603	6,989
Taxi	5,362	5,362
Total		
Total	682,839	1,014,613

**CHAP. THREE. POPULATION AND LAND
USE CHARACTERISTICS**

**POPULATION CHARACTERISTICS
LAND USE INFLUENCES
SOCIO-ECONOMIC FACTORS
AFFECTING TRIP MAKING**

An adequate transportation plan must be based upon an estimate of future traffic desires. As noted above, population and land use characteristics are the chief determinants of these desires. Base year data on population and land use data is used to discover the way these characteristics relate to tripmaking. This must be done for each transportation study as these relationships change from area to area. Once the relationships are discovered, these patterns are assumed to hold constant through the future to the target year.

Population Characteristics

The largest producer and attractor of trips is the home. In Flint, approximately 80% of all trips end or begin at the residence. For this reason it is necessary to have complete data about all residences including total number and spatial distribution, number of persons in the household, number of autos available to the household, and the resident labor force. Study area totals for these items appear in Table III - 1.

STUDY AREA TOTAL

Population	447,767
Dwelling Units	125,684
Total Employment	142,386
Resident Labor Force	141,127
Persons/Dwelling Unit	3.56
Number of Autos	163,099

TABLE III-1

Information on population, dwelling units, and number of autos on a zonal level appears in the table "Summary of Adjusted Dwelling Unit Data" found in the appendix. The spatial distribution of population and resident labor force appear in figures 3-1 and 3-2 respectively. These figures show a perspective view of Genesee County, the transportation study area. The study area is viewed from the south southeast corner. The variations in height from the base represent increases in a per acre measurement, in this case population per acre and resident labor force per acre. Thus, figure 3-1 shows the spatial distribution of population per acre. Evident from the figure is that population is concentrated highly within the city and nearby with very few people living in the outlying areas. Comparison of the two figures indicates that the two are almost identical which can be interpreted to mean that there is an equal number of resident labor force per person throughout the study area. Any variations occur within the city limits. Persons are included in the resident labor force if they are 18 years of age or older and are seeking employment. Therefore, these variations would indicate more persons under 18 or persons too old to be employed.

POPULATION PER ACRE

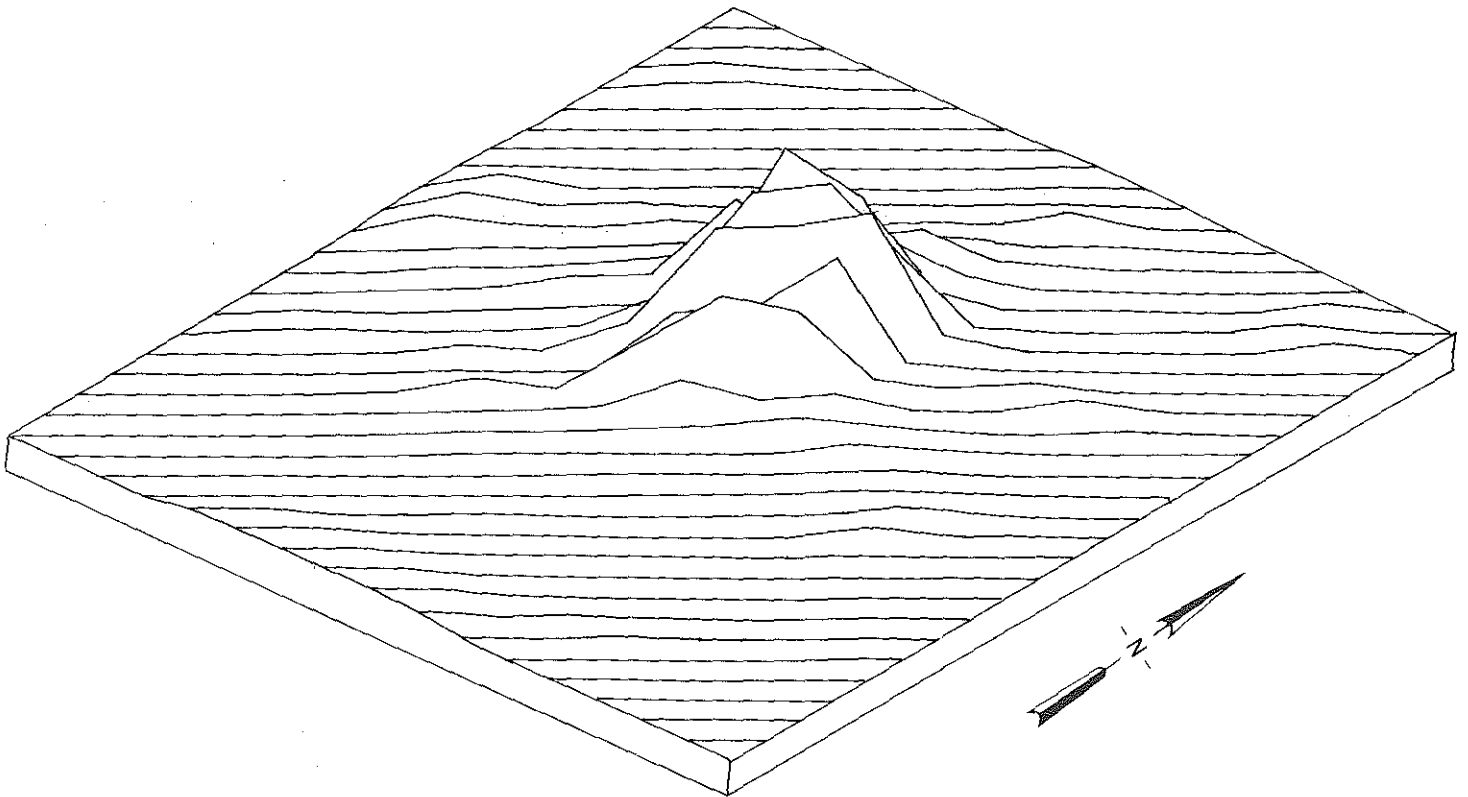


Figure 3-1

RESIDENT LABOR FORCE PER ACRE

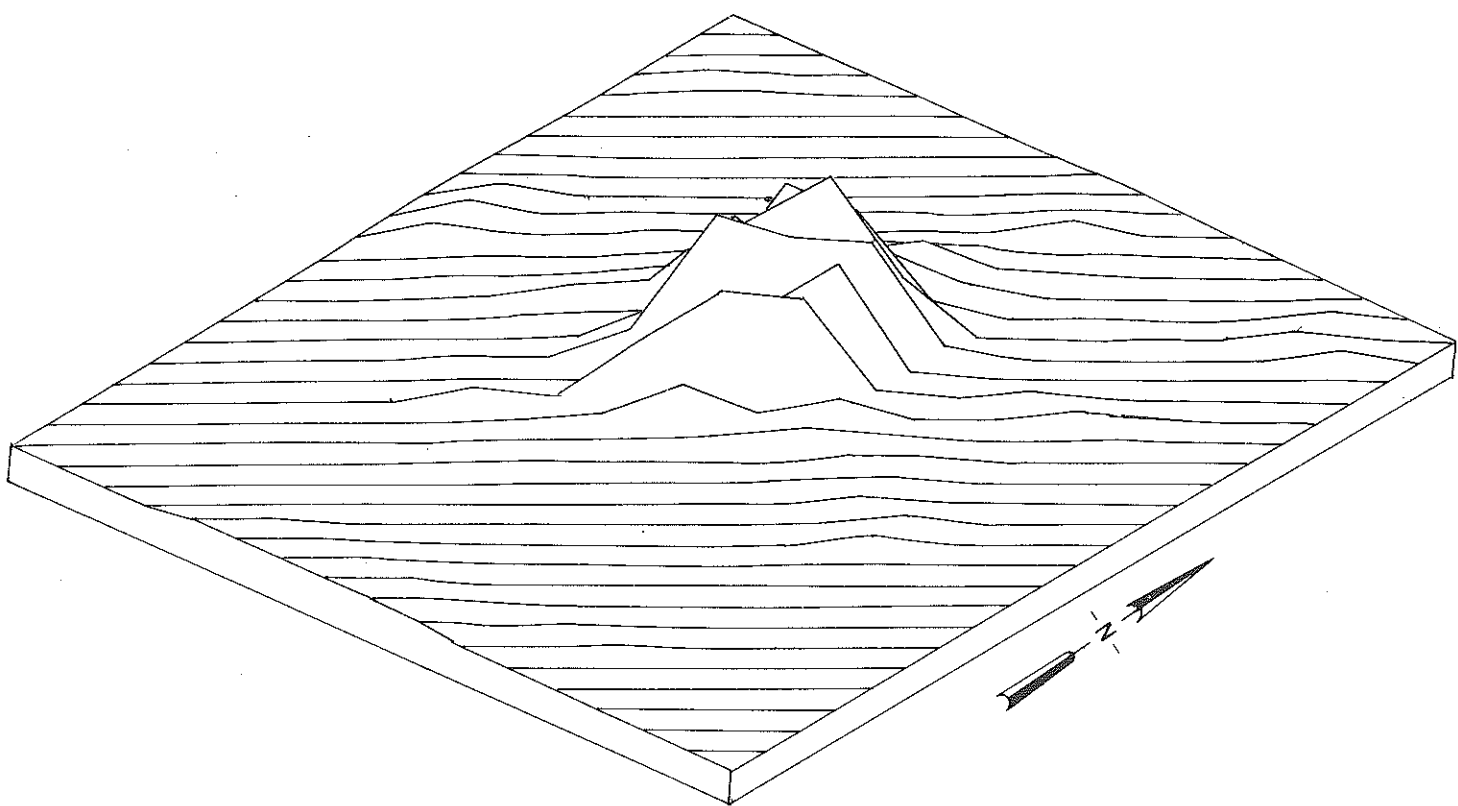


Figure 3-2

Workplaces are the second biggest single Origin and Destination of Trips. It is therefore very necessary to have complete data about these employment centers. Study area totals for types of employment are shown in Table 3-2.

EMPLOYMENT 1966

Type of Employment	Total Employed	% of Total
Professional and Govt. Service	18313	12.9
Personal Service	6417	4.5
Wholesale and Retail	22238	15.6
Manufacturing	83021	58.3
Other	12397	8.7
Total Employment	142386	100.0

Table 3-2

A complete inventory of all work places, types of employment at these workplaces, and location of the workplaces was made for the entire study area.

Land Use Influences

Although the home and workplace locations dominate travel patterns, daily traffic movement involves all types of land use. The patterns of land use are the main determinants of the total traffic pattern, for the sum of all traffic movements is the interchange between the various land uses.

Examination of the land use shows several factors. Surrounding the city of Flint is agricultural land. Almost all of the rural roads have residences located on them. The airport on the southwest side of Flint is a major attractor for trips. Surrounding the community are the several industrial plants attracting thousands of trips. These industrial centers draw city residents out to the perimeter of the city and bring county residents into the periphery of the city. Commercial facilities appear in the CBD drawing trips inward from the area to the center of the city. They also appear as strip development on some of the major arteries of the city such as Dort and Saginaw. Various shopping centers in the community also attract numerous trips.

Total acreage by land use appears in Table 3-3

STUDY AREA LAND USE BY ACRES

TABLE 3-3

Land Use	Acres
Residential	45,481
Non-Residential	19,789
Industry	2,388
Trans, Comm, Util	4,539
Wholesale Trade	148
Retail Trade & Serv	2,754
Govt. Ed., Misc, Serv	4,116
Cultural & Recreation	5,098
Mining & Resource Prod.	746
Agricultural	167,370
Vacant	145,415
Other	
Water Areas	4,297
R.O.W.	23,015
Total	405,367

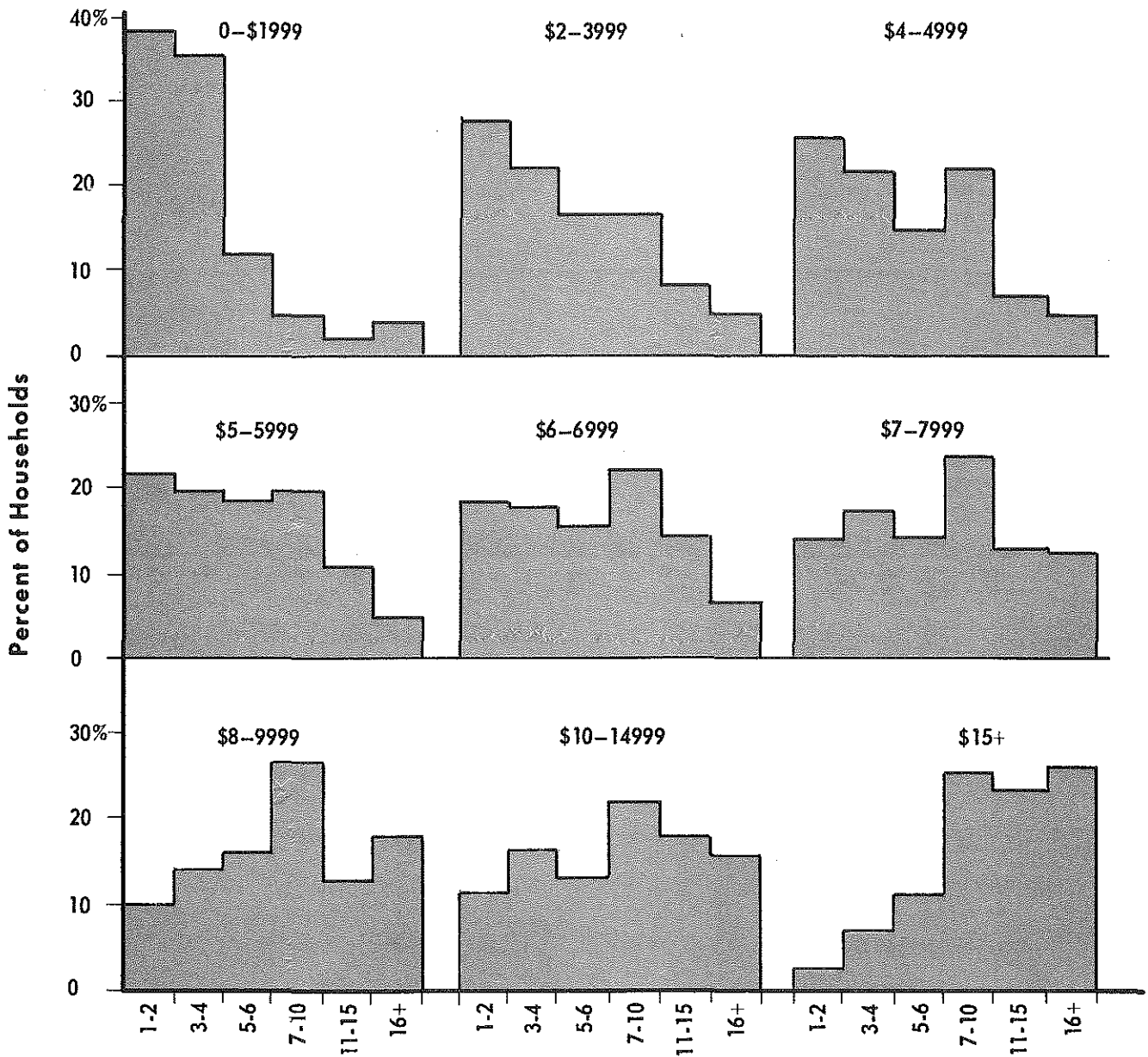
Source: Genesee County Land Use,
Flint-Genesee County, 1970

Agricultural land uses account for the greatest acreage. The land use which produces the greatest amount of trips per acre is industrial land use. Note that over 23,000 acres of land are used as street right-of-ways. This acreage amounts to 5.7% of the total land area.

Socio-Economic Factors Affecting Trip Making

Other factors besides land use can be associated with trip making. These factors include various socio-economic factors of the population. The two factors which most strongly show a relationship with propensity for trip making are household income and total cars available to the household. Figure 3-3 shows the number of trips made by 108,896 household related to household income.

HOUSEHOLD INCOME vs. TOTAL TRIPS



Total Trips

Fig. 3-3

The figure indicates quite directly that as the income of a household increases, the household makes more trips per day. Figure 3-4 shows the relationship between trip-making and cars available to the household.

Both of these relationships are easily explained. A family with a higher income would have more work trips, shopping trips, and social-recreational trips. A family with more autos probably has more autos because, aside from variables such as increased social status, cars are purchased because a fewer amount of cars are not adequate for the number of trips the household desires to make. For more relationships such as noted above, further information can be obtained from The Michigan Department of State Highways publication *Flint-Genesee County Transportation Study-Cross-Tabulations of Survey Data*.

The next section of this report will deal more exactly with traffic volumes.

TOTAL CARS vs. TOTAL TRIPS

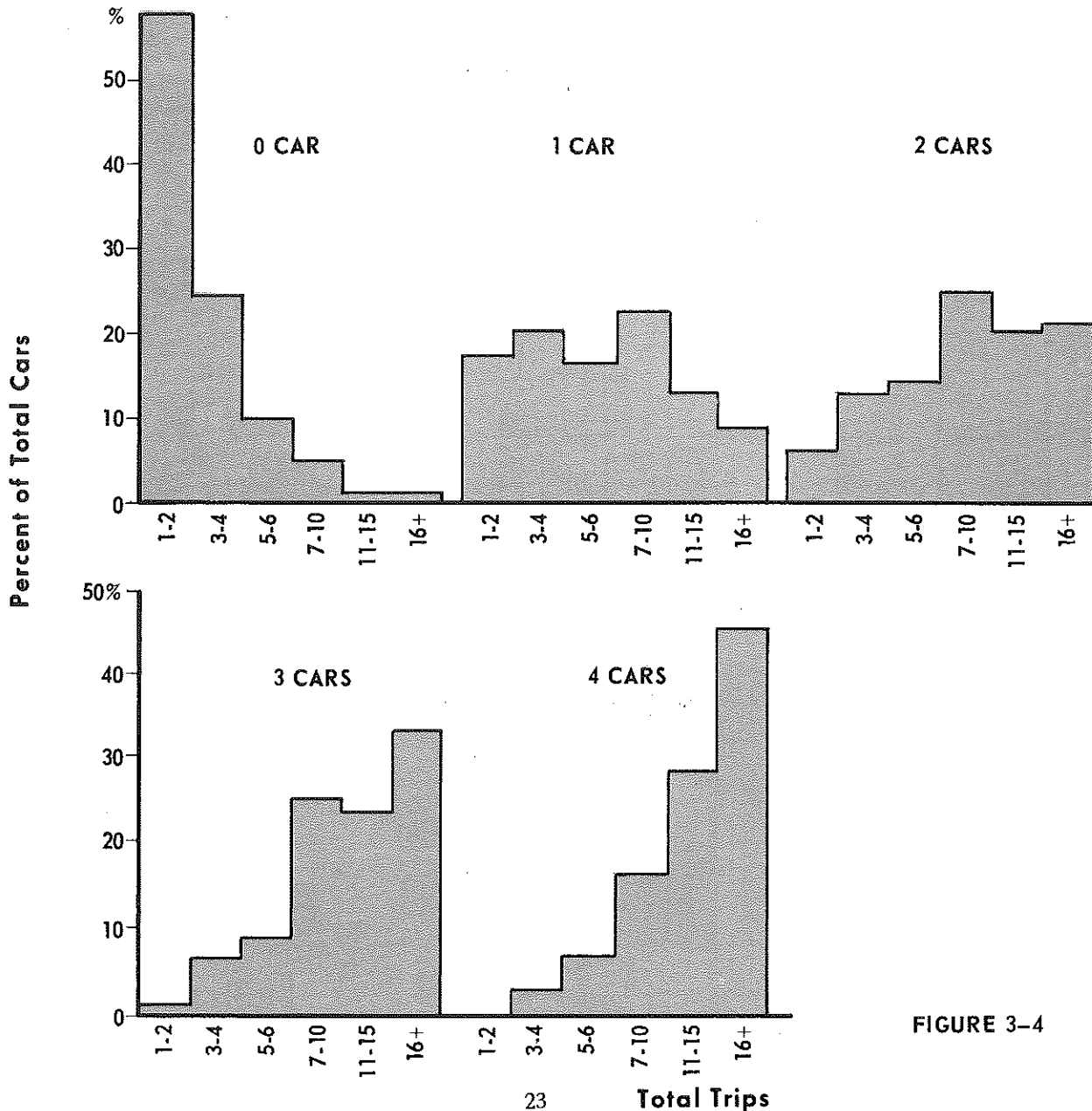


FIGURE 3-4

CHAP. **FOUR** TRIP
DATA

DESIRE LINES
OTHER TRAVEL
CHARACTERISTICS

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HIGHWAYS
LANSING, MICH.
P. O. DRAWER "K" 48904

Trip data can be described in various ways. The previous section of this report dealt with factors which determine trip-making. This section will show the distribution of trips throughout Genesee County in several ways.

Desire Lines

On the broadest level, desire lines can be examined. Desire lines have been defined as imaginary lines between stations and/or zones and/or districts connecting a trip origin with a trip destination. Being imaginary lines, they do not consider any actual streets but rather, only connect the various analysis units. The desire line widths vary according to the traffic volume between the indicated origin and destination.

The first desire line diagram, figure 4-1, indicates through traffic on state trunk lines. The principal movement of through trips appears to be of a north-south direction. 8690 vehicles made this movement on an average weekday in 1966 on state trunk lines. All other movements on state trunk lines are indicated also.

The next section of desire lines shows external trips, that is, trips with one end outside of the study area. Figure 4-2 indicates trips entering on US-23 at the south border, M-54, and M-13 on the north side of the study area, that terminate in the study area. Figure 4-3 shows trips entering on I-75 from the north and the south.

Internal trip desire lines are shown in the next section. Figure 4-4 shows trips originating in the Central Business District. Trips to principal districts are indicated. Figure 4-5 shows internal trips originating from district 11, the Chevrolet Van Slyke Manufacturing Area.

A complete set of desire lines can be obtained from the Michigan Department of State Highways publication, "Flint Genesee County Transportation Study - 1966 Travel Patterns."

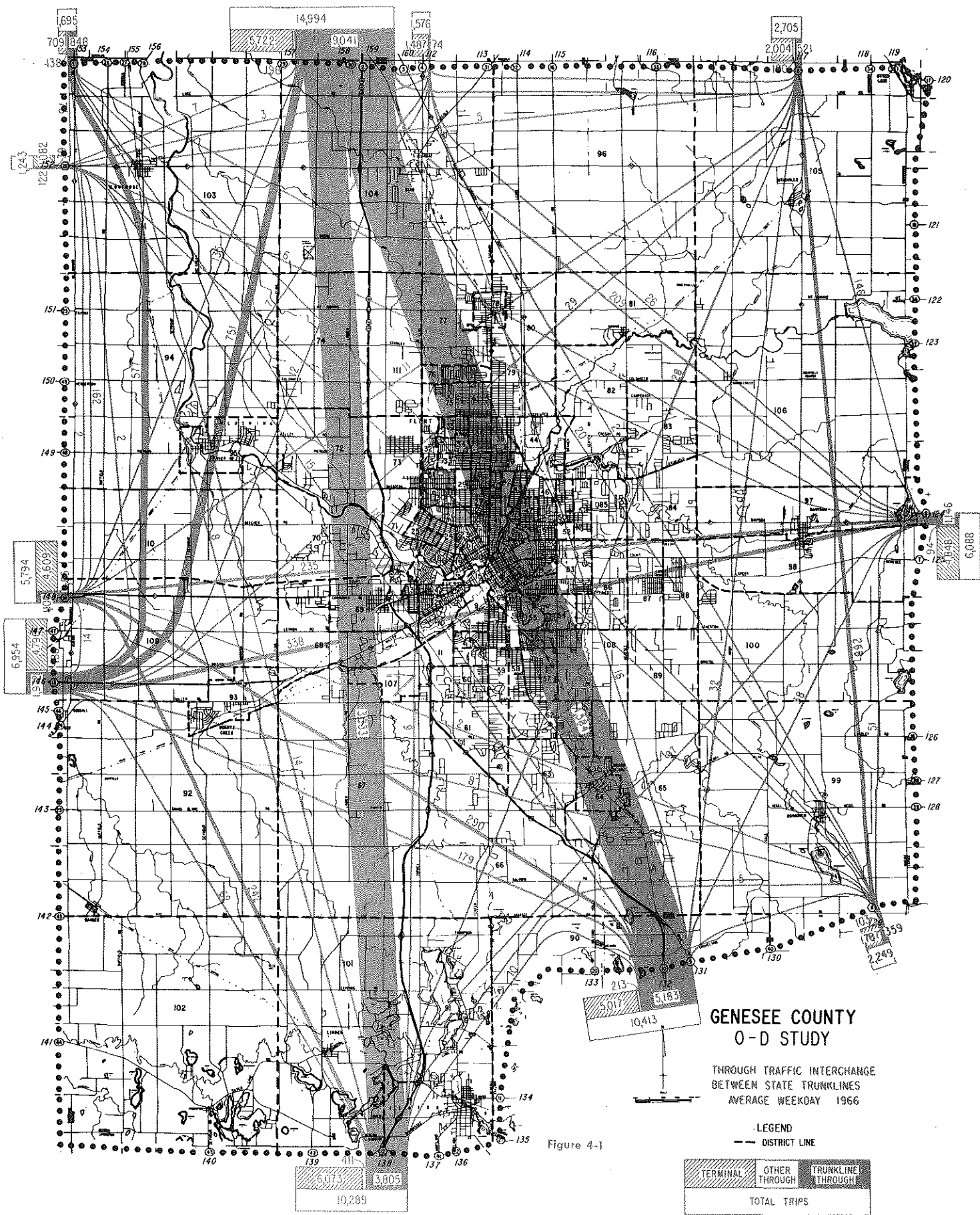
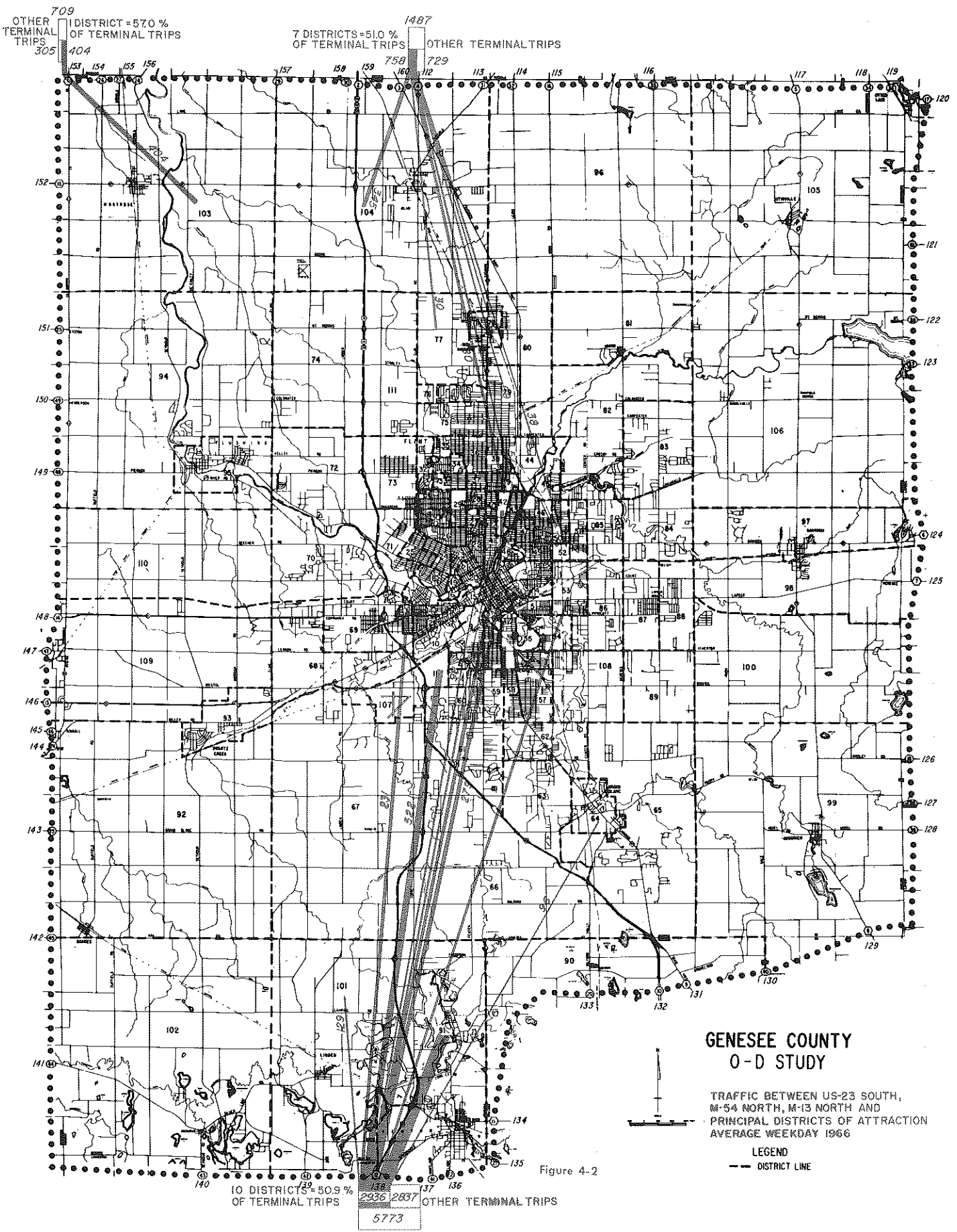


Figure 4-1



**GENESEE COUNTY
O-D STUDY**

TRAFFIC BETWEEN US-23 SOUTH,
M-54 NORTH, M-13 NORTH AND
PRINCIPAL DISTRICTS OF ATTRACTION
AVERAGE WEEKDAY 1966

LEGEND
--- DISTRICT LINE

Figure 4.2

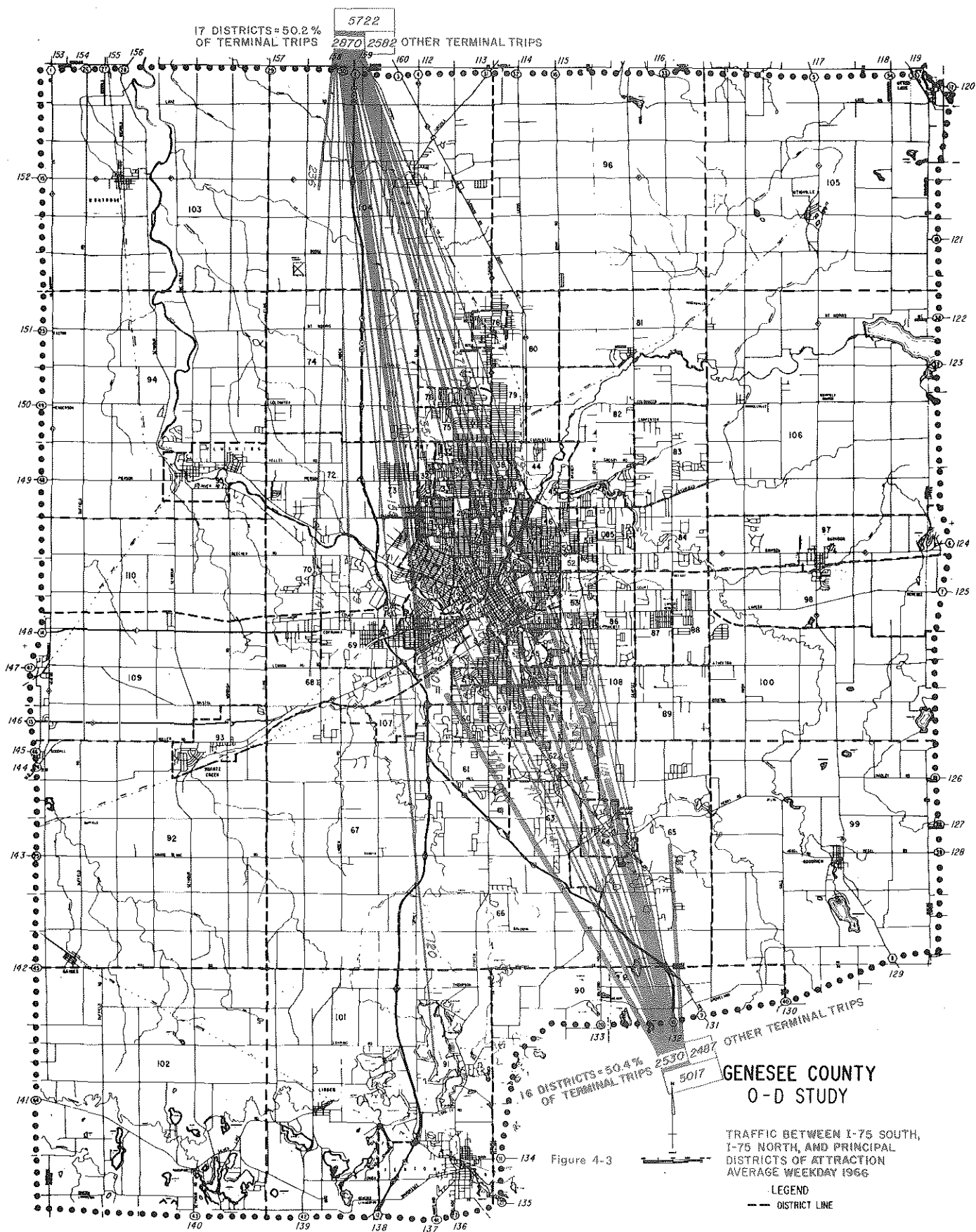


Figure 4-3

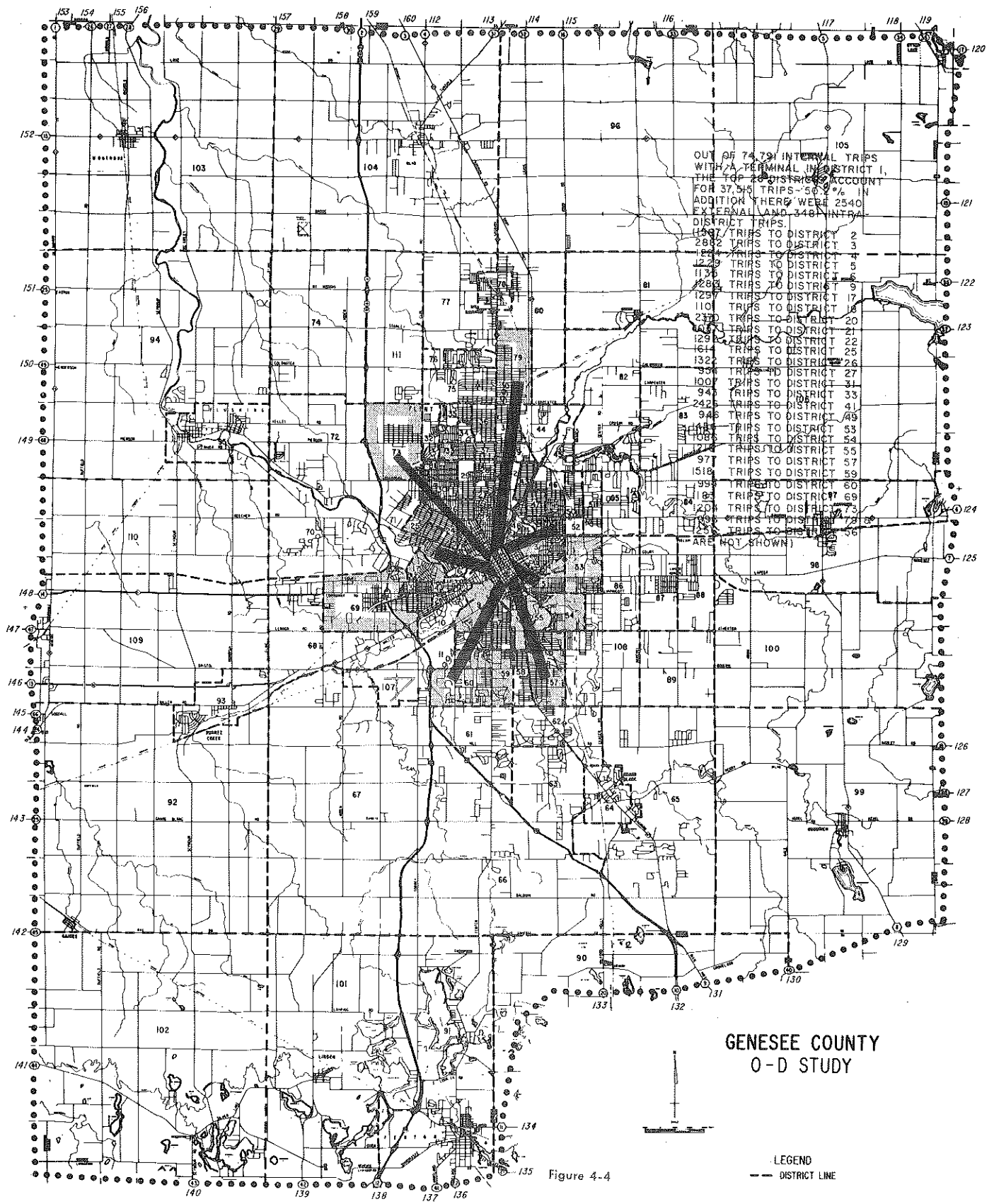


Figure 4.4

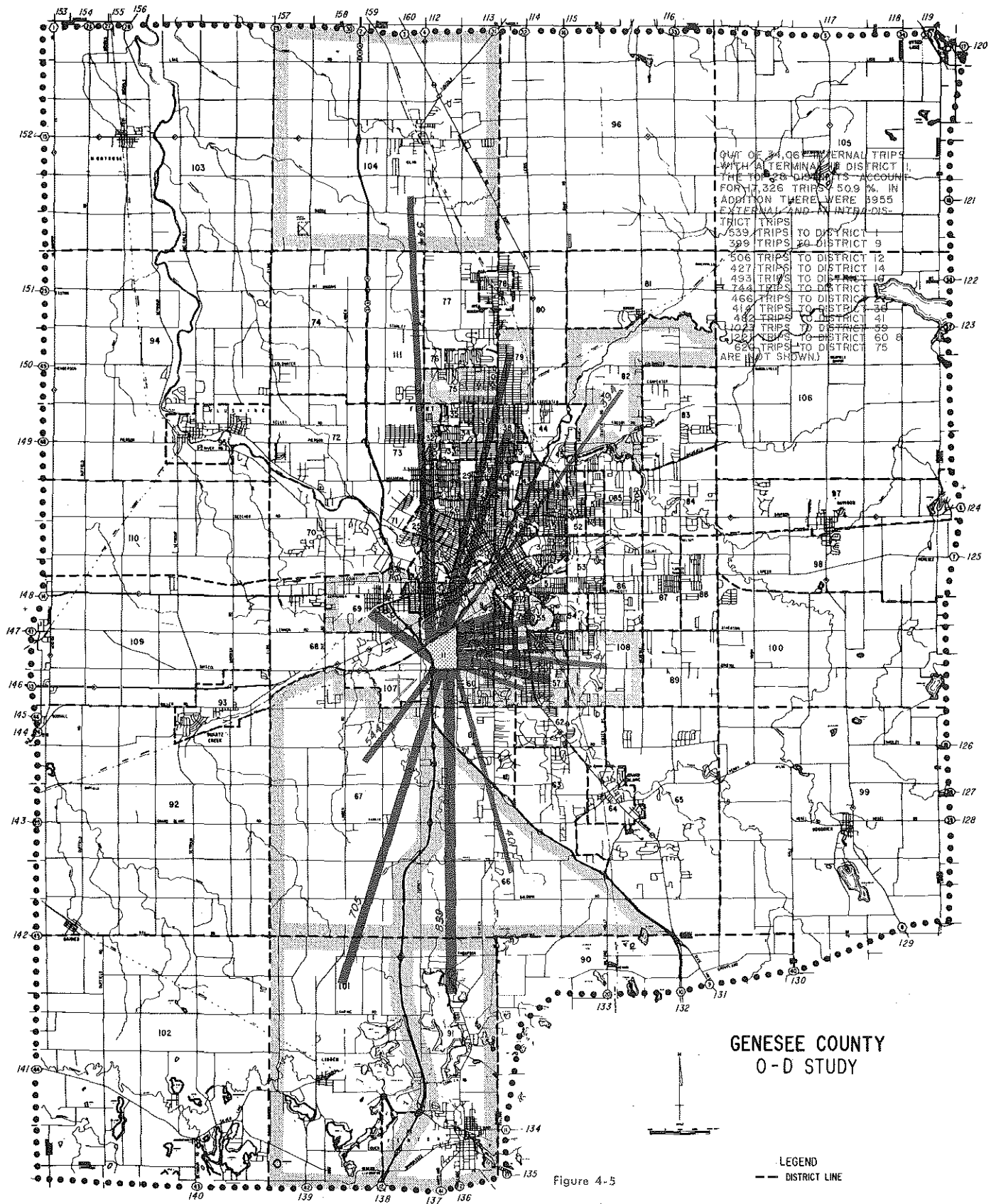


Figure 4-5

Type of Travel Movement

Figure 4-6 indicates the type of traffic movement within the Genesee County Study Area.

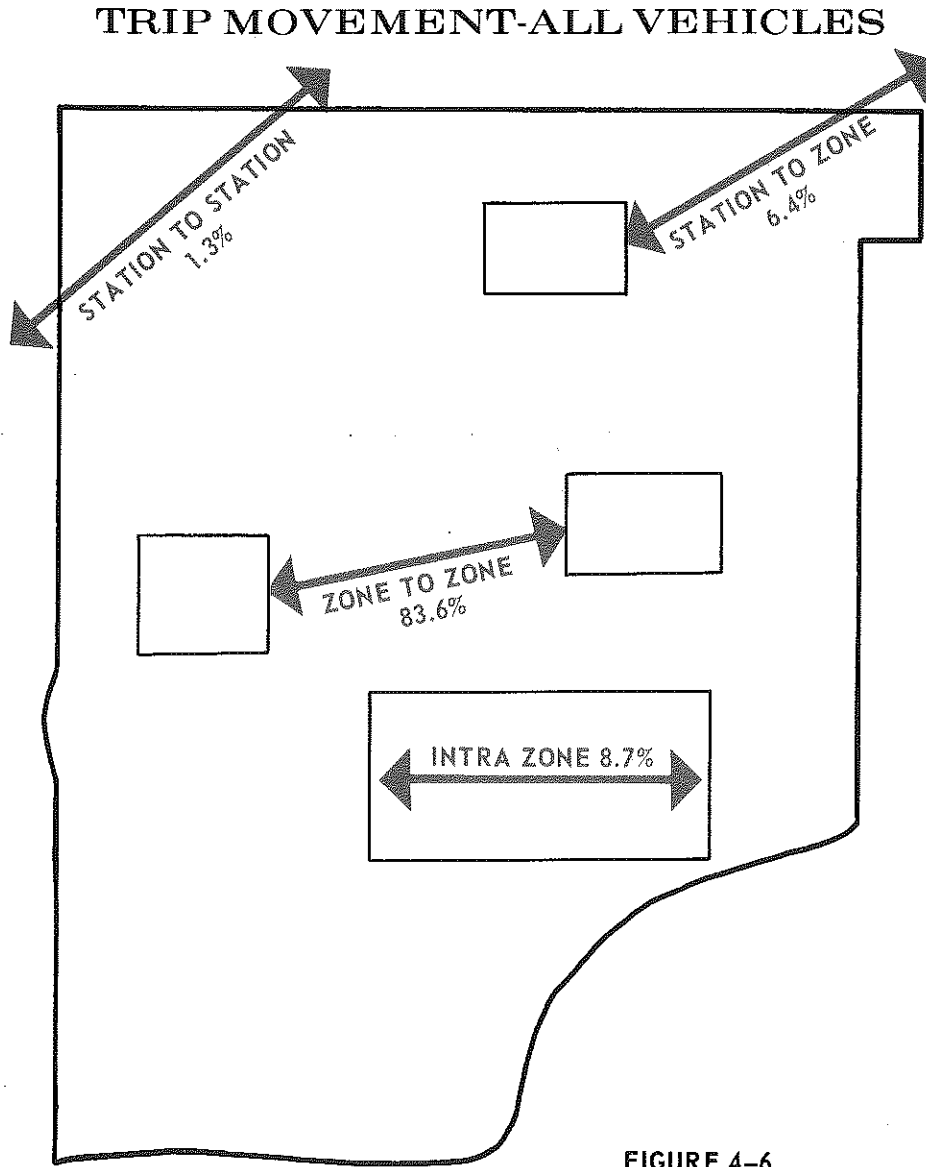


FIGURE 4-6

Findings indicated by the above graph indicate that Flint has less station to station trips than surrounding cities. In transportation studies conducted in the neighboring cities of Midland and Saginaw, the percentage of total trips that were from station to station were 6.1% and 3.5% respectively.

The zone to zone figure is due to the size of the study area. In the case of the Flint study, the cordon line encompasses a sufficient area around Flint to enclose most of the trips.

Figures 4-7, 4-8, 4-9 show the number of vehicle trips on all arterial streets in the study area. The streets are scaled in size to indicate volume of traffic. The figures indicate that the streets carrying the most vehicles in a 24-hour period are US-10-23, M-54 and M-21. BR-24 north of Flint also carries large volumes. In the downtown area map, Court, Grand Traverse, Saginaw and Robert T. Longway carry the greatest volumes.

GENESEE COUNTY AREA

24 HOUR TRAFFIC FLOW ON SELECTED STREETS
WEEKDAY IN APRIL, MAY AND JUNE 1966
MICHIGAN DEPARTMENT OF STATE HIGHWAYS

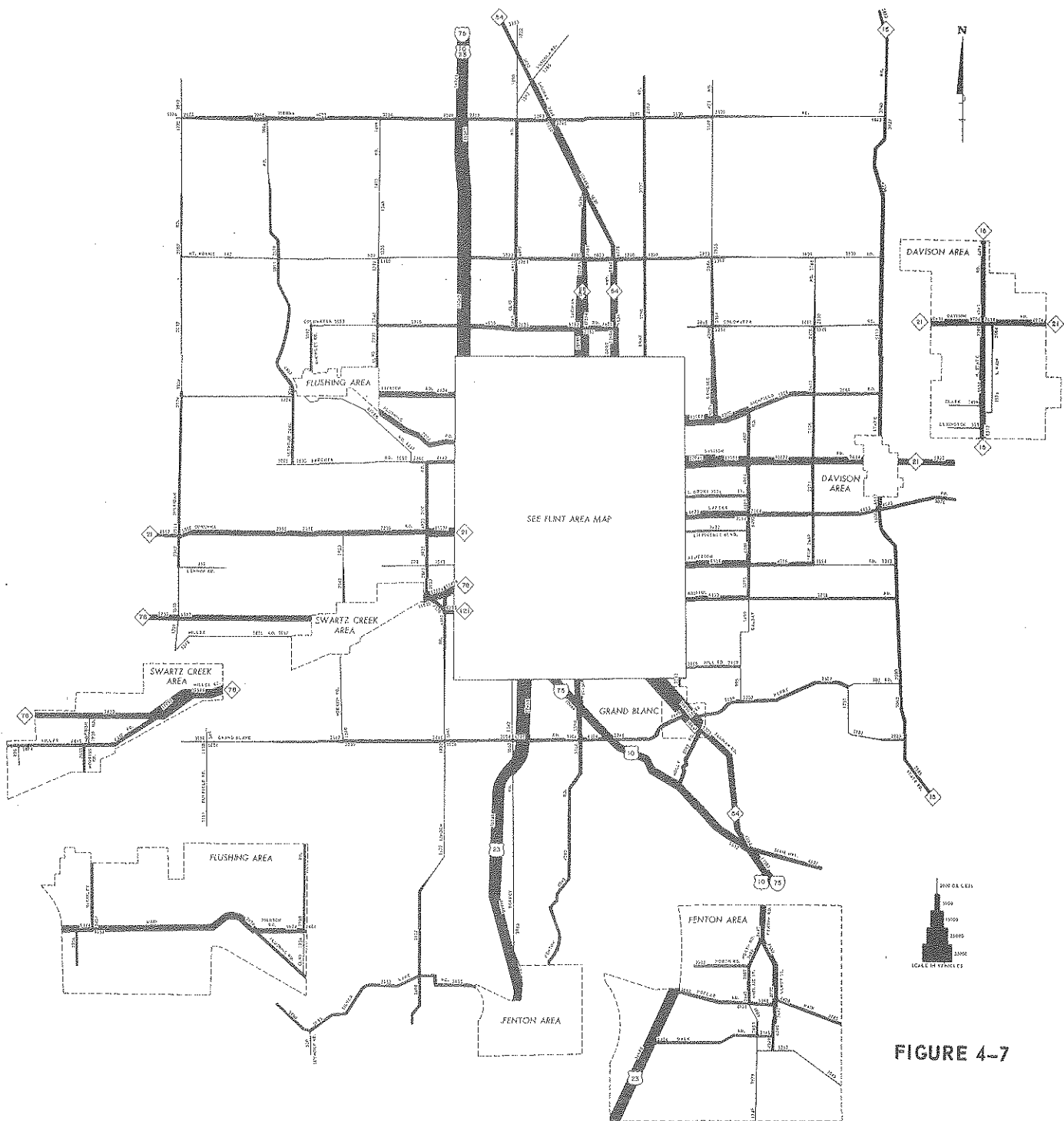


FIGURE 4-7

FLINT AREA
24 HOUR TRAFFIC FLOW ON SELECTED STREETS
WEEKDAY IN APRIL, MAY AND JUNE 1966
 MICHIGAN DEPARTMENT OF STATE HIGHWAYS

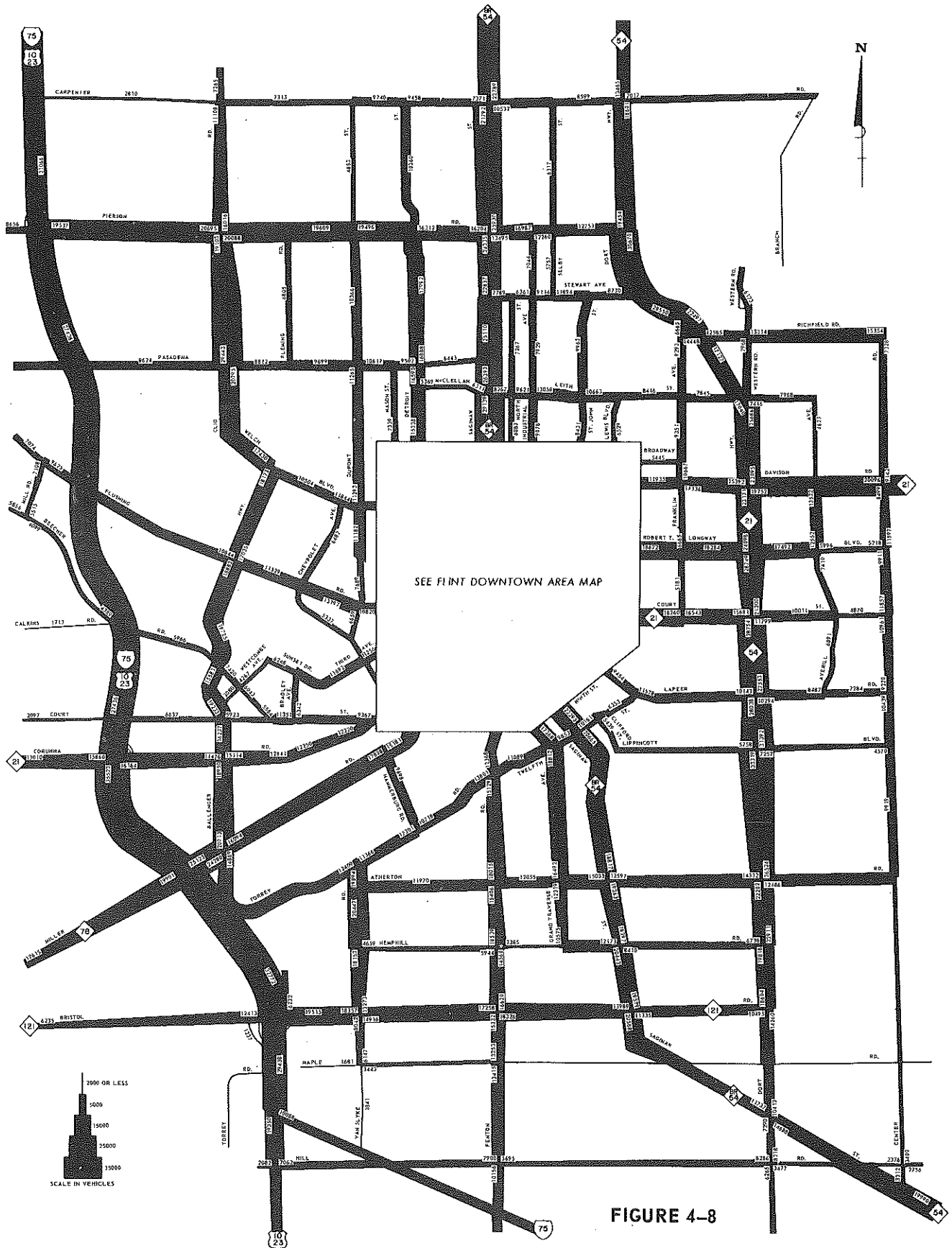


FIGURE 4-8

FLINT DOWNTOWN AREA

24 HOUR TRAFFIC FLOW ON SELECTED STREETS

WEEKDAY IN APRIL, MAY AND JUNE 1966

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

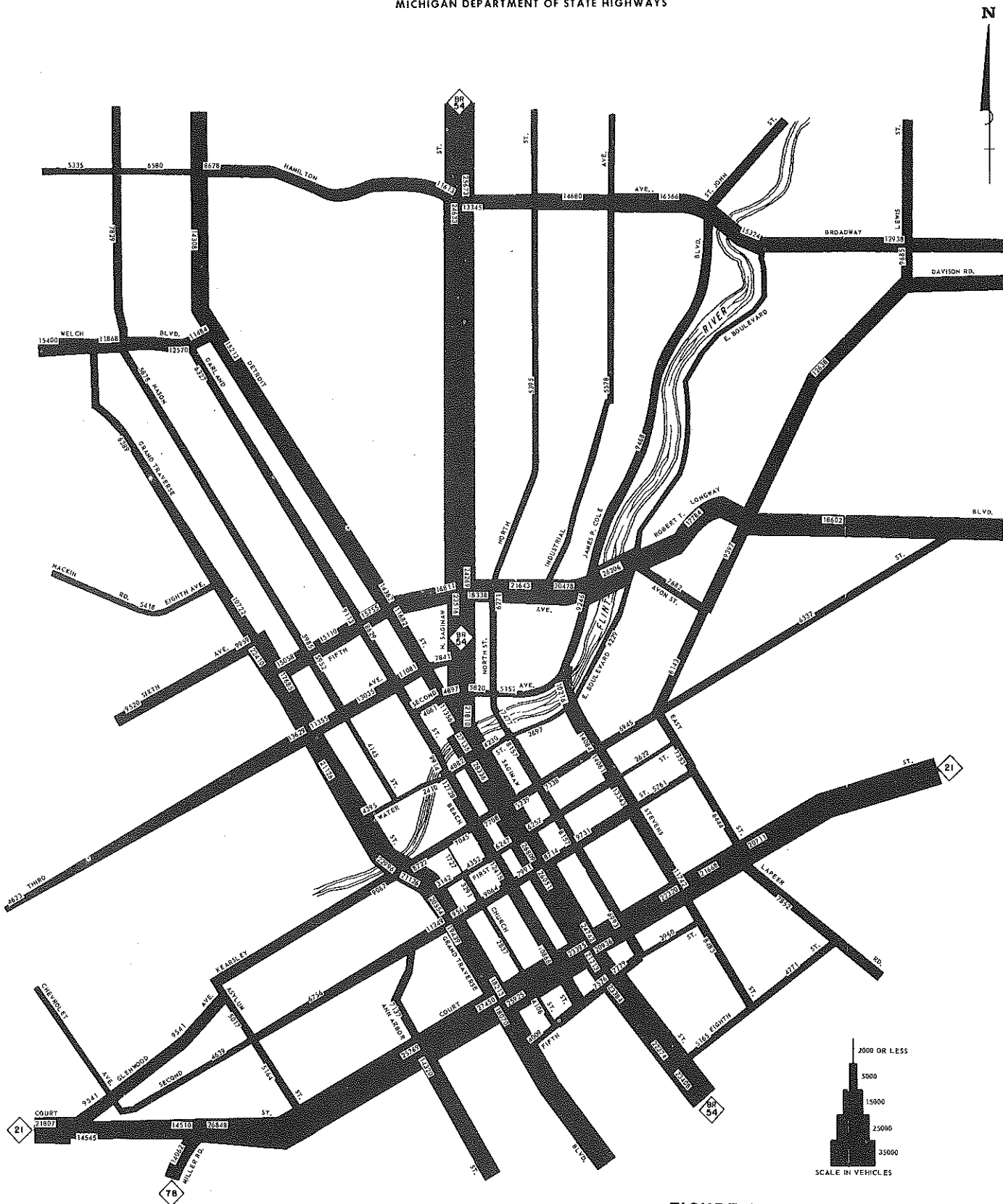


FIGURE 4-9

Other Travel Characteristics

Trip making in Genesee County can be summarized in several other ways. These summarizations fall into the categories of spatial distribution of trip production and attraction, mode of travel, hour of travel, and trip purpose.

Figure 4-10 shows the spatial distribution of trip production.¹ The height of the bar indicates trip productions per acre in the study area which is viewed from the SSE. The squares represent equal areas of land. Most of the trip productions occur within the urbanized area of Flint as expected. Smaller amounts appear in the smaller towns such as Clio and Otisville on the north, and Swartz Creek to the south. Trip attractions per acre are shown in figure 4-11. Note that the scale on this map is different than on the preceding map. It is evident, however, that spatial distribution of trip attractions is much more diverse than for trip productions. The small towns to the north attract comparatively more trips than they produce probably because of shopping opportunities there for those in the rural hinterland. The reader can conclude from the two figures that the trip production points are much more concentrated than attraction points.

¹ *For purposes of the study, trips which begin or end at home are considered produced at home and attracted to the non-home end.*

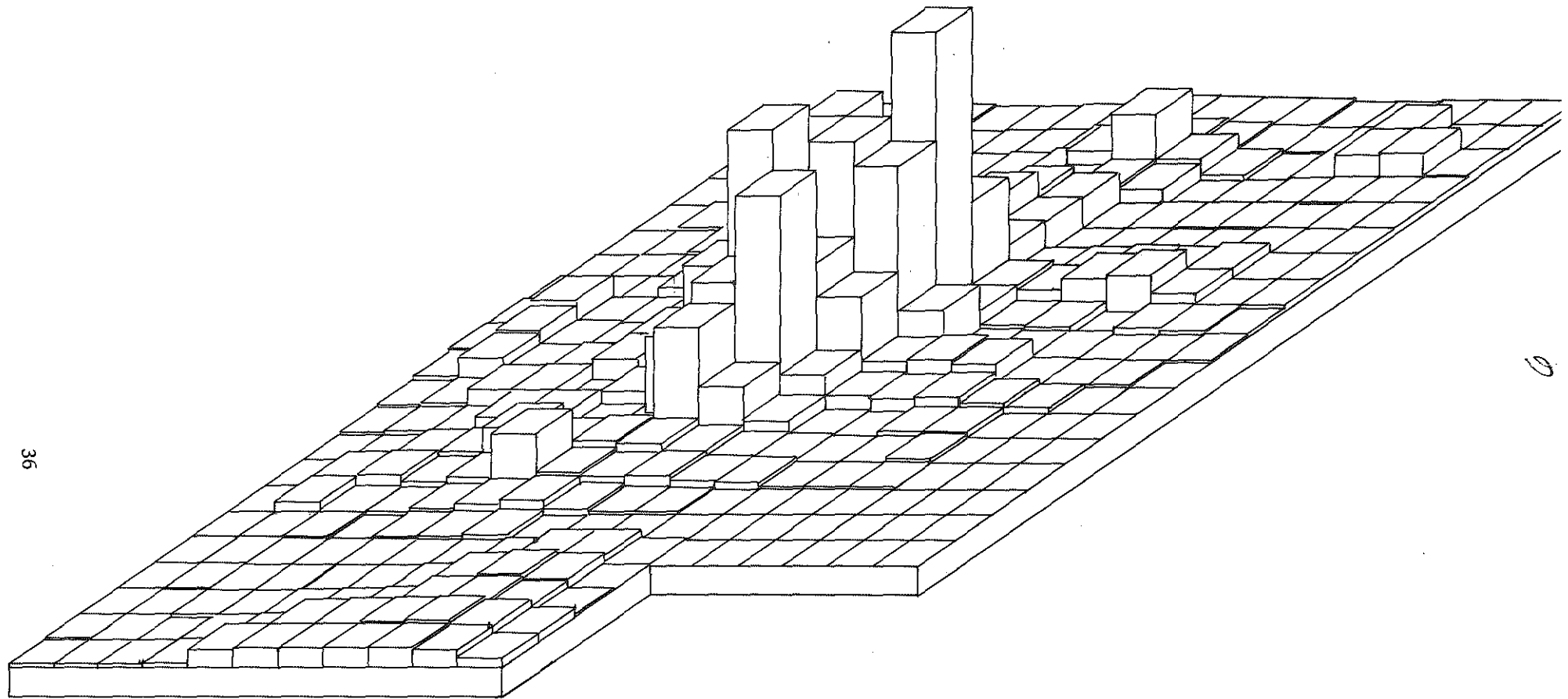
Mode of travel was also identified in the Flint-Genesee County Study. These modes for all trip purposes of Internal Trips appear in figure 4-10.

As in most cities, the percent of persons using the automobile as a driver or a passenger is extremely high. In the case of Flint, this percentage is 92.41% for all internal trips.

Mode, however, was found to differ by trip purpose. Internal trip purpose by mode appears in figure 4-13.

GENESEE COUNTY

TOTAL TRIP PRODUCTIONS PER ACRE



36

SCALE [5 Trips Per Acre

FIGURE 4-10

GENESEE COUNTY

TOTAL TRIP ATTRACTIONS PER ACRE

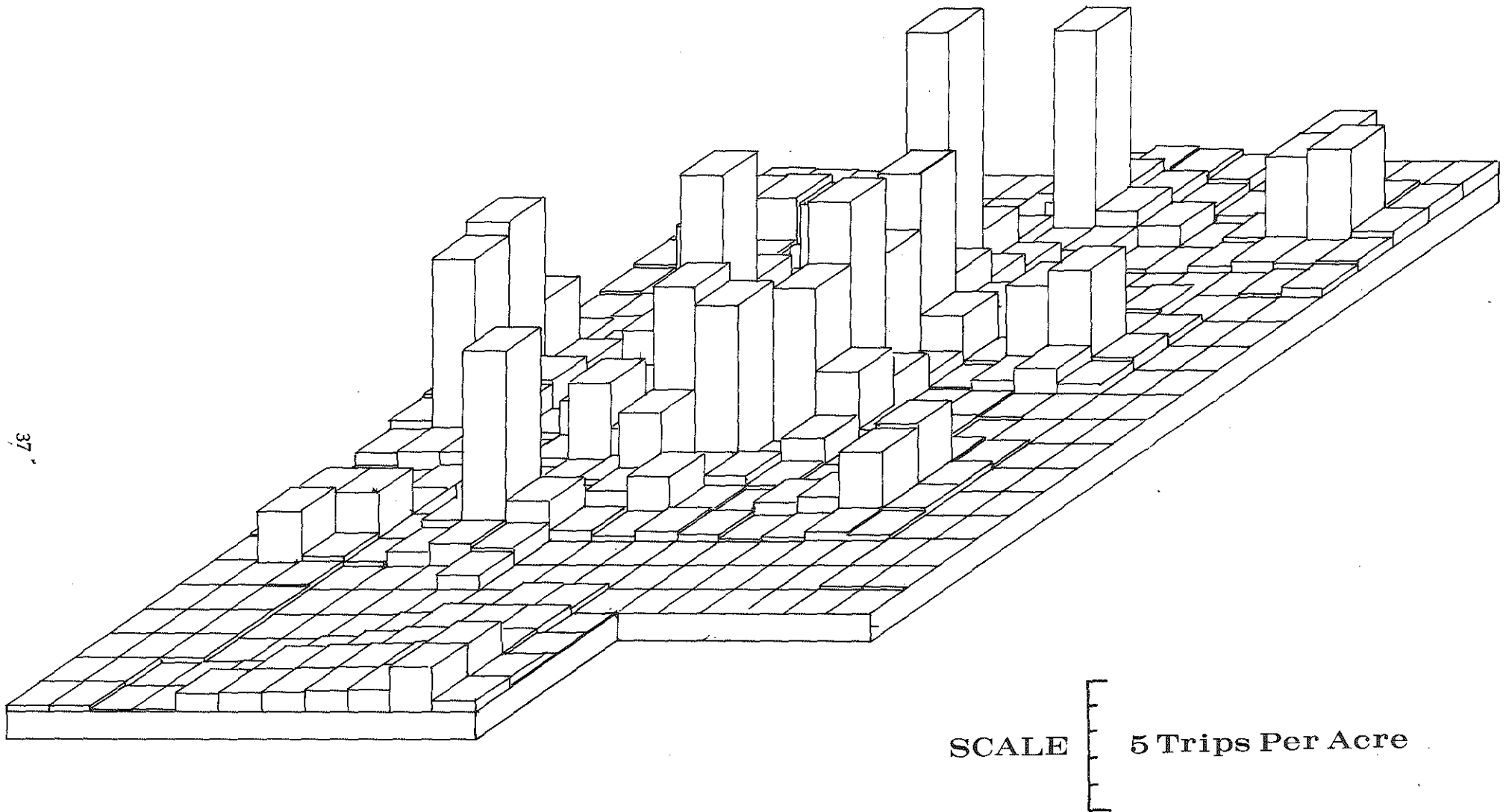


FIGURE 4-11

A further breakdown of auto trips indicates passenger car occupancy changes with trip purpose. This is partially shown in figure 4-13. Figure 4-14 further reveals the differences. The first data set shows the occupancy rate for all internal trips by purpose. The "Serve Passenger" category shows the highest occupancy rate. This is because there must be at least two people in the car. The lowest occupancy rate is for work trips. This factor begins to illuminate why there is such traffic congestion during periods when worker shifts occur. Work trips characteristically occur during peak congestion times. If the occupancy rate was as high for work trips as in the "Serve Passenger" category, work trips would be cut by approximately 50% and cut total trips by 25% since work trips constitute around 50% of all trips made during peak hours.

The second and third data sets show passenger car occupancy rates for vehicles owned inside and outside the study area making external trips. Again, work trips have the lowest average occupancy rate. Vacation trips have the highest rates. Note however that all occupancy rates for the given purposes for external trips, this can be explained by the fact that people who must travel the longer distance make greater efforts to share rides.

Also available from figure 4-14 is the data concerning total trips by purpose. The column entitled "Number of Vehicle" gives the total number of vehicle trips made for the given purpose.

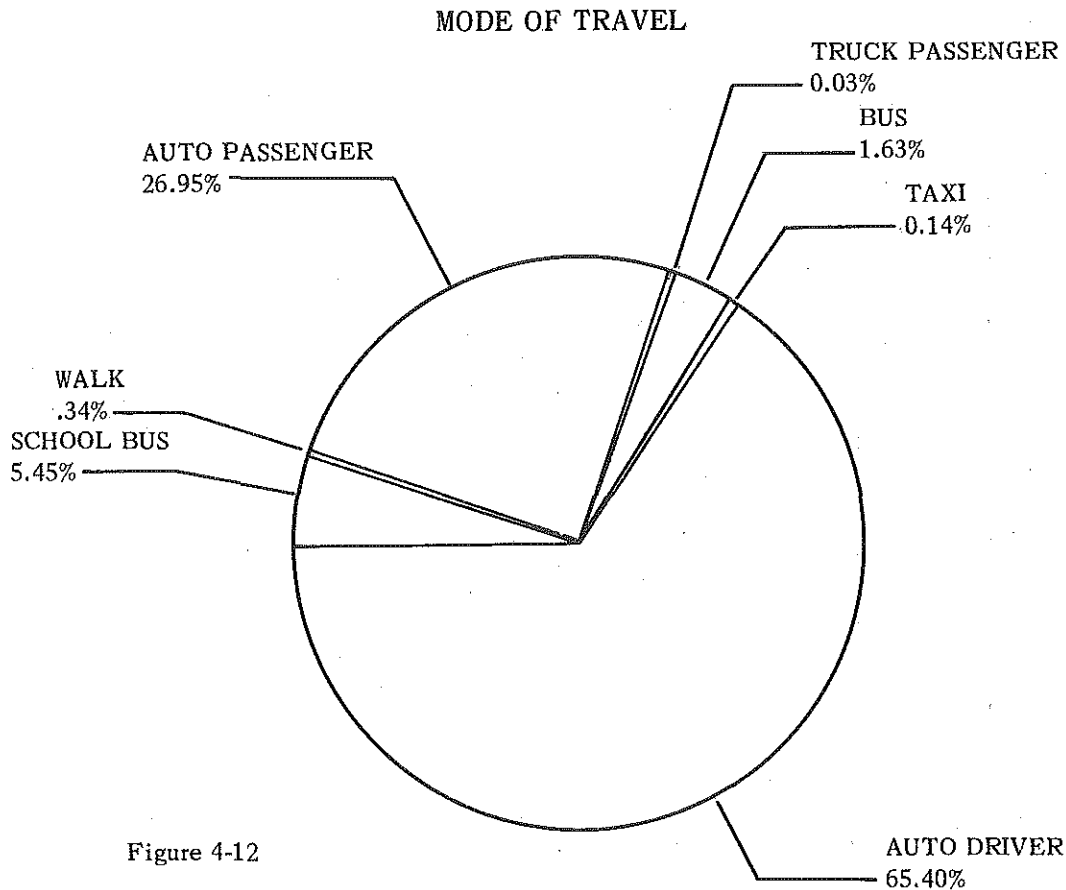


Figure 4-12

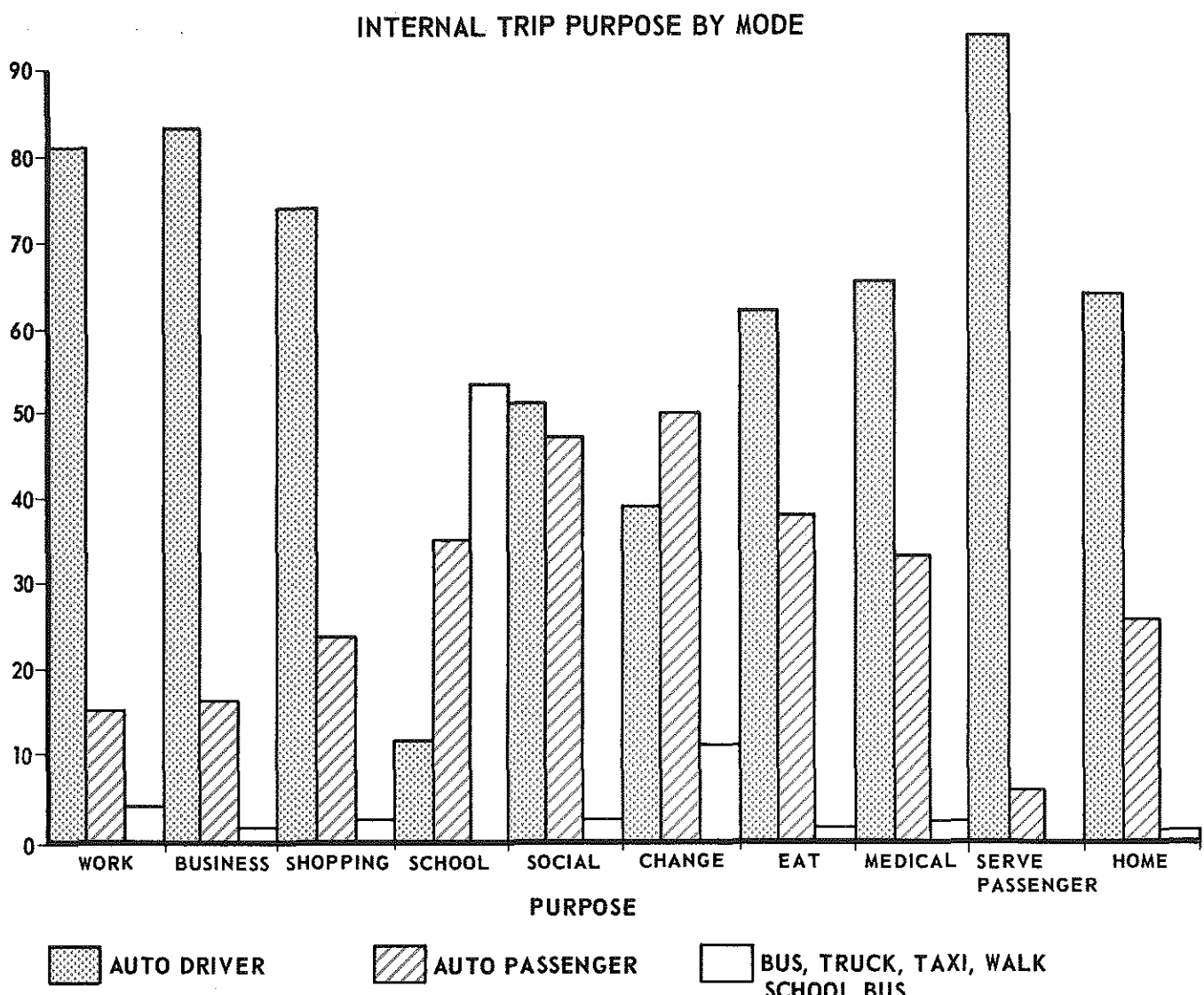
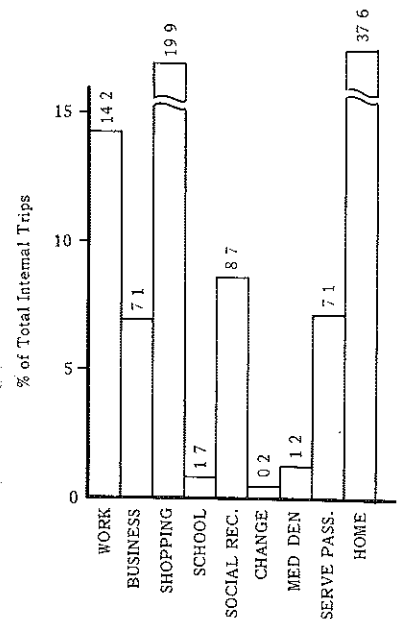


FIGURE 4-13

PASSENGER CAR OCCUPANCY TABLES

INTERNAL RECORDS

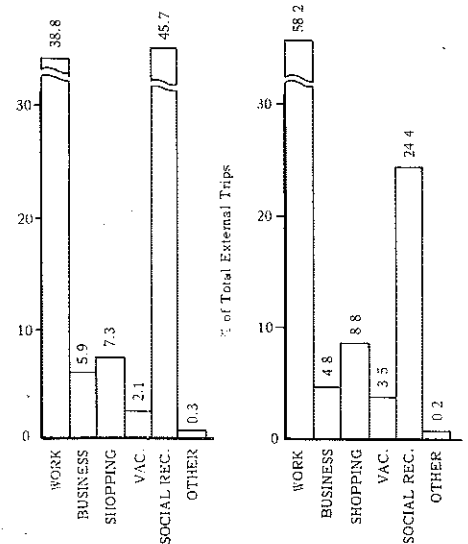
TO-PURPOSE OF TRIP	NUMBER OF VEHICLES	% OF VEHICLES	NUMBER OF OCCUPANTS	AVERAGE OCCUPANTS
Work	132,199	14.2	147,767	1.12
Business	65,912	7.1	91,770	1.39
Shopping	185,311	19.9	290,959	1.57
School	15,827	1.7	23,742	1.50
Social-Rec.	81,084	8.7	139,093	1.72
Change Mode	2,318	.2	3,427	1.48
Eat Meal	22,172	2.4	41,022	1.85
Medical/Dental	10,798	1.2	17,233	1.60
Serve Passenger	65,894	7.1	143,054	2.17
Sub-Total	581,515	62.4	898,067	1.54
Home	350,214	37.6	496,757	1.42
TOTAL	931,729	100.0	1,394,824	1.50



EXTERNAL RECORDS

VEHICLE OWNED INSIDE THE AREA

TO-PURPOSE OF TRIP	NUMBER OF VEHICLES	% OF VEHICLES	NUMBER OF OCCUPANTS	AVERAGE OCCUPANTS
Work	8,558	38.8	11,637	1.36
Business	1,291	5.9	2,369	1.84
Shopping	1,599	7.3	3,135	1.96
Vacation	460	2.1	1,129	2.45
Social-Rec.	10,082	45.7	21,004	2.08
All Other	58	.3	126	2.17
TOTAL	22,048	100.0	39,400	1.79



VEHICLES OWNED OUTSIDE THE AREA

Work	26,530	58.2	36,768	1.39
Business	2,195	4.8	3,915	1.78
Shopping	4,016	8.8	8,168	2.03
Vacation	1,606	3.5	3,771	2.35
Social-Rec.	11,133	24.4	22,844	2.05
All Other	110	.2	187	1.70
TOTAL	45,590	100.0	75,653	1.66

FIGURE 4-14

The highest category of trip purpose for internal trips was trips made to the home, constituting over 1/3 of all internal trips. Shopping trips account for 19.9% with work trips accounting for slightly less. External trip purposes show different characteristics. In this case there are no trips to the home. Because the home end is outside of the study area or not a trip end in other cases. Work trips account for 58.2% of all external trips compared to the 14.2% figure for internal trips. Social-recreation trips are the next biggest category constituting 24.4% of the external trips, or almost three times of the percentage for internal trips. This high figure for social-recreation trips reflects the time at which the data was collected which was during the summer months. No doubt these trip-purpose percentages would change in the winter months.

Examination of data obtained at the screenline reveals other characteristics of travel. The screenline crosses the entire study from west to east. Screenline station locations are listed in the appendix. 49 stations were located at major streets crossing the screenline. Vehicle classification counts were taken for 24 hours at each station. The results of these counts are described below.

Figure 4-15 indicates the total number of vehicles crossing each screenline station in a 24-hour period. The data comes from the manual classification counts.

Table 4-1 shows passenger car trips by purpose and hour period at the screenline.

Figure 4-16 shows the hourly variations of total traffic for all vehicle types at all screenline stations.

It is assumed that the hourly distribution across the screenline will be quite similar to the hourly distribution on the total study area. The Figure indicates two distinct peaks occurring around the periods of 7-8 AM and 3-4 PM. These times are those in which most work trips occur and represent the peak times of congestion throughout the study area.

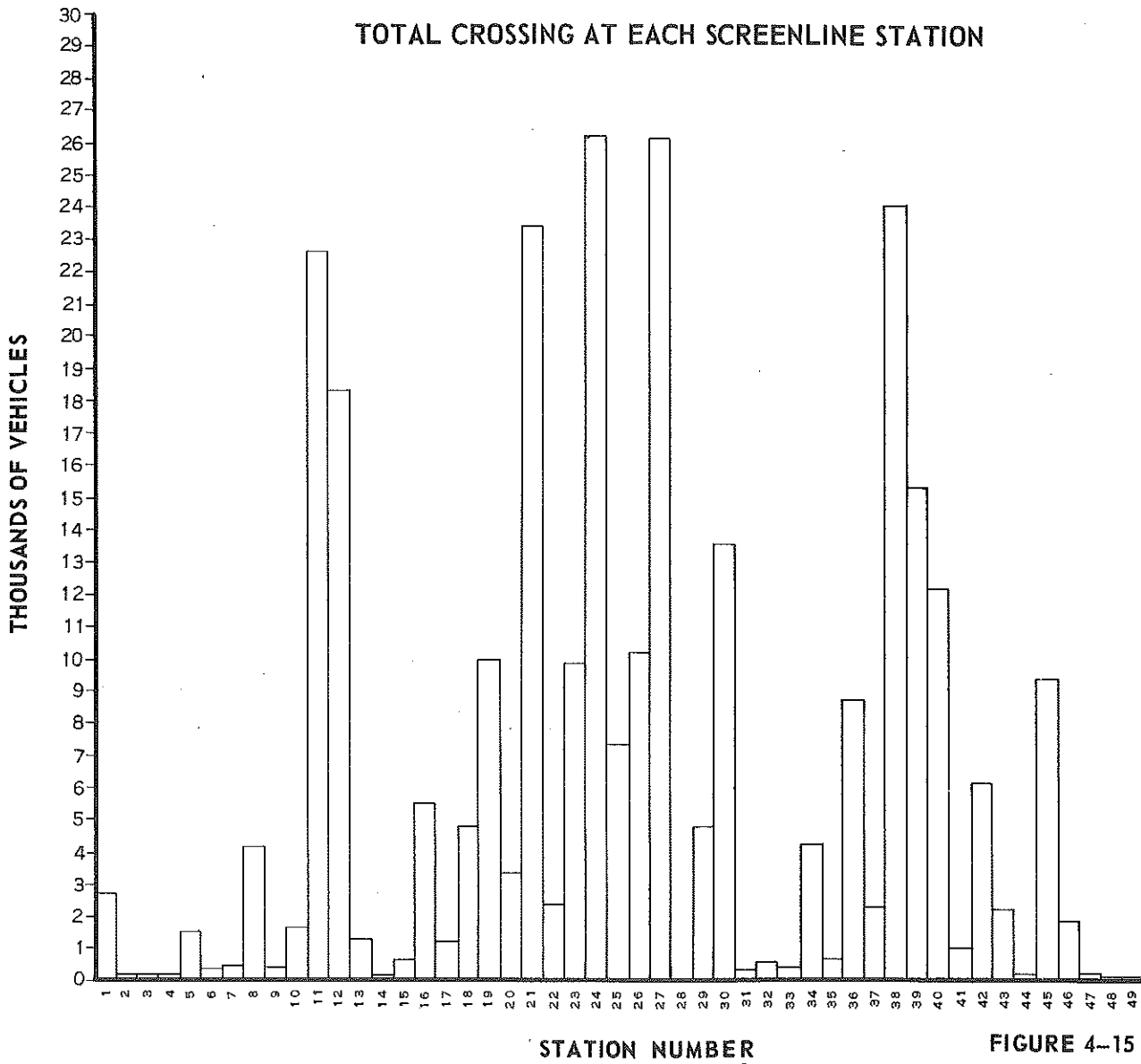


FIGURE 4-15

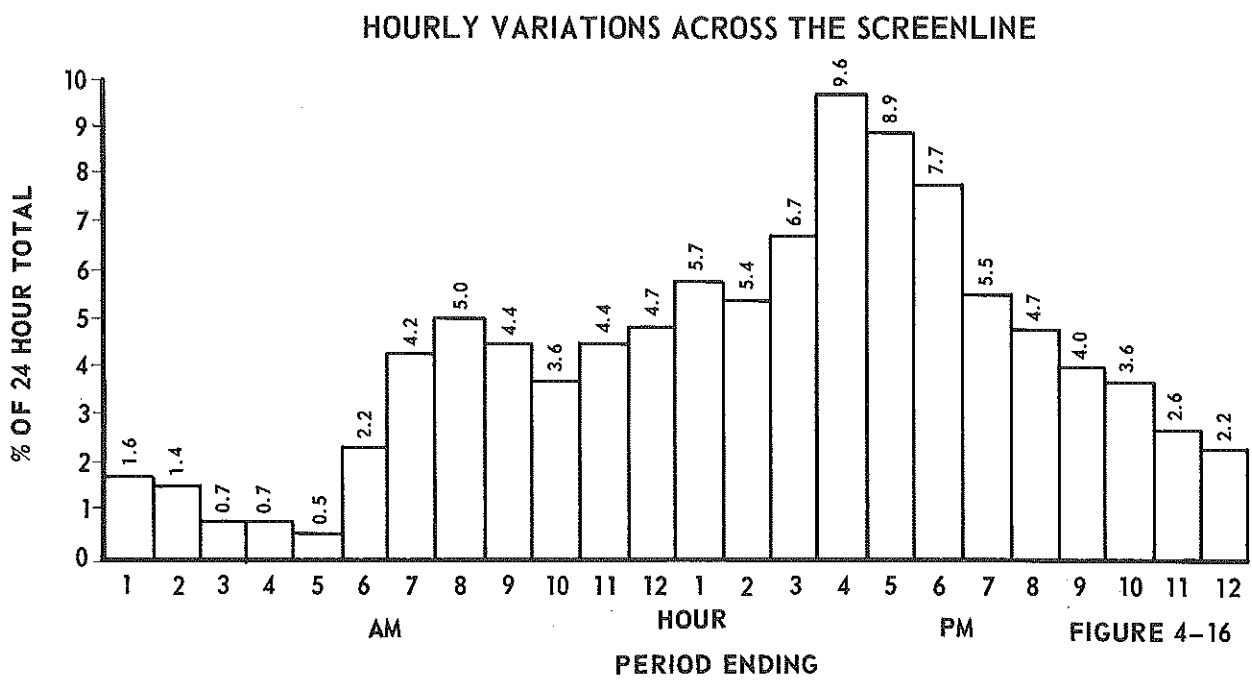


FIGURE 4-16

AUTO TRIPS BY PURPOSE AND HOUR PERIOD AT THE SCREENLINE

1 Hour Period	INTERNAL TRIPS										EXTERNAL		13 Total Trips	14 Manual Count	Percent
	2 Work	3 Busi- ness	4 Shop- ping	5 School	6 Social	7 Hour Change	8 Eat Meal	9 Medical	10 Serve Pass	11 Thru	12 Cordon				
12-1	1543	41	72		607			97		286	93	258	2997	3921	76.4
1-2	2358	81	34		196	40		153		416	49	238	3565	3457	103.1
2-3	833	80	70		238	38		85		209	43	153	1749	1672	104.6
3-4	938				53			53		144	26	90	1304	1727	75.5
4-5	573				34					104	38	84	833	1249	66.7
5-6	2575							41		180	68	394	3258	5325	61.2
6-7	9718	40	88		139	36		71		728	180	610	11610	10108	114.9
7-8	7363	237	205	1166	154	116		116		1068	342	976	11743	11863	99.0
8-9	6197	749	452	789	461	37		48	63	1168	498	794	11256	10543	106.8
9-10	2501	1244	1360	577	948	63		56	288	617	628	822	9104	8618	105.6
10-11	1419	2018	3737	253	1161			15	596	419	618	736	10972	10446	105.0
11-12	995	2499	3197	289	1225			555	381	627	657	656	11081	11254	98.5
12-1	1863	1785	3129	690	1204	70		1077	146	795	563	755	12077	13506	89.4
1-2	2456	2480	3966	306	1530			399	260	655	632	858	13542	12961	104.5
2-3	3294	2075	3724	444	1418			205	631	917	543	1073	14324	16074	89.1
3-4	8941	1970	3901	704	1726	107		70	607	2309	601	1404	22340	22778	98.0
4-5	8486	2852	4225	335	1902	37		112	750	2344	656	1366	23065	21024	109.7
5-6	8023	1238	4242	578	1746			266	439	2325	569	1302	20728	18422	112.5
6-7	3056	1158	3924	423	3325			527	130	1091	466	989	15089	13089	115.3
7-8	1138	1352	3827	447	3730			697	194	769	371	670	13195	11217	117.6
8-9	829	558	3503	410	3095	36		436	81	699	240	554	10441	9515	109.7
9-10	1642	483	1607	309	2167	38		431	103	837	218	542	8377	8484	98.7
10-11	1349	665	491	347	1757	38		225		671	171	385	6099	6136	99.4
11-12	1455	160	208	33	1210			94	55	280	124	281	3900	5294	73.7
TOTAL	TOTAL	79545	23765	45962	8100	30026	656	5829	4724	19658	8394	15990	242649	238683	101.66
% OF ALL TRIPS		32.8	9.8	18.9	3.3	12.3	0.3	2.4	1.9	8.1	3.5	6.6			
% OF INTERNAL TRIPS		36.4	10.9	21.1	3.7	13.8	0.3	2.7	2.2	9.0					
# OF TRIPS 6AM-10PM		67921	22738	45087	7720	25931	540	4581	4669	17368	7782	14107	218944		

TABLE 4-1

43

Trip purposes in the area were discussed above for a 24-hour period. Trip purposes by hour period are available at the screenline. These were shown in Figure II-3. Table 4-2 shows the % of row total and the % of column total. The % of row total indicates the % for that hour that a given trip purpose is of all trips in that hour increment. Note for example the row figures for the work purpose. Between the hours of 6 AM and 7 AM, work purpose trips comprise 83.7% of all trips made during that hour. Between 11 and 12 noon however, this purpose comprises only 9.0% of all traffic. Contrastingly shopping trips show quite a different pattern. Between 6 AM and 7 AM, only 0.8% of the trips are for the purpose of shopping. The peak hour between shopping trips is from 8 PM to 9 PM when 33.6% of all trips made are shopping trips. The % of column figures indicate similar things. This percentage shows the hourly distribution of shopping trips. Both these percentages shown in table 4 are useful in figuring out where peak traffic will be on system at a given hour. In summary then, this table indicates the distribution of trip purposes by hour period, both within one purpose (% or column figures), and for all purposes at a given hour (% of row figures).

% OF ROW AND % OF COLUMN BY PURPOSE FOR INTERNAL RECORDS AT THE SCREENLINE

	WORK		BUSINESS		SHOPPING		SCHOOL		SOCIAL		MODE CHANGE	
	Col.	Row	Col.	Row	Col.	Row	Col.	Row	Col.	Row	Col.	Row
12-1	1.9	51.5	0.2	1.4	0.2	2.4	----	----	2.0	20.3		
1-2	3.0	66.1	0.3	2.3	0.1	1.0	----	----	0.7	5.5	6.1	1.1
2-3	1.0	47.6	0.3	4.6	0.2	4.0	----	----	0.8	13.6	5.8	2.2
3-4	1.2	71.9	----	----	----	----	----	----	0.2	4.1	----	----
4-5	0.7	68.8	----	----	----	----	----	----	0.1	4.1	----	----
5-6	3.2	79.0	----	----	----	----	----	----	----	----	----	----
6-7	12.2	83.7	0.2	0.3	0.2	0.8	----	----	0.5	1.2	5.5	0.3
7-8	9.3	62.7	1.0	2.0	0.4	1.7	14.4	10.0	0.5	1.3	17.7	1.0
8-9	7.8	55.1	3.2	6.7	1.0	4.0	9.7	7.0	1.5	4.1	5.5	0.3
9-10	3.1	27.5	5.2	13.7	3.0	14.9	7.1	6.3	3.2	10.4	9.6	0.7
10-11	1.8	12.9	8.5	18.4	8.1	34.1	3.1	2.3	3.9	10.6	----	----
11-12	1.3	9.0	10.5	22.6	7.0	28.9	3.6	2.6	4.1	11.1	----	----
12-1	2.3	15.4	7.5	14.8	6.8	25.9	8.5	5.7	4.0	10.0	10.7	0.6
1-2	3.1	18.1	10.4	18.3	8.6	29.3	3.8	2.3	5.1	11.3	----	----
2-3	4.1	23.0	8.7	14.5	8.1	26.0	5.5	3.1	4.7	9.9	----	----
3-4	11.2	40.0	8.3	8.8	8.5	17.5	8.7	3.2	5.7	7.7	16.3	0.5
4-5	10.6	36.8	12.0	12.4	9.2	18.3	4.1	1.5	6.3	8.2	5.6	0.2
5-6	10.1	38.7	5.2	6.0	9.2	20.5	7.1	2.8	5.8	8.4	----	----
6-7	3.8	20.3	4.9	7.7	8.5	26.0	5.2	2.8	11.1	22.0	----	----
7-8	1.4	8.6	5.7	10.2	8.3	29.0	5.5	3.4	12.4	28.3	----	----
8-9	1.0	7.9	2.3	5.3	7.6	33.6	5.1	3.9	10.3	29.6	5.5	0.3
9-10	2.1	10.6	2.0	5.8	3.5	19.2	3.8	3.7	7.2	25.9	5.8	0.5
10-11	1.7	22.1	2.8	10.9	1.1	8.1	4.3	5.7	5.9	28.8	5.8	0.6
11-12	1.8	37.3	0.7	4.1	0.5	5.3	0.4	0.8	4.0	31.0	----	----
TOTAL	79,545		23,765		45,962		8,100		30,026		656	

	EAT MEAL		MEDICAL		SERVE PASS.		THRU		CORDON		TOTAL TRIPS	% OF COL.
	Col.	Row	Col.	Row	Col.	Row	Col.	Row	Col.	Row		
12-1	1.7	3.2	----	----	1.5	9.5	1.1	3.1	1.6	8.6	2,997	1.2
1-2	2.6	4.3	----	----	2.1	11.7	0.6	1.4	1.5	6.7	3,565	1.5
2-3	1.5	4.9	----	----	1.1	11.9	0.5	2.5	1.0	8.7	1,749	0.7
3-4	0.9	4.1	----	----	0.7	11.0	0.3	2.0	0.6	6.9	1,304	0.5
4-5	----	----	----	----	0.5	12.5	0.4	4.6	0.5	10.1	833	0.3
5-6	----	----	----	----	0.9	5.5	0.8	2.1	2.5	12.1	3,258	1.3
6-7	1.2	0.6	----	----	3.7	6.3	2.1	1.6	3.8	5.3	11,610	4.8
7-8	2.0	1.0	----	----	5.4	9.1	4.1	2.9	6.1	8.3	11,743	4.8
8-9	0.8	0.4	1.3	0.6	5.9	10.4	5.9	4.4	5.0	6.9	11,256	4.6
9-10	1.0	0.6	6.1	3.2	3.1	6.8	7.5	6.9	5.1	9.0	9,104	3.8
10-11	0.3	0.1	12.6	5.4	2.1	3.8	7.4	5.6	4.6	6.7	10,972	4.5
11-12	9.5	5.0	8.1	3.4	3.2	5.7	7.8	5.9	4.1	5.9	11,081	4.6
12-1	18.5	8.9	3.1	1.2	4.0	6.6	6.7	4.7	4.7	6.3	12,077	5.0
1-2	6.8	2.9	5.5	1.9	3.3	4.8	7.5	4.7	5.4	6.3	13,542	5.6
2-3	3.5	1.4	13.4	4.4	4.7	6.4	6.5	3.8	6.7	7.5	14,324	5.9
3-4	1.2	0.3	12.8	2.7	11.7	10.3	7.2	2.7	8.8	6.3	22,340	9.2
4-5	1.9	0.5	15.9	3.3	11.9	10.2	7.8	2.8	8.5	5.9	23,065	9.5
5-6	4.6	1.3	9.3	2.1	11.8	11.2	6.8	2.7	8.1	6.3	20,728	8.5
6-7	9.0	3.5	2.8	0.9	5.5	7.2	5.6	3.1	6.2	6.6	15,089	6.2
7-8	2.0	5.3	4.1	1.5	3.9	5.8	4.4	2.8	4.2	5.1	13,195	5.4
8-9	7.5	4.2	1.7	0.7	3.6	6.7	2.9	2.3	3.5	5.3	10,441	4.3
9-10	7.4	5.1	2.2	1.2	4.3	10.0	2.6	2.6	3.4	6.5	8,377	3.5
10-11	3.9	3.7	----	----	3.4	11.0	2.0	2.8	2.4	6.3	6,099	2.5
11-12	1.6	2.4	1.2	1.4	1.4	7.2	1.5	3.2	1.8	7.2	3,900	1.6
TOTAL	5,829		4,724		19,658		8,394		15,990		242,649	

The composition of vehicle types was also found at the screenline. Figure 4-17 shows this composition. These figures were obtained from the manual count at the screenline. The data is unadjusted counts and therefore, is about 5% different from the adjusted manual total count shown in Table 4-1.

Traffic data is also available for vehicles crossing the cordon line. This information pertains to vehicles entering, leaving, or passing through the study area. The cordon station locations are given in the appendix along with the 24-hour volume for each station. This data was obtained from the manual classification counts and was adjusted for seasonal variations.

A further breakdown of this data reveals cordon station counts by hour period and vehicle type. The data appears in Table 4-3.

CORDON STATION COUNTS

VEHICLE TYPE & HOUR PERIOD

Hour Period	Cars	% Of Hour	Other	% Of Hour	Total
12-1	1537	91.9	135	8.1	1672
1-2	1169	72.1	452	27.9	1621
2-3	765	71.3	308	28.7	1073
3-4	503	66.5	253	33.5	756
4-5	460	68.7	323	41.3	783
5-6	2113	72.9	787	27.1	2900
6-7	3109	74.4	1072	25.6	4181
7-8	4280	74.0	1500	26.0	5780
8-9	4061	74.6	1381	25.4	5442
9-10	4312	73.8	1530	26.2	5842
10-11	4250	71.8	1670	28.2	5920
11-12	4314	73.6	1551	26.4	5865
12-1	4281	76.1	1347	23.9	5628
1-2	4705	77.1	1401	22.9	6106
2-3	5424	78.4	1491	21.6	6915
3-4	7025	80.9	1659	19.1	8684
4-5	7176	81.2	1659	18.8	8835
5-6	6459	82.4	1377	17.6	7836
6-7	4950	83.1	1007	16.9	5957
7-8	3792	83.6	744	16.4	4536
8-9	3062	83.4	611	16.6	3673
9-10	2846	83.5	562	16.5	3408
10-11	2148	80.2	531	19.8	2679
11-12	1751	80.9	414	19.1	2165
	84492		23765		108257

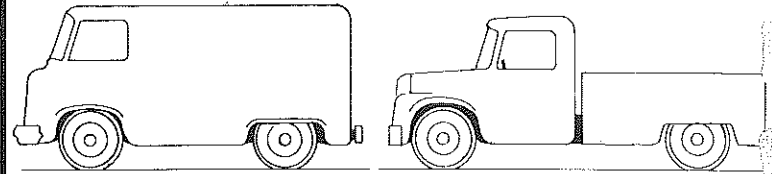
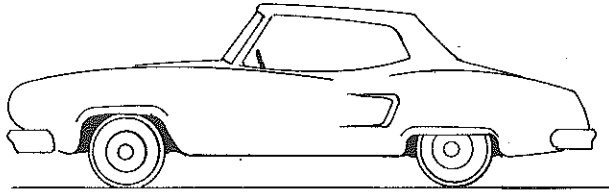
TABLE 4-3

TOTAL INTERNAL TRIPS CROSSING THE SCREENLINE BY VEHICLE TYPE

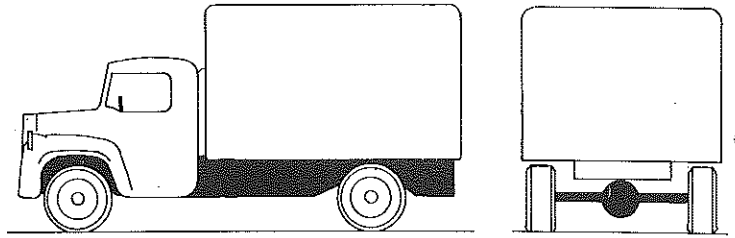
CODE 1

Passenger Car
CLASSIFICATION CODE COLUMNS 29-32

PASS. CARS 250,217
MAIL/POLICE 200

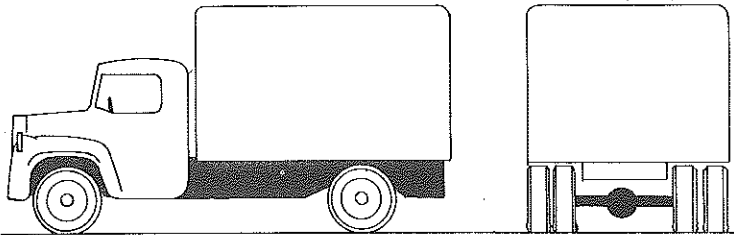


INT = 26,840



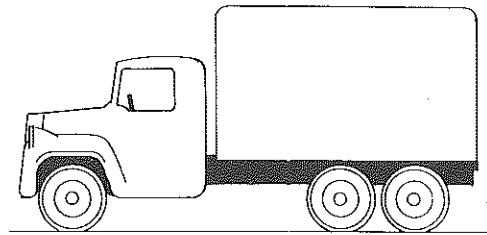
Single Unit - Single Rear Tire

INT = 5804



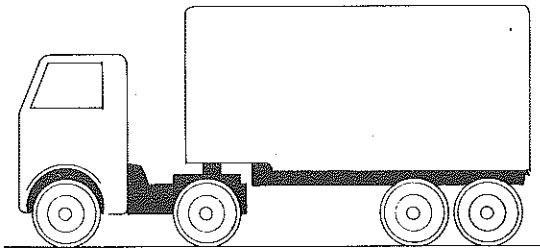
Single Unit - Dual Rear Tire

INT = 844



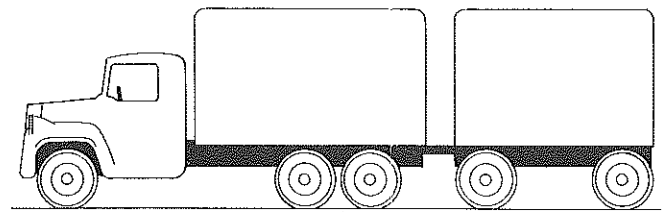
Single Unit - 3 and 4 Axle

INT = 4567



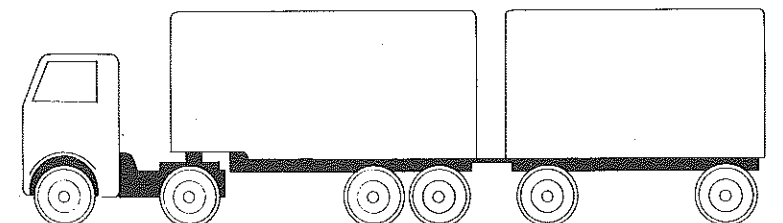
TT - ST Combination
(Truck Tractor-Semi Trailer)

INT = 340



TK - TR Combination

INT = 655



TT - ST - TR Combination

Bus Not Common Carrier

Common Carrier 614
Other 859

Taxi 1481

The peak hour for people entering, leaving, or passing through the study area is from 4-5 PM. Unlike the screenline hourly data, the volumes at the cordon do not show two peaks. Volumes build until the peak hour and then begin to steadily decline. The % of hour figures are included to show the composition of the traffic at any given hour. Between the hours of 4-5 AM, the percentage of autos is the lowest accounting for only 58.7% of the total volume. The highest percentage of auto's occurs between 7-8 PM when only 16.4% of traffic is not autos.

SUMMARY

In summary then, the traffic in the transportation study area has been analyzed in several ways. At the broadest level, desire lines of travel were examined. Further summaries included the spatial distribution of trip productions and hourly data from the screenline and cordon stations. All this data is used in the later phases of the transportation study described in the next section.

CHAP. FIVE

SUMMARY AND FUTURE
PHASES OF THE STUDY

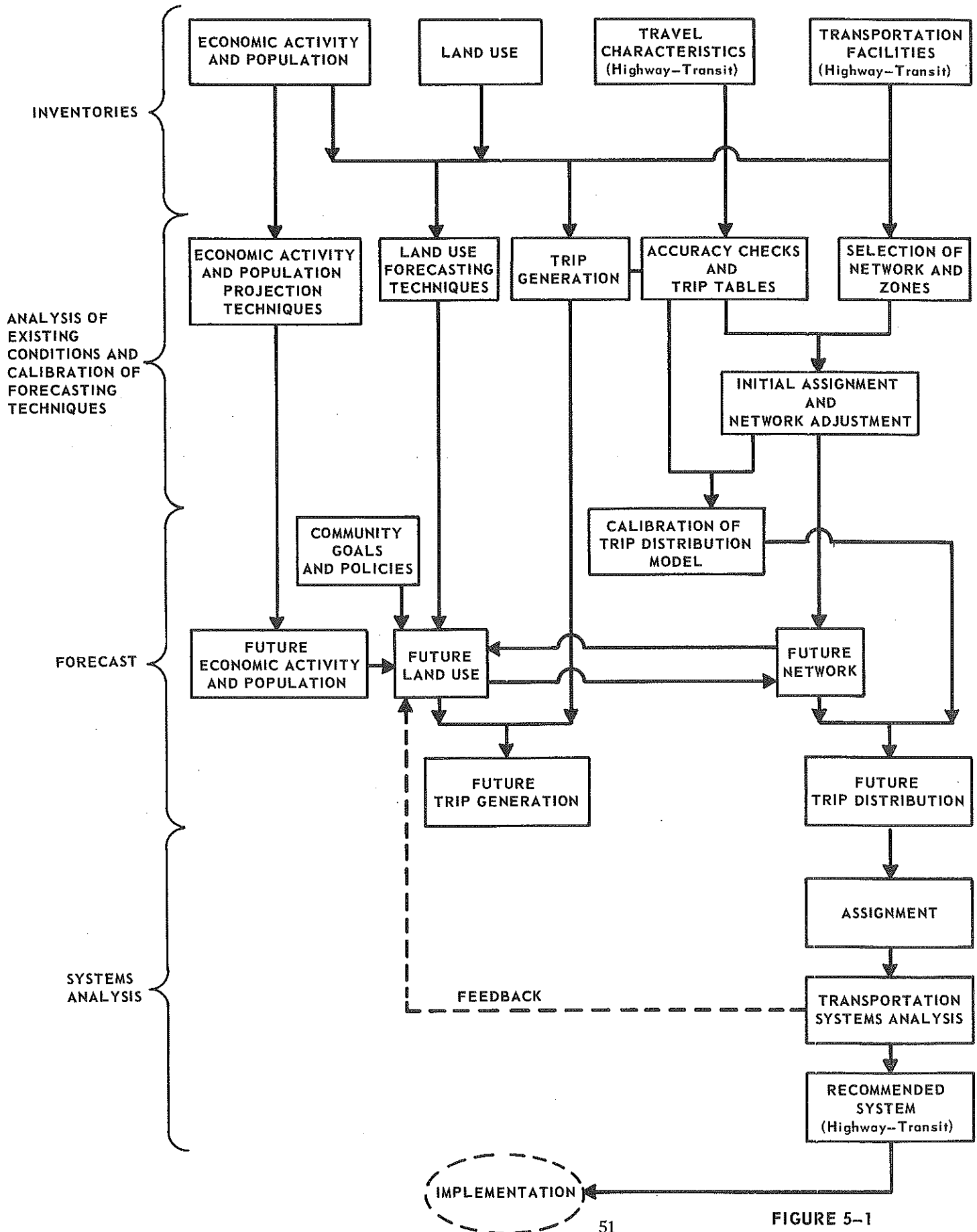
Figure 5-1 illustrates the complete urban travel forecasting process.¹

¹ U.S. Department of Transportation, *Calibrating & Testing A Gravity Model, 1963, PVI-3.*

Inspection of this figure shows that this report has discussed all phases of the inventory stage, and the accuracy check phase of the planning process.

The other phases shown in the figure are currently being completed by the Michigan Department of State Highways in connection with local officials. These processes are briefly summarized below.

THE URBAN TRAVEL FORECASTING PROCESS



Once the data inventories are completed, the trip generation phase begins. Trip generation relationships are developed using base year data. These mathematical expressions relate trip production and attraction to various land use and socio-economic indicators. These relationships are assumed to hold constant through the target year and are applied to future forecasts of economic activity, population, and land use provided by local officials. The result of this process is the number of trips to be produced and attracted by each zone in the target year.

The next phase of the process is trip distribution. The purpose of this phase is to allocate to analysis zones the future trip ends calculated in the trip generation phase. The "Gravity Model" is the trip distribution model used by the MDSH. This complex mathematical model distributes trips on a zone to zone basis with the assumption that:

"... Trip interchange between zones is directly proportional to the relative attraction of each of the zones and inversely proportional to some function of the spatial separation between zones."¹

¹ U.S. Department of Transportation, *op. cit.*, p 1-2.

This model must be calibrated using base year data. This calibrated gravity model then is used to distribute the zonal trip productions and attractions for the future year between the various zones. The result is future trip distribution.

Once the future trip distribution is obtained, the trips are assigned to future proposed networks. These networks are then evaluated in terms of their efficiency in handling future projected trip movements. During the systems analysis phase, other alternative future land use plans and alternative networks are then tested until the best transportation system and land use system as defined by the stated goals for transportation, are developed.

Currently the Flint-Genesee Transportation Study is about to approach the system analysis phase of the diagram seen in figure 1.

CHAP. SIX

COMPARISON OF THE 1950
STUDY DATA TO THE 1966
STUDY DATA

During the summer of 1950, the Michigan Department of State Highways conducted an Origin-Destination Home Interview Study in the Flint area. Some of the results of that study will be explained here to provide a point of comparison for the 1966 Study Data.

The 1950 study area included the then urbanized area of Flint of about 65 square miles. This study area is shown in Figure 6-1 as compared to the 1966 study area of approximately 290 square miles. While the data categories for the two studies have changed to some extent, some categories are the same. Because the study areas are of a different size, the comparisons will most often be made in terms of ratios. The areas of comparison will be the Genesee County area outside the 1950 study area, the 1950 study area outside the city of Flint, and the city of Flint.

Referring again to Figure 6-1, the number of vehicle trips per household, auto, and person for the three study areas are given. Within the Flint city limits, vehicle trips per unit of measurement are increasing. This is a function of increased trip making by almost all members of society. This could be due to many things such as increased leisure time, increased opportunities, etc. In the area still within the 1950 study area, but outside the Flint city limits, ratios increase, except for the category of trips per auto. This is quite possibly because of the increasingly higher socio-economic status of residents of this area relative to previous time periods and to city residents which allows for more autos per dwelling unit. This fact and similar data is given in Table 6-1. Evident is that characteristics for the city of Flint have changed the least with an increase of only approximately 30% of dwelling units, autos, and population. The 1966 study area portion not included in the 1950 study grew the fastest in terms of dwelling units and population with increases of 134.7% and 145.9% respectively. The 1950 study area outside the Flint city limits showed the highest increase of autos, with an increase of almost 15000 vehicles or 152.2%. This increase relative to the increase of trips accounts for the lower trips per auto figure for the 1966 study mentioned above.

**COMPARATIVE TRIP DATA
FLINT-GENESEE CO. AREA
1950-1966**

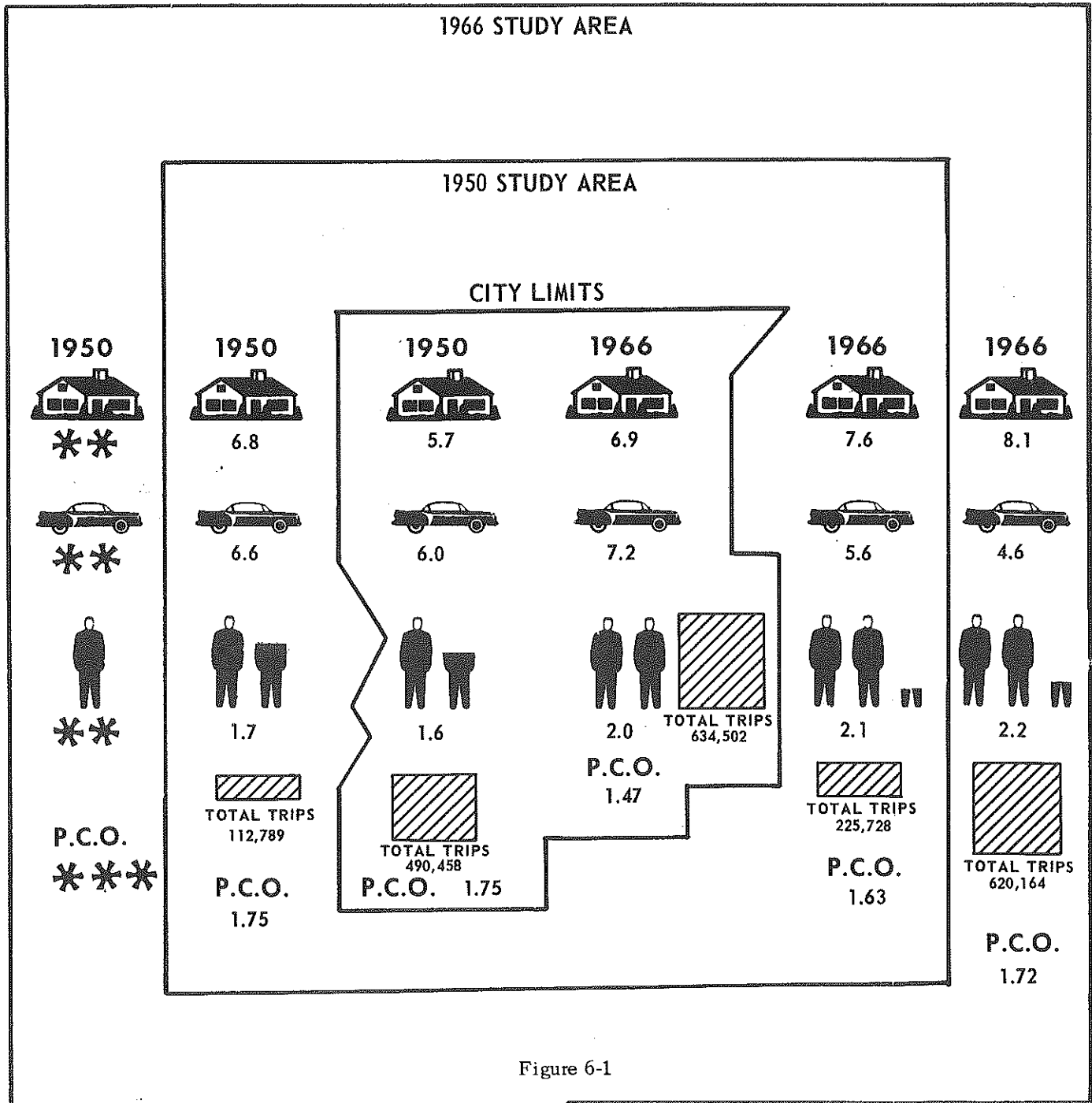


Figure 6-1

*The figures below each picture are the number of Vehicle trips per household, auto or person.

** TRIP DATA NOT AVAILABLE
*** PASSENGER CAR OCCUPANCY

**COMPARISON OF
DWELLING UNITS, AUTOS, POPULATION AND TRIPS
FOR THE
FLINT-GENESEE COUNTY AREA**

1950-1966

	Genesee Co. Area Outside 1950 Study Area			1950 Study Area Outside Flint			Flint		
	1966	% CHG.	1950	1966	% CHG.	1950	1966	% CHG.	1950
D. U.	44691	134.7	19036*	18165	91.4	9490	62828	32.1	47576
Auto	78729	132.7	33723	24716	152.2	9800	59654	31.7	45299
Population	165252	145.9	67196	65994	79.2	36832	216521	29.7	166935
Veh. Trips	360433		NO	138824	116.2	64216	432471	59.8	270708
Pass. Trips	259731		TRIP DATA	86904	78.9	48573	202031	-8.1	219750
Total Trips	620164		AVAILABLE	225728	100.1	112789	634502	29.4	490458
Auto/D. U.	1.76		1.78	1.36		1.03	0.95		0.95
Pop./D. U.	3.70		3.53	3.63		3.88	3.45		3.51
Pop./Auto	2.10		1.99	2.67		3.76	3.63		3.69
Veh. Trips/D. U.	8.1			7.6		6.8	6.9		5.7
Veh. Trips/Auto	4.6			5.6		6.6	7.2		6.0
Veh. Trips/Pop.	2.2			2.1		1.7	2.0		1.6

* Estimate based on 3.53 persons/D. U.

Table 6-1

Comparitive data for the two studies is also available for the category of passenger car occupancy. Internal trip passenger car occupancy by purpose is given in Table 6-2. While the total average for all purposes shows little change over the 16 year period, differences over the individual purposes are quite large in some cases. Only the shopping category stays about the same and business shows little meaningful change. For the purpose of work, passenger car occupancy declined. This is a contributing factor to increased traffic congestion when 89 cars out of every 100 cars contain only one person. Social recreation vehicle occupancy declined from 2.25 to 1.72. The All Other category increased from 1.28 to 1.95. When comparing these figures, however, it should be remembered that the study areas differ between the two time periods and that the 1966 study has more rural area and is farther from the opportunities of the city. The key variables for explanation are probably increasing car ownership and decreasing bus service in the urban area.

**INTERNAL TRIP
PASSENGER CAR OCCUPANCY
1950-1966
FLINT-GENESEE COUNTY**

Purpose	Average Occupancy		Change
	1950	1966	
Work	1.39	1.12	-0.27
Business	1.26	1.39	+ 0.13
Shopping	1.58	1.57	-0.01
Social-Rec.	2.25	1.72	-0.53
All Other *	1.28	1.95	+0.67
Avg.	1.58	1.54	

* All other includes School, Change Mode of Travel, Eat Meal, Medical/Dental, and Serve Passenger.

Table 6-2

External trip passenger car occupancy data is shown in Table 6-3.

**EXTERNAL TRIP PASSENGER
CAR OCCUPANCY**

PURPOSE	STUDY AREA RESIDENTS			RESIDENTS OUTSIDE S.A.		
	1950	1966	Change	1950	1966	Change
Work	1.59	1.36	-0.23	1.64	1.39	-0.25
Business	1.74	1.84	+0.14	1.67	1.78	+0.11
Shopping	2.19	1.96	-0.23	2.27	2.03	-0.24
*Social-Rec.	2.56	2.10	-0.46	2.50	2.09	-0.41
**All Other	2.36	2.17	-0.19	2.16	1.70	-0.46
AVG.	2.21	1.79		1.87	1.66	

**Includes Vacation*

***Includes medical/dental, School, Change Mode of Travel, Eat Meal, and Serve Passengers.*

Table 6-3

Here again, comparisons are hampered somewhat because of the compositions of the study areas. The trends established for the internal trips, i.e. the increases and decreases in average passenger car occupancy, hold also for the external trips with the exception of the "all other" category. This one difference is probably a function of the study area size and the decreasing portion of the "all other" category being school trips.

Comparisons can also be made between the two study areas of total volumes at selected locations. These comparisons are shown in Table 6-4. Shown are all 1950 External Station locations broken down into trunk line and all other roads. Between the two time periods, there was an increase of 134.5%, or 80,722 vehicles entering the study area. The major addition of trips was absorbed on I-75. Traffic also increased on local roads 134.5%. Increases ranged from 37.6% to 1357.8%.

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1950-1966
**COMPARISON OF TRAFFIC VOLUMES AT THE
 1950 EXTERNAL STATION LOCATIONS
 FLINT-GENESEE COUNTY**

State Trunk Lines	1950	1966	Diff.	Percent
M-54BR N. Saginaw N. of Coldwater	9577	17354	7777	81.2
M-54 N. Dort N. of Coldwater	9689	9834	145	1.5
M-21 E. Davison E. of Center	8977	15945	6968	77.6
M-54 S. Dort S. of Maple	8564	10413	1849	21.6
M-54BR S. Saginaw S. of Maple	7751	11737	3986	51.4
M-121 Bristol E. of Linden	3340	6235	2895	86.7
M-78 Miller E. of Linden	5937	12406	6469	109.0
M-21 W. Corunna E. of Linden	6194	11327	5133	82.9
Subtotal	60029	95251	35222	58.7
I-75 (S) S. of Maple	*	29438		
I-75 (N) of Coldwater	*	16062		
SUBTOTAL	60029	140751	80722	134.5
 Local Roads				
Fenton (Old US-23) S. of Maple	7385	13415	6030	81.7
Richfield E. of Center	6888	13087	6199	90.0
Lapeer E. of Center	4685	8875	4190	89.4
Atherton E. of Center	3421	8538	5117	149.6
Flushing E. of Linden	3809	7074	3265	85.7
Pierson E. of Linden	2979	8534	5555	186.5
Clio N. of Coldwater	4248	5845	1597	37.6
Bristol E. of Center	422	6152	5730	1357.8
Beecher E. of Linden	1319	4447	3128	237.1
Pasadena E. of Linden	919	8624	7705	838.4
SUBTOTAL	36075	84591	48516	134.5
TOTAL	96104	225342	129238	134.5

Table 6-4

In conclusion, this section has begun to investigate some of the changes between the two study periods. The benefit here is to be able to better predict future trip making by understanding some of the forces at work in the past.

CHAP. SEVEN

ADDITIONAL
INFORMATION
AVAILABLE

Published Reports by the State of Michigan:

1. Flint-Genesee County Area Transportation Study Prospectus, 1966.
2. Coding Instructions.
3. I. A. S. Summary by O-D Tract, 1966.
4. Accuracy checks and adjustment Report, 1970.
5. Cross-tabulations of Survey Data 1970.
6. 1966 Travel Patterns, 1971.
7. Trip Generation Analysis Report, 1971.

In addition to the above published documents, data can also be obtained in the form of cross-tabulations. Cross tabulations can be produced for any two subject areas in the same survey. Requests for these tables should be addressed to the Genesee County Metropolitan Planning Commission. The request to be sent to the Planning Commission should indicate the 2 subjects to be cross-tabulated, and the areal breakdown (i.e., total study area, district, etc.) Due to the volume of data to be processed, it is necessary to charge for tabulations done for other than study area totals. Charges will be for actual cost and the Department will estimate this cost upon request.

The following data, listed by survey, is available:

1. Data found from the Various Surveys
 - a. IAS Survey
 - 1) Age
 - 2) Driver's License
 - 3) Duration of Residence
 - 4) Education of Household Head
 - 5) Household Income
 - 6) Industry
 - 7) Monthly Rent
 - 8) Number of Persons Employed
 - 9) Number of Residents
 - 10) Structure Type
 - 11) Total Cars
 - 12) Total Trips
 - 13) Value of Owner's Home

b. Internal Survey

- 1) Car Pool
- 2) Destination Land Use
- 3) Kind of Parking
- 4) Mode of Travel
- 5) Number in Car
- 6) Origin Land Use
- 7) Purpose From
- 8) Purpose To

c. External Survey

- 1) Day of Travel
- 2) Destination Land Use
- 3) Direction
- 4) Garaged
- 5) Hour Period Ending
- 6) Number in Vehicle
- 7) Origin Land Use
- 8) Registration
- 9) Stop Purpose
- 10) Stops in Area
- 11) Trip Purpose
- 12) Vehicle Type

d. Truck & Taxi Survey

- 1) Annual Mileage
- 2) Destination Land Use
- 3) Industry
- 4) Origin Land Use
- 5) Total Trips
- 6) Trip Purpose
- 7) Vehicle Capacity
- 8) Vehicle Type

2. In addition, trip tables are available.

Origin-Destination trip data can be summarized in a variety of different types of trip tables. Generally, the distinctions among trip tables can be described in terms of the following characteristics:

1. Level of Data Aggregation
2. Type of Trips
3. Characteristics of Trips

The user should be aware of the characteristics accruing to various trip tables so that he might select the correct trip table for a particular problem.

Level of Data Aggregation

Origin-Destination study areas are divided into geographic sub-areas for analysis purposes. The smallest unit into which study areas are divided is called the Traffic Analysis Zone. Trip tables built at this level of aggregation are used for traffic assignment. They also provide the most detailed data on travel patterns in the study area.

Many types of analysis require less detail or seek data on general traffic patterns. For this reason, Traffic Analysis Zones are often combined to form larger geographic units. These larger units have been called Districts. District level trip tables have been used in the preparation of Desire Line Diagrams and have been assigned to a Desire Line (Spider Web) Network.

Finally, Districts are often aggregated to form systems of Sectors. Generally, the sector level trip tables are used to examine trip interchanges among municipality units or other large geographic sub-areas, within the study area.

District and sector level Trip Tables are best utilized in showing travel demand among areas and examining characteristics of trips interchanging among the units. The zone system is constructed in conjunction with the definition of the assignment network. The two are developed simultaneously to provide the best possible simulation of observed volumes on the street system. Thus, only zone level trip tables can be used as a source of data pertaining to segments of the actual street system. With the zonal trip tables hand assignment techniques can be used to examine the origins and destinations of trips on actual streets.

Type of Trips

Trip tables are built containing either vehicle trips or person trips. Vehicle trips are in effect, driver trips. The movement of people, whether drivers or passengers, is summarized in Person Trip Tables. Person Trip Tables are important in analyzing existing transit demand and developing models to project future transit needs. To augment the usefulness of person trip tables the Passenger Car Occupancy Table is also prepared. Both Person and Vehicle Trip Tables can be produced at the zone, district, or sector level of aggregation.

Characteristics of Trips

In addition to the origin and destination of trips many other data pertaining to trips and trip makers are collected in the survey stage of the study. Trip tables can be produced which itemize a trip characteristic, in addition to indicating the origins and destinations. Trip Purpose and Mode of Travel are two characteristics which are often tabulated. A trip Purpose Trip Table shows the total interchange between two zones broken down into ten trip purpose categories. Mode of Travel Trip Tables show by which mode (auto driver, truck driver, bus passenger, etc.) trips between zones are made. Mode of Travel tables contain by definition person trips. Purpose Trip Tables may tabulate either person or vehicle trips. Both tables can be built at all levels of aggregation. Although Mode of Travel and Trip Purpose are commonly used characteristics, any item that was surveyed may be tabulated in a Trip Table. One possibility might be the hour period that the trip began. This type of table could facilitate a peak hour assignment, for instance.

The user should be certain of the level of aggregation, type of trips, and the characteristics of the trips (if any) that describe the trip table being used. Knowing the distinctions among trip tables, the user can select the table most appropriate to the problem being studied.

APPENDIX

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INTERNAL TRIP REPORT

City Number 1-2 Form Number 3
 Tract Number 4-5 Block Number 6-9
 Sample Number 10-11

1 PERSON NUMBER	2 TRIP NUMBER	3 MODE OF TRAVEL	4 WHERE DID THIS TRIP BEGIN? (ORIGIN)	5 LAND USE ORIGIN	6 WHERE DID THIS TRIP END? (DESTINATION)	7 LAND USE DESTINATION	8 TIME OF		9 TRIP PURPOSE		10-12 FOR DRIVERS ONLY			13 CAR POOL 1. YES 2. No																				
							START	ARRIVAL	FROM	TO	NO. IN CAR	KIND OF PARK.	SCREEN																					
															AM	PM	AM	PM																
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			H <input type="text"/>	<input type="text"/>	H <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																			
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			H <input type="text"/>	<input type="text"/>	H <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																			
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46

0. Walk To Work
 1. Auto Driver
 2. Auto Pass.
 3. Bus Pass.
 4. Taxi Pass.
 5. Truck Pass.
 6. School Bus

LAND USE
 See "Land Use"
 Manual for the above
 codes.

- TRIP PURPOSE
 1. Work
 2. Transact Business
 3. Shopping
 4. School
 5. Social Recreation
 6. Change Mode of Travel
 7. Eat Meal
 8. Medical-Dental
 9. Serve Passenger
 0. Home
**-Wilkinson*

- KIND OF PARKING
 1. Street Free
 2. Street Metered
 3. Lot Free
 4. Lot Paid
 5. Lot Municipal
 6. Parking Garage
 7. Service-Repair
 8. Residence Property
 9. Not Parked
 Y. Cruising

INTERVIEW ADDRESS SUMMARY

STATE OF MICHIGAN
DEPARTMENT OF STATE HIGHWAYS

FLINT-GENESEE COUNTY
TRANSPORTATION STUDY

- 1. Sunday
- 2. Monday
- 3. Tuesday
- 4. Wednesday
- 5. Thursday
- 6. Friday

City No. 1-2 Form No. 3-4 Tract No. 5-6 Block No. 7-10 Sample No. 11-12 Day and Month Of Travel 13-15

Interview Address: _____ ADDRESS _____ CITY _____

A. Number of Passenger Cars at this Address: Owned 17 Company Owned 18

Car Mileage per year 1 2 3 4 5 6 7

B. Number of Persons Living at this Address

C. Number of Persons 5 Years of Age or Over

D. Household Information: How Long Lived at this Address (years)

Rent or Own Home 0 - Rent 1 - Own

Home and Land Value or Monthly Rent

Education of Household Head

Number of Persons Employed

Household Income (ask this question last:) 0 1 2 3 4 5 6 7 8 9

Type of Structure 1 16

- (1) Single & Double Households
- (2) Group Quarters
- (3) Residential Hotels
- (4) Mobile Homes
- (5) Transient Lodgings
- (6) Multiple Housings
- (9) Other Residents

Total Cars	19
	20-23
	24-25
	26-27
	28-29
	30
	31-33
	34-35
	36
	37

ADMINISTRATIVE RECORD

Interviewer: _____

CALLS	
Date	Time
(1) _____	_____
(2) _____	_____
(3) _____	_____
(4) _____	_____

REPORT SUBMITTED INCOMPLETE

Date _____

Reason _____

E. Data for Persons 5 Years of Age or Over

PERSON NO.	SEX & RACE	PERSON IDENTIFICATION	CODE	INDUSTRY AND OCCUPATION	MADE TRIPS			AGE
					YES	NO	NOT KNOWN	
1		38		39-41				42
2		43		44-46				47
3		48		49-51				52
4		53		54-56				57
5		58		59-61				62
6		63		64-66				67
7		68		69-71				72
8		73		74-76				77

Supervisor's Comment _____

Remarks: _____

Report Completed _____ (Date) _____ (Initial)

Interview Checked _____ (Initial)

Coded By _____ (Initial)

Coding Checked By _____ (Initial)

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- DRIVERS LICENSE INFORMATION
- WITH
 - 1. Male White
 - 2. Female White
 - 3. Male Colored
 - 4. Female Colored
 - 5. Male Other
 - 6. Female Other
 - WITHOUT
 - A. Male White
 - B. Female White
 - C. Male Colored
 - D. Female Colored
 - E. Male Other
 - F. Female Other

Total Number of Trips Reported at this Address

Phone Number _____

METROPOLITAN AREA TRAFFIC STUDY
INTERVIEW SAMPLE LISTING

CITY NO. FORM NO.

1	7
1	2

1
3

RECORDER _____ DATE _____

TRACT NO.

4	5

BLOCK NO.

6	7	8	9

BEGINNING AT THE _____
INTERSECTION OF _____

POST OFFICE ADDRESS

10	11	12	13	14

NW

NE PREVIOUS TRACT NO. _____ BLOCK NO. _____

NEXT TRACT NO. _____ BLOCK NO. _____

SURVEY DWELLING UNIT COUNT

15	16	17

CENSUS DWELLING UNIT COUNT _____

PERCENT LAND USE BY BLOCK

RESIDENTIAL	18	<input type="text"/>	SCHOOLS	24	<input type="text"/>
MANUFACTURING	19	<input type="text"/>	SOC-REC	25	<input type="text"/>
UTILITIES	20	<input type="text"/>	PARKS	26	<input type="text"/>
AUTO PARKING	21	<input type="text"/>	RESOURCE & EXTRACTION	27	<input type="text"/>
COMMERCIAL	22	<input type="text"/>	UNDEVELOPED	28	<input type="text"/>
SERVICE	23	<input type="text"/>			



SW

STARTING CARRY OVER

DATE ATT. INTER. VIEWED
ATT. QUES. RET. PHONE NO. ATT. QUES. RET.

SAMPLE NO.	HOUSE NO.	DIRECTION N. S. E. W.	STREET OR OTHER IDENTIFICATION				STARTING CARRY OVER	DATE INTERVIEWED	ATT. QUES. RET.	PHONE NO.	ATT. QUES. RET.
1											
2											
3											
4											
5											
6											
7											
8											
9											
0											

- STRUCTURE TYPE
- (1) SINGLE & DOUBLE DU'S
 - (2) GROUP QUARTERS
 - (3) RESIDENTIAL HOTELS
 - (4) MOBILE HOMES
 - (5) TRANSIENT LODGINGS
 - (6) MULTIPLE HOUSING

ENDING CARRY OVER

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EXTERNAL INTERVIEW

STATE OF MICHIGAN
DEPARTMENT OF STATE HIGHWAYS
TRAFFIC DIVISION

FLINT-GENESEE COUNTY
TRANSPORTATION STUDY

City Number		1	7	Form Number		4	Hour Period () AM or () PM		Inbound		1-White	Station		Day of Travel		9																	
1		1	2	3		Ending _____ to _____		4	5	Outbound	2-Green	6		7	8	14																	
1	2	3	4	5					6	7					8		9	10	11	12	13	14											
Interview Number	State of Registration	Vehicle Type	No. in Vehicle	Where did this trip begin? Origin					Land Use	Where will this trip end? Destination					Where is this vehicle garaged?		Trip Purpose	Screen	Route of Exit or Ent.	Stops in area	Purpose	Intermediate Stop Location											
	1 Michigan 2 Other			_____						_____										1 Yes 2 No		_____											
	1 Michigan 2 Other			_____						_____										1 Yes 2 No		_____											
70	1 Michigan 2 Other			_____						_____										1 Yes 2 No		_____											
	1 Michigan 2 Other			_____						_____										1 Yes 2 No		_____											
	1 Michigan 2 Other			_____						_____										1 Yes 2 No		_____											
	1 Michigan 2 Other			_____						_____										1 Yes 2 No		_____											
10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43

- 1. Passenger Car
- 2. Single Unit-Single Rear Tire
- 3. Single Unit-Dual Rear Tire
- 4. Single Unit-3 or 4 Axle
- 5. TT-ST Combination
- 6. TK-TR Combination
- 7. TT-ST-TR Combination
- 8. Bus Not C.C.
- 9. Taxi

Vehicle Garaged At

- 1. Within the cordon
- 2. Outside the cordon at origin
- 3. Outside the cordon at destination
- 4. Outside the cordon at neither origin or destination

- 1. Work
- 2. Pers. Business
- 3. Shopping
- 4. Vacation
- 5. Other Soc. or Rec.
- 6. All Other

- 1. Course of Work
- 2. Transact Business
- 3. Social-Recreation
- 4. Eating
- 5. Gas-Oil Service
- 6. Serve Passenger
- 7. Secure Lodging
- 8. Shopping

DAY OF TRAVEL

- 1 Sun. 4 Wed.
- 2 Mon. 5 Thur.
- 3 Tue. 6 Fri.
- 7 Sat.

STATE OF MICHIGAN
DEPARTMENT OF STATE HIGHWAYS
TRAFFIC SURVEY SECTION

Miles Driven Per Year _____ Trip Report For Trucks For Taxis Sample No. _____

City of _____	*	
	*	
Interview No. _____		Owner _____
Garaged at _____		Address _____
Industry & Business _____		License No. _____
Vehicle Type _____	Single Unit-Single Rear Tire Single Unit-Dual Rear Tire Single Unit 3 or 4 Axle	TT-ST Comb. TK-TR Comb. TT-ST-TR Comb.
Rated Capacity _____		Make _____ Year _____
Day of the Week _____		Date of Travel _____
		Trips for 24 Hours Starting At 6:00 A.M. _____

Enter here the address of the beginning of the first trip. (First sheet only) Trip No.	Trip Purpose	Land Use	Time of Leaving	Time of Arrival	For Office Use Only *	
				XXXX		
Enter below each stop in the order made:						
1			XXXX			
Same				XXXX	XXXX	XXXX
2			XXXX			
Same				XXXX	XXXX	XXXX
3			XXXX			
Same				XXXX	XXXX	XXXX
4			XXXX			
Same				XXXX	XXXX	XXXX
5			XXXX			
Same				XXXX	XXXX	XXXX
6			XXXX			
Same				XXXX	XXXX	XXXX
7			XXXX			
Same				XXXX	XXXX	XXXX
8			XXXX			
Same				XXXX	XXXX	XXXX
9			XXXX			
Same				XXXX	XXXX	XXXX
10			XXXX			
Same				XXXX	XXXX	XXXX
11			XXXX			
Same				XXXX	XXXX	XXXX
12			XXXX			
Same				XXXX	XXXX	XXXX
			XXXX			

Use as many sheets as necessary, and enter the last address on the next sheet.

- 1. To & From Work
- 2. Shopping
- 3. Pers. Business
- 4. Pick Up Goods
- 5. Deliver Goods
- 6. Pick Up and Deliver Goods
- 7. Service & Other Work Connected with Business
- 8. To Base of Operation
- 9. Vacation

INTERVIEWER _____

SCREENLINE LOCATIONS

STATION	LOCATION DESCRIPTION	STATION	LOCATION DESCRIPTION
1. Sheridan Rd.	0.5 Mi. N. of M-21	26. Stevens St.	At Flint River Br.
2. Duffield Rd.	0.4 Mi. N. of M-21	27. Longway Blvd.	At Flint River Br.
3. Nichols Rd.	0.3 Mi. N. of M-21	28.	
4. Van Vleet Rd.	0.5 Mi. N. of M-21	29. East Blvd.	200 Ft. N. of Burton St.
5. Seymour Rd.	0.6 Mi. N. of M-21	30. Lewis St.	200 Ft. N. of Burton St.
6. Morrish Rd.	0.3 Mi. N. of M-21	31. Rachel St.	200 Ft. N. of Longway Blvd.
7. Eims Rd.	0.2 Mi. N. of W. Court St.	32. Walnut St.	At G.T.W.R.R.
8. Dye Rd.	100 Ft. N. of W. Court St.	33. Decker St.	At G.T.W.R.R.
9. Linden Rd.	0.3 Mi. N. of W. Court St.	34. Kearsley Pk.	
10. Graham Rd.	0.2 Mi. N. of W. Court St.	Blvd.	At G.T.W.R.R.
11. I-75, US-10, US-23	0.5 Mi. N. of W. Court St.	35. Kensington Ave.	At G.T.W.R.R.
12. Ballenger St.	100 Ft. N. of W. Court St.	36. Franklin Ave.	At G.T.W.R.R.
13. Hubbard Ave.	100 Ft. N. of W. Court St.	37. Vernon Ave.	At G.T.W.R.R.
14. Barney Ave.	100 Ft. N. of W. Court St.	38. M-54	At G.T.W.R.R.
15. Mann Ave.	100 Ft. N. of W. Court St.	39. Averill St.	At G.T.W.R.R.
16. Beecher Rd.	100 Ft. N. of W. Court St.	40. Center Rd.	At G.T.W.R.R.
17. Mansfield Ave.	100 Ft. N. of W. Court St.	41. Genesee Rd.	At G.T.W.R.R.
18. Bradley Ave.	100 Ft. N. of W. Court St.	42. Belsay Rd.	At G.T.W.R.R.
19. Chevrolet Ave.	At Flint River Br.	43. Irish Rd.	At G.T.W.R.R.
20. Stevenson St.	At Flint River Br.	44. Gale Rd.	At G.T.W.R.R.
21. Gd. Traverse St.	At Flint River Br.	45. M-15	At Black Cr. Br.
22. Water St.	At Flint River Br.	46. Main St.	At Black Cr. Br.
23. Garland St.	At Flint River Br.	47. Oak Rd.	At G.T.W.R.R.
24. Saginaw St.	At Flint River Br.	48. Cummings Ave.	At G.T.W.R.R.
25. Harrison St.	At Flint River Br.	49. Harsen	At G.T.W.R.R.

EXTERNAL STATION LOCATIONS

O-D STA. NO.	COUNT	LOCATION			
1	2000	M-13 0.2 Mi S of Willard Rd	16	1529	Bray Rd 0.2 Mi S of Willard Rd
2	17225	I-75 0.2 Mi S of Willard Rd	17	1289	Otter Lake Rd 0.2 Mi E of Har Lake Rd
3	4000	Saginaw Rd 0.2 Mi S of Willard Rd	18	2012	Columbiaville Rd 0.2 Mi E of Washburn Rd
4	1788	M-54 0.2 Mi S of Willard Rd.	19	816	Pratt Rd 0.2 Mi E of Washburn Rd
5	3284	M-15 0.2 Mi S of Willard Rd	20	2701	Milford Rd 0.2 Mi S of Mitchell
6	5928	M-21 1.0 Mi E of Genesee Co Line	21	1265	Fenton Rd 0.4 Mi NW of Hickory Ridge Rd
7	3137	Genesee Rd 0.3 Mi E of Harsen Rd	22	1509	Adelaide Rd 0.4 Mi S of Tipsico Rd
8	2338	0.25 Mi NW of Ray Rd	23	1979	Newburg Rd 0.2 Mi W of Genesee Co Line
9	3626	Dixie Hwy 0.3 Mi SE of Groverland Rd	24	2660	Lansing Rd 0.3 Mi SW of Goodall Rd
10	10493	I-75 0.3 Mi S of Belford Rd	25	997	Easton Rd 0.2 Mi W of M-13
11	4277	Grange Hall Rd 0.2 Mi E of Eddy Rd	26	89	Daffield Rd 0.2 Mi W of E Gary Rd
12	11829	US-23 0.2 Mi SW of Shiawassee Ave	27	411	Nichols Rd 0.2 M W of Willard Rd
13	6443	M-78 W of M-13 Interchange	28	359	Seymour Rd 0.2 Mi SW of Willard Rd
14	6060	M-21 0.2 Mi W of M-13	29	290	Elms Rd 0.2 Mi S of Willard Rd
15	1188	M-57 0.2 Mi W of M-13	30	169	Linden Rd 0.2 Mi S of Willard Rd

O-D STA NO.	COUNT	LOCATION			
31	670	Tuscola Rd 0.2 Mi SW of Willard Rd	41	362	Hartland Rd 0.6 Mi S of Fenton S City Limits
32	338	Lewis Rd 0.2 Mi S of Willard Rd	42	217	Linden Rd 0.2 Mi S of Bennet Lake Rd
33	542	Belsay Rd 0.2 Mi S of Willard Rd	43	696	Seymour Rd 0.1 Mi S of Ryan Rd.
34	---	Henderson Rd--under con- struction--0.2 Mi S of Willard Rd	44	909	Silver Lake Rd 0.2 Mi W of W Genesee Col Line
35	79	Washburn Rd 0.2 Mi SE of Willard Rd	45	288	Miller Rd 0.2 Mi W of W Genesee Col Line
36	131	Mt Morris Rd 0.2 Mi E of Washburn Rd	46	453	Goodal Rd 0.1 Mi W of Riniel Rd
37	293	Stanley Rd 1.2 Mi E of Henderson Rd	47	304	Lennon Rd 0.5 Mi W of M-13
38	102	Brigham Rd 0.2 Mi E of Washburn Rd	48	552	Juddville Rd 0.2 Mi W of M-13
39	140	Hegel Rd 0.2 Mi E of Washburn Rd	49	246	Henderson Rd 0.2 Mi W of M-13
40	190	Groverland Rd 0.1 Mi S of N Jct of Van Rd			

SUMMARY OF ADJUSTED DWELLING UNIT DATA

OD ZONE	DWELLING UNIT	PASSENGER CARS	TOTAL PERSONS	PASS CARS PER D-U	PERSONS PER D-U	PERSONS PER CAR	PASSENGER CAR TRIPS	PASSENGER TRIPS	VEHICLE TRIPS/D-U	TRIPS PER D-U
1	447	370	816	0.83	1.83	2.21	1561.99	913.67	3.50	5.54
2	66	66	506	1.00	7.67	7.67	46.62	166.47	0.71	3.23
3	165	99	247	0.60	1.50	2.50	708.32	242.88	4.30	5.77
4	51	34	51	0.67	1.00	1.50	35.56	17.78	0.70	1.05
5	119	85	254	0.71	2.14	3.00	230.09	178.14	1.94	3.44
6	181	132	330	0.73	1.82	2.50	929.76	536.93	5.13	8.09
7	330	264	1252	0.80	3.80	4.75	1690.31	1937.51	5.13	11.01
8	294	293	811	1.00	2.76	2.77	1401.43	882.37	4.77	7.77
9	356	288	711	0.81	2.00	2.47	858.48	267.87	2.41	3.17
10	301	285	865	0.95	2.87	3.04	938.29	577.94	3.12	5.04
11	255	255	925	1.00	3.62	3.62	1929.40	1064.22	7.57	11.74
12	488	502	1711	1.03	3.51	3.41	2159.83	1351.55	4.43	7.19
13	536	821	2162	1.53	4.03	2.63	3961.60	1502.81	7.39	10.19
14	571	631	1924	1.11	3.37	3.05	4026.43	1980.07	7.05	10.52
15	676	601	1608	0.89	2.38	2.68	3323.48	1502.97	4.91	7.14
16	106	106	334	1.00	3.14	3.14	185.44	335.60	1.74	4.90
17	122	182	395	1.50	3.25	2.17	876.40	442.76	7.21	10.85
18	322	320	725	0.99	2.25	2.27	2191.93	1009.68	6.80	9.93
19	728	954	2248	1.31	3.09	2.36	6703.24	2765.11	9.21	13.01
20	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	36	36	162	1.00	4.50	4.50	276.84	309.96	7.69	16.30
22	240	301	721	1.25	3.00	2.40	1918.61	806.84	7.98	11.33
23	15	45	45	3.00	3.00	1.00	82.36	0.00	5.48	5.48
24	60	105	210	1.75	3.50	2.00	519.12	65.24	8.63	9.72
25	614	906	1633	1.47	2.66	1.80	4444.74	2081.30	7.23	10.62
26	550	862	2230	1.57	4.05	2.59	5236.18	2464.65	9.52	14.00
27	386	453	1224	1.17	3.17	2.70	2707.59	1644.99	7.02	11.28
28	369	553	1375	1.50	3.73	2.48	3245.21	1463.02	8.80	12.76
29	671	688	1476	1.02	2.20	2.15	3801.18	2299.69	5.67	9.09
30	620	922	2113	1.49	3.41	2.29	5917.90	2604.08	9.54	13.73
31	402	570	1542	1.42	3.83	2.71	3231.47	1203.04	8.03	11.02
32	922	1409	3287	1.53	3.56	2.33	7991.67	3729.77	8.66	12.71
33	352	453	1224	1.29	3.48	2.70	2070.49	1164.37	5.88	9.19
34	175	223	781	1.27	4.45	3.50	2201.16	1206.44	12.55	19.43
35	601	732	1947	1.22	3.24	2.66	3738.86	1304.10	6.22	8.39

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B-1 TABLE

OD ZONE	DWELLING UNIT	PASSENGER CARS	TOTAL PERSONS	PASS CARS PER D-U	PERSONS PER D-U	PERSONS PER CAR	PASSENGER CAR TRIPS	PASSENGER TRIPS	VEHICLE TRIPS/D-U	TRIPS PER D-U
36	997	1254	3119	1.26	3.13	2.49	8021.17	2527.57	8.05	10.58
37	682	958	2322	1.40	3.40	2.42	6596.34	2309.04	9.67	13.06
38	1202	1575	3703	1.31	3.08	2.35	10730.11	4049.08	8.93	12.30
39	499	579	1659	1.16	3.33	2.87	4980.74	1715.04	9.99	13.42
40	80	96	240	1.20	3.00	2.50	478.50	303.45	5.97	9.76
41	325	341	909	1.05	2.80	2.67	2680.28	887.14	8.25	10.98
42	48	48	223	1.00	4.65	4.65	192.58	344.60	4.01	11.19
43	323	534	1099	1.65	3.40	2.06	4125.63	1711.25	12.75	18.04
44	67	85	202	1.26	3.01	2.39	213.34	155.51	3.18	5.50
45	699	993	2570	1.42	3.68	2.59	4923.69	2777.60	7.04	11.01
46	1004	1295	3529	1.29	3.52	2.73	7232.50	2573.02	7.21	9.77
47	340	421	1166	1.24	3.43	2.77	2429.23	1387.50	7.15	11.23
48	472	537	1661	1.14	3.52	3.09	3443.84	1895.06	7.29	11.31
49	440	505	1205	1.15	2.74	2.39	2103.92	1600.69	4.79	8.43
50	326	407	929	1.25	2.85	2.28	1881.60	907.44	5.77	8.56
51	111	142	347	1.29	3.14	2.44	729.85	114.96	6.60	7.64
52	711	1042	2021	1.47	2.84	1.94	8346.86	1871.53	11.75	14.38
53	82	114	180	1.40	2.20	1.57	437.24	234.68	5.36	8.23
54	359	375	898	1.05	2.50	2.39	1647.76	689.87	4.59	6.51
55	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
56	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
57	155	155	389	1.00	2.50	2.50	783.05	374.35	5.04	7.45
58	604	433	1548	0.72	2.56	3.57	2429.03	1251.53	4.02	6.09
59	311	389	948	1.25	3.05	2.44	1710.82	837.58	5.50	8.20
60	1229	1433	4358	1.17	3.55	3.04	9194.11	4604.27	7.48	11.23
61	357	450	1273	1.26	3.57	2.83	3402.12	1870.59	9.52	14.76
62	588	989	2272	1.68	3.87	2.30	6434.33	2599.57	10.95	15.38
63	575	745	1786	1.30	3.11	2.40	5010.64	2777.54	8.72	13.55
64	542	712	1578	1.31	2.91	2.22	4971.13	1810.52	9.18	12.52
65	495	559	1247	1.13	2.52	2.23	3766.84	1961.36	7.61	11.57
66	393	440	1276	1.12	3.25	2.90	2430.76	2032.84	6.18	11.35
67	650	777	1347	1.20	2.07	1.73	4612.62	1243.62	7.10	9.01
68	876	991	2686	1.13	3.07	2.71	5434.89	2256.50	6.20	8.79
69	586	254	2013	0.43	3.43	7.94	1412.54	1297.91	2.41	4.62
70	412	460	1014	1.12	2.46	2.21	1994.44	1004.04	4.84	7.28
71	753	785	2853	1.04	3.79	3.63	3703.02	2548.27	4.92	8.30
72	813	868	3554	1.07	4.37	4.10	4448.16	1073.48	5.47	6.79
73	697	728	3113	1.04	4.47	4.28	2447.12	1682.31	3.51	5.92

B - 1 TABLE

OD ZONE	DWELLING UNIT	PASSENGER CARS	TOTAL PERSONS	PASS CARS PER D-U	PERSONS PER D-U	PERSONS PER CAR	PASSENGER CAR TRIPS	PASSENGER TRIPS	VEHICLE TRIPS/D-U	TRIPS PER D-U
74	877	1024	3022	1.17	3.45	2.95	4572.56	1938.49	5.22	7.43
75	1009	1273	3028	1.26	3.00	2.38	5727.58	2604.78	5.67	8.26
76	838	910	2424	1.09	2.89	2.66	4886.70	1934.43	5.83	8.14
77	782	1119	2621	1.43	3.35	2.34	7572.25	2141.63	9.69	12.42
78	520	581	1576	1.12	3.03	2.71	2937.44	1469.20	5.65	8.47
79	857	1117	2876	1.30	3.36	2.58	6963.08	3199.62	8.13	11.86
80	708	1086	2833	1.53	4.00	2.61	8666.46	4216.75	12.24	18.19
81	913	1275	3667	1.40	4.02	2.88	9397.91	4859.63	10.29	15.62
82	205	299	821	1.45	4.00	2.75	1695.72	367.40	8.26	10.05
83	1019	1081	3246	1.06	3.18	3.00	6124.48	2685.45	6.01	8.65
84	774	882	2430	1.14	3.14	2.75	4462.70	1996.38	5.77	8.35
85	697	991	2492	1.42	3.58	2.52	6468.98	2035.91	9.29	12.21
86	565	690	2021	1.22	3.58	2.93	4273.08	1397.95	7.57	10.05
87	567	834	2566	1.47	4.53	3.08	6239.05	4372.24	11.01	18.73
88	362	504	1180	1.39	3.26	2.34	4722.38	1642.89	13.04	17.58
89	331	388	1369	1.14	4.14	3.62	2630.94	551.85	7.96	9.63
90	708	897	3164	1.27	4.47	3.53	7981.38	3977.90	11.27	16.88
91	630	834	2361	1.33	3.75	2.83	6668.91	2783.72	10.59	15.01
92	507	617	1757	1.22	3.47	2.85	4274.02	1117.86	8.44	10.64
93	661	710	2546	1.07	3.85	3.59	3836.17	1728.61	5.81	8.42
94	950	1124	3593	1.18	3.78	3.20	5210.43	2540.95	5.49	8.16
95	823	888	2808	1.08	3.41	3.16	5957.87	3496.61	7.24	11.49
96	726	726	3083	1.00	4.24	4.24	4406.50	2544.81	6.07	9.57
97	321	289	1156	0.90	3.60	4.00	1377.03	782.36	4.28	6.72
98	491	554	2042	1.13	4.16	3.69	2706.25	1845.26	5.51	9.27
99	499	564	2141	1.13	4.29	3.80	2085.41	1616.86	4.18	7.42
100	531	467	2447	0.88	5.61	5.24	1782.30	1678.69	3.35	6.51
101	1148	1038	4310	0.90	3.75	4.15	3931.98	3379.93	3.42	6.37
102	31	0	47	0.00	1.50	0.00	0.00	0.00	0.00	0.00
103	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
104	1002	881	3851	0.88	3.84	4.37	3271.47	1960.05	3.27	5.22
105	829	695	2958	0.84	3.57	4.26	3350.25	2514.34	4.04	7.07
106	685	684	3030	1.00	4.42	4.43	2725.44	1108.10	3.98	5.60
107	484	352	1913	0.73	3.95	5.44	1056.22	1213.45	2.18	4.69
108	62	62	264	1.00	4.25	4.25	467.42	416.90	7.52	14.23
109	389	575	1632	1.48	4.20	2.84	3407.36	1329.53	8.77	12.19
110	669	918	2326	1.37	3.48	2.53	4153.90	1622.37	6.21	8.63
111	733	972	2302	1.33	3.14	2.37	4706.03	2866.23	6.42	10.33

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OD ZONE	DWELLING UNIT	PASSENGER CARS	TOTAL PERSONS	PASS CARS PER D-U	PERSONS PER D-U	PERSONS PER CAR	PASSENGER CAR TRIPS	PASSENGER TRIPS	VEHICLE TRIPS/D-U	TRIPS PER D-U
112	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
113	404	555	1363	1.38	3.37	2.45	3621.93	1525.10	8.97	12.74
114	666	867	2922	1.30	4.39	3.37	5640.88	2888.00	8.47	12.80
115	643	804	2105	1.25	3.27	2.62	4517.00	1855.65	7.03	9.91
116	960	1077	3050	1.12	3.18	2.83	7303.02	4013.76	7.61	11.79
117	1400	1559	4251	1.11	3.04	2.73	9004.99	3746.71	6.43	9.11
118	452	498	1323	1.10	2.93	2.66	3115.40	1417.02	6.90	10.04
119	423	374	1545	0.88	3.66	4.14	2127.86	1206.01	5.03	7.89
120	192	160	626	0.83	3.25	3.90	860.82	565.37	4.47	7.41
121	128	128	257	1.00	2.00	2.00	787.23	53.89	6.13	6.55
122	626	770	2181	1.23	3.49	2.83	3214.99	1791.02	5.14	8.00
123	305	369	898	1.21	2.95	2.43	1913.85	820.95	6.28	8.97
124	914	1171	3368	1.28	3.68	2.88	7247.29	3244.47	7.93	11.48
125	882	962	2647	1.09	3.00	2.75	4951.40	1749.00	5.61	7.60
126	573	867	2192	1.51	3.83	2.53	5108.66	5122.38	8.92	17.87
127	82	147	409	1.80	5.00	2.78	1133.31	1228.64	13.85	28.87
128	376	507	1423	1.35	3.78	2.81	3329.28	2842.04	8.85	16.40
129	622	867	1996	1.39	3.21	2.30	3150.16	3470.91	5.07	10.65
130	65	115	196	1.75	3.00	1.71	678.97	666.20	10.38	20.56
131	147	164	376	1.11	2.56	2.30	1176.52	898.32	7.99	14.09
132	110	173	440	1.57	4.00	2.55	1007.69	723.28	9.16	15.74
133	63	47	204	0.75	3.25	4.33	553.16	339.32	8.80	14.20
134	63	78	438	1.25	7.00	5.60	942.77	1156.53	15.08	33.58
135	47	95	158	2.00	3.33	1.67	345.70	139.84	7.29	10.24
136	493	732	1606	1.48	3.26	2.19	3392.15	2726.79	6.87	12.40
137	78	109	235	1.40	3.00	2.14	352.34	135.60	4.51	6.24
138	500	782	1877	1.56	3.75	2.40	5238.03	3465.07	10.47	17.39
139	735	1017	2737	1.38	3.72	2.69	5593.31	3109.44	7.61	11.84
140	282	532	1455	1.89	5.17	2.74	2781.72	3248.19	9.88	21.42
141	1830	2457	11216	1.34	6.13	4.57	13526.16	8685.05	7.39	12.14
142	188	266	735	1.42	3.92	2.76	1163.95	1478.23	6.21	14.09
143	125	281	641	2.25	5.13	2.28	1520.97	1666.25	12.16	24.49
144	332	569	1406	1.71	4.24	2.47	3358.04	3519.89	10.12	20.73
145	158	221	458	1.40	2.90	2.07	1353.62	1513.60	8.57	18.15
146	169	230	643	1.36	3.82	2.80	1361.28	1551.53	8.08	17.28
147	352	552	1517	1.57	4.30	2.75	4371.74	2756.95	12.41	20.23
148	92	107	429	1.17	4.67	4.00	753.19	786.55	8.19	16.75
149	61	92	260	1.50	4.25	2.83	520.90	592.89	8.50	18.18

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OD ZONE	DWELLING UNIT	PASSENGER CARS	TOTAL PERSONS	PASS CARS PER D-U	PERSONS PER D-U	PERSONS PER CAR	PASSENGER CAR TRIPS	PASSENGER TRIPS	VEHICLE TRIPS/D-U	TRIPS PER D-U
150	169	245	643	1.45	3.82	2.63	1491.47	1541.25	8.85	18.00
151	190	316	901	1.67	4.75	2.85	1826.99	1850.99	9.64	19.40
152	94	126	298	1.33	3.17	2.37	681.83	624.29	7.24	14.07
153	63	95	300	1.50	4.75	3.17	830.30	970.50	13.14	28.49
154	138	245	659	1.78	4.78	2.69	1402.48	1383.34	10.17	20.20
155	77	123	199	1.60	2.60	1.63	722.25	452.73	9.43	15.34
156	541	723	1824	1.34	3.37	2.52	5426.49	4508.38	10.03	18.36
157	251	354	796	1.41	3.18	2.25	1812.59	934.25	7.24	10.96
158	424	629	2342	1.48	5.52	3.73	2375.24	2301.41	5.60	11.02
159	299	456	1478	1.53	4.95	3.24	2239.51	4434.51	7.50	22.35
160	471	638	1549	1.35	3.29	2.43	4294.90	1975.79	9.12	13.32
161	314	472	4056	1.50	12.90	8.60	1799.68	2022.14	5.72	12.16
162	189	267	770	1.42	4.08	2.88	1492.19	1454.66	7.91	15.62
163	163	238	607	1.46	3.72	2.56	1424.30	1001.90	8.73	14.87
164	197	212	501	1.08	2.54	2.36	925.40	803.12	4.69	8.76
165	702	931	2228	1.33	3.17	2.39	7003.79	3268.91	9.98	14.63
166	197	288	516	1.46	2.62	1.79	1923.73	489.54	9.75	12.24
167	364	576	1441	1.58	3.96	2.50	2584.11	3378.89	7.10	16.38
168	170	294	758	1.73	4.45	2.58	2186.58	1243.96	12.85	20.16
169	139	248	572	1.78	4.11	2.31	1944.03	1565.43	13.96	25.21
170	108	139	387	1.29	3.57	2.78	556.93	921.42	5.14	13.65
171	108	185	415	1.71	3.86	2.25	1256.20	920.73	11.67	20.22
172	471	594	1986	1.26	4.22	3.34	4131.81	2303.08	8.78	13.67
173	202	274	765	1.36	3.79	2.79	1525.84	694.51	7.55	10.99
174	215	277	646	1.29	3.00	2.33	1812.97	1998.81	8.42	17.70
175	155	278	495	1.80	3.20	1.78	902.20	799.50	5.83	11.00
176	263	387	944	1.47	3.59	2.44	3095.96	1852.25	11.77	18.82
177	278	340	1021	1.22	3.67	3.00	1837.20	1844.97	6.60	13.22
178	152	273	546	1.80	3.60	2.00	1357.14	1163.57	8.95	16.62
179	410	652	1654	1.59	4.04	2.53	3554.33	4011.29	8.68	18.47
180	401	648	1481	1.62	3.69	2.29	4008.44	3294.51	9.99	18.20
181	989	1256	3391	1.27	3.43	2.70	7331.29	1469.33	7.41	8.90
182	941	1281	3040	1.36	3.23	2.37	9175.11	4523.93	9.75	14.55
183	1003	1466	3966	1.46	3.95	2.71	11142.71	6263.55	11.11	17.36
184	1790	2268	7252	1.27	4.05	3.20	12834.51	6929.62	7.17	11.04
185	510	707	2384	1.39	4.68	3.37	3641.94	1855.44	7.15	10.79
186	1134	1430	4768	1.26	4.20	3.33	6950.79	2986.74	6.13	8.76
187	641	855	2400	1.33	3.74	2.81	5580.96	2361.01	8.70	12.39

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OD ZONE	DWELLING UNIT	PASSENGER CARS	TOTAL PERSONS	PASS CARS PER D-U	PERSONS PER D-U	PERSONS PER CAR	PASSENGER CAR TRIPS	PASSENGER TRIPS	VEHICLE TRIPS/D-U	TRIPS PER D-U
188	115	230	592	2.00	5.14	2.57	1126.97	1114.95	9.79	19.48
189	214	164	1463	0.77	6.85	8.90	943.33	846.30	4.41	8.37
190	446	637	1783	1.43	4.00	2.80	4233.29	3605.73	9.50	17.59
191	191	271	716	1.42	3.75	2.65	1857.90	1204.79	9.73	16.03
192	295	443	1000	1.50	3.39	2.26	2301.71	2086.67	7.80	14.87
193	180	262	852	1.45	4.73	3.25	1546.17	1764.13	8.58	18.36
194	804	1329	3298	1.65	4.10	2.48	5865.17	4109.44	7.29	12.40
195	193	338	741	1.75	3.83	2.19	2126.28	1905.20	11.00	20.85
196	338	499	1208	1.48	3.57	2.42	1847.93	1639.78	5.46	10.31
197	644	1112	2449	1.72	3.80	2.20	5261.98	4014.55	8.17	14.40
198	580	854	1611	1.47	2.78	1.89	4474.46	2664.92	7.72	12.31
199	1385	2062	5429	1.49	3.92	2.63	11675.13	7912.04	8.43	14.14
200	209	274	644	1.31	3.08	2.35	1830.21	1411.47	8.74	15.48
201	891	1408	3191	1.58	3.58	2.27	8228.66	6128.24	10.01	16.88
202	344	657	1298	1.91	3.77	1.98	3958.72	3133.10	11.51	20.61
203	313	563	1064	1.80	3.40	1.89	3101.10	1616.42	9.91	15.08
204	372	434	1380	1.17	3.71	3.18	2660.41	2973.74	7.15	15.15
205	733	920	2245	1.26	3.06	2.44	6945.71	3296.99	9.48	13.98
206	326	558	1209	1.71	3.71	2.17	3062.37	1704.42	9.41	14.64
207	177	319	744	1.80	4.20	2.33	1873.93	1438.74	10.58	18.69
208	528	699	1927	1.32	3.65	2.76	5691.57	2147.05	10.77	14.84
209	142	177	549	1.25	3.88	3.10	1754.83	1603.41	12.38	23.69
210	319	443	1382	1.39	4.33	3.12	2682.56	2999.99	8.41	17.82
211	625	789	2302	1.26	3.68	2.92	4379.01	2848.22	7.01	11.57
212	312	411	1315	1.32	4.21	3.20	1633.59	944.25	5.23	8.25
213	329	395	1397	1.20	4.25	3.54	2287.99	1610.64	6.96	11.86
214	214	329	674	1.54	3.15	2.05	1410.40	1060.69	6.60	11.56
215	148	230	477	1.56	3.22	2.07	826.87	424.12	5.59	8.45
216	477	658	1545	1.38	3.24	2.35	3422.95	1558.30	7.18	10.45
217	66	132	279	2.00	4.25	2.12	321.54	72.66	4.89	5.99
218	296	427	1134	1.44	3.83	2.65	2456.99	2069.99	8.30	15.30
219	296	477	1167	1.61	3.94	2.45	3134.89	1666.99	10.59	16.23
220	494	562	1516	1.14	3.07	2.70	3209.36	2493.28	6.50	11.55
221	153	187	477	1.22	3.11	2.55	1361.35	650.22	8.88	13.12
222	255	392	1005	1.53	3.93	2.57	2048.65	2368.51	8.02	17.29
223	136	204	409	1.50	3.00	2.00	816.40	70.16	5.99	6.51
224	326	623	1425	1.91	4.36	2.29	3432.23	3961.98	10.51	22.65
225	223	341	905	1.53	4.07	2.65	2187.41	2141.77	9.83	19.45

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OD ZONE	DWELLING UNIT	PASSENGER CARS	TOTAL PERSONS	PASS CARS PER D-U	PERSONS PER D-U	PERSONS PER CAR	PASSENGER CAR TRIPS	PASSENGER TRIPS	VEHICLE TRIPS/D-U	TRIPS PER D-U
226	69	103	310	1.50	4.50	3.00	926.23	685.51	13.45	23.41
227	155	207	499	1.33	3.22	2.42	1668.84	1148.15	10.77	18.19
228	535	849	2422	1.59	4.53	2.85	5469.02	5963.08	10.23	21.38
229	85	85	358	1.00	4.20	4.20	5564.53	1205.35	6.63	20.79
230	68	119	272	1.75	4.00	2.29	770.95	810.19	11.32	23.21
231	119	170	579	1.43	4.86	3.40	1010.59	665.51	8.48	14.06
232	85	102	409	1.20	4.80	4.00	710.49	879.52	8.34	18.67
233	315	456	928	1.45	2.95	2.03	2416.15	1538.24	7.68	12.57
234	173	330	613	1.91	3.55	1.86	1583.18	1127.56	9.15	15.67
235	16	63	63	4.00	4.00	1.00	337.56	33.34	21.46	23.58
236	1122	1485	3508	1.32	3.13	2.36	11078.30	5381.89	9.88	14.67
237	110	94	267	0.86	2.43	2.83	467.98	446.05	4.25	8.30
238	79	142	378	1.80	4.80	2.67	1214.80	1621.12	15.45	36.06
239	124	247	441	2.00	3.57	1.79	1282.47	916.97	10.38	17.80
240	300	424	1006	1.41	3.35	2.38	2526.64	1050.59	8.42	11.92
241	142	252	724	1.78	5.11	2.87	1551.47	2064.37	10.96	25.54
242	155	224	620	1.44	4.00	2.77	1010.74	561.27	6.53	10.15
243	230	273	590	1.19	2.56	2.16	2045.83	689.34	8.89	11.89
244	52	52	241	1.00	4.67	4.67	222.70	298.80	4.31	10.10
245	105	122	347	1.16	3.31	2.85	786.85	260.58	7.50	9.99
246	38	38	151	1.00	4.00	4.00	143.11	243.28	3.80	10.26
247	177	388	812	2.20	4.60	2.09	1574.75	956.30	8.92	14.34
248	132	264	471	2.00	3.57	1.79	799.68	408.22	6.07	9.16
249	335	547	1183	1.63	3.53	2.16	2330.35	6052.55	6.95	8.75
250	16	31	31	2.00	2.00	1.00	135.60	0.00	8.62	8.62
251	661	944	2548	1.43	3.86	2.70	6911.25	6485.32	10.46	20.28
252	142	236	503	1.67	3.56	2.13	1720.81	1084.97	12.16	19.82
253	362	535	1431	1.48	3.96	2.68	3148.15	2630.40	8.70	15.97
254	425	629	1479	1.48	3.48	2.35	3221.90	2719.81	7.59	13.99
255	173	252	724	1.45	4.18	2.87	1301.80	2118.18	7.52	19.77
256	1088	1413	3816	1.30	3.51	2.70	9157.56	4360.77	8.42	12.42
257	471	422	1150	0.90	2.45	2.73	2635.94	1113.18	5.60	7.96
258	731	828	2046	1.13	2.80	2.47	4864.55	2331.71	6.66	9.85
259	471	715	1575	1.52	3.34	2.20	3976.45	1717.57	8.44	12.09
260	520	698	1673	1.34	3.22	2.40	3427.53	2078.40	6.60	10.59
261	244	292	893	1.20	3.67	3.06	1745.38	770.85	7.16	10.33
262	413	556	1604	1.35	3.88	2.89	2985.06	1729.84	7.23	11.42
263	1175	1715	4049	1.46	3.45	2.36	7675.90	4402.89	6.53	10.28

B - 1 TABLE

<u>OD ZONE</u>	<u>DWELLING UNIT</u>	<u>PASSENGER CARS</u>	<u>TOTAL PERSONS</u>	<u>PASS CARS PER D-U</u>	<u>PERSONS PER D-U</u>	<u>PERSONS PER CAR</u>	<u>PASSENGER CAR TRIPS</u>	<u>PASSENGER TRIPS</u>	<u>VEHICLE TRIPS/D-U</u>	<u>TRIPS PER D-U</u>
264	267	409	990	1.53	3.71	2.42	2081.70	1688.24	7.79	14.11
265	157	189	550	1.20	3.50	2.92	807.86	1031.94	5.14	11.70
266	252	346	959	1.38	3.81	2.77	1826.67	2136.03	7.26	15.76
267	220	330	707	1.50	3.21	2.14	2017.16	1209.36	9.17	14.66
268	1075	1466	3308	1.36	3.08	2.26	7257.38	7378.72	6.75	13.61
269	901	1118	3152	1.24	3.50	2.82	6643.34	2501.65	7.37	10.15
270	1488	1903	4924	1.28	3.31	2.59	12105.28	6745.23	8.14	12.67
271	53	53	160	1.00	3.00	3.00	173.62	403.20	3.26	10.83
272	630	946	2065	1.50	3.28	2.18	5072.61	1692.25	8.05	10.73
273	189	283	645	1.50	3.42	2.28	1056.39	778.92	5.60	9.73
274	252	393	1006	1.56	4.00	2.56	2309.83	1890.39	9.18	16.70
275	253	331	853	1.31	3.37	2.57	1752.36	1264.33	6.94	11.94
276	191	333	699	1.75	3.67	2.10	1629.41	1085.49	8.55	14.25
277	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
278	127	111	286	0.88	2.25	2.57	686.73	523.04	5.41	9.52
279	189	284	505	1.50	2.67	1.78	841.11	377.28	4.44	6.43
280	458	426	1294	0.93	2.83	3.04	2943.60	2100.58	6.43	11.02
281	229	318	531	1.39	2.32	1.67	1908.80	1252.44	8.35	13.83
282	485	643	1425	1.32	2.93	2.22	3804.99	2129.21	7.84	12.22
283	710	994	2746	1.40	3.87	2.76	4330.45	2485.15	6.10	9.60
284	294	462	939	1.57	3.19	2.03	2577.01	1654.54	8.77	14.40
285	363	521	1404	1.43	3.87	2.70	1547.93	1131.70	4.26	7.38
286	142	189	584	1.33	4.11	3.08	739.30	1011.91	5.21	12.33
287	90	180	315	2.00	3.50	1.75	978.30	577.95	10.87	17.29
288	206	333	730	1.62	3.54	2.19	1767.55	584.66	8.56	11.39
289	63	110	252	1.75	4.00	2.29	303.74	442.36	4.83	11.87
290	141	267	440	1.89	3.11	1.65	1964.38	864.40	13.88	19.99
291	141	236	456	1.67	3.22	1.93	1215.97	394.22	8.59	11.38
292	95	110	347	1.17	3.67	3.14	881.67	102.76	9.32	10.41
293	395	439	1039	1.11	2.63	2.37	801.38	111.04	2.03	2.31
294	331	394	788	1.19	2.38	2.00	1844.51	703.23	5.57	7.70
295	967	885	2032	0.92	2.10	2.30	4371.49	3305.61	4.52	7.94
296	98	164	328	1.67	3.33	2.00	917.45	653.31	9.33	15.97
297	229	443	754	1.93	3.29	1.70	1919.19	898.13	8.36	12.28
298	66	66	246	1.00	3.75	3.75	421.04	514.62	6.42	14.27
299	231	248	727	1.07	3.14	2.93	956.00	267.88	4.13	5.29
300	61	61	91	1.00	1.50	1.50	258.68	98.98	4.26	5.89
301	106	121	319	1.14	3.00	2.63	508.99	329.40	4.79	7.89

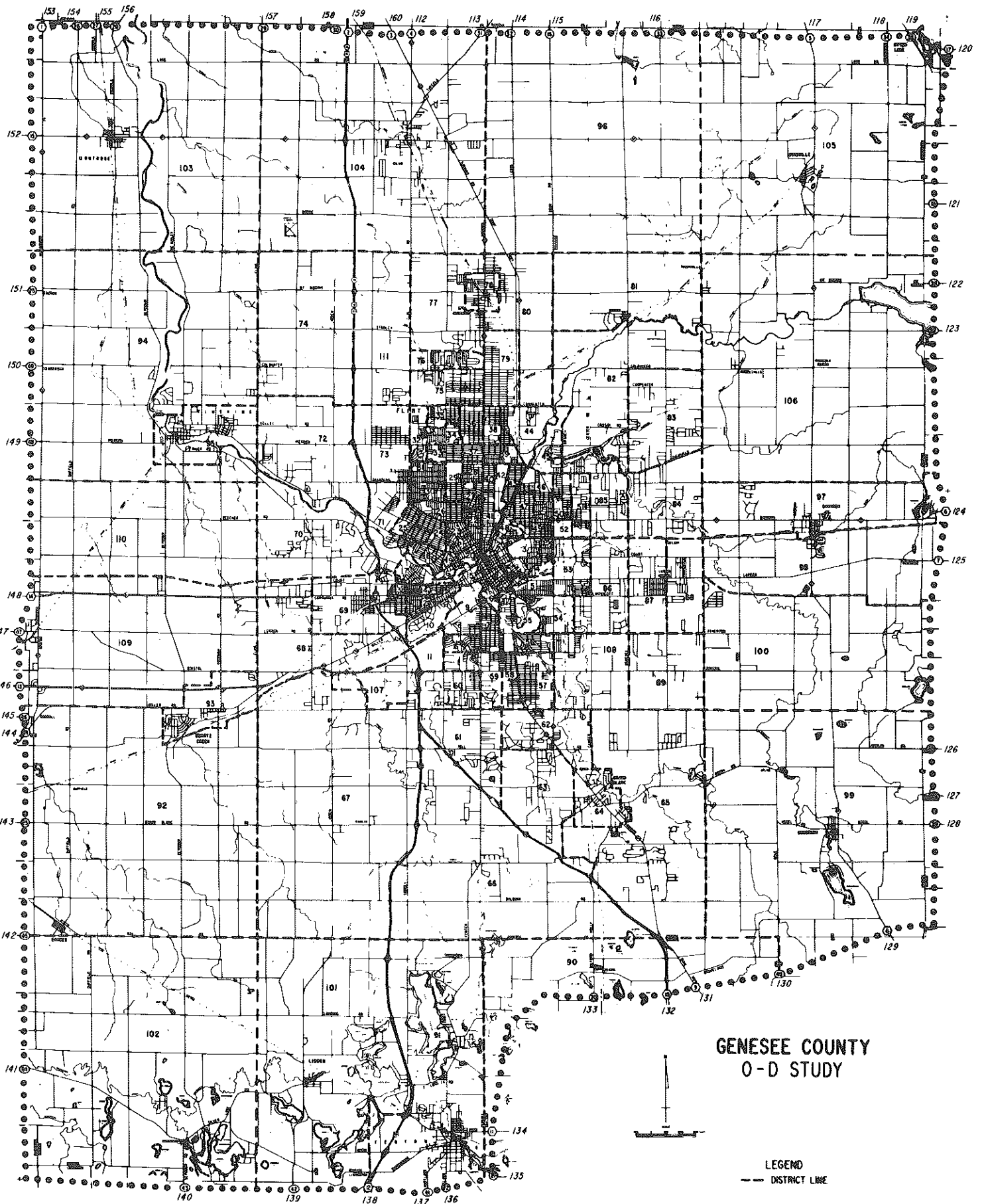
82

B -1 TABLE

OD ZONE	DWELLING UNIT	PASSENGER CARS	TOTAL PERSONS	PASS CARS PER D-U	PERSONS PER D-U	PERSONS PER CAR	PASSENGER CAR TRIPS	PASSENGER TRIPS	VEHICLE TRIPS/D-U	TRIPS PER D-U
302	152	182	501	1.20	3.30	2.75	1046.07	1201.92	6.89	14.81
303	209	352	598	1.68	2.86	1.70	1747.51	444.50	8.37	10.49
304	733	1028	2798	1.40	3.82	2.72	4283.28	1752.42	5.85	8.24
305	61	61	137	1.00	2.25	2.25	235.46	267.93	3.88	8.29
306	167	213	471	1.27	2.82	2.21	782.69	534.32	4.69	7.89
307	46	31	168	0.67	3.67	5.50	64.32	364.36	1.40	9.33
308	291	444	1041	1.53	3.58	2.34	1415.44	827.83	4.87	7.71
309	15	31	61	2.00	4.00	2.00	199.98	132.88	13.06	21.74
310	199	276	689	1.38	3.46	2.50	1161.69	752.28	5.84	9.62
311	107	199	505	1.86	4.71	2.54	740.89	947.94	6.91	15.75
312	184	352	750	1.92	4.08	2.13	1024.70	1510.57	5.58	13.80
313	110	173	456	1.57	4.14	2.64	764.01	914.60	6.95	15.26
314	79	110	157	1.40	2.00	1.43	236.15	101.18	3.01	4.29
315	196	442	769	2.25	3.92	1.74	1404.77	1853.55	7.16	16.60
TOTAL	125684	163099	447767	1.30	3.56	2.75	931728.84	548666.56	7.41	11.78

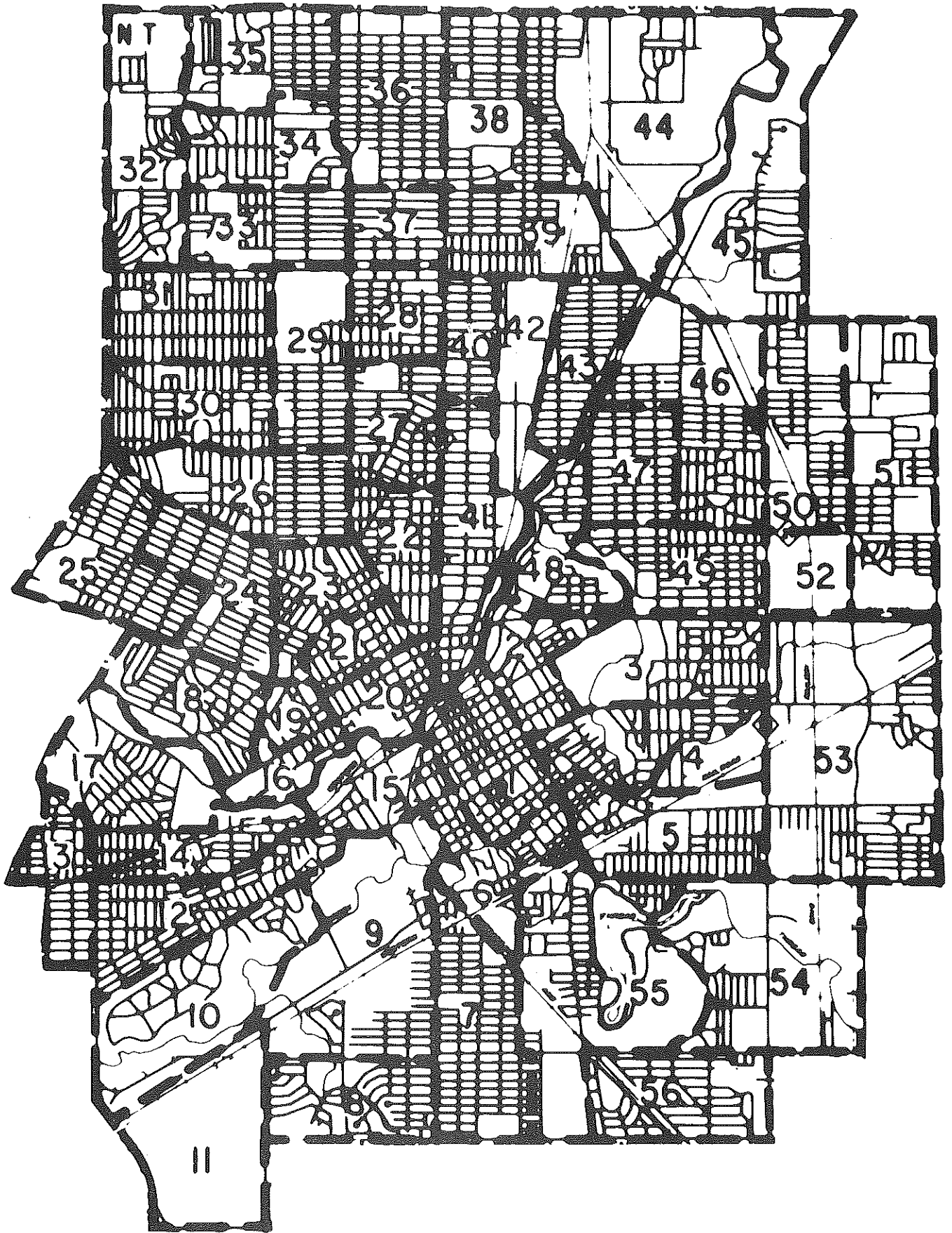
DISTRICT TRIP TABLES

The trip table that follows contains the trips that interchange among 160 districts and external locations in the Flint-Genesee County Study Area. These tables can be read by remembering the following: The heading, "Interchange values from District . . ." indicates from what district the trip originates. The number of destinations can be ascertained by using the numbers which appear in the first column as the first digit of the destination district number, and the numbers which appear in the first row as the second digit of the destination district number. Thus, for example, in origin District Number 1 shown in the first table, 441 trips had a destination in District 21. Maps indicating district boundaries appear on the preceding pages.



**GENESEE COUNTY
O-D STUDY**

LEGEND
--- DISTRICT LINE



11JUN70 PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 1 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		3480	886	1287	672	563	540	436	411	642
1	314	226	328	253	287	388	396	599	495	180
2	1198	441	626	426	454	796	696	456	188	306
3	345	456	317	508	420	175	176	161	174	215
4	237	1777	70	184	224	104	539	282	243	529
5	262	499	184	643	616	508	384	542	366	777
6	492	181	323	154	347	312	263	199	259	771
7	135	330	261	622	62	209	87	212	158	456
8	122	123	186	188	154	442	139	191	216	146
9	14	261	16	229	186	316	30	228	227	217
10	94	175	45	158	261	47	155	53	297	87
11	14	64	21	9	4	9	3	19	0	0
12	13	23	1	2	103	69	4	1	0	12
13	2	33	132	102	9	4	9	0	119	0
14	9	4	4	8	44	2	121	2	88	2
15	1	13	10	5	0	1	0	3	1	148
16	67									

TOTAL = 41637 MEAN = 260.231

11JUN70 PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 2 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		680	393	344	308	149	127	47	108	163
1	42	89	108	17	15	63	247	53	16	69
2	148	70	150	59	63	131	107	116	14	52
3	48	68	109	35	0	55	56	35	56	51
4	71	186	51	2	17	33	119	118	162	256
5	50	81	116	389	143	188	52	46	40	52
6	31	17	16	34	60	72	0	0	105	81
7	14	56	41	74	0	111	33	49	41	17
8	33	0	17	17	122	37	32	55	0	16
9	0	34	0	20	17	17	15	0	184	0
10	16	33	0	0	38	16	0	22	20	62
11	0	0	3	0	0	3	0	4	0	0
12	0	2	0	1	15	10	1	0	0	2
13	0	8	23	7	1	0	0	0	17	0
14	0	0	0	0	6	0	42	0	11	1
15	0	1	0	0	0	0	0	0	0	11
16	12									

TOTAL = 8489 MEAN = 53.056

11JUN70 PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 3 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		1596	425	1785	789	322	230	218	110	172
1	17	108	120	49	106	167	137	155	312	158
2	461	355	182	152	138	140	333	200	19	155
3	225	306	68	130	33	115	83	74	36	30
4	55	354	58	57	67	107	539	373	205	856
5	228	484	174	583	429	68	179	108	79	115
6	135	88	58	51	53	194	33	17	0	184
7	140	147	51	211	0	31	0	51	47	110
8	68	0	89	87	116	326	125	90	17	36
9	0	81	0	77	84	157	52	129	89	37
10	50	0	52	0	181	0	31	16	108	16
11	17	16	17	1	0	14	1	24	0	0
12	1	15	0	0	61	38	6	0	0	16
13	1	31	48	34	3	1	2	0	129	0
14	4	1	0	4	12	0	44	0	58	1
15	1	6	2	0	0	0	0	0	0	14
16	38									

TOTAL = 19705 MEAN = 123.156

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS, SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 4 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		553	221	846	376	219	197	17	31	15
1	19	129	60	14	44	83	48	103	46	0
2	36	132	16	0	51	33	80	46	41	17
3	16	17	14	73	20	68	60	16	32	50
4	18	312	54	35	17	0	98	32	14	64
5	93	60	98	231	161	198	57	0	31	17
6	38	14	0	49	0	14	16	14	65	2
7	0	32	32	16	0	0	42	50	17	49
8	0	0	0	50	0	47	15	28	44	0
9	0	17	0	0	0	16	0	31	28	55
10	0	0	0	0	14	0	0	0	0	0
11	0	0	2	0	0	3	0	5	0	0
12	1	2	0	1	13	19	2	0	0	4
13	1	15	57	7	3	1	0	0	23	0
14	0	0	1	0	3	0	22	0	15	0
15	0	3	0	1	0	0	0	0	0	4
16	34									

TOTAL = 6466 MEAN = 40.413

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS, SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 5 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		667	126	281	204	940	220	14	40	52
1	18	84	43	17	18	104	67	17	0	0
2	98	17	18	2	0	18	89	73	19	0
3	16	17	0	0	17	0	17	31	69	71
4	106	190	36	67	0	57	139	34	16	47
5	35	17	200	184	393	319	111	0	0	17
6	0	20	17	16	14	0	0	0	34	0
7	14	35	66	0	20	42	0	53	0	56
8	50	17	18	20	0	14	53	16	0	0
9	0	0	34	0	0	0	0	27	0	39
10	0	0	0	17	14	0	0	14	14	0
11	0	0	2	0	2	4	2	5	0	0
12	0	0	0	4	8	13	0	0	1	1
13	0	11	25	9	1	1	0	0	10	2
14	0	0	0	1	1	0	17	0	10	0
15	0	1	3	0	0	0	0	0	0	14
16	12									

TOTAL = 6346 MEAN = 39.663

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS, SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 6 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		596	104	177	150	266	421	162	33	261
1	0	104	120	0	103	143	0	30	57	0
2	183	23	42	41	17	2	49	0	0	18
3	32	47	130	0	0	0	51	0	55	53
4	72	193	88	2	20	0	35	32	81	31
5	0	2	145	120	64	380	103	134	53	123
6	54	30	0	17	35	37	0	0	44	87
7	0	100	31	48	0	0	0	34	0	103
8	0	0	0	17	28	16	14	0	0	14
9	0	17	0	0	0	0	16	16	51	0
10	0	14	0	17	0	0	0	14	22	0
11	0	0	2	2	0	3	0	2	0	0
12	0	3	0	1	10	11	0	0	0	0
13	0	17	20	3	2	0	1	0	12	0
14	0	0	0	1	4	0	15	0	10	0
15	0	0	1	1	0	0	0	0	0	19
16	4									

TOTAL = 6168 MEAN = 38.550

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 7 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		412	49	206	69	36	205	1499	971	1232
1	0	421	226	0	83	128	101	33	17	84
2	66	17	0	34	0	34	51	54	55	0
3	14	34	63	0	17	17	70	0	0	17
4	0	56	81	0	0	0	64	0	0	34
5	64	90	64	32	215	773	553	291	57	908
6	186	175	56	50	106	17	36	120	51	60
7	35	68	40	90	0	20	0	0	0	14
8	36	0	17	0	0	0	34	0	0	35
9	55	85	0	0	0	0	0	0	39	43
10	0	15	0	0	33	0	20	19	102	36
11	0	0	4	1	1	0	0	2	0	0
12	0	1	0	0	2	4	1	0	0	0
13	0	10	8	8	2	0	0	0	23	0
14	1	0	0	0	0	0	13	0	15	0
15	0	0	2	0	0	0	0	0	0	14
16	2									

TOTAL = 11404

MEAN = 71.275

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 8 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		379	104	120	17	40	103	828	1143	762
1	103	156	16	40	30	47	34	152	0	86
2	38	17	32	0	14	82	52	17	40	0
3	17	51	37	71	0	0	0	17	0	17
4	19	31	121	0	0	70	45	2	73	54
5	77	0	51	51	269	308	179	380	225	690
6	263	35	69	0	0	35	16	14	35	296
7	36	64	50	56	0	0	0	0	0	87
8	0	0	0	0	0	0	36	20	0	19
9	0	17	0	19	0	0	0	0	51	0
10	19	47	36	0	16	15	0	0	40	0
12	0	1	0	1	0	6	0	0	0	0
13	0	5	13	4	1	0	4	0	12	0
14	0	1	1	1	0	0	9	0	6	0
15	0	0	1	0	0	0	0	0	0	15
16	5									

TOTAL = 8784

MEAN = 54.900

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 9 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		639	102	87	55	33	203	1215	706	643
1	74	164	345	119	260	170	118	121	0	0
2	120	55	20	17	66	61	0	14	0	0
3	48	14	50	17	0	51	56	0	0	0
4	0	56	51	0	0	17	86	17	70	18
5	74	18	68	70	287	242	391	81	68	531
6	253	94	17	34	66	14	103	70	111	191
7	17	28	14	36	15	18	14	0	0	53
8	16	19	17	54	0	34	55	14	14	18
9	0	99	0	0	0	31	0	31	19	0
10	17	35	14	0	0	14	0	22	113	0
11	0	0	0	1	0	1	0	2	0	0
12	0	2	1	0	2	13	0	0	0	1
13	0	19	20	8	1	0	0	0	33	0
14	0	0	0	2	2	1	31	0	15	3
15	0	0	0	0	0	0	0	0	0	8
16	2									

TOTAL = 9760

MEAN = 61.000

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 10 TO ALL-OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		270	82	17	36	36	0	0	94	33
1	109	0	226	0	37	27	0	83	14	0
2	106	17	14	19	2	16	16	19	0	0
3	96	20	0	0	0	0	0	0	0	17
4	18	131	0	0	0	0	0	0	0	0
5	51	36	17	2	0	0	0	17	0	62
6	17	30	0	0	0	36	0	17	101	151
7	0	50	14	0	0	17	16	0	0	0
8	0	0	0	0	17	0	0	0	0	0
9	0	0	16	0	0	32	14	0	0	0
10	0	0	0	17	0	0	33	33	0	0
12	0	0	0	0	5	1	1	0	0	0
13	0	4	7	1	0	0	0	0	10	0
14	0	0	0	0	1	0	16	0	3	0

TOTAL = 2400 MEAN = 15.000

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 11 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		313	51	88	149	101	144	513	172	235
1	39	17	279	148	102	117	249	52	88	0
2	215	79	394	49	65	86	95	213	92	90
3	140	46	262	80	83	119	198	49	330	68
4	77	224	91	115	101	81	200	161	68	160
5	111	47	0	179	110	339	324	397	252	602
6	662	209	94	211	33	84	189	257	146	462
7	168	201	81	148	100	317	127	94	113	337
8	31	30	197	141	84	126	150	152	156	49
9	0	455	82	163	125	131	16	76	121	46
10	91	301	204	198	285	60	103	95	314	178
11	94	86	16	12	0	18	8	41	0	0
12	1	14	0	0	69	145	17	0	0	8
13	4	70	212	58	14	8	11	3	270	5
14	6	3	4	28	85	10	335	5	219	14
15	2	27	36	10	0	5	1	2	2	199
16	14									

TOTAL = 19633 MEAN = 122.706

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 12 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		438	192	107	56	14	160	167	69	360
1	249	227	1652	515	746	301	56	307	122	56
2	72	20	17	0	66	204	154	57	41	0
3	0	72	128	38	34	0	57	0	14	31
4	0	173	99	0	17	0	70	0	95	94
5	0	18	207	190	177	236	37	30	17	141
6	102	17	35	0	14	35	0	14	269	1112
7	94	74	0	36	0	15	16	49	0	96
8	0	0	17	0	0	32	17	51	0	0
9	14	14	14	16	87	34	0	36	16	0
10	0	50	17	0	37	0	0	0	34	0
11	0	16	5	0	0	1	0	1	0	0
12	0	0	0	0	13	2	0	0	0	1
13	0	6	11	2	0	0	1	0	30	0
14	2	1	0	0	5	0	23	0	20	2
15	0	1	1	0	0	0	0	0	1	39
16	1									

TOTAL = 11049 MEAN = 69.056

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 13 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		257	17	35	14	17	0	0	17	135
1	2	118	600	467	208	48	69	200	17	0
2	47	68	17	14	16	65	31	0	0	17
3	81	53	0	17	0	20	0	0	0	0
4	38	81	131	0	14	0	33	0	0	0
5	0	0	48	71	65	53	139	14	0	72
6	42	34	14	34	0	0	51	0	213	673
7	161	28	0	19	0	0	0	0	0	33
8	17	0	0	0	0	0	0	0	0	0
9	0	0	0	16	0	34	0	0	0	14
10	0	0	17	0	28	0	17	0	0	35
11	0	0	0	0	0	0	0	1	0	0
12	1	1	0	0	2	3	0	0	0	0
13	0	2	11	1	0	0	0	0	3	0
14	0	0	0	0	2	0	8	0	11	0
15	0	0	0	0	0	0	0	0	1	16

TOTAL = 4969

MEAN = 31.056

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 14 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		247	0	72	14	18	75	83	30	286
1	18	147	667	290	488	201	73	359	17	15
2	123	14	19	17	55	81	17	14	31	19
3	32	0	32	0	0	0	33	0	0	106
4	0	66	74	0	0	34	17	0	39	0
5	0	49	34	19	17	108	0	48	33	85
6	83	0	0	0	0	31	0	35	167	466
7	84	107	36	16	0	34	0	33	0	83
8	17	14	0	0	17	0	0	17	17	18
9	0	19	0	14	0	0	17	14	0	0
10	0	31	17	72	32	0	0	17	46	64
11	0	19	1	0	0	1	0	0	0	0
12	0	2	0	0	7	4	0	0	0	0
13	0	2	15	8	0	0	0	1	22	0
14	0	0	0	0	3	0	12	0	17	1
15	1	0	4	1	0	0	0	0	0	28
16	1									

TOTAL = 6084

MEAN = 38.025

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 15 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		495	51	141	94	88	93	182	53	143
1	28	103	380	62	157	299	14	128	17	16
2	156	102	87	102	146	66	95	56	36	19
3	0	69	34	164	0	17	101	16	66	50
4	38	177	105	113	17	53	102	139	86	38
5	32	18	58	171	123	158	0	45	86	159
6	87	81	85	64	17	53	17	92	200	153
7	51	17	85	101	78	46	78	16	33	65
8	31	33	51	34	0	33	35	67	70	18
9	20	118	46	68	49	88	82	16	35	50
10	35	29	0	47	81	71	14	0	32	66
11	0	0	10	6	1	3	7	10	0	0
12	1	5	0	0	34	17	1	0	0	3
13	1	8	30	4	1	0	2	0	52	2
14	1	0	0	4	41	3	43	0	96	6
15	2	3	11	1	0	0	0	1	0	51
16	8									

TOTAL = 8851

MEAN = 55.319

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 16 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		392	161	65	99	51	51	83	52	136
1	0	244	60	69	52	33	137	39	56	48
2	361	26	166	395	186	115	179	0	55	89
3	32	67	132	49	51	52	34	0	55	17
4	20	154	16	17	72	52	0	17	20	54
5	73	88	155	14	36	147	36	48	0	91
6	17	17	51	127	20	0	113	63	173	93
7	19	161	88	104	32	67	48	32	33	120
8	0	0	48	49	64	66	14	0	17	18
9	0	81	16	37	72	294	35	0	33	0
10	43	34	34	14	166	14	0	0	68	110
11	0	0	5	3	0	2	3	17	0	0
12	1	6	0	0	35	4	1	0	0	3
13	2	6	61	6	4	0	1	0	54	2
14	1	0	0	1	12	0	26	2	25	3
15	2	4	13	1	0	0	0	1	2	73
16	2									

TOTAL = 8088

MEAN = 50.550

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 17 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		698	112	244	80	34	32	16	76	156
1	34	66	431	193	275	102	59	530	134	32
2	223	230	53	40	133	360	187	37	31	18
3	85	120	184	117	0	53	39	31	17	17
4	36	75	132	0	17	17	53	17	0	34
5	0	69	71	180	35	34	20	62	82	161
6	16	16	67	33	126	53	56	32	166	347
7	160	107	50	231	0	136	20	50	16	90
8	0	0	34	0	0	58	49	37	0	34
9	0	34	0	49	0	134	0	0	0	35
10	0	65	56	58	62	0	20	2	39	29
11	0	0	4	4	1	6	1	2	0	0
12	4	0	0	0	6	10	2	0	0	1
13	0	5	34	26	2	0	5	0	19	0
14	0	0	0	2	6	0	26	0	22	0
15	2	6	3	0	0	0	0	1	0	17
16	6									

TOTAL = 9164

MEAN = 57.275

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 18 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		607	0	217	65	14	59	0	51	35
1	19	67	135	17	31	19	35	115	502	151
2	303	96	91	106	531	625	123	0	0	14
3	138	115	154	62	21	51	33	0	69	0
4	0	103	50	17	0	17	48	16	30	52
5	0	0	116	47	31	96	74	0	35	101
6	14	0	16	16	49	72	0	14	69	174
7	88	159	85	182	0	95	15	49	16	49
8	0	0	17	0	0	16	0	0	0	0
9	0	17	0	19	0	49	0	80	48	0
10	31	0	0	17	14	0	40	64	16	0
11	0	32	1	0	0	0	0	1	0	0
12	0	0	0	0	5	0	1	0	0	1
13	0	5	11	8	0	0	0	0	19	0
14	0	0	0	0	2	0	9	0	4	1
15	3	2	1	2	0	0	0	0	0	17
16	3									

TOTAL = 7222

MEAN = 45.138

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11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 19 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		167	91	158	0	0	0	68	122	0
1	36	20	72	0	0	2	16	57	170	82
2	52	206	21	147	70	145	119	0	21	0
3	20	38	16	48	57	17	0	16	0	0
4	0	92	54	0	0	0	16	0	39	0
5	34	0	51	0	0	62	34	0	0	0
6	0	0	19	0	50	0	0	0	34	0
7	0	143	14	16	0	33	0	33	16	0
8	17	17	0	0	20	0	0	0	0	0
9	0	68	0	44	0	65	0	14	18	0
10	20	32	0	49	0	0	0	0	16	0
11	0	16	2	0	0	0	0	2	0	0
13	1	4	5	0	0	0	0	0	1	0
14	0	0	0	0	0	0	3	0	0	0
15	1	0	5	0	0	0	0	0	0	9
16	1									

TOTAL = 3224

MEAN = 20.150

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 20 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		1172	292	262	147	125	163	81	35	131
1	38	142	127	18	176	128	324	173	187	106
2	634	333	414	391	84	291	210	287	112	100
3	214	284	166	66	31	51	137	0	82	87
4	85	506	2	108	2	92	153	158	88	115
5	64	124	90	203	158	92	144	149	32	222
6	83	55	83	47	55	70	14	0	91	204
7	50	150	68	170	34	145	50	93	35	105
8	16	51	102	68	69	49	53	37	14	0
9	14	86	15	110	143	53	16	41	84	0
10	33	66	0	0	30	121	44	88	0	32
11	14	68	6	1	0	5	1	13	0	0
12	8	12	0	0	43	17	2	1	0	8
13	1	28	44	24	2	0	1	0	41	0
14	0	1	0	1	7	0	33	0	27	5
15	0	3	3	0	0	0	0	0	0	45
16	8									

TOTAL = 13857

MEAN = 86.606

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 21 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		596	76	356	175	17	53	17	0	17
1	0	56	53	68	51	108	4	262	70	144
2	460	218	72	244	148	141	217	93	158	55
3	34	99	144	21	52	49	85	16	101	49
4	38	182	50	52	69	0	35	37	0	20
5	18	17	100	61	35	63	0	68	34	49
6	17	56	37	0	39	31	0	17	16	39
7	35	97	16	83	50	79	52	48	0	51
8	37	50	16	17	65	32	0	50	59	0
9	33	87	0	32	17	35	16	18	35	36
10	18	0	17	0	30	0	0	0	0	56
11	17	38	5	2	0	2	0	3	0	0
12	1	3	0	2	20	10	4	0	0	2
13	0	10	32	13	2	2	0	0	26	0
14	0	0	0	2	3	0	19	0	19	0
15	2	0	2	2	0	0	0	0	0	33
16	9									

TOTAL = 7311

93

MEAN = 45.694

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 22 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		666	220	193	62	18	28	0	0	32
1	16	350	19	17	55	93	194	59	71	0
2	472	39	763	330	153	146	169	372	84	128
3	100	98	51	100	53	17	56	0	22	140
4	193	791	154	107	19	35	58	0	16	34
5	47	37	145	46	2	155	15	0	0	45
6	0	0	0	105	17	0	0	0	32	86
7	0	51	52	204	0	17	16	52	14	52
8	17	0	0	27	14	78	0	0	0	0
9	0	30	0	0	0	18	16	16	0	0
10	48	17	17	0	15	16	16	18	21	14
11	0	14	5	1	0	2	0	3	0	0
12	0	5	0	2	13	4	1	0	0	0
13	0	13	24	5	1	0	2	0	19	0
14	0	0	0	0	3	0	21	0	10	0
15	0	1	0	0	0	0	0	0	0	18
16	16									

TOTAL = 8564

MEAN = 53.525

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 23 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		363	75	155	0	0	0	70	19	0
1	2	86	0	14	17	114	295	75	69	107
2	392	243	501	421	372	256	399	135	53	39
3	38	77	57	34	16	0	17	0	17	0
4	36	179	53	0	0	64	0	19	0	62
5	0	18	108	0	33	16	14	48	17	59
6	0	0	0	34	0	18	0	69	70	152
7	40	14	0	226	0	14	0	34	39	0
8	0	0	0	17	0	19	0	17	0	0
9	0	33	0	42	0	0	0	0	0	0
10	0	20	0	0	0	0	0	0	20	0
11	0	32	0	0	0	2	0	1	0	0
12	0	1	0	0	8	1	0	0	0	0
13	0	8	18	1	0	0	0	0	1	0
14	0	0	1	0	1	0	8	0	5	0
15	0	0	0	0	0	0	0	0	0	26
16	1									

TOTAL = 6247

MEAN = 39.044

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 24 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		375	153	172	32	14	0	2	40	67
1	0	102	36	33	55	134	130	88	530	141
2	43	117	116	342	1116	809	693	62	28	49
3	30	227	127	37	68	55	20	0	0	94
4	18	41	138	0	0	34	50	33	69	57
5	0	73	143	51	190	66	18	35	0	33
6	0	32	17	30	0	17	16	0	31	66
7	63	360	30	515	0	15	0	0	34	49
8	0	0	17	17	0	0	0	0	0	0
9	0	0	0	0	0	37	0	14	16	0
10	0	17	17	0	35	0	0	14	0	0
11	0	0	1	0	0	1	0	2	0	0
12	0	4	0	0	5	2	0	0	0	0
13	0	2	12	5	1	0	0	0	9	0
14	0	1	0	0	1	0	15	0	16	0
15	0	0	0	1	0	0	0	0	0	19
16	1									

TOTAL = 8743

MEAN = 54.644

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 25 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		815	174	171	31	32	0	60	145	70
1	19	87	154	65	42	50	99	409	664	89
2	301	105	94	215	858	2360	504	126	31	89
3	176	213	124	51	92	67	37	0	0	48
4	16	106	131	0	0	0	64	31	16	18
5	34	16	134	103	54	119	56	0	51	104
6	0	0	16	84	18	2	0	52	82	343
7	185	1064	119	286	50	14	0	16	17	71
8	16	0	0	14	16	16	0	0	0	0
9	0	16	0	35	44	160	0	0	0	0
10	0	35	0	17	15	15	0	0	0	0
11	14	0	0	0	0	3	0	0	0	0
12	0	1	0	0	12	2	0	0	0	0
13	0	6	21	4	2	0	0	0	17	0
14	0	1	0	0	2	1	13	0	17	1
15	0	1	1	0	0	0	1	1	0	48
16	2									

TOTAL = 12709 MEAN = 79.431

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 26 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		628	50	370	104	90	49	48	16	38
1	16	95	52	35	17	121	193	180	288	16
2	135	190	196	371	681	594	2045	504	29	264
3	794	323	53	149	201	104	16	2	0	96
4	34	182	156	0	0	49	61	32	2	16
5	0	51	62	14	16	155	37	49	0	57
6	17	20	0	32	0	18	31	0	67	115
7	14	554	0	357	0	32	32	53	0	41
8	0	0	0	17	0	34	18	0	30	16
9	0	44	0	19	84	21	0	0	0	0
10	0	14	17	0	99	0	0	0	0	0
11	0	69	3	4	0	4	0	1	0	0
12	2	0	0	0	13	0	0	0	0	1
13	0	8	18	3	1	1	0	0	24	0
14	0	0	0	0	1	0	15	0	12	0
15	1	0	1	1	0	0	0	0	0	21
16	8									

TOTAL = 12134 MEAN = 75.838

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 27 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		500	59	161	49	2	6	74	38	0
1	19	252	55	19	30	77	0	37	0	0
2	284	95	337	174	95	146	648	432	205	147
3	385	221	76	79	141	63	103	118	122	173
4	349	200	281	45	28	17	101	60	85	59
5	50	53	72	69	18	155	19	0	36	2
6	17	0	53	14	14	0	20	20	33	53
7	54	19	36	286	0	22	54	84	71	232
8	14	0	16	0	49	36	0	0	18	18
9	0	28	0	0	17	53	29	14	0	0
10	0	0	0	0	69	0	20	0	40	14
11	0	0	5	0	0	4	0	0	0	0
12	0	1	3	2	11	2	0	0	5	2
13	0	6	15	1	0	0	0	0	22	0
14	0	0	0	1	1	0	8	0	11	0
15	0	1	0	0	0	0	0	0	0	11
16	7									

TOTAL = 8847 MEAN = 55.294

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 28 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		183	0	20	56	0	45	41	0	84
1	0	55	41	19	43	38	55	48	20	56
2	232	52	78	37	0	0	61	169	321	93
3	46	192	55	254	94	70	65	55	77	151
4	152	183	244	14	88	74	85	0	16	0
5	36	20	69	84	0	91	0	33	0	0
6	17	0	20	16	0	2	0	0	0	0
7	0	14	52	84	0	160	0	0	0	40
8	0	0	0	31	35	30	0	0	0	0
9	0	14	0	0	0	31	0	0	0	0
10	0	0	0	0	16	0	0	0	0	16
11	0	29	2	0	0	2	0	2	0	0
12	0	0	0	0	7	3	0	0	0	0
13	0	3	5	5	0	0	0	0	3	0
14	0	0	0	0	0	0	4	0	1	3
15	0	0	1	0	0	0	0	0	0	13
16	8									

TOTAL = 4764

MEAN = 29.775

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 29 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		296	41	95	46	0	18	0	19	0
1	0	110	33	17	35	0	70	18	20	19
2	120	77	96	21	36	123	365	176	128	73
3	175	164	202	67	262	83	56	0	0	14
4	42	130	101	0	16	0	19	0	0	0
5	0	18	61	52	0	73	14	19	40	60
6	14	0	0	19	14	13	0	0	19	20
7	0	49	14	199	14	16	0	85	0	90
8	0	0	0	14	51	0	0	0	0	0
9	0	0	0	0	14	34	15	19	0	18
10	0	0	0	0	68	0	17	0	18	20
11	0	0	3	0	0	1	0	5	0	0
12	2	2	0	2	5	1	0	0	0	3
13	0	9	11	4	0	0	0	0	24	0
14	0	0	1	0	1	0	7	0	8	1
15	0	0	1	0	0	0	0	1	0	20
16	6									

TOTAL = 4697

MEAN = 29.356

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 30 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		287	88	184	0	0	16	14	56	76
1	40	123	33	63	54	72	32	64	64	0
2	151	0	64	112	37	219	808	341	160	125
3	1130	700	325	137	85	87	51	16	34	30
4	18	224	157	2	32	0	0	17	32	2
5	0	0	195	16	15	116	38	0	0	51
6	17	0	0	16	17	41	0	0	32	132
7	14	87	80	147	0	70	49	83	0	17
8	32	0	2	0	16	0	0	16	0	0
9	0	47	0	0	16	144	16	27	0	0
10	0	0	0	31	47	0	16	0	0	69
11	0	0	3	0	0	4	1	1	0	0
12	1	1	0	0	10	1	1	0	0	0
13	0	2	14	4	1	0	0	0	25	0
14	0	0	0	0	3	0	8	0	12	0
15	1	3	0	0	0	0	0	0	0	20
16	7									

TOTAL = 8197

MEAN = 51.231

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 31 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		552	34	288	14	45	47	34	34	14
1	0	63	72	50	33	17	101	86	154	35
2	222	82	172	153	140	173	327	247	121	123
3	678	2049	468	699	370	113	89	74	86	67
4	36	242	233	2	17	56	16	35	0	46
5	17	18	70	139	48	97	0	0	33	51
6	31	0	0	17	17	0	0	0	57	33
7	124	196	96	1073	0	147	0	0	0	120
8	16	17	36	17	17	14	17	0	17	39
9	0	32	0	31	33	55	38	16	0	0
10	0	0	0	33	32	0	0	53	14	0
11	0	49	3	0	0	4	0	3	0	0
12	1	0	0	0	9	2	0	0	0	0
13	0	2	11	6	0	0	0	0	11	0
14	0	0	0	0	2	0	14	1	8	0
15	0	0	1	0	0	0	0	0	0	20
16	1									

TOTAL = 11868

MEAN = 74.175

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 32 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		326	79	19	19	0	77	92	17	49
1	0	176	104	0	0	53	119	122	102	22
2	54	87	84	79	108	150	71	160	118	159
3	224	377	1477	882	897	452	515	72	136	50
4	17	232	83	0	90	31	120	17	46	0
5	33	18	33	53	59	31	18	55	37	34
6	14	0	65	17	0	50	0	17	114	70
7	38	156	122	2185	0	262	148	61	0	268
8	0	70	17	14	54	17	38	0	17	0
9	0	91	17	18	209	86	34	28	0	0
10	0	50	0	35	106	0	0	17	55	0
11	0	314	5	0	0	2	1	0	0	0
12	2	0	0	0	13	2	1	1	0	0
13	0	3	36	4	0	0	0	0	12	0
14	0	0	0	0	2	0	23	0	13	0
15	0	1	1	1	0	0	0	0	1	24
16	3									

TOTAL = 13560

MEAN = 84.750

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 33 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		433	36	83	90	0	0	16	17	17
1	0	64	38	17	0	117	82	38	15	48
2	74	96	85	16	19	47	86	77	233	50
3	166	646	849	1111	752	464	289	324	86	211
4	103	88	101	0	17	17	14	0	52	16
5	16	33	112	0	0	49	0	69	0	0
6	0	0	0	39	0	17	0	0	120	34
7	16	40	0	433	0	108	15	167	52	153
8	0	16	0	0	0	16	0	0	0	0
9	0	17	0	0	33	14	0	34	0	0
10	0	0	0	0	33	0	14	0	17	17
11	0	117	3	0	0	3	1	0	0	0
12	2	0	1	3	3	0	1	0	0	1
13	0	1	4	3	0	0	1	0	17	0
14	0	1	0	1	0	0	4	0	7	0
15	0	1	0	0	0	0	0	0	0	22
16	4									

TOTAL = 9085

MEAN = 56.781

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 34 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		261	39	83	34	0	0	17	53	0
1	0	83	34	0	0	55	71	51	19	71
2	99	75	85	0	52	53	243	107	17	287
3	48	278	750	623	1084	436	544	245	184	278
4	124	122	247	34	124	87	33	16	32	0
5	17	39	116	53	51	81	17	0	19	52
6	0	0	17	0	0	17	0	17	34	39
7	52	125	30	634	0	299	102	223	106	52
8	0	17	66	16	0	39	0	0	0	0
9	0	15	0	0	46	14	14	0	0	0
10	0	14	0	0	65	0	0	0	14	2
11	0	0	1	0	0	2	0	2	0	0
12	1	2	0	0	3	1	0	0	0	0
13	0	4	11	0	1	0	0	0	10	0
14	2	0	0	0	2	0	7	0	2	0
15	1	2	0	1	0	0	0	0	0	17
16	1									

TOTAL = 9765

MEAN = 61.031

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 35 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		102	0	151	32	0	17	17	0	52
1	20	119	35	0	0	17	52	65	84	17
2	51	52	17	35	17	104	35	0	34	59
3	65	82	417	376	417	792	240	0	71	78
4	71	70	197	0	32	16	49	35	56	37
5	36	34	64	40	16	67	0	0	34	35
6	17	17	0	0	0	0	0	14	50	33
7	33	14	0	329	19	479	49	71	0	250
8	0	0	0	0	17	0	0	0	0	0
9	0	0	0	0	0	79	0	16	0	0
10	0	0	14	0	33	0	31	0	42	0
11	0	35	4	1	0	3	0	1	0	0
12	1	5	0	3	1	0	0	0	0	0
13	0	0	3	1	0	0	0	0	14	0
14	0	0	0	0	2	0	13	0	6	1
15	0	1	0	0	0	0	0	0	0	15
16	2									

TOTAL = 6330

MEAN = 39.563

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 36 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		237	69	121	21	19	55	34	59	48
1	0	216	20	0	32	99	34	39	123	0
2	115	136	68	57	31	0	16	127	86	67
3	35	84	521	211	594	259	1402	116	668	234
4	93	338	194	81	186	40	49	53	0	38
5	33	0	99	68	0	135	41	43	0	2
6	0	17	14	17	36	0	0	0	33	17
7	36	58	0	218	34	622	38	199	218	464
8	207	0	0	0	0	36	17	0	0	0
9	0	17	0	0	37	67	19	0	0	0
10	0	0	0	0	112	0	30	17	14	15
11	34	0	2	2	0	4	0	2	0	0
12	1	3	1	3	16	4	1	0	0	1
13	0	9	21	6	1	0	0	0	18	0
14	0	0	0	0	1	0	10	0	12	0
15	0	0	4	0	0	0	0	0	0	18
16	14									

TOTAL = 10343

MEAN = 64.644

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS, SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 37 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		197	41	65	0	18	0	0	0	0
1	0	65	34	0	0	49	0	19	61	16
2	0	16	40	0	0	0	110	19	0	77
3	0	92	126	159	223	0	142	33	51	87
4	20	124	67	15	0	0	36	0	34	34
5	0	0	108	32	0	100	0	0	19	15
6	0	16	0	0	0	0	0	0	0	16
7	0	16	0	302	16	31	32	14	17	49
8	49	0	0	0	20	0	0	0	0	0
9	0	0	0	0	0	0	0	0	14	0
10	0	0	0	33	14	0	0	0	16	0
11	0	38	0	0	0	0	1	0	0	0
12	0	0	1	0	4	3	0	0	0	0
13	0	3	4	0	0	0	0	0	1	0
14	0	0	0	0	0	0	6	0	0	0
15	0	1	1	2	0	0	0	0	0	18
16	5									

TOTAL = 3083

MEAN = 19.269

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS, SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 38 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		110	56	17	2	71	85	19	16	0
1	0	279	14	0	14	16	34	17	69	0
2	102	66	35	39	0	19	19	178	75	0
3	14	51	17	170	201	31	692	52	1504	220
4	111	261	177	98	151	17	27	0	0	55
5	0	0	55	48	2	73	17	35	48	14
6	17	27	35	34	0	0	0	0	0	40
7	0	0	0	134	0	267	29	55	123	468
8	55	0	0	0	0	0	0	0	0	0
9	0	30	0	0	0	14	0	0	0	0
10	0	0	0	0	52	19	0	0	0	0
11	0	34	2	0	0	1	0	1	0	0
12	2	1	4	7	6	2	0	0	0	1
13	0	3	10	4	0	0	0	0	5	0
14	0	0	0	0	0	0	9	0	2	0
15	0	0	0	0	0	1	0	3	0	7
16	10									

TOTAL = 7007

MEAN = 43.794

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS, SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 39 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		416	93	16	70	71	36	17	17	0
1	17	98	17	0	66	32	17	20	0	0
2	130	51	159	0	79	32	78	212	81	88
3	16	104	17	281	175	61	257	108	305	597
4	290	582	169	245	64	67	242	63	19	147
5	56	55	84	51	20	103	121	100	0	36
6	47	17	17	17	0	33	0	64	17	104
7	84	82	62	163	30	194	48	100	49	303
8	69	17	65	131	64	96	64	17	17	22
9	0	28	16	64	64	48	33	50	58	18
10	16	48	0	77	19	2	34	0	0	1
11	30	48	28	7	2	26	10	20	0	1
12	9	13	0	3	48	7	0	0	0	1
13	0	6	35	8	2	1	4	0	37	0
14	0	0	0	0	19	3	25	0	41	21
15	0	5	17	5	0	0	0	2	2	30
16	53									

TOTAL = 9675

MEAN = 60.469

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 40 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		355	20	72	20	86	36	0	31	0
1	18	119	0	0	39	70	18	36	0	0
2	67	92	173	78	34	0	90	337	132	22
3	67	58	82	71	89	50	203	44	137	293
4	599	606	129	166	0	0	72	16	30	36
5	22	0	75	34	47	56	0	0	0	2
6	0	33	0	18	73	0	0	0	0	31
7	0	0	0	0	19	205	2	0	14	52
8	0	0	0	0	49	32	0	0	0	14
9	0	14	0	0	16	16	0	0	0	0
10	0	0	0	31	68	0	16	0	0	0
11	0	0	2	0	0	0	0	1	0	0
12	1	2	0	0	4	5	0	0	0	0
13	0	4	6	1	0	0	0	0	7	0
14	0	0	0	0	1	0	2	1	1	0
15	0	1	0	0	0	0	0	0	0	5
16	3									

TOTAL = 5679

MEAN = 35.494

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 41 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		1050	177	255	218	214	177	74	85	56
1	118	259	278	54	65	163	93	103	123	70
2	459	121	672	202	78	153	191	406	226	246
3	132	227	106	51	159	100	375	141	282	508
4	692	1625	429	369	161	14	240	218	304	284
5	144	183	181	216	135	237	74	244	86	213
6	160	14	33	236	49	56	34	34	71	325
7	406	171	90	244	14	94	70	120	113	292
8	159	95	147	114	80	121	52	142	31	33
9	0	31	0	19	84	103	132	130	19	18
10	46	0	17	64	231	38	109	22	139	32
11	32	100	11	0	4	11	5	13	0	0
12	4	8	0	7	67	10	8	0	1	5
13	0	20	51	23	7	0	4	0	42	0
14	1	0	0	2	17	0	39	0	61	1
15	0	14	7	1	0	0	0	0	0	55
16	48									

TOTAL = 20029

MEAN = 125.181

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 42 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		493	131	50	93	54	115	81	82	51
1	17	0	99	131	34	48	16	154	52	33
2	78	66	224	37	150	169	139	282	290	140
3	230	214	132	139	245	168	193	64	242	180
4	131	514	0	348	202	101	311	237	203	165
5	232	86	238	57	226	52	67	175	82	155
6	83	188	103	36	93	37	33	164	120	136
7	82	200	111	378	32	276	48	249	66	368
8	278	66	262	274	249	310	168	109	69	90
9	20	166	48	69	256	287	139	188	67	73
10	138	107	17	272	542	119	270	16	77	172
11	45	70	79	24	10	92	19	58	0	0
12	32	49	1	2	191	23	6	0	0	9
13	0	46	133	32	1	0	11	2	140	0
14	3	3	0	10	35	14	72	1	150	29
15	3	40	68	9	0	5	0	2	4	172
16	202									

TOTAL = 18316

MEAN = 114.475

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 43 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		177	0	50	32	118	45	2	0	0
1	0	132	0	0	0	146	17	0	0	0
2	41	49	38	0	0	16	0	63	19	2
3	14	0	35	4	0	0	33	67	188	295
4	186	237	303	472	73	104	58	21	12	22
5	51	0	19	33	16	50	0	0	0	0
6	0	0	0	0	0	14	0	0	14	0
7	0	0	33	35	0	37	0	32	0	152
8	31	14	0	14	0	0	17	0	0	0
9	0	0	0	27	0	14	0	0	0	0
10	0	0	0	0	14	0	14	0	0	33
11	0	0	0	0	0	0	0	0	0	0
12	0	3	0	4	3	2	0	0	0	0
13	0	5	10	0	1	0	0	0	3	0
14	0	0	0	0	0	0	5	0	3	1
15	0	0	1	0	0	0	0	0	0	7
16	10									

TOTAL = 3794 MEAN = 23.713

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 44 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		263	17	99	17	0	19	0	0	0
1	0	101	17	0	0	37	89	17	0	0
2	50	87	17	0	0	34	17	14	91	16
3	16	27	85	0	86	19	243	17	91	102
4	33	226	182	84	495	90	179	0	102	34
5	138	18	122	77	86	34	33	17	40	0
6	0	0	0	51	0	14	0	16	0	17
7	17	74	0	36	0	99	53	71	72	278
8	279	19	34	35	35	0	31	19	0	35
9	0	19	0	0	0	40	16	0	34	0
10	0	0	0	17	47	30	70	17	14	32
11	0	0	7	0	0	14	3	2	0	0
12	6	3	2	1	15	4	0	0	0	0
13	0	21	19	15	1	0	0	4	15	0
14	0	0	0	0	2	0	10	0	31	0
15	0	1	3	0	0	0	0	0	1	17
16	56									

TOTAL = 5589 MEAN = 34.931

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 45 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		192	37	84	0	17	0	0	74	17
1	0	81	0	0	48	53	65	37	0	0
2	68	40	19	64	17	0	17	48	88	0
3	31	86	52	17	34	0	79	0	20	81
4	0	28	120	106	117	367	353	75	36	33
5	318	304	69	17	17	108	0	35	17	20
6	0	0	16	51	0	14	0	34	34	154
7	0	34	0	0	34	52	0	0	0	204
8	2	0	86	66	0	136	17	49	0	0
9	0	0	0	0	17	0	51	56	0	0
10	14	0	0	0	18	0	17	0	17	0
11	0	0	2	0	0	7	0	5	0	0
12	0	1	0	0	9	2	0	0	0	2
13	0	3	7	4	1	0	0	0	8	0
14	0	0	0	2	1	0	7	0	18	0
15	0	0	0	0	0	0	0	0	0	2
16	9									

TOTAL = 4869 MEAN = 30.431

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 46 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		351	100	380	151	170	0	70	82	34
1	0	165	34	33	17	50	19	18	78	69
2	123	72	92	2	33	103	60	148	0	0
3	0	16	86	17	33	17	95	128	27	205
4	53	365	246	54	168	378	2253	697	278	1132
5	394	586	184	308	241	83	35	114	34	28
6	36	0	50	17	14	17	17	35	18	77
7	0	31	18	16	30	82	54	65	35	180
8	86	101	122	82	102	365	33	51	45	56
9	0	0	0	0	0	62	32	107	60	34
10	66	0	14	36	104	0	34	0	60	33
11	17	14	0	1	1	3	2	14	0	0
12	0	5	0	0	52	5	0	0	0	5
13	0	24	47	8	0	0	3	1	65	0
14	0	0	0	2	4	0	45	0	31	0
15	1	2	0	0	0	0	0	0	0	18
16	43									

TOTAL = 13599

MEAN = 84.994

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 47 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		434	170	463	52	34	58	0	0	17
1	0	135	0	0	0	66	17	54	0	37
2	139	33	29	66	33	69	50	35	17	0
3	19	35	17	19	0	52	34	0	0	86
4	33	228	205	2	0	50	645	695	380	665
5	127	158	215	117	106	78	17	103	0	0
6	0	0	0	0	0	0	0	0	49	52
7	17	35	0	81	0	20	0	0	0	118
8	16	0	20	17	34	65	54	17	75	17
9	0	30	16	0	0	14	0	0	0	0
10	0	0	0	0	17	0	51	0	0	0
11	17	0	1	0	1	3	0	0	0	0
12	1	4	0	2	16	1	1	0	0	0
13	0	4	15	4	0	0	0	0	8	0
14	2	0	0	0	1	0	6	0	3	0
15	0	1	0	1	0	0	0	2	0	6
16	10									

TOTAL = 7019

MEAN = 43.869

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 48 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		387	193	243	2	14	0	34	65	0
1	0	50	64	0	82	102	2	0	16	20
2	151	2	53	0	69	50	21	16	16	19
3	48	0	16	14	32	37	20	32	0	74
4	30	274	165	0	101	36	301	478	330	281
5	2	101	65	165	102	148	32	66	0	17
6	2	32	0	17	68	0	19	0	33	0
7	31	0	0	14	16	38	20	48	55	85
8	14	16	49	50	0	133	0	54	0	0
9	0	17	0	0	17	0	14	46	35	0
10	16	0	0	0	32	16	14	0	111	0
11	17	0	7	0	0	4	0	4	0	0
12	0	1	0	0	21	2	2	0	1	1
13	0	10	14	6	0	0	0	0	25	0
14	0	0	0	1	1	0	30	0	27	1
15	0	3	4	0	0	0	0	0	2	9
16	9									

TOTAL = 5952

MEAN = 37.200

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 49 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		419	221	819	66	34	72	17	53	20
1	0	180	88	0	0	36	54	35	17	0
2	0	53	2	107	72	19	16	63	15	38
3	20	31	0	16	0	17	61	70	39	75
4	40	197	146	37	35	55	1148	781	237	1776
5	185	436	152	209	271	103	20	14	0	81
6	57	0	34	0	72	39	28	0	88	0
7	0	31	32	106	0	88	16	31	28	0
8	0	0	54	144	180	204	17	35	36	36
9	0	72	0	0	14	53	0	44	55	0
10	60	18	0	14	50	30	0	18	0	0
11	0	0	6	0	2	3	0	6	0	0
12	1	3	0	0	19	9	2	0	0	2
13	0	21	13	8	6	0	0	0	17	0
14	0	0	0	0	0	0	21	0	9	0
15	2	0	1	0	0	0	0	0	0	8
16	24									

TOTAL = 10735

MEAN = 67.094

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 50 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		246	17	276	69	37	0	64	77	40
1	74	146	0	0	0	0	73	0	0	0
2	100	18	64	0	0	34	0	62	53	0
3	14	17	17	0	17	0	49	0	38	28
4	18	110	281	65	69	357	259	130	73	241
5	1389	835	121	164	156	105	35	48	2	0
6	31	0	17	20	31	19	0	14	35	80
7	0	34	20	51	0	70	0	34	17	79
8	45	17	124	142	192	363	0	61	42	62
9	0	40	0	0	49	33	32	76	14	0
10	0	0	0	0	20	0	48	0	54	0
11	0	0	6	0	0	8	1	3	0	0
12	3	2	0	0	28	11	1	0	0	1
13	0	41	29	7	2	0	0	0	4	0
14	1	0	0	0	6	0	16	0	17	0
15	0	2	1	0	0	0	0	0	0	3
16	29									

TOTAL = 8276

MEAN = 51.725

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 51 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		399	124	508	18	20	0	54	34	18
1	36	67	59	14	51	18	53	35	0	2
2	123	37	53	20	35	49	18	0	41	18
3	0	56	32	0	31	34	56	0	20	73
4	20	17	76	2	0	259	497	160	173	385
5	820	2774	423	287	145	172	176	0	2	47
6	0	0	17	104	52	18	33	20	17	136
7	36	0	0	66	20	0	16	34	50	204
8	33	93	367	664	453	1131	76	86	0	52
9	0	0	0	0	0	0	52	29	58	0
10	14	14	0	0	0	34	139	16	69	0
11	0	0	5	0	0	2	0	1	0	0
12	0	6	0	1	30	2	0	0	0	1
13	0	5	3	4	0	0	1	0	11	0
14	0	0	0	0	0	0	18	0	3	0
15	0	0	2	1	0	0	0	0	0	5
16	24									

TOTAL = 12969

MEAN = 81.056

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 52 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		387	109	326	146	194	53	47	51	47
1	20	78	190	81	34	41	122	116	99	16
2	99	111	98	126	114	98	64	107	49	90
3	112	50	33	166	116	79	99	62	39	111
4	53	299	134	51	171	82	237	249	56	234
5	143	589	0	282	177	181	139	51	17	113
6	184	17	64	185	66	152	51	50	127	133
7	67	78	33	60	16	113	49	48	70	175
8	66	111	202	179	211	478	276	102	147	36
9	20	84	16	19	129	104	64	238	133	18
10	111	48	0	113	164	30	302	34	109	16
11	0	16	19	3	4	26	13	39	0	0
12	12	27	0	3	140	25	13	0	0	9
13	1	23	68	34	1	1	2	0	15	0
14	3	0	0	6	12	9	26	1	45	3
15	0	1	10	0	0	0	0	1	0	23
16	59									

TOTAL = 13229 MEAN = 82.681

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 53 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		815	325	773	222	67	118	48	91	127
1	20	152	214	71	32	113	0	131	70	0
2	64	97	62	0	32	118	16	38	56	52
3	56	84	33	35	50	56	68	20	2	0
4	16	208	93	14	134	57	358	103	152	226
5	136	271	269	1901	977	136	345	184	67	97
6	47	71	107	90	32	93	95	17	36	103
7	87	66	46	143	16	83	0	126	18	200
8	34	0	30	64	237	202	276	343	81	181
9	14	90	0	14	61	34	0	242	153	14
10	77	48	0	41	78	15	99	14	204	0
11	14	0	7	6	3	8	0	8	0	0
12	0	4	0	0	38	55	5	0	1	3
13	0	68	65	38	7	2	5	0	95	1
14	5	1	1	10	5	1	45	1	55	1
15	2	1	2	1	0	0	0	2	0	22
16	60									

TOTAL = 14842 MEAN = 92.763

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE /VALUES DISTRICT 54 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		468	208	293	134	412	117	211	321	303
1	36	35	125	47	54	54	36	87	48	20
2	109	53	22	0	140	18	16	36	60	0
3	0	31	46	0	35	16	0	34	0	51
4	14	143	229	30	37	38	318	123	120	137
5	143	186	124	929	1847	372	1013	631	173	452
6	78	84	207	99	144	182	59	17	105	142
7	0	37	16	91	34	36	20	34	0	122
8	73	34	56	30	19	174	454	181	212	52
9	0	61	0	148	18	0	0	52	18	0
10	125	0	0	0	102	0	108	35	353	0
11	0	0	4	1	0	3	0	5	0	0
12	1	2	0	2	27	36	11	0	3	3
13	1	37	55	32	1	1	2	0	49	0
14	0	1	0	0	8	0	33	0	18	3
15	1	0	2	2	0	1	0	0	0	24
16	28									

TOTAL = 14944 MEAN = 93.400

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 55 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		708	233	89	151	322	219	764	206	292
1	0	291	182	57	106	188	89	50	117	32
2	177	35	83	51	110	99	125	104	53	92
3	102	82	67	112	98	50	103	94	162	118
4	58	309	101	50	67	81	151	78	49	85
5	68	209	134	158	525	657	535	580	285	460
6	193	231	272	144	174	218	111	116	53	62
7	97	61	99	56	46	123	32	0	65	225
8	39	17	49	215	62	14	110	65	182	73
9	0	227	99	64	137	40	32	150	28	74
10	77	139	51	116	137	49	112	0	106	36
11	17	76	13	4	6	14	7	84	0	0
12	10	13	0	1	9	117	6	0	0	9
13	1	61	67	54	2	0	10	0	58	0
14	0	1	2	15	21	1	117	1	95	4
15	0	12	20	0	0	2	0	0	0	97
16	28									

TOTAL = 16586

MEAN = 103.662

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 56 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		422	18	75	93	72	180	482	295	250
1	0	288	37	54	0	140	53	0	39	34
2	151	0	2	36	0	56	52	21	16	14
3	38	45	17	0	17	0	0	34	35	89
4	0	72	67	18	41	14	87	17	32	49
5	2	37	88	128	1043	412	1256	854	188	430
6	88	122	187	156	33	289	83	14	83	204
7	31	0	0	18	0	16	0	0	0	107
8	36	0	40	169	94	104	386	124	145	127
9	81	45	0	0	0	0	0	82	105	20
10	49	0	18	0	34	34	0	0	512	16
11	0	0	4	1	0	4	0	5	0	0
12	0	5	0	0	21	18	4	0	1	7
13	1	31	31	37	1	0	1	0	26	0
14	0	0	1	0	9	0	14	0	10	1
15	1	1	2	1	0	0	0	0	0	16
16	12									

TOTAL = 11908

MEAN = 74.425

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 57 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		436	27	145	2	0	152	265	323	46
1	17	365	54	31	51	48	48	0	32	0
2	108	67	0	48	35	0	49	20	33	19
3	20	38	127	30	35	0	61	2	62	67
4	0	213	174	14	17	71	105	68	90	41
5	128	47	97	187	390	605	772	2680	1022	999
6	201	273	334	215	261	259	38	113	82	113
7	0	51	0	155	14	33	0	36	75	41
8	14	20	34	0	17	69	34	53	154	97
9	20	124	55	52	0	37	0	55	19	14
10	74	63	0	34	21	0	28	28	212	18
11	0	0	8	4	0	4	1	4	0	0
12	0	1	1	0	6	37	7	0	0	9
13	0	66	27	30	3	1	0	0	23	0
14	1	0	0	3	10	0	37	1	17	1
15	0	4	1	1	0	0	0	0	0	29
16	6									

TOTAL = 14566

MEAN = 91.037

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 58 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		329	50	82	0	2	53	126	121	55
1	0	241	17	0	32	88	20	82	16	14
2	51	55	0	17	0	35	0	19	0	40
3	0	17	35	0	0	17	0	0	48	0
4	17	107	82	34	40	17	44	0	2	0
5	16	0	34	89	157	284	227	1322	1161	835
6	105	84	102	184	213	17	14	69	96	31
7	0	33	0	14	0	0	31	0	34	46
8	17	0	20	0	0	14	31	71	0	0
9	0	0	85	34	0	17	0	31	0	20
10	0	0	20	0	51	0	0	37	132	0
11	0	0	5	0	0	0	1	2	0	0
12	0	1	0	1	2	9	1	0	0	4
13	3	17	10	12	0	0	4	0	16	0
14	0	0	0	2	0	2	9	0	6	0
15	0	1	0	0	0	0	0	0	0	21
16	9									

TOTAL = 7921

MEAN = 49.506

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 59 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		742	55	193	36	86	85	782	737	435
1	16	421	157	57	86	218	67	87	34	14
2	191	0	84	59	72	69	14	18	0	60
3	34	51	50	0	120	17	14	0	0	18
4	0	148	172	0	0	0	14	0	58	113
5	19	151	105	186	417	414	465	996	863	1346
6	707	506	290	236	277	167	250	219	157	360
7	14	23	35	92	19	30	0	14	0	31
8	0	34	17	0	49	121	77	52	89	0
9	0	298	34	107	0	67	0	36	89	18
10	35	31	53	49	64	0	50	53	141	68
11	27	34	1	0	2	2	0	1	0	0
12	3	2	0	0	16	26	5	0	2	7
13	0	17	26	22	5	6	3	0	28	2
14	4	0	1	9	15	4	32	1	20	0
15	0	0	1	0	0	0	0	0	0	44
16	4									

TOTAL = 16077

MEAN = 100.481

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 60 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		503	17	151	58	0	19	243	155	204
1	17	559	99	70	20	107	48	56	0	0
2	52	17	0	0	0	35	2	17	17	0
3	55	31	39	0	0	17	0	0	31	30
4	0	141	132	0	0	0	68	0	0	20
5	31	0	163	47	70	201	110	222	19	904
6	379	238	80	120	106	14	2	125	89	232
7	17	14	34	30	0	17	27	0	0	47
8	28	0	0	17	17	0	17	0	51	14
9	42	130	0	19	0	49	34	0	0	0
10	0	0	0	0	14	0	0	50	31	44
11	0	0	1	0	0	0	0	1	0	0
12	1	0	1	0	8	4	1	0	1	0
13	0	25	22	3	4	0	2	0	25	0
14	2	0	0	2	4	3	20	0	13	0
15	0	0	0	2	0	2	0	0	0	37
16	1									

TOTAL = 7109

MEAN = 44.431

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 61 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		170	17	86	0	54	45	192	52	17
1	30	162	36	51	52	47	17	46	0	0
2	51	37	0	20	55	16	31	0	0	0
3	0	16	0	0	0	0	17	16	0	34
4	33	28	188	0	0	0	14	14	46	0
5	0	19	53	59	84	167	103	233	62	510
6	206	855	296	433	413	116	325	143	166	212
7	53	65	0	0	0	0	15	18	0	31
8	0	0	0	35	0	0	16	36	0	18
9	0	63	0	43	0	0	0	30	0	48
10	30	0	17	0	16	0	14	18	28	17
11	0	17	2	0	0	0	0	3	0	0
12	0	0	0	0	0	4	3	0	0	2
13	0	20	8	14	1	1	2	0	17	0
14	0	0	0	4	0	0	8	1	9	0
15	1	0	0	0	0	0	0	0	0	8
16	2									

TOTAL = 6883 MEAN = 43.019

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 62 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		191	30	37	0	17	35	17	88	17
1	0	114	34	0	0	55	34	98	0	18
2	82	54	39	17	20	16	0	53	39	0
3	0	0	68	0	17	0	0	16	35	17
4	14	33	80	0	0	40	49	0	0	115
5	50	17	34	125	194	198	183	345	194	356
6	67	243	159	389	713	195	71	14	0	34
7	27	54	0	17	0	50	16	0	20	69
8	36	0	31	0	33	17	60	17	0	35
9	0	51	28	39	0	14	20	17	14	33
10	14	34	0	0	32	0	0	14	137	0
11	0	0	0	0	0	2	0	1	0	0
12	0	2	0	0	6	8	3	0	1	3
13	0	13	30	17	1	0	3	1	16	0
14	0	1	0	3	0	0	11	0	6	0
15	0	1	1	0	0	0	0	0	0	23
16	8									

TOTAL = 6260 MEAN = 39.125

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 63 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		100	48	33	34	16	17	70	101	124
1	0	137	17	57	0	64	110	33	0	0
2	116	20	100	34	17	123	32	32	16	19
3	0	17	0	0	0	0	17	0	34	17
4	18	166	36	0	72	51	19	0	17	33
5	0	52	91	100	156	216	188	316	196	277
6	117	374	400	803	1167	361	178	182	0	17
7	0	0	0	71	14	0	34	0	0	84
8	0	0	50	64	76	57	82	51	34	18
9	49	191	17	0	64	51	30	16	35	106
10	81	75	45	32	44	14	0	0	39	14
11	17	14	0	0	0	0	1	21	0	2
12	4	11	0	0	6	51	19	2	1	23
13	0	58	81	97	3	0	7	6	47	0
14	0	4	1	52	2	0	34	2	21	0
15	0	1	1	0	0	1	1	0	0	21
16	3									

TOTAL = 9311 MEAN = 58.194

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 64 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		494	44	99	0	29	111	72	49	17
1	0	33	20	14	35	0	17	73	17	33
2	30	17	17	0	0	55	0	14	0	0
3	0	17	17	39	0	0	0	0	0	0
4	36	70	34	0	0	17	14	0	0	38
5	0	72	105	126	124	138	62	206	130	200
6	50	371	657	1203	4232	1494	244	207	61	17
7	35	17	78	34	0	20	0	0	16	52
8	0	0	0	0	33	40	111	17	0	0
9	34	259	0	0	19	57	0	14	0	440
10	19	0	39	0	71	0	14	0	89	17
11	0	0	0	1	0	2	1	1	0	0
12	3	1	0	0	5	14	8	1	0	5
13	0	138	77	65	4	4	1	2	42	0
14	0	0	0	21	2	7	0	0	3	0
15	0	0	0	1	0	0	0	0	0	32
16	4									

TOTAL = 13241

MEAN = 82.756

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 65 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		318	84	114	0	0	0	17	0	14
1	36	96	55	34	21	53	14	82	74	16
2	49	52	35	16	0	0	0	0	0	18
3	19	0	50	17	0	0	0	0	0	33
4	0	59	19	0	14	14	0	0	0	39
5	19	53	202	54	145	272	176	237	31	199
6	14	70	312	409	1528	904	252	84	151	34
7	0	35	14	31	0	0	0	0	0	56
8	18	0	0	0	36	0	0	17	56	227
9	34	62	16	0	17	0	16	143	0	50
10	16	17	17	17	0	0	31	54	180	14
11	0	0	1	0	0	0	0	2	0	0
12	0	1	0	0	13	13	11	0	1	12
13	8	42	66	48	0	0	1	0	24	0
14	0	0	0	7	1	0	7	0	7	0
15	0	4	0	1	0	0	0	0	0	10
16	3									

TOTAL = 8065

MEAN = 50.406

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 66 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		208	0	53	16	0	35	53	22	69
1	0	212	0	37	19	17	31	19	0	0
2	20	0	28	0	33	0	0	0	0	0
3	17	0	14	0	0	0	0	0	0	0
4	18	95	68	0	0	0	17	0	38	14
5	0	35	51	96	45	110	55	66	28	193
6	37	281	54	128	344	279	455	109	33	0
7	0	54	0	32	0	0	0	14	0	17
8	0	0	0	14	14	14	17	0	0	0
9	0	333	31	17	0	0	17	33	0	37
10	19	14	17	0	31	0	18	14	31	0
11	0	16	0	0	0	1	0	1	0	0
12	0	0	0	0	0	5	2	0	0	0
13	3	5	11	37	6	2	2	1	4	0
14	0	0	0	9	0	1	6	0	2	0
15	0	0	0	0	0	0	0	0	0	4
16	1									

TOTAL = 4459

MEAN = 27.869

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 67 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		253	0	51	0	0	31	85	45	50
1	0	287	34	0	70	92	65	32	27	34
2	0	17	0	69	34	17	0	14	0	0
3	0	0	0	0	0	0	17	0	0	50
4	0	48	181	0	16	34	14	0	0	0
5	14	0	83	17	17	109	14	112	100	131
6	111	185	0	135	118	70	129	1181	277	509
7	37	42	33	30	0	0	0	82	0	0
8	14	0	0	0	14	57	17	0	0	17
9	20	157	177	350	0	14	0	0	0	0
10	0	147	151	0	34	0	0	106	51	0
11	0	0	2	1	0	1	0	0	0	0
12	1	0	0	0	0	7	1	0	0	3
13	1	8	7	3	11	4	2	0	13	0
14	5	1	0	30	8	2	10	0	6	1
15	0	1	0	0	0	0	0	0	0	20
16	4									

TOTAL = 6682

MEAN = 41.763

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 68 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		287	117	20	65	16	75	50	0	124
1	124	190	264	165	129	229	194	189	50	0
2	67	16	71	33	31	66	50	34	0	39
3	16	63	100	100	33	14	33	18	0	35
4	0	77	115	14	19	34	18	49	49	54
5	35	56	98	31	35	36	117	121	132	118
6	61	183	0	0	85	117	33	345	582	989
7	265	154	95	107	0	92	16	35	0	199
8	31	0	34	0	0	16	0	35	17	36
9	0	31	125	463	90	14	35	14	47	0
10	16	34	0	17	67	0	28	48	35	124
11	30	16	5	1	0	3	1	3	0	0
12	3	0	0	0	6	13	1	1	0	0
13	0	11	28	9	5	0	1	2	27	0
14	4	0	3	12	45	7	64	2	57	7
15	2	4	10	3	0	1	0	1	0	55
16	4									

TOTAL = 9477

MEAN = 59.231

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 69 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		411	50	54	2	0	81	165	246	91
1	258	431	1069	553	462	145	62	439	153	19
2	132	43	49	176	0	279	166	36	0	40
3	140	53	161	54	16	69	17	15	40	70
4	18	265	113	14	52	0	54	19	17	33
5	67	113	100	146	123	61	53	168	119	460
6	308	226	0	17	34	50	35	473	778	3989
7	542	491	149	222	16	44	32	0	17	201
8	0	0	57	14	0	34	34	0	0	0
9	0	184	128	365	48	99	0	47	45	14
10	0	103	86	34	62	0	0	34	17	279
11	83	16	4	0	0	6	3	4	0	0
12	0	6	0	0	9	7	0	0	0	0
13	2	15	36	14	3	0	3	0	36	2
14	2	0	0	0	22	0	68	0	48	1
15	2	1	0	3	0	0	0	0	0	54
16	4									

TOTAL = 18004

MEAN = 112.525

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 70 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		216	0	177	0	0	0	28	36	17
1	0	146	70	144	70	31	55	154	115	0
2	145	35	0	36	31	143	0	91	0	0
3	45	183	0	33	52	33	36	0	0	120
4	0	326	99	14	17	0	0	0	45	0
5	0	36	68	70	0	69	14	0	0	50
6	35	16	27	0	35	0	17	17	293	434
7	315	140	96	33	0	78	29	0	17	48
8	0	0	0	0	17	19	0	17	0	0
9	0	0	30	27	31	214	0	0	0	0
10	0	0	0	0	14	0	0	129	14	28
11	52	14	0	0	0	0	0	0	0	0
12	1	0	0	0	0	6	1	0	0	0
13	0	7	12	1	1	0	2	0	15	0
14	0	0	0	0	2	6	19	0	8	0
15	0	2	0	1	0	0	0	0	0	8
16	4									

TOTAL = 5384 MEAN = 33.650

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 71 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		386	20	72	0	14	117	50	97	0
1	17	182	76	47	72	55	177	117	216	41
2	125	85	18	61	256	1120	449	56	0	18
3	255	254	146	39	86	28	44	16	0	72
4	0	177	190	0	74	34	66	53	0	41
5	14	0	17	83	48	48	81	71	0	91
6	52	82	54	0	17	117	14	14	123	627
7	184	1258	236	539	31	36	0	131	0	101
8	0	17	14	81	0	14	0	0	0	41
9	0	0	0	0	142	221	0	31	0	45
10	0	0	0	78	105	0	34	14	34	44
11	49	0	8	2	0	0	0	1	0	0
12	0	3	0	0	11	7	0	0	0	0
13	0	16	10	8	0	0	1	0	16	0
14	0	0	0	0	2	0	22	0	12	5
15	0	2	4	0	0	0	0	0	0	23
16	3									

TOTAL = 10708 MEAN = 66.925

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 72 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		292	20	60	16	36	31	40	33	28
1	0	77	2	14	17	66	139	66	64	0
2	181	32	17	0	16	132	20	36	33	14
3	84	63	115	16	30	0	0	0	0	82
4	17	89	111	17	0	0	18	0	0	36
5	0	34	33	46	16	91	0	17	0	0
6	17	0	0	0	16	14	0	33	102	134
7	62	253	433	489	45	32	0	52	17	45
8	34	0	17	31	0	0	16	0	17	0
9	0	33	14	0	144	858	0	0	0	14
10	44	28	14	36	43	0	17	16	0	44
11	0	48	2	2	0	2	1	1	0	0
12	2	0	0	0	3	2	0	0	0	1
13	1	7	12	3	0	0	0	0	25	0
14	0	0	0	0	5	0	7	0	11	0
15	0	3	0	2	0	0	0	5	1	21
16	3									

TOTAL = 5731 MEAN = 35.819

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 73 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		582	131	241	16	53	46	132	17	16
1	20	123	0	0	0	60	49	195	118	36
2	202	70	205	168	428	360	203	293	89	214
3	293	930	2179	532	733	285	165	264	51	91
4	45	115	340	35	54	52	63	101	36	155
5	87	60	44	111	68	84	67	110	14	49
6	17	0	17	33	90	17	32	30	16	162
7	100	522	487	3257	190	323	163	195	66	304
8	14	49	71	17	16	41	17	17	36	0
9	0	78	0	34	245	675	50	39	14	19
10	32	16	0	188	449	14	33	68	44	0
11	30	841	5	6	3	8	0	7	0	0
12	5	1	0	1	13	7	3	0	0	0
13	1	5	19	7	2	0	2	0	39	0
14	2	0	0	0	6	0	20	3	22	1
15	0	1	7	1	0	1	0	1	0	74
16	13									

TOTAL = 20734 MEAN = 129.588

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 74 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		110	0	0	0	19	0	0	0	15
1	0	114	0	0	0	76	30	0	0	16
2	0	33	34	16	0	16	16	0	0	14
3	0	0	0	0	20	19	34	16	0	30
4	0	14	32	0	0	0	68	0	16	0
5	0	58	32	16	34	46	0	14	0	0
6	0	0	0	14	0	0	0	0	0	34
7	0	31	45	253	329	49	0	78	181	62
8	0	0	0	0	18	16	14	0	0	0
9	0	0	0	0	165	284	0	0	0	0
10	0	0	0	121	111	0	0	0	0	0
11	14	174	1	7	0	2	0	0	0	0
12	1	0	0	0	0	1	0	0	0	0
13	0	0	3	0	1	0	0	0	0	0
14	0	0	0	0	0	2	2	0	4	0
15	0	1	1	1	0	0	0	2	2	12
16	2									

TOTAL = 2996 MEAN = 18.725

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 75 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		285	47	34	0	0	0	35	0	17
1	34	303	48	0	82	46	67	46	62	0
2	61	101	21	14	15	14	32	125	89	73
3	92	186	315	156	178	510	860	31	134	126
4	169	95	301	16	135	52	117	33	30	90
5	87	34	126	96	55	163	16	0	0	0
6	0	0	50	0	0	0	0	0	62	44
7	46	75	16	351	33	3420	1300	1239	236	1035
8	158	106	63	47	0	0	50	14	17	0
9	0	16	0	0	0	75	0	14	19	0
10	0	0	0	39	201	34	34	16	31	0
11	0	133	11	0	3	3	3	4	0	0
12	0	1	1	3	3	0	0	0	0	0
13	0	8	15	3	1	1	0	0	1	0
14	0	0	0	0	4	6	6	1	13	1
15	0	1	1	1	0	0	0	1	0	20
16	7									

TOTAL = 14952 MEAN = 93.450

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 76 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		151	16	0	42	0	0	0	0	14
1	0	143	49	0	0	108	82	0	31	0
2	34	19	15	0	0	0	36	54	16	20
3	33	0	98	15	153	33	92	32	44	32
4	34	151	32	16	0	34	104	0	14	16
5	0	0	81	0	38	32	0	0	31	14
6	14	15	16	30	0	0	0	0	48	16
7	15	15	14	147	0	1020	298	499	49	322
8	16	0	14	16	0	31	0	16	0	0
9	0	0	0	14	79	34	15	0	0	0
10	0	0	0	0	32	0	0	0	16	0
11	0	16	1	0	0	4	0	1	0	0
12	0	0	0	2	5	0	0	0	0	0
13	0	1	6	1	0	0	0	0	7	0
14	0	0	0	0	4	0	6	0	2	1
15	0	0	0	0	0	0	0	0	0	18
16	4									

TOTAL = 4839

MEAN = 30.244

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 77 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		133	49	67	69	32	34	0	0	0
1	0	100	17	0	16	30	32	53	48	31
2	147	64	66	34	16	45	69	33	54	47
3	49	0	97	193	185	80	249	27	89	147
4	0	68	218	0	35	0	65	0	0	15
5	0	48	32	96	19	37	0	36	14	0
6	0	18	0	0	38	0	0	32	30	53
7	16	79	19	212	119	1323	622	1164	1184	1177
8	435	137	66	38	0	0	0	0	0	0
9	0	0	0	0	35	107	192	0	16	0
10	16	0	0	49	420	68	50	30	53	0
11	33	266	12	1	3	13	4	7	0	0
12	1	3	0	3	6	2	1	0	0	1
13	0	2	19	6	0	0	0	0	10	0
14	0	0	0	0	4	2	9	0	6	4
15	0	1	6	0	0	0	0	4	0	21
16	34									

TOTAL = 11392

MEAN = 71.200

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 78 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		173	0	63	0	0	0	0	0	16
1	0	100	0	36	0	33	33	16	16	16
2	0	0	2	39	0	17	0	57	0	2
3	0	0	17	38	70	20	126	19	51	146
4	0	46	67	0	19	0	49	19	16	14
5	35	65	49	60	18	65	0	35	34	0
6	0	0	0	16	36	0	0	0	0	17
7	17	0	16	65	171	253	16	1403	3463	572
8	1332	309	70	20	17	76	0	0	0	0
9	0	0	0	0	0	88	230	14	16	0
10	0	0	0	121	641	34	16	0	0	0
11	0	182	17	6	2	6	3	4	0	0
12	0	9	1	2	9	1	0	0	0	0
13	0	3	7	2	0	0	1	2	4	0
14	0	0	0	0	0	0	9	0	3	1
15	0	1	1	0	0	0	0	0	0	7
16	46									

TOTAL = 11055

MEAN = 69.094

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 79 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		540	47	97	50	36	117	14	72	67
1	0	261	129	33	17	65	52	107	69	14
2	102	86	50	0	49	35	27	197	74	54
3	89	187	239	139	37	222	552	105	194	248
4	34	239	348	85	365	217	189	89	85	46
5	65	139	185	182	126	222	86	72	45	69
6	52	65	34	35	66	17	48	0	166	166
7	48	101	86	336	62	1240	285	1158	548	2451
8	321	227	69	207	93	86	49	68	86	36
9	20	44	0	35	194	109	235	28	94	32
10	16	17	0	162	308	135	173	0	42	99
11	17	95	36	9	4	65	17	33	0	0
12	13	39	0	8	82	8	4	0	0	8
13	0	20	35	14	1	1	1	0	30	0
14	1	1	1	1	18	7	23	0	53	16
15	2	15	32	1	0	3	0	1	0	17
16	119									

TOTAL = 18161

MEAN = 113.506

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 80 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		202	50	83	0	19	0	0	0	16
1	0	48	0	17	17	31	14	0	0	17
2	32	37	0	0	0	16	0	14	20	0
3	52	57	36	0	0	0	144	33	72	69
4	0	85	169	19	308	19	17	18	16	0
5	50	16	52	17	36	19	79	14	17	0
6	14	0	0	0	20	20	0	14	17	14
7	0	20	91	0	17	188	60	326	1446	203
8	515	242	46	99	71	49	0	17	14	0
9	0	0	0	0	0	0	338	30	0	0
10	0	0	34	38	326	28	42	0	35	30
11	0	34	10	7	0	8	1	7	0	0
12	3	1	0	2	20	0	0	0	0	5
13	0	9	11	2	0	1	0	0	10	0
14	0	0	0	0	0	0	7	0	8	1
15	0	0	1	0	0	1	0	4	1	8
16	25									

TOTAL = 6658

MEAN = 41.613

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 81 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		123	0	31	0	17	18	0	0	0
1	0	30	0	0	0	33	0	0	0	17
2	16	33	0	0	0	0	0	0	0	0
3	0	0	52	16	34	0	0	0	0	31
4	0	56	83	14	0	0	138	0	0	0
5	14	110	97	14	17	17	35	0	0	16
6	0	14	0	0	0	0	0	0	0	0
7	0	17	0	35	16	71	0	151	345	140
8	217	2014	203	83	79	56	0	0	0	0
9	0	17	0	0	0	0	86	19	0	16
10	0	0	0	118	46	49	209	0	49	14
11	0	0	2	2	3	14	0	15	0	0
12	0	11	5	1	5	1	0	0	0	3
13	0	2	3	0	1	0	0	0	3	0
14	0	0	0	0	0	0	4	0	3	0
15	0	0	1	0	0	0	0	0	1	3
16	10									

TOTAL = 5219

MEAN = 32.619

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 82 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		277	17	123	0	18	0	17	0	17
1	0	197	17	0	0	65	48	34	0	0
2	138	0	17	0	33	0	18	0	0	0
3	0	38	105	0	46	0	0	0	38	65
4	0	84	292	0	17	86	72	36	33	69
5	53	395	216	81	70	17	40	17	16	17
6	0	0	31	31	0	0	0	0	17	17
7	0	0	17	103	0	79	19	66	91	102
8	46	204	486	464	109	339	0	0	31	0
9	0	0	0	0	0	0	109	67	40	0
10	0	0	0	0	31	17	99	14	33	0
11	0	0	1	0	0	3	1	4	0	0
12	0	5	0	5	9	2	0	0	0	3
13	0	0	4	2	0	0	0	0	3	0
14	0	0	0	0	2	1	5	0	6	0
16	18									

TOTAL = 5675 MEAN = 35.469

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 83 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		232	17	107	0	0	0	16	0	0
1	0	149	0	0	0	34	49	0	55	16
2	68	20	14	17	17	14	17	39	31	0
3	14	17	0	57	40	0	0	0	0	131
4	0	84	308	0	70	81	105	35	17	141
5	135	624	230	95	182	143	174	40	17	0
6	17	35	0	47	34	0	31	33	0	40
7	14	17	0	33	0	33	20	18	0	183
8	80	66	499	1837	536	605	35	16	105	32
9	0	17	0	0	14	14	32	56	0	0
10	50	0	0	17	14	48	346	16	41	0
11	0	0	4	3	0	1	3	3	0	0
12	1	8	0	3	20	2	1	0	0	5
13	0	2	4	6	0	0	0	0	9	0
14	0	0	0	0	1	0	5	0	6	2
15	0	0	0	0	0	0	0	0	0	3
16	12									

TOTAL = 8788 MEAN = 54.925

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 84 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		188	65	104	50	14	14	0	0	19
1	17	86	0	0	0	0	50	0	0	0
2	65	16	34	0	17	16	0	36	69	34
3	16	17	39	17	0	0	16	18	0	64
4	17	47	168	0	0	17	71	68	0	51
5	257	423	194	204	18	62	35	17	0	49
6	17	0	33	61	16	53	14	14	0	39
7	17	0	0	14	0	0	0	0	17	67
8	50	83	49	620	964	624	20	151	96	19
9	20	14	0	0	17	14	34	457	158	33
10	0	0	0	0	85	17	187	0	49	0
11	0	16	1	0	0	0	1	4	0	0
12	0	5	0	0	37	5	0	0	0	12
13	0	1	3	2	0	0	1	0	0	0
14	0	0	0	0	0	0	6	0	5	0
15	0	3	0	0	0	0	0	0	0	6
16	13									

TOTAL = 7023 MEAN = 43.894

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 85 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		308	57	208	33	0	0	0	0	37
1	0	165	32	14	0	55	63	0	33	0
2	118	0	30	17	0	16	15	2	33	14
3	0	14	17	33	39	0	30	0	14	134
4	0	128	240	0	16	134	349	118	124	177
5	275	1233	234	304	187	16	71	80	50	68
6	0	0	17	58	14	0	14	57	16	14
7	0	92	44	62	33	34	15	38	36	50
8	31	49	351	775	611	2158	120	85	89	0
9	0	34	15	0	17	35	0	145	83	0
10	104	0	0	0	53	49	79	31	60	0
11	0	17	4	0	0	11	3	3	0	0
12	1	5	0	0	32	2	0	0	0	5
13	0	3	15	15	1	0	0	0	6	0
14	0	0	0	0	0	0	18	0	7	0
15	0	0	1	0	0	0	0	0	0	9
16	10									

TOTAL = 11071

MEAN = 69.194

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 86 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		139	32	72	0	36	14	34	17	55
1	0	168	17	0	0	35	14	69	0	20
2	140	18	0	0	0	0	20	31	0	0
3	0	17	31	0	0	0	0	0	0	66
4	0	30	168	17	31	17	33	14	17	0
5	0	85	177	216	380	113	350	34	31	98
6	14	17	65	102	73	0	17	31	0	34
7	14	0	16	17	0	64	0	0	39	31
8	0	0	0	35	16	84	274	525	101	66
9	0	0	0	0	0	0	16	17	89	0
10	127	0	34	0	0	0	17	0	271	14
11	0	0	3	0	1	1	0	4	0	0
12	0	0	0	1	12	10	2	0	0	2
13	0	8	8	3	0	0	0	0	5	0
14	1	0	0	3	0	1	17	1	23	0
15	0	1	0	0	1	0	0	0	0	6
16	9									

TOTAL = 5199

MEAN = 32.494

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 87 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		216	0	73	28	16	2	0	0	14
1	0	135	16	0	17	71	0	0	0	16
2	19	67	14	31	0	20	0	0	0	0
3	19	0	33	0	14	0	0	0	0	17
4	0	107	144	0	19	35	28	17	54	17
5	74	108	69	399	250	75	121	51	34	52
6	0	36	31	51	17	35	0	0	35	17
7	17	0	0	17	0	14	33	0	0	134
8	20	0	17	0	129	46	443	965	577	69
9	0	0	0	0	0	0	0	116	144	18
10	220	0	0	0	41	14	65	21	30	0
11	0	0	1	0	2	1	0	2	0	0
12	0	1	1	0	5	14	2	0	0	5
13	0	7	8	1	0	0	0	0	7	0
14	0	0	2	0	0	0	4	0	13	0
15	0	0	0	0	0	0	0	0	0	7
16	6									

TOTAL = 5953

MEAN = 37.206

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 88 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		229	0	17	44	35	0	0	31	14
1	0	96	0	0	17	70	17	0	0	0
2	20	59	0	0	0	0	16	0	0	0
3	0	17	0	0	0	0	14	0	0	34
4	0	45	66	0	0	16	31	17	0	36
5	14	55	150	45	123	182	73	123	0	53
6	51	14	0	54	0	14	0	14	17	0
7	14	0	17	0	0	41	0	14	0	86
8	0	0	0	99	246	33	98	559	858	109
9	0	17	34	0	0	0	0	87	89	14
10	332	14	0	0	20	16	52	45	14	0
11	0	0	0	0	0	4	2	5	0	0
12	0	4	1	0	12	26	1	0	1	7
13	0	3	11	1	0	0	0	0	2	0
14	0	0	0	0	1	0	7	0	7	0
15	0	0	0	0	0	0	0	0	0	5
16	5									

TOTAL = 4936

MEAN = 30.850

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 89 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		163	0	18	14	14	33	35	0	18
1	0	32	0	0	18	18	18	0	0	0
2	0	0	0	0	0	0	16	18	0	0
3	0	18	0	0	0	0	0	0	0	0
4	0	0	108	0	18	0	18	17	0	18
5	62	36	56	179	86	45	80	83	0	0
6	14	35	0	18	0	262	0	17	36	0
7	0	41	0	0	0	0	0	0	0	36
8	0	0	0	32	20	17	105	53	73	449
9	0	0	0	19	0	0	0	34	74	14
10	110	0	0	0	14	0	28	0	217	0
11	0	0	1	0	0	0	0	0	0	0
12	0	1	0	0	1	7	2	0	1	5
13	0	6	0	0	0	0	0	0	3	0
14	0	0	0	1	2	0	5	0	1	0
15	0	0	0	0	0	0	0	0	0	2
16	2									

TOTAL = 2997

MEAN = 18.731

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 90 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		39	0	0	0	0	0	55	0	0
1	0	0	0	0	0	20	0	0	0	0
2	14	0	0	0	0	0	0	0	0	0
4	0	20	0	0	0	0	0	0	0	0
5	0	0	20	14	0	0	42	33	0	42
6	0	14	0	44	69	34	0	0	0	0
7	0	0	0	0	0	0	0	0	0	20
8	0	0	0	0	20	0	0	0	0	0
9	0	87	0	0	0	0	0	0	0	28
12	0	1	0	0	0	1	0	0	2	3
13	14	24	0	62	1	0	1	3	2	0
14	0	0	0	1	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	4

TOTAL = 734

MEAN = 4.588

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 91 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		285	34	134	16	0	33	52	0	85
1	0	444	0	0	0	173	95	62	33	48
2	126	67	14	16	0	33	16	28	14	0
3	30	17	58	16	0	0	32	0	16	44
4	14	56	166	0	16	0	0	33	17	74
5	57	16	66	57	52	294	45	134	0	275
6	51	132	49	218	182	35	323	219	17	85
7	0	0	31	105	0	0	0	0	0	44
8	0	0	0	0	14	33	0	0	20	0
9	64	17186	48	86	35	14	0	14	0	17
10	0	1818	540	28	63	0	14	30	14	0
11	35	0	1	0	0	1	0	2	0	0
12	1	1	1	1	6	19	13	1	0	2
13	2	0	2	5	1312	406	481	136	535	8
14	25	63	3	39	1	0	6	0	11	0
15	0	0	0	0	0	0	0	0	0	68
16	1									

TOTAL = 28110 MEAN = 175.698

11JUN70 PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 92 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		31	0	0	0	34	0	0	0	0
1	16	62	0	0	0	44	16	0	0	0
2	15	37	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	20	32
4	0	0	48	0	0	0	17	16	0	0
5	0	0	16	0	0	99	0	35	65	17
6	0	0	14	19	0	0	31	327	166	186
7	16	39	14	0	16	0	0	0	0	14
8	0	0	0	0	0	15	0	0	34	0
9	0	48	572	254	0	0	0	0	0	18
10	0	53	110	0	0	0	0	46	30	107
11	0	0	0	0	0	0	0	1	0	0
12	0	0	0	0	2	0	1	0	0	2
13	0	0	1	2	2	1	4	0	4	0
14	1	4	68	311	143	34	2	1	13	1
15	2	5	0	3	0	0	0	0	0	3

TOTAL = 3362 MEAN = 21.012

11JUN70 PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 93 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		245	0	92	0	0	0	19	19	14
1	0	163	16	30	14	87	37	55	19	44
2	110	0	0	59	17	61	33	0	0	0
3	18	63	0	0	19	0	0	0	0	46
4	0	19	69	27	0	0	0	0	0	0
5	0	0	19	28	78	87	0	39	41	61
6	37	16	39	0	17	0	0	243	456	386
7	14	0	0	70	0	0	14	0	0	35
8	0	0	0	0	0	0	0	19	0	19
9	0	49	422	1630	14	19	0	17	19	18
10	0	0	31	0	0	0	27	0	32	234
11	28	32	0	0	0	0	0	1	0	0
12	0	0	0	0	3	3	0	0	0	0
13	0	2	7	5	0	0	0	0	13	0
14	1	1	3	15	107	16	12	1	15	0
15	0	0	2	3	0	1	0	0	0	14

TOTAL = 5910 MEAN = 36.938

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 94 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		232	17	84	0	0	0	0	0	0
1	14	125	87	33	0	49	72	36	0	37
2	139	0	0	0	0	16	49	0	0	0
3	16	33	153	33	36	0	14	0	0	47
4	16	100	295	0	0	17	0	0	17	14
5	33	0	129	77	35	151	16	0	0	0
6	0	0	0	64	0	17	0	0	89	34
7	75	181	129	200	178	17	80	0	0	211
8	0	0	0	14	0	17	0	0	0	0
9	0	0	0	0	1131	2263	0	32	0	0
10	0	0	0	293	95	0	14	17	16	82
11	128	29	0	1	0	0	0	1	0	0
12	0	1	1	0	7	2	0	0	0	1
13	0	3	7	3	2	0	0	0	6	0
14	0	0	0	0	13	13	10	1	26	14
15	13	76	2	16	0	5	1	9	2	24
16	4									

TOTAL = 7892 MEAN = 49.325

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 95 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		246	33	192	16	0	0	20	0	17
1	30	150	14	67	0	92	333	119	30	36
2	97	35	0	40	50	129	41	36	0	17
3	132	19	70	37	14	61	89	0	53	65
4	33	33	230	14	0	16	32	0	0	40
5	17	0	78	48	0	26	18	37	17	100
6	48	14	14	84	27	0	0	28	51	65
7	250	179	869	626	206	34	0	51	74	104
8	0	0	0	17	31	48	0	0	0	0
9	0	33	0	39	2271	7340	0	41	16	0
10	0	0	0	353	106	16	14	39	0	143
11	625	14	2	0	2	1	0	1	0	0
12	1	2	0	1	12	3	0	0	0	0
13	0	4	16	7	3	2	0	0	27	1
14	0	0	0	0	22	5	29	1	42	56
15	13	38	11	16	0	2	0	7	0	47
16	4									

TOTAL = 17367 MEAN = 108.544

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 96 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		30	15	84	0	0	17	0	0	0
1	14	16	0	0	50	84	54	0	0	0
2	0	16	16	0	0	0	0	44	40	31
3	16	51	0	0	14	0	0	0	0	35
4	0	48	156	0	32	0	32	0	14	0
5	49	18	64	0	0	46	0	0	0	0
6	34	0	0	60	0	33	0	0	51	16
7	0	16	0	62	14	0	15	209	429	175
8	252	109	89	31	0	0	16	17	16	0
9	0	0	0	0	0	31	1165	16	15	60
10	0	0	33	76	1253	134	63	0	16	0
11	0	55	27	2	51	46	44	21	0	0
12	4	20	2	2	9	0	0	1	0	4
13	0	3	4	0	0	0	0	0	6	0
14	0	0	0	0	0	0	7	0	3	0
15	0	2	4	0	0	0	0	1	0	14
16	35									

TOTAL = 5959 MEAN = 37.244

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 97 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		139	19	95	31	27	39	0	0	14
1	0	123	36	14	14	32	39	0	33	14
2	73	0	19	0	16	16	0	0	0	19
3	14	0	28	34	0	0	0	0	0	44
4	0	117	213	0	0	16	48	0	14	47
5	76	29	242	189	103	92	46	52	77	146
6	0	69	36	32	0	51	46	0	17	47
7	0	0	0	32	0	14	0	0	14	29
8	30	0	64	119	319	133	49	117	49	0
9	0	0	17	0	0	41	16	4822	2517	241
10	677	0	0	0	20	273	1686	0	72	0
11	0	0	0	0	0	2	3	40	0	0
12	4	33	0	4	462	44	26	1	5	81
13	0	2	2	4	0	0	0	0	16	0
14	0	3	0	8	4	0	10	0	12	0
15	0	0	2	0	0	0	0	0	0	10
16	8									

TOTAL = 14894

MEAN = 93.088

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 98 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		214	90	50	28	0	63	19	34	19
1	0	105	0	0	0	51	14	19	17	43
2	56	51	18	0	0	0	0	0	0	0
3	0	18	0	0	0	0	0	14	16	51
4	0	35	154	0	17	0	60	0	53	85
5	76	36	114	182	52	57	71	0	0	39
6	0	33	0	49	0	0	0	0	16	0
7	0	0	0	16	0	16	0	0	16	65
8	0	0	0	34	52	83	71	119	89	108
9	0	19	0	19	0	30	0	2642	1786	202
10	671	0	0	0	58	134	221	0	42	0
11	0	0	0	0	0	1	1	25	0	2
12	1	18	0	0	126	118	17	1	0	64
13	0	3	7	3	0	0	0	0	7	0
14	0	0	0	1	0	0	3	0	4	0
15	0	0	0	0	0	0	0	0	0	6
16	3									

TOTAL = 9023

MEAN = 56.394

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 99 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		257	0	55	37	18	0	43	0	0
1	0	64	0	14	0	64	0	35	0	0
2	0	36	0	0	0	0	0	0	0	18
3	0	0	0	0	0	0	0	0	0	18
4	0	18	77	0	0	0	34	0	0	0
5	18	0	18	28	17	79	0	14	20	38
6	0	0	33	75	392	150	57	0	0	14
7	0	45	0	18	0	0	0	0	0	49
8	0	0	0	0	53	0	0	35	14	0
9	28	19	18	18	0	14	54	202	231	3310
10	56	0	0	17	0	0	93	0	32	16
11	0	0	0	0	0	0	0	7	0	0
12	0	3	0	0	1	29	44	15	23	381
13	24	3	3	9	0	0	0	0	5	0
14	0	0	1	7	0	0	1	0	3	0
15	0	0	0	0	0	0	0	0	0	3
16	3									

TOTAL = 6628

MEAN = 41.425

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 100 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		110	16	31	0	0	0	0	52	17
1	0	110	0	0	0	35	30	0	62	22
2	88	0	48	0	0	16	14	0	0	0
3	0	0	0	0	0	0	0	0	0	46
4	0	61	151	0	0	14	72	0	16	104
5	0	33	131	96	95	63	63	58	17	64
6	0	16	0	63	33	0	19	0	32	16
7	0	0	44	31	0	0	0	16	0	0
8	0	0	20	50	0	70	85	130	282	36
9	0	0	0	0	19	0	0	599	642	83
10	898	0	0	0	33	33	41	16	45	0
11	0	0	2	3	2	0	1	9	0	0
12	0	6	0	0	9	30	3	3	1	22
13	0	0	0	5	0	0	2	0	5	0
14	0	0	0	0	0	0	9	0	2	0
16	2									

TOTAL = 5203

MEAN = 32.519

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 101 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		144	31	0	0	0	0	15	31	35
1	0	404	32	0	31	29	34	51	0	32
2	101	0	17	20	17	33	14	0	0	0
3	0	14	17	0	0	0	0	0	0	0
4	17	33	69	0	0	0	0	0	0	18
5	0	0	62	0	14	139	18	28	0	14
6	0	0	14	88	14	17	14	155	51	33
7	0	0	14	50	0	0	0	0	0	17
8	0	0	0	39	0	0	0	0	14	0
9	0	1794	67	20	0	0	0	0	0	0
10	0	2383	1056	0	0	0	14	31	0	38
12	0	0	0	0	0	1	1	0	0	0
13	0	0	4	1	127	36	10	2	73	24
14	65	51	4	30	1	1	4	0	3	0
15	0	0	0	0	0	0	0	0	0	16
16	1									

TOTAL = 7892

MEAN = 49.325

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 102 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		62	0	16	0	0	0	16	0	0
1	0	185	17	17	53	0	51	17	0	0
2	36	17	17	0	17	0	17	0	0	0
3	0	0	0	0	0	14	0	0	14	0
4	0	17	34	0	17	0	14	0	0	0
5	0	0	0	0	0	68	18	0	20	54
6	0	17	0	45	17	17	17	82	0	50
7	0	14	14	0	0	0	0	0	0	0
8	34	0	0	0	0	0	34	0	0	0
9	0	450	159	31	0	0	33	0	0	0
10	0	1036	1236	31	0	36	0	14	17	16
12	0	0	0	0	0	2	1	0	0	3
13	0	0	0	0	53	6	0	0	25	10
14	144	226	10	42	1	0	0	0	1	0
15	0	0	0	3	0	0	0	0	0	4

TOTAL = 4939

MEAN = 30.869

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 103 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		177	0	32	0	17	17	0	0	0
1	0	140	0	0	72	47	14	16	34	68
2	34	38	57	0	0	0	0	38	0	0
3	16	35	69	20	16	0	0	0	0	77
4	31	94	281	0	17	0	17	0	0	0
5	0	0	129	41	0	80	0	36	0	35
6	0	0	0	32	0	0	0	0	34	34
7	0	58	56	91	123	0	0	16	82	112
8	34	107	0	17	0	0	17	0	0	0
9	0	28	0	20	250	246	63	14	0	0
10	0	0	34	6247	631	0	0	14	53	16
11	34	0	4	9	6	5	10	3	0	3
12	4	5	0	0	6	2	1	0	0	0
13	0	4	4	2	1	1	0	0	8	0
14	0	0	0	1	11	4	13	0	60	13
15	6	54	172	206	31	131	130	46	2	4
16	4									

TOTAL = 11224

MEAN = 70.150

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 104 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		170	14	196	28	0	14	0	16	0
1	0	259	40	14	31	66	134	62	14	15
2	77	65	29	0	85	15	132	30	16	16
3	16	64	140	50	82	49	115	0	66	142
4	46	271	579	0	71	37	14	54	53	16
5	31	0	133	77	47	152	32	36	17	32
6	54	16	17	105	53	0	14	34	56	43
7	0	111	16	226	129	162	48	505	540	386
8	278	44	67	0	17	34	0	27	0	14
9	0	34	0	68	85	46	1258	20	82	35
10	29	0	17	447	14136	77	51	45	28	0
11	0	97	178	114	30	44	4	8	0	2
12	11	19	1	2	17	0	2	0	1	2
13	0	4	23	5	0	0	0	0	38	0
14	0	0	0	6	2	1	20	0	12	2
15	0	5	14	6	0	1	0	29	41	88
16	239									

TOTAL = 24482

MEAN = 153.013

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 105 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		47	16	0	14	0	0	0	15	14
1	0	76	0	0	0	34	28	0	0	0
2	75	0	16	0	0	15	0	0	38	0
3	0	0	16	0	0	0	0	0	0	14
4	0	52	101	0	0	0	49	0	16	30
5	0	0	43	0	0	79	0	0	0	0
6	0	0	0	14	0	0	0	0	0	0
7	0	0	0	52	0	32	0	34	85	138
8	42	46	17	50	0	35	0	0	16	0
9	0	0	0	0	0	16	137	202	172	0
10	16	0	40	0	29	4511	343	15	16	0
11	0	0	0	0	2	6	20	242	0	14
12	347	308	8	2	21	0	1	0	0	15
13	0	0	1	6	1	0	0	0	2	0
14	3	0	0	3	1	0	3	0	2	0
15	1	0	0	0	0	0	0	0	0	0
16	3									

TOTAL = 7858

MEAN = 49.113

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 106 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		98	0	67	0	0	0	20	0	17
1	31	123	14	0	0	14	0	0	0	17
2	44	0	0	0	0	0	0	16	0	36
3	0	0	0	14	0	31	30	0	0	66
4	0	143	303	14	84	17	17	51	75	17
5	48	40	299	107	90	162	14	28	0	34
6	14	14	0	0	14	0	18	0	28	0
7	0	36	33	33	0	17	0	50	57	126
8	28	265	119	223	124	128	17	30	17	0
9	0	14	0	0	0	27	117	1544	220	93
10	70	0	0	19	66	377	1886	0	28	0
11	0	0	0	0	0	2	0	27	0	0
12	11	36	14	26	77	6	10	0	0	37
13	1	2	2	7	0	0	0	0	4	0
14	0	0	0	0	0	0	2	0	1	0
15	1	0	0	0	0	0	0	0	0	4
16	8									

TOTAL = 8311 MEAN = 51.944

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 107 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		56	4	16	0	16	14	73	0	4
1	34	91	0	38	17	19	0	0	52	0
2	50	0	18	17	0	0	0	0	0	0
3	0	0	17	33	0	0	17	0	0	0
4	0	143	16	0	19	0	0	0	0	0
5	0	16	14	2	35	14	0	16	16	51
6	169	78	14	16	0	39	0	68	84	84
7	54	36	16	97	0	37	0	30	0	0
8	0	0	14	0	0	16	0	0	28	0
9	0	30	31	0	0	58	0	0	0	0
10	0	45	14	14	43	15	0	39	16	14
11	0	0	2	0	0	0	0	0	0	0
12	3	0	0	0	20	20	0	0	0	1
13	0	30	15	11	2	0	0	0	46	0
14	2	0	0	1	28	4	39	0	25	1
15	0	1	1	7	0	0	0	0	0	35
16	1									

TOTAL = 2422 MEAN = 15.137

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 108 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		211	2	73	20	28	0	85	35	77
1	0	227	36	0	14	50	68	0	16	37
2	14	0	0	20	30	0	0	0	0	18
3	16	0	74	17	31	0	0	16	0	42
4	14	126	95	17	31	34	38	0	78	0
5	72	18	131	155	374	57	594	219	107	250
6	55	32	176	33	138	186	16	86	35	34
7	14	48	0	42	14	0	16	14	14	74
8	0	14	42	77	56	46	274	69	28	214
9	0	14	14	32	16	0	16	94	42	14
10	75	14	35	14	28	16	64	0	640	18
11	0	16	0	0	0	0	1	3	0	0
12	2	2	0	1	7	25	4	1	0	8
13	0	25	42	19	4	1	0	1	25	0
14	1	0	0	2	2	0	27	0	19	3
15	3	1	1	1	0	1	0	0	0	18
16	5									

TOTAL = 6931 MEAN = 43.319

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 109 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		67	111	69	0	0	0	30	0	0
1	0	180	0	35	30	32	78	49	0	0
2	34	15	0	0	14	0	0	14	35	20
3	54	0	0	17	0	0	15	0	0	0
4	0	48	204	68	16	0	0	0	0	0
5	0	0	32	38	0	48	0	0	0	0
6	16	32	0	31	14	19	0	49	141	214
7	14	59	28	34	0	15	0	0	0	111
8	55	14	0	0	0	17	0	0	0	0
9	16	0	127	292	82	125	0	0	0	32
10	0	0	31	15	17	0	0	0	20	410
11	32	16	1	0	0	0	0	1	0	0
12	4	1	0	0	1	2	0	1	0	1
13	0	3	13	0	0	0	0	0	14	1
14	0	4	1	13	225	32	37	108	105	1
15	8	6	3	15	0	0	0	0	0	5

TOTAL = 4038

MEAN = 25.238

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 110 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		0	0	17	0	0	0	0	0	14
1	0	94	0	0	0	0	0	0	0	0
2	27	36	2	0	0	49	0	0	0	0
3	17	0	0	0	0	0	34	0	0	30
4	0	66	45	0	0	0	17	17	17	0
5	0	0	17	14	0	31	0	0	0	0
6	0	0	0	31	0	0	0	0	30	61
7	48	0	0	14	14	0	0	14	0	17
8	0	27	0	0	0	0	0	0	0	0
9	0	69	0	14	117	578	16	0	0	0
10	0	0	0	17	0	0	0	0	0	98
11	146	0	0	0	0	0	0	0	0	0
12	0	0	0	2	2	0	0	0	0	0
13	0	1	1	0	0	0	0	0	2	0
14	0	0	0	0	5	2	4	1	27	1
15	1	4	0	5	1	1	0	0	0	2
16	1									

TOTAL = 1918

MEAN = 11.988

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 111 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		186	0	16	0	0	0	15	0	0
1	0	78	0	0	0	0	0	0	16	16
2	16	0	0	0	0	0	48	0	27	19
3	0	49	403	88	0	0	68	0	17	48
4	0	124	57	0	16	0	16	0	0	0
5	0	0	32	16	0	38	0	0	0	0
6	0	14	14	0	0	0	32	18	16	45
7	14	15	64	673	247	134	33	298	131	80
8	34	0	0	0	16	17	0	0	0	0
9	0	0	0	32	29	14	16	0	14	0
10	0	0	0	0	114	14	0	0	16	19
11	0	280	2	0	4	5	0	0	0	0
12	1	0	0	1	0	0	0	0	0	0
13	0	5	6	2	0	0	0	0	7	0
14	0	0	0	0	0	0	3	0	1	0
15	0	0	0	0	0	0	0	1	0	16
16	1									

TOTAL = 3907

MEAN = 24.419

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 112 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		17	9	9	3	7	0	3	0	0
1	1	16	1	0	0	7	12	1	0	0
2	13	3	2	1	0	2	9	1	1	4
3	6	3	4	2	5	0	6	1	4	29
4	4	13	101	2	10	2	7	8	3	3
5	4	4	19	16	2	14	6	7	3	2
6	1	2	3	0	0	0	2	0	2	0
7	3	3	3	6	1	12	3	18	22	33
8	9	1	1	2	2	3	2	2	0	2
9	0	0	0	1	0	3	15	0	0	0
10	0	0	1	3	167	2	1	2	5	0
11	0	5	0	0	0	0	0	0	0	0
12	0	1	1	0	19	0	1	0	0	1
13	0	1	10	1	0	0	0	0	4	0
14	0	1	0	0	0	0	4	0	4	0
15	0	0	2	0	0	0	0	1	0	0
16	1									

TOTAL = 809

MEAN = 5.056

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 113 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		7	0	2	0	0	2	0	0	0
1	0	16	0	0	2	8	2	4	0	2
2	2	3	2	0	0	0	4	0	2	0
3	0	0	2	0	0	0	0	0	0	0
4	0	4	5	0	1	0	4	2	0	0
5	0	0	20	5	0	3	0	0	0	2
6	0	0	0	17	0	0	0	0	2	0
7	0	0	1	0	5	2	0	3	21	11
8	1	0	0	0	0	2	0	2	0	0
10	0	0	0	8	100	0	0	0	0	0
11	0	0	1	0	0	0	0	0	0	0
13	0	0	1	0	0	0	0	0	1	0
14	0	0	0	0	0	0	1	0	0	0

TOTAL = 285

MEAN = 1.781

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 114 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		0	0	0	0	0	0	0	0	0
1	0	0	0	0	2	0	0	1	0	0
3	0	0	1	0	0	1	1	0	1	2
4	0	4	1	0	1	0	1	0	0	1
5	0	0	0	1	0	0	2	0	0	0
7	0	0	0	1	0	2	0	6	1	7
8	3	0	0	0	0	1	0	0	0	0
9	0	0	0	0	1	0	63	1	0	0
10	0	0	0	8	19	5	0	0	1	0
11	0	1	0	0	0	1	0	0	0	0
12	0	0	0	0	0	0	0	0	0	1

TOTAL = 142

MEAN = 0.888

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 115 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		24	5	4	4	0	0	0	0	0
1	0	22	0	1	2	2	13	2	0	1
2	5	6	5	0	1	0	3	7	0	3
3	0	4	2	1	3	3	6	0	0	40
4	3	12	115	0	3	3	6	5	1	2
5	6	1	46	3	3	16	9	3	2	2
6	0	0	0	4	0	1	0	0	2	1
7	0	1	2	8	0	4	2	9	6	71
8	2	8	2	3	5	10	2	0	1	0
9	0	0	0	0	2	6	53	0	1	0
10	3	0	0	5	47	5	1	0	2	0
11	0	2	0	0	0	0	0	0	0	0
12	1	0	0	0	1	0	0	0	0	0
13	0	0	2	0	0	0	0	0	0	0
14	0	0	0	0	0	0	1	0	0	0
15	0	0	0	0	0	0	0	0	0	1
16	1									

TOTAL = 688

MEAN = 4.300

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 116 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		5	0	5	0	0	0	0	0	2
1	0	3	0	0	0	1	5	2	0	0
2	3	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	1	1	0	0	9
4	3	2	24	1	1	0	1	0	0	2
5	0	0	6	1	3	6	3	1	1	1
6	0	0	0	0	0	0	0	0	0	2
7	0	0	0	6	0	2	0	2	3	18
8	2	1	3	4	0	2	1	0	0	0
9	0	0	0	0	0	0	62	2	0	0
10	0	0	0	1	2	13	1	0	0	0
12	0	1	0	0	0	0	0	0	0	0

TOTAL = 221

MEAN = 1.381

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 117 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		19	9	18	2	2	4	2	0	1
1	0	50	1	0	3	6	14	2	0	0
2	13	6	2	0	0	4	0	1	2	4
3	1	3	4	0	3	1	2	1	1	21
4	2	13	66	0	6	4	2	3	4	10
5	7	2	41	5	6	69	1	11	3	6
6	1	3	3	19	4	2	0	0	3	3
7	1	1	1	2	0	5	1	1	4	32
8	4	11	4	6	2	6	4	3	2	1
9	0	1	3	0	0	2	15	44	23	3
10	7	0	0	2	9	262	35	0	3	1
11	0	0	1	0	0	1	0	0	0	0
12	30	46	1	1	71	4	0	0	0	144
13	0	1	14	1	0	0	1	0	14	0
14	0	0	0	1	1	0	10	0	6	0
15	0	0	4	0	0	0	0	0	0	1

TOTAL = 1355

MEAN = 8.469

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 118 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		0	0	0	0	0	0	0	0	0
12	1	0	0	0	0	0	0	0	0	0
TOTAL =		1								
							MEAN =		0.006	

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 119 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		0	0	0	0	0	0	0	0	0
10	0	0	0	1	0	24	0	0	0	0
12	2	4	0	0	1	0	0	0	0	0
TOTAL =		32								
							MEAN =		0.200	

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 120 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		7	0	3	0	1	0	0	0	0
1	0	5	0	0	0	1	2	0	1	0
2	4	1	0	0	1	1	1	2	0	0
3	0	0	1	1	0	0	0	0	0	16
4	0	11	30	0	7	0	1	1	2	1
5	0	0	4	8	1	5	0	1	0	1
6	0	0	0	4	1	1	0	0	4	2
7	0	0	2	4	0	0	0	2	3	18
8	0	1	2	2	0	0	0	0	1	0
9	0	1	0	0	0	0	3	6	1	2
10	0	0	0	9	7	298	10	2	2	1
11	0	0	0	0	0	0	0	37	1	2
12	0	2	0	0	1	0	0	0	0	1
13	0	0	2	1	0	0	0	0	3	0
14	0	0	0	1	0	0	2	0	2	0
15	0	0	1	0	0	0	0	0	0	2
16	3									
TOTAL =		571								
							MEAN =		3.569	

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 121 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		9	2	11	4	2	2	1	1	2
1	0	14	0	0	0	2	3	0	0	2
2	10	1	10	1	2	2	0	1	2	1
3	0	0	0	0	1	3	4	0	3	14
4	2	9	62	2	5	1	4	1	1	1
5	3	4	32	6	4	18	2	2	2	2
6	1	0	1	3	0	1	0	0	2	3
7	0	1	3	6	0	1	1	5	5	28
8	7	8	1	5	5	4	1	2	2	1
9	0	2	0	0	0	0	13	23	10	3
10	1	0	0	2	12	251	28	2	0	1
11	0	1	0	0	1	0	0	39	0	2
12	4	0	0	0	2	0	0	1	0	4
13	0	0	0	1	0	0	1	0	2	0
14	0	0	0	0	0	0	3	0	0	0
15	0	1	1	0	0	0	0	0	0	11
16	2									
TOTAL =		794								
							MEAN =		4.963	

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES F DISTRICT 122 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		0	0	0	0	0	0	0	0	1
2	0	2	0	0	0	0	0	1	1	0
3	0	0	0	0	0	0	1	1	1	1
4	0	0	1	1	0	0	0	0	0	0
5	0	0	1	0	0	0	0	0	0	0
7	0	0	0	0	0	1	0	0	1	1
8	0	4	0	0	0	0	0	0	2	0
9	0	0	0	0	1	0	2	0	2	0
10	0	0	0	1	1	9	12	0	1	0
11	0	0	0	0	0	0	0	2	0	0
12	1	0	0	0	0	0	0	0	0	0

TOTAL = 53 MEAN = 0.331

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 123 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		1	0	0	0	3	0	3	0	0
1	0	0	0	0	0	1	0	0	1	0
2	0	0	2	0	0	0	0	2	0	0
3	0	0	0	0	1	0	2	1	4	0
4	1	4	2	5	1	0	0	1	0	0
5	0	1	1	0	4	0	0	2	0	1
6	0	0	0	1	0	0	0	0	0	0
7	0	1	0	1	0	2	2	2	1	3
8	3	0	5	0	0	1	0	0	0	0
9	0	0	0	0	0	0	2	5	1	0
10	0	0	0	1	1	3	33	0	0	1
11	0	1	0	0	0	0	0	1	0	0
15	0	0	0	0	0	0	0	0	0	1

TOTAL = 116 MEAN = 0.725

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 124 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		88	14	44	15	8	4	2	1	6
1	1	34	8	4	5	49	30	12	6	5
2	57	20	12	8	15	11	11	4	5	5
3	10	13	13	1	5	5	11	5	7	46
4	3	82	180	6	22	7	61	21	25	22
5	31	22	144	41	17	12	24	13	6	18
6	9	0	1	5	1	6	1	3	6	7
7	7	5	3	12	0	7	1	10	8	56
8	12	6	10	20	48	29	13	8	14	0
9	2	2	1	2	5	15	10	417	109	5
10	13	1	0	3	9	13	66	10	6	0
11	2	1	7	0	0	1	1	75	0	1
12	0	1	1	1	0	0	1	0	0	20
13	0	3	24	8	0	0	0	0	45	0
14	0	0	0	3	2	0	166	0	133	1
15	0	0	4	1	0	0	0	1	0	105
16	25									

TOTAL = 2989 MEAN = 18.681

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 125 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		64	5	22	10	8	10	3	5	6
1	1	169	3	1	7	13	4	10	0	0
2	13	8	1	0	1	3	2	2	3	0
3	0	0	2	1	3	1	2	2	3	4
4	4	13	20	2	3	1	7	3	6	8
5	4	4	19	64	43	107	22	23	9	18
6	12	4	8	66	14	18	2	6	10	8
7	2	5	2	2	0	2	0	0	0	9
8	0	2	3	3	4	1	14	17	20	6
9	0	18	1	1	3	2	2	52	131	21
10	32	6	2	1	0	1	6	23	42	3
11	0	0	0	0	0	0	0	1	0	0
12	0	0	0	0	0	0	1	0	0	19
13	0	1	4	1	1	1	0	0	9	0
14	0	0	0	1	0	0	39	0	5	0
15	0	0	1	0	0	0	0	0	0	1

TOTAL = 1444

MEAN = 9.025

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 126 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		10	0	9	4	0	0	0	0	1
1	0	11	0	1	0	7	1	5	2	0
2	2	3	2	0	0	1	0	0	0	0
3	0	5	0	1	0	0	0	0	0	4
4	2	5	4	0	0	0	0	0	1	1
5	1	1	13	8	9	9	4	10	1	2
6	0	1	0	9	3	2	3	0	1	1
7	0	0	0	1	0	0	1	0	0	3
8	0	1	0	1	0	1	1	1	4	1
9	2	10	0	0	1	1	0	24	12	47
10	6	1	0	0	4	0	6	3	4	1
11	0	0	0	0	0	0	0	1	0	0
12	0	0	0	0	0	1	0	0	0	15
13	0	0	4	2	1	0	0	0	4	0
14	1	0	0	2	0	0	5	0	1	0
15	0	0	0	0	0	0	0	0	0	1

TOTAL = 335

MEAN = 2.094

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 127 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		0	0	0	0	0	0	0	0	0
1	0	1	0	0	0	0	0	0	0	0
3	0	0	2	0	0	0	0	0	0	0
4	0	1	0	0	0	0	0	0	0	0
5	0	0	0	0	0	1	0	0	0	3
7	0	0	0	1	0	0	0	0	0	0
8	0	0	0	0	0	0	1	0	0	0
9	1	1	0	0	0	0	0	3	0	17
10	3	0	0	0	1	1	0	0	1	0
11	0	0	0	0	0	0	0	1	0	0
12	0	0	0	0	0	0	0	0	0	2
13	0	0	1	0	0	0	0	0	1	0

TOTAL = 43

MEAN = 0.269

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS, SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 128 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		1	0	0	0	1	0	0	0	1
1	0	2	0	0	0	1	0	0	0	0
2	0	0	0	0	0	0	0	0	0	3
5	0	0	0	0	1	2	1	0	1	1
6	1	0	1	0	0	3	0	0	0	0
7	0	0	0	0	0	0	0	0	0	1
9	0	0	0	0	0	0	0	3	1	32
10	0	1	1	0	0	0	1	0	0	0
12	0	0	0	0	0	0	0	0	0	5
TOTAL =		65								MEAN = 0.406

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS, SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 129 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		15	1	12	5	0	3	0	0	2
1	0	6	0	0	0	2	3	1	0	0
2	4	3	2	0	0	0	1	0	0	2
3	0	1	0	0	0	0	1	0	1	3
4	0	3	10	1	1	0	3	2	0	2
5	3	3	12	4	6	10	7	2	3	3
6	0	0	2	32	4	8	3	1	0	1
7	0	1	0	2	0	0	0	2	0	4
8	0	2	4	1	8	3	1	4	12	3
9	4	1	1	0	0	2	3	92	72	387
10	30	0	1	0	2	14	24	1	5	1
11	0	0	1	0	0	1	0	124	0	0
12	3	10	0	0	31	15	8	2	5	0
13	0	0	0	0	0	0	0	0	3	0
14	1	1	0	3	0	0	4	0	2	0
15	0	0	0	0	0	0	0	0	0	11
16	1									
TOTAL =		1107								MEAN = 6.919

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS, SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 130 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		9	0	0	0	0	0	0	0	0
1	0	2	0	0	0	0	0	2	0	2
2	2	0	0	0	0	0	0	0	0	2
4	0	4	0	0	0	0	0	0	0	2
5	0	0	0	0	3	4	0	0	0	0
6	0	0	2	4	3	9	0	2	0	1
7	0	0	2	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	3	0	0
9	18	3	0	0	0	0	0	0	2	21
10	0	0	0	0	0	0	3	0	2	0
14	0	0	0	0	0	0	0	0	1	0
TOTAL =		108								MEAN = 0.675

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 131 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		62	18	32	20	15	10	9	5	20
1	2	69	6	2	2	12	16	2	5	2
2	28	7	15	2	6	4	10	7	2	6
3	5	6	2	3	2	3	10	1	0	23
4	6	28	46	3	17	2	41	5	7	22
5	37	10	39	89	39	50	21	64	8	11
6	9	6	14	55	149	101	2	7	6	9
7	1	14	17	9	1	9	2	10	1	26
8	3	4	2	5	2	8	13	5	2	2
9	21	5	1	4	1	11	0	6	1	4
10	0	2	1	4	13	0	3	22	31	2
11	2	3	3	0	1	0	0	2	0	0
12	0	1	0	0	1	0	0	0	0	1
13	1	0	1	0	0	0	0	0	1	0
14	0	0	0	4	0	0	9	0	7	0
15	0	0	0	0	0	0	0	0	0	59
16	12									

TOTAL = 1730

MEAN = 10.812

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 132 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		140	22	36	61	33	13	17	12	20
1	7	167	14	9	11	33	45	20	17	3
2	47	16	22	11	9	27	24	12	8	11
3	12	13	36	8	12	6	7	3	11	28
4	2	91	156	6	15	11	47	12	16	13
5	11	9	123	49	60	61	18	20	9	27
6	26	7	23	60	67	78	14	10	29	36
7	11	11	12	36	1	16	7	15	4	36
8	8	1	6	6	5	9	11	9	3	9
9	0	6	0	11	9	25	1	0	0	2
10	2	4	0	3	33	1	0	30	35	4
11	0	2	6	1	0	0	0	18	0	0
12	1	1	0	0	14	10	0	0	1	1
13	0	1	0	1	9	3	2	1	7	0
14	1	4	1	34	2	1	82	0	147	0
15	0	1	6	9	0	0	0	1	1	2253
16	37									

TOTAL = 5149

MEAN = 32.181

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 133 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		76	5	38	6	8	1	4	2	4
1	2	82	1	2	5	8	1	22	5	1
2	20	16	7	0	2	4	4	2	1	2
3	2	3	2	1	3	1	5	0	1	6
4	2	21	30	2	10	2	6	6	6	5
5	13	4	28	30	41	50	45	22	10	19
6	2	11	16	90	62	44	30	6	7	8
7	1	6	1	3	0	5	1	1	1	9
8	3	0	3	1	1	9	4	3	4	2
9	61	5	0	2	2	7	4	11	3	4
10	4	1	0	2	3	2	4	12	19	1
11	4	1	1	0	0	0	0	3	0	0
12	0	2	0	0	6	1	1	0	0	0
13	0	0	0	0	1	1	0	0	1	0
14	0	0	0	1	0	0	1	0	2	0
15	0	0	1	1	0	0	0	0	0	15

TOTAL = 1231

MEAN = 7.694

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 134 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		3	2	0	0	0	1	2	1	1
1	0	6	0	0	1	0	3	6	0	0
2	0	0	1	0	0	1	3	0	0	0
3	1	0	1	0	0	0	1	0	0	0
4	0	0	1	1	0	0	1	0	0	0
5	1	1	0	2	1	1	0	0	1	10
6	2	1	1	6	0	0	11	15	0	2
7	0	0	1	1	0	1	0	2	0	2
8	0	0	0	0	0	1	1	0	0	0
9	1	1355	2	2	2	0	0	2	0	1
10	0	127	40	0	0	0	0	0	1	0
11	0	0	0	0	0	0	0	1	0	0
12	0	0	0	0	0	1	0	0	0	0
13	0	0	1	1	0	3	24	9	97	2
14	2	14	0	2	0	0	5	0	3	0
15	0	0	1	0	0	0	0	0	0	4

TOTAL = 1804

MEAN = 11.275

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 135 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		3	0	0	1	0	0	0	0	0
1	0	8	0	2	0	0	0	1	0	0
2	1	4	0	0	1	1	1	0	0	0
4	0	0	2	0	0	0	0	0	0	0
5	1	0	1	0	2	3	0	0	0	1
6	2	0	1	1	0	0	1	3	0	0
7	0	0	0	0	0	1	0	0	0	2
9	0	414	3	0	0	4	0	0	0	0
10	0	18	8	2	0	1	0	0	2	0
12	1	0	0	0	1	3	0	0	0	1
13	0	0	2	1	3	0	34	8	29	0
14	1	18	0	1	0	0	1	0	0	0
15	0	0	0	0	0	0	0	0	0	5
16	1									

TOTAL = 606

MEAN = 3.788

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 136 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		8	0	2	0	0	1	0	2	0
1	1	6	0	0	0	1	1	2	0	0
2	1	4	0	0	0	1	0	0	0	0
3	0	0	0	2	0	0	0	0	0	1
4	0	5	7	0	0	1	1	0	2	0
5	0	0	2	5	1	6	2	4	2	3
6	1	0	0	8	1	2	6	1	1	2
7	0	0	0	7	0	3	0	0	0	1
8	0	0	0	0	0	2	0	0	0	0
9	1	465	0	0	0	1	0	0	0	0
10	0	7	2	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	2	0	0
12	1	0	0	0	0	1	1	0	0	0
13	0	0	5	0	21	29	0	0	3	0
14	1	2	0	2	0	0	1	0	1	0
15	0	0	0	0	0	0	0	0	0	4

TOTAL = 659

MEAN = 4.119

11JUN70 PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG
 INTERCHANGE VALUES DISTRICT 137 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		0	0	0	0	0	0	0	0	0
1	0	3	0	0	0	0	0	0	0	0
4	0	0	0	0	1	0	0	0	0	0
5	2	0	0	0	0	1	0	0	0	0
6	0	0	0	3	0	0	1	0	0	0
9	2	144	0	0	0	0	0	1	0	0
10	0	2	1	0	0	0	0	0	0	0
13	0	0	1	0	13	7	1	0	1	0

TOTAL = 184 MEAN = 1.150

11JUN70 PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG
 INTERCHANGE VALUES DISTRICT 138 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		160	15	102	22	13	8	27	17	28
1	13	252	31	7	4	46	29	29	18	5
2	41	27	12	9	25	20	15	11	12	13
3	18	14	14	5	16	8	22	4	4	29
4	3	51	126	4	3	3	32	3	29	22
5	9	8	28	100	26	31	9	26	10	26
6	22	11	36	30	54	19	11	14	31	26
7	17	13	4	32	3	23	2	9	9	27
8	8	0	7	8	6	5	27	8	5	0
9	2	494	7	8	17	19	9	12	2	6
10	3	56	21	7	23	0	2	21	18	8
11	1	5	2	0	1	0	0	14	0	0
12	3	1	0	0	52	8	4	0	0	2
13	1	1	3	1	77	28	9	3	0	0
14	0	12	1	27	1	0	25	0	119	1
15	0	2	6	6	0	0	1	1	0	1816
16	16									

TOTAL = 5146 MEAN = 32.162

11JUN70 PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG
 INTERCHANGE VALUES DISTRICT 139 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		0	0	0	0	0	0	0	2	0
1	0	4	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	1	0
5	0	0	0	0	0	0	0	0	0	2
6	0	0	0	0	0	0	0	0	0	2
10	0	29	15	0	0	0	0	0	0	0
13	0	0	0	0	2	0	0	0	0	0
14	1	1	0	0	0	0	0	0	0	0

TOTAL = 59 MEAN = 0.369

11JUN70 PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG
 INTERCHANGE VALUES DISTRICT 140 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		3	0	0	0	0	0	0	0	0
1	0	3	2	0	0	0	1	0	0	0
2	0	0	0	0	1	0	1	0	0	0
3	0	0	0	0	0	1	0	0	0	3
4	0	3	4	0	0	0	0	1	1	0
5	0	0	0	0	1	3	0	1	0	3
6	1	0	0	1	1	0	0	5	1	2
7	0	0	0	0	0	0	0	0	0	2
9	0	25	2	2	1	3	2	0	0	0
10	0	53	125	0	0	0	0	0	0	1
12	0	0	0	0	1	0	0	0	0	0
13	0	0	1	0	1	2	0	0	1	0
14	0	23	0	2	0	0	1	0	3	0

TOTAL = 294 MEAN = 1.837

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 141 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		0	1	3	0	0	0	1	0	0
1	0	4	0	0	0	0	0	0	0	1
4	0	2	1	0	0	0	0	0	0	0
5	0	0	1	0	2	3	0	0	0	3
6	0	0	0	0	0	1	0	1	1	0
7	1	0	0	1	0	0	0	0	0	0
9	0	62	5	0	0	0	0	0	0	1
10	0	59	203	3	0	2	0	0	0	0
12	0	0	0	0	1	0	0	0	0	0
13	0	1	11	0	14	9	2	0	15	0
14	23	0	1	1	0	0	0	0	1	0
15	0	0	1	1	0	0	0	0	0	1
TOTAL =		444								
								MEAN =	2.775	

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 142 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		1	0	0	0	0	1	0	0	0
1	0	9	0	0	0	0	0	0	0	0
2	2	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	1
4	0	1	0	0	0	0	0	0	1	0
5	0	0	3	0	1	6	0	0	0	0
6	0	0	0	2	1	0	0	0	3	3
9	0	4	78	1	0	0	0	0	0	1
10	0	4	9	0	0	0	0	0	0	1
11	1	0	0	0	0	0	0	0	0	0
14	0	1	0	0	2	0	0	0	0	0
TOTAL =		137								
								MEAN =	0.856	

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 143 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		7	1	2	4	5	0	0	0	3
1	0	40	0	0	2	0	0	0	0	0
2	3	2	0	1	0	0	0	3	0	1
4	0	2	7	0	0	0	3	0	3	1
5	1	0	6	6	1	13	1	3	0	8
6	4	4	4	71	23	7	7	21	3	0
7	0	0	0	1	0	0	0	0	1	0
8	0	1	1	2	2	0	1	0	0	3
9	0	48	221	11	2	2	0	2	0	7
10	0	33	51	0	2	3	0	3	3	8
12	0	0	0	0	5	0	5	0	0	2
13	0	3	31	1	2	2	1	1	24	0
14	5	0	1	0	0	0	0	0	1	0
15	0	2	1	0	0	0	0	0	0	1
TOTAL =		769								
								MEAN =	4.806	

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 144 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		53	3	10	5	1	7	2	0	4
1	1	87	3	2	6	26	10	9	3	0
2	15	9	3	0	3	4	1	3	2	1
3	2	2	0	1	2	1	1	1	0	12
4	1	17	50	1	3	1	11	0	2	4
5	3	0	12	12	8	26	8	6	1	16
6	5	2	0	1	1	0	1	6	36	22
7	1	1	2	9	1	0	2	6	1	13
8	0	4	0	5	1	3	0	0	0	0
9	0	1	127	109	10	26	0	0	2	0
10	0	6	3	7	1	3	0	32	4	184
11	4	0	0	0	0	0	0	1	0	0
12	0	0	0	0	3	0	0	0	0	1
13	0	1	1	0	1	0	0	0	1	0
14	0	0	1	0	0	9	1	0	2	0
15	0	4	0	19	0	0	0	0	0	5
TOTAL =		1169							MEAN =	7.306

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 145 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		0	0	0	0	0	0	0	0	0
1	0	3	0	0	0	4	0	2	0	0
2	1	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	1	0	0	2
4	0	4	6	0	1	0	0	1	0	0
5	0	0	0	0	0	0	0	0	2	1
6	4	0	2	0	1	1	1	1	10	2
7	10	1	1	2	0	8	0	0	0	1
8	1	1	0	0	0	0	0	0	0	0
9	0	0	46	17	12	2	0	1	0	0
10	0	1	0	4	0	0	0	3	0	50
11	3	0	0	0	0	0	0	0	0	0
14	0	1	0	0	10	0	2	0	6	1
15	1	0	0	0	0	0	0	0	0	0
TOTAL =		235							MEAN =	1.469

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 146 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		125	23	28	27	11	13	21	9	16
1	8	316	10	9	4	42	22	18	10	2
2	43	21	12	9	13	11	14	11	3	10
3	9	12	12	4	8	6	11	6	7	42
4	4	40	99	2	14	6	53	9	36	15
5	20	6	54	43	17	122	14	26	14	31
6	26	6	9	36	9	189	0	11	49	63
7	13	12	8	27	1	2	10	2	6	18
8	6	7	4	7	10	9	15	10	10	3
9	0	9	4	12	6	23	6	17	5	0
10	5	2	0	24	18	7	5	56	28	28
11	6	0	8	0	0	2	0	19	0	0
12	3	1	0	0	172	37	8	0	0	4
13	0	14	97	0	9	1	1	1	37	0
14	2	0	0	0	4	4	0	0	8	0
15	1	3	1	298	0	1	0	2	0	359
16	10									
TOTAL =		3549							MEAN =	22.181

11JUN70 PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG
 INTERCHANGE VALUES DISTRICT 147 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		3	0	0	0	0	0	0	0	0
1	0	0	0	0	0	2	0	0	0	0
5	0	0	1	2	1	1	0	0	0	0
6	0	1	0	2	0	0	0	0	0	2
7	0	0	0	1	0	1	0	0	0	0
10	0	0	0	0	1	0	0	0	0	107
11	1	0	0	0	0	0	0	0	0	0
TOTAL =		126								MEAN = 0.788

11JUN70 PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG
 INTERCHANGE VALUES DISTRICT 148 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		103	11	72	12	12	12	12	4	14
1	4	219	13	6	10	121	9	25	8	2
2	38	30	13	4	9	14	9	8	4	9
3	6	8	13	11	6	7	7	5	3	47
4	1	54	181	1	18	6	37	6	34	11
5	12	3	49	49	16	93	10	23	4	7
6	18	9	8	32	6	6	4	12	54	52
7	10	8	10	24	3	5	3	11	5	74
8	6	3	5	6	3	9	21	10	5	2
9	0	17	5	17	17	40	4	15	1	1
10	1	2	1	18	13	0	2	31	21	128
11	28	3	3	0	0	2	0	5	0	0
12	1	3	0	0	102	5	0	0	0	0
13	0	6	143	2	5	2	1	0	123	0
14	3	0	0	1	1	6	6	0	0	0
15	0	2	2	70	0	2	1	1	0	63
16	2									
TOTAL =		2887								MEAN = 18.044

11JUN70 PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG
 INTERCHANGE VALUES DISTRICT 149 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		2	1	3	0	0	2	0	0	3
1	0	14	0	0	1	3	6	4	1	1
2	1	0	3	0	1	0	1	0	0	1
3	1	6	0	0	0	0	0	0	0	8
4	1	2	31	0	0	1	0	1	2	1
5	1	0	0	0	0	7	0	0	0	1
6	0	0	2	1	0	0	0	0	6	3
7	0	1	5	2	1	0	3	4	4	7
8	0	0	0	1	0	0	0	0	0	0
9	0	1	1	1	17	53	1	0	0	0
10	0	0	0	13	0	1	0	0	1	2
11	1	0	1	0	0	0	0	0	0	0
12	0	0	0	0	1	0	0	0	0	0
13	0	0	1	0	0	0	0	0	1	0
14	0	0	0	0	1	0	1	0	0	0
15	1	0	0	4	0	0	0	0	0	2
TOTAL =		256								MEAN = 1.600

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 150 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		6	0	0	0	0	0	0	0	0
1	0	4	0	0	0	6	4	1	1	0
2	0	1	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	5
4	0	0	2	0	0	0	2	0	0	2
5	0	0	2	0	0	4	0	0	0	0
6	0	0	0	0	0	0	0	0	3	1
7	0	0	1	1	0	0	0	0	0	2
9	0	0	2	0	17	19	0	0	0	0
10	0	0	1	5	0	0	1	0	1	6
11	4	1	0	0	0	0	0	0	0	0
12	0	0	0	0	1	0	0	0	0	0
15	0	1	0	1	0	0	0	0	0	0
16	1									

TOTAL = 109 MEAN = 0.681

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 151 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		8	0	11	2	0	0	1	0	0
1	0	26	1	0	0	9	6	7	1	0
2	5	1	0	0	1	2	1	1	0	1
3	2	1	7	1	1	1	0	0	0	6
4	1	10	27	0	0	0	1	0	1	0
5	0	0	3	2	0	7	0	0	0	0
6	0	0	0	4	0	1	0	1	6	1
7	2	3	5	8	0	0	0	0	0	8
8	1	0	0	0	0	0	2	0	0	0
9	0	1	1	1	62	44	0	0	0	0
10	0	1	0	53	4	0	0	0	0	4
11	3	0	0	0	0	0	0	1	0	0
12	0	1	0	0	1	0	0	0	0	0
13	0	0	4	0	0	0	0	0	3	0
14	0	0	0	1	2	1	1	0	1	0
15	2	0	1	48	0	1	1	0	0	1

TOTAL = 441 MEAN = 2.756

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 152 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		6	0	10	0	1	1	1	0	0
1	0	46	2	0	0	6	8	0	0	2
2	3	1	0	1	0	1	2	0	1	0
3	1	0	2	3	1	0	3	1	0	17
4	0	8	67	0	0	0	1	0	1	2
5	2	1	8	1	0	18	0	0	0	1
6	0	1	1	4	2	0	0	0	4	3
7	0	2	1	6	2	1	0	6	1	26
8	3	0	0	1	0	0	0	0	0	0
9	0	1	0	1	5	9	1	1	1	0
10	0	1	0	213	12	1	0	1	2	5
11	2	0	1	0	0	0	0	1	0	0
12	2	1	0	0	2	0	0	0	0	1
13	0	0	9	0	1	0	0	0	2	0
14	0	0	0	0	1	0	1	0	0	1
15	0	1	0	30	0	3	5	2	0	4

TOTAL = 618 MEAN = 3.863

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 153 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		5	0	1	2	0	2	0	0	0
1	0	7	0	0	0	2	0	1	1	1
2	2	2	1	0	1	1	1	2	1	1
3	0	0	1	0	1	0	1	1	1	5
4	0	1	6	1	0	0	1	0	2	0
5	0	0	0	2	2	5	0	1	0	0
6	3	0	2	1	0	1	0	0	4	0
7	2	3	8	0	0	1	0	3	1	4
9	0	0	0	5	11	16	0	0	0	0
10	0	2	2	198	2	1	1	4	0	10
11	4	0	0	0	0	0	0	0	0	0
12	1	1	0	0	2	0	0	0	0	1
13	0	0	9	0	0	1	0	0	8	0
14	1	2	0	1	20	0	279	0	92	5
15	1	30	43	0	0	0	0	0	0	0

TOTAL = 851

MEAN = 5.319

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 154 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		0	0	0	0	0	0	0	0	0
1	0	1	0	0	0	0	0	0	0	0
5	0	0	1	0	0	0	0	0	0	0
7	0	0	0	2	0	0	0	0	0	0
9	0	0	0	0	0	0	1	0	0	0
10	0	0	0	32	0	0	0	0	0	0
15	0	0	2	1	0	0	0	0	0	0

TOTAL = 40

MEAN = 0.250

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 155 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		2	0	1	0	0	0	0	0	1
1	0	7	0	0	0	0	0	2	0	1
2	1	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	1	1
4	0	0	1	0	0	0	0	0	0	0
5	0	0	3	1	1	4	0	0	0	0
6	0	0	0	2	0	0	0	0	0	0
7	0	0	0	1	0	0	1	0	0	2
8	0	0	0	0	0	0	0	1	0	0
9	0	20	0	0	2	3	0	0	0	0
10	0	0	2	132	1	0	0	0	0	0
11	1	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	1	0	0	0	0
13	0	0	0	0	0	0	1	0	0	0
14	0	0	0	0	0	0	1	0	0	0
15	0	1	6	0	0	0	0	0	0	1

TOTAL = 206

MEAN = 1.288

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 156 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		0	0	0	0	0	0	0	0	0
1	0	1	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	1
9	0	0	0	0	2	0	0	0	0	0
10	0	0	0	175	0	0	0	0	0	0
13	0	0	1	0	0	0	0	0	0	0
15	0	0	3	0	0	0	0	0	0	1

TOTAL = 184

MEAN = 1.150

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 157 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		1	0	2	0	0	0	0	0	0
1	0	0	0	0	0	1	0	0	0	0
2	0	0	0	0	0	1	0	0	0	2
3	0	0	2	0	1	0	0	0	0	0
4	0	2	5	0	0	0	0	0	0	0
5	0	0	1	0	1	0	0	0	0	1
6	0	0	1	0	1	0	0	0	0	0
7	0	1	3	0	2	0	0	1	1	0
8	3	0	0	0	0	0	0	0	0	0
9	0	0	1	0	7	7	0	0	0	0
10	0	0	0	35	29	1	0	0	0	0
11	1	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	1	0
14	0	0	0	0	0	0	0	0	1	0
15	0	0	2	0	0	0	0	0	0	0

TOTAL = 118

MEAN = 0.738

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 158 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		2	1	2	0	0	0	0	0	0
1	0	1	0	1	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	1	0
4	0	0	1	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	1
7	0	0	0	1	0	0	0	0	2	0
8	3	2	0	0	0	0	0	0	0	0
10	0	0	0	6	42	0	0	0	0	0
14	0	0	0	0	0	0	1	0	0	0

TOTAL = 67

MEAN = 0.419

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 159 TO ALL OTHER DISTRICTS TABLES NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		181	5	34	12	25	28	11	14	26
1	0	202	19	4	21	84	82	20	19	26
2	68	26	28	13	19	29	35	23	14	19
3	17	19	35	14	19	1	27	17	6	49
4	5	94	199	3	23	9	22	9	17	18
5	7	2	22	36	44	98	35	26	15	34
6	43	11	23	50	14	20	14	27	59	45
7	24	21	33	81	8	17	11	22	16	38
8	10	5	3	6	1	11	4	10	3	3
9	0	52	10	22	23	33	3	13	3	1
10	8	18	9	9	148	0	1	33	22	4
11	4	17	1	0	0	0	0	0	0	0
12	2	4	0	0	104	5	1	0	0	9
13	0	55	2331	14	6	1	4	1	1517	1
14	2	1	0	1	10	0	392	0	72	2
15	0	3	3	0	0	0	0	0	0	0

TOTAL = 7617

MEAN = 47.606

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

INTERCHANGE VALUES DISTRICT 160 TO ALL OTHER DISTRICTS TABLE NUMBER 101

	0	1	2	3	4	5	6	7	8	9
0		49	16	27	28	4	2	2	2	0
1	1	7	0	1	1	2	4	0	2	0
2	9	3	7	2	3	2	7	6	5	4
3	6	2	5	9	3	8	14	1	7	64
4	9	45	201	16	49	8	47	16	15	12
5	41	11	47	69	21	24	11	8	7	6
6	2	2	7	2	3	2	3	1	1	3
7	0	1	1	11	1	15	3	29	34	104
8	34	14	17	17	3	15	12	3	7	1
9	1	3	1	1	7	3	30	9	4	1
10	1	0	0	5	270	11	7	1	2	2
11	1	3	1	0	0	0	0	0	0	0
12	2	2	0	0	15	0	0	1	0	1
13	0	16	25	1	0	0	0	1	14	0
14	0	0	0	0	0	0	6	0	2	0
15	0	0	1	0	0	0	0	0	0	2

TOTAL = 1779

MEAN = 11.119

11JUN70

PRINT FLINT TRIPS CONV. FROM 24 CH. RECORDS. SHARIF-HARTWIG

TRIP SUMMARY

-----TOTAL TRIPS-----
ALL ZONES SELECTED ZONES

TABLE 101

1100716

1100716