

Research Report  
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# **SURVEY OF EFFECTIVENESS OF TRANSPORTATION SERVICES**

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# Introduction

With recent, new emphasis on public accountability and program evaluation, the need for effectiveness measures to indicate the extent to which an agency's goals and objectives are being met is increasingly apparent. In a time of dwindling financial resources, the public demands more from governmental agencies. Proper justification of programs is essential, and it is necessary to demonstrate the usefulness of services provided.

As a means of communicating with the public and seeking their opinions concerning effectiveness of transportation systems and services, the U. S. Department of Transportation surveyed groups of people from several states in 1977 (1). The results of this survey indicated that some major changes in our transportation life-style were expected by almost half the people queried. Also, the public favored switching to an interstate maintenance program rather than initiating new construction. In addition, even though the majority of the public did not use any form of public transportation, general support was given to additional investment in public transportation relative to highways and railroads.

This type of effort by the U. S. Department of Transportation emphasizes the continuing need to communicate with the public and to monitor the effectiveness of transportation services. In an effort to meet this need, a research study was initiated to establish and implement a procedure for monitoring the effectiveness of transportation services in Kentucky. As has been the case in other studies attempting to evaluate the effectiveness of programs or services, considerable data are available but most are not in a form suitable for assessment. Very little information is available that can be used by policymakers to determine whether services are improving or deteriorating. General areas of

transportation services for which data are not readily available include the following:

- Rapid and efficient movement of people and goods,
- General accessibility of specific destinations,
- Rideability of state roads,
- Other measures of comfort and convenience,
- Safety aspects of various transportation modes,
- Environmental and aesthetic impacts,
- General transportation services,
- Public transportation services,
- Economic impacts, and
- Overall assessments.

These general areas of transportation services form the nucleus for which effectiveness evaluations will be performed. More specific services can be derived from the overall objectives of the Department of Transportation as stated in the Kentucky Revised Statutes (2). A thorough review of the Statutes produced a comprehensive list of objectives that were addressed from the standpoint of developing effectiveness measures. This list was supplemented with additional objectives from the U. S. Department of Transportation's report "Monitoring the Effectiveness of State Transportation Services" (3). The resulting list of objectives and suggested measures of effectiveness is presented in APPENDIX A. Quantitative data for many of the effectiveness measures were obtainable only through responses from the public. These data were obtained from surveys of licensed drivers and bus riders. This report will address the procedures and results of the two surveys. Similar surveys can be done in the future, and the results can be compared to those contained in this report as an indication of how the public's perception of the effectiveness of transportation services has changed.



## Procedure

One of the first decisions required when planning an opinion survey regards the type of survey to be performed. Personal interview surveys are generally regarded as providing the most reliable results. However, these surveys can be expensive. Telephone surveys also tend to provide good results and are less expensive. The least expensive type is the mail survey, which involves mailing the questionnaire to a sample of people and requesting that they complete and return it. A built-in bias with this type of survey results from the fact that those people who have strong or extreme opinions on a subject are more willing to take the time and effort to complete and return the questionnaire than are those with mild or casual opinions. This tends to bias the results toward extremes and may also create a bias toward negative or dissatisfied responses. Despite this shortcoming, the decision was made to perform a mail survey because of the much lower cost of this type of survey.

The next decision required was where to obtain the sample of persons to which the questionnaires would be sent. The objective of the survey was to measure the opinions of the citizens of Kentucky regarding transportation services. Therefore, what was desired was a random sample selected from a list of all the state's citizens. Unfortunately, such a list was not available. A search was then begun to find a list that approximated this ideal list. Three different lists were considered; the driver license file, the voter registration file, and the telephone directory. The telephone directory had to be abandoned due to the large amount of time and effort required. No other good, readily available sources could be found. Therefore, a closer look was taken at the two remaining lists.

The driver license file was found to contain approximately 2,100,000 drivers, which was just over 80 percent of all Kentucky residents 16 years of age and older. This file excludes those citizens less than 16 years of age. The voter registration file excludes those under 18 years of age and was found to include approximately 1,700,000 registered voters,

which is just under 70 percent of all Kentucky residents 18 years of age and older. Neither of these lists is really an unbiased sample. The voter registration file tends to be biased toward males and toward rural-dwellers (4). Concern has also been expressed that this file may be biased along the lines of income and availability of transportation. The driver license file is obviously biased along transportation lines, and therefore may be biased indirectly according to income, education, and other factors.

After lengthy discussion and consideration, the decision was made to proceed with the driver license file as the sample source. This decision was based on several factors, including the inclusion of 16 and 17 year-old persons, the higher percent representation (80.2 percent to 69.6 percent), and the more frequent updates of the file. This last point is important in reducing the number of questionnaires returned due to incorrect addresses or deceased persons. It was also recognized that the major drawback of using the driver license file is that, obviously, it excludes those persons without drivers' licenses. In an effort to sample some persons without drivers' licenses, questionnaires also were distributed to some bus riders in several Kentucky cities, since preliminary figures indicated a high percentage of bus riders did not have drivers' licenses.

A random sample of 10 percent of the driver license file was requested and obtained from the Division of Driver Licensing of the Bureau of Vehicle Regulation of the Kentucky Department of Transportation. The 10-percent sample was requested due to the unwieldy size of the entire file. From the 10-percent sample, an address label was then printed for every 18th driver, resulting in approximately 14,000 labels. Of that number, 10,000 were attached to envelopes and mailed. Each envelope contained a questionnaire, a cover letter explaining the purpose of the questionnaire, and a pre-addressed, pre-stamped envelope for returning the completed questionnaire. Many of the envelopes that were sent were

returned undelivered due to incorrect addresses, deceased persons, or other reasons. For each of these, the contents of the envelope were removed and placed in a new envelope with one of the remaining mailing labels attached. This process was continued until no more undelivered questionnaires were received, i.e., until 10,000 envelopes had been delivered. This required sending a total of approximately 11,700 envelopes.

The questionnaire was designed, written, and reproduced by the study team for this study specifically. Some questions were taken, either directly or with slight modifications, from surveys used previously in other states (3, 5). Other questions were original. After a first draft of the questionnaire was prepared, additional questions and suggestions for improvements were solicited from several representatives of the Department of Transportation. Those suggestions deemed appropriate were incorporated into the questionnaire. The questionnaire was then distributed to personnel of the Transportation Research Program to be completed, returned, and critiqued. This process identified weaknesses in certain questions, allowing further improvements to be made. After this review process, a final version of the questionnaire was prepared and reproduced. A copy of the questionnaire that was mailed to 10,000 licensed drivers across the state is shown in APPENDIX B. A special 9 1/4-inch (0.23-m) by 16-inch (0.41-m) sheet was used to allow the entire questionnaire to fit on the front and back of a single sheet. It was believed this would generate a higher return rate than a multiple-sheet questionnaire.

The driver questionnaire was divided into four sections; personal information, driving information, general travel information, and driver opinions. The personal information section was designed to provide information necessary for the comparison of opinions for different ages, sexes, education levels, income levels, etc. The driving information section concentrated specifically on travel by road. The general travel information section dealt with access to specific destinations and with usage of modes other

than automobiles. Finally, the driver opinion section sought drivers' feelings on many transportation-related issues.

The cover letter that accompanied the questionnaires is also shown in APPENDIX B. The letter was designed to be concise without being laconic. It concentrated on making the driver feel privileged to be one of those selected to participate in an important study and to have a chance to influence the formulation of transportation plans for Kentucky. As an additional experiment, half of the cover letters were personally signed; the other half contained printed signatures. This was done to determine if personal signatures would generate a higher return rate. Each questionnaire sent with a personally signed cover letter was coded so it could be identified when returned.

In an effort to obtain, for comparative purposes, some responses from persons without drivers' licenses, questionnaires were distributed to bus riders in several Kentucky cities. Louisville, Lexington, Frankfort, and Maysville were selected as representing the different sizes of bus systems in the state. The questionnaire was modified for this purpose. The section on driving information and other questions relating specifically to automobile travel were deleted, and an explanatory paragraph at the top of the questionnaire replaced the cover letter. The modified questionnaires were folded, placed in stamped, addressed, return envelopes, and distributed to bus riders. In Maysville, Frankfort, and Lexington, the questionnaires were distributed by bus drivers. In Louisville, Research Program employees distributed the questionnaires at transfer points. A total of 300 questionnaires were distributed in each of the two smallest cities, Maysville and Frankfort, while 1,300 were distributed in Lexington and 2,660 in Louisville. A copy of the questionnaire distributed to bus riders is shown in APPENDIX C.

As completed questionnaires were received, a procedure was developed for coding responses onto computer cards. Punched cards were then checked for out-of-range values prior to being analyzed and summarized by computer.

# Results

The primary emphasis of this report is the survey of licensed drivers. A bus rider survey was conducted as a supplement to provide other transportation users' perspectives for comparison with licensed drivers. The first several sections of the results will be related to the driver survey, and only the last section will address the bus survey.

## Survey Response

Responses were received from 3,553 (35.5 percent) of the 10,000 licensed drivers who were sent a questionnaire. A multitude of theories have been discussed as causes for questionnaires not being returned. This questionnaire, presented in APPENDIX B, is certainly lengthy, and

Table 1. Responses and Licensed Drivers By County.

RESPONSES			LICENSED DRIVERS		RESPONSES			LICENSED DRIVERS	
COUNTY	NUMBER	PERCENT	NUMBER	PERCENT	COUNTY	NUMBER	PERCENT	NUMBER	PERCENT
ADAIR	11	0.3	8,250	0.4	KNOX	25	0.7	17,471	0.7
ALLEN	9	0.3	8,550	0.4	LARUE	13	0.4	7,703	0.3
ANDERSON	12	0.3	7,684	0.3	LAUREL	22	0.6	20,794	0.9
BALLARD	12	0.3	6,703	0.3	LAWRENCE	15	0.4	7,311	0.3
BARREN	28	0.8	20,791	0.9	LEE	9	0.3	4,182	0.2
BATH	8	0.2	5,692	0.3	LESLIE	12	0.3	6,389	0.3
BELL	23	0.7	19,390	0.8	LETCHER	31	0.9	16,597	0.7
BOONE	57	1.6	29,369	1.3	LEWIS	11	0.3	7,630	0.3
BOURBON	27	0.8	12,028	0.5	LINCOLN	13	0.4	11,043	0.5
BOYD	48	1.4	39,213	1.7	LIVINGSTON	18	0.5	6,074	0.3
BOYLE	19	0.5	16,570	0.7	LOGAN	20	0.6	15,048	0.6
BRACKEN	12	0.3	4,726	0.2	LYON	4	0.1	3,910	0.2
BREATHITT	13	0.4	8,036	0.4	MCCRACKEN	67	1.9	47,945	2.1
BRECKINRIDGE	16	0.5	10,065	0.4	MCCRARY	7	0.2	7,786	0.3
BULLITT	40	1.1	22,033	1.0	MCLEAN	13	0.4	7,001	0.3
BUTLER	7	0.2	6,226	0.3	MADISON	47	1.3	29,931	1.3
CALDWELL	18	0.5	9,617	0.4	MAGOFFIN	10	0.3	6,314	0.3
CALLOWAY	30	0.9	20,329	0.9	MARION	19	0.5	9,985	0.4
CAMPBELL	100	2.8	55,253	2.4	MARSHALL	29	0.8	18,026	0.8
CARLISLE	7	0.2	3,965	0.2	MARTIN	9	0.3	6,558	0.3
CARROLL	6	0.2	6,181	0.3	MASON	12	0.3	11,501	0.5
CARTER	17	0.5	13,149	0.6	MEADE	8	0.2	10,000	0.4
CASEY	9	0.3	8,605	0.4	MENIFEE	2	0.1	2,738	0.1
CHRISTIAN	38	1.1	40,536	1.8	MERCER	27	0.8	12,451	0.5
CLARK	23	0.7	18,224	0.8	METCALFE	7	0.2	5,044	0.2
CLAY	18	0.5	10,270	0.4	MONROE	7	0.2	7,093	0.3
CLINTON	5	0.1	5,137	0.2	MONTGOMERY	24	0.7	11,441	0.5
CRITTENDEN	7	0.2	6,358	0.3	MORGAN	9	0.3	6,224	0.3
CUMBERLAND	5	0.1	4,178	0.2	MUHLENBERG	30	0.9	20,117	0.9
DAVIESS	111	3.2	58,022	2.5	NELSON	34	1.0	16,281	0.7
EDMONSON	9	0.3	6,122	0.3	NICHOLAS	5	0.1	4,253	0.2
ELLIOTT	5	0.1	3,443	0.2	OHIO	25	0.7	13,736	0.6
ESTILL	7	0.2	8,199	0.3	OLDHAM	30	0.9	13,674	0.6
FAYETTE	187	5.3	145,824	6.3	OWEN	7	0.2	5,054	0.2
FLEMING	13	0.4	7,114	0.3	OWSLEY	6	0.2	2,843	0.1
FLOYD	31	0.9	24,025	1.0	PENDLETON	15	0.4	6,640	0.3
FRANKLIN	40	1.1	28,240	1.2	PERRY	22	0.6	17,535	0.8
FULTON	12	0.3	6,770	0.3	PIKE	51	1.5	42,648	1.8
GALLATIN	3	0.1	2,932	0.1	POWELL	6	0.2	6,021	0.3
GARRARD	14	0.4	6,814	0.3	PULASKI	43	1.2	26,848	1.2
GRANT	18	0.5	8,348	0.4	ROBERTSON	7	0.2	1,422	0.1
GRAVES	35	1.0	23,781	1.0	ROCKCASTLE	17	0.5	7,897	0.3
GRAYSON	21	0.6	11,730	0.5	ROWAN	11	0.3	10,453	0.4
GREEN	11	0.3	6,480	0.2	RUSSELL	16	0.5	7,915	0.3
GREENUP	28	0.8	24,939	1.1	SCOTT	32	0.9	13,414	0.6
HANCOCK	21	0.6	5,093	0.2	SHELBY	20	0.6	17,154	0.6
HARDIN	95	2.7	49,738	2.1	SIMPSON	15	0.4	9,814	0.4
HARLAN	33	0.9	24,389	1.0	SPENCER	5	0.1	3,995	0.2
HARRISON	20	0.6	10,123	0.4	TAYLOR	22	0.6	12,554	0.5
HART	9	0.3	9,220	0.4	TODD	10	0.3	6,991	0.3
HENDERSON	39	1.1	23,001	1.2	TRIGG	12	0.3	6,594	0.3
HENRY	9	0.3	7,988	0.3	TRIMBLE	8	0.2	3,809	0.2
HICKMAN	16	0.5	4,523	0.2	UNION	15	0.4	16,427	0.7
HOPKINS	47	1.3	29,959	1.3	WARREN	75	2.1	44,996	1.9
JACKSON	4	0.1	5,892	0.2	WASHINGTON	13	0.4	6,545	0.3
JEFFERSON	728	20.7	496,503	21.4	WAYNE	20	0.6	9,044	0.4
JESSAMINE	24	0.7	15,485	0.7	WEBSTER	26	0.7	9,815	0.4
JOHNSON	8	0.2	13,547	0.6	WHITLEY	26	0.7	16,434	0.7
KENTON	138	3.9	88,800	3.8	WOLFE	6	0.2	3,663	0.2
KNOTT	16	0.5	8,890	0.4	WOODFORD	18	0.5	11,824	0.5

that was probably a major factor in the response rate. Even so, the response was sufficient to provide a broad base of data for analysis.

Responses were summarized by county, highway district, area development district, and geographical area. The number and percentage of responses by county are summarized in Table 1. The number of responses ranged from two in Menifee County to 728 in Jefferson County. To determine whether the number of responses was representative of the number of licensed drivers in a county, the number of licensed drivers in each county and the percentage of all drivers in Kentucky residing in each county were also presented in Table 1. The percentage of responses and the percentage of licensed drivers were close for most counties.

The number and percentage of responses by highway district, area development district, and geographical area are presented in Table 2. Generally, the more populated districts and areas, with more licensed drivers, had more responses. Counties that make up the various highway districts, area development districts, and geographical areas are shown in Figures 1, 2, and 3, respectively.

Table 2. Responses By Location Within State.

VARIABLE	CATEGORY	NUMBER	PERCENT
HIGHWAY DISTRICT	1	249	7.1
	2	383	10.9
	3	187	5.3
	4	261	7.4
	5	880	25.0
	6	383	10.9
	7	454	12.9
	8	146	4.2
	9	158	4.5
	10	90	2.6
	11	163	4.6
	12	161	4.6
AREA DEVELOPMENT DISTRICT	1	208	5.9
	2	184	5.2
	3	250	7.1
	4	186	5.3
	5	219	6.2
	6	840	24.0
	7	344	9.8
	8	55	1.6
	9	54	1.5
	10	113	3.2
	11	109	3.1
	12	115	3.3
	13	168	4.8
	14	149	4.2
	15	521	14.8
GEOGRAPHICAL AREA	WESTERN	642	18.3
	LOUISVILLE	1059	30.1
	NORTHERN	344	9.8
	NORTHEASTERN	222	6.3
	SOUTHEASTERN	392	11.2
	CENTRAL	521	14.8
	SOUTH CENTRAL	335	9.5

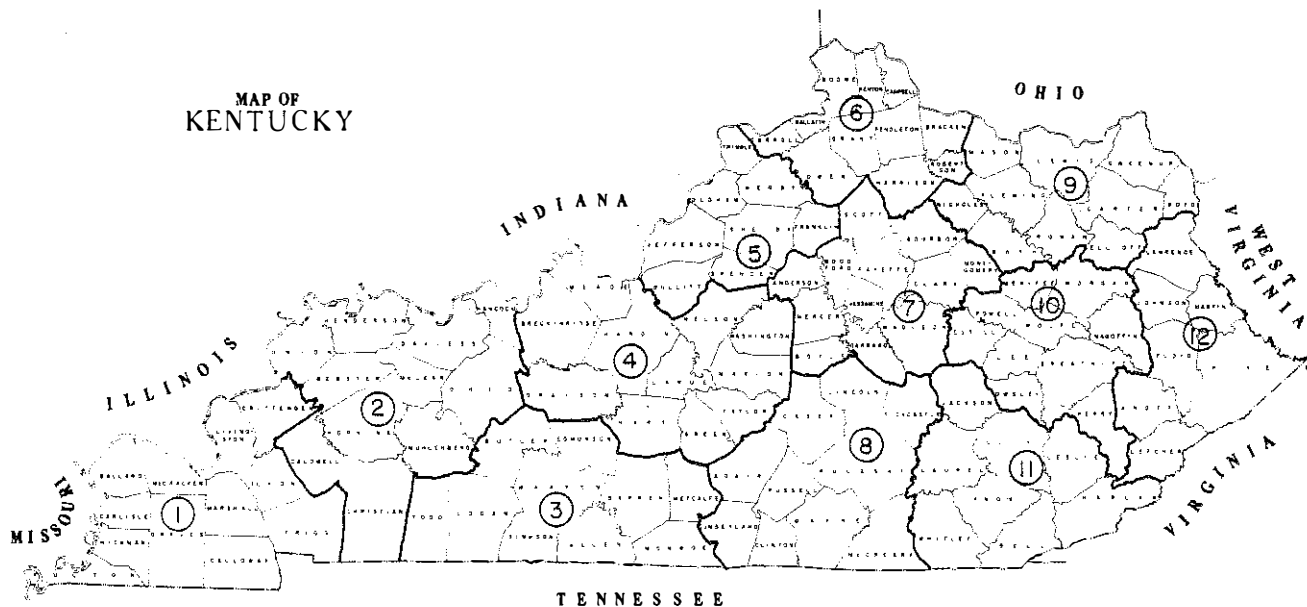


Figure 1. Highway Districts.

Of the 3,553 questionnaires returned, 55.6 percent (1,974) had been sent with personally signed cover letters and 44.4 percent (1,579) had been sent with letters which had printed signatures. This

indicates that the return rate using a personal signature (39.5 percent) was significantly higher than that using a printed signature (31.6 percent).

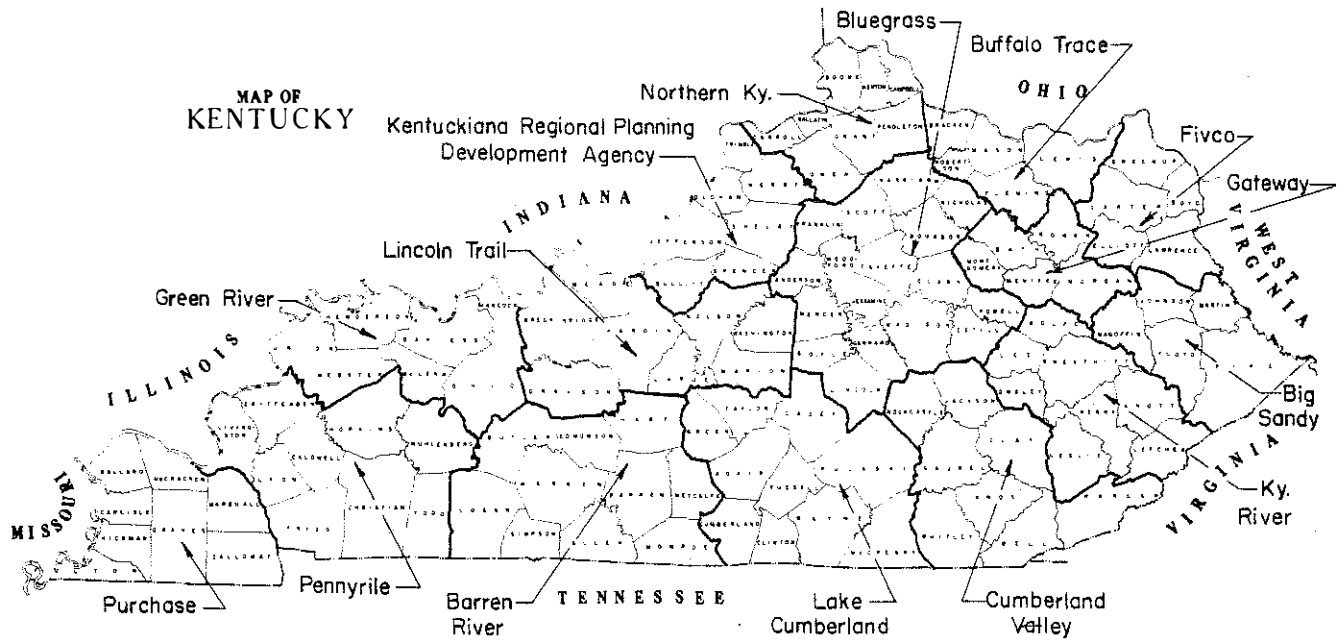


Figure 2. Area Development Districts.

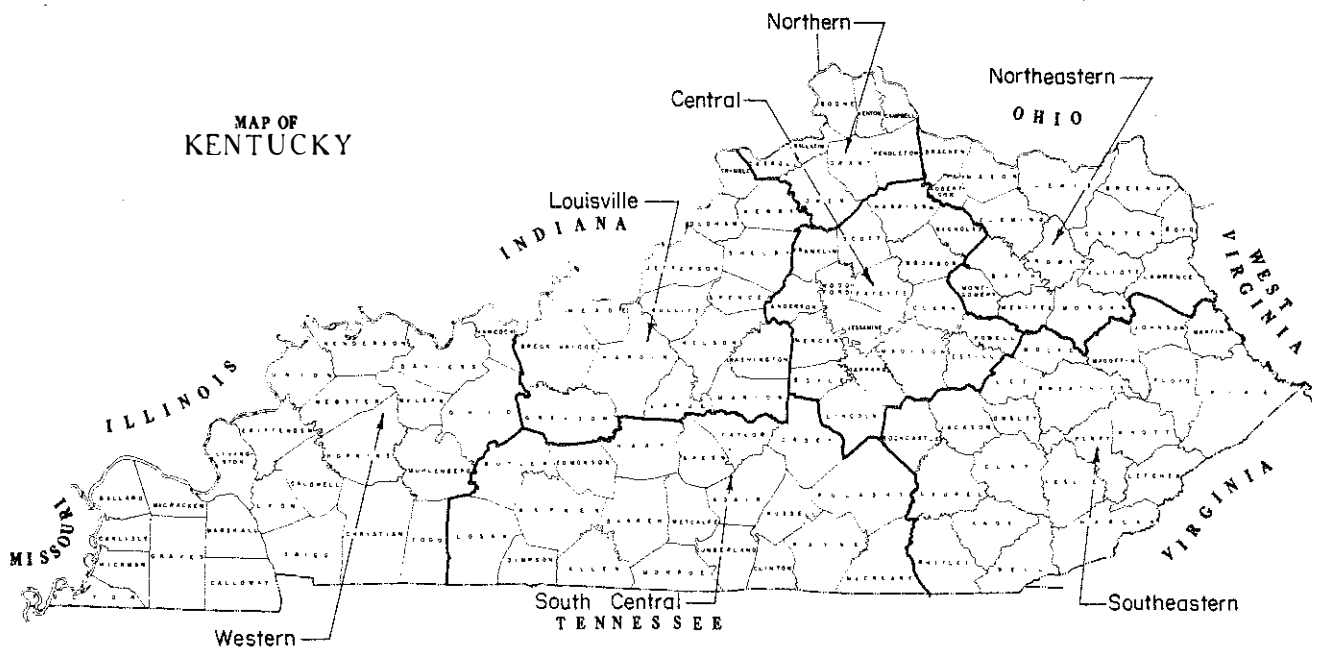


Figure 3. Geographical Areas.

## Personal Information

Personal information included on the questionnaire was confined to basic socioeconomic data and specific data related to automobile usage. Socioeconomic data are summarized in Table 3. The results were generally predictable, with a few exceptions. Respondents were fairly evenly distributed by age group; the highest percentage was in the 25-34 range. Male respondents outnumbered females by a margin of 56 to 44 percent. Housewives, skilled workers, professionals, unskilled workers, and retirees were the occupations listed most frequently. With regard to city size, 76.6 percent of the respondents were from communities with populations over 2,500.

It was found that 76.7 percent of the respondents had at least completed high school. Annual household income is usually thought to be closely associated with education, and these results indicated a relatively high response from the middle to upper-middle income ranges.

The questionnaire included three questions related to usage and availability of automobiles. Less than one percent of the respondents did not ever have access to an automobile. An attempt was made to determine the annual miles driven per driver and the annual miles driven per vehicle. Table 4 is a summary of results from both questions. This table shows that the annual miles driven for most drivers was in the 10,000-to-14,999 range. Additional calculations using the data from the questionnaire showed that the average, annual miles driven per driver for all those responding to the question was 14,049. This and other results are presented on the questionnaire form in APPENDIX B. Another question requested the model year and odometer reading for each automobile in the respondent's household. A summary of the results from this question is also presented in Table 4. The general trend indicated that the average, annual miles driven per vehicle was less than the average annual miles driven per driver. Additional calculations showed that the average, annual miles driven per vehicle for all vehicles listed on the questionnaire was 9,792.

**Table 3. Summary of Socioeconomic Data.**

VARIABLE	CATEGORY	NUMBER	PERCENT
AGE	16-20	338	9.6
	21-24	319	9.1
	25-34	843	24.1
	35-44	609	17.4
	45-54	555	15.8
	55-64	460	13.1
	65-74	290	8.3
	75 OR OLDER	91	2.6
SEX	MALES	1983	56.3
	FEMALES	1542	42.7
MARITAL STATUS	MARRIED	2628	74.6
	SINGLE	594	16.8
	DIVORCED	169	4.8
	WIDOWED	133	3.8
EDUCATION	LESS THAN HIGH SCHOOL	815	23.3
	HIGH SCHOOL	1005	28.7
	MORE THAN HIGH SCHOOL	993	28.3
	COMPLETED COLLEGE	689	19.7
OCCUPATION	HOUSEWIFE	497	14.9
	SKILLED	395	11.9
	PROFESSIONAL	374	11.2
	UNSKILLED	352	10.6
	RETIRED	351	10.5
	CLERICAL	228	6.8
	STUDENT	202	6.1
	SALES	197	5.9
	SUPERVISORY	159	4.8
	TECHNICAN	129	3.9
	AGRICULTURAL	124	3.7
	PROFESSIONAL DRIVER	67	2.0
	UNEMPLOYED	58	1.7
	MINING	50	1.5
LAW ENFORCEMENT	18	0.5	
MILITARY SERVICE	9	0.3	
OTHER	123	3.7	
ANNUAL HOUSEHOLD INCOME	LESS THAN \$8,000	648	19.1
	\$8,000-\$15,999	933	27.6
	\$16,000-\$23,999	819	24.2
	\$24,000-\$32,000	583	17.2
	GREATER THAN \$32,000	402	11.9
NUMBER OF PEOPLE IN HOUSEHOLD	1	305	9.0
	2	1054	30.9
	3	719	21.1
	4	729	21.4
	5	356	10.5
	6 OR MORE	243	7.1
POPULATION	GREATER THAN 60,000	849	25.0
	15,000-60,000	742	21.9
	2,500-14,999	1007	29.7
	LESS THAN 2,500	792	23.4

**Table 4. Annual Miles Driven.**

VARIABLE	CATEGORY	NUMBER	PERCENT
MILES DRIVEN PER DRIVER PER YEAR	0-4,999	468	14.7
	5,000-9,999	625	19.7
	10,000-14,999	890	28.0
	15,000-19,999	441	13.9
	20,000-29,999	470	14.8
	30,000-50,000	238	7.5
	OVER 50,000	43	1.4
MILES DRIVEN PER VEHICLE PER YEAR	0-4,999	611	11.5
	5,000-9,999	1926	36.2
	10,000-14,999	1491	28.1
	15,000-19,999	469	8.8
	20,000-29,999	217	4.1
	30,000-50,000	59	1.1
	OVER 50,000	544	10.2



Further stratification of annual mileage driven was made to show driver representation by age and sex. This information is presented in Table 5. The highest average, annual mileage driven (19,700) was recorded for males in the age bracket of 25 to 34 years old. Very close in mileage driven were males in the 35-to-44 age bracket (19,200) and males in the 21-to-24 age bracket (18,800). The 21-to-24 age bracket was the range with the highest average, annual mileage driven (12,200) for females. Overall, the average, annual mileage driven was 16,500 for males and 10,800 for females.

#### Satisfaction with Transportation Services

A significant portion of the survey was devoted to drivers' opinions concerning satisfaction with various transportation services. Table 6 is a general summary of those results. A majority of the respondents were either

very satisfied or satisfied with the services listed in Table 6. Probably one of the most outstanding results of the survey is reflected in the drivers' opinions of the overall transportation system. Over 80 percent of the respondents were either very satisfied or satisfied. Snow and ice removal and highway maintenance in general received the lowest approval ratings. Even here, drivers who were very satisfied or satisfied totaled approximately 50 percent. To determine whether there were major differences in driver opinion by area of the state, results from the question concerning satisfaction with the overall transportation system were listed by geographical area in Table 7. The geographical areas are the same as those in Figure 3. These results show that the southeastern portion of the state was the only exception to the general rule of high satisfaction. Only 66 percent of the respondents were satisfied or very satisfied in this area as compared to at least 80 percent in each of the other areas.

Another stratification, based on city population, was made of drivers' opinions of various aspects of Kentucky's transportation system. The data presented in Table 8 indicate that, as city size decreased, drivers tended to be more dissatisfied with highway appearance, maintenance, and snow removal. This trend was not as apparent when the drivers were queried concerning their opinion of the overall transportation system.

As a means of checking consistency of opinions, responses from related questions

Table 5. Annual Mileage Driven by Age and Sex of Driver.

AGE	ANNUAL MILES (1.6 KM) DRIVEN		
	MALE	FEMALE	BOTH
16-20	12,100	10,200	11,300
21-24	18,800	12,200	16,100
25-34	19,700	11,900	16,100
35-44	19,200	11,400	15,600
45-54	17,600	11,100	14,700
55-64	15,200	8,600	12,700
65-74	10,000	6,900	9,100
75 OR OLDER	5,600	4,300	5,300
ALL	16,500	10,800	14,100

Table 6. Driver Opinions Regarding State Transportation Services.

VARIABLE	DRIVER OPINION							
	VERY SATISFIED		SATISFIED		DISSATISFIED		VERY DISSATISFIED	
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
HIGHWAY MAINTENANCE	178	5.1	1884	54.5	1104	31.9	294	8.5
SNOW AND ICE REMOVAL	290	8.4	1759	50.8	965	27.9	448	12.9
CLEANLINESS AND OVERALL APPEARANCE	312	8.9	1956	55.9	836	25.3	348	9.9
EASE AND CONVIENCE OF OBTAINING, REPLACING, OR CHANGING DRIVER'S LICENSE	1243	61.5	703	34.7	50	2.5	26	1.3
OPPORTUNITY FOR PUBLIC PARTICIPATION IN TRANSPORTATION PROJECTS	759	23.2	1883	57.7	464	14.2	159	4.9
OVERALL TRANSPORTATION SYSTEM	198	5.8	2561	74.8	536	15.6	130	3.8

Table 7. Satisfaction With Overall Transportation System By Geographical Area.

GEOGRAPHICAL AREA	VERY	SATISFIED	DISSATISFIED	VERY
	PERCENT RESPONDING			
WESTERN	6	76	14	4
LOUISVILLE	6	76	15	3
NORTHERN	6	76	15	3
NORTHEASTERN	4	78	15	3
SOUTHEASTERN	5	61	25	9
SOUTH CENTRAL	7	79	12	2
CENTRAL	7	79	12	2

Table 8. Drivers' Opinions of Various Aspects of Kentucky's Transportation System By City Population.

CITY POPULATION	PERCENT DISSATISFIED OR VERY DISSATISFIED WITH GIVEN FEATURE			
	MAINTENANCE	SNOW AND ICE REMOVAL	RIGHT-OF-WAY APPEARANCE	OVERALL TRANSPORTATION SYSTEM
GREATER THAN 60,000	29	33	29	19
15,000-60,000	38	40	31	19
2,500-14,999	44	41	38	18
LESS THAN 2,500	39	47	44	22

Table 9. Relationship Between Satisfaction With Snow and Ice Removal and Opinion on Future Spending For Snow and Ice Removal.

SATISFACTION WITH SNOW AND ICE REMOVAL	OPINION ON FUTURE SPENDING FOR SNOW AND ICE REMOVAL			
	PERCENT			
	INCREASE	STAY SAME	DECREASE	STOP
VERY SATISFIED	35	60	4	1
SATISFIED	46	52	2	0
DISSATISFIED	87	12	1	0
VERY DISSATISFIED	95	3	1	1

in two different sections of the questionnaire were cross-tabulated. Relationships between satisfaction with snow removal and opinion on future spending for snow removal are presented in Table 9. A majority of drivers who were satisfied with snow removal felt spending in that area should remain at the same level. Almost all of those who were dissatisfied felt an increase in spending for snow and ice removal was warranted. The relationships between satisfaction with highway maintenance and opinion on future spending for road maintenance are presented in Table 10. In general, very-satisfied drivers felt spending should remain unchanged, and very-dissatisfied drivers wanted increased spending for road maintenance. However, it was found that even among those drivers satisfied with highway maintenance, 58 percent wanted increased spending.

Additional cross-tabulations were made to assess drivers' satisfaction with the overall transportation system as a function of nine variables associated with the driving task. These are presented in Table 11. Drivers who always had automobiles available were generally satisfied with the overall transportation system; satisfaction decreased with decreasing availability of automobiles. Surprisingly, more drivers who sometimes encountered rough roads were very satisfied or satisfied than those who rarely encountered rough roads. This very slight difference was the only case where a decrease in satisfaction with the overall transportation system did not occur as expected. Drivers tended to be satisfied with overall transportation

services if they were generally satisfied with other aspects related to driving and if they did not indicate frequent encounters with undesirable roadway features.

Additional summaries and stratifications were made by county, highway district, and area development district. Drivers' opinions of various aspects of Kentucky's transportation system are summarized by county in Table 12. A significant variance in dissatisfaction existed between the counties in different areas of the state. This variance of opinions is more clearly shown in the summary by highway district in Table 13. Here, residents of counties in southeastern Kentucky (Highway Districts 10, 11, and 12) are obviously more dissatisfied with all transportation services as compared to residents in other parts of the state. Respondents from districts including the larger urban areas (Highway Districts 5, 6, and 7) were more satisfied with transportation services. The other summary, which includes responses by area development districts, is presented in Table 14. The same trend exists here, with respondents from southeastern Kentucky districts expressing more dissatisfaction than those from other parts of the state.

#### Inadequate Transportation Services

A few questions dealt with how often drivers encountered various types of inadequate transportation services. These included: state- or US-numbered highways that were bumpy, uneven, or rough; an

**Table 10. Relationship Between Satisfaction With Highway Maintenance and Opinion on Future Spending For Road Maintenance.**

SATISFACTION WITH HIGHWAY MAINTENANCE	OPINION ON FUTURE SPENDING FOR ROAD MAINTENANCE			
	INCREASE	STAY SAME	DECREASE	STOP
VERY SATISFIED	41	57	2	0
SATISFIED	58	40	1	1
DISSATISFIED	86	13	1	0
VERY DISSATISFIED	93	6	1	0

unacceptable level of congestion on city streets; congestion on rural roads; traffic signs or signals that were poorly placed or difficult to understand; and pavement markings, such as center lines, edge stripes, and lane markings, which were hard to see.

The frequency of encountering these inadequate elements is summarized in Table 15. The most common problem was bumpy roads, with about one-fourth of all respondents experiencing this problem very often and over one-half experiencing it

either fairly often or very often. Also, unacceptable levels of congestion on city streets and pavement markings that were hard to see were experienced either fairly often or very often by about 40 percent of the drivers. Inadequate signs or signals were much less of a problem, with only about 17 percent of drivers meeting this problem fairly often or very often. The least common problem involved congestion on rural roads, with over one-half of the respondents encountering this problem either rarely or never.

Table 11. Satisfaction With Overall Transportation System As A Function Of Various Driving Information.

		OPINION OF OVERALL TRANSPORTATION SYSTEM			
		PERCENT RESPONDING			
VARIABLE	CATEGORY	VERY SATISFIED	SATISFIED	DISSATISFIED	VERY DISSATISFIED
AUTOMOBILE AVAILABILITY	ALWAYS	6	76	15	4
	SOMETIMES	4	69	21	6
	NEVER	5	50	23	22
ENCOUNTER ROUGH ROADS	RARELY	13	75	9	3
	SOMETIMES	7	83	9	1
	FAIRLY OFTEN	4	74	19	3
	VERY OFTEN	3	63	24	10
SATISFACTION WITH HIGHWAY MAINTENANCE	VERY SATISFIED	32	59	7	2
	SATISFIED	6	84	9	1
	DISSATISFIED	3	67	26	4
	VERY DISSATISFIED	3	48	28	21
SATISFACTION WITH SNOW AND ICE REMOVAL	VERY SATISFIED	26	64	7	3
	SATISFIED	5	83	10	2
	DISSATISFIED	4	73	20	3
	VERY DISSATISFIED	3	56	29	12
SATISFACTION WITH RIGHT-OF-WAY APPEARANCE	VERY SATISFIED	20	69	10	1
	SATISFIED	5	81	12	2
	DISSATISFIED	3	70	23	4
	VERY DISSATISFIED	5	57	26	13
ENCOUNTER CONGESTION ON CITY STREETS	RARELY	10	81	7	2
	SOMETIMES	5	79	13	3
	FAIRLY OFTEN	4	73	19	4
	VERY OFTEN	5	63	24	8
ENCOUNTER CONGESTION ON RURAL ROADS	RARELY	7	80	11	2
	SOMETIMES	4	72	19	5
	FAIRLY OFTEN	3	62	28	7
	VERY OFTEN	8	49	28	15
ENCOUNTER POOR SIGNS OR SIGNALS	RARELY	7	80	11	2
	SOMETIMES	5	76	16	3
	FAIRLY OFTEN	4	65	23	8
	VERY OFTEN	8	53	25	14
ENCOUNTER PAVEMENT MARKINGS WHICH WERE HARD TO SEE	RARELY	9	79	10	2
	SOMETIMES	6	80	12	2
	FAIRLY OFTEN	3	73	20	4
	VERY OFTEN	5	57	26	12

Table 12. Drivers' Opinions Of Various Aspects Of Kentucky's Transportation System By County.

COUNTY	PERCENT DISSATISFIED WITH GIVEN FEATURE OR VERY DISSATISFIED					OVERALL TRANSPORTATION SYSTEM
	MAINTENANCE	SNOW AND ICE REMOVAL	RIGHT- OF-WAY APPEARANCE	DRIVERS LICENSE RENEWAL		
ADAIR	27	55	55	0		27
ALLEN	25	55	33	0		11
ANDERSON	30	20	40	0		18
BALLARD	58	27	58	0		25
BARREN	36	64	25	8		14
BATH	25	37	37	25		12
BELL	50	52	48	25		39
BOONE	32	32	23	3		25
BOURBON	26	24	30	0		8
BOYD	42	35	40	7		19
BOYLE	17	21	16	0		6
BRACKEN	55	25	42	0		25
BREATHITT	46	46	54	0		15
BRECKINRIDGE	60	69	56	0		19
BULLITT	50	46	50	0		15
BUTLER	43	43	43	0		0
CALDWELL	39	39	17	9		17
CALLOWAY	50	37	33	0		27
CAMPBELL	39	24	30	6		14
CARLISLE	83	14	57	17		29
CARROLL	50	50	67	0		17
CARTER	41	41	35	0		24
CASEY	67	22	11	25		33
CHRISTIAN	41	51	26	4		16
CLARK	41	35	26	7		33
CLAY	61	56	44	0		33
CLINTON	20	60	40	0		0
CRITTENDEN	43	57	29	0		14
CUMBERLAND	0	0	20	0		0
DAVIESS	39	51	31	4		19
EDMONSON	33	44	22	0		25
ELLIOT	50	50	40	0		0
ESTILL	57	57	86	0		43
FAYETTE	29	36	24	4		20
FLEMING	38	15	38	0		15
FLOYD	77	58	29	15		45
FRANKLIN	21	17	32	0		18
FULTON	36	33	9	0		17
GALLATIN	33	0	0	0		33
GARRARD	14	7	21	0		8
GRANT	61	37	22	0		11
GRAVES	44	49	26	7		22
GRAYSON	70	70	48	8		22
GREEN	55	36	18	0		0
GREENUP	50	43	36	0		11
HANCOCK	14	24	24	0		19
HARDIN	50	45	26	7		23
HARLAN	66	67	78	6		34
HARRISON	45	42	55	8		16
HART	45	56	22	0		25
HENDERSON	39	37	45	0		3
HENRY	88	33	44	0		25
HICKMAN	67	64	47	0		14
HOPKINS	50	51	45	20		21
JACKSON	75	50	75	0		0
JEFFERSON	30	35	31	4		18
JESSAMINE	21	37	25	8		8
JOHNSON	87	75	37	0		0
KENTON	41	38	24	7		18
KNOTT	37	44	69	0		21
KNOX	60	64	56	11		29
LARUE	54	46	15	0		23
LAUREL	45	32	41	7		29
LAWRENCE	73	60	80	0		27
LEE	50	62	78	0		33

Table 12. Drivers' Opinions Of Various Aspects Of Kentucky's Transportation By County (Continued).

COUNTY	PERCENT DISSATISFIED WITH GIVEN FEATURE OR VERY DISSATISFIED				
	MAINTENANCE	SNOW AND ICE REMOVAL	RIGHT- OF-WAY APPEARANCE	DRIVERS LICENSE RENEWAL	OVERALL TRANSPORTATION SYSTEM
LESLIE	92	58	83	0	55
LETCHE	67	70	80	0	48
LEWIS	60	55	45	0	40
LINCOLN	31	46	31	0	0
LIVINGSTON	22	30	50	0	3
LOGAN	25	25	75	0	25
LYON	25	25	75	0	25
MC CRACKEN	46	48	31	5	22
MC CREARY	33	14	57	20	14
MC LEAN	46	62	38	20	9
MADISON	28	36	32	3	13
MAGOFFIN	80	89	60	0	60
MARION	32	42	32	0	16
MARSHALL	21	38	28	0	4
MARTIN	67	22	22	0	0
MASON	42	50	42	0	17
MEADE	50	87	25	0	0
MENIFEE	50	50	50	0	50
MERCER	46	46	30	5	23
METCALFE	29	14	57	0	14
MONROE	67	67	33	0	33
MONTGOMERY	46	61	46	6	13
MORGAN	33	33	56	0	11
MUHLENBERG	43	59	50	0	16
NELSON	48	58	39	0	21
NICHOLAS	40	20	40	0	40
OHIO	52	48	32	0	28
OLDHAM	17	28	27	0	21
OWEN	50	50	50	0	14
OWSLEY	100	67	67	0	33
PENDLETON	64	40	33	0	20
PERRY	71	63	62	8	29
PIKE	80	54	75	6	56
POWELL	33	50	17	0	0
PULASKI	29	43	26	0	15
ROBERTSON	29	29	43	0	14
ROCKCASTLE	44	38	29	0	12
ROWAN	27	36	18	17	18
RUSSELL	38	19	20	0	0
SCOTT	50	40	30	5	15
SHELBY	30	10	35	0	15
SIMPSON	13	40	40	0	0
SPENCER	100	40	60	25	60
TAYLOR	41	23	68	0	19
TODD	44	40	30	0	20
TRIGG	58	42	45	14	17
TRIMBLE	25	25	0	0	0
UNION	36	36	43	0	0
WARREN	32	36	20	6	16
WASHINGTON	54	54	38	0	8
WAYNE	50	25	25	0	15
WEBSTER	73	50	50	0	20
WHITLEY	35	44	40	0	12
WOLFE	50	67	83	0	17
WOODFORD	44	33	22	7	18

Table 13. Drivers' Opinions Of Various Aspects Of Kentucky's Transportation System By Highway District.

HIGHWAY DISTRICT NUMBER	PERCENT DISSATISFIED OR VERY DISSATISFIED WITH GIVEN FEATURE			
	MAINTENANCE	SNOW AND ICE REMOVAL	RIGHT-OF-WAY APPEARANCE	OVERALL TRANSPORTATION SYSTEM
1	45	44	34	19
2	43	48	36	18
3	32	42	30	14
4	50	50	36	20
5	31	34	31	18
6	41	33	29	18
7	32	35	27	16
8	36	35	29	13
9	42	38	37	19
10	59	60	62	28
11	57	54	56	31
12	72	57	71	40

Table 14. Satisfaction With Overall Transportation System By Area Development District .

AREA DEVELOPMENT DISTRICT	PERCENT RESPONDING			
	VERY SATISFIED	SATISFIED	DISSATISFIED	VERY DISSATISFIED
PURCHASE	4	76	14	6
PENNYRILE	6	76	16	2
GREEN RIVER	7	75	13	5
BARREN RIVER	8	78	13	1
LINCOLN TRAIL	4	77	17	2
JEFFERSON	6	76	15	3
NORTHERN KENTUCKY	6	76	15	3
BUFFALO TRACE	9	69	20	2
GATEWAY	4	81	11	4
FIVCO	1	81	15	3
BIG SANDY	2	54	25	19
KENTUCKY RIVER	4	62	28	6
CUMBERLAND VALLEY	7	65	22	5
LAKE CUMBERLAND	6	79	12	3
BLUEGRASS	7	77	14	2

The percentage of drivers experiencing these problems either fairly often or very often was summarized by highway district (Table 16), county (Table 17), and population of city of residence (Table 18). The analysis by highway district showed the most problems in District 12, followed by Districts 10 and 11, and the least problems in District 3,

followed by District 3. To rate the level of inadequate services on a county basis, the percentages given in Table 17 were added for each county. The counties with the ten highest percentages of drivers experiencing these inadequate services were concentrated in the southeastern part of the state (Figure 4). Counties with the lowest total percentages were

**Table 15. Frequency Of Encountering Inadequate Transportation Services.**

VARIABLE	RESPONSE							
	RARELY OR NEVER		SOMETIMES, BUT NOT OFTEN		FAIRLY OFTEN		VERY OFTEN	
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
BUMPY, UNEVEN, OR ROUGH HIGHWAYS	336	9.7	1275	36.6	1028	29.5	844	24.2
UNACCEPTABLE LEVEL OF CONGESTION ON CITY STREETS	513	14.8	1450	41.7	960	27.6	553	15.9
CONGESTION ON RURAL ROADS	2000	58.4	1042	30.4	266	7.8	115	3.4
POORLY PLACED OR DIFFICULT TO UNDERSTAND TRAFFIC SIGNS OR SIGNALS	1255	36.1	1640	47.1	434	12.5	149	4.3
PAVEMENT MARKINGS WHICH WERE HARD TO SEE	668	19.1	1422	40.7	914	26.1	492	14.1

**Table 16. Frequency Of Encountering Inadequate Transportation Services By Highway District.**

HIGHWAY DISTRICT NUMBER	ROUGH ROADS	PERCENT EXPERIENCING GIVEN PROBLEM FAIRLY OR VERY OFTEN			
		UNACCEPTABLE CONGESTION		POOR SIGNS OR SIGNALS	PAVEMENT MARKINGS NOT VISIBLE
		CITY STREETS	RURAL ROADS		
1	61	33	11	18	33
2	54	38	10	15	38
3	42	37	6	14	28
4	64	34	10	21	37
5	40	51	11	15	38
6	60	43	8	20	49
7	47	51	7	16	37
8	52	29	7	19	31
9	57	40	8	14	41
10	67	47	27	20	59
11	76	36	21	19	48
12	84	55	28	19	69



Table 17. Frequency Of Encountering Inadequate Transportation Services By County.

COUNTY	PERCENT EXPERIENCING GIVEN PROBLEM FAIRLY OR VERY OFTEN				
	ROUGH ROADS	UNACCEPTABLE CITY STREETS	CONGESTION RURAL ROADS	POOR SIGNS OR SIGNALS	PAVEMENT MARKINGS NOT VISIBLE
ADAIR	60	20	10	20	40
ALLEN	44	44	11	11	11
ANDERSON	33	30	0	0	22
BALLARD	67	17	8	33	33
BARREN	50	22	4	25	39
BATH	75	37	0	0	62
BELL	59	39	23	9	39
BOONE	67	47	11	23	51
BOURBON	52	22	7	22	15
BOYD	37	56	4	22	46
BOYLE	37	37	0	5	16
BRACKEN	58	8	0	17	42
BREATHITT	54	62	8	17	50
BRECKINRIDGE	56	40	13	20	56
BULLITT	67	59	15	29	45
BUTLER	29	14	0	29	71
CALDWELL	56	50	11	33	35
CALLOWAY	55	47	14	10	31
CAMPBELL	54	41	4	21	46
CARLISLE	71	29	14	0	57
CARROLL	83	33	17	0	33
CARTER	47	12	0	6	41
CASEY	67	11	0	33	22
CHRISTIAN	47	50	11	13	16
CLARK	52	65	9	22	36
CLAY	88	50	28	19	67
CLINTON	40	40	20	40	60
CRITTENDEN	71	71	0	14	14
CUMBERLAND	80	0	0	20	20
DAVIESS	42	39	6	14	40
EDMONSON	44	11	11	11	33
ELLIOT	50	60	60	40	20
ESTILL	57	43	50	14	57
FAYETTE	40	66	7	20	42
FLEMING	38	33	15	15	15
FLOYD	84	47	34	21	84
FRANKLIN	45	40	8	10	35
FULTON	73	9	9	27	27
GALLATIN	67	67	67	67	67
GARRARD	29	7	7	7	36
GRANT	82	39	11	22	50
GRAVES	69	24	12	11	31
GRAYSON	80	38	19	31	40
GREEN	82	10	11	45	64
GREENUP	61	32	4	7	25
HANCOCK	45	15	10	14	29
HARDIN	66	44	7	20	35
HARLAN	75	44	28	24	61
HARRISON	60	35	5	15	39
HART	56	11	12	22	33
HENDERSON	53	53	16	16	31
HENRY	89	50	11	11	22
HICKMAN	67	13	7	33	47
HOPKINS	60	53	13	11	40
JACKSON	100	0	25	0	50
JEFFERSON	37	54	11	15	38
JESSAMINE	29	63	17	8	30
JOHNSON	88	37	0	25	25
KENTON	57	51	28	21	51
KNOTT	81	19	7	6	7
KNOX	76	16	4	17	32
LARUE	69	31	27	31	69
LAUREL	77	50	23	27	45
LAWRENCE	93	33	20	7	47
LEE	89	33	0	44	44
LESLIE	100	50	0	42	67
LETCHER	37	76	27	23	70

Table 17. Frequency Of Encountering Inadequate Transportation By County (Continued).

COUNTY	PERCENT EXPERIENCING GIVEN PROBLEM FAIRLY OR VERY OFTEN				
	ROUGH ROADS	UNACCEPTABLE CITY STREETS	CONGESTION RURAL ROADS	POOR SIGNS OR SIGNALS	PAVEMENT MARKINGS NOT VISIBLE
LEWIS	82	22	30	27	64
LINCOLN	54	31	15	15	8
LIVINGSTON	39	17	11	17	6
LOGAN	45	25	5	5	10
LYON	25	25	0	0	0
MC CRACKEN	58	52	10	22	39
MC CREARY	71	40	0	14	29
MC LEAN	58	23	13	17	54
MADISON	60	43	11	13	43
MAGOFFIN	89	70	50	20	70
MARION	33	26	19	11	16
MARSHALL	59	14	18	19	34
MARTIN	77	22	22	0	67
MASON	75	50	8	0	50
MEADE	63	0	0	12	12
MENIFEE	50	50	50	50	50
MERCER	58	42	8	27	46
METCALFE	57	29	14	14	43
MONROE	29	71	14	14	14
MONTGOMERY	50	46	8	4	33
MORGAN	56	56	25	11	56
MUHLENBERG	63	24	3	17	50
NELSON	66	36	6	9	42
NICHOLAS	40	40	0	20	40
OHIO	60	28	16	14	42
OLDHAM	47	27	7	10	43
OWEN	50	50	20	17	67
OWSLEY	83	33	17	33	100
PENDLETON	64	7	15	20	67
PERRY	85	50	40	19	76
PIKE	88	74	41	27	73
PULASKI	37	36	7	14	26
ROBERTSON	57	43	0	14	43
ROCKCASTLE	65	18	6	29	50
ROWAN	45	36	9	9	45
RUSSELL	50	6	6	19	20
SCOTT	72	42	3	10	42
SHELBY	60	32	0	10	30
SIMPSON	27	33	7	13	20
SPENCER	100	60	20	20	40
TAYLOR	60	27	19	24	27
TODD	67	30	0	30	20
TRIGG	91	58	8	17	50
TRIMBLE	50	0	0	0	29
UNION	57	7	0	7	43
WARREN	36	48	7	8	28
WASHINGTON	62	31	23	15	23
WAYNE	35	60	5	15	45
WEBSTER	92	28	28	12	50
WHITLEY	65	20	15	8	32
WOLFE	60	17	17	17	17
WOODFORD	67	29	11	17	28

scattered throughout the state, except that none were located in the southeastern portion of the state. When population was considered, the total percentage of drivers encountering the various inadequate services increased slightly as population decreased. This was due to an

increase in the percentage of drivers encountering rough roads in the lower-populated areas.

The summaries given in Tables 19 and 20 were done to identify specific highways as being rough. The summaries in Table 19 show the total number of times the various

Table 18. Frequency Of Encountering Inadequate Transportation Services By City Population.

CITY POPULATION	PERCENT EXPERIENCING GIVEN PROBLEM FAIRLY OR VERY OFTEN				
	ROUGH ROADS	UNACCEPTABLE CITY STREETS	CONGESTION RURAL ROADS	POOR SIGNS OR SIGNALS	PAVEMENT MARKINGS NOT VISIBLE
GREATER THAN 60,000	37	54	9	16	36
15,000-60,000	1	58	9	17	38
2,500-14,999	60	39	12	17	42
LESS THAN 2,500	67	31	15	17	44

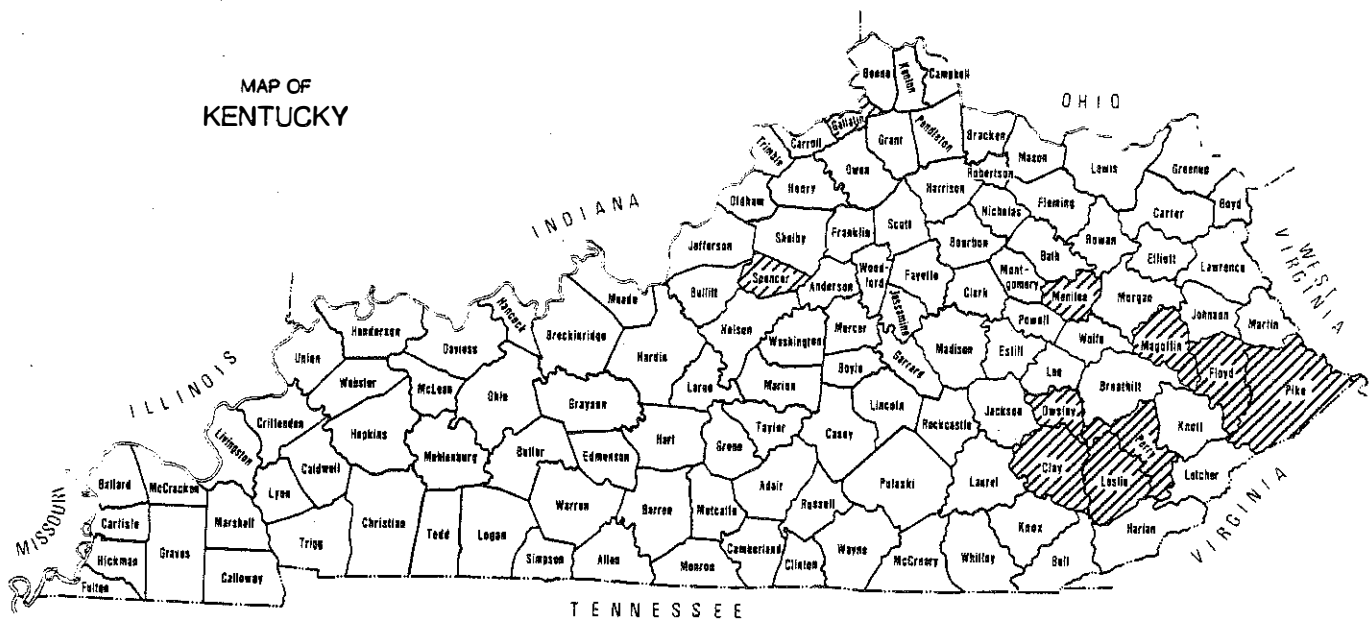


Figure 4. Counties with Highest Percentages of Inadequate Services.

Table 19. Highways Frequently Mentioned As Being Bumpy Or Uncomfortable To Ride On.

ROUTE	FREQUENCY	ROUTE	FREQUENCY	ROUTE	FREQUENCY
I 65	100	KY 70	16	KY 9	9
US 60	89	KY 11	15	KY 52	9
US 62	62	KY 22	15	KY 55	9
US 68	62	US 45	15	KY 79	9
I 75	60	US 127	15	US 51	8
KY 80	55	US 150	15	KY 109	8
US 27	54	KY 10	14	KY 160	8
I 64	50	KY 15	14	KY 94	7
US 25	48	US 41	13	KY 5	6
US 23	47	US 25	13	KY 18	6
US 31	41	KY 56	12	KY 39	6
US 421	36	US 431	12	KY 81	6
US 42	33	KY 16	11	KY 88	6
I 71	32	KY 32	11	KY 121	6
I 64	32	KY 36	11	KY 136	6
US 460	31	KY 92	11	KY 221	6
US 119	28	KY 17	10	KY 259	6
KY 7	19	US 31	10	KY 19	5
KY 61	18	KY 44	10	KY 21	5
US 31	18	KY 54	10	KY 90	5
KY 8	17	KY 144	10	KY 91	5
US 231	17	US 641	10	KY 146	5
US 41	16	KY 3	9	KY 210	5

Table 20. Routes Listed By More Than Five Percent Of Respondents In A Highway District As Being Bumpy Or Uncomfortable To Ride On.

HIGHWAY DISTRICT	ROUTE	NUMBER OF RESPONSES	PERCENT OF ALL RESPONDENTS IN DISTRICT
1	US 62	17	6.8
2	US 60	21	5.5
	US 62	21	5.5
3	US 68	16	8.6
	I 65	10	5.3
4	I 65	23	8.8
	US 31W	16	6.1
5	I 65	52	5.9
6	I 75	32	8.4
	US 25	28	7.3
	US 27	21	5.5
	US 42	20	5.2
7	US 27	26	5.7
8	KY 80	9	6.2
9	US 23	13	8.2
	US 60	13	8.2
	KY 7	8	5.1
	I 64	8	5.1
10	KY 15	5	5.6
11	US 421	18	11.0
	US 119	10	6.1
12	US 23	28	17.4
	US 460	17	10.6
	KY 80	16	9.9
	US 119	15	9.3

routes were listed. I 65 and US 60 were listed most often. The percentage of drivers in a given area, such as a highway district, identifying a given route as rough is a better measure for locating rough and bumpy highways. This approach was used in Table 20. This table gives the routes that were listed by more than five percent of the respondents in any highway district as being rough or bumpy. The route identified by the highest percentage of drivers in a single district (17.4 percent) was US 23 in District 12. US 421 in District 11 and US 460 in

District 12 were also listed by over 10 percent of the respondents in their respective districts.

The drivers were asked to give the major cause of the congestion they encountered on city streets and rural roads. A summary of the responses is shown in Table 21. High traffic volumes and rush-hour traffic were listed most often as the causes of congestion in urban areas. In rural areas, farm equipment and narrow roads were listed most often.

One question on the survey dealt with the need, availability, and convenience of

Table 21. Major Causes Of Congestion In Urban and Rural Areas.

CAUSE OF CONGESTION		NUMBER	PERCENT
URBAN	HIGH TRAFFIC VOLUME	350	13.5
	RUSH HOUR TRAFFIC	347	13.4
	POOR ENGINEERING DESIGN OR PLANNING	194	7.5
	SIGNALS NOT SYNCHRONIZED	188	7.3
	POOR DRIVERS	148	5.7
	PROBLEMS DURING CONSTRUCTION	119	4.6
	NEED ADDITIONAL LANES	116	4.5
	INADEQUATE SYSTEM	109	4.2
	NARROW STREETS	102	3.9
	ACCIDENTS	66	2.5
	BUSINESSES	65	2.5
	TOO MANY SIGNALS	57	2.2
	TRAINS	57	2.2
	INADEQUATE PARKING	54	2.1
	NEED BYPASS	50	1.9
	WEATHER	45	1.7
	SPECIAL EVENTS	40	1.5
	POOR MAINTENANCE	38	1.5
	LACK OF LEFT-TURN LANES	37	1.4
	SIGNALS NOT WORKING	36	1.4
	LARGE TRUCKS	33	1.3
	ILLEGAL PARKING	31	1.2
	BRIDGES	25	1.0
LACK OF ACCESS CONTROL	19	.7	
NEED ADDITIONAL SIGNALS	18	.7	
INADEQUATE PUBLIC TRANSIT	17	.7	
POORLY DESIGNED EXPRESSWAY RAMPS	15	.6	
SCHOOLS	11	.4	
STOP SIGNS	9	.3	
NEED MORE ONE-WAY STREETS	7	.3	
OTHER	188	7.3	
RURAL	FARM EQUIPMENT	192	14.2
	NARROW ROADS	139	10.3
	DRIVER CHARACTERISTICS	125	9.2
	INADEQUATE CAPACITY	120	8.9
	ACCIDENTS	110	8.1
	CONSTRUCTION (DETOURS)	108	8.0
	SLOW TRUCKS AND BUSES	104	7.7
	POOR MAINTENANCE	86	6.4
	RUSH HOUR TRAFFIC	72	5.3
	SIGNS AND SIGNALS	41	3.0
	WEATHER	34	2.5
	POOR ENGINEERING DESIGN	32	2.4
	SPECIAL EVENTS	27	2.0
	SCHOOLS	15	1.1
	TRAINS	15	1.1
OTHER	133	9.8	

emergency aid. Approximately 13 percent of the respondents indicated they had been in need of emergency aid (police, ambulance, tow-truck) on a road in Kentucky during the 12-month period prior to receiving the questionnaire. For those in need of emergency aid, almost two-thirds (63 percent) were able to quickly and conveniently get the help needed.

#### Drivers' Complaints and Compliments

The drivers were asked to list their biggest complaints and what they appreciated most about Kentucky's transportation system. Some respondents listed several features; others gave no response. The percentages of drivers listing specific responses were calculated. The variance of complaints and "aspects appreciated" was investigated by location within the state (highway district) and by driver characteristics (age and sex).

The most frequently mentioned complaint involved poor maintenance, with

over 15 percent of the respondents listing this type of complaint (Table 22). The second most common complaint involved a lack of adequate public transportation. About 10 percent of the respondents listed this complaint. After these two most common complaints, the number of times any complaint was listed dropped substantially. Other complaints registered by more than 100 respondents included: inadequate road system, snow and ice removal, poor planning or design, and trucks or coal trucks. Almost 10 percent of the respondents stated they had no complaint.

The aspect of Kentucky's transportation system most appreciated was the interstate system, with about 12 percent listing this feature (Table 23). Almost nine percent listed good roads as an aspect they appreciated. Other items listed by more than 100 respondents included: the parkway (toll road) system, highway appearance, overall progress, law enforcement, convenience, and accessibility. Many of these items were

Table 22. Complaints About Transportation System.

RANK	COMPLAINT	NUMBER OF TIMES LISTED	PERCENT OF RESPONDENTS LISTING
1	POOR MAINTENANCE, POOR ROADSIDE MAINTENANCE, OR BAD ROADS (IN GENERAL)	552	15.5
2	LACK OF ADEQUATE PUBLIC TRANSPORTATION	353	9.9
3	NO COMPLAINT (NOT INCLUDING THOSE LEFT BLANK)	333	9.4
4	INADEQUATE ROAD SYSTEM: NEED MORE ROADS OR LANES, NEED WIDER LANES, INADEQUATE CAPACITY	196	5.5
5	SNOW AND ICE REMOVAL	156	4.4
6	POOR PLANNING AND/OR DESIGN, LACK OF PROGRESS	129	3.6
7	TRUCKS AND/OR COAL TRUCKS	122	3.4
8	TOO FEW POLICE AND/OR TOO LENIENT LAW ENFORCEMENT	92	2.6
9	TOO HIGH PERCENTAGE OF SPENDING IN URBAN AREAS	80	2.3
10	TOLLS	79	2.2
11	STATE EMPLOYEE INEFFICIENCY	76	2.1
12	POLITICS AND/OR LACK OF COMMUNICATION	75	2.1
13	TOO LENIENT LICENSE REQUIREMENTS, POOR DRIVERS, WASTEFUL DRIVERS	65	1.8
14	POOR PAVEMENT MARKINGS	49	1.4
15	55 MPH SPEED LIMIT	46	1.3
16	RAILROAD TRAINS CAUSING TRAFFIC PROBLEMS	43	1.2
17	CONSTRUCTION CAUSING TRAFFIC PROBLEMS	32	0.9
18	LITTER	31	0.9
19	POOR SIGNING	29	0.8
20	LACK OF SUFFICIENT SAFETY FEATURES	29	0.8
21	BUDGET TOO HIGH	26	0.7
22	TOO STRICT LAW ENFORCEMENT	26	0.7
23	POOR ROADWAY GEOMETRICS	21	0.6
24	NOT ENOUGH RECONSTRUCTION		
25	NOT ENOUGH SIGNALS		
26	TOO MUCH NEW CONSTRUCTION		
27	OTHER	308	8.7
28	LEFT BLANK	1093	30.8

general in nature. Some specific items, such as rest areas and raised pavement markers, were also listed by several respondents.

There were some variations when complaints and "aspects appreciated" were related to highway district (Tables 24 and 25). Tolls ranked high as a complaint in Districts 1 and 2, compared to the statewide ranking. This would be related to the large number of toll roads and the low interstate mileage in those districts. Poor maintenance ranked number one in all but one district. Lack of adequate public transportation was ranked number 1 in District 5, which includes Louisville. Lack of adequate public transportation was also tied for first in District 8, which includes Somerset and other parts of south-central Kentucky. Complaints about trucks or coal trucks ranked higher in eastern Kentucky districts. The interstate system was listed most often as a feature that was appreciated in all districts except District 2, where the parkway system was highest, and District 8, where "good roads (in general)" was ranked highest. One noticeable variation by

district was that new construction was appreciated much more in the eastern Kentucky districts.

Comparisons between complaints and "aspects appreciated" by driver age and sex are shown in Tables 26 and 27. There were very few major differences, especially between males and females. More of the older drivers had no complaints, and maintenance was ranked lower as a complaint for the older drivers. Other relationships were found, such as an increase in complaints about trucks or coal trucks and politics with increasing age, and a decrease in complaints about tolls with increasing age. Some relationships were also found with the features appreciated most, such as a higher emphasis placed on pavement markings by older drivers.

Future Government Spending for Transportation

The drivers were asked their opinions concerning whether government spending for certain areas of transportation service should increase, stay the same, decrease,

Table 23. Aspects Of Transportation System Most Appreciated.

RANK	ASPECT APPRECIATED	NUMBER OF TIMES LISTED	PERCENT OF RESPONDENTS LISTING
1	INTERSTATE SYSTEM	423	11.9
2	GOOD ROADS (IN GENERAL)	315	8.9
3	PARKWAY SYSTEM	194	5.5
4	HIGHWAY APPEARANCE	141	4.0
5	OVERALL PROGRESS	120	3.4
6	LAW ENFORCEMENT	113	3.2
7	CONVENIENCE	110	3.1
8	ACCESSIBILITY	101	2.8
9	MAINTENANCE	84	2.4
10	REST AREAS	67	1.9
11	SIGNING	61	1.7
12	SNOW AND ICE REMOVAL	57	1.6
13	NEW CONSTRUCTION	49	1.4
14	SAFETY FACTORS	40	1.1
15	APPRECIATE NOTHING (NOT INCLUDING THOSE LEFT BLANK)	40	1.1
16	PAVEMENT MARKINGS	36	1.0
17	PUBLIC TRANSPORTATION	35	1.0
18	MULTILANE HIGHWAYS	33	0.9
19	RELIABILITY	32	0.9
20	UPGRADING OF PRESENT HIGHWAYS	31	0.9
21	RAISED PAVEMENT MARKERS	22	0.6
22	55 MPH SPEED LIMIT	19	0.5
23	TRANSPORTATION FOR ELDERLY AND HANDICAPPED	13	0.4
24	AIRLINES	13	0.4
25	BYPASSES	11	0.3
26	THIS SURVEY	10	0.3
27	OTHER	150	4.2
28	LEFT BLANK	1654	46.6

Table 24. Complaints About Transportation System (By Highway District).

STATEWIDE RANKING	COMPLAINT	RANKING***											
		DISTRICT NUMBER											
		1	2	3	4	5	6	7	8	9	10	11	12
1	POOR MAINTENANCE, POOR ROAD-SIDE MAINTENANCE, OR 94D ROADS (IN GENERAL)	1	1	1	1	2	1	1	1	1	1	1	1
2	LACK OF ADEQUATE PUBLIC TRANSPORTATION	2	2	4	3	1	2	2	1	2	3	2	2
3	NO COMPLAINT**	3	5	2	2	3	3	3	3	3	3	2	4
4	INADEQUATE ROAD SYSTEM: NEED MORE ROADS OR LANES, NEED WIDER LANES, INADEQUATE CAPACITY	5	7	3	4	5	8	5	4	6	2	4	5
5	SNOW AND ICE REMOVAL	7	4	5	4	6	8	4	6	5	6	9	6
6	POOR PLANNING AND/OR DESIGN, LACK OF PROGRESS	7	11	17	11	4	6	7	15	9	13	11	8
7	TRUCKS AND/OR COAL TRUCKS	18	6	8	18	6	5	6	7	4	8	4	3
8	TOO FEW POLICE AND/OR TOO LENIENT LAW ENFORCEMENT	12	14	16	9	10	4	13	11	6	6	7	10
9	TOO HIGH PERCENTAGE OF SPENDING IN URBAN AREAS	7	12	8	6	13	12	10	5	8	5	7	10
10	TOLLS	4	3	8	*	14	15	8	11	17	13	*	16
11	STATE EMPLOYEE INEFFICIENCY	5	8	17	7	11	13	12	7	9	10	9	9
12	POLITICS AND/OR LACK OF COMMUNICATION	10	16	8	12	9	6	10	9	17	10	4	10
13	TOO LENIENT LICENSE REQUIREMENTS, POOR DRIVERS, WASTEFUL DRIVERS	21	16	7	7	8	13	9	15	12	8	11	16
14	POOR PAVEMENT MARKINGS	12	12	8	13	17	10	16	*	17	*	14	6
15	55 MPH SPEED LIMIT	12	8	17	13	14	15	13	9	14	13	*	10
16	RAILROAD TRAINS CAUSING TRAFFIC PROBLEMS	21	10	*	9	16	22	13	15	12	13	14	*
17	CONSTRUCTION CAUSING TRAFFIC PROBLEMS	11	22	*	18	12	15	18	*	*	*	*	10
18	LITTER	*	19	6	18	18	22	22	*	9	10	17	16
19	POOR SIGNING	18	15	8	13	21	15	23	11	14	13	*	*
20	LACK OF SUFFICIENT SAFETY FEATURES	*	19	15	18	19	15	16	11	*	13	11	16
21	BUDGET TOO HIGH	14	19	17	18	23	11	18	15	*	*	17	16
22	TOO STRICT LAW ENFORCEMENT	14	22	*	18	19	15	18	15	14	*	17	16
23	POOR ROADWAY GEOMETRICS	21	22	8	13	24	15	23	15	17	*	17	16
24	NOT ENOUGH RECONSTRUCTION	16	16	17	25	24	22	*	*	*	13	14	10
25	NOT ENOUGH SIGNALS	*	22	17	13	24	25	18	15	17	*	*	*
26	TOO MUCH NEW CONSTRUCTION	16	*	*	18	22	25	23	*	*	*	*	*

\* NO RESPONSES  
 \*\* NOT INCLUDING THOSE LEFT BLANK  
 \*\*\* 1= MOST COMPLAINTS

Table 25. Aspects of Transportation System Most Appreciated (By Highway District).

STATEWIDE RANKING	ASPECT APPRECIATED	RANKING***											
		DISTRICT NUMBER											
		1	2	3	4	5	6	7	8	9	10	11	12
1	INTERSTATE SYSTEM	1	2	1	1	1	1	2	1	1	1	1	1
2	GOOD ROADS (IN GENERAL)	2	3	2	2	2	2	1	2	2	2	3	3
3	PARKWAY SYSTEM	3	1	3	3	9	10	8	4	4	2	8	1
4	HIGHWAY APPEARANCE	8	6	4	7	3	5	3	4	3	6	8	9
5	OVERALL PROGRESS	4	5	5	5	7	4	11	3	9	5	3	5
6	LAW ENFORCEMENT	5	4	7	5	6	7	4	4	5	6	3	12
7	CONVENIENCE	8	7	9	9	4	3	6	11	12	2	8	12
8	ACCESSIBILITY	12	9	5	4	5	6	5	11	9	9	5	17
9	MAINTENANCE	6	7	7	8	8	12	7	4	14	*	5	17
10	REST AREAS	16	12	17	16	12	13	15	11	14	*	14	17
11	SIGNING	8	9	11	16	10	8	8	10	14	12	8	9
12	SNOW AND ICE REMOVAL	16	17	17	10	11	9	8	11	5	*	8	8
13	NEW CONSTRUCTION	12	17	17	10	20	11	21	8	5	6	7	4
14	SAFETY FEATURES	8	17	9	12	17	17	14	*	*	*	15	9
15	APPRECIATE NOTHING**	16	16	13	16	12	16	13	11	12	*	15	7
16	PAVEMENT MARKINGS	6	17	12	14	18	*	12	*	9	9	*	12
17	PUBLIC TRANSPORTATION	16	12	17	16	12	13	15	11	14	*	15	17
18	MULTILANE HIGHWAYS	16	9	*	16	21	*	19	11	*	12	15	5
19	RELIABILITY	16	12	13	16	18	13	19	11	14	12	15	*
20	UPGRADING OF PRESENT HIGHWAYS	12	15	*	14	12	18	18	*	5	*	15	*
21	RAISED PAVEMENT MARKERS	12	23	13	*	12	18	21	*	*	*	*	17
22	55 MPH SPEED LIMIT	23	23	17	16	21	18	15	*	*	9	15	12
23	TRANSPORTATION FOR ELDERLY AND HANDICAPPED	*	17	17	*	21	*	*	8	14	*	*	*
24	AIRLINES	*	*	*	12	25	18	21	*	14	12	*	12
25	BYPASSES	23	17	*	*	25	18	*	*	14	*	9	*
26	THIS SURVEY	16	23	13	*	21	*	*	*	14	*	*	17

\* NO RESPONSES  
 \*\* NOT INCLUDING THOSE LEFT BLANK  
 \*\*\* 1= MOST COMPLAINTS



Table 26. Complaints About Transportation System (Classified By Driver Age and Sex).

STATEWIDE RANKING	COMPLAINT	AGE			RANKING*		SEX	
		16-34	35-54	55 OR OLDER	MALE	FEMALE		
1	POOR MAINTENANCE, POOR ROADSIDE MAINTENANCE, OR BAD ROADS (IN GENERAL)	1	1	3	1	1		
2	LACK OF ADEQUATE PUBLIC TRANSPORTATION	2	2	2	3	2		
3	NO COMPLAINT (NOT INCLUDING THOSE LEFT BLANK)	3	3	1	2	3		
4	INADEQUATE ROAD SYSTEM: NEED MORE ROADS OR LANES, NEED WIDER LANES, INADEQUATE CAPACITY	4	4	4	4	4		
5	SNOW AND ICE REMOVAL	5	7	7	5	5		
6	POOR PLANNING AND/OR DESIGN, LACK OF PROGRESS	6	5	11	6	6		
7	TRUCKS AND/OR COAL TRUCKS	8	6	5	7	7		
8	TOO FEW POLICE AND/OR TOO LENIENT LAW ENFORCEMENT	10	11	6	8	10		
9	TOO HIGH PERCENTAGE OF SPENDING IN URBAN AREAS	7	12	12	12	8		
10	TOLLS	9	8	13	11	9		
11	STATE EMPLOYEE INEFFICIENCY	12	9	10	9	11		
12	POLITICS AND/OR LACK OF COMMUNICATION	15	10	7	10	12		
13	TOO LENIENT LICENSE REQUIREMENTS, POOR DRIVERS WASTEFUL DRIVERS	10	14	9	13	13		
14	POOR PAVEMENT MARKINGS	13	20	17	15	14		
15	55 MPH SPEED LIMIT	13	14	13	14	20		
16	RAILROAD TRAINS CAUSING TRAFFIC PROBLEMS	18	13	14	16	15		
17	CONSTRUCTION CAUSING TRAFFIC PROBLEMS	16	20	18	20	15		
18	LITTER	20	17	16	17	25		
19	POOR SIGNING	20	20	14	19	18		
20	LACK OF SUFFICIENT SAFETY FEATURES	17	17	24	20	17		
21	BUDGET TOO HIGH	22	16	18	18	18		
22	TOO STRICT LAW ENFORCEMENT	18	23	18	20	23		
23	POOR ROADWAY GEOMETRICS	22	19	24	23	23		
24	NOT ENOUGH RECONSTRUCTION	22	23	24	24	21		
25	NOT ENOUGH SIGNALS	25	25	23	25	25		
26	TOO MUCH NEW CONSTRUCTION	26	25	22	26	21		

\* 1=MOST COMPLAINTS

Table 27. Aspects Of Transportation System Most Appreciated (Classified By Driver Age and Sex).

STATEWIDE RANKING	ASPECT APPRECIATED	RANKING				
		AGE			SEX	
		16-34	35-54	55 OR OLDER	MALE	FEMALE
1	INTERSTATE SYSTEM	1	1	2	1	1
2	GOOD ROADS (IN GENERAL)	2	2	1	2	2
3	PARKWAY SYSTEM	3	3	4	3	4
4	HIGHWAY APPEARANCE	3	5	8	6	3
5	OVERALL PROGRESS	7	6	3	5	6
6	LAW ENFORCEMENT	9	4	5	4	8
7	CONVENIENCE	5	7	6	8	5
8	ACCESSIBILITY	6	8	7	7	7
9	MAINTENANCE	8	9	9		9
10	REST AREAS	12	10	11	11	9
11	SIGNING	10	14	11	10	12
12	SNOW AND ICE	11	11	18	12	11
13	NEW CONSTRUCTION	13	13	18	12	14
14	SAFETY FEATURES	15	18	13	15	15
15	APPRECIATE NOTHING (NOT INCLUDING THOSE LEFT BLANK)	19	11	14	14	17
16	PAVEMENT MARKINGS	21	15	9	16	1
17	PUBLIC TRANSPORTATION	14	23	18	20	13
18	MULTILANE HIGHWAYS	16	18	15	17	19
19	RELIABILITY	17	15	21	18	15
20	UPGRADING OF PRESENT HIGHWAYS	20	15	15	18	17
21	RAISED PAVEMENT MARKERS	17	25	21	21	21
22	55 MPH SPEED LIMIT	22	23	15	22	22
23	TRANSPORTATION FOR ELDERLY AND HANDICAPPED	25	20	21	25	23
24	AIRLINES	24	20	25	23	24
25	BYPASSES	25	22	24	24	26
26	THIS SURVEY	23	26	*	26	24

\* NO RESPONSE

or cease completely. The areas included: new road construction, road reconstruction, road maintenance, railroad operation and maintenance, public transportation, highway safety improvements, airports, and ice and snow removal. The responses were summarized and then related to several variables. These variables included: opinion of overall transportation system, driver residence (highway district and population of city of residence), driver age and sex, and answers to other related questions on the questionnaire.

Drivers were generally of the opinion that government spending for transportation services should increase (Table 28). The area for which the largest percentage of drivers indicated an increase was necessary was road maintenance (70 percent). The percentages indicating spending should be increased

were also high for road reconstruction (66 percent) and ice and snow removal (64 percent). The areas for which the smallest percentages of drivers indicated an increase in spending was necessary were airports (19 percent) and new road construction (36 percent). These were also the areas for which with the highest percentages of drivers stated that spending should decrease or cease. Most drivers felt that spending for safety improvements should increase. About one-half felt spending for public transportation and railroads should increase; however, a fairly large percentage (12 percent) thought spending for railroads should decrease or cease.

A comparison of opinions concerning future government spending was made between drivers very satisfied and drivers very dissatisfied with Kentucky's overall transportation system (Table 29). A

**Table 28. Driver Opinions Relating To Government Spending For Transportation.**

AREA OF GOVERNMENT SPENDING	OPINION ABOUT HOW CURRENT SPENDING SHOULD CHANGE							
	INCREASE		STAY SAME		DECREASE		STOP	
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
NEW ROAD CONSTRUCTION	1165	35.9	1450	44.7	437	13.5	192	5.9
ROAD RECONSTRUCTION	2155	65.6	952	29.0	125	3.8	52	1.6
ROAD MAINTENANCE	2304	69.6	965	29.2	33	1.0	8	0.2
RAILROAD MAINTENANCE	1604	50.8	1185	37.6	194	6.1	172	5.5
PUBLIC TRANSPORTATION	1583	50.5	1315	41.9	161	5.1	77	2.5
SAFETY IMPROVEMENTS	1894	58.9	1213	37.9	83	2.6	21	0.7
AIRPORTS	598	19.4	1886	61.2	419	13.6	179	5.8
ICE AND SNOW REMOVAL	2131	63.6	1157	34.5	48	1.4	17	0.5

**Table 29. Comparison of Opinions Concerning Future Government Spending For Transportation (Including Drivers Either Very Satisfied Or Very Dissatisfied With Kentucky's Overall Transportation System).**

TRANSPORTATION SERVICE	PERCENT STATING SPENDING SHOULD INCREASE	
	VERY SATISFIED WITH OVERALL SYSTEM	VERY DISSATISFIED WITH OVERALL SYSTEM
NEW ROAD CONSTRUCTION	38	45
ROAD RECONSTRUCTION	61	67
ROAD MAINTENANCE	60	83
RAILROAD OPERATION AND MAINTENANCE	54	59
PUBLIC TRANSPORTATION	49	65
HIGHWAY SAFETY IMPROVEMENTS	56	70
AIRPORT CONSTRUCTION, OPERATION, AND MAINTENANCE	32	32
SNOW AND ICE REMOVAL	59	74

higher percentage of drivers who were dissatisfied felt spending should increase. A comparison of the differences between these two groups for different areas of transportation services indicates the services that very dissatisfied drivers felt were in the greatest need of improvement. The difference in the percentages of very satisfied and very dissatisfied drivers who believed an increase was appropriate was used as the measure. The largest such difference occurred for road maintenance. Other large differences occurred for public transportation, snow and ice removal, and highway safety improvements.

The percentages of drivers who believed government spending for certain transportation services should increase were analyzed by highway district (Table 30). In several instances, the highest percentages occurred in the districts in the eastern section of the state (Districts 10, 11, and 12). The most dramatic example of this involved spending for new road construction. The percentages of drivers desiring increases in spending for road reconstruction, road maintenance, and highway safety improvements were also higher in these districts. The percentages for the other services stayed fairly constant from district to district. One exception was a higher percentage desiring an increase in

spending for railroad operation and maintenance in Districts 4 and 5.

The percentages of drivers indicating government spending should increase for the various transportation services were also summarized by population of the city of residence (Table 31). The percentages generally increased as city population decreased. The largest such increase occurred for road reconstruction. This relationship did not exist for railroads, public transportation, and airport services, where no pattern was found.

The percentages of drivers who believe government spending for certain transportation services should increase were also classified by driver age and sex (Table 32). The comparisons showed some minor differences. Higher percentages of young drivers desired increases in spending for road reconstruction and maintenance; higher percentages of older drivers desired increases in spending for airports, railroads, public transportation, and highway safety improvements. The comparison between male and female drivers showed very little difference of opinion; the largest differences were a higher percentage of females desiring an increase in spending for snow and ice removal and a higher percentage of males desiring an increase in spending for railroads.

**Table 30. Percentage Of Drivers Who Believe Government Spending For Certain Transportation Services Should Increase (Classified By Highway District).**

TRANSPORTATION SERVICE	PERCENT STATING SPENDING SHOULD INCREASE											
	HIGHWAY DISTRICT											
	1	2	3	4	5	6	7	8	9	10	11	12
NEW ROAD CONSTRUCTION	35	34	26	36	33	27	27	45	44	60	59	63
ROAD RECONSTRUCTION	69	69	68	68	59	59	58	64	73	84	86	84
ROAD MAINTENANCE	77	74	68	74	62	67	64	63	74	86	82	87
RAILROAD OPERATION AND MAINTENANCE	50	54	50	63	62	38	44	35	39	45	49	47
PUBLIC TRANSPORTATION	48	45	56	48	52	48	49	52	50	58	54	60
HIGHWAY SAFETY IMPROVEMENTS	58	64	56	59	52	55	54	68	66	83	70	72
AIRPORT CONSTRUCTION, OPERATION, AND MAINTENANCE	20	19	18	18	20	13	18	17	19	22	26	33
SNOW AND ICE REMOVAL	63	70	72	66	58	54	61	62	61	76	71	70

Problems Getting to Various Destinations

One of the purposes of any transportation system is to provide convenient access to those destinations crucial to everyday life. One question on

the survey was designed to measure how well this objective was being met. The four destinations considered were work, shopping, hospital or doctor, and recreation or entertainment. The overall responses are summarized in Table 33.

**Table 31. Percentage Of Drivers Who Believe Government Spending For Certain Transportation Services Should Increase (Classified By Population Of City).**

	PERCENT STATING SPENDING SHOULD INCREASE			
	POPULATION OF CITY OF RESIDENCE			
	OVER 60,000	15,000 TO 60,000	2,500 TO 14,999	LESS THAN 2,500
NEW ROAD CONSTRUCTION	33	34	37	40
ROAD RECONSTRUCTION	59	64	70	72
ROAD MAINTENANCE	64	70	73	74
RAILROAD OPERATION AND MAINTENANCE	59	47	46	51
PUBLIC TRANSPORTATION	52	49	50	52
HIGHWAY SAFETY IMPROVEMENTS	53	57	63	62
AIRPORT CONSTRUCTION, OPERATION AND MAINTENANCE	22	18	19	19
REMOVAL OF ICE AND SNOW	59	63	66	67

**Table 32. Percentage Of Drivers Who Believe Government Spending For Certain Transportation Services Should Increase (Classified By Driver Age And Sex).**

TRANSPORTATION SERVICE	PERCENT STATING SPENDING SHOULD INCREASE				
	AGE			SEX	
	16-34	35-54	55 OR OLDER	MALE	FEMALE
NEW ROAD CONSTRUCTION	36	35	38	36	36
ROAD RECONSTRUCTION	70	64	59	67	65
ROAD MAINTENANCE	74	69	64	69	70
RAILROAD OPERATION AND MAINTENANCE	47	49	55	53	48
PUBLIC TRANSPORTATION	48	52	53	50	51
HIGHWAY SAFETY IMPROVEMENTS	57	59	63	59	59
AIRPORT CONSTRUCTION, OPERATION, AND MAINTENANCE	16	20	25	20	18
SNOW AND ICE REMOVAL	63	65	61	61	67

This table shows that the majority of respondents had no problems getting to each of the destinations. However, over 20 percent had minor problems getting to work and shopping; 8 percent had major problems getting to work. The total percentage having either major or minor problems was 30.8 for work, 25.2 for shopping, 14.6 for hospital or doctor, and 17.7 for recreation or entertainment.

Table 34 shows how these percentages vary as a function of the population of the city of residence. For each type of destination, the percentage having problems decreased as the city population decreased for the three highest population groups. However, for the lowest population group, the percentages increased. This pattern seems to indicate that in large cities problems arise due to high traffic volumes and congestion. As city size decreases, the problem of traffic congestion also decreases. For very small towns or rural areas, a different problem arises -- that of having to go a long distance to reach certain destinations.

The relationship between automobile availability and problems getting to various destinations is shown in Table 35. This table shows dramatically how the lack of an automobile increased problems in reaching these destinations. Table 36 shows how access problems varied with the age and sex of the respondent. No significant difference can be seen for males versus females. The only pattern evident for the age of the driver is that, for drivers over 65, problems getting to work, shopping, or recreation dropped in frequency; problems getting to the hospital or doctor remained about the same.

The relationship between income and access problems is shown in Table 37. Surprisingly, problems getting to work, shopping, and recreation/entertainment increased as income increased. This could be due to higher-income persons having higher expectations regarding transportation services. In addition, higher-income persons may do more driving in urban areas, resulting in problems due to high traffic volumes.

**Table 33. Problems Getting To Various Destinations.**

DESTINATION	NUMBER PERCENT		NUMBER PERCENT		NUMBER PERCENT	
	NO PROBLEMS		MINOR PROBLEMS		MAJOR PROBLEMS	
WORK	2149	69.2	708	22.8	250	8.0
SHOPPING	2330	74.8	632	20.3	152	4.9
HOSPITAL OR DOCTOR	2601	85.4	334	11.0	110	3.6
RECREATION OR ENTERTAINMENT	2449	82.3	426	14.3	101	3.4

**Table 34. Relationship Between Population Of City Of Residence And Problems Getting To Various Destinations.**

POPULATION OF CITY	PERCENT HAVING MINOR OR MAJOR PROBLEMS GETTING TO DESTINATION			
	DESTINATION			
	WORK	SHOPPING	HOSPITAL OR DOCTOR	RECREATION OR ENTERTAINMENT
OVER 60,000	40	35	18	26
15,000-60,000	30	22	13	17
2,500-14,999	25	21	11	14
UNDER 2,500	29	24	17	15

**Table 35. Relationship Between Automobile Availability And Problems Getting To Various Destinations.**

AUTOMOBILE AVAILABLE	PERCENT HAVING MINOR OR MAJOR PROBLEMS GETTING TO DESTINATION			
	DESTINATION			
	WORK	SHOPPING	HOSPITAL OR DOCTOR	RECREATION OR ENTERTAINMENT
ALWAYS	34	25	14	17
SOMETIMES	35	29	23	25
NEVER	60	45	42	50

Use of Other Modes of Transportation

Usage of local buses is described in Tables 38 through 41. Table 38 shows that

**Table 36. Percentage Of Drivers Having Problems Getting To A Given Destination (Classified By Driver Age And Sex).**

VARIABLE CATEGORY	PERCENTAGE HAVING MINOR OR MAJOR PROBLEMS GETTING TO GIVEN DESTINATION				
	WORK	SHOPPING	DESTINATION HOSPITAL OR DOCTOR	RECREATION OR ENTERTAINMENT	
AGE	16-20	31	26	13	25
	21-24	35	59	15	24
	25-34	37	31	18	20
	35-44	34	25	14	18
	45-54	32	25	15	13
	55-64	23	17	10	13
	65-74	9	18	15	12
	75 OR OLDER	7	14	13	7
SEX	MALE	32	25	15	19
	FEMALE	29	26	15	16

**Table 37. Relationship Between Income And Problems Getting To Various Destinations.**

ANNUAL HOUSEHOLD INCOME	PERCENT HAVING MINOR OR MAJOR PROBLEMS GETTING TO DESTINATION			
	WORK	SHOPPING	DESTINATION HOSPITAL OR DOCTOR	RECREATION OR ENTERTAINMENT
LESS THAN \$8,000	19	19	15	16
\$8,000-\$15,999	27	24	12	15
\$16,000-\$23,999	34	26	18	17
\$24,000-\$32,000	41	28	15	22
OVER \$32,000	39	35	14	24

**Table 40. Frequency Of Riding Local Buses By Driver Age And Sex.**

VARIABLE CATEGORY	PERCENTAGE RIDING BUSES A GIVEN NUMBER OF TIMES					
	FIVE OR MORE TIMES PER WEEK	ONE TO FOUR TIMES PER WEEK	ONCE OR TWICE A MONTH	RARELY	NEVER	
AGE	16-20	6.0	2.4	2.7	13.8	75.1
	21-24	0.9	2.8	2.2	15.8	78.2
	25-34	1.3	1.6	1.6	9.8	85.7
	35-44	0.7	1.3	0.5	9.8	87.8
	45-54	1.3	0.9	1.7	12.0	84.2
	55-64	0.4	1.8	1.7	16.1	80.4
	65-74	0.7	2.5	3.2	18.2	75.4
	75 OR OLDER	0	2.5	2.5	14.8	80.2
SEX	MALE	1.4	1.5	1.6	13.1	82.4
	FEMALE	1.5	2.0	1.7	12.2	82.6

95 percent of the respondents rarely or never used local buses. The chief reasons for disuse are shown in Table 39. The leading reason, by far, was that local buses were not available. Other reasons listed often were inconvenient routes and inconvenient schedules. Table 40 shows the frequency of local bus use as related to driver age and sex. A difference is evident between males and females; 3.5 percent of the female drivers rode the bus at least once a week compared to 2.9 percent of the males. Younger drivers (16 to 20) were much more likely to use the bus five or more times a week; younger (16 to 24) and older (65 and up) drivers were

**Table 38. Usage Of Local Buses.**

USAGE	NUMBER	PERCENT
5 OR MORE TIMES A WEEK	50	1.4
1 TO 4 TIMES A WEEK	60	1.7
ONCE OR TWICE A MONTH	62	1.8
RARELY	445	12.7
NEVER	2878	82.3

**Table 39. Reasons For Not Riding Local Buses More Often.**

REASON	NUMBER OF RESPONSES
NOT AVAILABLE	2468
INCONVENIENT ROUTES	724
INCONVENIENT SCHEDULES	684
UNCOMFORTABLE	135
TOO EXPENSIVE	63
UNSAFE	58
OTHER	420

more likely to never use a bus. Table 41 shows that those drivers who most often used buses tended to favor increased spending for public transportation more than those drivers who did not use buses.

Carpool (or vanpool) usage is studied in Tables 42 through 45. Table 42 shows that more drivers carpooled to church than to other destinations, with school, shopping, and work following. Table 43 shows how carpool usage to work varied for different areas of the state. Highway Districts 6 and 4 had the highest carpool usage rates; Districts 1, 3, and 8 had the

lowest. The northern Kentucky and Louisville areas had the highest rates while south-central Kentucky had the lowest. Table 44 indicates that young drivers (16 to 20) tended to carpool more than others and that higher-income drivers tended to carpool more than low-income. As expected, residents of larger cities carpooled more than those of smaller cities. As shown in Table 45, "rising gas prices" was listed most often as a potential cause for increased carpool usage. "Assistance in arranging and scheduling a carpool" was second, followed by "preferential parking". However,

**Table 41. Relationship Between Bus Ridership And Opinion On Future Spending For Public Transportation.**

FREQUENCY OF RIDING LOCAL BUSES	OPINION ON FUTURE SPENDING FOR PUBLIC TRANSPORTATION			
	INCREASE	PERCENT STAY SAME	DECREASE	STOP
FIVE OR MORE TIMES PER WEEK	64	36	0	0
ONE TO FOUR TIMES PER WEEK	66	33	1	0
ONCE OR TWICE PER MONTH	60	36	2	2
RARELY	57	37	4	2
NEVER	48	43	6	3

**Table 42. Number of Respondents Participating In A Carpool.**

PURPOSE	PARTICIPATING	
	NUMBER	PERCENT
CHURCH	957	30.5
SCHOOL	618	19.7
SHOPPING	523	16.7
WORK	510	16.2
SOCIAL/RECREATION	54	1.7
OTHER	477	15.2

Table 43. Carpool Usage (To Work) For Various Areas Of The State.

VARIABLE	CATEGORY	PERCENT WHO CARPOOL
HIGHWAY DISTRICT	1	11
	2	19
	3	11
	4	20
	5	19
	6	22
	7	15
	8	12
	9	17
	10	18
	11	16
	12	19
GEOGRAPHICAL AREA	WESTERN	16
	LOUISVILLE	20
	NORTHERN	23
	NORTHEASTERN	14
	SOUTHEASTERN	17
	SOUTH CENTRAL	11
	CENTRAL	17

Table 44. Characteristics Of Drivers Who Carpool (Or Vanpool) To Work.

VARIABLE	CATEGORY	PERCENT WHO CARPOOL
AGE	16-20	35
	21-24	15
	25-34	20
	35-44	25
	45-54	20
	55 OR OLDER	3
SEX	MALE	16
	FEMALE	19
INCOME	LESS THAN \$8,000	13
	\$8,000-\$15,999	12
	\$16,000-\$23,999	17
	\$24,000-\$32,000	20
	OVER \$32,000	28
POPULATION OF CITY OF RESIDENCE	GREATER THAN 60,000	21
	15,000-60,000	18
	2,500-14,999	17
	LESS THAN 2,500	12

Table 45. Methods To Increase Use Of Carpools.\*

METHOD	NUMBER	PERCENT
RIISING GAS PRICES	1949	53.6
ASSISTANCE IN ARRANGING	609	16.7
PREFERENTIAL PARKING	477	13.1
EXCLUSIVE LANES	227	6.2
OTHER	377	10.4

\* 19.2 PERCENT OF THE RESPONDENTS INDICATED WOULD NOT CONSIDER INCREASED CARPOOLING



nearly 20 percent of all respondents indicated they would not consider increased carpooling.

The usage of various other modes of transportation is summarized in Table 46. The mode used by the most drivers was the commercial airline, with 26.8 percent having used it one or more times in the 12 months prior to receiving the questionnaire. This was followed by the taxi or limousine, which was used by 15.1 percent, and the motorcycle, used by 12 percent. The mode used by the fewest drivers was the passenger train, used by only 0.3 percent, followed by private aircraft, used by 5.7 percent. For the categories of frequent use, the motorcycle was the most often-listed mode.

Table 47 examines bicycle usage and shows that bicycles were used primarily for recreation or social purposes, with over 35 percent of the respondents using bicycles for these purposes.

#### Opinion on Suggestions for Laws or Government Regulations

Question Number 2 in the Driver Opinion section of the questionnaire requested driver opinions on 12 different suggestions for laws, government regulations, or government policies. For each suggestion, the driver indicated whether he would strongly favor, favor, be neutral to, oppose, or strongly oppose such a law or policy. The results of this question are described in Tables 48 through 50. Table 48 gives the basic summary of the responses. The most favored laws and policies were the motorcycle helmet law, strict enforcement of truck weight limits, strict enforcement of environmental protection laws, and strict enforcement of the 55-mph speed limit. The least favored were the change in the gas tax, mandatory retesting of drivers, gasoline rationing, and air bags.

Table 46. Usage Of Various Modes Of Transportation.

TRANSPORTATION MODE	NUMBER OF TIMES USED IN THE PAST 12 MONTHS							
	NONE		1-5 TIMES		6-50 TIMES		MORE THAN 50 TIMES	
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
COMMERCIAL AIRLINE	2481	73.2	790	23.3	105	3.1	15	0.4
PRIVATE AIRCRAFT	2947	94.4	143	4.6	27	0.9	6	0.2
PASSENGER TRAIN	3053	97.9	61	0.2	2	0.1	1	0.0
INTERCITY BUS	2882	91.4	241	7.6	21	0.7	9	0.3
TAXI OR LIMOUSINE	2720	84.9	385	12.1	84	2.6	13	0.4
MOTORCYCLE	2761	88.0	189	6.0	115	3.7	71	2.3

Table 47. Bicycle Usage.

DESTINATION	USAGE					
	FREQUENTLY		OCCASIONALLY		NEVER	
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
WORK OR SCHOOL	56	1.7	96	3.0	3052	95.3
SHOPPING	47	1.5	148	4.7	2926	93.8
RECREATION/SOCIAL	256	7.7	948	28.4	2137	64.0

The most opposed laws and policies were mandatory retesting of drivers, gasoline rationing, and the change in the gas tax; the least opposed were strict enforcement of truck weight limits, the motorcycle helmet law, and strict enforcement of environmental protection laws.

One gauge of the amount of interest in and/or knowledge of a subject is the percentage remaining neutral on that subject. The percentages specifying neutral were highest for air bags, a seatbelt usage law, and the change in the gas tax. This could indicate either a

**Table 48. Driver Opinions Concerning Various Laws Or Government Regulations.**

LAW OR GOVERNMENT REGULATION	STRONGLY FAVOR		FAVOR		OPINION NEUTRAL		OPPOSE		STRONGLY OPPOSE	
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
A LAW REQUIRING SEATBELT USAGE	449	13.1	591	17.2	1222	35.5	743	21.6	434	12.6
STRICT ENFORCEMENT OF THE 55-MPH SPEED LIMIT	1305	37.4	979	28.1	553	15.8	423	12.0	232	5.6
GASOLINE RATIONING	350	9.7	536	15.7	751	22.0	973	28.6	813	24.0
A LAW REQUIRING CHILD-RESTRAINTS FOR AUTOMOBILE PASSENGERS UNDER 5 YEARS OF AGE	928	27.8	883	25.5	845	25.3	459	13.3	221	6.6
ANNUAL VEHICLE INSPECTIONS	673	19.8	829	24.4	578	17.0	772	22.7	457	13.1
A LAW PROHIBITING THE SALE OF NON-RETURNABLE BOTTLES AND CANS IN KENTUCKY	1214	36.0	653	19.4	652	19.3	498	14.8	355	10.5
STRICT ENFORCEMENT OF TRUCK WEIGHT LIMITS	1609	46.7	977	28.4	610	17.7	135	3.9	113	3.3
A LAW REQUIRING ALL NEW AUTOMOBILES TO BE EQUIPPED WITH AIR BAGS	367	10.9	498	14.8	1311	38.9	681	20.2	517	15.3
A LAW REQUIRING MOTORCYCLISTS TO WEAR HELMETS	2016	58.2	752	21.7	416	12.0	163	4.7	118	3.4
STRICT ENFORCEMENT OF ENVIRONMENTAL PROTECTION LAWS	1301	38.8	1008	30.1	663	19.8	254	7.6	125	3.7
A CHANGE IN THE GASOLINE TAX FROM A FIXED CENTS-PER-GALLON TAX TO ONE BASED ON A PERCENTAGE OF THE PRICE OF GASOLINE	342	10.3	413	12.4	997	29.9	772	23.1	811	24.3
MANDATORY RETESTING OF DRIVERS WHEN RENEWING LICENSES	309	9.0	488	14.2	729	21.2	1101	32.1	807	23.5

**Table 49. Opinion Concerning Various Laws Or Government Regulations By Driver Age And Sex.**

LAW OR REGULATION	PERCENT IN FAVOR OR STRONGLY IN FAVOR				
	AGE			SEX	
	16-34	35-54	55 OR OLDER	MALE	FEMALE
LAW REQUIRING SEATBELT USAGE	31	29	30	29	32
STRICT ENFORCEMENT OF 55 MPH SPEED LIMIT	57	68	76	63	69
GASOLINE RATIONING	18	26	39	26	24
LAW REQUIRING CHILD RESTRAINTS FOR CHILDREN UNDER 5	56	51	56	52	57
ANNUAL VEHICLE INSPECTION	46	42	42	41	49
LAW PROHIBITING SALE OF NON-RETURNABLE BOTTLES AND CANS	54	55	59	59	51
STRICT ENFORCEMENT OF TRUCK WEIGHT LIMITS	69	77	83	76	75
LAW REQUIRING AIR BAGS IN NEW AUTOMOBILES	34	20	16	23	29
LAW REQUIRING MOTORCYCLISTS TO WEAR HELMETS	82	79	76	74	88
STRICT ENFORCEMENT OF ENVIRONMENTAL PROTECTION LAWS	74	65	64	66	73
CHANGE IN GASOLINE TAX TO PERCENTAGE OF PRICE OF GASOLINE	24	19	24	23	22
MANDATORY RETESTING OF DRIVERS	27	22	19	24	22

lack of strong feeling or a lack of knowledge on these suggestions. The percentages specifying neutral were lowest for the motorcycle helmet law and strict enforcement of the 55-mph speed limit. These are topics that have been much discussed and are understood by most drivers, and, therefore, most drivers appear to have opinions on these subjects.

The variation of opinions on these suggestions for laws and regulations with driver age and sex is given in Table 49. Some of the topics showed no significant relationship to age, but several others did exhibit obvious trends. Support of the 55-mph speed limit increased with increasing age, as did support for gasoline rationing, a bottle bill, and strict enforcement of truck weight limits. Support for a law requiring air bags decreased with increasing age, as did support for a motorcycle helmet law, strict enforcement of environmental protection laws, and mandatory retesting of drivers.

Table 50 shows the relationship between motorcycle usage and opinion on the motorcycle helmet law. It should be noted that, in all categories of drivers, over 50 percent strongly favored such a law. The percentage opposing or strongly opposing such a law rose steadily from 7 percent to 29 percent as motorcycle use increased. For riders in the "more than 50 times" category, neutrality dropped dramatically while strong opposition rose dramatically. However, even in this category, the majority strongly favored the law.

#### Bus Rider Survey

The survey of bus riders generated different return rates for different cities. Lexington had the highest return rate; Frankfort had the lowest (Table 51). The overall return rate of 26 percent was lower than the 36.5 percent return rate for the driver questionnaire. It was somewhat surprising that the relatively large city of Lexington (population approximately 200,000) had a higher return rate than the smaller cities of Frankfort (population 23,000) and Maysville (population 7,100). The reason for the

extremely low return rate from Frankfort (11.0 percent) could not be identified.

Table 52 summarizes the personal information for bus riders. The summary by age showed 1.3 percent under the age of 16. To allow direct comparison with the driver survey results (which include no persons under 16), these few questionnaires were ignored in further summaries. The age distribution for bus riders showed a significantly higher percentage in the 21-to-24 age category and in the 65-and-older category than for drivers. The ages of 35 to 54 were more heavily represented among drivers than among bus riders. This tends to indicate there is a higher percentage of both younger and older persons among bus riders than can be found in the general driving population. Females were more highly represented among bus riders, with two-thirds of those responding being female. In contrast, only 44 percent of the respondents to the driver survey were female. Forty percent of the bus riders responding did not have drivers' licenses.

The summary by marital status identified some interesting differences from the driver survey. The categories of

**Table 50. Opinion On Law Requiring Use Of Motorcycle Helmet (By Motorcycle Usage)**

MOTORCYCLE USAGE IN PAST 12 MONTHS	OPINION OF HELMET LAW				
	STRONGLY FAVOR	FAVOR	NEUTRAL	OPPOSE	STRONGLY OPPOSE
NONE	59	22	12	4	3
1-5 TIMES	63	15	10	6	6
6-50 TIMES	51	15	12	10	12
MORE THAN 50 TIMES	51	17	3	7	22

**Table 51. Response To Bus Rider Questionnaire By City.**

CITY	NUMBER DISTRIBUTED	NUMBER RETURNED	PERCENT RESPONDING
LOUISVILLE	2660	630	23.7
LEXINGTON	1300	446	34.3
MAYSVILLE	300	76	25.3
FRANKFORT	300	33	11.0
TOTAL	4560	1185	26.0

single, divorced, and widowed were substantially higher for bus riders; the "married" category was much lower.

The education breakdown showed a somewhat surprising trend. Respondents to the bus survey were, in general, better educated than respondents to the driver survey. The percentage having completed more than high school was 58 percent for bus riders and only 48 percent for drivers; the percentage completing less than high school was 23 percent for drivers and only 20 percent for bus riders.

The occupation breakdown showed that bus riders had a higher percentage, compared to drivers, of persons in the

skilled, professional, clerical/secretary, retired, and unemployed categories, and a lower percentage in the housewife, sales, technician, supervisory, professional driver, agricultural, and mining categories. Unskilled, student, law enforcement, and military service occupations were equally represented.

The classification by income showed that bus riders generally had a lower household income than drivers. Over 75 percent of the bus riders had annual family incomes under \$16,000; less than 50 percent of the licensed drivers had annual family incomes in this same bracket. However, this "household income" figure may be misleading, since bus riders also had a smaller household size than did drivers. A much higher percentage (27 percent) of bus riders lived in one-person households, as compared to licensed drivers (9 percent).

Bus riders' opinions of Kentucky's overall transportation system are summarized in Table 53. There was not a great variance in overall satisfaction for the different cities. The percentage either satisfied or very satisfied was 75 percent in Louisville, 71 percent in Lexington, 69 percent in Maysville, and 71 percent in Frankfort. However, there was some variance in the strength of opinions, with Maysville tending toward extreme opinions and Louisville tending toward more moderate ones. Frankfort riders were extreme in their satisfaction, but moderate in their dissatisfaction. Lexington drivers were fairly moderate, although more extreme than Louisville. Comparing the overall percentages for bus riders with those for licensed drivers, which are presented in Table 6, shows the percentage either satisfied or very satisfied was lower for bus riders than for drivers (73 percent to 81 percent); however, the percentage very satisfied was higher for bus riders (10 percent to 6 percent). Therefore, while fewer bus riders were satisfied, those that were satisfied were stronger in their approval.

The relationship between satisfaction with overall state transportation services and possession of a driver's license is shown in Table 54. Surprisingly, those bus riders without drivers' licenses tended to be more satisfied than those with licenses, and they also tended to be

**Table 52. Personal Information For Bus Riders.**

VARIABLE	CATEGORY	PERCENT
AGE	UNDER 16	1.30
	16-20	9.12
	21-24	12.68
	25-34	23.63
	35-44	13.47
	45-54	11.12
	55-64	12.51
	65-74	11.29
	75 OR OLDER	4.87
SEX	MALES	33.51
	FEMALES	66.49
MARITAL STATUS	MARRIED	38.00
	SINGLE	34.37
	DIVORCED	15.63
	WIDOWED	12.00
EDUCATION	LESS THAN HIGH SCHOOL	19.67
	HIGH SCHOOL	22.55
	MORE THAN HIGH SCHOOL	30.07
	COMPLETED COLLEGE	27.71
OCCUPATION	SKILLED	17.55
	PROFESSIONAL	14.91
	CLERICAL/SECRETARY	13.91
	RETIRED	12.55
	UNSKILLED	10.91
	HOUSEWIFE	7.27
	STUDENT	6.27
	SALES	4.18
	UNEMPLOYED	2.55
	TECHNICIAN	1.73
	SUPERVISORY	1.64
	PROFESSIONAL DRIVER	0.36
	LAW ENFORCEMENT	0.27
	AGRICULTURAL	0.18
	SERVICE	0.09
MINING	0.00	
OTHER	5.64	
ANNUAL HOUSEHOLD INCOME	LESS THAN \$8,000	36.45
	\$8,000 - \$15,999	29.85
	\$16,000 - \$23,999	14.47
	\$24,000 - \$32,000	10.53
	GREATER THAN \$32,000	8.70
NUMBER OF PEOPLE IN HOUSEHOLD	1	27.17
	2	29.80
	3	18.21
	4	12.95
	5	6.16
	6 OR MORE	5.71
DRIVERS LICENSE	YES	59.59
	NO	40.41

more extreme in their satisfaction. However, those without licenses also tended to be more extreme in their dissatisfaction.

the complaints of bus riders about Kentucky's transportation system. The top four complaints, and eight of the first nine, dealt either with bus service, specifically, or with public

Table 55 lists, in descending order,

**Table 53. Bus Riders' Opinions Of Kentucky's Overall Transportation System – By Locality.**

LOCALITY	PERCENT			
	VERY SATISFIED	SATISFIED	DISSATISFIED	VERY DISSATISFIED
LOUISVILLE	7.74	67.17	20.88	4.21
LEXINGTON	10.42	60.30	22.58	6.70
MAYSVILLE	24.19	45.16	19.35	11.29
FRANKFORT	19.35	51.61	25.81	3.23

**Table 54. Opinion Of Overall Transportation System By Possession Of Drivers License.**

OPINION OF OVERALL TRANSPORTATION SYSTEM							
DRIVERS LICENSE		VERY SATISFIED	SATISFIED	DISSATISFIED	VERY DISSATISFIED	TOTAL	TOTAL SATISFIED OR VERY SATISFIED
YES	NUMBER	42	432	155	30	659	71.93
	PERCENT	6.37	65.55	23.52	4.55	100.0	
NO	NUMBER	66	249	79	30	424	74.29
	PERCENT	15.57	58.73	18.63	7.08	100.0	

**Table 55. Bus Riders' Complaints About Transportation Systems.**

RANK	COMPLAINT	NUMBER OF TIMES LISTED	PERCENT OF ALL RESPONDENTS LISTING THIS COMPLAINT
1	INADEQUATE PUBLIC TRANSPORTATION	172	14.51
2	BUS SCHEDULING	132	11.14
3	NO COMPLAINT (NOT INCLUDING THOSE LEFT BLANK)	117	9.87
4	BUS HOURS	95	8.01
5	LACK OF INTERCITY BUS SERVICE	55	4.64
6	POOR MAINTENANCE	51	4.30
7	LACK OF PASSENGER TRAINS	33	2.78
8	BUS ROUTES (INCLUDES COMPLAINTS ABOUT DISCONTINUED ROUTES)	32	2.70
9	BUS TRAVEL TIME	29	2.45
10	DISCOURTEOUS DRIVERS	18	1.52
11	LENIENT LAW ENFORCEMENT	17	1.43
12	PROBLEMS DURING CONSTRUCTION	11	0.93
12	INADEQUATE CAPACITY	11	0.93
12	TOLLS	11	0.93
15	POOR PLANNING	10	0.84
15	LACK OF COMMUNICATION	10	0.84
15	NEED ADDITIONAL SAFETY FEATURES	10	0.84
18	NEED ADDITIONAL LANES	8	0.68
19	SNOW & ICE REMOVAL	7	0.59
19	BUDGET TOO HIGH	7	0.59
19	TRUCKS	7	0.59
19	BAD ROADS	7	0.59

Table 55. Bus Riders' Complaints About Transportation Systems (Continued).

RANK	COMPLAINT	NUMBER OF TIMES LISTED	PERCENT OF ALL RESPONDENTS LISTING THIS COMPLAINT
23	ROADWAY GEOMETRICS	5	0.42
23	POOR SIGNING	5	0.42
25	LACK OF PROGRESS	4	0.34
25	HIGH PERCENT SPENT IN URBAN AREAS	4	0.34
25	EMPLOYEE INEFFICIENCY	4	0.34
25	TOO MUCH NEW CONSTRUCTION	4	0.34
29	WIDEN HIGHWAYS	3	0.25
29	LITTER	3	0.25
31	ENGINEERING DESIGN	2	0.17
31	POOR TRAFFIC MARKINGS	2	0.17
31	COAL TRUCKS	2	0.17
31	TRAINS - DELAYS	2	0.17
31	MANDATORY INSURANCE	2	0.17
31	DRIVING HABITS	2	0.17
31	TOO STRICT LAW ENFORCEMENT	2	0.17
38	NO PUBLIC TRANSPORTATION	1	0.08
38	NEED ADDITIONAL HIGHWAYS	1	0.08
38	55 MPH SPEED LIMIT	1	0.08
38	ROADSIDE MAINTENANCE (MOWING)	1	0.08
	OTHER	159	13.42
	LEFT BLANK	303	25.57

Table 56. Aspects Of Transportation Most Appreciated By Bus Riders.

RANK	ASPECT APPRECIATED	NUMBER OF TIMES LISTED	PERCENT OF ALL RESPONDENTS LISTING THIS ASPECT
1	PUBLIC TRANSPORTATION	285	24.05
2	LOW COST (BUS)	111	9.37
3	INTERSTATE SYSTEM	68	5.74
4	CONVENIENCE (BUS)	63	5.32
5	COURTEOUS BUS DRIVERS	54	4.56
6	OVERALL PROGRESS	43	3.63
7	GOOD ROADS IN GENERAL	37	3.12
8	BUS SCHEDULE	31	2.62
9	PARKWAY SYSTEM	28	2.36
10	ACCESSABILITY	26	2.19
11	APPEARANCE	22	1.86
11	APPRECIATE NOTHING (NOT INCLUDING THOSE LEFT BLANK)	22	1.86
13	SAFETY FACTORS	13	1.10
13	MAINTENANCE	13	1.10
15	REST AREAS	9	0.76
15	ELDERLY OR DISABLED TRANSPORTATION	9	0.76
15	CONVENIENCE	9	0.76
15	RELIABILITY	8	0.68
19	LAW ENFORCEMENT	6	0.51
20	SIGNING	4	0.34
20	MULTILANE HIGHWAYS	4	0.34
20	AIRLINES	4	0.34
23	GENERAL PAVEMENT MARKINGS	3	0.25
24	55 MPH SPEED LIMIT	1	0.08
24	BYPPASSES	1	0.08
24	NEW CONSTRUCTION	1	0.08
24	SNOW & ICE REMOVAL	1	0.08
24	UPGRADING PRESENT HIGHWAYS	1	0.08
24	MANDATORY INSURANCE	1	0.08
	OTHER	35	2.95
	LEFT BLANK	410	34.60

transportation, in general. The top complaints were "inadequate public transportation", "bus scheduling", and "bus hours". The aspects of Kentucky's transportation system most appreciated by bus riders are listed in Table 56. Public transportation ranked number 1 by a large margin, and four of the top five were related to public transportation in some way.

Table 57 summarizes the frequency of local bus usage by bus riders. This table shows that 66 percent of bus users used the bus five or more times a week, and an additional 20 percent used it one to four times a week. This can be compared to the driver survey, for which only 1.4 percent rode the bus five or more times a week and 1.7 percent rode one to four times a week. The reasons why bus riders did not ride buses more often are listed in Table 58. "Inconvenient schedules" was listed most often, followed by "travel time", "inconvenient routes", and "unavailability of buses".

Table 59 shows the percentages of bus riders having minor or major problems getting to particular destinations. The majority of bus riders had no problems getting to each of the destinations. The percentage having either minor or major problems was 33 for work, 28 for recreation or entertainment, 27 for shopping, and 21 for hospital or doctor. The corresponding percentages for the driver survey were 31, 18, 25, and 15. Thus, bus riders had slightly more problems getting to work and shopping, and significantly greater problems getting to "recreation or entertainment" and "hospital or doctor".

Table 60 examines the problems of getting to particular destinations as affected by whether or not the person had a driver's license. Surprisingly, people without drivers' licenses had fewer problems getting to work than people with drivers' licenses. However, their problems tended to be major ones. For the other three destinations, the lack of a driver's license did cause an increase in both major and minor problems.

Bus rider opinions relating to government spending for transportation are summarized in Table 61. The highest percentage favoring increased spending was

for the area of public transportation, followed by "ice and snow removal" and "road maintenance". The highest percentage favoring a decrease in or termination of spending was in the area of new road construction, followed by "airports" and "road reconstruction". This can be compared to the results of the same question asked of licensed drivers, which were presented in Table 23. As might be expected, the drivers more strongly favored increased spending in every area dealing with roads, and they were less favorable than bus riders of increased spending in the areas of public transportation and airports.

**Table 57. Frequency Of Usage Of Local Buses By Bus Riders.**

USAGE	NUMBER	PERCENT OF TOTAL
5 OR MORE TIMES A WEEK	780	66.90
1 TO 4 TIMES A WEEK	240	20.58
ONCE OR TWICE A WEEK	67	5.75
RARELY	79	6.78

**Table 58. Reasons Bus Riders Do Not Ride Local Buses More Often.**

REASON	NUMBER OF RESPONSES
BUS IS NOT AVAILABLE	156
BUS TAKES TOO LONG	193
BUS SCHEDULES ARE INCONVENIENT	219
BUS ROUTES ARE INCONVENIENT	174
BUS IS TOO EXPENSIVE	27
BUS IS UNCOMFORTABLE	50
BUS IS UNSAFE	19
OTHER	113

**Table 59. Percent Of Bus Riders Having Minor Or Major Problems Getting To The Given Destination.**

DESTINATION	PERCENT OF RIDERS WITH GIVEN PROBLEM GETTING TO DESTINATION		
	NONE	MINOR	MAJOR
WORK	66.90	24.80	8.30
SHOPPING	72.90	20.83	6.27
HOSPITAL OR DOCTOR	79.05	16.63	4.32
RECREATION OR ENTERTAINMENT	71.83	19.84	8.33

Table 60. Problems Getting To Various Destinations By Possession Of A Drivers License.

DESTINATION	DRIVERS LICENSE	NUMBER AND PERCENT OF RIDERS HAVING GIVEN PROBLEM GETTING TO DESTINATION				TOTAL	MAJOR OR MINOR
		NONE	MINOR	MAJOR			
WORK	YES	421 66.30	170 26.77	44 6.93	635 100.00	214 33.70	
	NO	253 68.38	78 21.08	39 10.54	370 100.00	107 31.62	
SHOPPING	YES	440 76.39	105 18.23	31 5.38	576 100.00	136 23.61	
	NO	242 67.41	90 25.07	27 7.52	359 100.00	117 32.59	
HOSPITAL OR DOCTOR	YES	454 83.00	71 12.98	22 4.02	547 100.00	93 17.00	
	NO	254 72.99	78 22.41	16 4.60	348 100.00	94 27.01	
RECREATION OR ENTERTAINMENT	YES	404 75.09	95 17.66	39 7.25	538 100.00	134 24.91	
	NO	204 65.81	74 23.87	32 10.32	310 100.00	106 34.19	

Table 61. Bus Riders' Opinions Relating To Government Spending For Transportation.

AREA OF GOVERNMENT SPENDING	PERCENT WITH GIVEN OPINION ABOUT HOW CURRENT SPENDING SHOULD CHANGE			
	INCREASE	STAY SAME	DECREASE	STOP
NEW ROAD CONSTRUCTION	30.05	46.53	15.88	7.54
ROAD RECONSTRUCTION	48.77	39.37	8.49	3.37
ROAD MAINTENANCE	66.27	31.43	1.20	1.10
RAILROAD OPERATION AND MAINTENANCE	57.43	33.83	5.48	3.27
PUBLIC TRANSPORTATION	79.94	18.39	0.98	0.69
SAFETY IMPROVEMENTS	55.95	39.46	3.55	1.04
AIRPORT CONSTRUCTION, OPERATION AND MAINTENANCE	25.11	59.47	11.53	3.88
ICE AND SNOW REMOVAL	68.64	29.43	1.36	0.58



# Summary

## Survey Response

1. Responses were received from 3,553 of the 10,000 licensed drivers who were sent questionnaires.

2. The number of responses ranged from two in Menifee County to 723 in Jefferson County.

3. A comparison of the percentage of total responses received from a particular county with the percentage of all licensed drivers in Kentucky residing in that county indicated an excellent sampling of licensed drivers.

4. A significantly higher return rate (39.5 percent) was realized from respondents who had been sent personally signed cover letters as compared to the return rate (31.6 percent) for those who had been sent cover letters with the signature machine-printed.

## Personal Information

1. Respondents were fairly evenly distributed by age group, with the highest percentage in the 25-34 range.

2. Male respondents outnumbered females by a margin of 56 to 44 percent.

3. Housewives, skilled workers, professionals, unskilled workers, and retirees were the occupations listed most frequently on the completed questionnaires.

4. It was found that 76.7 percent of the respondents had at least completed high school.

5. The average, annual miles driven per driver was 14,049. The average, annual miles driven per vehicle was 9,792.

6. The highest average, annual mileage driven per driver was for males in the age bracket of 25-to-34 years old. Females in the 21-to-24 age bracket had the highest average for females.

7. Overall, the average, annual mileage driven per driver was 16,500 for males and 10,800 for females.

## Satisfaction with Transportation Services

1. Over 80 percent of the respondents were satisfied or very satisfied with the overall transportation system.

2. Snow and ice removal and general highway maintenance received the lowest approval ratings.

3. Drivers from southeastern Kentucky were less satisfied with transportation services than drivers from other areas of the state.

4. Drivers' approval ratings of snow removal and highway maintenance were generally consistent with their opinions concerning future spending in these areas.

5. Drivers tended to have a satisfied perception of overall transportation services if they were generally satisfied with other aspects related to driving.

## Inadequate Transportation Services

1. The most common inadequate transportation service encountered by those surveyed was bumpy roads.

2. Counties with the highest percentages of drivers experiencing the various inadequate services were concentrated in the southeastern part of the state.

3. Routes listed as being rough and bumpy by the highest percentages of drivers in particular highway districts were identified. The route listed by the highest percentage of drivers in a single district was US 23 in District 12.

4. The most frequently given causes of congestion were high traffic volume and rush hour traffic, for city streets, and farm equipment and narrow roads, for rural roads.

5. The total percentage of drivers encountering inadequate transportation services increased slightly as city population decreased.

6. Almost two-thirds of drivers in need of emergency aid were able to quickly and conveniently get the help needed.

## Drivers' Complaints and Compliments

1. The most frequently mentioned driver complaint was poor road maintenance, followed by a lack of adequate public transportation.

2. The aspect of Kentucky's

transportation system most appreciated was the interstate system.

3. Ranking complaints and "aspects appreciated" by highway district revealed some noticeable differences. For example, tolls ranked high as a complaint in Districts 1 and 2, compared to the statewide ranking, and new construction was ranked higher in appreciation in the eastern Kentucky districts than elsewhere in the state.

4. A comparison of complaints and "aspects appreciated" by driver age and sex found very few major differences, especially between males and females.

#### Future Government Spending for Transportation

1. Drivers were generally of the opinion that government spending for transportation services should increase. The area for which the largest percentage of drivers indicated an increase was necessary was road maintenance; the areas of airports and new road construction had the lowest percentages.

2. An analysis by highway district showed that, in several instances, a larger percentage of drivers from the eastern section of the state felt that an increase in spending was necessary, compared to other sections of the state. This was particularly true for spending for new road construction.

3. The percentage of drivers stating that government spending for the various transportation services should increase generally increased as the population of city of residence decreased.

4. A comparison by driver age and sex of the percentage of drivers who believed government spending for certain transportation services should increase showed only minor differences.

#### Problems Getting to Various Destinations

1. The majority of respondents had no problems getting to work, shopping, hospital or doctor, and recreation or entertainment destinations. The total percentage having either major or minor problems was 30.8 percent for work, 25.2 percent for shopping, 14.6 percent for hospital or doctor, and 17.7 percent for recreation or entertainment.

2. The percentages having problems getting to these destinations varied with

the population of the city of residence. As the population decreased, the percentages having problems also decreased for each destination. However, when the city population became very small, the percentages began to rise again.

3. For each of the four destinations examined, the availability of an automobile greatly affected the percentage having access problems. As auto availability increased, access problems decreased.

4. No significant difference in access problems was evident for males versus females. For drivers over 65 years of age, problems getting to work, shopping, or recreation dropped in frequency; problems getting to the hospital or doctor remained at about the same frequency as for drivers under 65.

5. The percentages having problems getting to work, shopping, and recreation or entertainment destinations increased as family income increased. Problems getting to hospital or doctor remained about the same for different income levels.

#### Use of Other Modes of Transportation

1. Almost all (95 percent) of the drivers in Kentucky rarely or never used local buses. The primary cause for disuse was unavailability of local buses. Other leading reasons were inconvenient routes and inconvenient schedules.

2. Females were more likely than males to use local buses. Young drivers (16-20) were much more likely than others to ride the bus five or more times a week; younger (16-24) and older (65 and up) drivers were more likely than middle-aged drivers to never use the bus at all.

3. Those drivers who most often used buses tended to favor increased spending for public transportation more than those who did not use buses.

4. The percentage of drivers carpooling to church was 30.5, compared to 19.7 for school, 16.7 for shopping, 16.2 for work, 1.7 for social/recreation, and 15.2 for other reasons. Carpool usage to work varied for different areas of the state, with northern Kentucky and the Louisville area having the highest rates. South-central Kentucky had the lowest rate of carpooling to work.

5. Young drivers (16-20), higher-income drivers, and residents of larger

cities tended to carpool more than others.

6. "Rising gas prices" showed the highest potential for increasing carpool usage, followed by "assistance in arranging and scheduling a carpool" and "preferential parking". However, nearly 20 percent of all respondents indicated they would not consider increased carpooling.

7. The usage of various other modes of transportation was examined. The mode used by the most drivers was the commercial airline, followed by the taxi or limousine and the motorcycle. The mode used by the fewest drivers was the passenger train, followed by the private aircraft. Under the categories of frequent use, the motorcycle was listed most often.

8. Bicycles were used primarily for recreation or social purposes; over 35 percent of the licensed drivers used a bicycle for this reason.

#### Opinion on Suggestions for Laws or Government Regulations

1. Of the laws, regulations, and policies examined, the most favored were the motorcycle helmet law, strict enforcement of truck weight limits, strict enforcement of environmental protection laws, and strict enforcement of the 55-mph speed limit. The most opposed laws and policies were mandatory retesting of drivers, gasoline rationing, and the change in the gas tax.

2. The percentage of drivers remaining neutral was highest for mandatory air bags, mandatory seatbelt usage, and the change in the gas tax. The percentage remaining neutral was lowest for the motorcycle helmet law and strict enforcement of the 55-mph speed limit.

3. Support for the 55-mph speed limit, gasoline rationing, a bottle bill, and truck weight limits increased with increasing age. Support for air bags, the motorcycle helmet law, environmental protection laws, and mandatory retesting of drivers decreased with increasing age.

4. In all categories of motorcycle use, over 50 percent strongly favored the helmet law. However, opposition increased significantly with increasing motorcycle usage.

#### Bus Rider Survey

1. Lexington had the highest return rate for the bus rider survey (34.3 percent), and Frankfort had the lowest (11.0 percent). The overall return rate was 26 percent.

2. There was a higher percentage of both younger and older persons among bus riders than could be found in the general driving population. Females were much more highly represented among bus riders than among drivers (66 percent to 44 percent).

3. Forty percent of the bus riders responding did not have drivers' licenses.

4. The marital status categories of single, divorced, and widowed were substantially higher in representation among bus riders than among drivers; the "married" category was much lower.

5. Respondents to the bus survey were, in general, better educated than respondents to the driver survey. The distribution by occupation showed a higher percentage in the skilled, professional, clerical/secretary, retired, and unemployed categories, and a lower percentage in the housewife, sales, technician, supervisory, professional driver, agricultural, and mining categories for bus riders as compared to drivers.

6. Bus riders generally had lower household incomes than drivers. However, they also had smaller household sizes.

7. The percentage of bus riders who were either satisfied or very satisfied with Kentucky's overall transportation system was about 70 percent for each of the four cities surveyed. While fewer bus riders than drivers were satisfied with Kentucky's overall transportation system, those that were satisfied were stronger in their approval.

8. Those bus riders without drivers' licenses tended to be more satisfied with the state's overall transportation system than those with licenses, and they also tended to be more extreme in their satisfaction. However, those without licenses also tended to be more extreme in their dissatisfaction.

9. The most frequently listed complaints of bus riders dealt either with bus service specifically or with public

transportation in general. Major complaints were "inadequate public transportation", "bus scheduling", and "bus hours". Of the "aspects appreciated" by bus riders, public transportation ranked number one, and four of the top five were related to public transportation in some way.

10. Two-thirds of the bus riders surveyed rode the bus five or more times a week; an additional 20 percent rode one to four times a week. The primary reasons why bus riders did not ride buses more often were "inconvenient schedules", "travel time", "inconvenient routes", and "inavailability of buses".

11. The majority of bus riders surveyed had no problems getting to work, shopping, recreation or entertainment, and hospital or doctor destinations. However, when compared to drivers, bus riders had

more problems for each destination, particularly for recreation/entertainment and hospital/doctor.

12. Among bus riders, those without drivers' licenses had fewer problems getting to work than those with drivers' licenses. However, their problems were more severe. For the other three destinations examined, the lack of a driver's license caused an increase in both major and minor problems.

13. The percentage of bus riders favoring increased spending was highest for the area of public transportation, followed by "ice and snow removal" and "road maintenance". The percentage favoring a decrease in or termination of spending was highest for the area of new road construction, followed by "airports" and "road reconstruction".

## References

1. "Through Their Eyes, Part II: The People Speak", U.S. Department of Transportation, Office of the Assistant Secretary for Government Affairs, March 1978.
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  4. Conversations (telephone and in-person) with staff members of Survey Research Center, University of Kentucky, October 1979.
  5. "A Survey of American Attitudes toward Transportation," U.S. Department of Transportation, Office of the Secretary, January 1978.
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## **APPENDIX A**

### **Objectives and Effectiveness Measures**

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I. To provide "for the benefit of the people of the commonwealth, for the increase of their commerce and prosperity, and for the improvement of their health and living conditions". To preserve "the public peace, health, and safety" and promote "the general welfare". (KRS 177.510 and 177.310)

A. To protect, promote, and enhance the safety, health, convenience, comfort, enjoyment, and general welfare of the traveling public. (KRS 175.640, 177.850, and 177.890)

Measure: The percentage of the travelling public rating overall state transportation service as satisfactory.

1. To provide for "the construction, reconstruction, ... (and) maintenance of an adequate system of highways". (KRS 177.031)

a. To provide for the construction and reconstruction of an adequate system of highways in Kentucky.

Measure: Total miles of highway in Kentucky by system classification.

Measure: The percentage of road-miles with various widths of lanes and shoulders.

Measure: The percentage of drivers favoring increased spending for new road construction.

Measure: The percentage of drivers favoring increased spending for road reconstruction.

b. To maintain Kentucky's system of highways in adequate condition.

Measure: The percentage of drivers satisfied with the maintenance of state and US-numbered highways in Kentucky.

Measure: The percentage of road-miles in Kentucky rated as being in satisfactory condition.

Measure: The percentage of drivers favoring increased spending for road maintenance.

2. "To promote maximum safety, comfort and well-being of the users of ... highways". (KRS 177.850)

a. "To promote traffic safety". (KRS 174.065)

Measure: Rates of accidents, injuries, and deaths for highway travel.

Measure: Accident severity factors for highway travel.

Measure: The effectiveness of the driver improvement programs. (State Traffic School and Alcohol Driver Education).

Measure: The percentage of road-miles and bridges on various road systems in Kentucky with accident rates above critical.

Measure: Miles of road in various highway systems which are in need of deslicking.

Measure: The percentage of drivers favoring increased spending for highway safety improvements.

- b. "To prevent confusion with regard to traffic lights, signs, or signals". (KRS 177.850) To provide effective, visible pavement markings.

Measure: The percentage of traffic signals in unsatisfactory condition.

Measure: The percentage of drivers encountering traffic signs or signals that were poorly placed or difficult to understand.

Measure: The percentage of drivers encountering pavement markings which were hard to see.

Measure: The percentage of road-miles in Kentucky which are in need of restriping.

- c. To maintain and improve the rideability and overall condition of roads in the commonwealth.

Measure: The percentage of highway sections for which the pavement condition is rated below a selected level.

Measure: The percentage of drivers who often encounter rough or bumpy roads.

3. To develop "a sound public air transportation system within the state". To "designate, design, establish, expand, or modify a state airways system which will best serve the interests of the state". "To establish, maintain, operate, and expand necessary, desirable, or appropriate airport and air navigation facilities ... and the public use thereof". To provide for "safe, adequate and convenient operation of airports, air navigation, air transportation, and all matters relating to said functions". (KRS 183.868, 183.121, 183.133, and 183.090)

- a. To promote "the rapid development of a statewide system of airports". (KRS 183.200)

Measure: The number and locations of commercial and local airports in Kentucky.

Measure: The percentage of persons surveyed favoring increased spending for airport construction, operation, and maintenance.

b. "To promote and develop aviation". (KRS 183.133)

Measure: Total passengers enplaned and deplaned by commercial air carriers in Kentucky.

Measure: Total pounds of cargo enplaned and deplaned by commercial air carriers in Kentucky.

Measure: Total aircraft operations (takeoffs and landings) at Kentucky airports.

Measure: The percentage of persons surveyed who indicate they have travelled by air in the past year.

c. To provide for "the safety of airport users and surface persons and property". To eliminate airport hazards and obstructions. (KRS 183.868 and 183.866)

Measure: Rates of accidents, injuries, and deaths for air travel.

d. To provide for the development of "air services on a regularly scheduled basis for the movement of passengers, mail, and cargo". (KRS 183.140)

Measure: The number of airports in Kentucky providing air services on a regularly scheduled basis.

Measure: The number of regularly scheduled flights per day or week at each airport providing such service.

B. "To facilitate the rapid movement of goods and people with a minimum of delay". (USDOT)

1. To reduce travel times by highway in Kentucky.

Measure: Travel times for travel over selected routes in each of the state's urbanized areas.

Measure: Travel times for travel between the state's cities.

2. "To expedite relief from hazardous and congested traffic conditions on the highways" in the commonwealth. (KRS 175A.020) To reduce or eliminate blockages and obstructions to travel over the existing road system.

Measure: Delays for travel over selected routes in each of the

state's urbanized areas.

Measure: Delays for travel between the state's cities.

Measure: The average time to clear one lane of various highways after a snowfall.

Measure: The percentage of drivers satisfied with removal of snow and ice from state and US-numbered highways in Kentucky.

Measure: The percentage of drivers favoring increased spending for snow and ice removal.

Measure: The percentage of drivers often encountering unacceptable levels of congestion on city streets in Kentucky.

Measure: The percentage of drivers often encountering unacceptable levels of congestion on rural roads in Kentucky.

Measure: Peak-period speed and delay data in urban areas or elsewhere where congestion is a problem.

C. To benefit the economy of the commonwealth. (KRS 175.640)

1. To promote "the continued economic growth of the commonwealth". To "preserve and enhance the economic viability of the commonwealth". (KRS 175.640)

a. To "promote the agricultural and industrial development of the commonwealth". To promote and induce "industrial location or substantial expansion of industry" in the commonwealth. (KRS 175.440 and 176.121) To provide facilities and services which benefit business, industry, and agriculture in their affected areas.

Measure: The economic impacts of developmental highways (sections of US 25E and KY 55), a section of I 75, and the Mountain Parkway.

2. To promote "the free flow of interstate commerce". (KRS 177.890)

a. "To provide acceptable avenues of commerce and intercommunication by vehicular traffic". (KRS 175A.020)

Measure: Total vehicle-miles by road in Kentucky.

Measure: Ton-miles of goods transported by road in Kentucky.

b. To promote the development and maintenance of an adequate railway system in the commonwealth.

Measure: Total miles of railroad tracks in Kentucky by classification.

Measure: Ton-miles of goods transported by train in Kentucky.

Measure: The percentage of persons surveyed favoring increased spending for railroad operation and maintenance.

- c. "To promote the development of a navigable waterway" system. (KRS 182.300)

Measure: Total miles of navigable waterway in Kentucky.

Measure: Total tonnage of goods carried on Kentucky waterways.

3. "To minimize the costs of transportation to citizens." (USDOT)

Measure: Operating costs for travel over selected routes in each of the state's urbanized areas.

Measure: Operating costs for travel between the state's cities.

Measure: The economic loss due to traffic accidents.

Measure: The economic loss due to rail accidents.

Measure: The economic loss due to air accidents.

Measure: The economic loss due to water-transportation-related accidents.

Measure: An analysis of the economic impact of the bridge replacement program and other programs.

4. To "advertise, popularize, and promote the Commonwealth of Kentucky". (KRS 136.043)

Measure: The amount of money injected annually into the state economy by tourism.

- D. "To improve the public's accessibility to important destinations throughout the state." (USDOT)

1. To provide convenient access to those destinations which are crucial to everyday life.

Measure: The percentage of persons surveyed indicating difficulty getting to jobs, shopping, medical service, recreation facilities, or other crucial destinations.

2. To provide a high level of transportation service to all population centers.

Measure: An assessment of the types of transportation facilities available within various distances of population centers.

- E. To preserve "historical and aesthetic beauty". (KRS 176.255) "To reduce the undesirable environmental impacts of transportation services on air, water, noise, wildlife, and vegetation." (USDOT)
1. To promote "the restoration, preservation, and enhancement of scenic beauty within and adjacent to ... highways of this state". (KRS 177.090)
 

Measure: The percentage of drivers who rate the landscaping, cleanliness, and overall appearance of federal and state highways in Kentucky as attractive.
  2. To insure that "every vehicle when on a highway shall be so equipped as to make a minimum of noise, smoke, or other nuisance". (KRS 189.020)
    - a. To reduce or eliminate air pollution due to transportation sources.
 

Measure: The annual number of days in which transportation-generated air pollution (ozone) exceeds hazardous levels.
    - b. To reduce or eliminate noise pollution due to transportation sources.
 

Measure: The number of road-miles with excessive noise levels in residential areas and designated "quiet zones".

Measure: A survey of noise levels of various vehicle types.
- F. To provide services required for the public convenience and necessity. (KRS 183.590) "To provide satisfactory service to citizens in terms of courtesy, fairness, and responsiveness." (USDOT)
1. To insure "that all ... vehicles should be regulated, registered, and controlled". (KRS 186.005)
    - a. To "promote uniformity in regulation of and standards for (vehicle) equipment". To promote "the development of greater interjurisdictional cooperation to achieve the necessary uniformity in the laws, rules, regulations and codes relating to vehicle equipment". (KRS 189.760)
 

Measure: Unknown
    - b. To "minimize the time between the development of sound safety features and their incorporation into vehicles". (KRS 189.760)
 

Measure: Unknown
  2. To insure that "every person ... shall before operating a motor vehicle or moped upon a highway secure an operator's license". (KRS 186.410) To provide this service in a courteous, fair, and responsive manner.

Measure: The percentage of drivers who are satisfied with the ease and convenience of obtaining a driver's license.

3. To "promote honesty, integrity, safety, veracity and sound economic conditions in the motor vehicle sales industry ..., without unjust discrimination or undue preference or advantage". "To provide for fair and impartial regulation of those persons engaged in the business of the manufacture, distribution, or sale of motor vehicles". (KRS 190.015)

Measure: Unknown

- G. "To encourage and facilitate the conservation of energy." (USDOT)

1. To minimize the fuel consumption required for automobile travel.

Measure: Fuel consumption for travel over selected routes in each of the state's urbanized areas.

Measure: Fuel consumption for travel between the state's cities.

2. "To encourage bicycling and bicycle touring in this state". (KRS 189.287)

Measure: The percentage of persons surveyed indicating they ride a bicycle.

3. To encourage carpooling and vanpooling in Kentucky.

Measure: The percentage of licensed drivers indicating that they use carpools or vanpools.

4. To encourage the use of public transportation (buses).

Measure: The percentage of persons surveyed using bus service.

Measure: The number of bus passenger trips and trips per capita.

- H. "To minimize other undesirable effects of state transportation services such as community disruption." (USDOT)

Measure: Unknown

- I. "To provide services equitably to all groups within the state, including the disadvantaged." (USDOT)

1. To provide acceptable public transportation for those desiring this service and especially for those requiring it.

Measure: The percentage of drivers indicating that bus service is not available to them.

Measure: The percentage of bus users satisfied with overall service.

Measure: General information regarding the location and extent of areas presently being served by buses.

- a. To provide rapid and efficient movement by public transportation.

Measure: Average bus speeds between selected origins and destinations.

Measure: The percentage of drivers and bus users who state that travel time is a reason for disuse or limited use of buses.

Measure: Average bus headways.

- b. To provide access to crucial destinations by public transportation.

Measure: The percentage of bus users who indicate they have had problems getting to jobs, shopping, medical service, recreation facilities, or other crucial destinations.

- c. To provide safe, economical, convenient, and comfortable public transportation service.

Measure: The number of scheduled stops that are early by any amount or late more than a specified amount of time.

Measure: The percentage of bus users rating factors related to comfort, convenience, and employee service as satisfactory.

Measure: The percentage of drivers and bus users indicating that inconvenient schedules are a reason for disuse or limited use of buses.

Measure: The percentage of drivers and bus users indicating that inconvenient routes are a reason for disuse or limited use of buses.

Measure: The percentage of drivers and bus users indicating that lack of safety is a reason for disuse or limited use of buses.

Measure: The percentage of drivers and bus users indicating that excessive cost is a reason for disuse or limited use of buses.

Measure: The percentage of drivers and bus users indicating that lack of comfort is a reason for disuse or limited use of buses.

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## **APPENDIX B**

### **Cover Letter and Questionnaire Sent to Licensed Drivers**





COMMONWEALTH OF KENTUCKY  
DEPARTMENT OF TRANSPORTATION  
Division of Research  
533 South Limestone  
Lexington, KY 40508

FRANK R. METTS  
SECRETARY

JOHN Y. BROWN, Jr.  
GOVERNOR

February 1, 1980

Dear Driver:

The Division of Research of the Department of Transportation is conducting a study to determine the effectiveness of transportation services in Kentucky. By completing the enclosed questionnaire, you will have a chance to express your opinion on a number of important matters. Results of the study will assist in the formulation of transportation plans for Kentucky.

Your name was selected at random from a file containing all licensed drivers in the state. The questionnaire is for our study only and no attempt will be made to identify drivers. We ask that you do not include your name on the questionnaire. For your convenience, a pre-addressed, pre-stamped envelope is enclosed for you to return the questionnaire to us.

The questionnaire will only take a few minutes to complete. Upon completion of the questionnaire, please do not delay in returning it. Only a limited number of questionnaires were sent. It is, therefore, important that every questionnaire be returned.

Thank you very much for your assistance.

Sincerely yours,

Research Engineer

GENERAL TRAVEL INFORMATION

1. Over the past 12 months, have you had problems in getting to any of the following destinations?

	No Problems	Minor Problems	Major Problems (Describe)
a) Work	_____	_____	_____
b) Shopping	_____	_____	_____
c) Hospital or Doctor	_____	_____	_____
d) Recreation or Entertainment	_____	_____	_____
e) Other: _____	_____	_____	_____

2. How often do you usually ride local buses?

\_\_\_\_\_ 5 or more times a week \_\_\_\_\_ 1 to 4 times a week \_\_\_\_\_ once or twice a month \_\_\_\_\_ rarely \_\_\_\_\_ never

If buses are not your principal means of travel, why don't you ride buses more often than this? (You may select more than one answer. If your answer is that you prefer to travel by car, then check the reason(s) why you prefer to travel by car.)

\_\_\_\_\_ Bus is not available \_\_\_\_\_ Bus schedules are inconvenient \_\_\_\_\_ Bus is too expensive \_\_\_\_\_ Bus is unsafe  
 \_\_\_\_\_ Bus takes too long \_\_\_\_\_ Bus routes are inconvenient \_\_\_\_\_ Bus is uncomfortable \_\_\_\_\_ Other \_\_\_\_\_

3. In the past 12 months, how often have you travelled by the following means of transportation?

	None	1-5 times	6-50 times	More than 50 times
Commercial Airline	_____	_____	_____	_____
Private Aircraft	_____	_____	_____	_____
Passenger Train	_____	_____	_____	_____
Intercity Bus (Greyhound, Trailways, etc.)	_____	_____	_____	_____
Taxi or Limousine	_____	_____	_____	_____
Motorcycle	_____	_____	_____	_____

4. How often do you use a bicycle for the following purposes? Frequently Occasionally Never

Work or school	_____	_____	_____
Shopping	_____	_____	_____
Recreation/Social	_____	_____	_____
Other	_____	_____	_____

5a. Does anyone in your household participate in a carpool (or vanpool) for any of the following purposes?

Work: \_\_\_\_\_yes \_\_\_\_\_no School: \_\_\_\_\_yes \_\_\_\_\_no Shopping: \_\_\_\_\_yes \_\_\_\_\_no Church: \_\_\_\_\_yes \_\_\_\_\_no Social/Recreation: \_\_\_\_\_yes \_\_\_\_\_no Other: \_\_\_\_\_

5b. Which of the following would encourage you to use carpools more? (May select more than one answer.)

\_\_\_\_\_ preferential parking for carpools \_\_\_\_\_ rising gas prices  
 \_\_\_\_\_ exclusive lanes for carpools \_\_\_\_\_ other \_\_\_\_\_  
 \_\_\_\_\_ assistance in arranging and scheduling a carpool \_\_\_\_\_ would not consider using carpools more

DRIVER OPINIONS

1. This question relates to government spending for transportation. For each of the following areas of transportation service, tell whether you think government spending should increase, stay the same, decrease, or cease completely.

	Increase	Stay Same	Decrease	Stop
New road construction	_____	_____	_____	_____
Road reconstruction (widening, realignment, etc.)	_____	_____	_____	_____
Road maintenance	_____	_____	_____	_____
Railroad operation & maintenance	_____	_____	_____	_____
Public Transportation	_____	_____	_____	_____
Highway safety improvements	_____	_____	_____	_____
Airport construction, operation, and maintenance	_____	_____	_____	_____
Removal and treatment of ice and snow on roads	_____	_____	_____	_____

2. How do you feel about each of the following suggestions for laws or government regulations?

	Strongly Favor	Favor	Neutral	Oppose	Strongly Oppose
a) A law requiring seatbelt usage	_____	_____	_____	_____	_____
b) Strict enforcement of the 55-mph speed limit	_____	_____	_____	_____	_____
c) Gasoline rationing	_____	_____	_____	_____	_____
d) A law requiring child-restraints for automobile passengers under 5 years of age	_____	_____	_____	_____	_____
e) Annual vehicle inspections	_____	_____	_____	_____	_____
f) A law prohibiting the sale of non-returnable bottles and cans in Kentucky	_____	_____	_____	_____	_____
g) Strict enforcement of truck weight limits	_____	_____	_____	_____	_____
h) A law requiring all new automobiles to be equipped with air bags	_____	_____	_____	_____	_____
i) A law requiring motorcyclists to wear helmets	_____	_____	_____	_____	_____
j) Strict enforcement of environmental protection laws	_____	_____	_____	_____	_____
k) A change in the gasoline tax from a fixed cents-per-gallon tax to one based on a percentage of the price of gasoline	_____	_____	_____	_____	_____
l) Mandatory retesting of drivers when renewing licenses	_____	_____	_____	_____	_____

3. How satisfied are you with Kentucky's overall transportation system?

\_\_\_\_\_ Very satisfied    \_\_\_\_\_ Satisfied    \_\_\_\_\_ Dissatisfied    \_\_\_\_\_ Very dissatisfied

4. What is your biggest complaint about Kentucky's transportation system?

\_\_\_\_\_

5. What do you appreciate most about Kentucky's transportation system?

\_\_\_\_\_

6. How satisfied are you with the opportunity offered for public participation and comment regarding proposed transportation projects?

\_\_\_\_\_ Very satisfied    \_\_\_\_\_ Satisfied    \_\_\_\_\_ Dissatisfied    \_\_\_\_\_ Very dissatisfied

PERSONAL INFORMATION

- Age \_\_\_\_\_
- Sex: M \_\_\_\_\_ F \_\_\_\_\_
- County of Residence \_\_\_\_\_
- Population of city (or town) of residence  
 \_\_\_\_\_ Greater than 60,000    \_\_\_\_\_ 15,000-60,000    \_\_\_\_\_ 2,500 - 14,999    \_\_\_\_\_ Less than 2,500
- Marital status  
 \_\_\_\_\_ Married    \_\_\_\_\_ Single    \_\_\_\_\_ Divorced or Separated    \_\_\_\_\_ Widowed
- Education  
 \_\_\_\_\_ Did not complete high school    \_\_\_\_\_ Completed high school    \_\_\_\_\_ More than high school    \_\_\_\_\_ Completed college
- Occupation \_\_\_\_\_
- Annual Household Income  
 \_\_\_\_\_ Less than \$8,000    \_\_\_\_\_ \$8,000-\$15,999    \_\_\_\_\_ \$16,000-\$23,999    \_\_\_\_\_ \$24,000-\$32,000    \_\_\_\_\_ Over \$32,000
- Number of people in household (including self) \_\_\_\_\_

DRIVING INFORMATION

1a. Is there an automobile available for you to use when you need one?  Always  Sometimes  Never  1c. Please list the model year and the odometer reading (total mileage) for each car which is owned or leased by you or others in your household.

1b. Please estimate how many miles you drive each year. \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

2. During the past 12 months, how often did you encounter state or US-numbered highways in Kentucky that were bumpy, uneven, or rough?  
 Rarely or never  Sometimes, but not often  Fairly often  Very often

List particular state and US-numbered highways that you usually found bumpy or uncomfortable to ride on.

3. How satisfied are you with the maintenance of state and US-numbered highways in Kentucky?  
 Very Satisfied  Satisfied  Dissatisfied  Very Dissatisfied

4. How satisfied are you with the removal or treatment of ice and snow on state and US-numbered highways in Kentucky?  
 Very Satisfied  Satisfied  Dissatisfied  Very Dissatisfied

5. How satisfied are you with the cleanliness and overall appearance of the right-of-ways of state and US-numbered highways in Kentucky?  
 Very Satisfied  Satisfied  Dissatisfied  Very Dissatisfied

6. During the last 12 months, how often have you encountered an unacceptable level of congestion on city streets?  
 Rarely or never  Sometimes, but not often  Fairly often  Very often  
 What would you say is the major cause of this congestion? \_\_\_\_\_

7. During the last 12 months, how often have you encountered congestion on rural roads?  
 Rarely or never  Sometimes, but not often  Fairly often  Very often  
 What would you say is the major cause of this congestion? \_\_\_\_\_

8. How often in the past 12 months have you encountered traffic signs or signals that were poorly placed or difficult to understand?  
 Rarely or never  Sometimes, but not often  Fairly often  Very often

9. How often in the past 12 months have you encountered pavement markings such as center lines, edge stripes, and lane markings which were hard to see?  
 Rarely or never  Sometimes, but not often  Fairly often  Very often

10. During the past 12 months, have you ever been in need of emergency aid (police, ambulance, tow-truck) on a road in Kentucky?  Yes  No

If yes, were you able to quickly and conveniently get the help needed?  Yes  No

11. In the past 12 months, have you obtained a new driver's license in Kentucky or have you renewed, replaced, or changed your old license?  
 Yes (specify)  No  
 New License  
 Renewal  
 Replacement or change of name or address

If yes, how satisfied were you with the ease and convenience of obtaining, renewing, replacing, or changing your license?

Very Satisfied  Satisfied  Dissatisfied  Very dissatisfied

## **APPENDIX C**

### **Questionnaire Distributed in Bus Rider Survey**





KENTUCKY DEPARTMENT OF TRANSPORTATION  
DIVISION OF RESEARCH

PUBLIC TRANSPORTATION SURVEY

The Division of Research of the Kentucky Department of Transportation is conducting a study to determine the effectiveness of transportation services in Kentucky. By completing this questionnaire, you will have a chance to express your opinion on a number of important matters. Results of the study will assist in the formulation of transportation plans for Kentucky.

For your convenience, a pre-addressed, pre-stamped envelope is enclosed for you to return the questionnaire to us, or you may complete the questionnaire and return it to the surveyor before leaving the bus. We ask that you do not include your name on the questionnaire.

The questionnaire will only take a few minutes to complete. Upon completion of the questionnaire, please do not delay in returning it. Only a limited number of questionnaires are being distributed. It is, therefore, very important that every questionnaire is returned.

Thank you very much for your assistance.

PERSONAL INFORMATION

1. Age  2. Sex: M  F  3. County of Residence
4. Population of city (or town) of residence  
 Greater than 60,000  15,000-60,000  2,500-14,999  Less than 2,500
5. Marital status  
 Married  Single  Divorced or Separated  Widowed
6. Education  
 Did not complete high school  Completed high school  More than high school  Completed College
7. Occupation
8. Annual Household Income  
 Less than \$8,000  \$8,000-\$15,999  \$16,000-\$23,999  \$24,000-\$32,000  Over \$32,000
9. Number of people in household (including self)
10. Do you have a driver's license?  Yes  No

GENERAL TRAVEL INFORMATION

1. Over the past 12 months, have you had problems in getting to any of the following destinations?

	No Problems	Minor Problems	Major Problems (Describe)
a) Work	<input type="text"/>	<input type="text"/>	<input type="text"/>
b) Shopping	<input type="text"/>	<input type="text"/>	<input type="text"/>
c) Hospital or Doctor	<input type="text"/>	<input type="text"/>	<input type="text"/>
d) Recreation or Entertainment	<input type="text"/>	<input type="text"/>	<input type="text"/>
e) Other: <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

2. How often do you usually ride local buses?

5 or more times a week  1 to 4 times a week  once or twice a month  rarely

If buses are not your principal means of travel, why don't you ride buses more often than this? (You may select more than one answer. If your answer is that you prefer to travel by car, then check the reason(s) why you prefer to travel by car.)

Bus is not available     Bus schedules are inconvenient     Bus is too expensive     Bus is unsafe  
 Bus takes too long     Bus routes are inconvenient     Bus is uncomfortable     Other \_\_\_\_\_

3. In the past 12 months, how often have you traveled by the following means of transportation?

	None	1-5 Times	6-50 Times	More Than 50 Times
Commercial Airline	_____	_____	_____	_____
Private Aircraft	_____	_____	_____	_____
Passenger Train	_____	_____	_____	_____
Intercity Bus (Greyhound, Trailways, etc.)	_____	_____	_____	_____
Taxi or Limousine	_____	_____	_____	_____
Motorcycle	_____	_____	_____	_____

4. How often do you use a bicycle for the following purposes?

	Frequently	Occasionally	Never
Work or school	_____	_____	_____
Shopping	_____	_____	_____
Recreation/Social	_____	_____	_____
Other	_____	_____	_____

OPINIONS

1. This question relates to government spending for transportation. For each of the following areas of transportation service, tell whether you think government spending should increase, stay the same, decrease, or cease completely.

	Increase	Stay Same	Decrease	Stop
New road construction	_____	_____	_____	_____
Road reconstruction (widening, realignment, etc.)	_____	_____	_____	_____
Road maintenance	_____	_____	_____	_____
Railroad operation & maintenance	_____	_____	_____	_____
Public transportation	_____	_____	_____	_____
Highway safety improvements	_____	_____	_____	_____
Airport construction, operation, and maintenance	_____	_____	_____	_____
Removal and treatment of ice and snow on roads	_____	_____	_____	_____

2. How do you feel about each of the following suggestions for laws or government regulations?

	Strongly Favor	Favor	Neutral	Oppose	Strongly Oppose
a) A law prohibiting the sale of non-returnable bottles and cans in Kentucky	_____	_____	_____	_____	_____
b) Strict enforcement of truck weight limits	_____	_____	_____	_____	_____
c) A law requiring motorcyclists to wear helmets	_____	_____	_____	_____	_____
d) Strict enforcement of environmental protection laws	_____	_____	_____	_____	_____

3. How satisfied are you with Kentucky's overall transportation system?

Very Satisfied     Satisfied     Dissatisfied     Very dissatisfied

4. What is your biggest complaint about Kentucky's transportation system?

\_\_\_\_\_

5. What do you appreciate most about Kentucky's transportation system?

\_\_\_\_\_

6. How satisfied are you with the opportunity offered for public participation and comment regarding proposed transportation projects?

Very satisfied     Satisfied     Dissatisfied     Very dissatisfied