

Regional Travel Survey

Prepared for

Mid-America Regional Council

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Submitted
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Preface

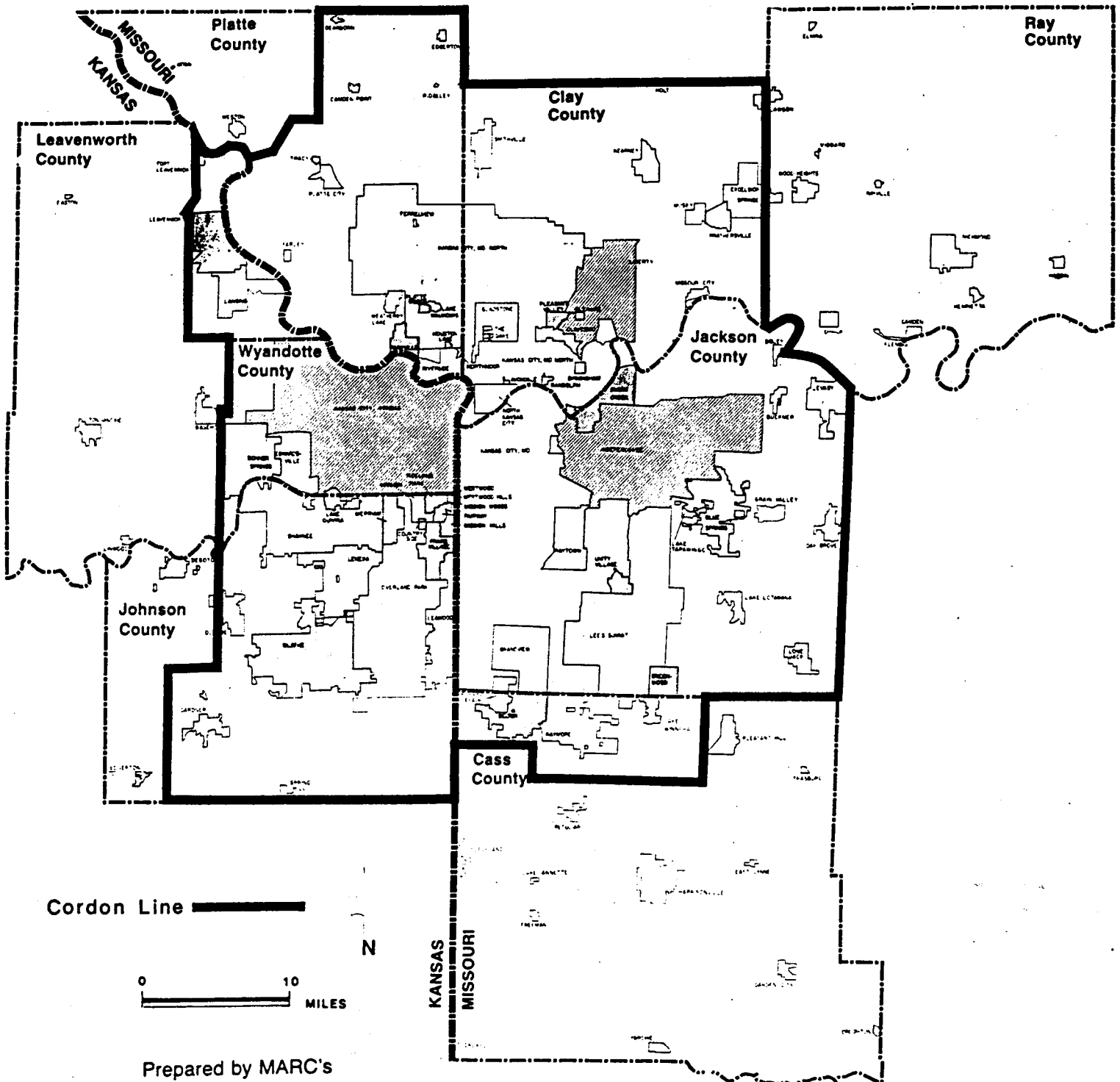
This report presents the design and implementation of Mid-America Regional Council's Regional Travel Study. This study updated household travel information last collected in 1970. The study area included Clay, Platte (except for a small section), Jackson, Johnson (except for a small section), and Wyandotte Counties together with sections of Cass and Leavenworth Counties. The information will help plan for new and improved roads and transportation services for the Metropolitan Kansas City area.

The results are based on data collected from 3,397 persons in 1,221 households during Fall 1991 for metropolitan Kansas City. Persons participating were ages 1 and older together with visitors in the homes during the assigned travel days. These households represent a 95% response rate based on the 1,287 households which originally had agreed to participate in the study. The data collection began September 24, 1991 and concluded November 21, 1991.

The study was the responsibility of Mid-America Regional Council under the direction of Fred Schwartz and Steve Noble. The survey was implemented by ETC Institute under the direction of Elaine L. Tatham.

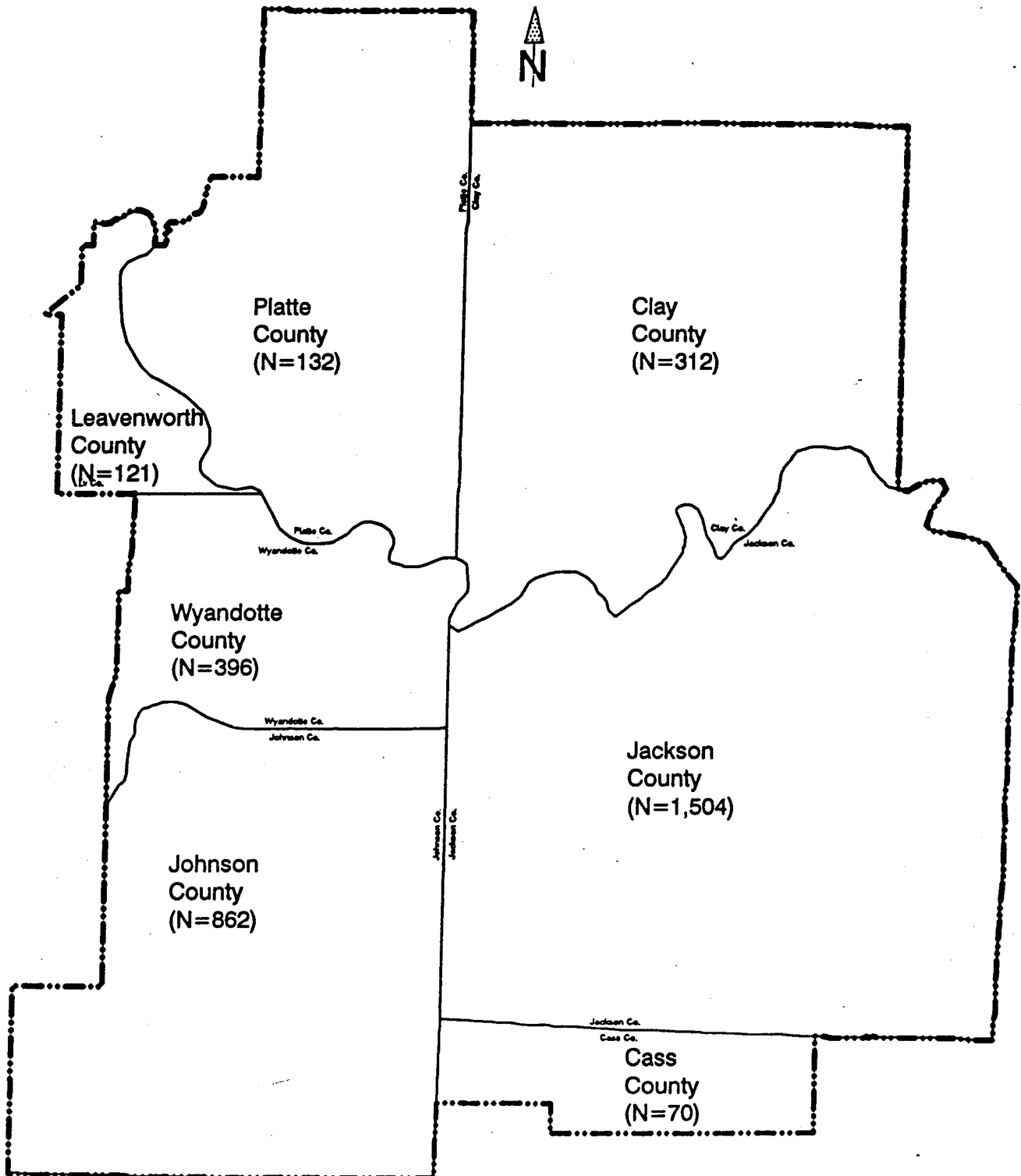
Selected survey results are also included in this report.

KANSAS CITY METROPOLITAN AREA



Study Area Was Within the Cordon Line (shown in bold outline).

Transportation Study Area Sample Distribution Number of Persons in Study



Total Study Participants = 3,397 persons

**Summary Sent to
390 Participants
Requesting
Summary Results**



Mid-America Regional Travel Study

MID-AMERICA REGIONAL COUNCIL

Executive Summary

The Mid-America Regional Council's Regional Travel Study updated household travel information last collected in 1970. The study area included Clay County, Platte County (except for a small section), Jackson County, Johnson (KS) County (except for a small section), and Wyandotte County together with sections of Cass and Leavenworth Counties. The information will help plan for new and improved roads and transportation services for the Metropolitan Kansas City area.

The results are based on data collected from 3,397 persons in 1,221 households during Fall 1991 for metropolitan Kansas City. The travel days monitored in the study were Tuesday, Wednesday, and Thursday from September 24 to November 21, 1991. Persons participating were ages 1 and older together with visitors in the homes during the assigned travel days. These households represent a 95% response rate based on the 1,287 households which originally had agreed to participate in the study.

Some summary demographics include the following:

- The average household size for the study was 2.8 persons [excluding visitors]. The number of persons per household was 16% with 1 person, 35% with 2 persons, 20% with 3 persons, 18% with 4 persons, and 11% with at least 5 persons.
- The age distribution was: 17% ages 1 to 9, 14% ages 10 to 19, 14% ages 20 to 29, 18% ages 30 to 39, 14% ages 40 to 49, 10% ages 50 to 59, 8% ages 60 to 69, and 5% ages 70 and older.
- The household income distribution was 36% under \$25,000, 30% between \$25,000 and \$40,000, and 34% with incomes at least \$40,000.
- For persons ages 18 to 64, 77% were employed. For persons ages 65 or older, 11% were employed either full-time or part-time.
- About two-thirds of the sample were licensed drivers. For persons at least age 16, 93% were licensed drivers. Two-thirds (69%) of the households had at least two automobiles. The remaining 31% either had one vehicle (27%) or none (4%).

Table of Contents

Project Purpose	1
Geographic Area	1
Sample Size Determination	1
Criteria to Monitor Sample	1
Geographic Area - By Household Income	4
Geographic Area - By Household Size	6
Population and Household Comparisons to 1990 Federal Census Data	7
Sampling and Non-Sampling Errors	10
Survey Methodology	10
Training Interviewers	11
Pretest	11
Sample Development and Participant Recruitment	11
Recruitment Calls	14
Mailing Package	15
Reminder Phone Calls	16
Collection of Travel Diary Information	16
Verify and Process Survey Responses	17
Data Base Files	18
Unexpected Events	23

Mid-America Regional Travel Study

Project Purpose

Mid-America Regional Council, the designated Metropolitan Planning Organization for the Kansas City Metropolitan Area, performed a Small Sample Travel Survey for the Kansas City region to collect data to update the MARC travel demand models.

The results of the travel survey will be compared to and combined with information from the 1990 Census and one earlier study of employee travel behavior in the College Boulevard employment center.

Geographic Area

The counties included in this study were Cass, Clay, Jackson and Platte Counties in Missouri together with Johnson, Leavenworth, and Wyandotte Counties in Kansas with the following major limitations:

- The portion of Leavenworth County in the study was the southeast area consisting of the cities of Lansing and Leavenworth.
- The portion of Cass County in the study was primarily the northwestern area. Cities like Harrisonville were excluded from the study.
- In Johnson County, the area southwest of Gardner and the DeSoto area were not included in the study area.
- In Platte County, the northwest corner including Weston and Iatan were not included.

Sample Size Determination

A sample size of 1,029 households was recommended for the study in order to stay within cost constraints, while obtaining a sample large enough for modeling. The obtained sample was 1,221 households. There was a dedicated effort to make sure that low income households were adequately represented in the sample. Households with incomes under \$17,000 typically required more effort to recruit and to encourage diary completion.

Criteria to Monitor Sample

The sample was to represent the area with respect to geographic distribution, income distribution, and household size. At the time the sample goal was developed, there were no 1990 Federal census data to provide distributions of income by household size; therefore, estimates had to be developed.

**Distribution of Surveyed Households
Includes Visitors**

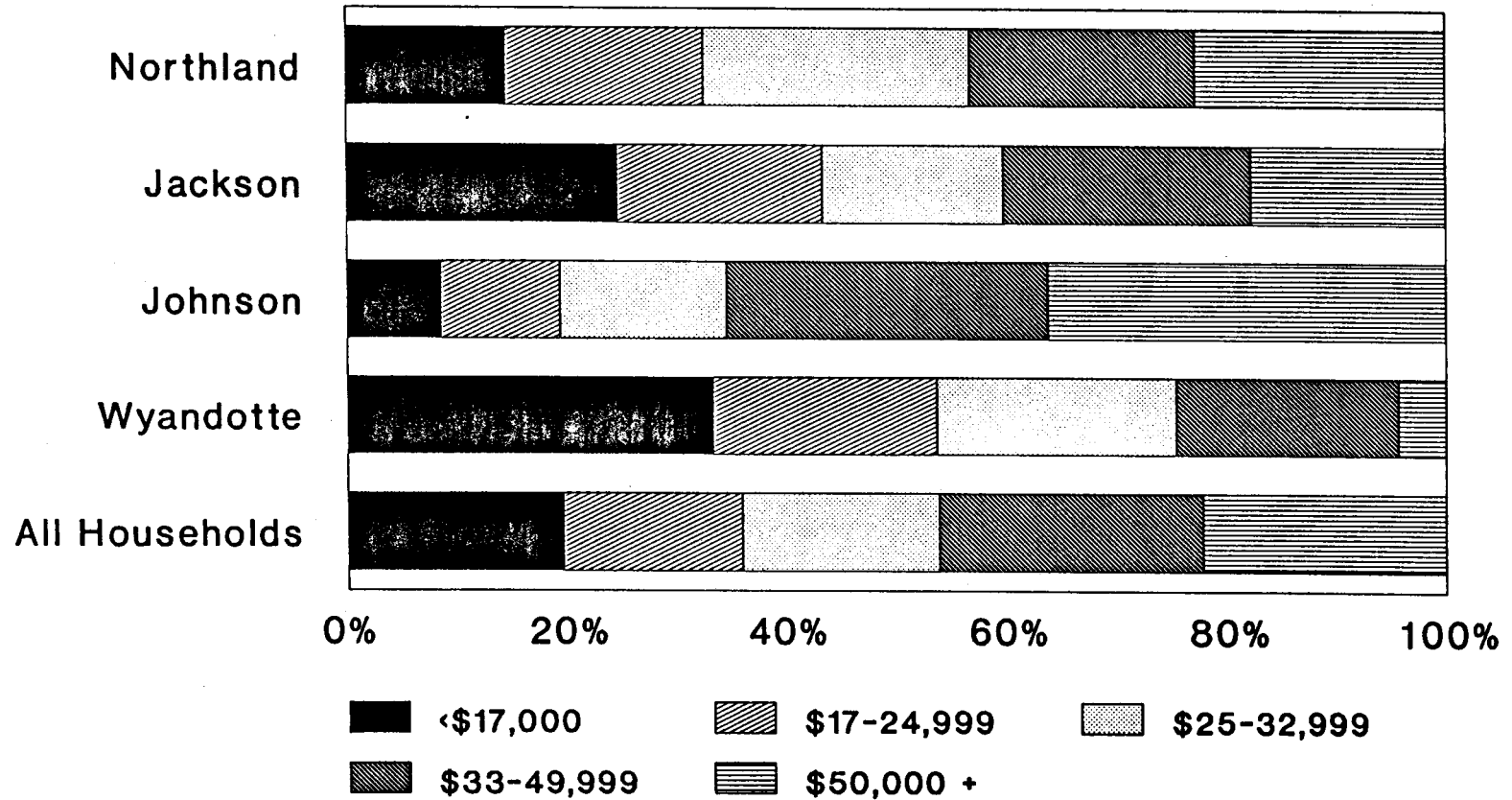
<u>Household Income</u>	<u>Household Size</u>						<u>Total</u>
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6+</u>	
Under \$17,000	83	72	35	20	19	10	239
\$17,000-\$24,000	39	76	39	29	11	6	200
\$25,000-\$32,000	40	68	43	41	12	13	217
\$33,000-\$39,000	6	49	39	38	12	3	147
\$40,000-\$49,000	12	50	34	30	10	9	145
\$50,000-\$59,000	1	43	18	27	11	5	105
\$60,000-\$74,000	2	30	17	24	6	2	81
\$75,000 +	<u>4</u>	<u>37</u>	<u>22</u>	<u>9</u>	<u>13</u>	<u>2</u>	<u>87</u>
Total	187	425	247	218	94	50	1,221

**Distribution of Surveyed Households
Excludes Visitors**

<u>Household Income</u>	<u>Household Size</u>						<u>Total</u>
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6+</u>	
Under \$17,000	84	72	34	22	17	10	239
\$17,000-\$24,000	41	77	40	26	11	5	200
\$25,000-\$32,000	40	68	45	40	11	13	217
\$33,000-\$39,000	6	51	37	38	12	3	147
\$40,000-\$49,000	12	50	35	30	10	8	145
\$50,000-\$59,000	1	44	17	28	10	5	105
\$60,000-\$74,000	2	30	18	23	6	2	81
\$75,000 +	<u>4</u>	<u>37</u>	<u>22</u>	<u>9</u>	<u>13</u>	<u>2</u>	<u>87</u>
Total	190	429	248	216	90	48	1,221

Household Income

By Major Geographic Areas



Population and Household Comparisons to 1990 Federal Census Data

Although income by household size data are not available, the population data and household sample data can be compared by county to the 1990 Federal Census Data. The sample distribution data (with respect to geographic population and households) are almost the same as the Federal distribution data by county. The table below presents the distributions based on households. The table on the next page presents the distributions both based on population and on households.

County Household Distributions For Sample Compared to Census

<u>County *</u>	<u>Sample</u> <u>%</u>	<u>Census</u> <u>%</u>
Cass	2	2
Clay	10	11
Jackson	44	46
Platte	4	4
Johnson	26	24
Leavenworth	3	2
Wyandotte	11	11

* Or part in sample. See next page for definition.

Household and Population Data For Sample By County

<u>County</u>	<u>Households</u>		<u>Persons *</u>		<u>Average Persons</u>
	<u>Number</u>	<u>%</u>	<u>Number</u>	<u>%</u>	
Cass (a)	23	2%	71	2%	3.1
Clay	118	10%	316	9%	2.7
Jackson	541	44%	1,517	44%	2.8
Platte (b)	48	4%	132	4%	2.8
Johnson (c)	315	26%	866	25%	2.7
Leavenworth (d)	38	3%	122	4%	3.2
Wyandotte	<u>138</u>	11%	<u>396</u>	11%	<u>2.9</u>
Total	1,221		3,420		2.8

* Excluding visitors and including children under age 1.

1990 Federal Census Household and Population Data For Sample Area

<u>County</u>	<u>Households</u>		<u>Population</u>	
	<u>Number</u>	<u>%</u>	<u>Number</u>	<u>%*</u>
Cass (a)	8,850	2%	24,923	2%
Clay	58,915	11%	153,411	11%
Jackson	252,582	46%	633,232	44%
Platte (b)	21,502	4%	56,339	4%
Johnson (c)	134,202	24%	348,786	24%
Leavenworth (d)	13,333	2%	45,615	3%
Wyandotte	<u>61,514</u>	11%	<u>161,993</u>	11%
Total	550,898		1,424,299	

* Adds to only 99% due to rounding.

(a) Belton, Lake Winnebago, Lee's Summit, Raymore.

(b) Platte total minus Weston and Iatan

(c) Johnson total minus Edgerton, DeSoto, McCamish Township and Lexington Township.

(d) Lansing and City of Leavenworth.

Training Interviewers

ETC Institute used a cadre of well-qualified interviewers for this project. Most interviewers have several years of experience working for the company. Some of them are retired persons from business and government, while others are well-educated women wanting flexible work schedules.

The interviewers were specifically briefed for this project. That session was followed by a role-playing session prior to actual project initiation. After each interviewer obtained one qualified participant, the group reconvened to discuss unusual situations and decide on uniform procedures to handle those unusual situations.

Pretest

The pretest was conducted September 24, 1991 to September 26, 1991. Thirty households were recruited to participate in the study. They were selected using a diverse geographic distribution and represented five counties.

The response rate was 100% for these 30 households. A review of the completed diaries indicated that no changes were needed in the diaries and that the printed materials used in the pretest could be used throughout the entire study. The one change in the printed materials was to add the phrase "If someone stays home all day, mark card 'stayed home all day' and return" to the Reminder sheet.

Sample Development and Participant Recruitment

The assumption was made that the residential unlisted telephone numbers were distributed similar to the residential listed telephone numbers. Using a random number generator, 50 columns in the Metropolitan Kansas City phone book were selected at random. The prefixes (e.g., 888, 341) for all listed telephone numbers in that column were entered into a statistical data base. A total of 3,957 prefixes were entered into the data base.

A call was placed to Southwestern Bell to ensure that the prefixes identified included all residential exchanges within the defined area and to eliminate prefixes outside the defined area or devoted specifically to mobile phones or governmental agencies. The pool of usable prefixes was reduced to 3,736.

Some prefixes in the defined geographic area were not listed in the metropolitan Kansas City telephone directory (e.g., Leavenworth County, portion of Johnson County). A share of the total sample was determined for these geographic areas. In those areas, there were only a limited number of exchanges. Based on available data, estimates for the sample from those geographic areas were developed.

The 5% who did not complete their diaries were classified as follows:

- * Refusals (3%) by persons who became concerned about providing the information**
- * Disconnected (1%) and household either could not be reminded to complete the diaries or could not be contacted to remind them to mail them.**
- * Lost (1%) for a variety of reasons including never arrived at destination. In one case, three packages were mailed to the household and none were acknowledged as being received.**

Mailing Package [See Appendix A for samples.]

For each household agreeing to participate in the study, a mailing package was prepared which consisted of the following items:

- Letter explaining the purpose for the study
- Direction sheet
- One diary per household member
- One diary for each expected visitor
- Two extra diaries
- Stamped envelope to use to return the diaries
- Reminder sheet which included in large type the day and date for that household's travel day
- now deleted* -- One pen per household member (and visitor) with the following phrase "My Travel Counted - Regional Travel Study Participant"
- Two dollars; 1 dollar for 1 person households. [Up to two extra dollars were given to larger households or households with all adults. For example, a household with three single adults was sent \$3 so that each person would receive a dollar. In addition, there was the recognition that a large household with 4 or 5 children required the parent(s) to make sure that the diaries were completed for these children.]

Each morning (Monday through Friday) the household information was entered into the computer data base for all households agreeing to participate in the study. After those data were verified, computer generated mailing labels were produced. The mailing labels were ordered especially for this study and showed the return address as: Regional Travel Study together with MARC's address.

Mailing packages were typically mailed the day after the household was recruited. This typically was seven days prior to the actual assigned travel day.

Verify and Process Survey Responses

All questionnaires were carefully edited upon receipt for completeness and consistency. The following summarize some of the major checks for each household's diaries:

- **Diaries were received from each member of the household.** In some cases, the members of the household changed between the time of the recruitment and the assigned travel day. This type of situation occurred in households with multiple living arrangements (both related and unrelated).
- **Sequencing of trips was feasible.** For example, it was possible to drive the distance in the time shown and the household member wrote them in the sequenced order. In some cases, persons wrote down trips and then apparently remembered another activity which they included on the diary, but out of order. In other cases, one member of the household may have shown a trip in which he/she was the driver with two persons in the vehicle. A second member of the household might then show a trip home, but the diaries would appear to have a gap. The reason for the gap could be that the second member of the household forgot to include that trip.
- **Consistency of trips for household members going on same trip.** For example, members of the same household going together on a trip should have the same times and should have only one driver. In some cases, there were multiple drivers (either because a member of the household went with a person not in the household or else two persons drove).
- **Persons who worked needed to show a return home unless a call identified a reason.**
- **Persons who left the home in the evening to visit a friend needed to show a return home unless a call identified a reason.** This did happen (e.g., person went to visit friend at college and spent the evening).

Telephone calls were placed to households when there appeared to be either incomplete or inconsistent data.

Trip purposes were classified as follows:

- (0) Go/return home
- (1) Go/return to work
- (2) Shopping
- (3) School [travel by a student was a school trip; travel by a teacher or other employee counted as a work trip]
- (4) Eat/get food
- (5) Job related
- (6) Change mode (e.g, auto to bus)
- (7) Pick up/drop off passenger
- (8) Volunteer/community service
- (9) Personal (e.g., shop, doctor, bank) [Other types of personal trips included visiting friend, church, youth activities]
- (A) Change jobs

Modes of travel were:

- (0) Driver (auto/van/pickup, motorcycle)
- (1) Passenger (auto/van/pickup/motorcycle)
- (2) Public Bus
- (3) Taxi/special services
- (4) School Bus
- (5) Heavy truck
- (6) Walk/bike
- (7) Other (e.g, Semi-trailer, United States Postal Service Jeep)

In addition to checking respondent completeness and consistency of answers, a second quality control measure was the data entry. The computer was "programmed" at the time of initial data entry to "beep" for "illegal" keystrokes and the machine "locked" and kept the data entry person from advancing to the next field until a valid data entry was made. Examples of valid data entry requirements include:

- Household size had to be under 10; a household with 10 or more would require an "override" of the locked machine. [The one household identified for recruitment with more than 9 persons did not want to participate.]
- Number of visitors had to be less than 10
- Income code had to be in range 1 to 8
- Travel day had to be a T(uesday), W(ednesday), or R(Thursday)
- Gender had to be either a 1 (male) or 2(female)
- Employment code had to be in the range 1 to 7
- Licensed driver code had to be either a 1 or 2
- Household relationship status (e.g., head of household, spouse, child) had to be in the range 1 to 5
- Purpose of trip had to be in range 0 to 9 or an A
- Mode of travel had to be in range 1 to 7
- Kind of place had to be in range 0 to 9 or A to F

In addition, each computer data base underwent the following checks:

- (1) Computer logic consistency checks were made to ensure that the three data bases were consistent. Examples include the following:
 - ** Each person had to have a trip 0 in the diary file (the starting location)
 - ** The total number of vehicle trips for a household in the travel file should equal the total number of vehicle trips in the diary file.
 - ** Similarly, the number of persons in the membership file should equal the number of members in the diary file and in the travel file.

Unexpected Events

After the project was well underway, MARC received a call from the Kansas Department of Transportation concerning the possibility that someone was attempting to secure information from householders by posing as a representative collecting travel information. A press release was developed and released on October 17, 1991. The purpose was twofold: (1) inform the public about the MARC study and (2) alert the public that caution was advisable if persons asked specific questions about daily activities only by telephone without a mailing package.

Fortunately, the project did not appear to have been impacted by this event. There were persons who were suspicious about the project, and a few persons did call MARC. In one case, a woman had agreed to have her household participate in the study; her husband refused to let the household participate for fear of releasing information which might make them vulnerable to robbery. A few others changed their minds between the time of recruitment and the time they received their diaries; this was approximately 3% of those originally recruited.

In addition, there was a snow/ice storm in early November which discouraged several households from participating on their assigned days. Those persons were reassigned to another day. Some persons, however, may also have done more limited travel on that specific day.

Geographic Distribution (Counts, not Percentage)

<u>Location</u>	<u>Count</u>
State of Missouri	<u>730</u>
Cass County (64012, 64083)	23
Clay County	
Kansas City, MO (64116, 64117, 64118, 64119, 64155, 64158)	89
Balance (64024, 64060, 64068, 64089)	29
Jackson County	
North of 31st Street (64105, 64106, 64108, 64123, 64124, 64125, 64126, 64127)	42
31st Street to 63rd Street (64109, 64110, 64111, 64112, 64113, 64128, 64129, 64130)	117
South of 63rd Street (64114, 64131, 64132, 64133, 64134, 64137, 64138, 64139, 64141, 64145, 64149)	152
Independence (64050, 64051, 64052, 64053, 64054, 64055, 64056, 64057, 64058)	111
Lee's Summit (64063, 64064, 64081, 64082)	52
Blue Springs (64014, 64015)	38
Balance (64029, 64030, 64034)	29
Platte County	
Kansas City, MO (64150, 64151, 64152, 64153, 64154, 64163, 64164)	43
Balance (64018, 64079, 64444)	5

Household Size

The average household size for the study was 2.8 persons [excluding visitors]. The table below shows the household sizes. The data are presented in three formats:

- Total number of household members
- Total members at least age one
- Total household members on travel day (visitors plus total members at least age one)

Households By Size (Counts, not Percentage)

<u>Household Size</u>	<u>Total Members</u>	<u>Total Ages 1+</u>	<u>Total with Visitors</u>
One	190	190	187
Two	429	443	425
Three	248	249	247
Four	216	213	218
Five	90	83	94
Six or more	48	43	50
Total	1,221	1,221	1,221

Households By Size (Percentage)

<u>Household Size</u>	<u>Total Members %</u>	<u>Total Ages 1+ %</u>	<u>Total with Visitors %</u>
One	15.6	15.6	15.3
Two	35.1	36.3	34.8
Three	20.3	20.4	20.2
Four	17.7	17.4	17.9
Five	7.4	6.8	7.7
Six or more	3.9	3.5	4.1

Household Age Structure [excludes children under age 1]

All household members at least age one participated in the study. The table below shows the distribution of the household members who were at least age one and including visitors. Counting children under age 1, there were 3,420 people in the households (excluding visitors). With visitors, there were 3,450 persons in the household. A graph on page 30 shows that the obtained distribution is similar to the actual Federal census distribution; Cass and Leavenworth were not used in the Federal census data because only portions of those counties were included in the study. Persons who are at least age 70 probably are less mobile; in addition, some of these persons may be in nursing homes.

Age Groups By Sex (Includes Visitors) (Excludes Children Under Age 1)

<u>Age Groups</u>	<u>Male</u> <u>%</u>	<u>Female</u> <u>%</u>	<u>Total</u> <u>%</u>
1-4	8.1	6.6	7.4
5-9	10.5	8.0	9.2
10-14	8.3	7.4	7.8
15-19	7.5	5.1	6.3
20-24	5.2	6.1	5.6
25-29	8.2	9.3	8.8
30-34	8.8	9.8	9.3
35-39	8.6	9.8	9.2
40-44	7.5	8.6	8.1
45-49	5.3	6.5	5.9
50-54	5.0	5.2	5.1
55-59	4.9	4.3	4.6
60-64	4.2	4.0	4.1
65-69	3.1	4.0	3.5
70-74	2.9	2.6	2.7
75 +	1.9	2.8	2.4

Note: Sample size was 3,397 persons (3,367 household members at least age one plus 30 visitors).

Household Relationship

Household members were classified as:

- ** Head of household
- ** Spouse
- ** Child
- ** Other household member (e.g., cousin, grandchild, niece/nephew, son-in-law/daughter-in-law, non-relative regularly living there)
- ** Visitor

Household Relationship

<u>Relationship</u>	<u>Count</u>	<u>Percentage</u>
Head of household	1,225	36.1
Spouse/partner	818	24.1
Child	1,113	32.8
Other member	211	6.2
Visitor	<u>30</u>	0.9
Total Study Participants	3,397	

Children under age 1 Not in Study	53
Total persons in household	<u>3,450</u>

Employment/Student Status (continued)

The next table shows the complete distributions for males, females, and the total sample. The impact of preschoolers and school age children is shown with the high percentage of persons who are classified as "students" or "other."

Employment Status (All Ages)

<u>Employment Status</u>	<u>Male</u> <u>%</u>	<u>Female</u> <u>%</u>	<u>Total</u> <u>%</u>
Employed full-time (N=1,446)	47.6	37.5	42.4
Employed part-time (N=199)	3.4	8.2	5.9
Two or more jobs (N=26)	0.9	0.6	0.8
Homemaker (N=231)	0.1	13.3	6.8
Retired (N=338)	10.0	9.9	9.9
Student (N=787)	25.7	20.7	23.2
Other (N=370)	12.0	9.8	10.9

Automobile Availability

Households were asked how many vehicles were available for users of the household. This could include automobiles or light trucks. Two-thirds (69%) of the households had at least two automobiles. The remaining 31% either had one vehicle (27%) or none (4%).

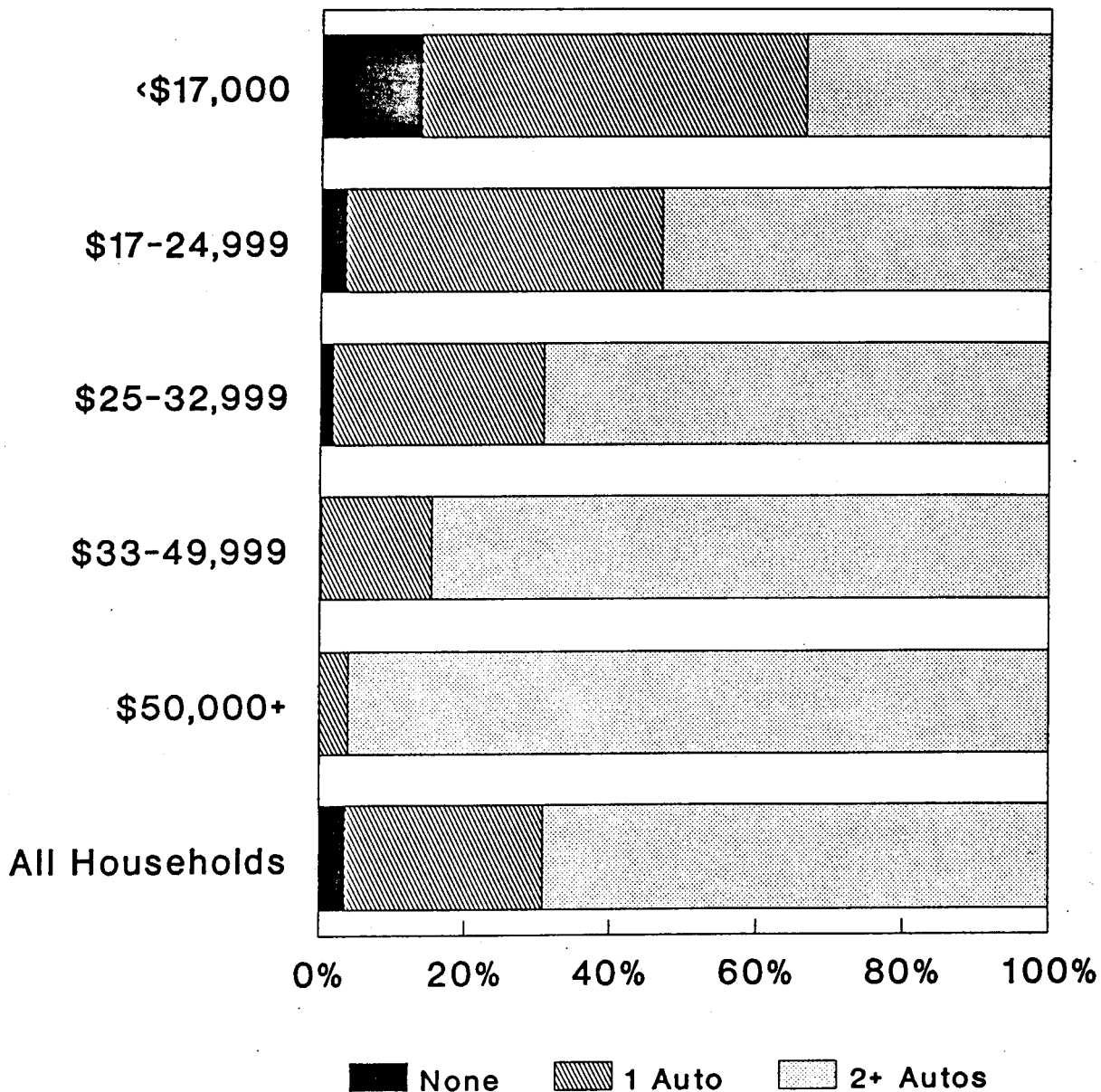
Automobile Availability by Household Size (Counts, not percentage)

<u>Household Size</u>	<u>None</u>	<u>1 Auto</u>	<u>2+ Autos</u>	<u>Total</u>
One	24	144	22	190
Two	12	93	324	429
Three	4	48	196	248
Four	2	25	189	216
Five	0	14	76	90
Six +	3	7	38	48
Total	45	331	845	1,221

Automobile Availability by Household Size (Percentages)

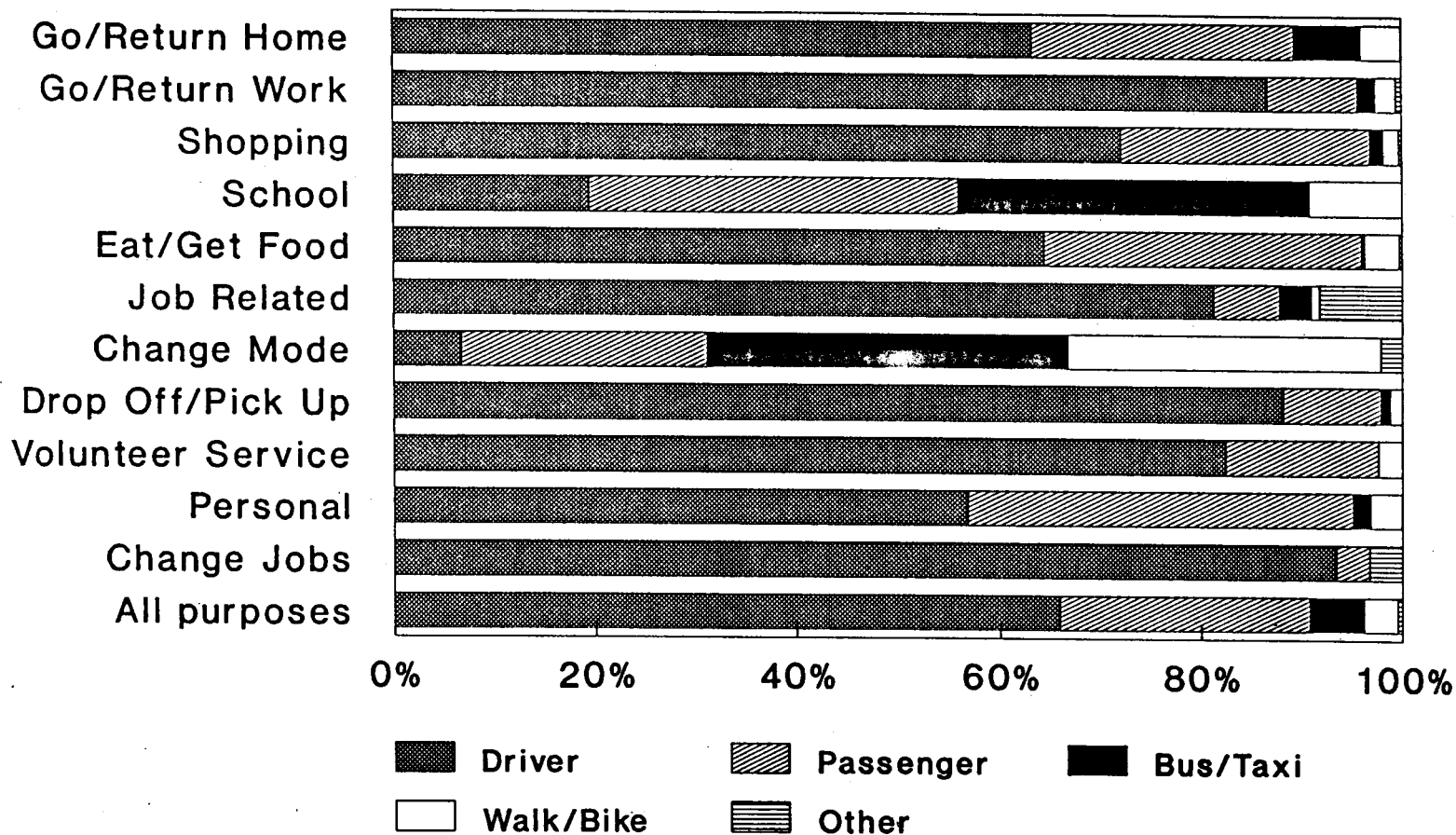
<u>Household Size</u>	<u>None</u> <u>%</u>	<u>1 Auto</u> <u>%</u>	<u>2+ Autos</u> <u>%</u>	<u>Total</u> <u>%</u>
One	12	76	12	100%
Two	3	22	75	100%
Three	2	19	79	100%
Four	1	12	87	100%
Five	0	16	84	100%
Six +	6	15	79	100%
All households	4	27	69	100%

Automobile Availability By Income Group



Purposes By Travel Mode

(Base=14,611 Trips)



Persons Making Trips Outside Homes

Each person in the household was classified as a person making a trip outside the home if that person made at least one trip outside the household. As the table below illustrates, there was a wide range in the number of persons making trips outside the homes by household size (counting persons under age 1, but excluding visitor count).

Number of Persons Making Trips Outside Homes (Counts, not percentage)

<u>Number of Persons</u>	<u>Trip Destination</u>		
	<u>Kansas</u>	<u>Missouri</u>	<u>Total</u>
Zero	11	20	31
One	99	157	256
Two	175	246	421
Three	95	136	231
Four	73	113	186
Five	26	41	67
Six +	12	17	29
Total	491	730	1,221

Number of Persons Making Trips Outside Homes (Percentages)

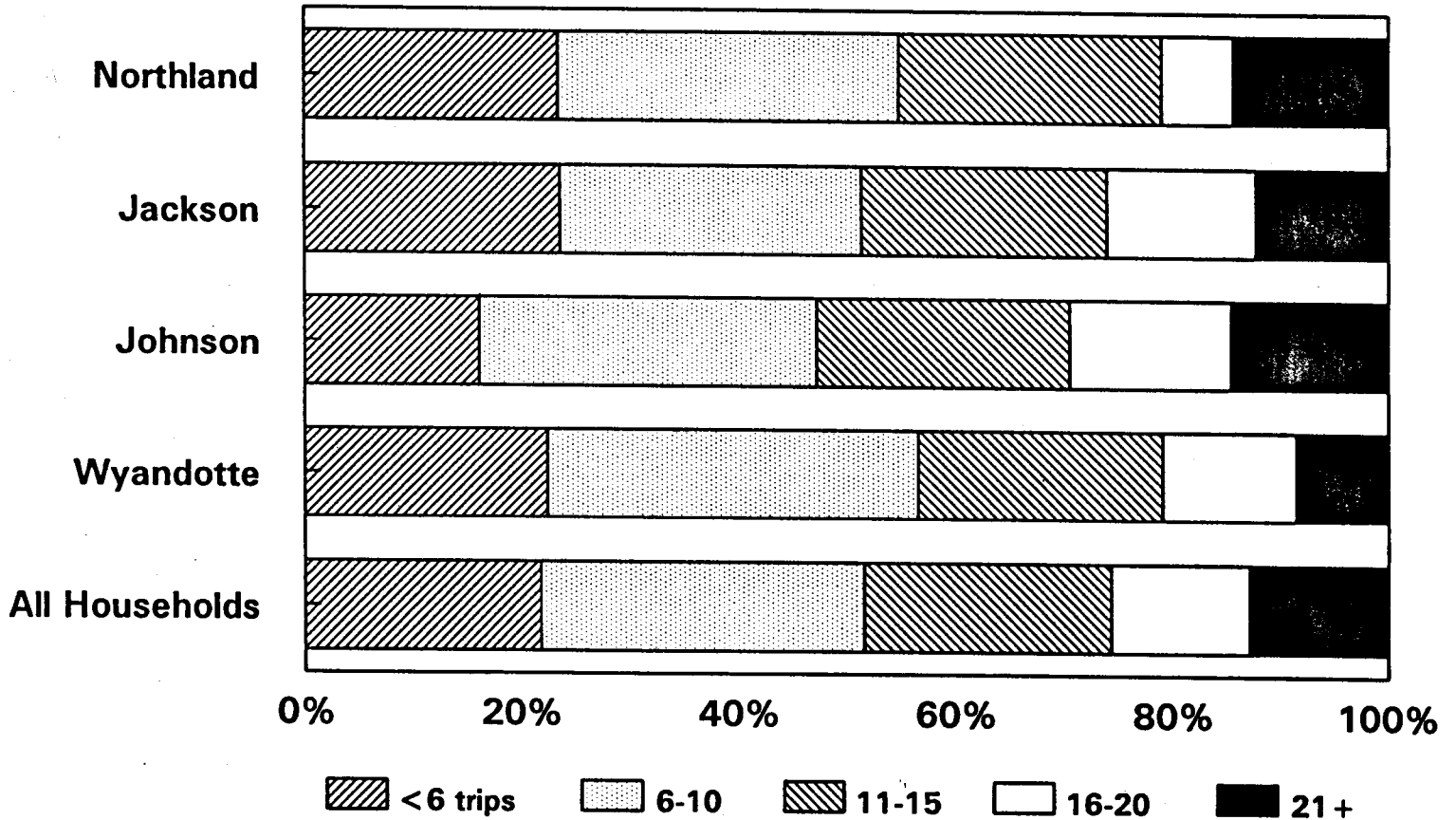
<u>Number of Persons</u>	<u>Trip Destination</u>		
	<u>Kansas</u>	<u>Missouri</u>	<u>Total</u>
	<u>%</u>	<u>%</u>	<u>%</u>
Zero	2.2	2.7	2.5
One	20.2	21.5	21.0
Two	35.6	33.7	34.5
Three	19.3	18.6	18.9
Four	14.9	15.5	15.2
Five	5.3	5.6	5.5
Six +	<u>2.4</u>	<u>2.3</u>	<u>2.4</u>
	100%	100%	100%
Mean (Average)	2.5	2.5	2.5

Number of [REDACTED]
(Percentages)

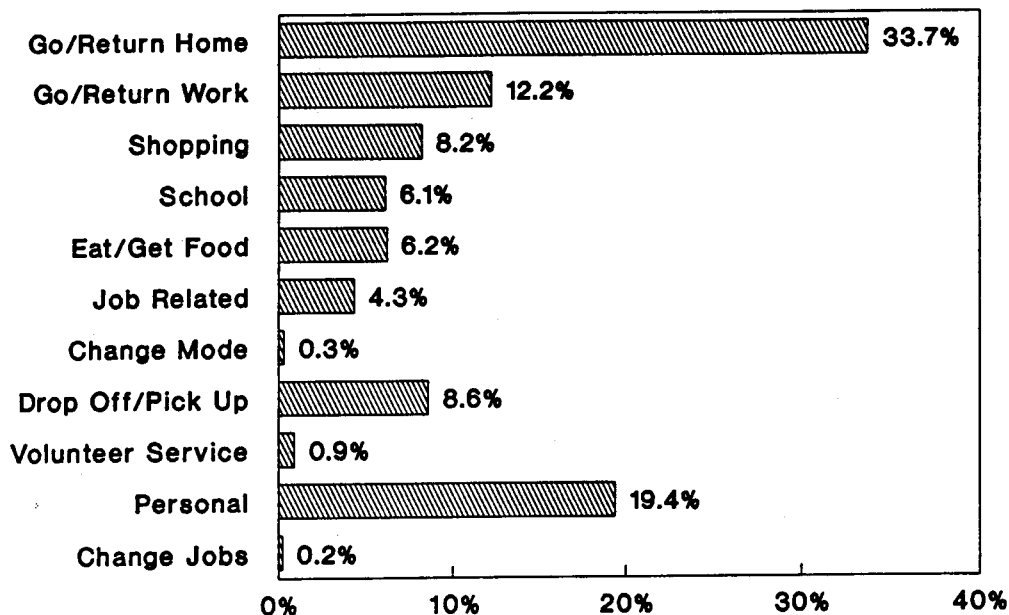
<u>Trips</u>	<u>Residence</u>		<u>Total</u>
	<u>Kansas</u>	<u>Missouri</u>	
	<u>%</u>	<u>%</u>	<u>%</u>
Zero	2.0	2.6	2.4
One	0.0	0.1	0.1
Two	2.6	5.1	4.1
Three	1.6	2.9	2.4
Four	7.3	7.7	7.5
Five	4.1	4.9	4.6
Six	7.5	7.3	7.4
Seven	3.5	2.9	3.1
Eight	8.6	7.0	7.6
Nine	5.1	4.8	4.9
Ten	6.7	6.8	6.8
11-15	22.0	23.0	22.6
16-20	15.7	11.8	13.3
21-25	6.7	6.3	6.5
26 +	6.5	6.8	6.7
Mean (Average) Per household	12.3	11.7	[REDACTED]
Average for Passenger Vehicle Only	11.8	11.0	11.3

Note: If two persons from the same household make a trip together, that counts as two trips in this table.

Person Trips Per Household By Major Geographic Areas



Trip Purposes (All 14,611 individual trips included)



The table below shows the average trips per household for each of the 11 specific purposes.

Average Trips Per Household

Purpose of Trip	Trip Destination		
	Kansas	Missouri	Total
Go/return home	4.2	3.9	4.0
Go/return to work	1.4	1.5	1.5
Shopping	1.0	0.9	1.0
School	0.7	0.8	0.7
Eat/get food	0.7	0.8	0.7
Job related	0.5	0.5	0.5
Change Mode (e.g., auto to bus)	<0.1	<0.1	<0.1
Pick up/drop off passenger	1.1	1.0	1.0
Volunteer/community service	0.1	0.1	0.1
Personal (e.g., shop, doctor, bank)	2.3	2.3	2.3
Change jobs	<0.1	<0.1	<0.1

Kind of Place (Percentages)

<u>Kind of Place</u>	<u>Kansas</u> %	<u>Missouri</u> %	<u>Total*</u> %
Residence	44.9	41.9	43.1
Office (Not Government), Doctors, Lawyers, Veterinary	7.6	8.5	8.1
Retail, (Movies, Bowling), Auto Dealer, Groceries, Shops, Diet Center	16.3	16.3	16.3
School, Day Care, Dance Studio, Lessons, Special Schools	12.6	12.6	12.6
Restaurant and Bars	4.8	6.3	5.6
Country Club, Worlds of Fun, Golf Course, Race Track, Gym, Tennis Club, Bingo Parlor	1.3	1.1	1.2
Hospital, Nursing Home, Bank, Church, Art Gallery, Historic sights, (Public Access), Library, Motel, Hotel, Museum, Funeral Home, Cemeteries, Zoo	6.5	6.9	6.7
Warehouses, Terminals, Grain Elevators, Sand Yard, Caves	1.1	0.7	0.9
Government, Prisons	2.6	2.3	2.5
Factory, Manufacture, Printers	1.1	1.5	1.4
Park (picnic, take kids to park), Ball Fields, Farm, Pasture, Stable, Dump or Recycle Center	0.6	0.6	0.6
Parking Lot or Bus Stop, Pay Phone	0.2	0.5	0.4
Construction site (Commercial, Industrial)	0.2	0.3	0.2
Airport	0.1	0.4	0.3
Industrial (Power plants)	0.1	0.1	0.1
Hunting & Fishing	0	<0.1	<0.1

*Includes trips outside Kansas and Missouri

Starting Time by Trip Purpose
(Counts, not Percentages)
(Continued)

<u>Time</u>	<u>Change Mode</u> (e.g., auto to bus)	<u>Pick up/ drop off passenger</u>	<u>Volunteer/ Community service</u>	<u>Personal</u> (e.g., shop, doctor, bank)	<u>Change Jobs</u>	<u>Total</u>
12:00-05:59A	1	17	3	16	1	236
06:00A	6	71	0	40	0	523
07:00A	6	175	4	115	0	1,243
08:00A	9	120	15	146	0	1,003
09:00A	0	49	15	174	0	595
10:00A	0	30	16	183	3	634
11:00A	2	49	7	167	1	847
12:00P	6	62	6	170	0	1,000
01:00P	0	40	6	209	1	788
02:00P	2	66	7	214	3	912
03:00P	4	173	4	272	3	1,418
04:00P	4	136	4	256	5	1,286
05:00P	2	104	6	275	10	1,305
06:00P	0	62	18	292	2	1,013
07:00P	1	39	12	175	1	683
08:00P	0	20	2	78	0	494
09:00-11:59P	<u>2</u>	<u>39</u>	<u>0</u>	<u>52</u>	<u>0</u>	<u>630</u>
Total	45	1,252	125	2,834	30	14,610*

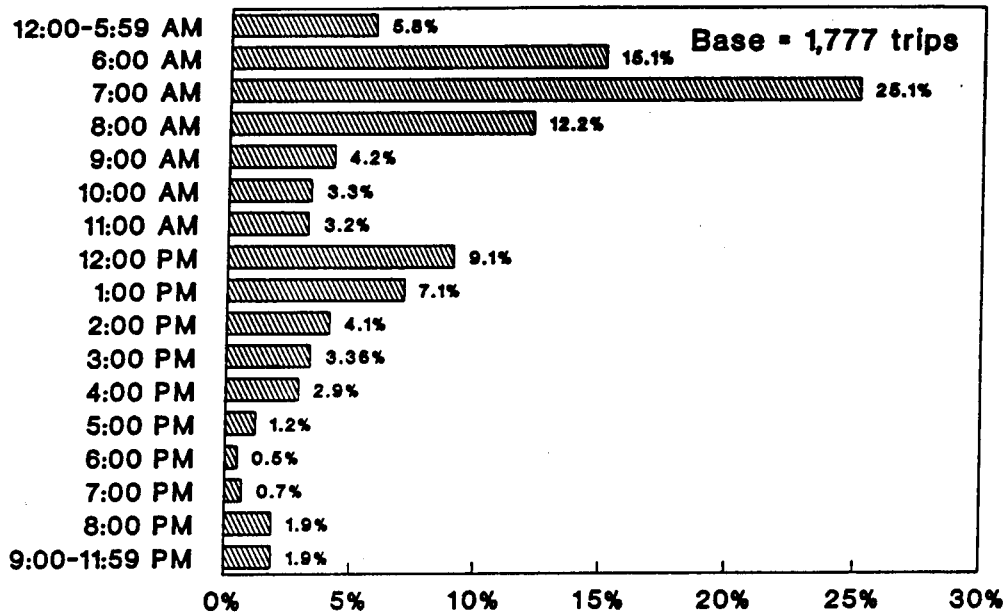
* One trip out of State did not include a start-time for return home.

Starting Time by Trip Purpose
(Percentages; Continued)

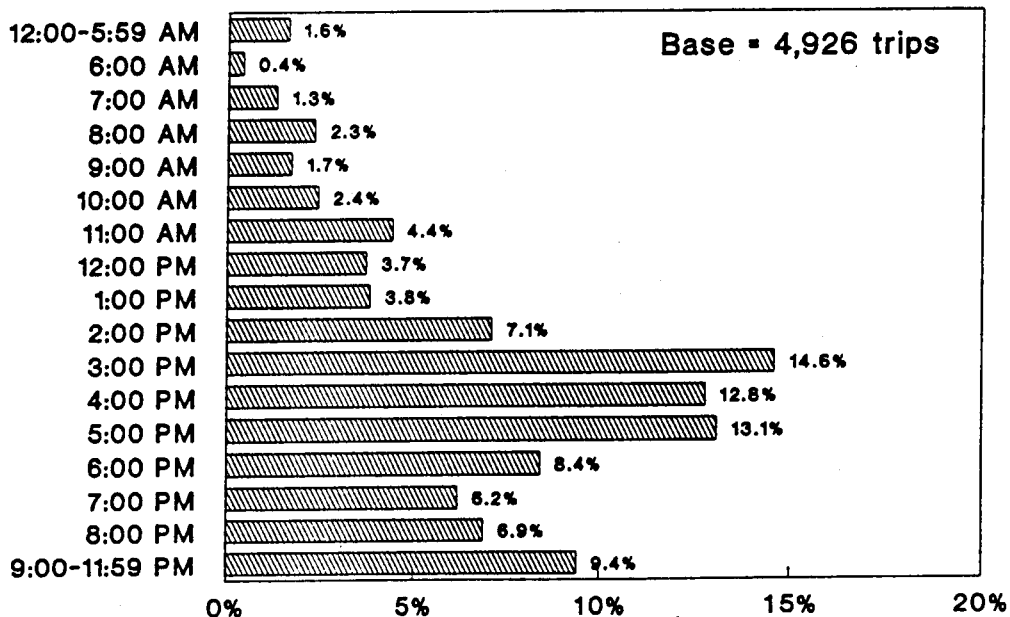
<u>Time</u>	<u>Change Mode</u> (e.g., auto to bus) <u>%</u>	<u>Pick up/ drop off passenger</u> <u>%</u>	<u>Volunteer/ Community service</u> <u>%</u>	<u>Personal</u> (e.g., shop, doctor, bank) <u>%</u>	<u>Change Jobs</u> <u>%</u>	<u>Total</u> <u>%</u>
12:00-05:59A	2.2	1.4	2.4	0.6	3.3	1.6
06:00A	13.3	5.7	0.0	1.4	0.0	3.6
07:00A	13.3	14.0	3.2	4.1	0.0	8.5
08:00A	20.0	9.6	12.0	5.2	0.0	6.9
09:00A	0.0	3.9	12.0	6.1	0.0	4.1
10:00A	0.0	2.4	12.8	6.5	10.0	4.3
11:00A	4.4	3.9	5.6	5.9	3.3	5.8
12:00P	13.3	5.0	4.8	6.0	0.0	6.8
01:00P	0.0	3.2	4.8	7.4	3.3	5.4
02:00P	4.4	5.3	5.6	7.6	10.0	6.2
03:00P	8.9	13.8	3.2	9.6	10.0	9.7
04:00P	8.9	10.9	3.2	9.0	16.7	8.8
05:00P	4.4	8.3	4.8	9.7	33.3	8.9
06:00P	0.0	5.0	14.4	10.3	6.7	6.9
07:00P	2.2	3.1	9.6	6.2	3.3	4.7
08:00P	0.0	1.6	1.6	2.8	0.0	3.4
09:00-11:59P	<u>4.4</u>	<u>3.1</u>	<u>0.0</u>	<u>1.8</u>	<u>0.0</u>	<u>4.3</u>
Total *	100.0	100.0	100.0	100.0	100.0	100.0

* Totals may not add to 100% due to computer rounding.

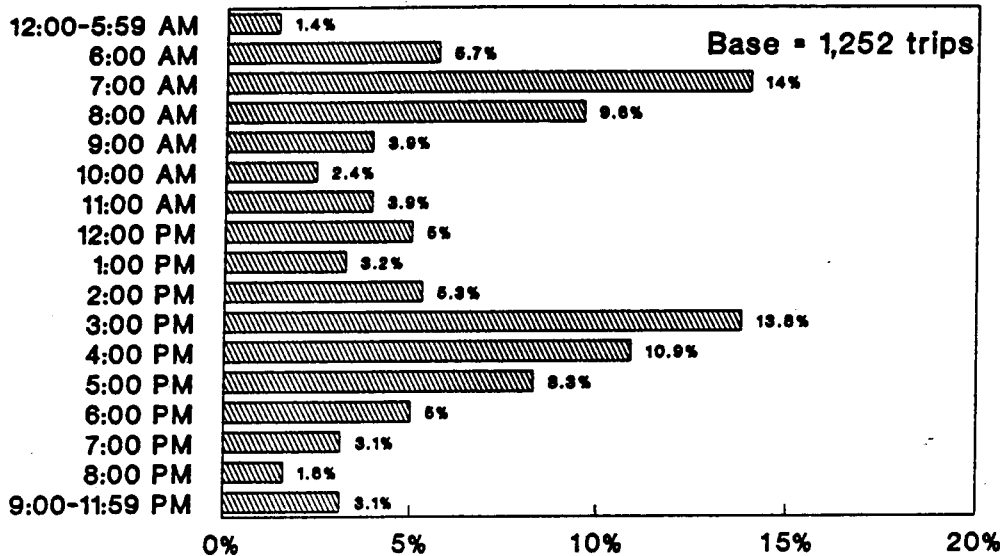
Trips To Work By Time of Day (Time Used is Start of Trip)



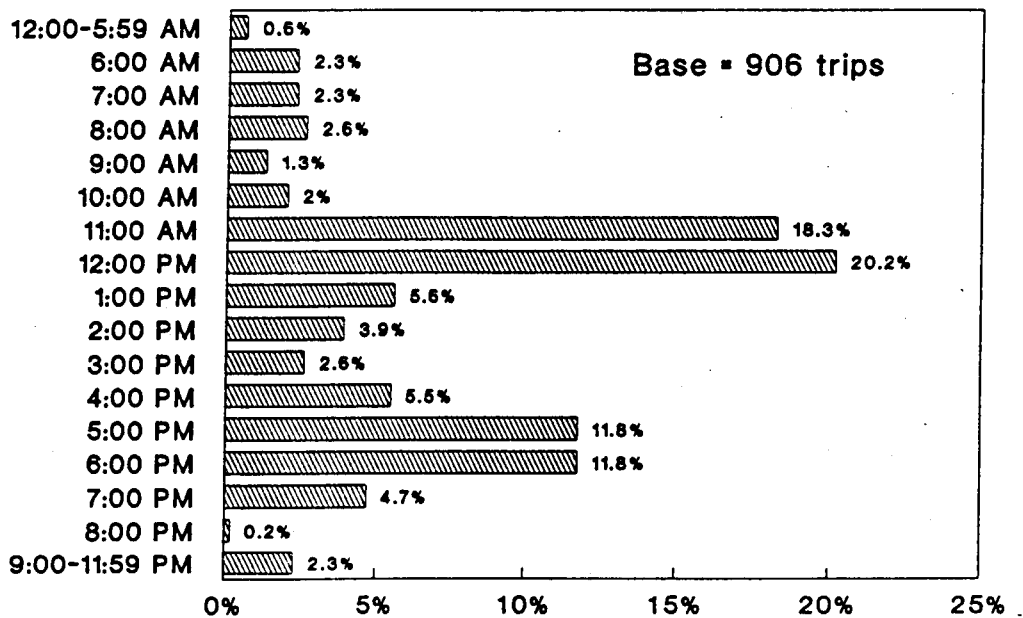
Trips To Home By Time of Day (Time Used is Start of Trip)



Trips To Drop/Pick up Passenger By Time of Day (Time Used is Start of Trip)



Eat/Get Food By Time of Day (Time Used is Start of Trip)



Appendix A

Recruitment Script

Mailing Package

- * Cover Letter
- * Reminder
- * Travel Diary
- * Directions
- * Sample Completed Diary

Reminder Script

Mid-America Regional Council
Regional Travel Survey

Travel Day: **TUESDAY**
WEDNESDAY
THURSDAY

This is _____ I am calling about a regional transportation planning study being conducted by Mid-America Regional Council. The results of this study will help plan for new and improved roads and transportation services for the Metropolitan Kansas City area. You may have heard or seen recent advertising about this important study which will update household travel information last collected in 1970.

Your household was selected at random to participate in this survey. A one-day travel diary will be sent for each member of your household who is one year old or older. The diaries will be mailed to you prior to the one-day for which you are asked to record your travel activities. Your household's participation is needed and would be appreciated.

1. Phone No: _____
[INTERVIEWER: WRITE DOWN THIS NUMBER NOW!]

2. How many people live in your household? _____

3. May I have your name and address so that the diaries can be mailed to you?

Name: _____

Street Address: _____

City: _____ State: MO KS Zip: _____

4. Visitors from outside the area are also asked to complete the diary. How many visitors are likely to be staying with you during the next week?

Number of visitors: _____

5. How many cars, pickups and vans are generally available for use by this household?

Number of vehicles: _____

6. Would you say your total 1990 household income was:

- | | | |
|------------------------------|------------------------------|-------------------------------|
| 1 Under \$17,000 | 4 \$33,000 to \$39,000 (999) | 7. \$60,000 to \$74,000 (999) |
| 2 \$17,000 to \$24,000 (999) | 5 \$40,000 to \$49,000 (999) | 8. \$75,000 or more |
| 3 \$25,000 to \$32,000 (999) | 6 \$50,000 to \$59,000 (999) | |

[IF THEY REFUSE TO GIVE INCOME, TELL THEM]

We need income to make sure that all income levels are represented in this study. Once the completed diaries are received, your household will only appear in coded format without your name or address anywhere.

INTERVIEWERS: COMPLETE INFORMATION ON NEXT PAGES FOR EACH MEMBER OF THE HOUSEHOLD.

CODERS:: BE SURE THAT THE PERSON NUMBER ON THIS FORM CORRESPONDS TO THE PERSON NUMBER ON EACH PERSON'S COMPLETED TRAVEL DIARY.

HOUSEHOLD CONTINUATION PAGE (IF NEEDED)
STAPLE TO OTHER SHEET

Person

Number 05

Head of household 1 Child 3 Visitor 5
Spouse/partner 2 Other member 4

Sex: Male 1 Age: _____ Licensed Driver? Yes 1
Female 2 No 2

Employment status: Employed full-time 1 Homemaker 4 Other 7
Employed part-time 2 Retired 5
Two or more jobs 3 Student 6

Person

Number 06

Head of household 1 Child 3 Visitor 5
Spouse/partner 2 Other member 4

Sex: Male 1 Age: _____ Licensed Driver? Yes 1
Female 2 No 2

Employment status: Employed full-time 1 Homemaker 4 Other 7
Employed part-time 2 Retired 5
Two or more jobs 3 Student 6

Person

Number 07

Head of household 1 Child 3 Visitor 5
Spouse/partner 2 Other member 4

Sex: Male 1 Age: _____ Licensed Driver? Yes 1
Female 2 No 2

Employment status: Employed full-time 1 Homemaker 4 Other 7
Employed part-time 2 Retired 5
Two or more jobs 3 Student 6

Person

Number 08

Head of household 1 Child 3 Visitor 5
Spouse/partner 2 Other member 4

Sex: Male 1 Age: _____ Licensed Driver? Yes 1
Female 2 No 2

Employment status: Employed full-time 1 Homemaker 4 Other 7
Employed part-time 2 Retired 5
Two or more jobs 3 Student 6

600 BROADWAY 300 RIVERGATE CENTER
KANSAS CITY, MISSOURI 64105-1554

816 / 474-4240

MARC

MID-AMERICA REGIONAL COUNCIL

Dear Metropolitan Resident:

Thank you for agreeing to participate in Mid-America Regional Council's Regional Travel Study. You may have seen or heard some advertising concerning this study which will update household travel information last collected in 1970. Your participation in this study is important because the information which you provide will help plan for new and improved roads and transportation services for the Metropolitan Kansas City area.

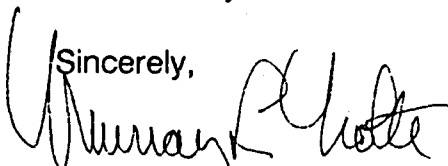
As stated in the telephone call you received from a survey team member a few days ago, your household is one of a small number of households selected at random. All information collected for this survey is strictly confidential, and will be combined with responses from other households to give us a "snapshot" of regional travel patterns.

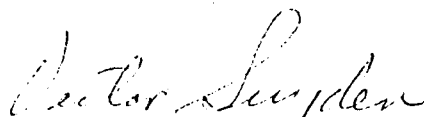
Instructions are included in the packet accompanying this letter. It is important that you provide the information for your specific travel day.

- If you have any questions about the purpose of the survey, please call Mr. Fred Schwartz or Mr. Steve Noble at Mid-America Regional Council (474-4240).
- If you need help to fill out the diary, call the travel study "hot-line" at 829-1692. If you live outside the "toll-free" metropolitan calling area, please call collect to (913) 829-1692.

Thanks for your contribution to this important study!

Sincerely,


Murray Nolte, Co-Chair
Total Transportation
Policy Committee


Vic Swyden, Co-Chair
Total Transportation
Policy Committee

P. S. You can receive a copy of the summary report for your household by marking "YES; want report" on your diary.

Phone concerning study purpose: (816) 474-4240
Phone for help with trip diary: (913) 829-1692

Chairman
Johnna Lingle
Commissioner
Johnson County, KS

1st Vice Chairman
John O'Renick
Mayor
Sugar Creek, MO

2nd Vice Chairman
Neale Peterson
Mayor
Fairway, KS

Secretary
Frank Corbett
Councilman
Kansas City, KS

Treasurer
Betty Gregoire
County Assessor
Platte County, MO

David A. Warm
Executive Director

Remember

Your Travel Day Is

Thursday, November 14

(4:00 a.m. Thursday to 4:00 a.m. Friday)

Remember,
Have Every Household Member and
Out-of-town Visitor Take A Travel Diary
And Keep A Record of His or Her Trips!

If someone stays home all day,
mark card "stayed home all day" and return.

Thank You !

For further information on completing
your diary call: 829-1692

Mid-America Regional Council

If you live in Leavenworth or other area outside the "toll-free" calling area,
call 1-913-829-1692 collect

REGIONAL TRAVEL STUDY

YOUR TRAVEL DAY IS: _____

1. What is your age? _____

2. Sex: Male
 Female

3. My first trip today began at: Name of Place (e.g, home, airport, Ward Parkway): _____

Want Summary Report: Street Address: _____

Yes

City: _____ State: _____

	WHERE did this trip end?	KIND OF PLACE (restaurant, school, office, doctor, grocery store)	PURPOSE of Trip (Circle one)	TIME	MODE of travel (Circle one)	NUMBER IN VEHICLE (include yourself)
①	First I Went To: Name of Place Address (Approximate) City State		0 Go/Return Home 1 Go/return to Work 2 Shopping 3 School 4 Eat/Get Food 5 Job Related 6 Change Mode (e.g., auto to bus) 7 Pick up/drop off passenger 8 Volunteer/community service 9 Personal (e.g., shop, doctor, bank) A Change jobs	LEAVE FOR _____ AM PM	0 Driver (auto/van/pickup,motorcycle) 1 Passenger (auto/van/pickup/motorcycle) 2 Public Bus 3 Taxi/special services 4 School bus 5 Heavy truck 6 Walk/bike 7 Other: _____	
ARRIVE _____ AM PM						
LEAVE FOR _____ AM PM						
ARRIVE _____ AM PM						
②	Then I Went To: Name of Place Address (Approximate) City State		0 Go/Return Home 1 Go/return to Work 2 Shopping 3 School 4 Eat/Get Food 5 Job Related 6 Change Mode (e.g., auto to bus) 7 Pick up/drop off passenger 8 Volunteer/community service 9 Personal (e.g., shop, doctor, bank) A Change jobs	LEAVE FOR _____ AM PM	0 Driver (auto/van/pickup,motorcycle) 1 Passenger (auto/van/pickup/motorcycle) 2 Public Bus 3 Taxi/special services 4 School bus 5 Heavy truck 6 Walk/bike 7 Other: _____	
ARRIVE _____ AM PM						
LEAVE FOR _____ AM PM						
ARRIVE _____ AM PM						
③	Then I Went To: Name of Place Address (Approximate) City State		0 Go/Return Home 1 Go/return to Work 2 Shopping 3 School 4 Eat/Get Food 5 Job Related 6 Change Mode (e.g., auto to bus) 7 Pick up/drop off passenger 8 Volunteer/community service 9 Personal (e.g., shop, doctor, bank) A Change jobs	LEAVE FOR _____ AM PM	0 Driver (auto/van/pickup,motorcycle) 1 Passenger (auto/van/pickup/motorcycle) 2 Public Bus 3 Taxi/special services 4 School bus 5 Heavy truck 6 Walk/bike 7 Other: _____	
ARRIVE _____ AM PM						
LEAVE FOR _____ AM PM						
ARRIVE _____ AM PM						

REGIONAL TRAVEL STUDY

Travel Diaries (yellow cards) on which to record travel for **each member** of your household and out-of-area visitors to your household on the travel day. This travel diary can help a busy person keep track of his/her trips throughout the day.

- * Please ask each member of your household and out-of-area visitors to your household to carry a travel diary with him/her on the travel date and to record each trip after it is made (even if the trip is made with another member of the household).
- * Please keep a travel diary for household members and visitors one year and older who are unable to fill out the diary themselves.
- * Be sure to record the person's age and sex on the travel diary.
- * If two persons in the household go together, that trip should appear on both travel diaries.
- * A person should use extra diaries if one is not enough.
- * A sample trip diary for the trips in the following example has been included in this packet.

EXAMPLE: SEE ACCOMPANYING COMPLETED EXAMPLE

YOU LEAVE HOME AND DRIVE YOUR CHILD TO THE DAYCARE CENTER (1)
THEN YOU DRIVE TO WORK (2)
THEN YOU RIDE TO LUNCH WITH YOUR BOSS (3)
THEN YOU TAKE A BUS BACK TO WORK (4)
THEN YOU DRIVE TO THE DAYCARE CENTER TO PICK UP YOUR CHILD (5)
THEN YOU AND YOUR CHILD RETURN HOME (6)

If you have questions, call the Travel "hot-line" at 829-1692.

If you live in Leavenworth or other area which is not "toll-free", call 1-913-829-1692 collect.

Please mail your travel diaries the next day.

**If they have not been returned within three days of your travel day,
we will call you to collect your information by phone**

THANK YOU!

All of your answers are strictly **confidential** and will be combined with other households to give "snapshot" of regional travel patterns.

1. What is your age? 34

2. Sex: Male Female

3. My first trip today began at: Name of Place (e.g. home, airport, Ward Parkway): Home

Want Summary Report: Yes No Street Address: 435 W. 79th

City: Kansas City State: MO

REGIONAL TRAVEL STUDY

SAMPLE

YOUR TRAVEL DAY IS: Thursday

	WHERE did this trip end?	KIND OF PLACE (restaurant, school, office, doctor, grocery store)	PURPOSE of Trip (Circle one)	TIME	MODE of travel (Circle one)	NUMBER IN VEHICLE (include yourself)
① First I Went To:	<u>Mom's Daycare</u> Name of Place <u>2175 E. 85th</u> Address (Approximate) <u>KCMO</u> City State	<u>Daycare</u>	0 Go/Return Home 1 Go/return to Work 2 Shopping 3 School 4 Eat/Get Food 5 Job Related 6 Change Mode (e.g., auto to bus) 7 Pick up/drop off passenger 8 Volunteer/community service 9 Personal (e.g., shop, doctor, bank) A Change jobs	LEAVE FOR <u>7:05</u> AM PM ARRIVE <u>7:25</u> AM PM	0 Driver (auto/van/pickup,motorcycle) 1 Passenger (auto/van/pickup/motorcycle) 2 Public Bus 3 Taxi/special services 4 School bus 5 Heavy truck 6 Walk/bike 7 Other:	2
② Then I Went To:	<u>ABC Company</u> Name of Place <u>215 W. 43rd</u> Address (Approximate) <u>KCMO</u> City State	<u>Office</u>	0 Go/Return Home 1 Go/return to Work 2 Shopping 3 School 4 Eat/Get Food 5 Job Related 6 Change Mode (e.g., auto to bus) 7 Pick up/drop off passenger 8 Volunteer/community service 9 Personal (e.g., shop, doctor, bank) A Change jobs	LEAVE FOR <u>7:30</u> AM PM ARRIVE <u>7:55</u> AM PM	0 Driver (auto/van/pickup,motorcycle) 1 Passenger (auto/van/pickup/motorcycle) 2 Public Bus 3 Taxi/special services 4 School bus 5 Heavy truck 6 Walk/bike 7 Other:	1
③ Then I Went To:	<u>McDonald's</u> Name of Place <u>2315 S. Main</u> Address (Approximate) <u>KCMO</u> City State	<u>Restaurant</u>	0 Go/Return Home 1 Go/return to Work 2 Shopping 3 School 4 Eat/Get Food 5 Job Related 6 Change Mode (e.g., auto to bus) 7 Pick up/drop off passenger 8 Volunteer/community service 9 Personal (e.g., shop, doctor, bank) A Change jobs	LEAVE FOR <u>11:45</u> AM PM ARRIVE <u>12:05</u> AM PM	0 Driver (auto/van/pickup,motorcycle) 1 Passenger (auto/van/pickup/motorcycle) 2 Public Bus 3 Taxi/special services 4 School bus 5 Heavy truck 6 Walk/bike 7 Other:	2

Participant Reminder

Is this _____? Did you receive the travel diaries that were mailed you a few days ago by Mid-America Regional Council?

[IF NOT] Your participation is important to this project, so we would like to call you back tomorrow to see if the diaries arrived. If they have not arrived, and you are still willing to participate, we will mail you another set of diaries.

[IF YES] I am just calling to remind you that tomorrow is the day for which you and others in your family should complete the travel diaries. For young children in your household, an adult may need to complete their diary. A diary should be completed for each person who is at least one year old and for each visitor in your household. If two persons go together on a trip, that trip should appear on each person's diary. For example, if you go out to eat dinner with someone in your household, that trip to eat dinner should appear on each person's diary.

[Interviewer: IF YOU HAVE A PARENT WITH A SMALL CHILD, YOU COULD USE THE FOLLOWING EXAMPLE:

If you take your child to a daycare, your diary should show the trip to the daycare. In addition, your child's diary should also show that trip to the daycare.]

Remember, this transportation study is an update of a study which has not been conducted since 1970. The information will be used for improved roads and transportation services for the metropolitan Kansas City area.

Thanks for your participation in this important study...and

Remember to mail your dairies the next day !

Appendix B

**Household File Codebook
and Sample Printout**

**Member File Codebook
and Sample Printout**

**Diary File Codebook
and Sample Printout**

Variable 1 - SAMPLE ID
Start column = 1 Number of columns = 4 Type = Numeric

Variable 2 - TELEPHONE
Start column = 5 Number of columns = 8 Type = Alpha

Variable 3 - LAST NAME
Start column = 13 Number of columns = 15 Type = Alpha

Variable 4 - FIRST NAME & INITIAL
Start column = 28 Number of columns = 15 Type = Alpha

Variable 5 - STREET ADDRESS
Start column = 43 Number of columns = 30 Type = Alpha

Variable 6 - CITY
Start column = 73 Number of columns = 15 Type = Alpha

Variable 7 - STATE
Start column = 88 Number of columns = 2 Type = Alpha

Variable 8 - ZIP
Start column = 90 Number of columns = 5 Type = Numeric

Variable 9 - HOUSEHOLD SIZE
Start column = 95 Number of columns = 1 Type = Numeric

- 1=1
- 2=2
- 3=3
- 4=4
- 5=5
- 6=6
- 7=7
- 8=8
- 9=9

Variable 10 - Number >= Age 1
Start column = 96 Number of columns = 1 Type = Numeric

Variable 11 - EXPECT VISITORS
Start column = 97 Number of columns = 1 Type = Numeric

- 0=0
- 1=1
- 2=2
- 3=3
- 4=4

Household Codebook

Variable 12 - CAR PICKUP VAN
Start column = 98 Number of columns = 1 Type = Numeric

Household Codebook (continued)

Variable 13 - INCOME

Start column = 99 Number of columns = 1 Type = Numeric

1=<\$17,000

2=17-24,000

3=25-32,000

4=33-39,000

5=40-49,000

6=50-59,000

7=60-74,000

8=\$75,000+

Variable 14 - TRAVEL DAY

Start column = 100 Number of columns = 1 Type = Alpha

T=TUESDAY

W=WEDNESDAY

R=THURSDAY

Variable 15 - Total trips

Start column = 101 Number of columns = 2 Type = Numeric

Variable 16 - Total trip makers

Start column = 103 Number of columns = 2 Type = Numeric

Variable 17 - Non-trip makers

Start column = 105 Number of columns = 2 Type = Numeric

Variable 18 - County

Start column = 107 Number of columns = 2 Type = Alpha

JO=JOHNSON

JA=JACKSON

CL=CLAY

PL=PLATTE

LV=LEAVENWORTH

CA=CASS

WY=WYANDOTTE

Variable 19 - ACTUAL DATE

Start column = 109 Number of columns = 4 Type = Numeric

Variable 20 - trips (0 or 1 only)

Start column = 113 Number of columns = 2 Type = Numeric

Household File Sample Listing

Household identifiers are "blocked" out.

SAMPLE ID	TELEPHONE	LAST NAME	FIRST NAME & IN ITIAL	STREET ADDRESS	CITY	STATE	ZIP	HOUSEHOLD SIZE	Number >= Age 1	EXPECT VIS ITORS	CAR PICKUP VAN	INCOME	TRAVEL DAY	Total trip s	Total trip makers	Non-trip m akers	County	ACTUAL DAT E	trips (0 or 1 only)
0001					Olathe	KS	66061	2	2	0	6	3	T	13	02	00	JO	0924	13
0002					Olathe	KS	66061	2	2	0	2	5	T	19	02	00	JO	0924	19
0003					Lee's Summit	MO	64064	5	5	0	2	6	T	18	05	00	JA	0924	14
0004					Blue Springs	MO	64014	5	4	0	2	6	T	14	04	00	JA	0924	10
0005					Prairie Village	KS	66208	3	3	0	3	4	T	17	03	00	JO	0924	17
0007					Kansas City	MO	64116	2	2	0	2	5	T	11	02	00	CL	0924	11
0008					Lenexa	KS	66215	2	2	0	2	6	T	07	01	01	JO	0924	07
0009					Gladstone	MO	64118	2	2	0	2	7	T	04	01	01	CL	0924	02
0010					Kansas City	KS	66106	4	4	0	3	3	T	10	03	01	WY	0924	06
0011					Prairie Village	KS	66208	2	2	0	1	5	W	06	02	00	JO	0925	06
0012					Belton	MO	64012	6	6	0	3	8	W	36	06	00	CA	0925	33
0013					Kansas City	MO	64129	6	5	0	3	7	W	20	05	00	JA	0925	12
0014					Kansas City	MO	64113	2	2	1	0	4	W	11	03	00	JA	0925	04
0015					Kansas City	MO	64131	3	3	0	2	5	W	13	03	00	JA	0925	13
0016					Independence	MO	64053	1	1	0	1	1	W	02	01	00	JA	0925	02
0017					Kansas City	MO	64114	4	4	0	3	6	W	17	04	00	JA	0925	17
0018					Blue Springs	MO	64014	4	4	0	2	3	W	32	04	00	JA	0925	29
0019					Shawnee	KS	66216	2	2	0	2	5	W	11	02	00	JO	0925	11
0020					Independence	MO	64055	3	3	0	1	4	W	06	02	01	JA	0925	04
0021					Overland Park	KS	66207	6	6	0	3	7	R	46	06	00	JO	0926	46
0022					Liberty	MO	64068	2	2	0	3	7	R	13	02	00	CL	0926	13
0023					Shawnee	KS	66203	2	2	0	1	1	R	10	02	00	JO	0926	06
0024					Kansas City	KS	66106	4	4	0	1	1	R	05	01	03	WY	0926	01
0025					Kansas City	MO	64134	2	2	0	2	1	R	05	02	00	JA	0926	05
0026					Overland Park	KS	66212	3	3	0	3	5	R	16	03	00	JO	0926	16
0027					Kansas City	MO	64114	1	1	0	0	1	R	02	01	00	JA	0926	--
0028					Kansas City	MO	64133	2	2	0	3	3	R	08	02	00	JA	0926	08
0029					Kansas City	KS	66102	1	1	0	0	2	R	02	01	00	WY	0926	--
0030					Raytown	MO	64133	2	2	0	1	2	R	14	02	00	JA	0926	14
0031					Overland Park	KS	66212	3	3	0	2	7	T	23	03	00	JO	1001	22
0032					Independence	MO	64052	4	4	0	3	6	T	30	04	00	JA	1001	30
0033					Kansas City	KS	66109	2	2	0	1	1	T	11	02	00	WY	1001	11
0034					Overland Park	KS	66207	3	2	0	1	5	T	08	02	00	JO	1001	06
0035					Raytown	MO	64133	1	1	0	2	3	T	09	01	00	JA	1001	09
0037					Kansas City	MO	64113	3	3	0	3	8	T	18	02	01	JA	1001	18
0038					Kansas City	KS	66109	3	3	0	2	1	T	08	03	00	WY	1001	08
0039					Roeland Park	KS	66205	6	6	0	1	2	T	20	05	01	JO	1001	19
0040					Olathe	KS	66062	3	2	0	2	4	T	13	02	00	JO	1001	13
0041					Prairie Village	KS	66208	2	2	0	3	6	T	09	02	00	JO	1001	09
0043					Kansas City	MO	64139	5	5	0	4	8	T	23	04	01	JA	1105	21
0044					Overland Park	KS	66212	1	1	0	2	2	T	05	01	00	JO	1001	05
0045					Independence	MO	64055	3	3	0	2	2	T	16	03	00	JA	1022	14

Variable 1 - household ID
Start column = 1 Number of columns = 4 Type = Numeric

Variable 2 - member id
Start column = 5 Number of columns = 1 Type = Numeric

Variable 3 - Relationship
Start column = 6 Number of columns = 1 Type = Numeric
 1=Head
 2=Spouse
 3=Child
 4=Other
 5=Visitor

Variable 4 - Sex
Start column = 7 Number of columns = 1 Type = Numeric
 1=male
 2=female

Variable 5 - age
Start column = 8 Number of columns = 2 Type = Numeric

Variable 6 - driver?
Start column = 10 Number of columns = 1 Type = Numeric
 1=Yes
 2=No

Variable 7 - Employment
Start column = 11 Number of columns = 1 Type = Numeric
 1=full-time
 2=part-time
 3=two or more jobs
 4=homemaker
 5=retired
 6=student
 7=other

Member File

Sample Listing

household ID	member id	Relationship	Sex	age	driver?	Employment
0126	1	1	1	42	1	1
0126	2	2	2	42	1	1
0126	3	3	1	17	1	6
0127	1	1	1	39	1	1
0127	2	2	2	41	1	4
0127	3	3	1	16	1	6
0127	4	3	2	15	2	6
0127	5	3	2	04	2	6
0128	1	1	1	30	1	1
0128	2	2	2	30	1	1
0128	3	4	2	79	1	5
0128	4	3	2	04	2	6
0129	1	1	2	44	1	1
0130	1	1	1	31	1	1
0130	2	2	2	30	1	1
0130	3	3	1	10	2	6
0131	1	1	2	67	1	2
0131	2	3	1	46	1	1
0132	1	1	1	35	1	1
0132	2	2	2	33	1	1
0132	3	3	1	10	2	6
0132	4	3	2	07	2	6
0132	5	3	2	04	2	6
0133	1	1	1	32	1	3
0133	2	2	2	37	1	1
0133	3	3	1	13	2	6
0133	4	3	2	15	2	6
0133	5	3	1	07	2	6
0133	6	3	1	05	2	6
0134	1	1	2	41	1	7
0134	2	3	1	16	2	6
0134	3	3	2	10	2	6
0134	4	3	2	10	2	6
0134	5	3	2	07	2	6
0134	6	4	2	10	2	6
0134	7	4	2	04	2	6
0134	8	4	2	02	2	7
0135	1	1	1	27	1	6
0135	2	2	2	28	1	1
0136	1	1	1	32	1	1
0137	1	1	1	30	1	1
0137	2	2	2	29	1	1
0138	1	1	2	54	1	1
0138	2	2	1	69	2	5
0138	3	3	1	30	1	1
0139	1	1	2	37	1	1

Variable 1 - HOUSEHOLD NUMBER
Start column = 1 Number of columns = 4 Type = Numeric

Variable 2 - PERSON NUMBER
Start column = 5 Number of columns = 1 Type = Numeric
0=Not in sample

Variable 3 - TRIP NUMBER
Start column = 6 Number of columns = 2 Type = Numeric

Variable 4 - ADDRESS_1
Start column = 8 Number of columns = 29 Type = Alpha

Variable 5 - INTERSECTION
Start column = 37 Number of columns = 1 Type = Alpha
&=&

Variable 6 - ADDRESS_2
Start column = 38 Number of columns = 28 Type = Alpha

Variable 7 - CITY
Start column = 66 Number of columns = 23 Type = Alpha

Variable 8 - STATE
Start column = 89 Number of columns = 2 Type = Alpha

Variable 9 - ZIP CODE
Start column = 91 Number of columns = 5 Type = Numeric

Variable 10 - KIND OF PLACE
Start column = 96 Number of columns = 1 Type = Alpha

0=RESIDENTIAL
1=OFFICE
2=RETAIL
3=SCHOOL
4=RESTAURANT
5=COUNTRY CLUB
6=HOSPITAL, ETC
7=WAREHOUSE
8=GOV BLDG
9=FACTORY
A=PARK, AGRICULT
B=PARKLOT, BUS STOP
C=CONSTRUCTION
D=AIRPORT
E=INDUSTRIAL
F=HUNT/FISH

Diary Codebook

Variable 11 - TRIP PURPOSE

Start column = 97 Number of columns = 1 Type = Alpha

0=GO/RETURN HOME
1=GO/RETURN WORK
2=SHOPPING
3=SCHOOL
4=EAT/GET FOOD
5=JOB RELATED
6=CHANGE MODE
7=PICK UP/DROP
8=VOLUNTEER
9=PERSONAL
A=CHANGE JOBS-----
Variable 12 - BEGIN TIME

Start column = 98 Number of columns = 4 Type = Numeric

0000=START LOCATE

Variable 13 - BEGIN AM/PM

Start column = 102 Number of columns = 1 Type = Alpha

A=AM
P=PM-----
Variable 14 - END TIME

Start column = 103 Number of columns = 4 Type = Numeric

Variable 15 - END AM/PM

Start column = 107 Number of columns = 1 Type = Alpha

A=AM
P=PM-----
Variable 16 - MODE

Start column = 108 Number of columns = 1 Type = Numeric

0=DRIVER
1=PASSENGER
2=PUBLIC BUS
3=TAXI/SPECIAL
4=SCHOOL BUS
5=HEAVY TRUCK
6=WALK/BIKE
7=OTHER-----
Variable 17 - NUMBER VEHICLE

Start column = 109 Number of columns = 2 Type = Numeric

Variable 18 - COMMENTStart column = 111 Number of columns = 35 Type = Alpha

Diary File Sample Listing

Household identifiers are "blocked" out.

HOUSEHOLD NUMBER	PERSON NUMBER	TRIP NUMBER	ADDRESS_1	INTERSECTION	ADDRESS_2	CITY	STATE	ZIP CODE	KIND OF PLACE	TRIP PURPOSE	BEGIN TIME	BEGIN_AM/PM	END TIME	END_AM/PM	MODE	NUMBER VEHICLE
0037	1	00		-	-----	KANSAS CITY	MO	64113	0	-	0000	-	----	-	-	--
0037	1	01		-	-----	KANSAS CITY	MO	-----	1	1	0745	A	0805	A	0	01
0037	1	02		-	-----	KANSAS CITY	MO	-----	1	5	0230	P	0305	P	0	01
0037	1	03		-	-----	KANSAS CITY	MO	64113	0	0	0400	P	0405	P	0	01
0037	1	04		&	WORNALL	KANSAS CITY	MO	-----	2	9	0515	P	0519	P	0	01
0037	1	05		-	-----	KANSAS CITY	MO	64113	0	0	0545	P	0549	P	0	01
0037	1	06		-	-----	OVERLAND PARK	KS	66212	5	9	0700	P	0725	P	0	02
0037	1	07		-	-----	KANSAS CITY	MO	64113	0	0	0930	P	0950	P	0	02
0037	2	00		-	-----	KANSAS CITY	MO	64113	0	-	0000	-	----	-	-	--
0037	2	01		-	-----	KANSAS CITY	MO	64113	0	7	0850	A	0855	A	0	01
0037	2	02		&	WARD PARKWAY	KANSAS CITY	MO	-----	5	9	0856	P	0905	P	0	02
0037	2	03		-	-----	KANSAS CITY	MO	64113	0	7	1115	A	1123	A	0	02
0037	2	04		-	-----	KANSAS CITY	MO	64113	0	0	1125	A	1130	A	0	01
0037	2	05		&	BROOKSIDE	KANSAS CITY	MO	-----	6	9	0150	P	0200	P	0	01
0037	2	06		&	PENNSYLVANIA	KANSAS CITY	MO	-----	2	9	0210	P	0215	P	0	01
0037	2	07		-	-----	KANSAS CITY	MO	64131	2	2	0215	P	0220	P	0	01
0037	2	08		-	-----	KANSAS CITY	MO	-----	2	9	0320	P	0325	P	0	01
0037	2	09		-	-----	KANSAS CITY	MO	64113	0	0	0327	P	0330	P	0	01
0037	2	10		&	WORNALL	KANSAS CITY	MO	-----	6	9	0350	P	0355	P	0	01
0037	2	11		-	-----	KANSAS CITY	MO	64113	0	0	0503	P	0508	P	0	01
0037	3	00		-	-----	KANSAS CITY	MO	64112	0	-	0000	-	----	-	-	--
0038	1	00		-	-----	KANSAS CITY	KS	66109	0	-	0000	-	----	-	-	--
0038	1	01		-	-----	KANSAS CITY	KS	-----	3	7	0855	A	0900	A	0	02
0038	1	02		-	-----	KANSAS CITY	KS	-----	0	0	0900	A	0915	A	0	01
0038	1	03		-	-----	KANSAS CITY	KS	-----	3	7	0350	P	0400	P	0	01
0038	1	04		-	-----	KANSAS CITY	KS	66109	0	0	0405	P	0415	P	0	02
0038	2	00		-	-----	KANSAS CITY	KS	66109	0	-	0000	-	----	-	-	--
0038	2	01		-	-----	KANSAS CITY	KS	-----	9	1	0715	A	0800	A	0	01
0038	2	02		-	-----	KANSAS CITY	KS	-----	0	0	0435	P	0500	P	0	01
0038	3	00		-	-----	KANSAS CITY	KS	66109	0	-	0000	-	----	-	-	--
0038	3	01		-	-----	KANSAS CITY	KS	-----	3	3	0855	A	0900	A	1	02
0038	3	02		-	-----	KANSAS CITY	KS	66109	0	0	0350	P	0400	P	1	02
0039	1	00		-	-----	ROELAND PARK	KS	66205	0	-	0000	-	----	-	-	--
0039	1	01		-	-----	KANSAS CITY	MO	-----	1	1	0700	A	0720	A	1	02
0039	1	02		-	-----	ROELAND PARK	KS	66205	0	0	0500	P	0550	P	2	--
0039	1	03		-	-----	KANSAS CITY	MO	64113	6	9	0630	P	0645	P	0	02
0039	1	04		-	-----	ROELAND PARK	KS	66205	0	0	0800	P	0815	P	0	02
0039	2	00		-	-----	ROELAND PARK	KS	66205	0	-	0000	-	----	-	-	--
0039	2	01		-	-----	KANSAS CITY	MO	-----	1	7	0700	A	0720	A	0	02
0039	2	02		-	-----	MISSION	KS	66205	5	1	0725	A	0755	A	0	01