



JOINT HIGHWAY
RESEARCH PROJECT

JHRP-77-7

TRAFFIC SPEED REPORT NO. 99

G.S. Toft

G.K. Stafford



TRAFFIC SPEED REPORT NO. 99

TO: J. F. McLaughlin, Director
Joint Highway Research Project

FROM: H. L. Michael, Associate Director
Joint Highway Research Project

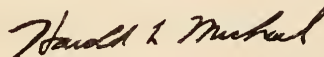
May 16, 1977
File: 8-3-3
Project: C-36-10C

The attached Progress Report No. 99 on Traffic Speeds is the report of the October-December 1976 quarterly study of free-flowing automobile and truck speeds on rural, tangent, level sections of Interstate, 4-lane and 2-lane and on urban interstate highways in Indiana. The report has been prepared by Mr. G. S. Toft, a Graduate Instructor in Research on our staff, under the direction of Professor H. L. Michael. The data were collected by Mr. G. K. Stafford and a number of graduate assistants on our staff.

The results indicate similar speeds for all passenger cars as those of the July-September 1976 Study. The speeds of heavy trucks, however, were found to average 1.1 mph lower for this period than for the last quarter.

Copies of the report will be sent to the Federal Highway Administration and the ISHC for review, comment and acceptance as fulfillment of the objectives of this HPR Part I Study. Copies of the report are requested for release to the Indiana State Police and the Indiana Office of Traffic Safety as a normal procedure for these reports.

Respectfully submitted,



Harold L. Michael
Associate Director

HLM/ss

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Interim Report
TRAFFIC SPEED REPORT NO. 99

by

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Joint Highway Research Project

File No.: 8-3-3

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Purdue University

in cooperation with the

Indiana State Highway Commission

and the

U. S. Department of Transportation
Federal Highway Administration

The opinions, findings and conclusions expressed in this publication are those of the authors and not necessarily those of the Federal Highway Administration.

Purdue University
West Lafayette, Indiana
May 16, 1977

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16. Abstract This report is another in the continuing study of speeds of vehicles on Indiana Highways. Observations of spot speeds were taken on interstate, four-lane and two-lane highways throughout the state during the months of November and December 1976. Analysis of the speeds showed the overall average speed for all vehicles was 57.3 mph. The overall average speed for passenger cars and all trucks was 58.0 mph and 56.1 mph, respectively. These overall average speeds were similar for passenger cars and 0.9 mph slower for trucks than the speeds found in the July-September 1976 Study (Speed Report No. 98). This decrease in truck speeds resulted from a 2.0 mph decrease in the average speeds of heavy trucks on the interstate system.					
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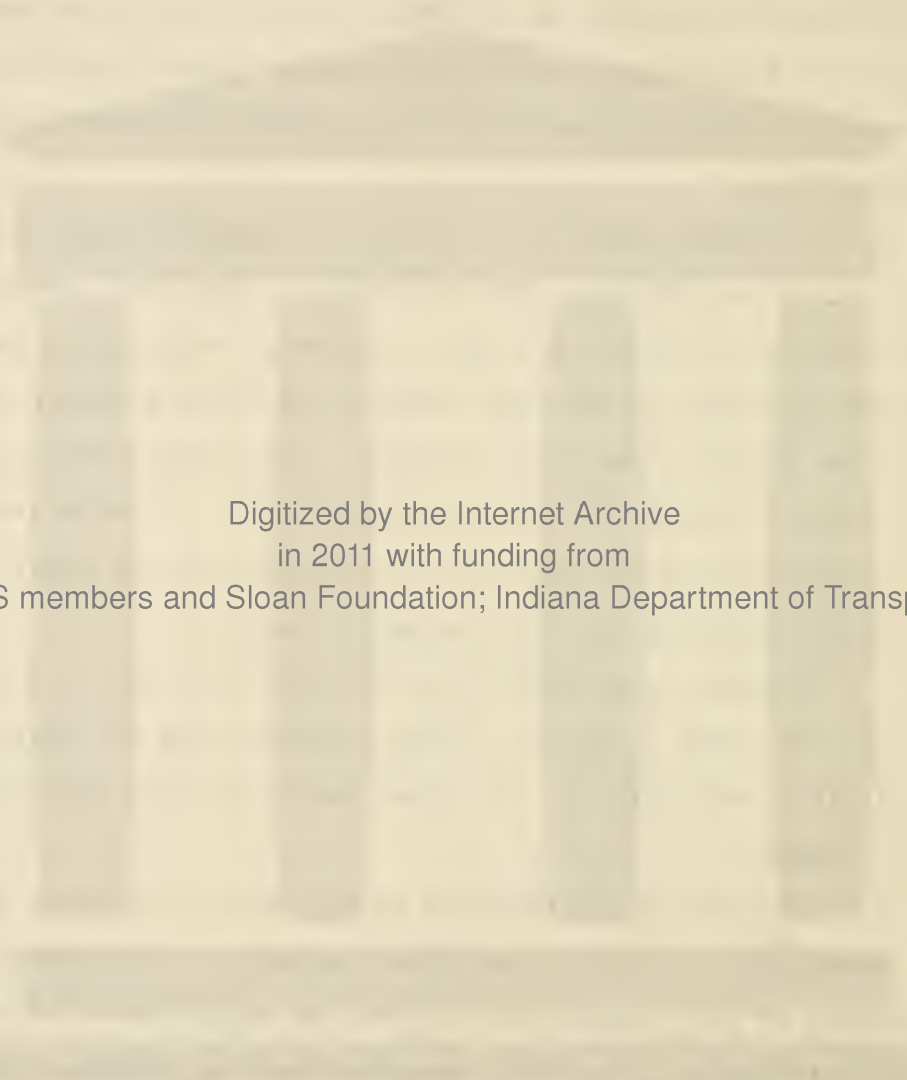
TRAFFIC SPEED REPORT NO. 99

This report is an analysis of spot speed observations made during November and December 1976. All observations were made of free-flowing vehicles on level, tangent sections of rural and urban highways during daylight and under favorable conditions.

The speed monitoring stations for each highway classification were divided into two groups. The first group is identified as "primary control stations" and studied from the same locations on selected Federal and State highways as used in the previous quarterly studies. The second group is selected at random for each quarterly study. A third group of "secondary control stations" is used only in the annual study conducted during the July-September quarter.

Fourteen speed monitoring stations were used for this reported study. Seven of these stations were the control stations noted above. The other seven stations were selected at random.

Stations were classified as two-lane, four-lane, rural interstate, or urban interstate highways. A representative sample of spot speeds was obtained at each station in each classification. The site locations were as follows: (See Figure A)



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Rural Interstate Highways

*RI-21 (I-69) 2.1 miles south of junction of SR 18
 *RI-6 (I-65) 7.5 miles north of junction of SR 160
 RI-3 (I-64) At bridge Exit 72 (SR 145)
 RI-16 (I-70) 0.6 mile east of Mile Marker 128, @ Bridge
 400E

Four-lane Highways

*4L-32 (U.S. 30) 2.0 miles east of junction of SR 49
 *4L-17 (U.S. 52) .25 mile east of Co. Rd. 475W
 4L-13 (U.S. 41) NB: 4.3 miles south of SR 58
 SB: @ Sullivan-Knox Co. Line
 4L-14 (U.S. 40) 0.95 mile east of Stringtown

Two-lane Highways

*2L-18 (U.S. 35) 1.5 miles east of junction of I-69
 *2L-54 (U.S. 231) 1.0 mile south of junction of SR 234
 2L-7 (S.R. 46) 0.5 mile west of Gnaw Bone
 2L-38 (S.R. 27) 2.0 miles south of College Corner

Urban Interstate Highways

*UL-6 (I-65) East of White River Bridge
 UL-4 (I-465) NB: 15 Mile Bridge
 SB: @ 34th Street Bridge

The vehicles were classified as Indiana or Non-Indiana Passenger Cars and Light (less than 5000 lbs. gross weight) or Heavy (equal to or more than 5000 lbs. gross weight) Trucks. The analysis was performed as classified and combined, passenger cars or trucks.

The maximum speed limit in Indiana is 55 miles per hour, both on Interstate and other rural highways.

*Control stations

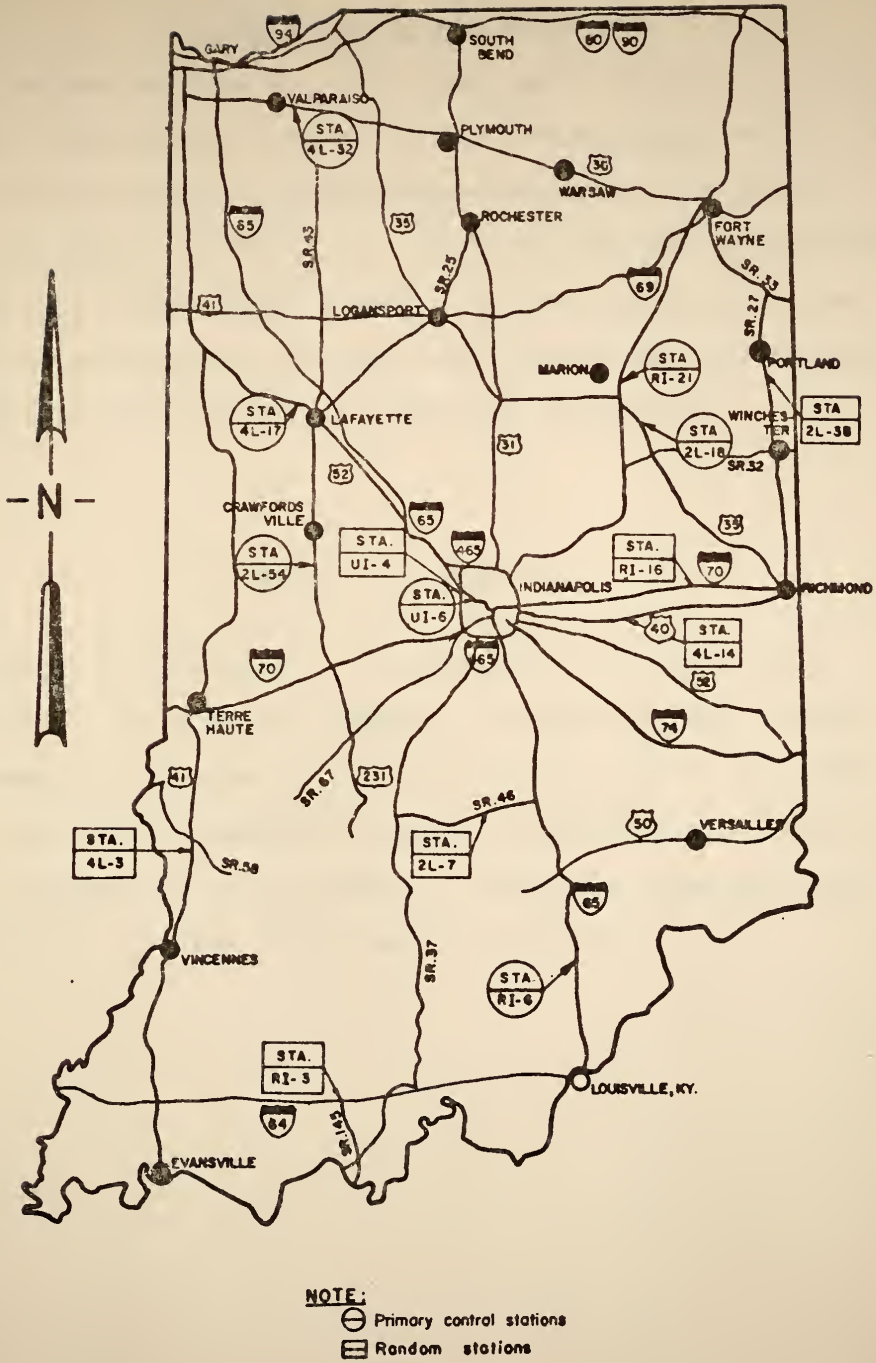


FIGURE A , LOCATIONS OF SPEED-STUDY STATIONS

Equipment and Field Procedure

The observations for this study were obtained by use of a Radar Speed Meter. The meter was placed approximately four feet from the edge of the pavement at angles less than 10° with the highway center line. No corrections of speeds were necessary at these small angles. At the beginning of the study the accuracy of the meter was checked and any constant discrepancy of readings was corrected accordingly.

RESULTS OF ANALYSIS

The data collected were analyzed and are summarized in Tables 1 to 14 in the Appendix. Tables 15, 16, 17 and 18 summarize the data for rural interstate, four lane, two lane and urban interstate highways, respectively. Table 19 is the summary for all highways. Tables 20 through 34 are summaries in an FHWA format which is desired.

The average speed for each classification of vehicles on each type of highway for this study was as follows:

	<u>Interstate</u>		<u>Other</u>	<u>Two Lane</u>
	<u>Urban</u>	<u>Rural</u>	<u>Four Lane</u> <u>Rural</u>	<u>Rural</u>
<u>Passenger Cars:</u>				
Indiana	57.3	59.7	58.1	56.4
Non-Indiana	57.8	60.1	59.8	56.3
All Passenger Cars	57.3	59.9	58.3	56.4
85 Percentile (all)	61.2	64.5	63.7	61.4
<u>Trucks:</u>				
Less than 5000 lbs.	55.7	57.9	56.8	54.9
5000 lbs. or more	55.4	57.4	55.9	54.4
<u>All Vehicles:</u>				
Average	56.6	58.9	57.5	55.7
85 Percentile	60.7	63.6	62.7	60.8

The percent of vehicles exceeding the speed limit (55 mph) for each classification of vehicle and each type of highway was as follows:

	<u>Interstate</u>		<u>Other</u>	<u>Two Lane</u>
	<u>Urban</u>	<u>Rural</u>	<u>Four Lane</u>	
<u>Passenger Cars:</u>				
Indiana	64.9	79.9	68.6	55.7
Non-Indiana	75.9	81.7	75.4	56.6
All Passenger Cars	66.0	80.7	69.4	55.8
<u>Trucks:</u>				
Less than 5000 lbs.	51.9	65.7	55.7	47.3
5000 lbs. or more	49.3	63.1	57.4	45.0
<u>All Vehicles:</u>	60.0	73.7	64.2	52.1

The percent of vehicles traveling more than 5 mph above the speed limit (exceeding 60 mph) for each case was as follows:

	<u>Interstate</u>		<u>Other</u>	<u>Two Lane</u>
	<u>Urban</u>	<u>Rural</u>	<u>Four Lane</u>	<u>Rural</u>
<u>Passenger Cars:</u>				
Indiana	23.2	40.3	31.5	21.2
Non-Indiana	22.2	44.9	42.4	22.2
All Passenger Cars	23.1	42.4	32.7	21.3
<u>Trucks:</u>				
Less than 5000 lbs.	11.6	31.4	26.1	14.3
5000 lbs. or more	13.5	24.9	20.6	12.0
<u>All Vehicles:</u>	19.2	35.8	28.8	18.2

The percent of vehicles traveling more than 10 miles per hour above the speed limit (exceeding 65 mph) for each case was as follows:

	<u>Interstate</u>		<u>Other</u>	<u>Two Lane</u>
	<u>Urban</u>	<u>Rural</u>	<u>Four Lane</u>	<u>Rural</u>
<u>Passenger Cars:</u>				
Indiana	5.1	12.6	9.6	6.7
Non-Indiana	3.7	13.4	16.1	4.0
All Passenger Cars	5.0	13.0	10.3	6.5
<u>Trucks:</u>				
Less than 5000 lbs.	1.6	8.6	7.2	3.4
5000 lbs. or more	2.9	5.5	4.3	0.8
<u>All Vehicles:</u>	4.0	10.2	8.4	4.8

Summary and Conclusions

The overall average speed for all vehicles and passenger cars in this study was found to be 57.3 and 58.0 mph, respectively. The overall average speeds for heavy trucks and for all trucks were found to be 56.0 mph and 56.1 mph, respectively. These overall average speeds are about the same for all vehicles and passenger cars as the results of July-September 1976. However, the overall average speeds for heavy trucks and for all trucks are 1.1 mph and 0.9 mph, respectively, below the results for the July-September 1976 study.

Table A presents a comparison of the overall speed results with that of the previous two studies. The 85th percentile speed of passenger cars has risen slightly over the three periods under consideration, whereas the 85th percentile speed has fallen for trucks over the same period.

A comparison of October-December 1976 speed data with that for other recent periods for several types of highway for passenger cars and trucks is shown in Tables B, C, D and E.

The decrease in the average speed for all trucks occurred on all highway types, but most noticeably on urban interstate highways (as compared to the July-September 1976 study). On the other hand, the average speeds and 85th percentile speeds for passenger cars were about the same on rural interstate and 2-lane highways, while such speeds increased on other four-lane highways and decreased on urban interstate highways, from the July-September 1976 study.

TABLE A
COMPARISON OF THE OVERALL SPEED RESULTS

	Oct.-Dec. <u>1976</u>	July-Sept. <u>1976</u>	April-June <u>1976</u>
<u>Average:</u>			
All Passenger Cars	58.0	58.0	57.1
Heavy Trucks	56.0	57.1	56.6
All Trucks	56.1	57.0	56.1
<u>85 Percentile:</u>			
All Passenger Cars	63.0	62.7	61.8
Heavy Trucks	60.9	61.9	61.9
All Trucks	61.0	61.9	61.4
<u>15 Percentile:</u>			
Heavy Trucks	50.3	51.4	50.5

TABLE B
AVERAGE SPEEDS ON INTERSTATE HIGHWAYS (URBAN)

	<u>Oct.-Dec.</u> <u>1976</u>	<u>July-Sept.</u> <u>1976</u>	<u>April-June</u> <u>1976</u>	<u>Jan.-Mar.</u> <u>1976</u>
<u>Passenger Cars:</u>				
Indiana	57.3	58.4	57.5	57.2
Non-Indiana	57.8	58.6	57.8	57.5
All Passenger Cars	57.3	58.4	57.5	57.2
85 Percentile (all)	61.2	63.6	61.6	61.0
<u>Trucks:</u>				
Less than 5000 lbs.	55.7	57.7	56.4	57.0
5000 lbs. or more	55.4	57.3	54.8	54.4

TABLE C
AVERAGE SPEEDS ON INTERSTATE HIGHWAYS (RURAL)

	<u>Oct.-Dec.</u> <u>1976</u>	<u>July-Sept.</u> <u>1976</u>	<u>April-June</u> <u>1976</u>	<u>Jan.-Mar.</u> <u>1976</u>
<u>Passenger Cars:</u>				
Indiana	59.7	59.5	58.1	57.4
Non-Indiana	60.1	60.2	58.9	58.0
All Passenger Cars	59.9	59.8	58.6	57.5
85 Percentile (all)	64.5	64.3	62.5	61.8
<u>Trucks:</u>				
Less than 5000 lbs.	58.0	58.5	57.1	56.5
5000 lbs. or more	57.4	58.4	58.7	56.7

TABLE D
AVERAGE SPEEDS ON OTHER FOUR-LANE HIGHWAYS

	Oct.-Dec. <u>1976</u>	July-Sept. <u>1976</u>	April-June <u>1976</u>	Jan.-Mar. <u>1976</u>
<u>Passenger Cars:</u>				
Indiana	58.1	57.2	57.1	57.7
Non-Indiana	59.8	57.8	57.2	58.6
All Passenger Cars	58.3	57.3	57.1	57.8
85 Percentile (all)	63.7	61.8	61.9	62.2
<u>Trucks:</u>				
Less than 5000 lbs.	56.8	56.9	56.6	57.0
5000 lbs. or more	55.9	56.6	57.0	54.9

TABLE E
AVERAGE SPEEDS ON TWO-LANE HIGHWAYS

	Oct.-Dec. <u>1976</u>	July-Sept. <u>1976</u>	April-June <u>1976</u>	Jan.-Mar. <u>1976</u>
<u>Passenger Cars:</u>				
Indiana	56.4	56.4	55.3	56.4
Non-Indiana	56.3	57.8	55.3	55.9
All Passenger Cars	56.4	56.6	55.3	56.4
85 Percentile (all)	61.4	61.5	60.7	60.5
<u>Trucks:</u>				
Less than 5000 lbs.	54.9	55.6	53.5	55.2
5000 lbs. or more	54.4	55.4	53.5	53.4

TABLE 1 SPEED DATA

Station RI-21 Highway I-69 Location 2.1 Miles South of S.R. 18 Weather Pt. Cloudy
 No. of Lanes 4 Type of Surface Concrete Last Previous Observation (Speed Report No. 98)
 This Observation Date 11/8/76 Date 8/18/76
 Time 10:55-11:55 AM NB Time 9:40 AM-12:05PM
 Time 12:22-1:12 PM SB

OBSERVATION	PASSENGER CARS										TRUCKS					
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.					
	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent				
No. of vehicles obs.	276	279	169	166	107	113	151	181	55	96	131					
Ave. speed (m.p.h.)	59.49	59.39	59.48	58.95	59.50	60.04	58.86	56.73	57.62	57.66	59.57					
Standard deviation	4.410	5.005	4.550	4.999	4.201	4.966	4.655	5.143	4.412	6.393	4.600					
24 m.p.h.	0	0	0	0	0	0	0	0	0	0	0					
29 m.p.h.	0	0	0	0	0	0	0	0	0	0	0					
34 m.p.h.	0	0	0	0	0	0	0	0	0	0	0					
39 m.p.h.	0	0	0	0	0	0	0	0	0	0	0					
44 m.p.h.	0	0	0	0	0	0	0	2.21	0	0	2.29					
49 m.p.h.	0.72	1.79	1.18	1.20	0	2.65	1.99	7.18	3.54	6.00	1.04					
54 m.p.h.	12.32	16.49	11.83	19.28	13.08	12.39	17.88	32.04	23.64	38.00	14.58					
59 m.p.h.	51.45	53.05	53.25	57.23	48.60	46.90	56.29	74.03	69.09	72.00	48.96					
64 m.p.h.	87.68	86.38	86.98	86.14	88.79	86.73	86.09	93.37	90.91	86.00	83.33					
69 m.p.h.	98.91	96.77	98.82	97.59	99.07	95.58	99.34	98.34	100.0	96.00	98.96					
74 m.p.h.	99.64	99.28	99.41	100.0	100.0	98.23	100.0	100.0	100.0	100.0	100.0					
79 m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0					
84 m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0					
89 m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0					
No. of vehicles obs.	126	157	88	110	38	47	85	84	24	16	68					
Average speed	60.34	59.69	60.53	59.19	59.89	60.85	59.34	57.21	57.71	57.25	59.98					
No. of vehicles obs.	150	122	81	56	69	66	66	97	31	34	63					
Average speed	58.77	59.01	58.33	58.48	59.29	59.45	58.24	56.32	57.55	56.97	58.86					

All Vehicles

TABLE 2 SPEED DATA

Station RI-6 Highway I-65 Location 7.5 Miles North of S.R. 160 Weather Clear
 No. of Lanes 4 Type of Surface Concrete
 This Observation Date 11/18/76 Last Previous Observation (Speed Report No. 98)
 Date 10:36-11:23 AM - NB Time 8:20-11:30 PM (Night)
 Date 9:05-10:07 AM - SB

OBSERVATION	PASSENGER CARS										TRUCKS					
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.					
	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent				
No. of vehicles obs.	248	246	248	161	Not	85	172	195	21	46	151	149				
Ave. speed (m.p.h.)	57.77	60.09	57.97	60.45	re-	59.39	55.78	58.17	57.10	57.72	55.60	58.32				
Standard deviation	5.018	4.731	5.018	4.672	cord-	4.791	3.837	4.823	3.032	4.241	3.909	4.993				
24 m.p.h.	0	0	0	0	ed	0	0	0	0	0	0	0				
29 m.p.h.	0	0	0	0		0	0	0	0	0	0	0				
34 m.p.h.	0	0	0	0		0	0	0	0	0	0	0				
39 m.p.h.	0	0	0	0		0	0	0	0	0	0	0				
44 m.p.h.	0.81	.41	0.81	0		1.18	0	0	0	0	0	0				
49 m.p.h.	2.82	.41	2.82	0		1.18	5.81	1.54	0	0	6.62	2.01				
54 m.p.h.	22.98	11.79	22.98	9.94		15.29	38.95	23.59	19.05	23.91	41.72	23.49				
59 m.p.h.	67.74	46.34	67.74	45.34		48.24	84.88	62.05	85.71	63.04	84.77	61.74				
64 m.p.h.	90.32	84.55	90.32	83.23		87.06	99.42	90.77	100.0	93.48	99.34	89.93				
69 m.p.h.	97.98	96.34	97.98	95.65		97.65	100.0	97.44	100.0	100.0	100.0	96.64				
74 m.p.h.	99.6	100.0	99.6	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0				
79 m.p.h.	99.6	100.0	99.6	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0				
84 m.p.h.	100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0				
89 m.p.h.	100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0				
No. of vehicles obs.	116	122	116	74		48	92	95	11	26	81	69				
Average speed	59.10	60.15	59.10	60.03		59.92	57.00	56.91	58.18	57.23	56.84	56.78				
No. of vehicles obs.	132	124	132	87		37	80	100	10	20	70	80				
Average speed	56.98	60.02	56.98	60.59		58.70	54.39	59.38	55.90	58.35	54.17	59.64				

TABLE 3 SPEED DATA

Station RI-3 Highway I-64 Location At Bridge Exit 72 (S.R. 145) Weather Clear
 No. of Lanes 4 Type of Surface Asphalt Last Previous Observation (Speed Report No.)
 This Observation Date 11/17/76 Date None Taken
 Time 1:28-3:30 PM - WB Time
 Time 3:50-5:35 PM - EB

OBSERVATION	PASSENGER CARS										TRUCKS					
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.		Pres-ent	Pres-ent		
	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent			Last	
No. of vehicles obs.		249		107		142		174		48		126				
Ave. speed (m.p.h.)		60.96		60.64		61.21		58.82		58.44		58.97				
Standard deviation		5.556		5.200		5.815		5.570		5.989		5.420				
24 m.p.h.		0		0		0		0		0		0				
29 m.p.h.		0		0		0		0		0		0				
34 m.p.h.		0		0		0		0		0		0				
39 m.p.h.		0		0		0		0		0		0				
44 m.p.h.		0		0		0		0		0		0				
49 m.p.h.		.80		0.93		.70		2.30		4.17		1.59				
54 m.p.h.		12.05		9.35		14.08		25.86		29.17		24.60				
59 m.p.h.		42.17		44.86		40.14		55.17		54.17		55.56				
64 m.p.h.		75.10		78.50		72.54		85.63		87.50		84.92				
69 m.p.h.		93.57		96.26		91.55		97.13		95.83		97.62				
74 m.p.h.		99.20		99.07		99.30		99.43		100.0		99.21				
79 m.p.h.		100.0		100.0		100.0		100.0		100.0		100.0				
84 m.p.h.		100.0		100.0		100.0		100.0		100.0		100.0				
89 m.p.h.		100.0		100.0		100.0		100.0		100.0		100.0				
No. of vehicles obs.		137		64		73		15		23		52				
Average speed		61.64		61.53		61.74		59.27		58.13		59.77				
No. of vehicles obs.		112		43		69		99		25		74				
Average speed		60.13		59.30		60.65		58.48		58.72		58.41				

All Vehicles

End

End

TABLE 4 SPEED DATA

Station RI-16 Highway I-70 Location 0.6 Mile East of Mile 128, @ Bridge 400F
 No. of Lanes 4 Type of Surface Concrete Weather Cloudy
 This Observation Last Previous Observation (Speed Report No.)
 Date 11/11/76 Date None Taken
 Time 9:18-11:42 AM Time

OBSERVATION	PASSENGER CARS						TRUCKS					
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.	
	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent
No. of vehicles obs.		299		147		152		205		31		174
Ave. speed (m.p.h.)		59.30		59.03		59.55		56.59		59.00		56.16
Standard deviation		5.062		5.016		5.109		4.333		4.597		4.152
24 m.p.h.		0		0		0		0		0		0
29 m.p.h.		0		0		0		0		0		0
34 m.p.h.		0		0		0		0		0		0
39 m.p.h.		0		0		0		0		0		0
44 m.p.h.		0		0		0		0		0		0
49 m.p.h.		1.67		2.04		1.32		4.39		0		5.17
54 m.p.h.		13.71		14.97		12.50		35.61		16.13		39.08
59 m.p.h.		58.19		61.22		55.26		75.12		51.61		79.31
64 m.p.h.		85.95		85.71		86.18		94.63		83.87		96.55
69 m.p.h.		96.66		97.28		96.05		100.0		100.0		100.0
74 m.p.h.		99.00		100.0		98.03		100.0		100.0		100.0
79 m.p.h.		100.0		100.0		100.0		100.0		100.0		100.0
84 m.p.h.		100.0		100.0		100.0		100.0		100.0		100.0
89 m.p.h.		100.0		100.0		100.0		100.0		100.0		100.0
No. of vehicles obs.		143		70		73		95		14		81
Average speed		60.40		59.79		60.99		58.25		61.57		57.68
No. of vehicles obs.		156		77		79		110		17		93
Average speed		58.29		58.35		58.23		55.15		56.88		54.83

TABLE 5 SPEED DATA

Station 4L-32 Highway U.S. 30 Location At Co. Rd. 400E, 2.1 Miles East of S.R. 49
 No. of Lanes 4 Type of Surface Asphalt Weather Clear
 This Observation Date 11/3/76 Last Previous Observation (Speed Report No. 98)
 Date 11/3/76 Date 7/14/76
 Time 9:30-12:35 AM Time 3:34-5:43 PM

OBSERVATION	PASSENGER CARS												TRUCKS					
	All			Indiana			Non-Indiana			All			<5000 lbs.		>5000 lbs.			
	Last	Pres-ent	ent	Last	Pres-ent	ent	Last	Pres-ent	ent	Last	Pres-ent	ent	Last	Pres-ent	Last	Pres-ent		
No. of vehicles obs.	254	197	188	165	66	32	167	250	66	59	101	191						
Ave. speed (m.p.h.)	56.19	57.87	56.34	57.61	55.77	59.25	56.02	55.73	56.08	56.92	55.98	55.37						
Standard deviation	53.05	5.244	5.606	5.327	4.339	4.628	5.429	5.969	5.652	7.825	5.307	5.238						
24 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0						
29 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0						
34 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0						
39 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0						
44 m.p.h.	1.57	1.02	2.13	1.21	0	0	0.60	.80	1.52	1.69	0	.52						
49 m.p.h.	9.06	4.57	9.57	5.45	7.58	0	1.80	5.60	4.55	8.47	0	4.71						
54 m.p.h.	35.43	25.38	34.57	27.27	37.88	15.63	40.72	38.40	36.36	33.90	43.56	39.79						
59 m.p.h.	76.38	62.44	76.60	64.85	75.76	50.00	79.04	77.20	81.82	62.17	77.23	81.68						
64 m.p.h.	94.49	90.86	93.09	91.52	98.48	87.50	93.41	94.00	93.94	84.75	93.07	96.86						
69 m.p.h.	97.64	97.97	96.81	97.85	100.0	100.0	99.40	93.40	100.0	93.22	99.01	100.0						
74 m.p.h.	99.61	100.0	99.47	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0						
79 m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0						
84 m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0						
89 m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0						
No. of vehicles obs.	110	100	90	78	20	22	101	111	42	27	59	84						
Average speed	58.15	59.52	58.52	59.59	56.45	59.27	57.01	58.06	57.86	60.48	51.95	57.29						
No. of vehicles obs.	144	97	98	87	46	10	66	139	24	32	42	107						
Average speed	54.70	56.18	54.34	55.83	55.48	59.20	53.12	53.87	52.96	53.91	53.21	53.86						

TABLE 6 SPEED DATA

Station 4L-17 Highway U.S. 52 Location .25 Mile East of CO. RD. 475W
 No. of Lanes 4 Type of Surface Asphalt Weather Clear
 This Observation Date 11/1/76 Last Previous Observation (Speed Report No. 98)
 Time 9:25-2:40PM Time 1:45-4:20 PM

OBSERVATION	PASSENGER CARS						TRUCKS					
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.	
	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent
No. of vehicles obs.	334	285	272	266	62	19	138	139	86	88	52	51
Ave. speed (m.p.h.)	57.11	57.23	56.93	57.25	57.98	56.89	55.30	55.26	57.23	55.26	54.65	54.33
Standard deviation	5.556	6.259	5.455	6.342	5.965	5.087	6.420	6.476	6.418	6.322	6.151	6.568
24 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0
29 m.p.h.	0	0	0	0	0	0	0	.72	0	0	0	1.96
34 m.p.h.	0.30	0	0.37	0	0	0	0	.72	0	0	0	1.96
39 m.p.h.	0.60	0.70	0.74	0.75	0	0	1.45	2.16	1.16	1.14	1.92	3.92
44 m.p.h.	1.80	2.81	2.21	3.01	0	0	4.35	5.76	3.49	5.68	5.77	5.88
49 m.p.h.	6.59	10.53	6.25	11.28	8.06	0	12.32	11.51	9.30	9.09	17.31	15.69
54 m.p.h.	28.74	28.07	28.68	28.20	29.03	26.32	37.68	41.01	30.23	39.77	50.00	43.14
59 m.p.h.	69.46	64.21	10.96	63.91	62.90	68.42	68.34	78.42	65.12	77.27	75.00	80.39
64 m.p.h.	93.11	88.42	94.12	87.97	88.71	94.74	91.30	96.40	88.37	94.32	96.15	100.0
69 m.p.h.	99.80	97.19	98.9	96.99	98.39	100.0	99.28	97.84	98.84	96.59	100.0	100.0
74 m.p.h.	99.10	99.65	99.26	99.62	98.39	100.0	100.0	99.28	100.0	98.86	100.0	100.0
79 m.p.h.	100.0	99.65	100.0	99.62	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
84 m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
89 m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of vehicles obs.	153	151	127	147	26	4	57	61	44	40	13	21
Average speed	58.77	57.68	58.43	57.67	60.42	58.00	58.23	55.95	58.77	56.10	56.38	55.67
No. of vehicles obs.	181	134	145	119	36	15	81	78	42	48	39	30
Average speed	55.71	56.72	55.62	56.74	56.06	56.60	54.88	54.79	55.62	55.67	54.08	53.40

All Vehicles

89 m.p.h.

TABLE 7 SPEED DATA

NB: 4.3 Miles South of S.R. 58
SB: @ Sullivan-Knox County Line

Station 4L-3 Highway U.S. 41 Location Concrete Weather Clear
 No. of Lanes 4 Type of Surface Concrete
 This Observation Last Previous Observation (Speed Report No. 92)
 Date 11/15/76 Date 8/3/76
 Time 12:04-4:15 PM Time 9:12 AM - 1:25 PM

OBSERVATION	PASSENGER CARS												TRUCKS			
	All			Indiana			Non-Indiana			All			<5000 lbs.		>5000 lbs.	
	Last	Pres-ent	Pres-ent	Last	Pres-ent	Pres-ent	Last	Pres-ent	Pres-ent	Last	Pres-ent	Pres-ent	Last	Pres-ent	Last	Pres-ent
No. of vehicles obs.	254	266	206	182	206	72	60	169	165	74	41	95	124			
Ave. speed (m.p.h.)	57.58	60.24	57.51	59.95	57.75	61.57	58.49	59.45	57.82	61.05	59.00	58.92				
Standard deviation	4.640	5.573	4.791	5.297	4.278	6.375	4.699	5.820	5.180	5.822	4.245	5.745				
24 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0				
29 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0				
34 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0				
39 m.p.h.	0	.38	0	.49	0	0	0	0	0	0	0	0				
44 m.p.h.	0	.75	0	.97	0	0	1.18	1.21	2.70	0	0	1.61				
49 m.p.h.	3.94	1.50	3.85	1.46	4.17	1.67	2.96	4.24	2.70	2.44	3.16	4.84				
54 m.p.h.	25.20	12.41	27.47	11.65	19.44	15.00	19.53	18.79	25.68	9.76	14.74	21.77				
59 m.p.h.	69.29	48.50	70.88	50.97	65.28	40.00	60.36	49.09	63.51	36.59	57.89	53.23				
64 m.p.h.	92.52	78.20	91.21	80.58	95.83	70.00	89.35	83.03	89.19	75.61	89.47	85.48				
69 m.p.h.	99.21	93.61	98.90	95.15	100.0	88.33	98.82	95.76	97.30	92.68	100.0	96.77				
74 m.p.h.	99.21	99.25	98.90	99.15	100.0	98.33	100.0	98.79	100.0	95.12	100.0	100.0				
79 m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0				
84 m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0				
89 m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0				
No. of vehicles obs.	.25	127	78	99	47	28	86	87	33	17	53	70				
Average speed	57.87	59.63	57.68	59.23	57.94	61.04	59.19	59.86	59.73	63.47	58.85	58.99				
No. of vehicles obs.	129	139	104	107	25	32	83	78	41	24	42	54				
Average speed	57.30	60.81	57.38	60.61	57.40	61.47	57.76	58.99	56.29	59.33	59.19	58.83				

TABLE 8 SPEED DATA

Station 4L-14 Highway U.S. 40 Location .95 Mile East of Stringtown
 No. of Lanes 4 Type of Surface Asphalt Weather Clear
 This Observation Date 12/14/76 Last Previous Observation (Speed Report No.)
 Time 10:15-3:07 PM Date Not taken
 Time

OBSERVATION	PASSENGER CARS						TRUCKS					
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.	
	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent
No. of vehicles obs.	322	315	7	171	119	52						
Ave. speed (m.p.h.)	57.76	57.78	56.86	54.88	55.93	52.48						
Standard deviation	6.488	6.510	5.786	6.112	5.832	6.112						
24 m.p.h.	0	0	0	0	0	0						
29 m.p.h.	0	0	0	0	0	0						
34 m.p.h.	0	0	0	0	0	0						
39 m.p.h.	0	0	0	0	0	0						
44 m.p.h.	1.24	1.27	0	1.75	.84	3.85						
49 m.p.h.	7.76	7.62	14.29	5.26	2.52	11.54						
54 m.p.h.	26.40	26.67	14.29	15.20	11.76	23.08						
59 m.p.h.	65.22	65.71	42.86	45.61	40.34	57.69						
64 m.p.h.	85.09	86.35	100.0	77.78	73.11	88.46						
69 m.p.h.	96.58	96.51	100.0	97.66	96.64	100.0						
74 m.p.h.	98.45	98.41	100.0	98.83	98.32	100.0						
79 m.p.h.	99.07	99.05	100.0	98.83	98.32	100.0						
84 m.p.h.	99.38	99.37	100.0	100.0	100.0	100.0						
89 m.p.h.	99.69	99.68	100.0	100.0	100.0	100.0						
No. of vehicles obs.	156	153	3	86	57	29						
Average speed	57.91	57.88	59.33	54.76	56.16	52.00						
No. of vehicles obs.	166	162	4	85	62	23						
Average speed	57.63	57.69	55.00	55.01	55.73	53.09						

TABLE 9 SPEED DATA

Station 2L-18 Highway U.S. 35 Location 1.5 Miles East of I-69 Weather Pt. Cloudy
 No. of Lanes 2 Type of Surface Asphalt
 This Observation Date 11/8/76 Last Previous Observation (Speed Report No. 98)
 Date 11/8/76 Date 8/18/76
 Time 2:23-4:15 PM Time 1:45-4:10 PM

OBSERVATION	PASSENGER CARS										TRUCKS			
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.			
	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent		
No. of vehicles obs.	281	330	221	298	60	32	167	151	64	75	103	75		
Ave. speed (m.p.h.)	56.14	56.68	56.10	56.75	56.28	56.00	54.65	55.44	55.78	55.45	53.94	55.44		
Standard deviation	5.189	5.807	3.006	5.860	5.857	5.328	6.359	4.874	7.367	5.029	5.566	4.746		
24 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0		
29 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0		
34 m.p.h.	0.36	0	0	0	1.67	0	0	0	0	0	0	0		
39 m.p.h.	0.36	0	0	0	1.67	0	1.20	0	1.56	0	.97	0		
44 m.p.h.	1.07	.91	.45	1.01	3.33	0	5.99	3.31	3.13	2.63	7.77	4.00		
49 m.p.h.	8.19	6.67	8.60	6.71	6.67	6.25	17.37	11.26	12.50	11.84	20.39	10.67		
54 m.p.h.	37.72	42.12	38.01	36.24	36.67	34.38	49.70	40.40	42.19	39.47	54.37	41.33		
59 m.p.h.	76.16	76.36	77.83	75.17	70.00	87.50	85.03	97.47	85.94	78.95	84.47	80.00		
64 m.p.h.	93.95	91.21	94.12	90.94	93.33	93.75	95.81	98.01	92.19	97.37	98.06	98.67		
69 m.p.h.	98.93	96.36	98.64	96.31	100.0	96.88	99.90	100.0	98.94	100.0	100.0	100.0		
74 m.p.h.	99.64	98.79	99.55	98.66	100.0	100.0	99.40	100.0	100.0	100.0	100.0	100.0		
79 m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
84 m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
89 m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
No. of vehicles obs.	145	165	110	149	35	16	92	75	39	37	53	38		
Average speed	55.96	57.72	56.02	57.84	55.77	56.62	54.20	55.51	54.87	56.14	53.70	54.89		
No. of vehicles obs.	136	165	111	149	25	16	75	76	25	39	50	37		
Average speed	56.33	55.64	56.18	55.66	57.00	55.37	55.20	55.38	57.20	54.79	54.20	56.00		

TABLE 10 SPEED DATA

Station 2L-54 Highway U.S. 231 Location .9 Mile South of S.R. 234
 No. of Lanes 2 Type of Surface Asphalt Weather Clear
 This Observation Last Previous Observation (Speed Report No. 98)
 Date 11/10/76 Date 8/13/76
 Time 10:10-1:10 PM Time 11:10 AM-1:50 PM

OBSERVATION	PASSENGER CARS										TRUCKS					
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.					
	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent				
No. of vehicles obs.	238	239	192	223	46	16	192	211	100	64	92	147				
Ave. speed (m.p.h.)	56.86	57.35	57.02	57.23	58.07	58.94	56.13	55.36	55.71	55.84	56.68	55.06				
Standard deviation	5.462	6.254	5.567	6.328	4.968	5.013	5.880	6.645	6.811	7.218	4.648	6.391				
24 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0				
29 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0				
34 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0				
39 m.p.h.	.42	.42	.52	.45	0	0	.52	1.90	1.00	1.56	0	2.04				
44 m.p.h.	1.26	2.51	1.56	2.69	0	0	2.60	8.06	4.00	6.25	1.09	8.84				
49 m.p.h.	6.72	8.79	8.33	8.97	0	6.25	10.42	16.11	14.0	21.88	6.52	13.61				
54 m.p.h.	28.99	29.71	30.73	30.49	21.74	18.75	36.46	39.81	44.0	43.75	28.26	38.10				
59 m.p.h.	71.01	69.46	70.31	69.96	73.91	62.50	78.13	72.99	80.0	68.75	76.09	74.83				
64 m.p.h.	92.44	89.54	93.23	89.69	89.13	87.50	92.19	95.26	90.0	90.63	94.57	97.28				
69 m.p.h.	98.74	96.23	99.48	95.96	95.65	100.0	97.40	98.58	97.0	96.88	97.83	99.32				
74 m.p.h.	99.58	99.16	99.48	99.10	100.0	100.0	98.96	100.0	98.0	100.0	100.0	100.0				
79 m.p.h.	100.0	99.58	100.0	99.55	100.0	100.0	99.48	100.0	99.0	100.0	100.0	100.0				
84 m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0				
89 m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0				
No. of vehicles obs.	118	137	98	133	20	4	102	99	55	27	47	72				
Average speed	59.19	56.83	59.01	56.77	60.10	59.00	57.34	55.10	57.42	55.70	57.26	54.87				
No. of vehicles obs.	120	102	94	90	26	12	90	112	45	37	45	75				
Average speed	55.27	58.04	54.94	57.92	56.50	58.92	54.86	55.47	53.62	55.95	55.09	55.24				

TABLE 11 SPEED DATA

Station 2L-7 Highway S.R. 46 Location .5 Mile West of Gnaw Bone
 No. of Lanes 2 Type of Surface Concrete Weather Clear
 This Observation Date 11/19/76 Last Previous Observation (Speed Report No.)
 Time 8:25-11:40 AM Date Not taken Time

OBSERVATION	PASSENGER CARS										TRUCKS			
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.			
	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent		
No. of vehicles obs.	342	326	16	144	93	51								
Ave. speed (m.p.h.)	56.68	56.57	58.94	54.63	55.03	53.90								
Standard deviation	5.935	6.005	3.714	5.366	5.478	5.127								
24 m.p.h.	0	0	0	0	0	0								
29 m.p.h.	0	0	0	0	0	0								
34 m.p.h.	0	0	0	.69	0	1.96								
39 m.p.h.	0	0	0	.69	0	1.96								
44 m.p.h.	1.46	1.53	0	4.17	4.30	3.92								
49 m.p.h.	11.11	11.66	0	13.89	13.98	13.73								
54 m.p.h.	35.38	36.20	18.75	47.92	46.24	50.98								
59 m.p.h.	73.39	74.54	50.00	86.11	81.72	94.12								
64 m.p.h.	90.06	89.88	93.75	97.22	95.70	100.0								
69 m.p.h.	97.08	96.93	100.0	100.0	100.0	100.0								
74 m.p.h.	99.42	99.39	100.0	100.0	100.0	100.0								
79 m.p.h.	99.42	99.39	100.0	100.0	100.0	100.0								
84 m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0								
89 m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0								
No. of vehicles obs.	176	167	9	59	39	20								
Average speed	56.82	56.74	58.44	54.78	56.26	51.90								
No. of vehicles obs.	166	159	7	85	54	31								
Average speed	56.54	56.40	59.57	54.53	54.15	55.19								

All Vehicles

TABLE 12 SPEED DATA

Station 2L-38 Highway S.R. 27 Location 2 Miles South of College Corner
 No. of Lanes 2 Type of Surface Concrete Weather Fair
 This Observation Date 11/9/76 Last Previous Observation (Speed Report No.)
 Time 8:50-11:55 AM Date Not taken
 Time

OBSERVATION	PASSENGER CARS						TRUCKS			
	All		Indiana		Non-Indiana		All		<5000 lbs.	>5000 lbs.
	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent
No. of vehicles obs.	256	221	35	204	95	109				
Ave. speed (m.p.h.)	54.77	54.86	54.23	53.25	93.52	53.01				
Standard deviation	5.580	5.612	5.418	5.988	6.528	5.493				
24 m.p.h.	0	0	0	0	0	0				
29 m.p.h.	0	0	0	0	0	0				
34 m.p.h.	0	0	0	0	0	0				
39 m.p.h.	.78	.90	0	.49	0	.92				
44 m.p.h.	5.08	4.98	5.71	6.37	7.37	1.83				
49 m.p.h.	14.84	15.38	11.43	24.51	27.37	22.02				
54 m.p.h.	46.48	45.25	54.29	56.86	50.53	62.39				
59 m.p.h.	80.86	81.90	74.29	89.22	87.37	90.83				
64 m.p.h.	97.66	97.29	100.0	97.06	95.79	98.17				
69 m.p.h.	100.0	100.0	100.0	99.02	97.89	100.0				
74 m.p.h.	100.0	100.0	100.0	99.51	98.59	100.0				
79 m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0				
84 m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0				
89 m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0				
No. of vehicles obs.	124	110	14	96	48	48				
Average speed	54.51	54.59	53.86	55.33	55.06	55.60				
No. of vehicles obs.	132	111	21	108	47	61				
Average speed	55.02	55.12	54.48	51.39	51.94	50.97				

TABLE 13 SPEED DATA

Station UI-6 Highway I-65 Location East of White River Weather Pt. Cloudy
 No. of Lanes 6 Type of Surface Concrete
 This Observation Last Previous Observation (Speed Report No. 98)
 Date 11/4/76 Date 8/19/76
 Time 1:40-3:40PM Time 2:00-3:45 PM

OBSERVATION	PASSENGER CARS												TRUCKS					
	All			Indiana			Non-Indiana			All			<5000 lbs.		>5000 lbs.			
	Last	Pres-ent	ent	Last	Pres-ent	ent	Last	Pres-ent	ent	Last	Pres-ent	ent	Last	Pres-ent	Last	Pres-ent		
No. of vehicles obs.	326	284	265	267	61	17	111	137	61	62	50	75						
Ave. speed (m.p.h.)	58.99	57.80	58.88	57.53	59.34	58.82	58.01	56.07	58.75	56.40	57.10	55.79						
Standard deviation	4.905	4.290	5.167	4.303	3.563	4.081	5.425	4.959	5.415	4.785	5.350	5.113						
24 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0						
29 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0						
34 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0						
39 m.p.h.	0	0	0	0	0	0	0	0	0	0	0	0						
44 m.p.h.	0	0	0	0	0	0	0.90	2.19	0	0	0	0						
49 m.p.h.	2.45	2.11	3.02	2.25	0	0	5.41	9.49	4.92	8.06	6.00	10.67						
54 m.p.h.	15.34	21.48	16.98	22.10	8.20	11.76	22.52	33.58	19.67	33.87	26.00	33.33						
59 m.p.h.	57.67	65.85	58.87	65.92	52.46	64.71	60.36	78.10	52.46	72.58	70.0	82.67						
64 m.p.h.	87.12	94.37	86.04	94.76	91.80	88.24	86.49	97.08	81.97	96.77	92.0	97.33						
69 m.p.h.	97.24	99.65	96.98	99.63	98.36	100.0	99.10	98.54	100.0	96.77	98.0	100.0						
74 m.p.h.	99.08	100.0	98.87	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0						
79 m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0						
84 m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0						
89 m.p.h.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0						
No. of vehicles obs.	162	135	135	127	27	8	48	75	23	32	25	43						
Average speed	57.41	57.63	57.39	57.57	57.56	58.62	56.52	55.95	56.57	56.62	56.48	55.44						
No. of vehicles obs.	164	149	130	140	34	9	63	62	38	30	25	32						
Average speed	60.51	57.59	60.44	57.89	60.76	59.00	59.14	56.21	60.08	56.17	57.72	56.25						

TABLE 14 SPEED DATA

N.B.-@ 15 Mile Bridge
S.B.-@ 34th Street Bridge

Station UI-4 Highway I-465

Location Concrete
Type of Surface

Weather Cldy, Windy, Flurrie

This Observation

Last Previous Observation (Speed Report No.)

Date 11/4/76
Time 10:25-12:40 PM

Date Not taken
Time

OBSERVATION	PASSENGER CARS										TRUCKS			
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.			
	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent		
No. of vehicles obs.		257		220		37		199		67		132		
Ave. speed (m.p.h.)		56.79		56.70		57.27		55.13		55.13		55.12		
Standard deviation		4.702		4.815		3.984		4.870		4.465		5.080		
24 m.p.h.		0		0		0		0		0		0		
29 m.p.h.		0		0		0		0		0		0		
34 m.p.h.		0		0		0		0		0		0		
39 m.p.h.		0		0		0		0		0		0		
44 m.p.h.		39		45		0		50		0		76		
49 m.p.h.		5.06		5.45		2.70		14.07		1.49		76		
54 m.p.h.		29.18		30.91		18.92		40.20		40.30		40.15		
59 m.p.h.		76.26		75.91		78.38		82.41		83.58		81.82		
64 m.p.h.		93.77		93.18		97.30		97.99		100.0		96.97		
69 m.p.h.		98.83		98.64		100.0		100.0		100.0		100.0		
74 m.p.h.		100.0		100.0		100.0		100.0		100.0		100.0		
79 m.p.h.		100.0		100.0		100.0		100.0		100.0		100.0		
84 m.p.h.		100.0		100.0		100.0		100.0		100.0		100.0		
89 m.p.h.		100.0		100.0		100.0		100.0		100.0		100.0		
No. of vehicles obs.		127		109		18		118		36		82		
Average speed		56.09		55.99		56.67		54.60		54.92		54.46		
No. of vehicles obs.		130		111		19		81		31		50		
Average speed		57.47		57.41		57.84		55.89		55.39		86.20		

Station _____ Interstate, _____
 Highway Rural _____ Location See Individual Stations
 No. of Lanes _____ Type of Surface _____ Weather _____
 This Observation _____
 Date Nov.-Dec. 1976 _____ Last Previous Observation (Speed Report No. _____)
 Time _____ Time _____

OBSERVATION	PASSENGER CARS						TRUCKS					
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.	
	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent
No. of vehicles obs.		1073	581	492		755	175		580			
Ave. speed (m.p.h.)		59.89	59.70	60.11		57.55	57.95		57.42			
Standard deviation		5.130	5.000	5.275		5.038	5.477		4.896			
24 m.p.h.		0	0	0		0	0		0			
29 m.p.h.		0	0	0		0	0		0			
34 m.p.h.		0	0	0		0	0		0			
39 m.p.h.		0	0	0		0	0		0			
44 m.p.h.		.09	0	.20		.53	.57		.52			
49 m.p.h.		1.21	1.03	1.42		3.84	2.86		4.14			
54 m.p.h.		13.61	13.77	13.41		29.40	28.00		29.83			
59 m.p.h.		50.42	52.67	47.76		66.89	61.14		68.62			
64 m.p.h.		83.22	83.82	82.52		91.26	88.00		92.24			
69 m.p.h.		95.90	96.73	94.92		98.28	97.71		98.45			
74 m.p.h.		99.35	99.83	98.78		99.87	100.0		99.83			
79 m.p.h.		100.0	100.0	100.0		100.0	100.0		100.0			
84 m.p.h.		100.0	100.0	100.0		100.0	100.0		100.0			
89 m.p.h.		100.0	100.0	100.0		100.0	100.0		100.0			

All Vehicles

of vehicles
 traveling at or less
 than

OBSERVATION

No. of vehicles obs.
 Ave. speed (m.p.h.)
 Standard deviation

24 m.p.h.
 29 m.p.h.
 34 m.p.h.
 39 m.p.h.
 44 m.p.h.
 49 m.p.h.
 54 m.p.h.
 59 m.p.h.
 64 m.p.h.
 69 m.p.h.
 74 m.p.h.
 79 m.p.h.
 84 m.p.h.
 89 m.p.h.

TABLE 16 SPEED DATA

Station _____ Highway 4-Lane, Rural Location See Individual Stations Weather _____
 No. of Lanes _____ Type of Surface _____
 This Observation Date Nov. -Dec. 1976 Last Previous Observation (Speed Report No. _____)
 Date _____ Time _____
 Date _____ Time _____

OBSERVATION	PASSENGER CARS						TRUCKS					
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.	
	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent
No. of vehicles obs.	1070	952	118	725	307	418						
Ave. speed (m.p.h.)	58.26	58.07	59.75	56.30	56.79	55.94						
Standard deviation	6.095	6.095	5.911	6.303	6.597	6.061						
24 m.p.h.	0	0	0	0	0	0						
29 m.p.h.	0	0	0	.14	0	.24						
34 m.p.h.	0	0	0	.14	0	.24						
39 m.p.h.	.28	.32	0	1.10	.98	1.20						
44 m.p.h.	1.50	1.68	0	4.55	4.23	4.78						
49 m.p.h.	6.36	6.93	1.69	11.31	10.10	12.20						
54 m.p.h.	23.18	23.95	16.95	36.14	34.85	37.08						
59 m.p.h.	60.28	61.87	47.46	71.17	67.43	73.92						
64 m.p.h.	85.79	86.45	80.51	92.83	90.88	94.26						
69 m.p.h.	96.26	96.53	94.07	97.79	96.09	99.04						
74 m.p.h.	99.25	99.26	99.15	99.31	98.37	100.0						
79 m.p.h.	99.63	99.58	100.0	100.0	100.0	100.0						
84 m.p.h.	99.81	99.97	100.0	100.0	100.0	100.0						
89 m.p.h.	99.91	99.89	100.0	100.0	100.0	100.0						

All Vehicles

* of vehicles traveling at or less than

TABLE 17 SPEED DATA

Station Highway 2-Lane,Rural Location See Individual Stations Weather _____
 No. of Lanes _____ Type of Surface _____
 This Observation _____ Last Previous Observation (Speed Report No.)
 Date Nov.-Dec. 1976 Date Not Pertinent
 Time _____ Time _____

OBSERVATION	PASSENGER CARS						TRUCKS					
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.	
	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent
No. of vehicles obs.		1167		1068		99		710		328		382
Ave. speed (m.p.h.)		56.40		56.41		56.32		54.60		54.85		54.40
Standard deviation		5.952		6.004		5.381		5.916		6.110		5.744
24 m.p.h.		0		0		0		0		0		0
29 m.p.h.		0		0		0		0		0		0
34 m.p.h.		0		0		0		.28		0		0
39 m.p.h.		0.26		.28		0		1.27		.91		1.57
44 m.p.h.		2.31		2.34		2.02		5.77		5.18		6.28
49 m.p.h.		10.20		10.49		7.07		17.04		18.90		15.45
54 m.p.h.		36.85		36.89		36.36		46.48		45.43		47.38
59 m.p.h.		75.06		75.28		72.73		81.69		80.18		82.98
64 m.p.h.		91.95		91.67		94.95		96.76		95.12		98.17
69 m.p.h.		97.34		97.19		98.99		99.30		98.78		99.74
74 m.p.h.		99.31		99.25		100.0		99.86		99.70		100.0
79 m.p.h.		99.74		99.72		100.0		100.0		100.0		100.0
84 m.p.h.		100.0		100.0		100.0		100.0		100.0		100.0
89 m.p.h.		100.0		100.0		100.0		100.0		100.0		100.0

All Vehicles

of vehicles traveling at or less than

TABLE 18 SPEED DATA

Station _____ Interstate, _____
 Highway Urban _____ Location See Individual Stations
 No. of Lanes _____ Type of Surface _____ Weather _____

This Observation Date Nov.-Dec. 1976 Last Previous Observation (Speed Report No. _____)
 Time _____ Date Not Pertinent Time _____

OBSERVATION	PASSENGER CARS										TRUCKS					
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.		Pres-ent	Pres-ent		
	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent	Last	Pres-ent			Last	
No. of vehicles obs.		541		487		54		336		129		207				
Ave. speed (m.p.h.)		57.32		57.27		57.76		55.51		55.74		55.36				
Standard deviation		4.515		4.565		4.042		4.921		4.647		5.089				
24 m.p.h.		0		0		0		0		0		0				
29 m.p.h.		0		0		0		0		0		0				
34 m.p.h.		0		0		0		0		0		0				
39 m.p.h.		0		0		0		0		0		0				
44 m.p.h.		.18		.21		0		.30		0		.48				
49 m.p.h.		3.51		3.70		1.85		1.49		.78		1.93				
54 m.p.h.		25.14		26.08		16.67		37.50		10.08		13.53				
59 m.p.h.		70.79		70.43		74.07		80.65		37.21		37.68				
64 m.p.h.		94.09		94.05		94.44		97.62		78.29		82.13				
69 m.p.h.		99.26		99.18		100.0		99.40		98.45		97.10				
74 m.p.h.		100.0		100.0		100.0		100.0		98.45		100.0				
79 m.p.h.		100.0		100.0		100.0		100.0		100.0		100.0				
84 m.p.h.		100.0		100.0		100.0		100.0		100.0		100.0				
89 m.p.h.		100.0		100.0		100.0		100.0		100.0		100.0				
All Vehicles																

TABLE 19 SPEED DATA

Station Indiana Highway System Location See Individual Stations Weather _____

No. of Lanes _____ Type of Surface _____ Last Previous Observation (Speed Report No.)

This Observation Date Nov.-Dec. 1976 Date Not Pertinent
 Time _____ Time _____

OBSERVATION	PASSENGER CARS						TRUCKS					
	All		Indiana		Non-Indiana		All		<5000 lbs.		>5000 lbs.	
	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent	Last	Pre-ent
No. of vehicles obs.		3851		3088		763		2526		939		1587
Ave. speed (m.p.h.)		58.02		57.68		59.40		56.09		56.18		56.03
Standard deviation		5.752		5.770		5.470		5.773		6.089		5.578
24 m.p.h.		0		0		0		0		0		0
29 m.p.h.		0		0		0		0.04		0		.06
34 m.p.h.		0		0		0		.12		0		.19
39 m.p.h.		.16		.19		0		.71		.64		.76
44 m.p.h.		1.17		1.36		.39		3.29		3.41		3.21
49 m.p.h.		5.69		6.54		2.23		10.81		11.82		10.21
54 m.p.h.		24.93		26.85		17.17		37.21		37.59		36.99
59 m.p.h.		63.49		66.13		52.82		74.11		72.20		75.24
64 m.p.h.		88.11		88.96		84.67		94.10		92.86		94.83
69 m.p.h.		96.91		97.22		95.67		98.57		97.66		99.12
74 m.p.h.		99.40		99.48		99.08		99.72		99.36		99.94
79 m.p.h.		99.82		99.77		100.0		100.0		100.0		100.0
84 m.p.h.		99.95		99.94		100.0		100.0		100.0		100.0
89 m.p.h.		99.97		99.97		100.0		100.0		100.0		100.0
% of vehicles traveling at or less than												
All Vehicles												

TABLE 20
Monitoring of Speed
(Statistical Summary)
 Quarterly Report--Calendar Quarter Ending Dec. 31, 1976
or Annual Report--Year Ending _____

STATE Indiana

	Miles	Number of Monitor Locations	Number of Vehicles Measured	Duration of Measurement Session (Hours)	Average Speed (MPH)	Median Speed (MPH)	85th Percentile Speed (MPH)	Percent of Motorists Exceeding			
								55 MPH	60 MPH	65 MPH	
Interstate Urban	218	2	877	3.2	56.6	56.2	60.7	60	19	14	
Interstate Rural	849	4	1828	9.1	58.9	58.1	63.6	74	36	10	
Multi-lane, Divided	657	4	1795	14.3	57.5	57.0	62.7	64	29	8	
Multi-lane, Undivided											
				(included in multi-lane, divided classification)							
2-Lane, Rural	8030	4	1877	11.2	55.7	55.3	60.8	52	18	5	
State Total	9754	14	6377	33.8	57.2	56.6	62.2	63	26	7	

TABLE 21
SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY Rural Interstate
 STATION NUMBER RI-6 LOCATION I-65, 7.5 miles N. of S.R. 160
 NUMBER OF SESSIONS 1 DATES 11/18/76 VEHICLES MEASURED 441
 AVERAGE SPEED (MPH) 59.2 STANDARD DEVIATION (MPH) 4.9
 MEDIAN SPEED (MPH) 58.6 85TH PERCENTILE SPEED (MPH) 63.6
 PERCENTAGE OF VEHICLES EXCEEDING:
 55 MPH: 78 60 MPH: 37 65 MPH: 10

SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY Rural Interstate
 STATION NUMBER RI-21 LOCATION I-69, 2.1 mile S. of S.R. 18
 NUMBER OF SESSIONS 1 DATES 11/18/76 VEHICLES MEASURED 460
 AVERAGE SPEED (MPH) 58.3 STANDARD DEVIATION (MPH) 5.2
 MEDIAN SPEED (MPH) 57.8 85TH PERCENTILE SPEED (MPH) 62.6
 PERCENTAGE OF VEHICLES EXCEEDING:
 55 MPH: 95 60 MPH: 31 65 MPH: 11

TABLE 23

SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY Rural Interstate
 STATION NUMBER RI-3 LOCATION I-64, @ Bridge, Exit 72 (S.R. 145)
 NUMBER OF SESSIONS 1 DATES 11/17/76 VEHICLES MEASURED 423
 AVERAGE SPEED (MPH) 60.1 STANDARD DEVIATION (MPH) 5.7
 MEDIAN SPEED (MPH) 59.5 85TH PERCENTILE SPEED (MPH) 65.4
 PERCENTAGE OF VEHICLES EXCEEDING:
 55 MPH: 78 60 MPH: 48 65 MPH: 16

TABLE 25
SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY Multi-Lane (Rural)
 STATION NUMBER 4L-17 LOCATION U.S. 52, 30 yds. E. of Co. Rd. 475W
 NUMBER OF SESSIONS 1 DATES 11/1/76 VEHICLES MEASURED 424
 AVERAGE SPEED (MPH) 56.6 STANDARD DEVIATION (MPH) 6.4
 MEDIAN SPEED (MPH) 56.2 85TH PERCENTILE SPEED (MPH) 61.4
 PERCENTAGE OF VEHICLES EXCEEDING:
 55 MPH: 58 60 MPH: 23 65 MPH: 7

SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY Multi-Lane, DividedSTATION NUMBER 41-32 LOCATION U.S. 30, 2.1 mi. E of S.R. 49, at Co. Rd. 400ENUMBER OF SESSIONS 1 DATES 11/3/76 VEHICLES MEASURED 447AVERAGE SPEED (MPH) 56.7 STANDARD DEVIATION (MPH) 5.8MEDIAN SPEED (MPH) 56.4 85TH PERCENTILE SPEED (MPH) 61.6

PERCENTAGE OF VEHICLES EXCEEDING:

55 MPH: 62 60 MPH: 24 65 MPH: 5

TABLE 27
SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY Multi-Lane, Divided
 STATION NUMBER 4L-3 LOCATION U.S. 41;SB, @ Sullivan-Knox Co. Line
 NB, 4.3 mi. S. of S.R. 53W
 NUMBER OF SESSIONS 1 DATES 11/15/76 VEHICLES MEASURED 431
 AVERAGE SPEED (MPH) 59.9 STANDARD DEVIATION (MPH) 5.7
 MEDIAN SPEED (MPH) 59.2 85TH PERCENTILE SPEED (MPH) 64.9
 PERCENTAGE OF VEHICLES EXCEEDING:
 55 MPH: 79 60 MPH: 44 65 MPH: 15

TABLE 28
SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY Multi-Lane, Divided
STATION NUMBER 4L-14 LOCATION U.S. 40, .95 mi. E. of String Town
NUMBER OF SESSIONS 1 DATES 12/14/76 VEHICLES MEASURED 439
AVERAGE SPEED (MPH) 56.8 STANDARD DEVIATION (MPH) 6.5
MEDIAN SPEED (MPH) 56.0 85TH PERCENTILE SPEED (MPH) 61.9
PERCENTAGE OF VEHICLES EXCEEDING:
55 MPH: 58 60 MPH: 24 65 MPH: 7

SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY Two Lane, Rural
 STATION NUMBER 2L-18 LOCATION U.S. 35, 1.5 mi. E. of I-69
 NUMBER OF SESSIONS 1 DATES 11/8/76 VEHICLES MEASURED 481
 AVERAGE SPEED (MPH) 56.3 STANDARD DEVIATION (MPH) 5.6
 MEDIAN SPEED (MPH) 55.6 85TH PERCENTILE SPEED (MPH) 60.5
 PERCENTAGE OF VEHICLES EXCEEDING:
 55 MPH: 56 60 MPH: 17 65 MPH: 5

TABLE 30

SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY Two Lane Rural
 STATION NUMBER 2L-54 LOCATION U.S. 231, .9 mi. S. of S.R. 234
 NUMBER OF SESSIONS 1 DATES 11/10/76 VEHICLES MEASURED 450
 AVERAGE SPEED (MPH) 56.4 STANDARD DEVIATION (MPH) 6.5
 MEDIAN SPEED (MPH) 56.1 85TH PERCENTILE SPEED (MPH) 61.9
 PERCENTAGE OF VEHICLES EXCEEDING:
 55 MPH: 58 60 MPH: 25 65 MPH: 7

TABLE 31
SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY Two Lane Pural
STATION NUMBER 2L-7 LOCATION S.R. 46, .5 mi. W of Knaw Bone
NUMBER OF SESSIONS 1 DATES 11/19/76 VEHICLES MEASURED 486
AVERAGE SPEED (MPH) 56.1 STANDARD DEVIATION (MPH) 45.8
MEDIAN SPEED (MPH) 55.5 85TH PERCENTILE SPEED (MPH) 62.0
PERCENTAGE OF VEHICLES EXCEEDING:
55 MPH: 54 60 MPH: 19 65 MPH: 6

TABLE 32
SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY Two Lane, Rural
STATION NUMBER 2L-38 LOCATION S.P. 27, 2 mi. S. of College Corner
NUMBER OF SESSIONS 1 DATES 11/9/76 VEHICLES MEASURED 460
AVERAGE SPEED (MPH) 54.1 STANDARD DEVIATION (MPH) 5.8
MEDIAN SPEED (MPH) 53.9 85TH PERCENTILE SPEED (MPH) 59.1
PERCENTAGE OF VEHICLES EXCEEDING:
55 MPH: 41 60 MPH: 12 65 MPH: 2

TABLE 33

SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY Urban Interstate
 STATION NUMBER UI-6 LOCATION I-65, E. of White River
 NUMBER OF SESSIONS 1 DATES 11/4/76 VEHICLES MEASURED 421
 AVERAGE SPEED (MPH) 57.2 STANDARD DEVIATION (MPH) 4.6
 MEDIAN SPEED (MPH) 56.6 85TH PERCENTILE SPEED (MPH) 61.1
 PERCENTAGE OF VEHICLES EXCEEDING:
 55 MPH: 66 60 MPH: 23 65 MPH: 5

TABLE 34
SPEED MONITORING STATION SUMMARY

HIGHWAY CATEGORY Urban Interstate
 STATION NUMBER UI-4 LOCATION 1-465; NB, @ 15 mi. Bridge; SB, @ 34th St. Bridge
 NUMBER OF SESSIONS 1 DATES 11/4/76 VEHICLES MEASURED 456
 AVERAGE SPEED (MPH) 56.1 STANDARD DEVIATION (MPH) 4.8
 MEDIAN SPEED (MPH) 55.6 85TH PERCENTILE SPEED (MPH) 60.1
 PERCENTAGE OF VEHICLES EXCEEDING:
 55 MPH: 55 60 MPH: 16 65 MPH: 4

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