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**US-75 NORTH CENTRAL EXPRESSWAY RECONSTRUCTION:
OCTOBER 1990 AND MAY 1991 TRAFFIC CONDITIONS**

Report 984-5F

Prepared for

North Central Project Office
Texas Department of Transportation
District 18, Dallas

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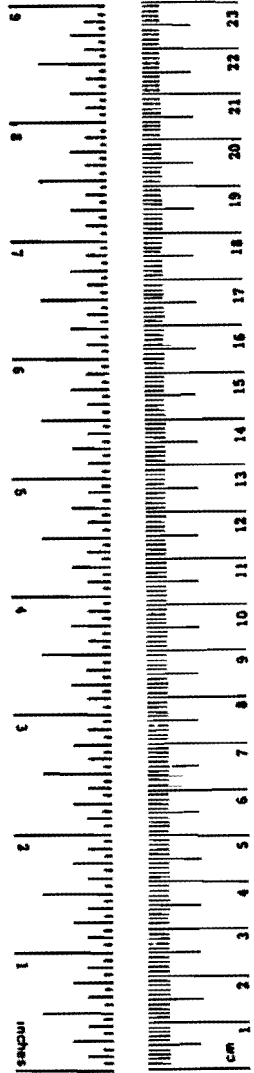
Texas Transportation Institute
Texas A&M University System
College Station, TX 77843

December 1991

METRIC (SI*) CONVERSION FACTORS

APPROXIMATE CONVERSIONS TO SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
LENGTH				
in	inches	2.54	centimetres	cm
ft	feet	0.3048	metres	m
yd	yards	0.914	metres	m
mi	miles	1.61	kilometres	km



AREA				
in ²	square inches	645.2	centimetres squared	cm ²
ft ²	square feet	0.0929	metres squared	m ²
yd ²	square yards	0.836	metres squared	m ²
mi ²	square miles	2.59	kilometres squared	km ²
ac	acres	0.395	hectares	ha

APPROXIMATE CONVERSIONS TO SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
LENGTH				
mm	millimetres	0.039	inches	in
m	metres	3.28	feet	ft
m	metres	1.09	yards	yd
km	kilometres	0.621	miles	mi

AREA				
mm ²	millimetres squared	0.0016	square inches	in ²
m ²	metres squared	10.764	square feet	ft ²
km ²	kilometres squared	0.39	square miles	mi ²
ha	hectares (10 000 m ²)	2.53	acres	ac

MASS (weight)				
oz	ounces	28.35	grams	g
lb	pounds	0.454	kilograms	kg
T	short tons (2000 lb)	0.907	megagrams	Mg

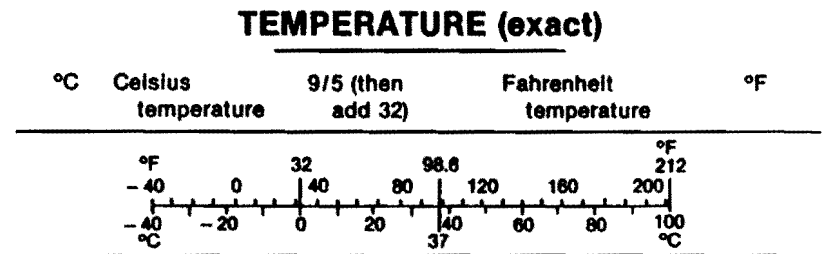
MASS (weight)				
g	grams	0.0353	ounces	oz
kg	kilograms	2.205	pounds	lb
Mg	megagrams (1 000 kg)	1.103	short tons	T

VOLUME				
fl oz	fluid ounces	29.57	millilitres	mL
gal	gallons	3.785	litres	L
ft ³	cubic feet	0.0328	metres cubed	m ³
yd ³	cubic yards	0.0765	metres cubed	m ³

VOLUME				
mL	millilitres	0.034	fluid ounces	fl oz
L	litres	0.264	gallons	gal
m ³	metres cubed	35.315	cubic feet	ft ³
m ³	metres cubed	1.308	cubic yards	yd ³

NOTE: Volumes greater than 1000 L shall be shown in m³.

TEMPERATURE (exact)				
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C



These factors conform to the requirement of FHWA Order 5190.1A.

* SI is the symbol for the International System of Measurements

SUMMARY

This report documents the results of the traffic data collection efforts during the first year of reconstruction on the US-75 North Central Expressway south of the I-635 LBJ Freeway. Traffic conditions and patterns were monitored before construction (October 1989 and May 1990) and during construction (October 1990 and May 1991). The traffic monitoring efforts include traffic data collection and automobile and transit user surveys. The traffic data collection efforts included screen line traffic volume counts, vehicle occupancy and classification counts, and travel time runs. The automobile and transit users surveys are documented elsewhere.

The results indicate that the reconstruction activities underway during the October 1990 and May 1991 data collection efforts had little impact on traffic conditions and patterns in the corridor. These results are consistent with the findings of the automobile users survey. The results of the traffic data collection efforts can be summarized as follows:

- o No major changes in traffic patterns occurred throughout the North Central corridor during the first year of the reconstruction project, based upon comparisons of October 1989 versus October 1990 screen line counts and May 1990 versus May 1991 counts.
- o Peak-period traffic on the US-75 North Central Expressway consists primarily of passenger vehicles (93-96 percent) of which 83-90 percent carry only a single-occupant.
- o Average travel times on the US-75 North Central Expressway between the I-635 LBJ Freeway and the Dallas central business district were 2-3 minutes longer during the first year of the reconstruction project than before the project.

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DISCLAIMER

The contents of this report reflect the views of the authors who are responsible for the facts and the accuracy of the data presented within. The contents do not necessarily reflect the views or policies of the Texas Department of Transportation. This report does not constitute a standard, specification or regulation. It is not intended for construction, bidding or permit purposes. The report was prepared by Steven D. Wohlschlaeger and Raymond A. Krammes (Texas P.E. Registration #66413).

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INTRODUCTION

This report documents the continuing efforts by the Texas Transportation Institute (TTI) to monitor the changes in traffic conditions and travel patterns that result from the reconstruction of the US-75 North Central Expressway south of the I-635 LBJ Freeway. The reconstruction project began during the Summer of 1990 and is continuing into its second year. This report documents traffic conditions during the first year of reconstruction (October 1990 and May 1991 data collection efforts).

TTI began monitoring the North Central corridor during October 1989 and, since that date, has been collecting data twice per year (in May and October). The monitoring effort has two major elements:

- o Collection of traffic data, and
- o Survey of automobile and transit users.

A previous report documented traffic conditions and patterns in the corridor before construction in October 1989 and May 1990 (1). The results of the May 1990, November 1990, and May 1991 automobile and transit users surveys are summarized in separate reports (2-4).

The data reported herein, together with the data collected in subsequent studies, will aid in determining the changes in traffic conditions and travel patterns associated with the reconstruction of the US-75 North Central Expressway. The monitoring plan was designed to provide data for several potential uses:

- o Traffic management planning for future phases of the North Central project and for future projects in the Dallas area,
- o The development of optimal signal timing plans for the arterial streets in the corridor,
- o Public affairs programs to inform the public about traffic conditions and travel alternatives,
- o DART bus route and schedule planning,
- o Validation of portions of the North Central Texas Council of Governments (NCTCOG) peak hour traffic model, and
- o Development of a traffic simulation model of the North Central corridor for evaluating proposed traffic management actions.

The body of this report is divided into three sections. First, the traffic monitoring plan is reviewed. Then, two separate sections summarize observed conditions during October 1990 and May 1991.

TRAFFIC MONITORING EFFORT

This section describes the plan for monitoring the changes in corridor traffic conditions and travel patterns that result from the reconstruction of the US-75 North Central Expressway south of the I-635 LBJ Freeway. The monitoring effort has two components: (1) traffic data collection, and (2) automobile and transit users survey.

Traffic Data Collection

The traffic data collection effort has three components:

- o Screen line traffic volume counts,
- o Vehicle occupancy and classification counts, and
- o Travel time runs.

The monitoring effort closely follows the boundaries of the North Central corridor that were defined by the North Central Mobility Task Force:

- o I-635 LBJ Freeway on the north,
- o The Dallas central business district on the south,
- o Audelia, White Rock Lake, and Buckner on the east, and
- o The Dallas North Tollway on the west.

Data are collected two times during the year, and at the same time of the year (May and October). In order to control for seasonal variations in traffic conditions and patterns, the principal comparisons are among data collected during the same month of the year (e.g., October 1989 versus October 1990, and May 1990 versus May 1991).

Screen Line Traffic Volume Counts

Screen line traffic volume counts are used to monitor traffic patterns throughout the corridor. A screen line is a line drawn either north-south or east-west through the corridor; counts are taken on each route crossing the screen line. The sum of the traffic volume counts along the screen line is the total corridor traffic volume. Changes in traffic patterns are measured as changes in individual routes' percentage of the total corridor traffic volume.

Traffic patterns are being monitored at four screen lines, which are designated by the routes along which the screen lines run: Loop 12, Mockingbird/Buckner, Oak Lawn/Lemmon/Peak, and US-75 North Central Expressway. Three screen lines (Loop 12, Mockingbird/Buckner, and Oak Lawn/Lemmon/Peak) are being used to identify changes in traffic patterns on north-south routes. The US-75 screen line, which bisects the Expressway, was established to measure changes in east-west traffic patterns. The count locations for the October 1990 and May 1991 data collection efforts are identified in Figure 1.

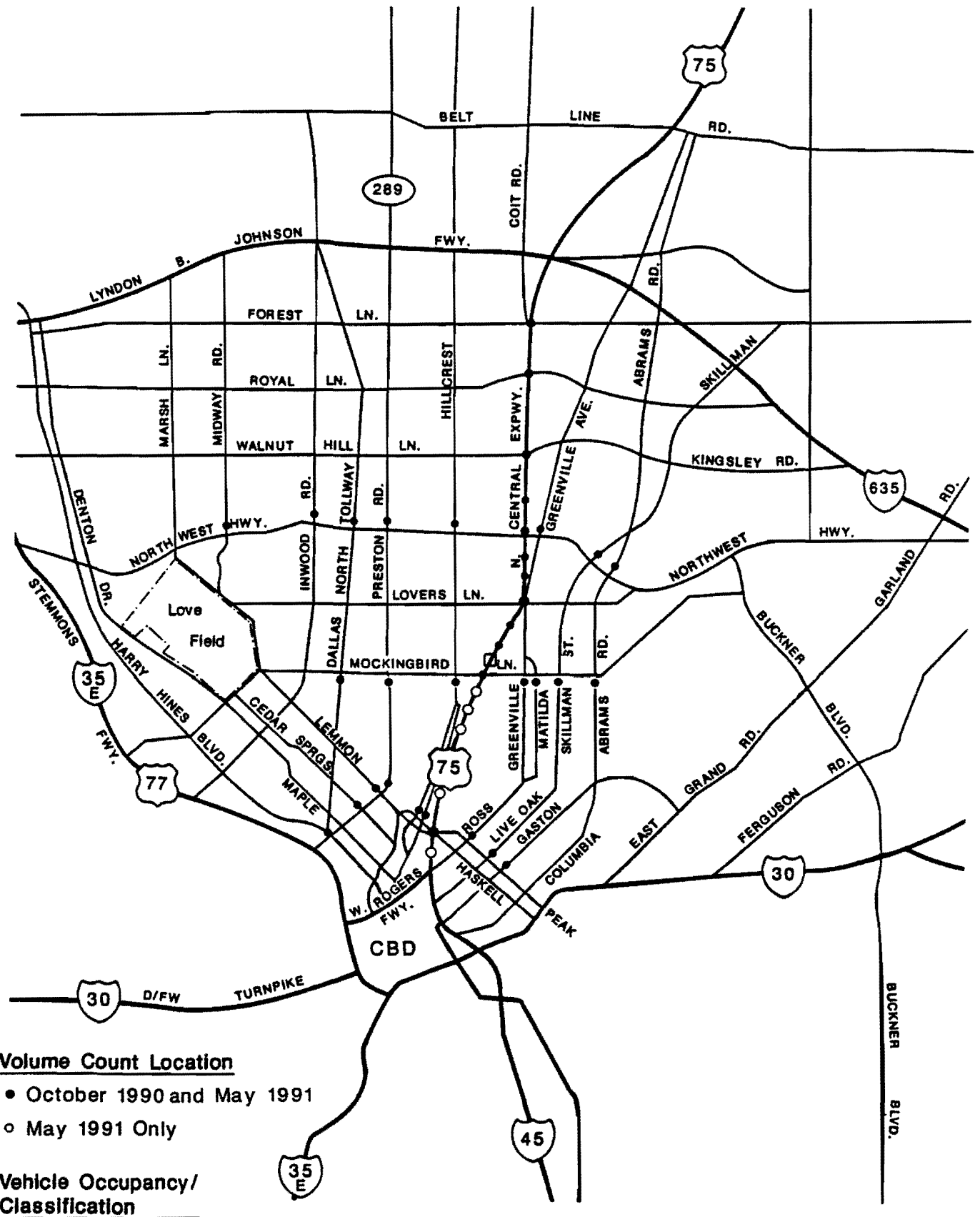


Figure 1. North Central Expressway Corridor Traffic Volume and Vehicle Occupancy and Classification Count Locations

The October 1989 study was restricted to the screen line south of Mockingbird/Buckner. The May 1990 study, the principal data collection effort before construction, included all four screen lines. The October 1990 study, the first data collection effort during construction, focused on the northern half of the corridor which would be most affected by the construction activities that were underway at the time on the N1 and N2 segments of the North Central project. The May 1991 study closely resembled the May 1990 data collection effort.

Vehicle Occupancy and Classification Counts

Vehicle occupancy and classification data were collected on the US-75 mainlanes north of the Mockingbird/Buckner screen line during both the May 1990 and October 1990 studies. The count location is identified in Figure 1.

Vehicles were grouped into four categories: passenger vehicles, commercial vehicles, buses, and motorcycles. Passenger vehicles included all cars as well as all pickup trucks and vans that had no commercial identification.

Travel Time Runs

Peak period travel times and speeds are being monitored on major north-south routes in the corridor as well as the east-west routes along which the screen lines run. Data are collected using the floating car technique in which the data collection vehicles are driven at the median speed of the traffic stream along the routes (by passing as many vehicles as pass them). All routes extend between the I-635 LBJ Freeway and the Dallas central business district.

Data collection vehicles start at each end of the corridor at half-hour intervals from 6:00 to 9:00 A.M. and 3:00 to 7:00 P.M. Travel times are measured between each pair of signalized cross streets and for the entire route. Stopped delays are also recorded at the signalized intersections. The distance between each signalized intersection was measured using a vehicle-installed distance measuring instrument in order to compute average travel speeds. Peak hour average travel times and average travel speeds are computed for the A.M. peak using the 7:00, 7:30, and 8:00 A.M. travel time runs, and for the P.M. peak using the 5:00, 5:30, and 6:00 P.M. runs.

Table 1 summarizes the travel time routes and the number of repetitions on each route during the four monitoring efforts. The street name appearing in bold-face type represents the major street on each alternative route and is used to designate the route.

During October 1990, six routes were monitored. During May 1991, nine routes were monitored; Hillcrest also would have been monitored, if it had not been closed for repairs between Loop 12 and Lovers Lane. Figure 2 highlights the travel time routes.

TABLE 1. Travel Time Routes

ROUTE	NUMBER OF REPETITIONS			
	Oct. 1989	May 1990	Oct. 1990	May 1991
US-75 (North Central Expressway)	1	2	3	3
US-75 Frontage Rd.	-	1	3	1
Garland/Gaston	1	1	-	-
Skillman/Live Oak	1	1	-	1
Abrams/Gaston	1	1	-	1
Greenville/Ross	1	3	1	1
Hillcrest/McKinney/Akard	1	1	1	-
Preston/Cedar Springs/Field	1	3	1	1
Dallas North Tollway/Harry Hines/Akard	1	1	1	1
Inwood/Harry Hines/Akard	1	1	-	-
Midway/Lemmon/Turtle Creek/Cedar Springs	1	1	-	-
Royal	-	-	-	1
Loop 12	-	1	-	1
Mockingbird	-	1	-	-
Oak Lawn/Lemmon/Peak/Haskell	-	1	-	-

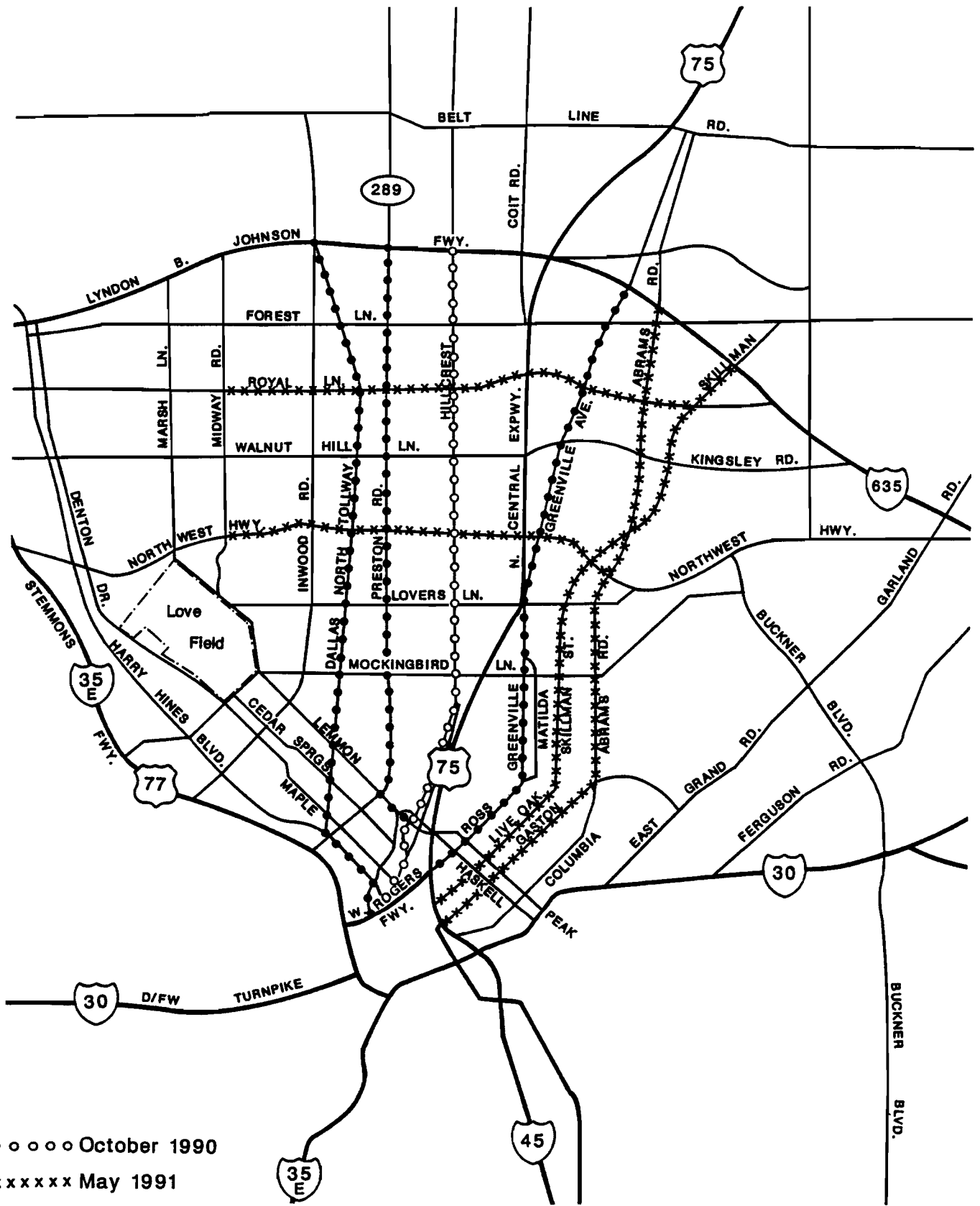


Figure 2. Routes of Travel Time Runs in the North Central Corridor

Automobile and Transit User Surveys

Surveys of automobile and transit users in the North Central corridor have been conducted as part of the May 1990, October 1990, and May 1991 monitoring efforts. Panel members (i.e., automobile and transit users who agreed to be surveyed biannually) were recruited from license plate and onboard bus surveys conducted during May 1990 at the Loop 12 screen line.

The role of the surveys in the overall monitoring effort is to help explain the observed changes in traffic conditions and patterns. The surveys obtain information on the perceptions and travel behavior of individual automobile and transit users in the corridor. Periodically surveying the same panel members permits changes in individual perceptions and behavior to be tracked. Details of the surveying effort and results are documented in other reports (2-4).

OCTOBER 1990 CONDITIONS

This section compares traffic conditions and patterns during October 1989 (before construction) and October 1990 (approximately five months after the start of the North Central project). The October 1989 data collection effort was documented in an earlier report (1). Summaries of all data collected during October 1990 are presented in Appendices A through E.

Screen Line Volumes

The October 1990 screen line volume counts are summarized in Appendices A, B, and C. Appendix A contains tables summarizing the hourly volume counts on each route at each screen line. Appendix B contains figures summarizing each route's percentage of the total screen line volume; separate figures are presented for each of four screen lines and each of three time periods: A.M. peak (6:00-9:00 A.M.), P.M. peak (3:00-7:00 P.M.), and 24 hours. Appendix C contains figures that summarize the actual change in volumes on each route along the Mockingbird/Buckner screen line from October 1989 to October 1990.

During October 1989 traffic volume data were collected only at the Mockingbird/Buckner screen line. Therefore, comparisons between October 1989 and October 1990 can be made only at that screen line. Figures B-4 through B-6 in Appendix B include both the October 1989 and October 1990 data for the Mockingbird/Buckner screen line.

Figure B-6 summarizes the percentage of the total 24-hour screen line volume by route for the Mockingbird/Buckner screen line. US-75, which carries 35 percent of the traffic, and the Dallas North Tollway (DNT), with 20 percent, are the major routes at the Mockingbird/Buckner screen line. There were only minor differences (less than 2 percent) in any route's percentage of total screen line volume between October 1989 and October 1990. Figures B-4 and B-5 for the A.M. and P.M. peak periods, respectively, show similar results. These results are consistent with the automobile user survey results which indicate only very small changes in traffic patterns from October 1989 to October 1990 (3).

Vehicle Occupancy and Classification

Table 2 summarizes the average occupancy of passenger vehicles on the US-75 North Central Expressway during the May 1990 and October 1990 studies. Most automobile users on the Expressway drive alone. During the A.M. peak period, the percentage of single-occupant vehicles increased from 85 percent in May 1990 to 90 percent in October 1990, and therefore the average passenger vehicle occupancy decreased from 1.20 to 1.12 persons per vehicle. During the P.M. peak period, the percentage remained at 83 percent, and the average passenger vehicle occupancy decreased slightly from 1.22 to 1.21.

TABLE 2. Average Passenger Vehicle Occupancy on US-75

Time Period/ Direction	May 1990	October 1990
A.M. Peak		
Southbound	1.19	1.08
<u>Northbound</u>	<u>1.23</u>	<u>1.18</u>
Both	1.20	1.12
P.M. Peak		
Southbound	1.28	1.26
<u>Northbound</u>	<u>1.19</u>	<u>1.17</u>
Both	1.22	1.21

Table 3 summarizes the vehicle classification data. The peak period, peak direction vehicle mix in the corridor averaged 93-96 percent passenger vehicles, 3-5 percent commercial trucks, and 1 percent other (bus and motorcycle). Only the May 1990 percentages of passenger vehicles and commercial vehicles for the northbound direction during the A.M. peak period differ from these averages.

TABLE 3. Vehicle Classification on US-75

Time Period/ Vehicle Type	May 1990		October 1990	
	NB	SB	NB	SB
A.M. Peak				
Passenger Vehicle	89.56%	95.03%	93.30%	96.53%
Commercial Truck	9.39%	3.98%	5.70%	2.38%
Bus	0.98%	0.83%	0.93%	0.99%
Motorcycle	0.07%	0.17%	0.07%	0.10%
P.M. Peak				
Passenger Vehicle	94.40%	94.39%	94.49%	94.18%
Commercial Truck	3.78%	4.40%	4.36%	4.83%
Bus	1.04%	1.10%	0.97%	0.88%
Motorcycle	0.28%	0.10%	0.18%	0.10%

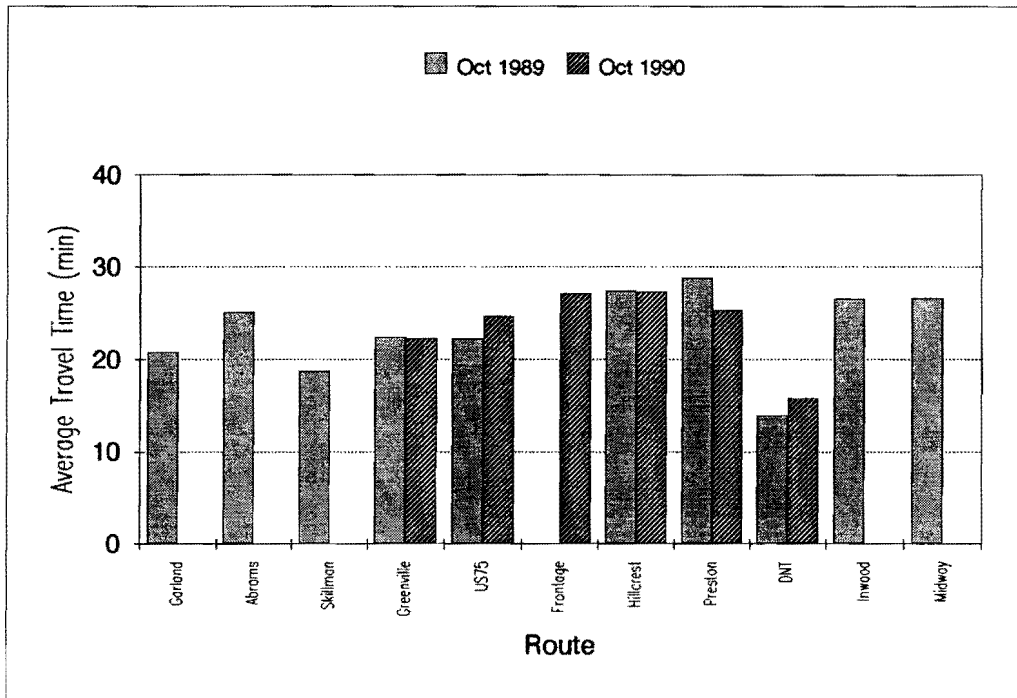
Travel Times and Average Travel Speeds

Average peak hour, peak direction travel times and travel speeds are shown in Figures 3 and 4, respectively. Average travel times during both the A.M. and P.M. peaks range between 20 and 30 minutes on most routes except the Dallas North Tollway on which travel times are approximately 15 minutes. Average speeds, therefore, are higher on the Dallas North Tollway than on the other routes. Average speeds on the Dallas North Tollway decreased by approximately 5 mph from October 1989 to October 1990.

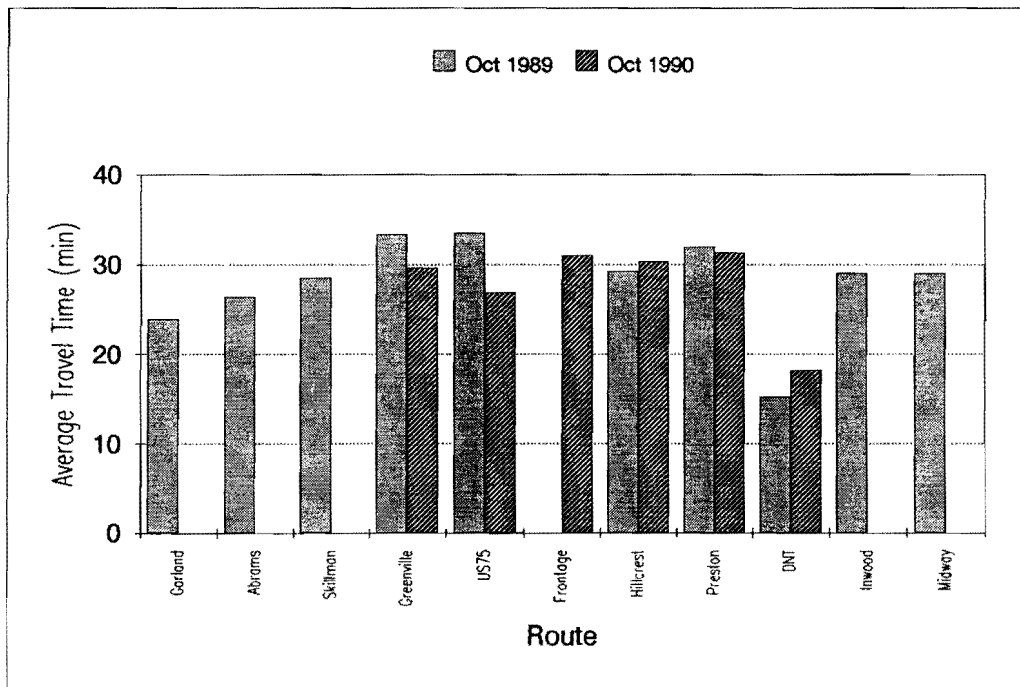
Average travel times on US-75 increased by approximately 3 minutes in the A.M. peak period, which is the same change reported in the automobile users survey (3). The 4-minute decrease in observed travel times during the P.M. peak period differs from the 3-minute increase reported in the survey results (3). This discrepancy in the P.M. peak period results is probably due to an incident during the 5:30 p.m. travel time run of the October 1989 study that made the average travel time higher than normal.

Greenville was the only other route on which changes in average travel times and speeds were observed. Several incidents occurred during the October 1989 Greenville travel time runs for the P.M. peak period. Therefore, the average travel time for October 1989 was higher than for the October 1990 runs during which no incidents occurred.

Appendix D contains tables and figures summarizing the A.M. and P.M. peak period travel times along each route during October 1990. Appendix E contains tables and figures that summarize the corresponding average travel speeds.

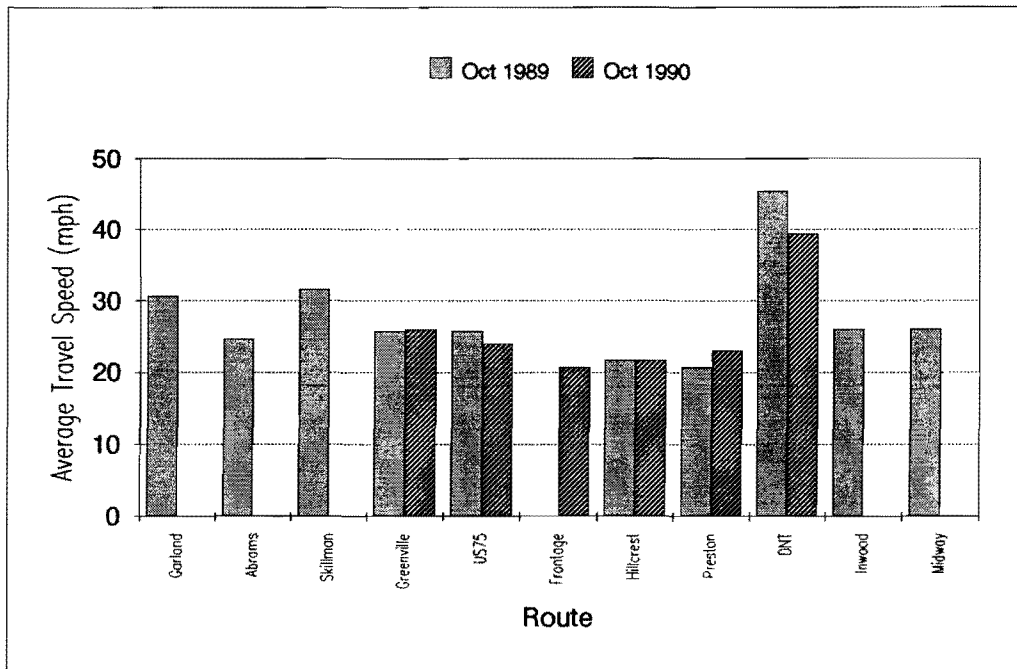


(a) A.M. Peak

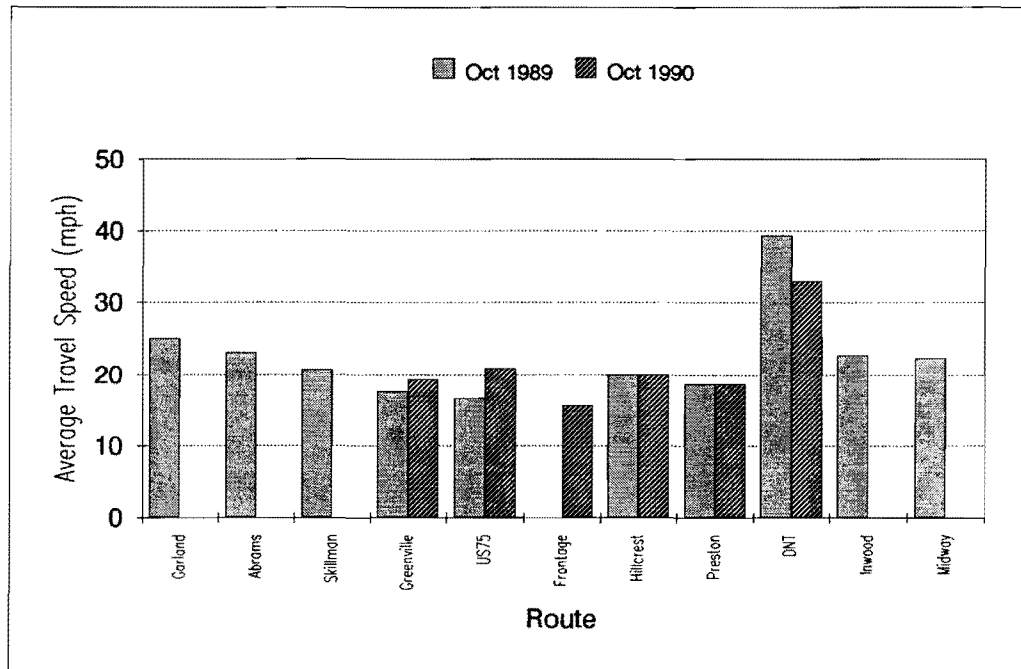


(b) P.M. Peak

Figure 3. Average Peak Hour, Peak Direction Travel Times Between I-635 and CBD: October 1989 and 1990



(a) A.M. Peak



(b) P.M. Peak

Figure 4. Average Peak Hour, Peak Direction Travel Speeds Between I-635 and CBD: October 1989 and 1990

MAY 1991 CONDITIONS

This section compares traffic conditions and patterns during May 1990 (before construction) and May 1991 (1 year after the start of construction). The May 1990 data collection results were presented in an earlier report (1). Summaries of all data collected during May 1991 are presented in Appendices F through J.

Screen Line Volumes

Appendix F contains tables summarizing the May 1991 hourly volume counts on each route at each screen line. Appendix G contains figures summarizing each route's percentage of total screen line volume in both May 1990 and May 1991; separate figures are presented for each of four screen lines and each of three time periods: A.M. peak (6:00-9:00 A.M.), P.M. peak (3:00-7:00 P.M.), and 24 hours. Appendix H contains figures that summarize the actual change in volumes on each route from May 1990 to May 1991 at each screen line.

Traffic Patterns on North-South Routes

Few major changes in north-south traffic patterns occurred from May 1990 to May 1991. No route's percentage of the 24-hour screen line volume changed by more than approximately 1 percent. The fluctuations in A.M. and P.M. peak period percentages were slightly larger (but generally less than 3 percent).

The screen line volume counts do not indicate any significant shift away from US-75 due to the construction underway during May 1991. By way of comparison, the automobile users survey results show a larger reduction in the percentage of panel members using US-75 (4-6 percent) than the screen line counts indicate (approximately 1 percent) in the A.M. and P.M. peak directions (4). The automobile users panel intentionally overrepresents US-75 users (i.e., the percentage of panel members that use US-75 is higher than US-75's percentage of the total corridor volume); and this fact may explain the larger reported percentage reduction in utilization of US-75.

Traffic Patterns on East-West Routes

East-west traffic crosses US-75 on eighteen routes between the I-635 LBJ Freeway and the Woodall-Rogers Freeway. Ten of the eighteen routes carry at least 5 percent of the total 24-hour east-west traffic. Loop 12 is the major east-west route, carrying approximately 15 percent of the 24-hour screen line volume.

Figures G-10 through G-12 and H-10 through H-12 suggest changes in east-west traffic patterns from May 1990 to May 1991. The most substantial change occurred on Forest where westbound traffic decreased during May 1991. This reduction in traffic was most likely due to lane closures on Forest during the reconstruction of the US-75 and Forest interchange.

Travel Times and Average Travel Speeds

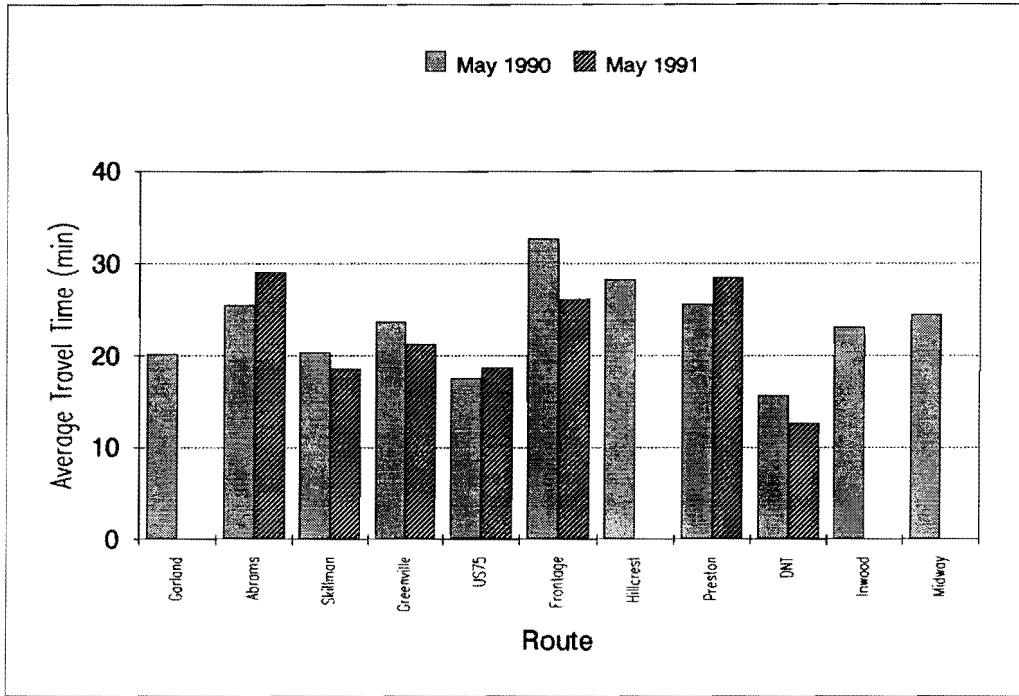
Figures 5 and 6 show average peak-hour, peak-direction travel times and travel speeds on the north-south routes in the North Central Expressway corridor. Overall, the construction underway on the N1 and N2 sections during the May 1991 travel time runs appears to have had little effect on travel times and speeds.

Traffic on the US-75 mainlanes was not significantly affected by the construction activities underway during the May 1991 travel time runs. There were small increases in average travel time (less than 2 minutes) and decreases in average travel speeds (less than 1 mph) from May 1990 to May 1991. Average speeds on the US-75 frontage roads actually increased from May 1990 to May 1991. By way of comparison, the automobile users survey results indicate small decreases in average travel times from May 1990 to May 1991 for both US-75 users and users of other routes in the corridor (4).

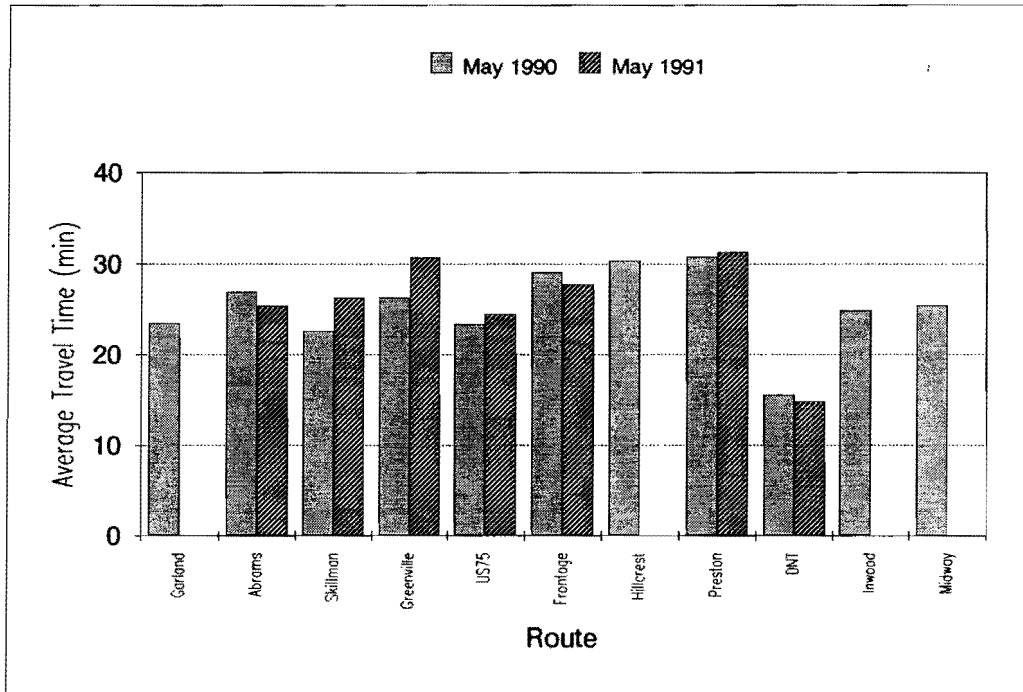
The Dallas North Tollway had the highest average speed of any north-south route in the corridor. Average speeds on the Tollway increased from May 1990 to May 1991. This increase may be attributable to the increased utilization of toll tags and provision of a toll-tag-only lane at the main barrier toll plaza beginning in November 1990.

Minor fluctuations in travel times and speeds occurred on the arterial streets, but they appear unrelated to the US-75 construction. Most of the changes can be explained by incidents or inclement weather during either the May 1990 or May 1991 travel time runs.

Appendix I contains tables and figures summarizing the A.M. and P.M. peak period travel times along each route during May 1990 and May 1991. Appendix J contains tables and figures that summarize the corresponding average travel speeds.

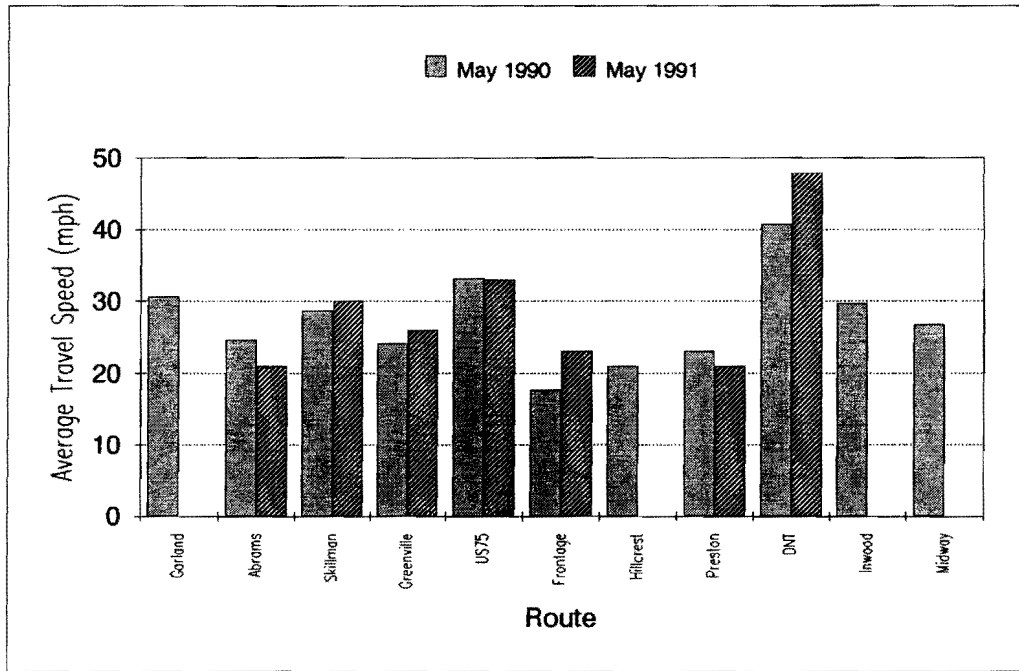


(a) A.M. Peak

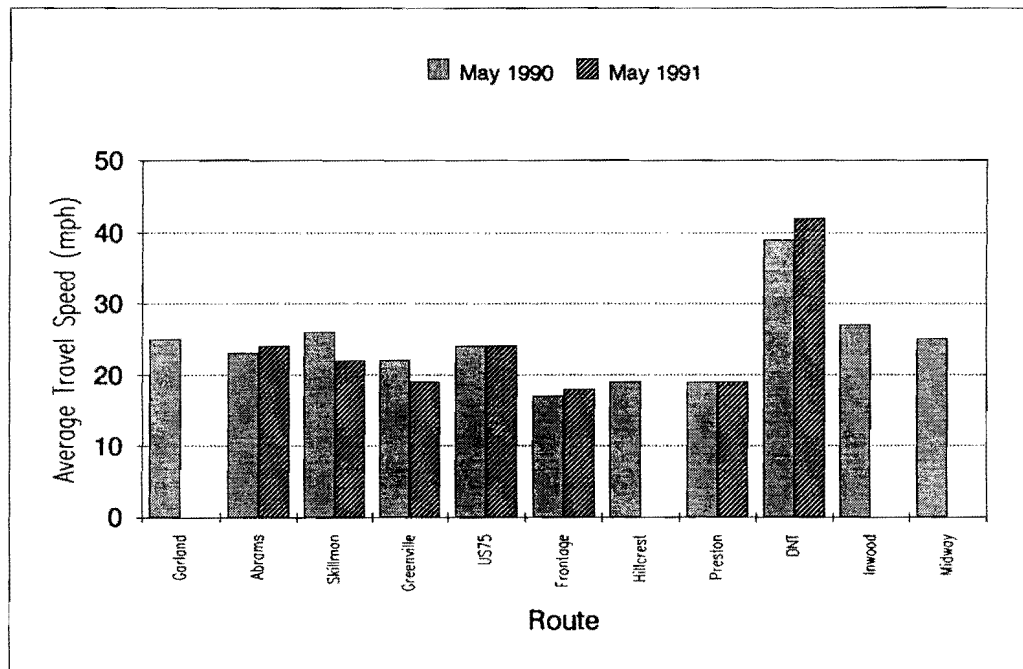


(b) P.M. Peak

Figure 5. Average Peak Hour, Peak Direction Travel Times Between I-635 and CBD: May 1990 and 1991



(a) A.M. Peak



(b) P.M. Peak

Figure 6. Average Peak Hour, Peak Direction Travel Speeds Between I-635 and CBD: May 1990 and 1991

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APPENDIX A

OCTOBER 1990 SCREEN LINE TRAFFIC VOLUME TABLES

TABLE A-1. Loop 12 (Northwest Highway) Screen Line Average Traffic Volumes (October 1990): Southbound

Hour Ending	ROUTE									
	Abrams	Skillman	Greenville	US 75	Hillcrest	Preston	DNT	Inwood	Midway	Total
1	81	119	196	947	25	22	118	25	27	1560
2	51	68	99	547	13	10	72	20	10	890
3	43	60	71	397	9	10	47	11	7	655
4	27	40	21	248	5	7	38	8	10	404
5	30	55	20	320	6	14	66	14	13	538
6	56	161	56	886	27	39	373	42	47	1790
7	233	898	378	3005	158	181	2067	342	244	7506
8	676	2540	1817	3198	743	790	4783	1030	926	16501
9	709	2038	1596	3457	892	1131	4254	1107	992	16176
10	582	855	775	3286	657	777	2600	546	534	10612
11	572	663	722	3316	532	704	1832	482	436	9259
12	734	658	1031	3754	639	775	1985	554	441	10571
13	834	777	1255	3365	633	788	1801	543	497	10493
14	789	745	1081	3431	657	815	1827	589	490	10404
15	847	753	773	3531	625	767	2034	616	465	10411
16	856	786	982	3767	633	755	2413	609	607	11466
17	983	846	1289	3628	799	784	2897	739	561	12526
18	1129	985	1415	4078	841	802	3201	686	625	13762
19	1121	991	1129	3992	786	700	2341	554	540	12154
20	816	827	907	3577	497	465	1409	337	393	9228
21	597	656	697	3419	287	283	967	240	249	7395
22	429	521	646	3330	225	235	831	222	221	6660
23	291	364	512	2414	153	148	543	115	127	4687
24	181	273	357	1746	65	60	291	63	57	3093
24 Hr. Total	12647	16699	17825	63740	9907	11062	38790	9554	8519	188743

TABLE A-2. Loop 12 (Northwest Highway) Screen Line Average Traffic Volumes (October 1990): Northbound

Hour Ending	ROUTE									
	Abrams	Skillman	Greenville	US 75	Hillcrest	Preston	DNT	Inwood	Midway	Total
1	129	171	191	1068	33	33	257	42	40	1964
2	57	128	118	681	19	14	133	15	24	1189
3	49	118	107	476	13	12	113	12	14	912
4	45	68	38	301	7	7	69	10	8	553
5	43	37	24	288	5	19	96	8	10	528
6	65	80	42	805	19	32	237	36	34	1350
7	230	240	240	1873	116	106	1086	181	134	4208
8	565	573	775	3230	418	400	2592	630	466	9649
9	699	574	954	3079	562	563	2736	708	423	10298
10	562	462	595	3001	432	520	1749	448	308	8077
11	613	483	598	3175	400	612	1528	442	317	8148
12	580	610	662	3780	458	709	1796	481	389	9645
13	664	733	1225	4004	547	788	1881	543	421	10807
14	659	666	1081	3551	535	764	1888	553	431	10128
15	690	767	981	3495	557	807	2096	618	468	10481
16	749	972	996	4028	578	763	2621	709	558	11974
17	849	1575	1346	3769	695	810	3894	929	734	14601
18	1040	2488	1927	3337	870	1068	5373	1289	1130	18522
19	966	1792	1515	3445	680	809	4025	809	679	14720
20	786	1087	956	3864	418	512	2119	438	415	10595
21	610	880	694	2832	319	345	1326	293	290	7569
22	499	669	673	2912	289	286	1114	246	230	6916
23	338	554	512	2696	165	168	892	167	154	5646
24	223	385	375	1713	81	81	688	110	108	3784
24 Hr. Total	11710	16090	16823	61401	6216	10229	40311	9717	7765	182262

TABLE A-3. Mockingbird/Buckner Screen Line Average Traffic Volumes (October 1990): Southbound

Hour Ending	ROUTE											Total
	Garland	Abrams	Skillman	Matilda	Greenville	US-75	Hillcrest	Preston	DNT	Inwood	Lemmon	
1	*	71	58	13	134	888	10	34	164	*	*	1470
2	*	45	32	10	57	547	8	16	104	*	*	819
3	*	27	23	5	44	511	2	12	101	*	*	725
4	*	20	19	3	20	302	1	7	74	*	*	446
5	*	18	21	2	16	368	1	9	82	*	*	517
6	*	47	47	3	34	1117	9	28	282	*	*	1567
7	*	284	365	16	136	3180	61	126	1633	*	*	5761
8	*	844	1431	82	617	6068	390	579	4833	*	*	14844
9	*	809	1306	86	665	5211	654	1004	5139	*	*	14874
10	*	608	504	63	407	3843	339	707	2918	*	*	9389
11	*	581	379	59	401	3858	278	657	1968	*	*	8181
12	*	590	391	80	515	4123	299	757	2024	*	*	8779
13	*	636	442	103	574	4490	363	856	2086	*	*	9560
14	*	625	455	80	584	4794	345	872	2185	*	*	9940
15	*	675	458	82	532	4326	387	825	2141	*	*	9436
16	*	677	504	81	551	4598	415	780	2453	*	*	10059
17	*	639	582	115	605	4227	488	778	2803	*	*	10237
18	*	761	639	181	722	4619	552	850	3078	*	*	11382
19	*	810	677	161	733	4110	399	739	2326	*	*	9955
20	*	698	480	117	674	3798	270	504	1436	*	*	7977
21	*	504	348	96	513	2981	159	356	904	*	*	5861
22	*	415	297	74	452	2842	132	285	832	*	*	5329
23	*	302	225	63	368	2151	98	155	569	*	*	3929
24	*	153	121	34	240	1492	36	82	356	*	*	2514
24 Hr. Total	0	10819	9802	1599	9592	74524	5696	11018	40501	0	0	163551

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TABLE A-4. Mockingbird/Buckner Screen Line Average Traffic Volumes (October 1990): Northbound

Hour Ending	ROUTE											Total
	Garland	Abrams	Skillman	Matilda	Greenville	US-75	Hillcrest	Preston	DNT	Inwood	Lemmon	
1	*	98	61	35	117	1217	18	34	229	*	*	1807
2	*	45	28	22	69	706	7	19	129	*	*	1025
3	*	31	23	14	56	666	5	10	106	*	*	911
4	*	18	17	6	22	337	2	6	69	*	*	477
5	*	24	19	11	19	397	1	7	109	*	*	587
6	*	90	58	20	24	1041	8	24	284	*	*	1549
7	*	287	195	121	88	2994	41	82	1106	*	*	4914
8	*	686	588	432	178	3552	149	236	2382	*	*	8203
9	*	834	637	434	191	3532	187	375	2344	*	*	8534
10	*	717	426	261	204	3756	200	346	2046	*	*	7956
11	*	610	403	222	199	3452	192	376	1551	*	*	7005
12	*	742	457	249	227	3883	248	430	1893	*	*	8109
13	*	774	517	328	277	4654	244	437	1840	*	*	9071
14	*	772	496	296	277	4351	248	456	1902	*	*	8802
15	*	786	537	318	283	4702	228	454	2057	*	*	9363
16	*	948	663	357	306	4432	227	466	2508	*	*	9907
17	*	1092	979	536	295	4245	270	515	3913	*	*	11845
18	*	1329	1423	906	249	4175	390	689	5192	*	*	14353
19	*	1042	884	568	310	5167	316	545	3557	*	*	12369
20	*	742	481	315	312	4286	238	346	1810	*	*	8530
21	*	525	291	182	268	3440	150	236	1096	*	*	6188
22	*	433	269	181	318	2953	108	205	928	*	*	5383
23	*	278	185	118	268	2696	79	150	850	*	*	4620
24	*	197	130	78	208	2061	50	99	563	*	*	3366
24 Hr. Total	0	13098	9789	6008	4761	72675	3604	6545	38464	0	0	154924

A4

TABLE A-5. Oak Lawn/Lemmon/Peak Screen Line Average Traffic Volumes (October 1990): Southbound

Hour Ending	ROUTE													Total
	Columbia	Gaston	Live Oak	Ross	US-75	Cole	Turtle Creek	Oak Lawn	Lemmon	Cedar Springs	Maple	DNT	Harry Hines	
1	*	47	42	70	623	45	22	106	183	174	*	143	*	1455
2	*	29	32	54	407	20	10	60	101	123	*	82	*	918
3	*	29	26	52	304	27	9	55	92	103	*	61	*	758
4	*	31	33	40	216	14	6	26	50	44	*	49	*	509
5	*	25	28	37	327	11	5	24	47	24	*	58	*	566
6	*	108	79	87	998	28	24	54	112	62	*	225	*	1777
7	*	460	447	336	3220	120	128	234	358	165	*	1390	*	6856
8	*	1372	1829	1151	6285	544	739	849	998	407	*	4964	*	19138
9	*	1388	2140	1196	5908	838	1296	1219	1225	531	*	5734	*	21475
10	*	671	718	584	4273	324	558	635	839	418	*	3528	*	12748
11	*	431	459	443	3334	283	353	634	773	361	*	1990	*	9281
12	*	433	475	461	3546	337	403	1153	901	443	*	2136	*	10290
13	*	545	667	593	3958	431	511	1497	1200	583	*	2097	*	12082
14	*	552	625	583	4296	400	538	1393	1214	544	*	2338	*	12483
15	*	446	487	520	4157	292	401	1200	1085	501	*	2191	*	11280
16	*	406	458	479	4721	292	358	1142	1187	534	*	2462	*	12040
17	*	382	463	587	5120	398	361	1100	1229	592	*	2907	*	13139
18	*	350	450	474	4783	347	389	1193	1296	746	*	3278	*	13306
19	*	348	421	362	3809	322	332	975	1025	654	*	2467	*	10715
20	*	274	334	288	3005	301	273	707	885	571	*	1537	*	6175
21	*	197	214	224	2260	200	155	500	692	451	*	940	*	5833
22	*	150	157	205	1602	173	117	482	580	433	*	872	*	4771
23	*	157	120	173	1431	134	88	339	491	352	*	584	*	3869
24	*	80	91	139	1011	85	49	208	420	271	*	349	*	2703
24 Hr. Total	0	8911	10795	9138	69594	5966	7126	16185	16981	9107	0	42384	0	196187

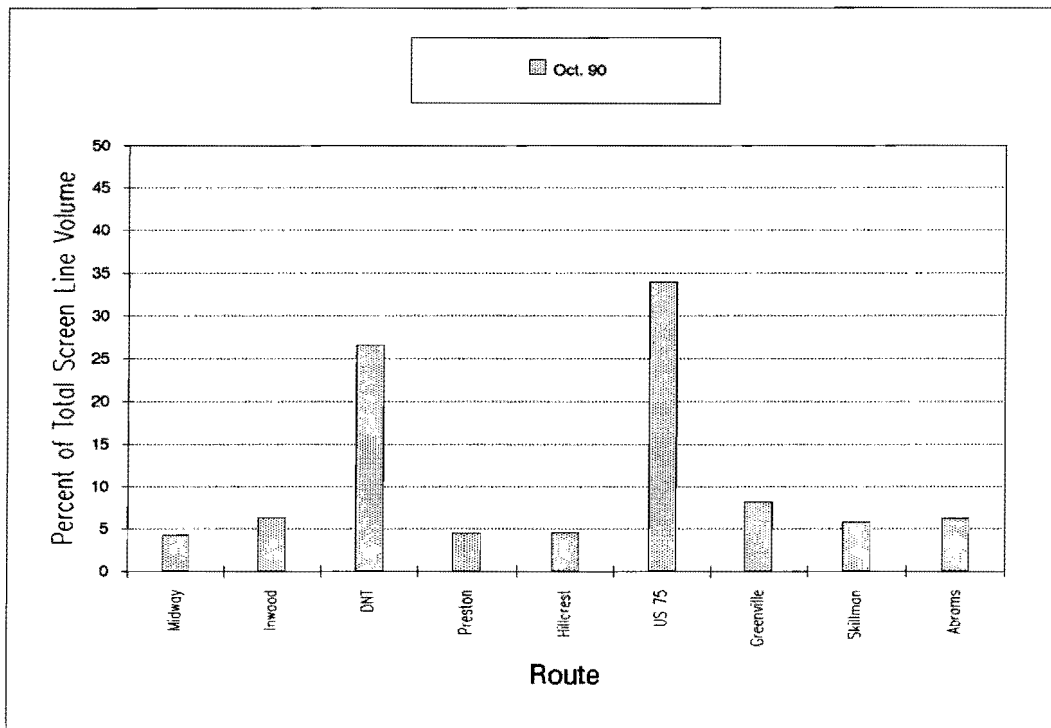
A5

TABLE A-6. Oak Lawn/Lemmon/Peak Screen Line Average Traffic Volumes (October 1990): Northbound

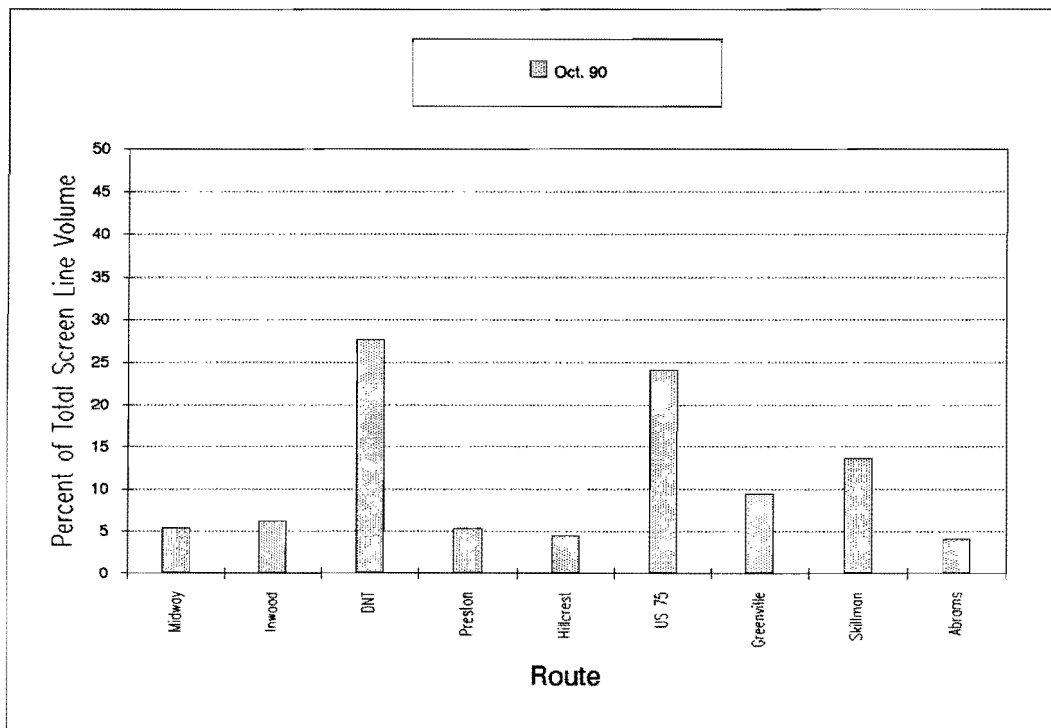
Hour Ending	ROUTE													Total
	Columbia	Gaston	Live Oak	Ross	US-75	McKinney	Turtle Creek	Oak Lawn	Lemmon	Cedar Springs	Maple	DNT	Harry Hines	
1	*	72	79	243	701	70	50	86	175	133	*	226	*	1835
2	*	47	38	113	389	34	21	58	112	83	*	127	*	1022
3	*	41	35	94	328	31	19	46	92	61	*	107	*	854
4	*	22	26	49	234	9	15	22	61	39	*	60	*	537
5	*	21	25	33	316	13	7	18	61	25	*	98	*	617
6	*	29	49	54	1013	17	11	31	219	57	*	275	*	1755
7	*	92	96	127	3163	54	42	138	762	175	*	1200	*	5849
8	*	173	203	375	4492	269	143	351	1173	376	*	2776	*	10331
9	*	214	257	436	4344	330	231	539	1067	352	*	2640	*	10410
10	*	268	300	448	3358	334	274	487	812	326	*	1722	*	8349
11	*	360	375	470	3200	387	300	508	777	352	*	1612	*	8351
12	*	498	644	606	3639	606	432	661	1179	518	*	2012	*	10695
13	*	543	750	700	3889	870	551	779	1426	593	*	2049	*	12250
14	*	470	529	624	3685	801	448	702	1143	495	*	2052	*	11149
15	*	516	534	601	4118	628	461	643	1142	521	*	2231	*	11395
16	*	665	695	695	4175	636	472	636	1036	566	*	2658	*	12238
17	*	999	1370	1151	5036	944	663	759	1225	680	*	4056	*	16883
18	*	1396	2154	1627	5136	1744	1235	990	1506	802	*	5530	*	22122
19	*	714	894	826	4808	845	783	701	1152	672	*	3946	*	15341
20	*	369	428	428	3761	562	400	490	921	489	*	1989	*	8857
21	*	302	281	323	3064	396	289	351	728	417	*	1250	*	7421
22	*	265	276	277	2638	348	233	316	648	413	*	1034	*	6446
23	*	191	186	331	2086	257	219	251	534	370	*	838	*	5263
24	*	185	128	305	1232	148	116	153	346	265	*	636	*	3512
24 Hr. Total	0	8492	10352	10936	69327	10339	7415	9716	18299	8782	0	41124	0	194782

APPENDIX B

**OCTOBER 1990 SCREEN LINE TRAFFIC VOLUMES:
PERCENTAGE OF TOTAL SCREEN LINE VOLUME BY ROUTE**

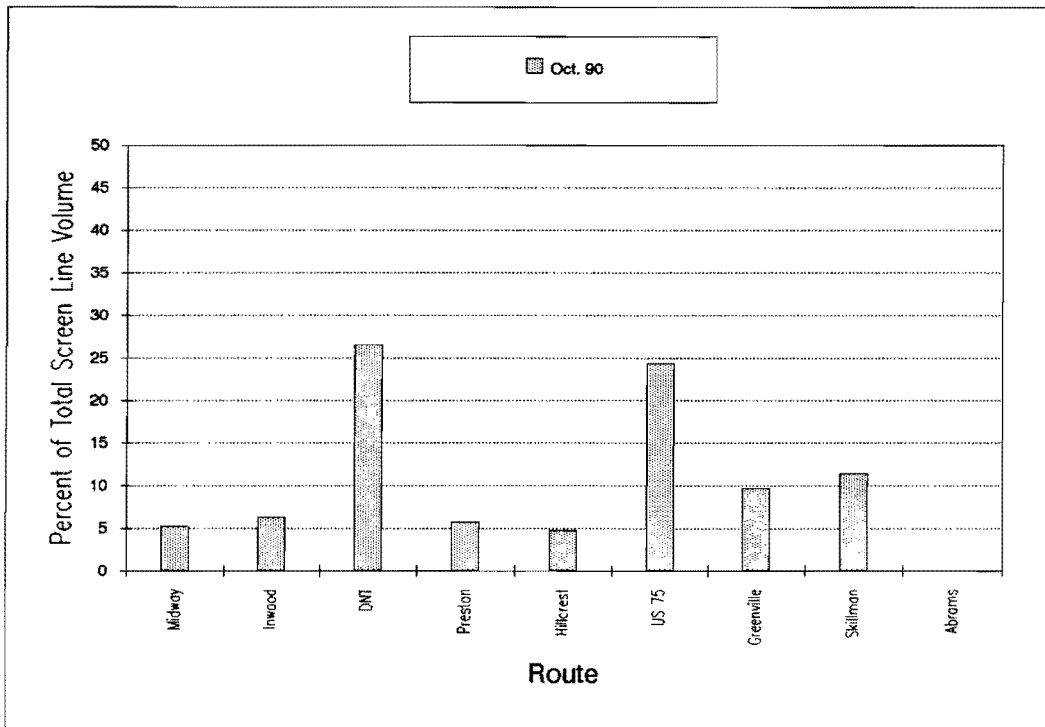


a) Northbound

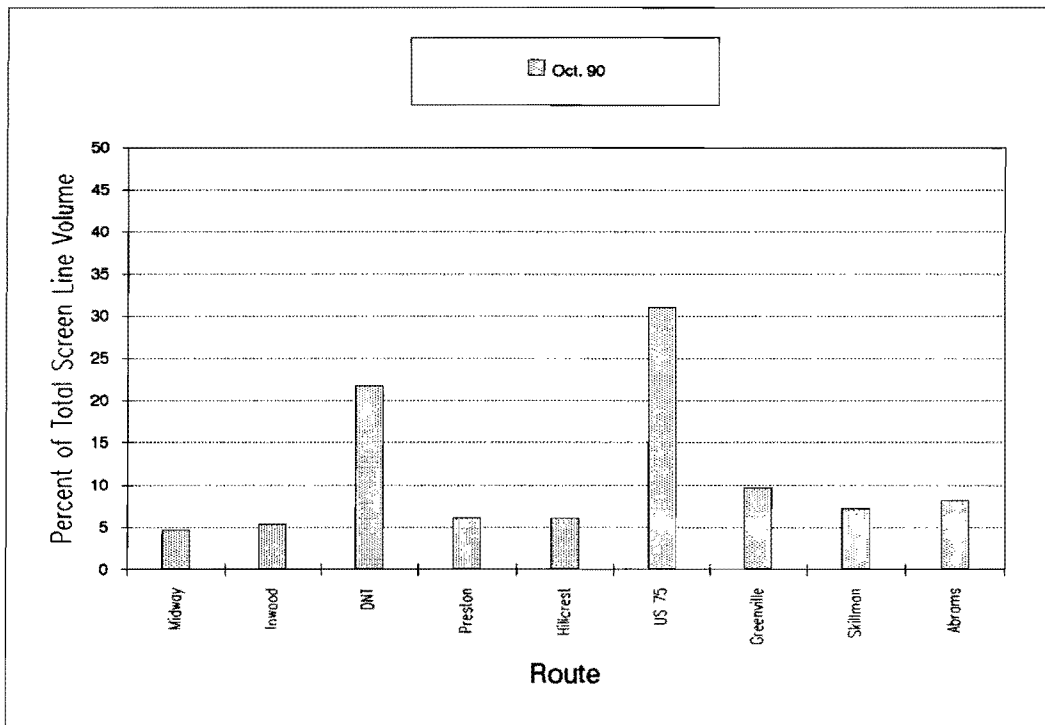


b) Southbound

Figure B-1. Percent of Total Screen Line Volume by Route:
Loop 12 - A.M. Peak Period (October 1990)

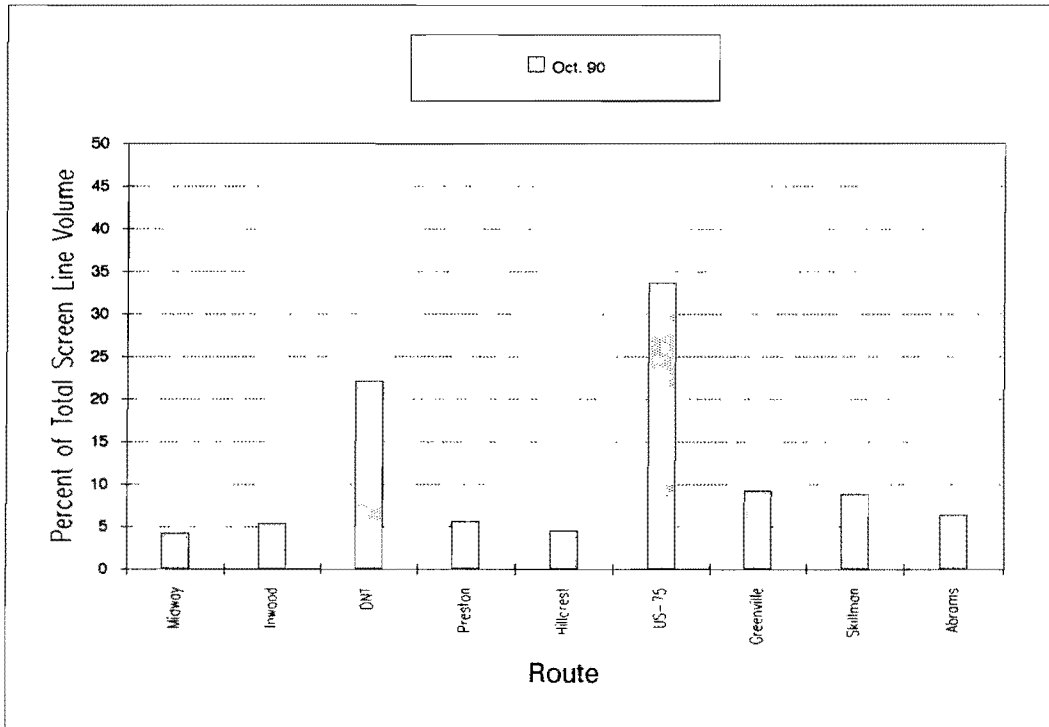


a) Northbound

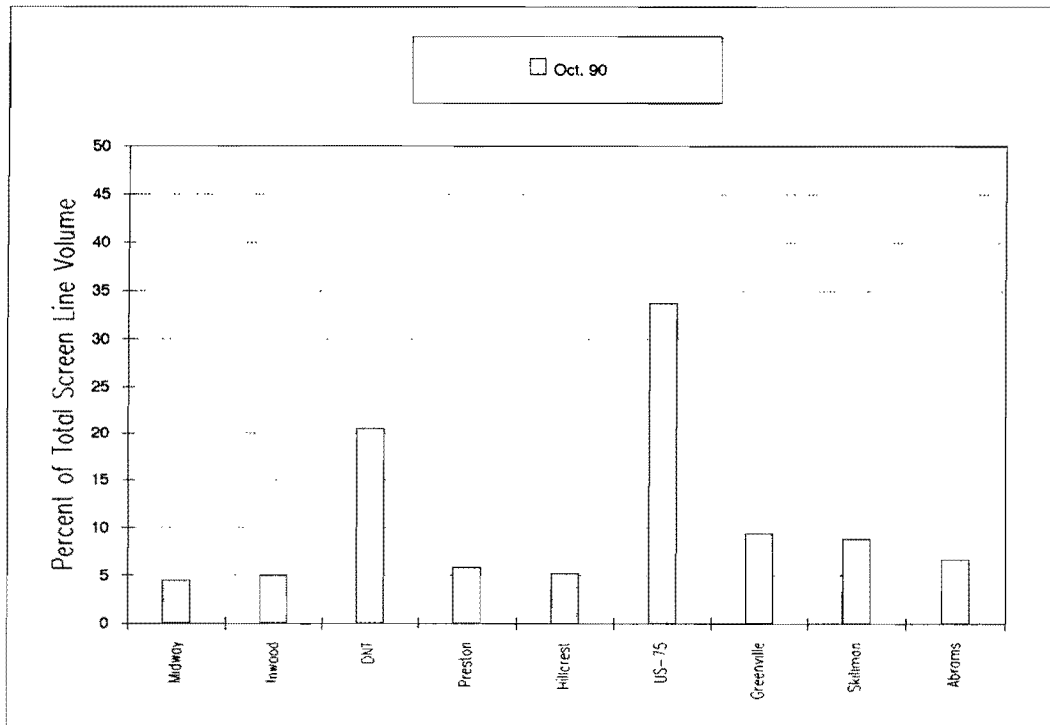


b) Southbound

Figure B-2. Percent of Total Screen Line Volume by Route:
Loop 12 - P.M. Peak Period (October 1990)

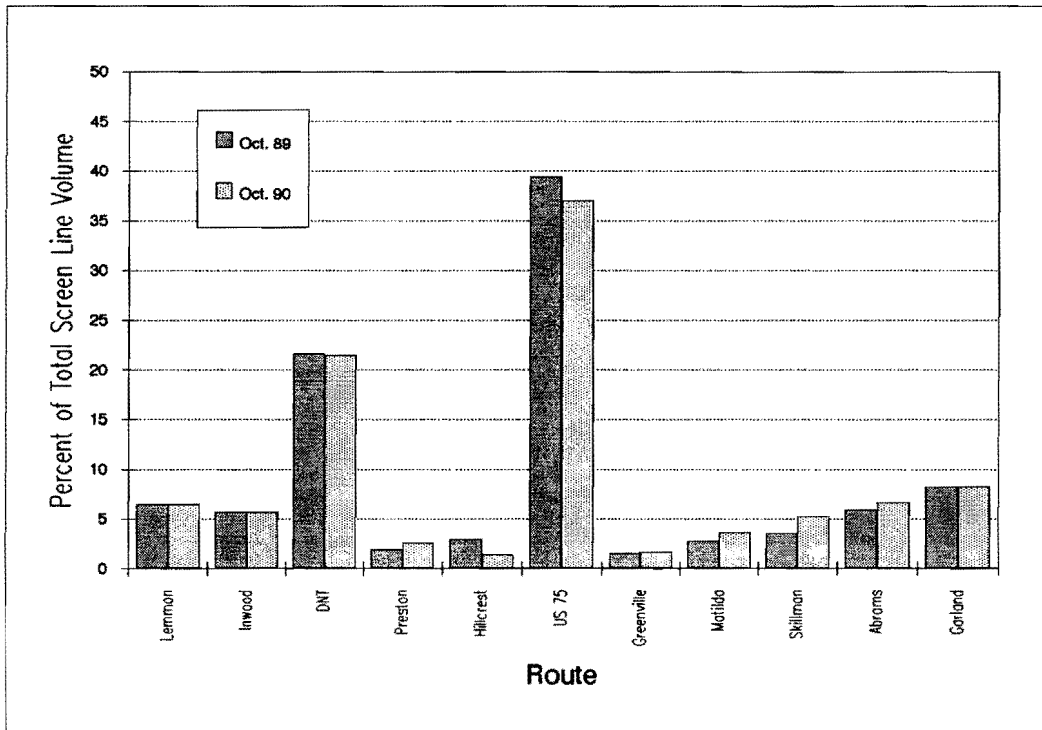


a) Northbound

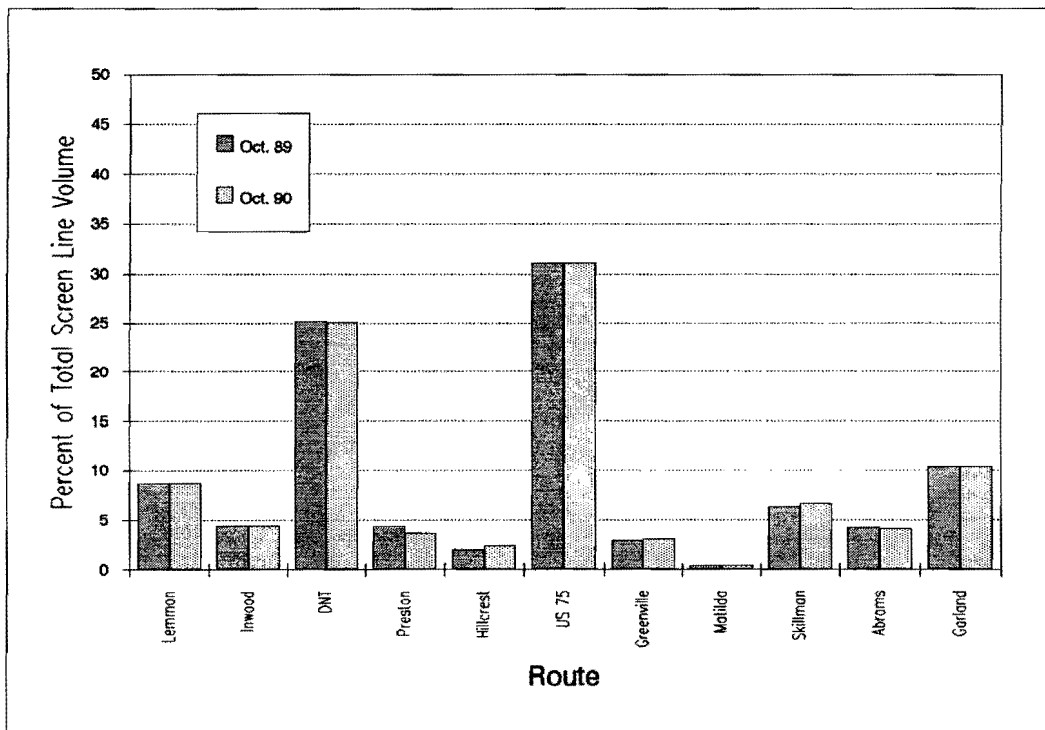


b) Southbound

Figure B-3. Percent of Total Screen Line Volume by Route:
Loop 12 - 24 Hour Period (October 1990)

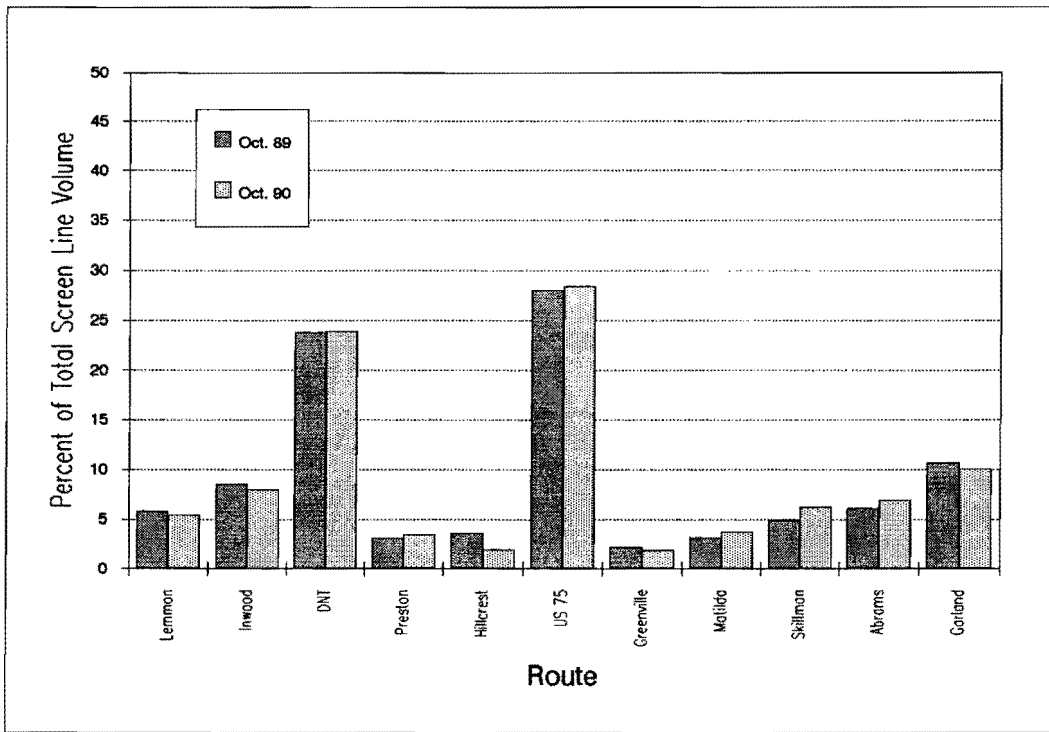


a) Northbound

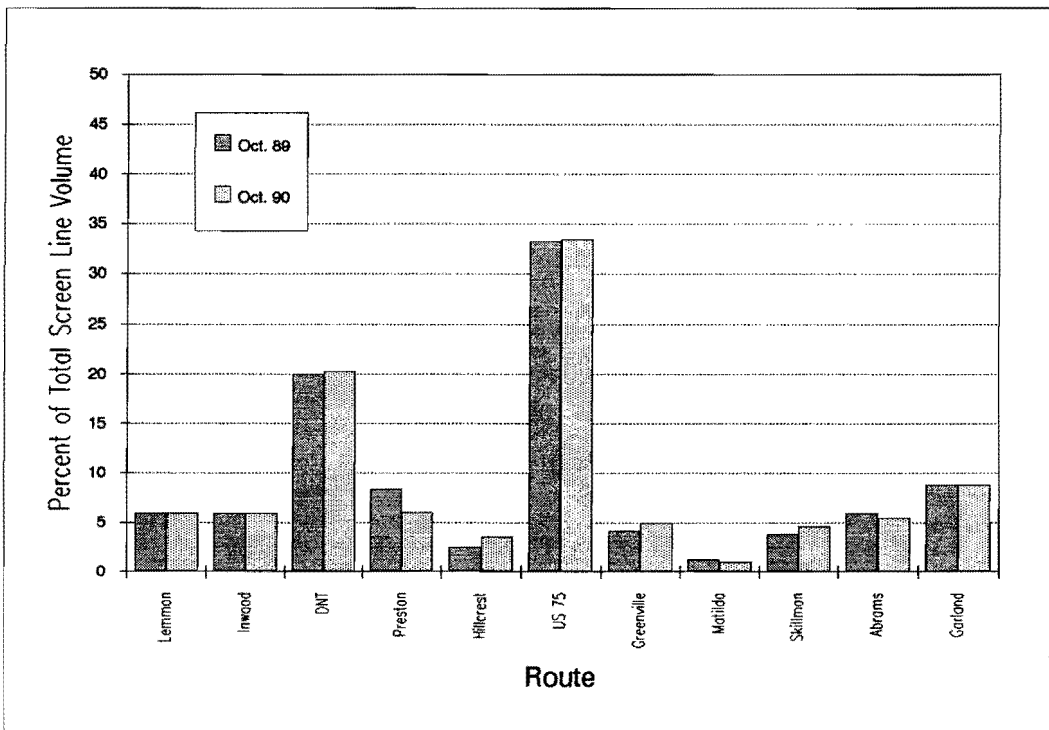


b) Southbound

Figure B-4. Percent of Total Screen Line Volume by Route
Mockingbird/Buckner - A.M. Peak Period (October 1989 and 1990)

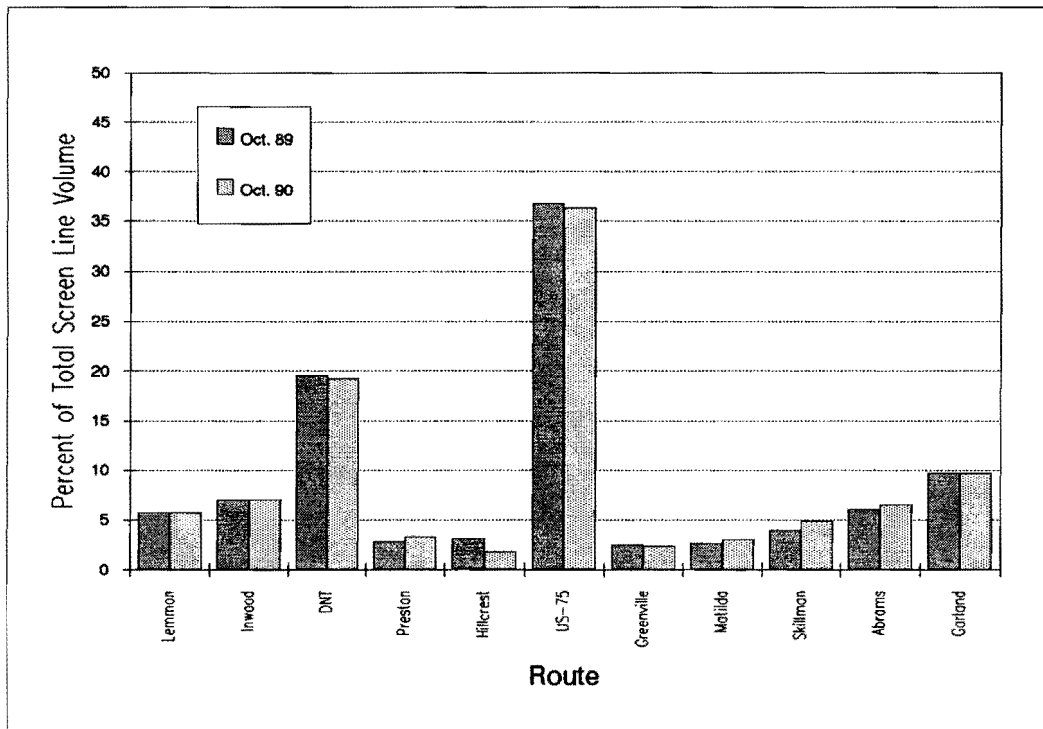


a) Northbound

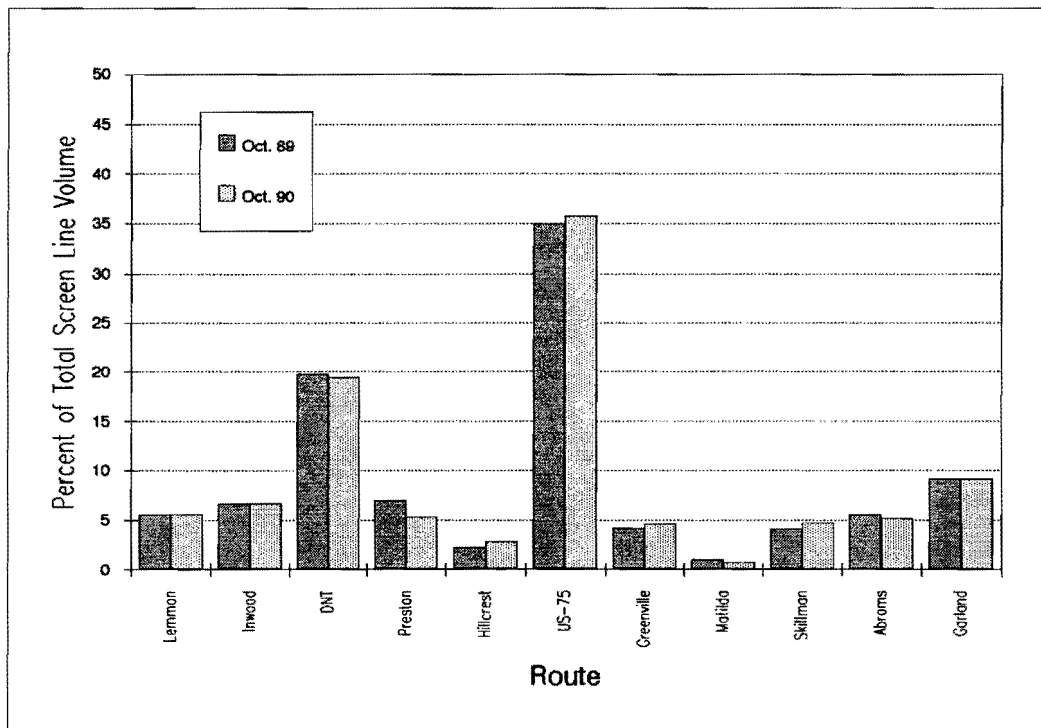


b) Southbound

Figure B-5. Percent of Total Screen Line Volume by Route:
Mockingbird/Buckner - P.M. Peak Period (October 1989 and 1990)

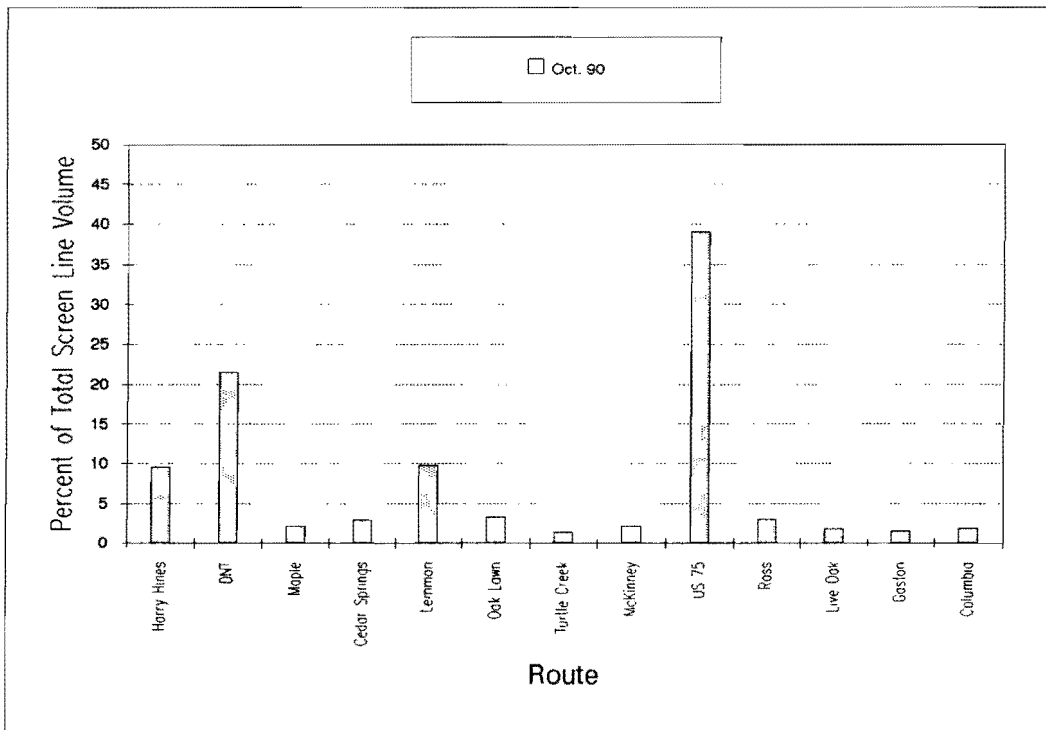


a) Northbound

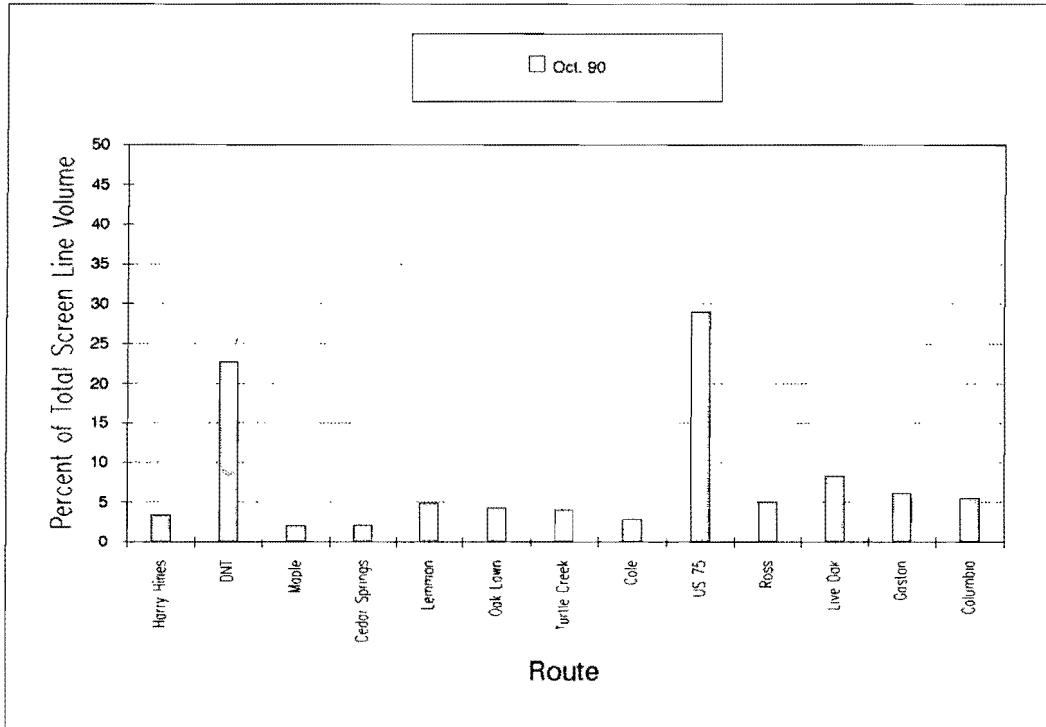


b) Southbound

Figure B-6. Percent of Total Screen Line Volume by Route:
Mockingbird/Buckner - 24 Hour Period (October 1989 and 1990)

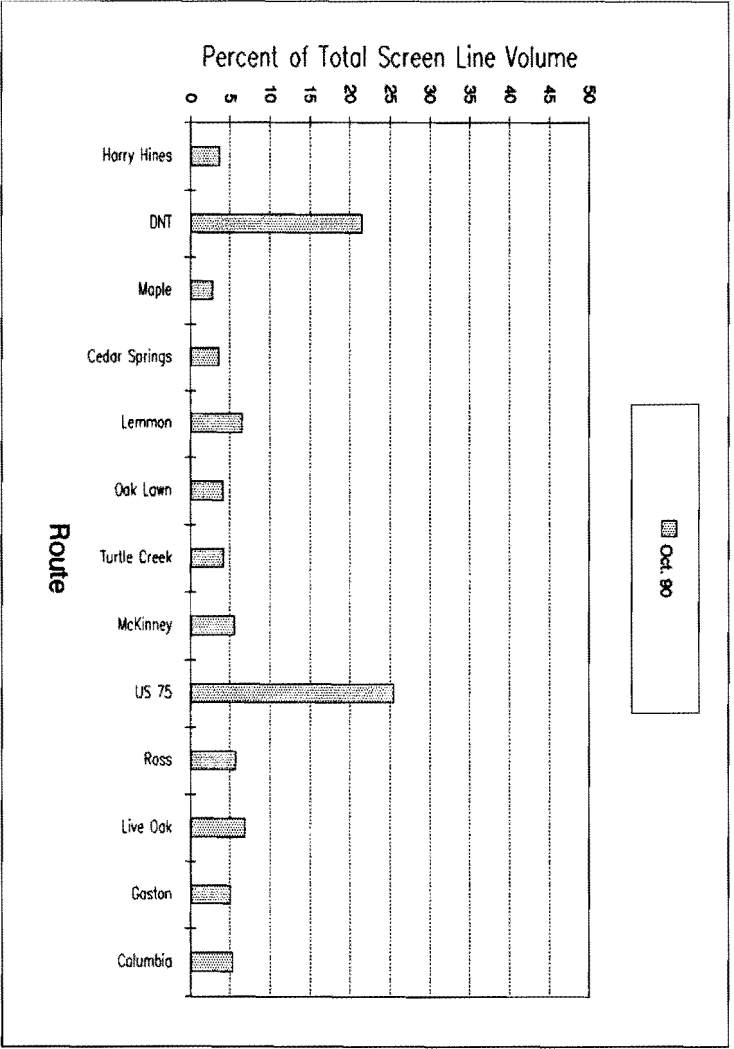


a) Northbound

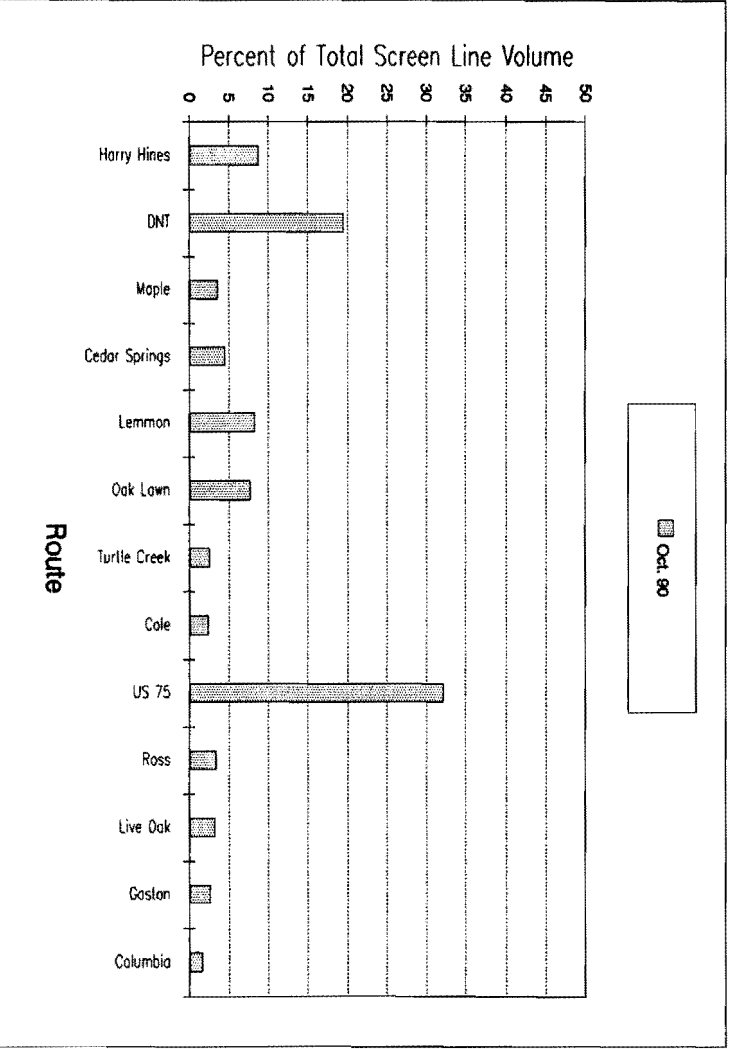


b) Southbound

Figure B-7. Percent of Total Screen Line Volume by Route:
Oak Lawn/ Lemmon/ Peak - A.M. Peak Period (October 1990)

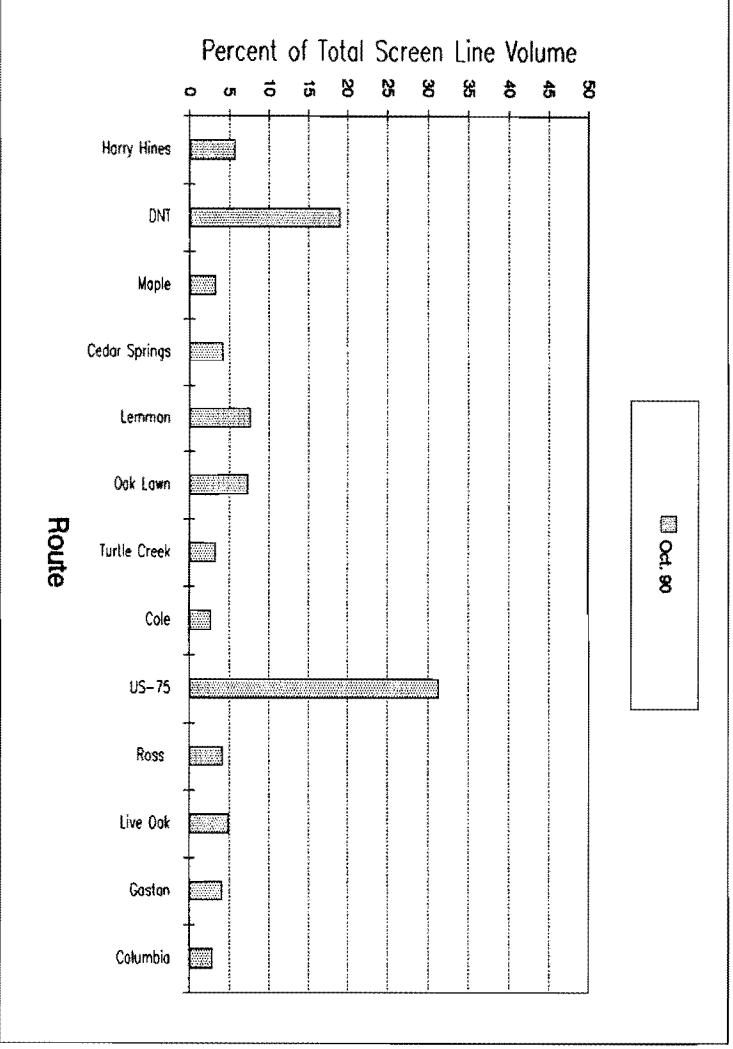
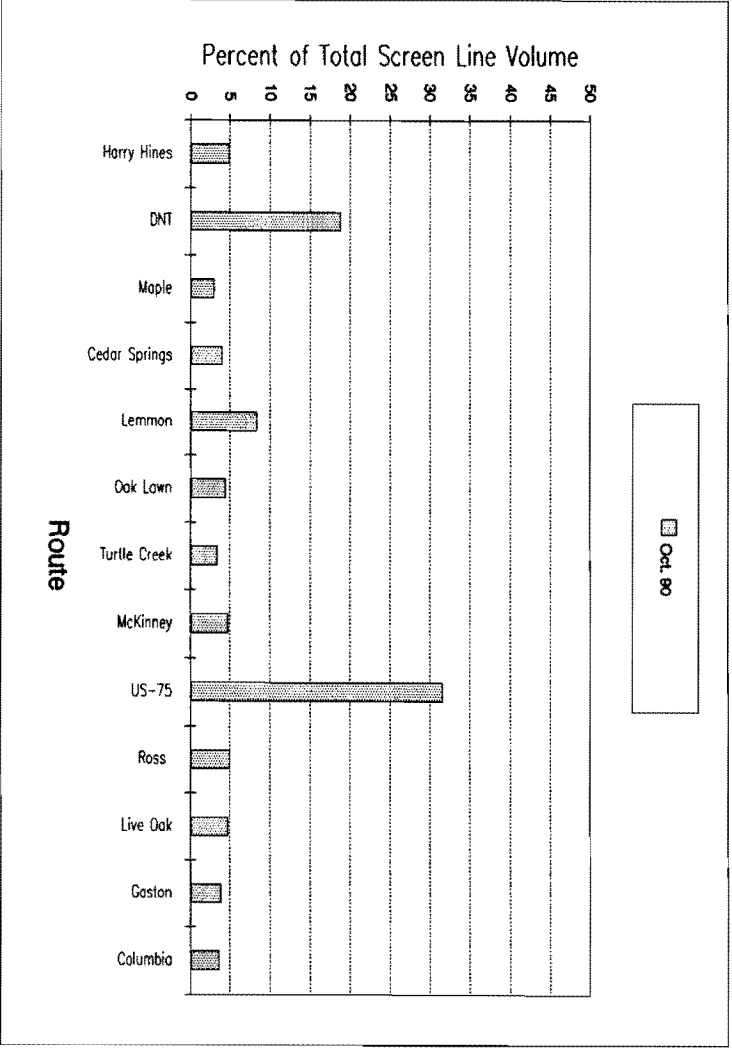


a) Northbound



b) Southbound

Figure B-8. Percent of Total Screen Line Volume by Route:
Oak Lawn/Lemmon/Peak - P.M. Peak Period (October 1990)



**Figure B-9. Percent of Total Screen Line Volume by Route:
Oak Lawn/Lemmon/Peak - 24 Hour Period (October 1990)**

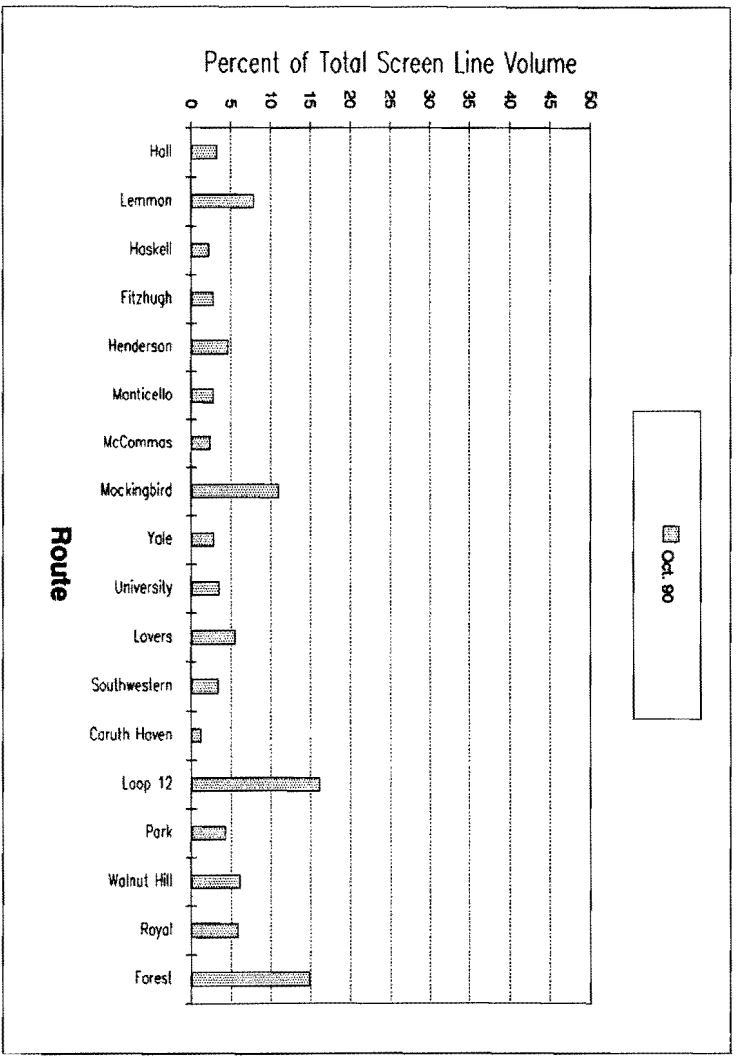
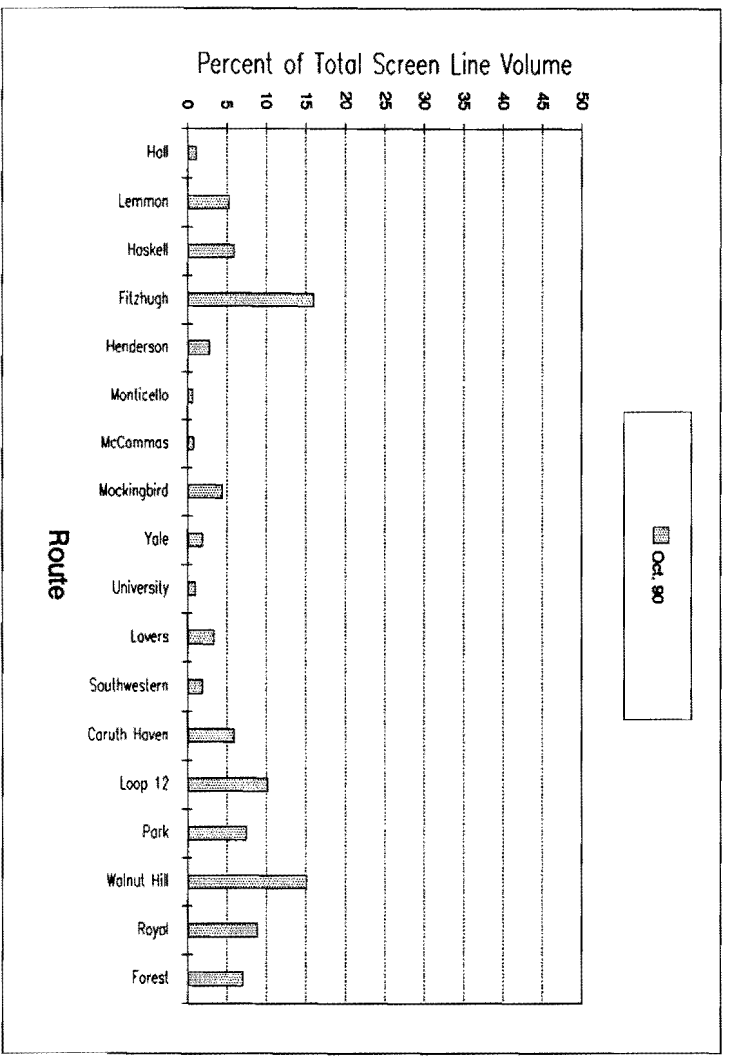


Figure B-10. Percent of Total Screen Line Volume by Route:
US-75 - A.M. Peak Period (October 1990)

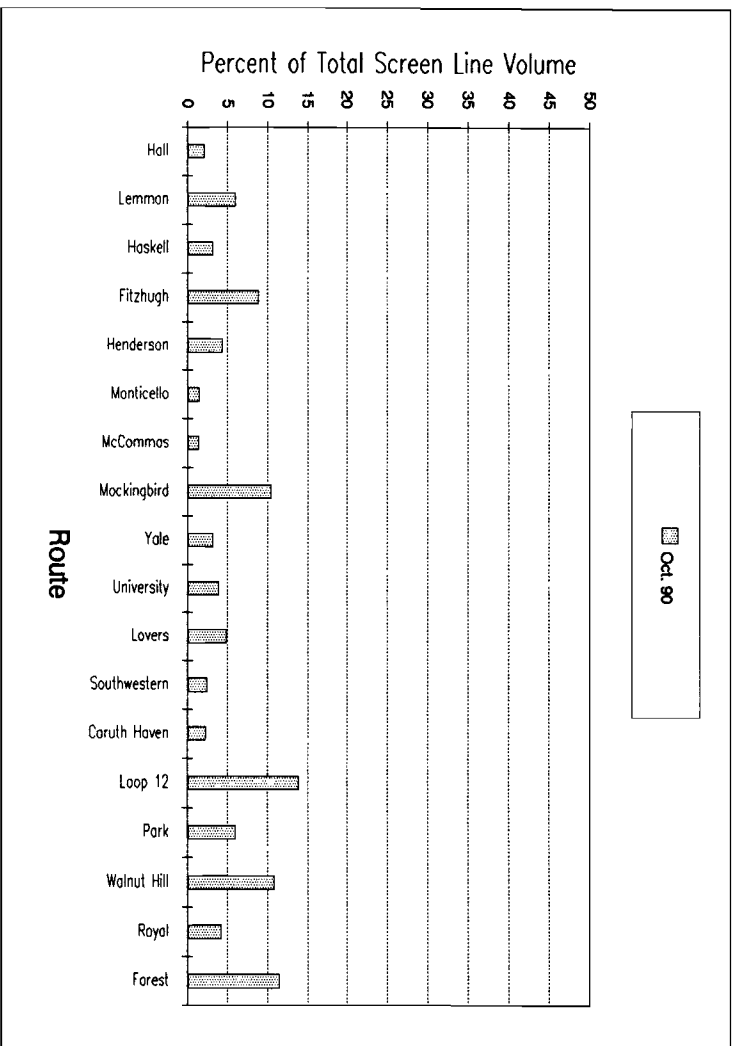
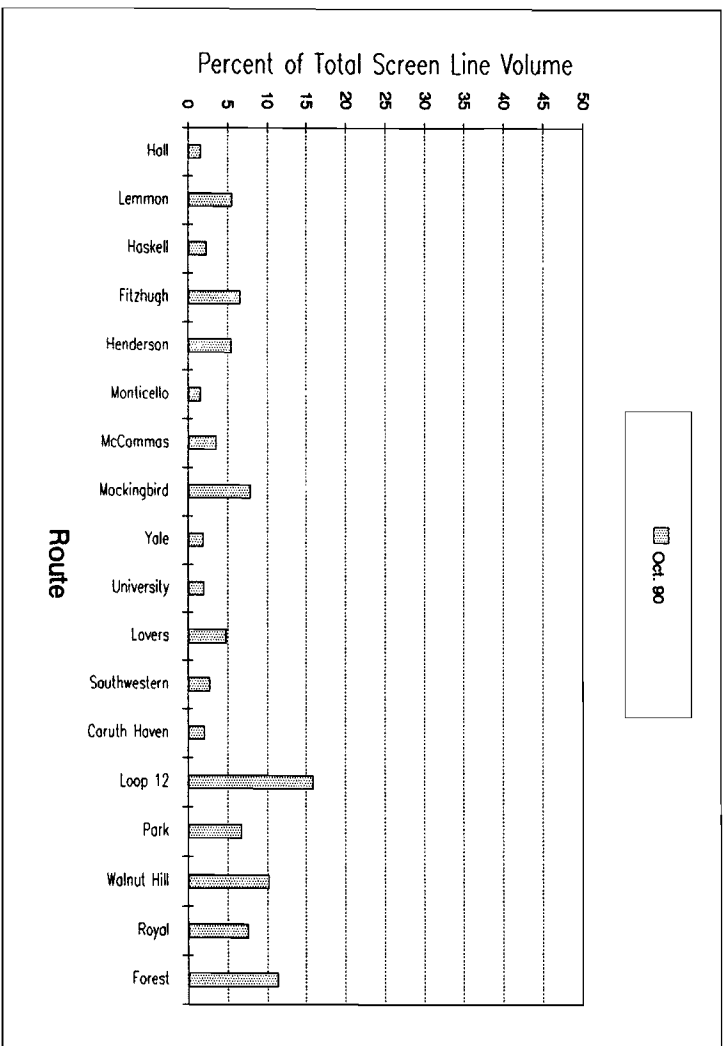
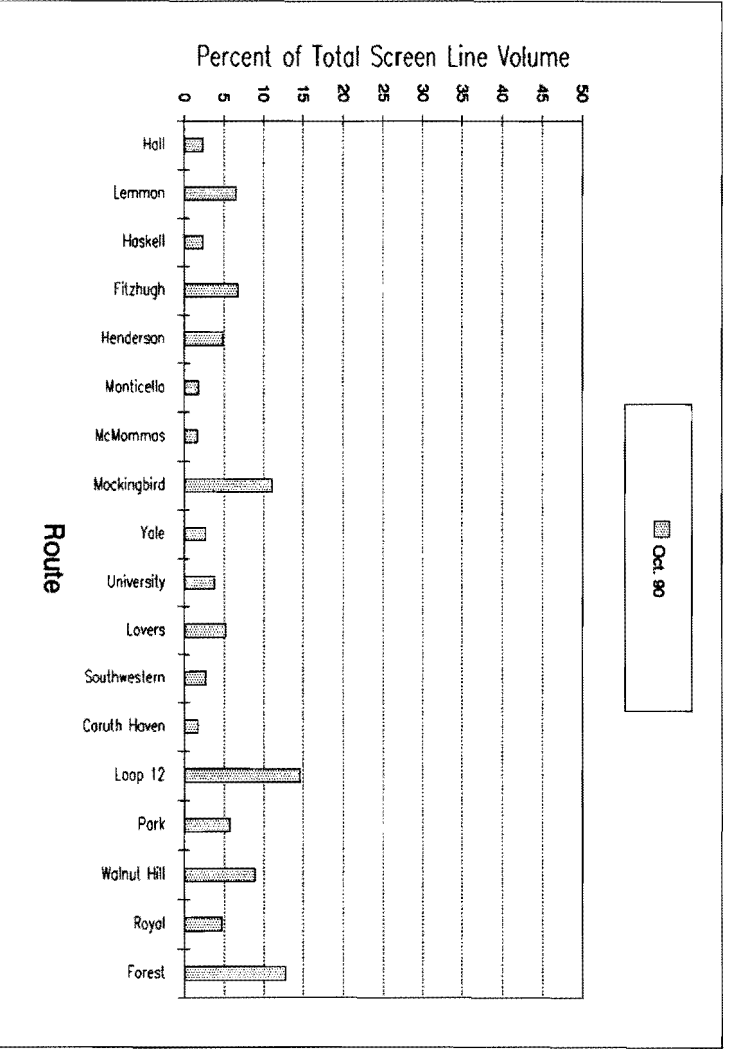
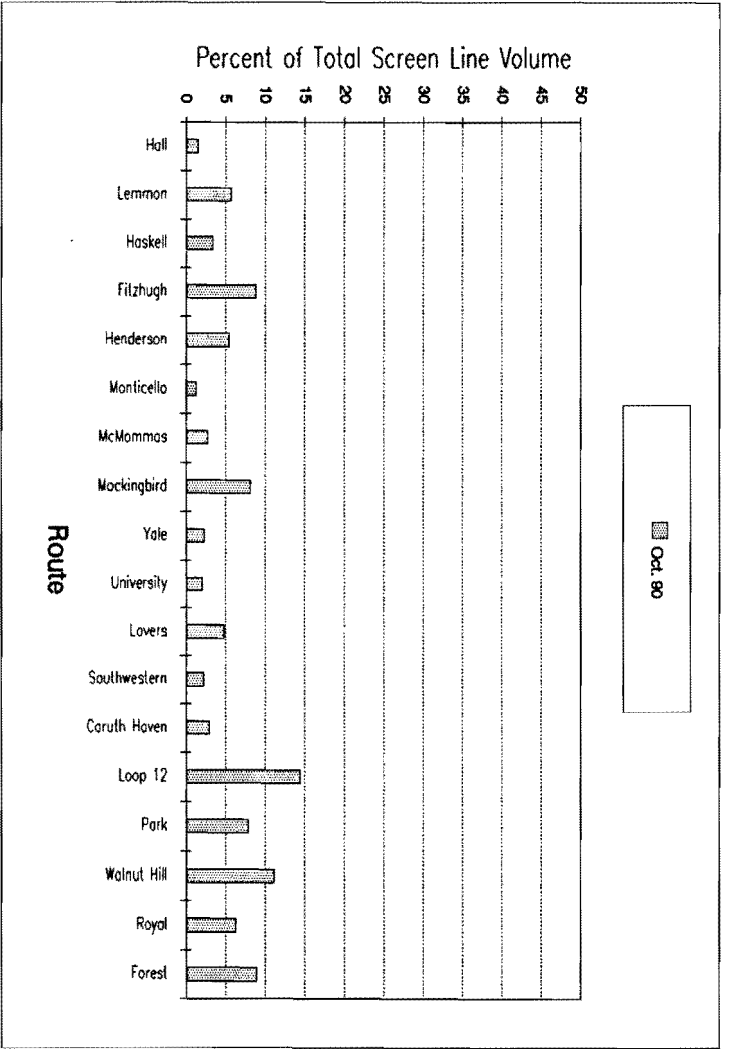


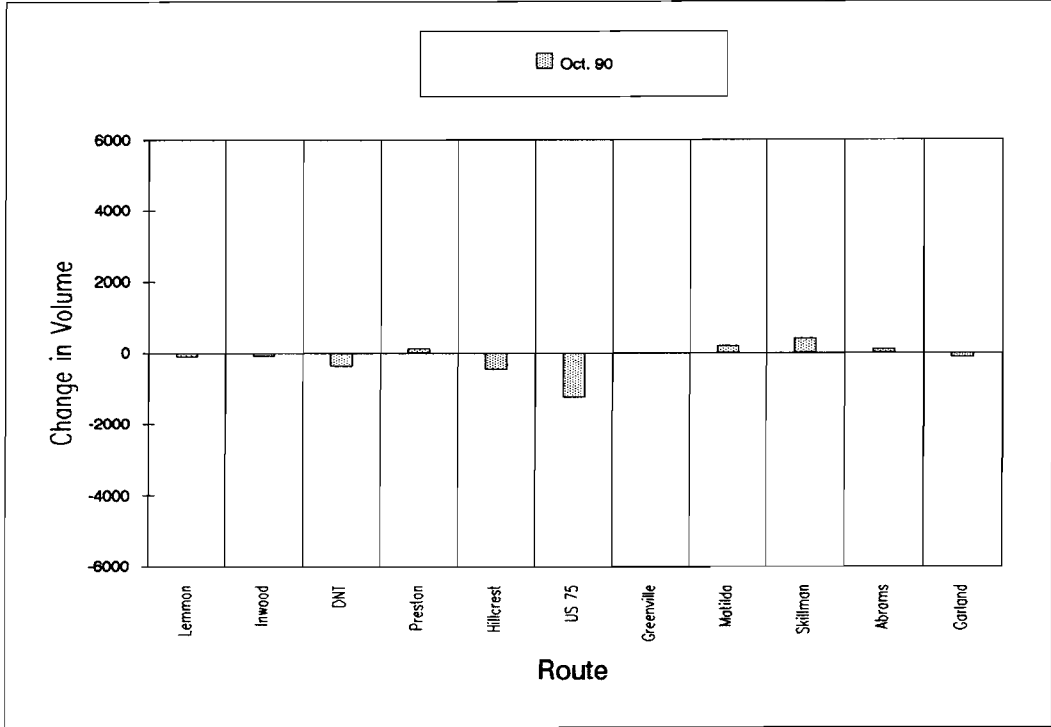
Figure B-11. Percent of Total Screen Line Volume by Route:
US-75 - P.M. Peak Period (October 1990)



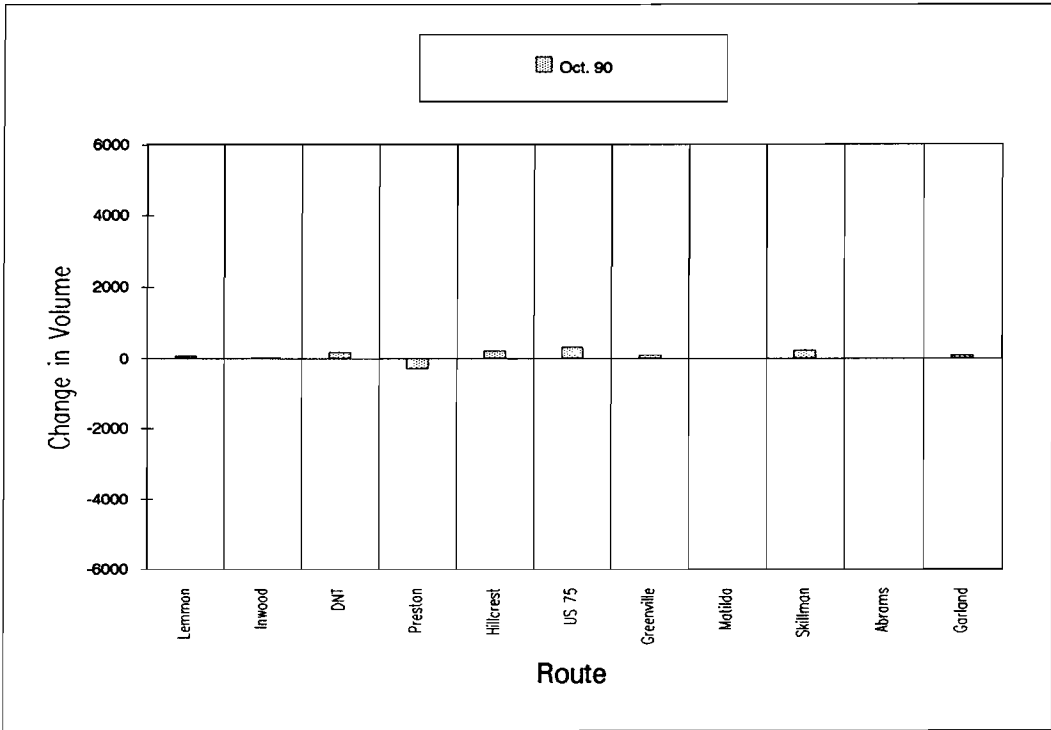
**Figure B-12. Percent of Total Screen Line Volume by Route:
US-75 - 24 Hour Period (October 1990)**

APPENDIX C

CHANGES IN VOLUME FROM OCTOBER 1989 TO OCTOBER 1990

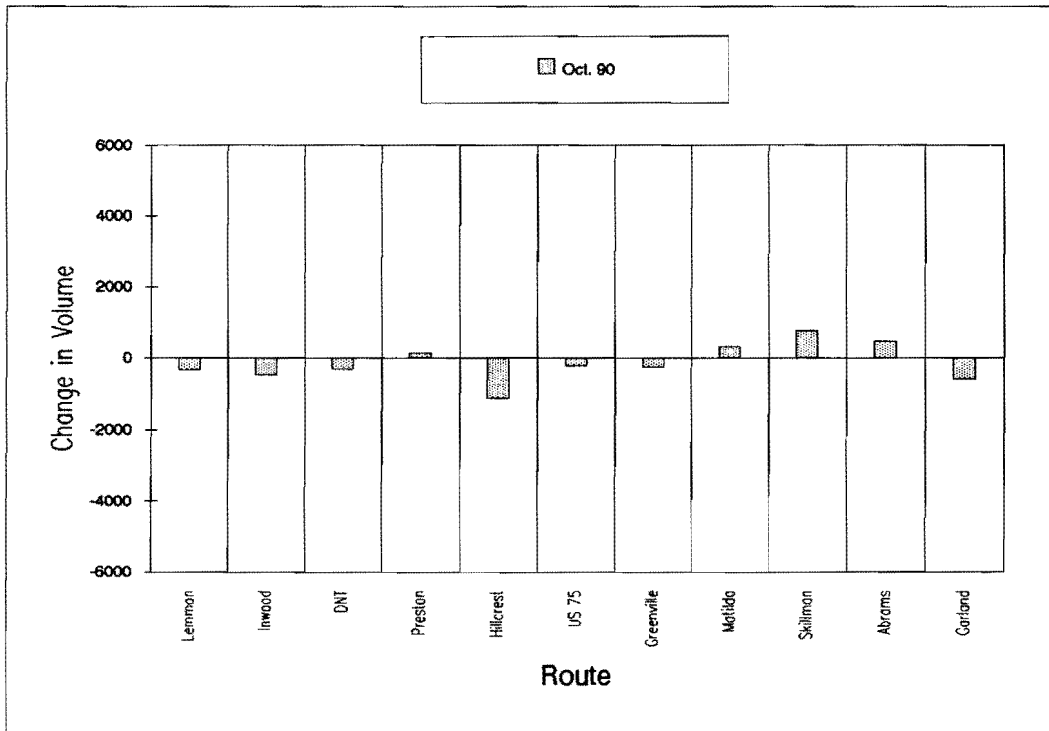


a) Northbound

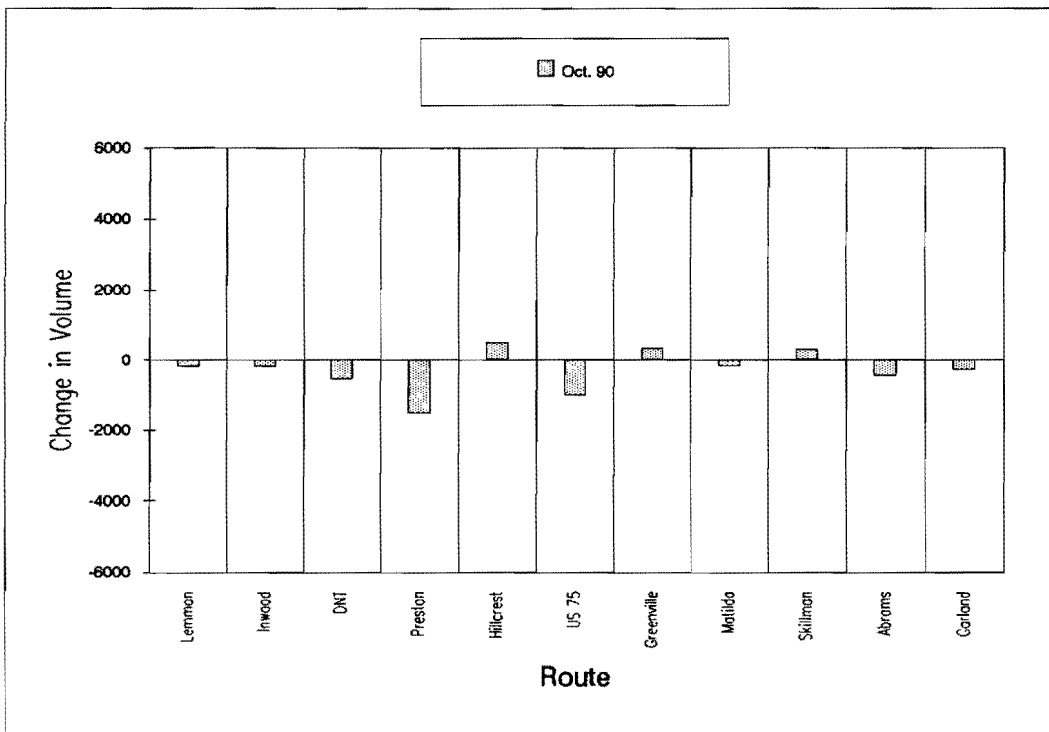


b) Southbound

Figure C-1. Change in Volume as Compared to October 1989
Mockingbird/Buckner Screen Line - A.M. Peak Period

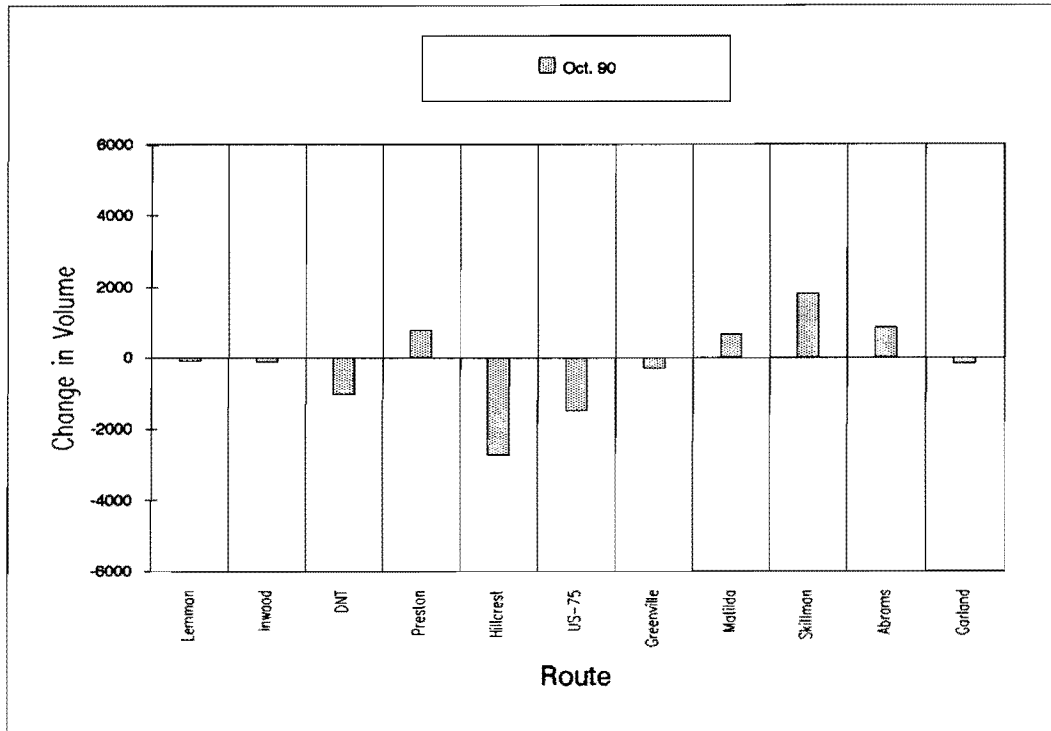


a) Northbound

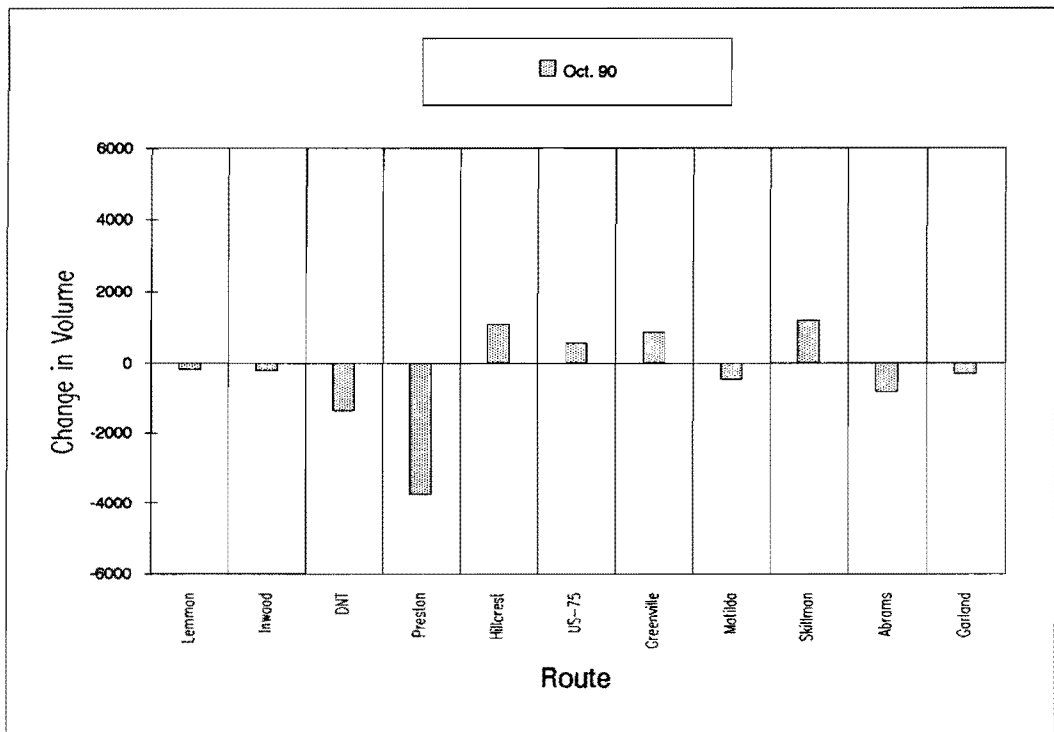


b) Southbound

Figure C-2. Change in Volume as Compared to October 1989
Mockingbird/Buckner Screen Line - P.M. Peak Period



a) Northbound



b) Southbound

Figure C-3. Change in Volume as Compared to October 1989
Mockingbird/Buckner Screen Line - 24 Hour Period

APPENDIX D

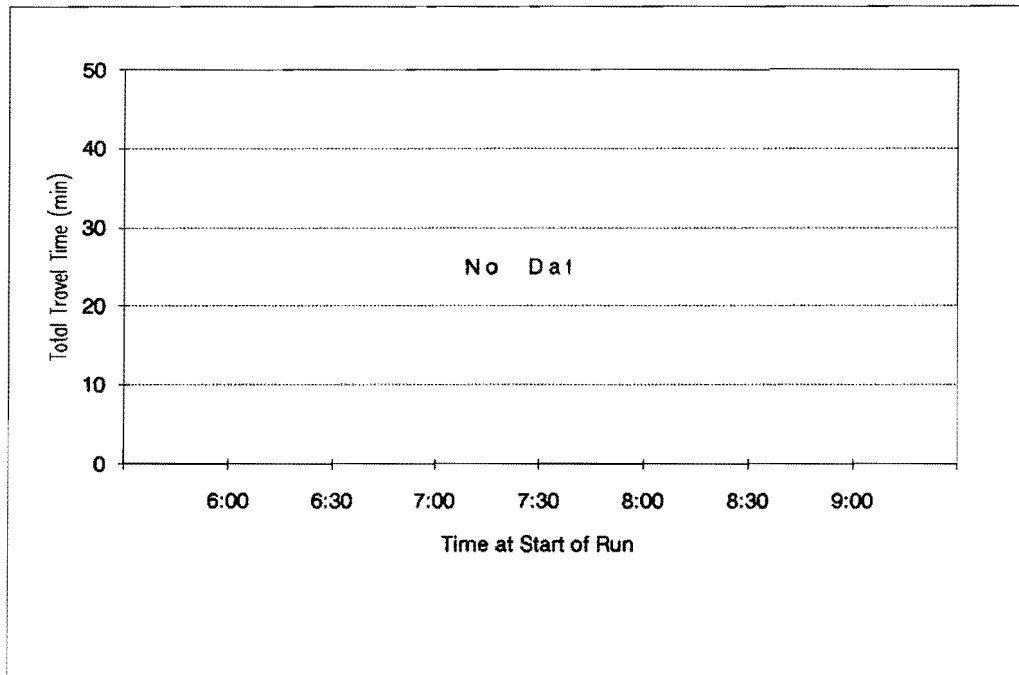
OCTOBER 1990 PEAK PERIOD TRAVEL TIMES

Table D-1. Peak Period, Peak Direction Total Travel Time (min) - (October 1990)

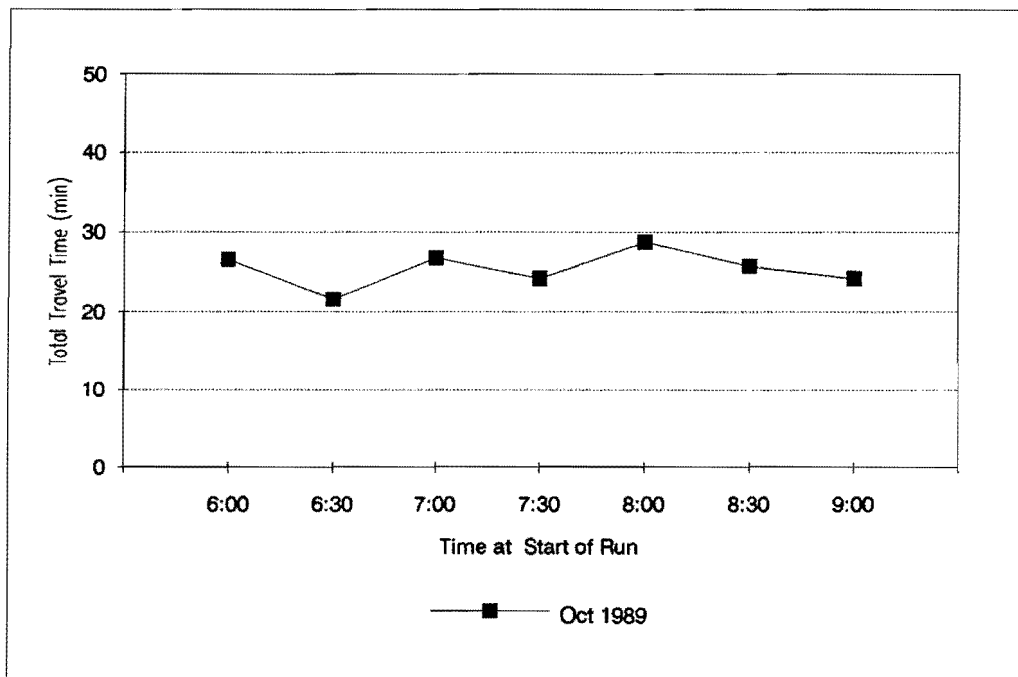
Run Beginning		Alternative Route											
		Garland	Abrams	Skillman	Greenville	US-75	US-75 Fr. Rd.	Hillcrest	Preston	DNT	Inwood	Midway	
A.M. Peak Period	6:00	-	-	-	18.53	10.05	21.17	23.60	21.93	11.30	-	-	
	6:30	-	-	-	18.17	10.03	23.60	25.08	24.53	12.00	-	-	
	7:00	-	-	-	17.58	17.33	23.42	25.40	24.82	11.95	-	-	
	7:30	-	-	-	23.37	30.02	31.86	39.05	24.72	16.23	-	-	
	South-bound	8:00	-	-	-	25.60	26.40	25.78	27.37	26.10	19.17	-	-
		8:30	-	-	-	24.08	18.30	26.65	30.08	25.55	15.18	-	-
		9:00	-	-	-	18.78	12.58	24.71	25.20	22.83	11.13	-	-
P.M. Peak Period	3:00	-	-	-	22.38	13.42	20.72	31.40	23.65	13.38	-	-	
	3:30	-	-	-	24.83	12.44	21.16	28.45	25.90	12.67	-	-	
	4:00	-	-	-	27.15	13.85	24.24	27.57	26.50	14.42	-	-	
	4:30	-	-	-	29.10	18.79	27.83	24.17	26.87	11.78	-	-	
	North-Bound	5:00	-	-	-	32.93	25.70	31.36	35.73	33.00	19.50	-	-
		5:30	-	-	-	29.12	30.25	33.39	33.02	31.93	39.32	-	-
		6:00	-	-	-	26.85	24.60	28.27	22.23	28.87	17.03	-	-
		6:30	-	-	-	24.65	25.04	22.02	25.82	25.63	19.08	-	-
		7:00	-	-	-	20.53	12.86	21.86	23.67	21.88	13.43	-	-

Table D-2. Peak Period, Off-Peak Direction Total Travel Time (min) - (October 1990)

Run Beginning		Alternative Route										
		Garland	Abrams	Skillman	Greenville	US-75	US-75 Fr. Rd.	Hillcrest	Preston	DNT	Inwood	Midway
A.M. Peak Period North-bound	6:00	-	-	-	16.98	9.79	20.11	22.98	-	10.98	-	-
	6:30	-	-	-	19.17	10.94	26.43	27.18	25.55	13.13	-	-
	7:00	-	-	-	22.52	10.66	27.33	28.97	23.63	12.52	-	-
	7:30	-	-	-	25.28	15.96	28.64	29.03	28.92	14.25	-	-
	8:00	-	-	-	25.95	18.60	27.13	31.02	29.13	18.32	-	-
	8:30	-	-	-	23.25	12.98	26.35	26.95	28.50	16.82	-	-
	9:00	-	-	-	20.50	10.21	19.81	25.38	28.82	12.52	-	-
P.M. Peak Period South-Bound	3:00	-	-	-	21.50	11.06	22.20	25.13	28.28	13.00	-	-
	3:30	-	-	-	23.85	12.52	25.31	27.75	25.83	12.50	-	-
	4:00	-	-	-	27.17	13.18	32.05	28.55	27.42	12.65	-	-
	4:30	-	-	-	26.20	14.47	29.23	29.45	26.02	12.05	-	-
	5:00	-	-	-	27.80	13.13	32.51	28.22	26.17	12.42	-	-
	5:30	-	-	-	24.38	14.54	38.24	21.70	29.67	12.78	-	-
	6:00	-	-	-	24.43	12.71	34.23	24.40	27.58	12.05	-	-
	6:30	-	-	-	22.03	11.03	26.80	22.43	23.90	12.42	-	-
	7:00	-	-	-	21.10	10.76	22.54	23.90	24.62	12.70	-	-

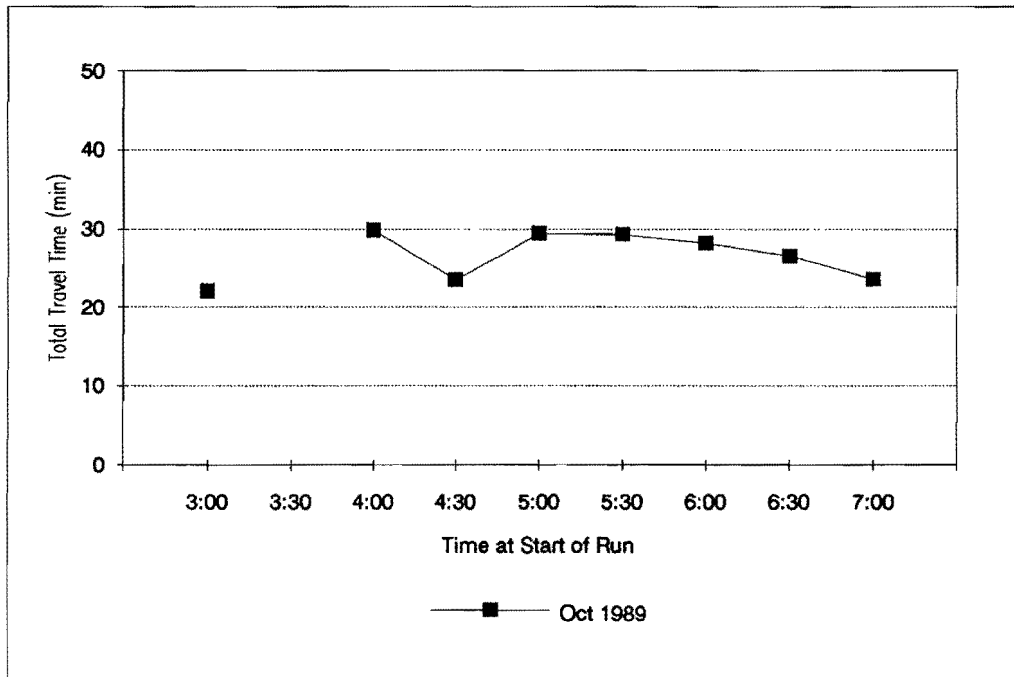


(a) Northbound

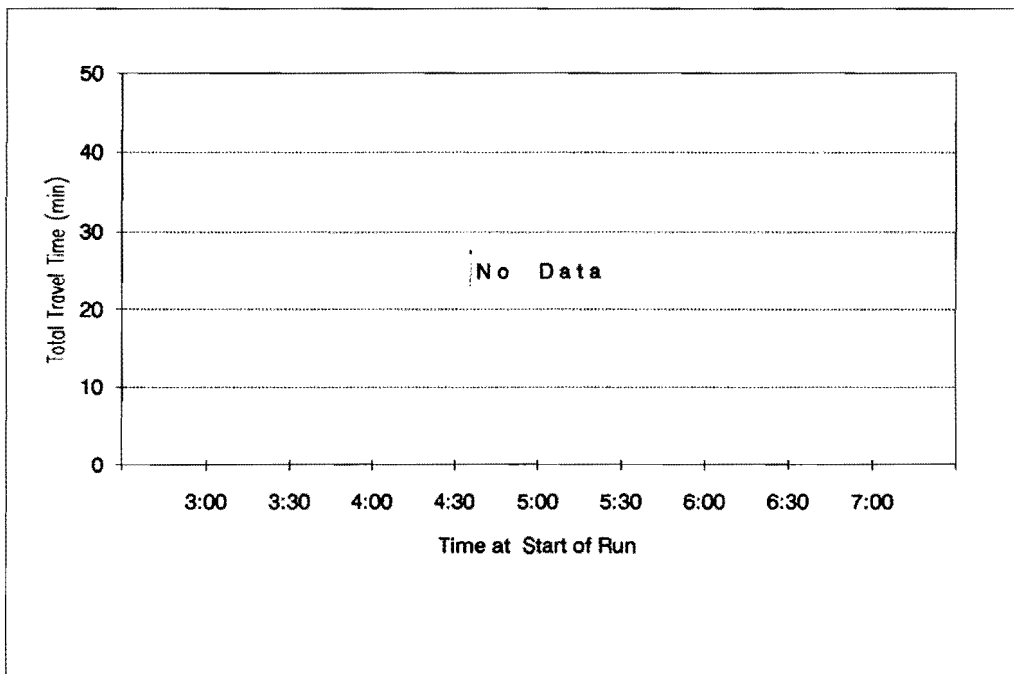


(b) Southbound

Figure D-1. A.M. Peak Period Total Travel Time Between I-635 and CBD: Midway (October 1989)

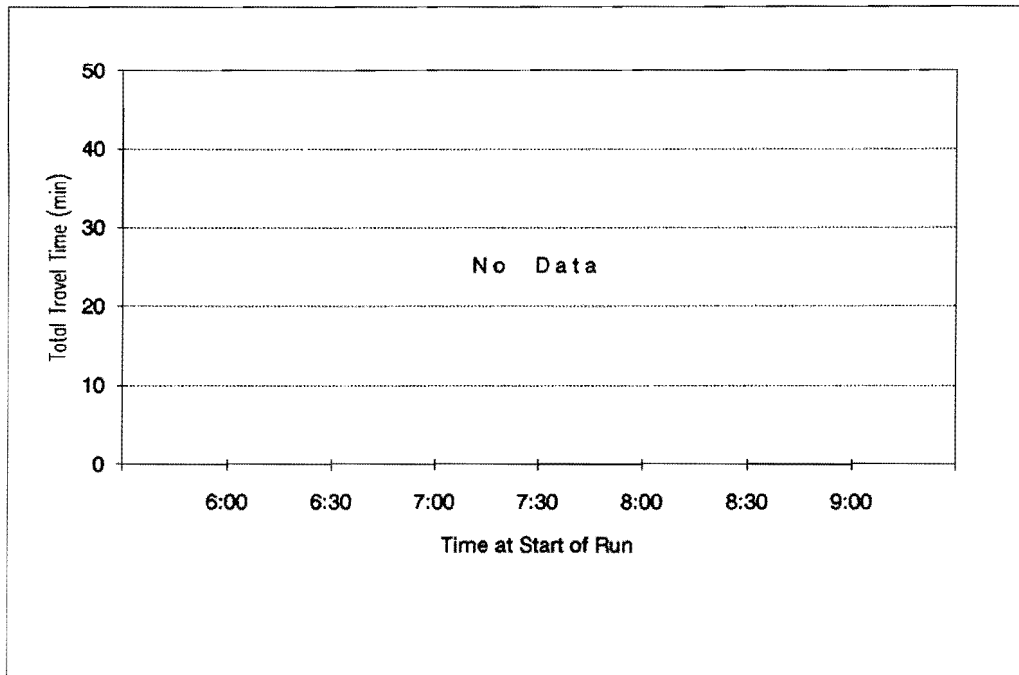


(a) Northbound

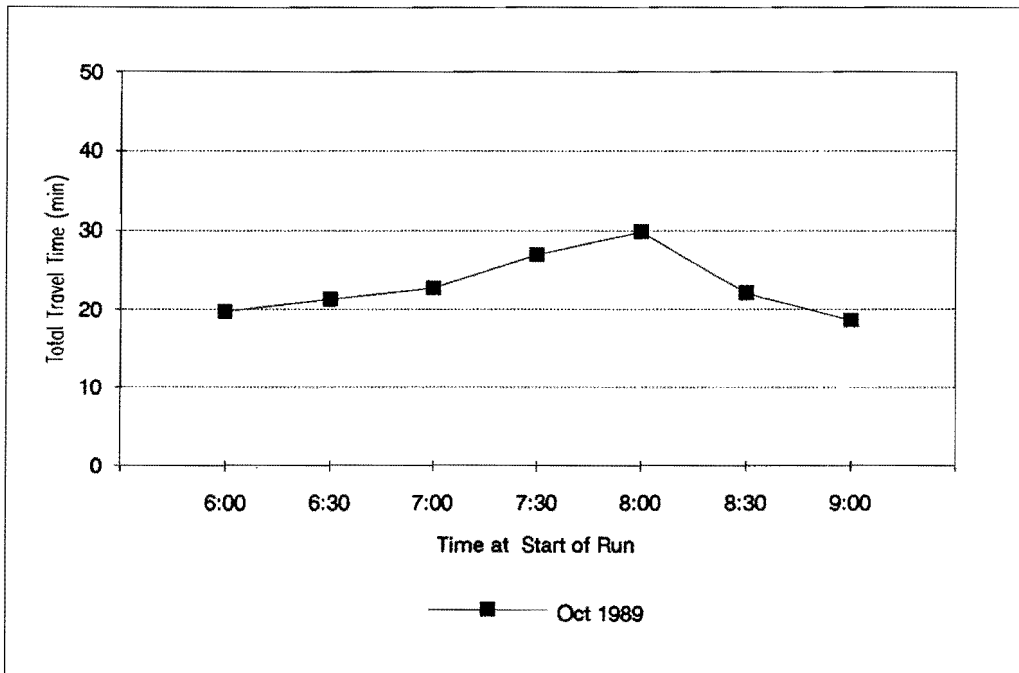


(b) Southbound

Figure D-2. P.M. Peak Period Total Travel Time Between I-635 and CBD: Midway (October 1989)

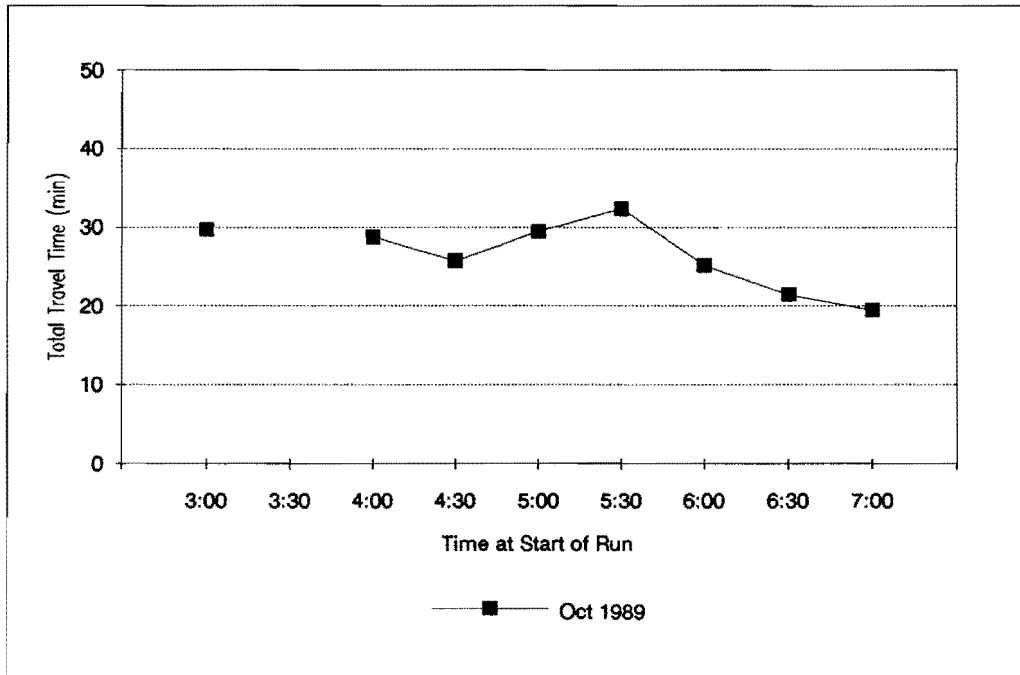


(a) Northbound

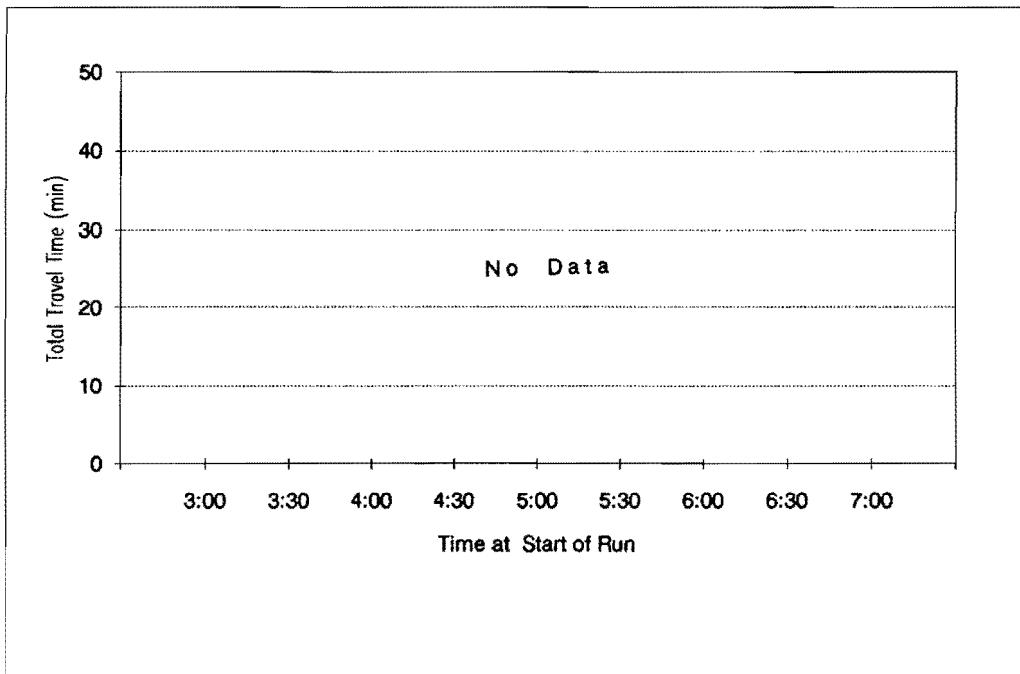


(b) Southbound

Figure D-3. A.M. Peak Period Total Travel Time Between I-635 and CBD: Inwood (October 1989)

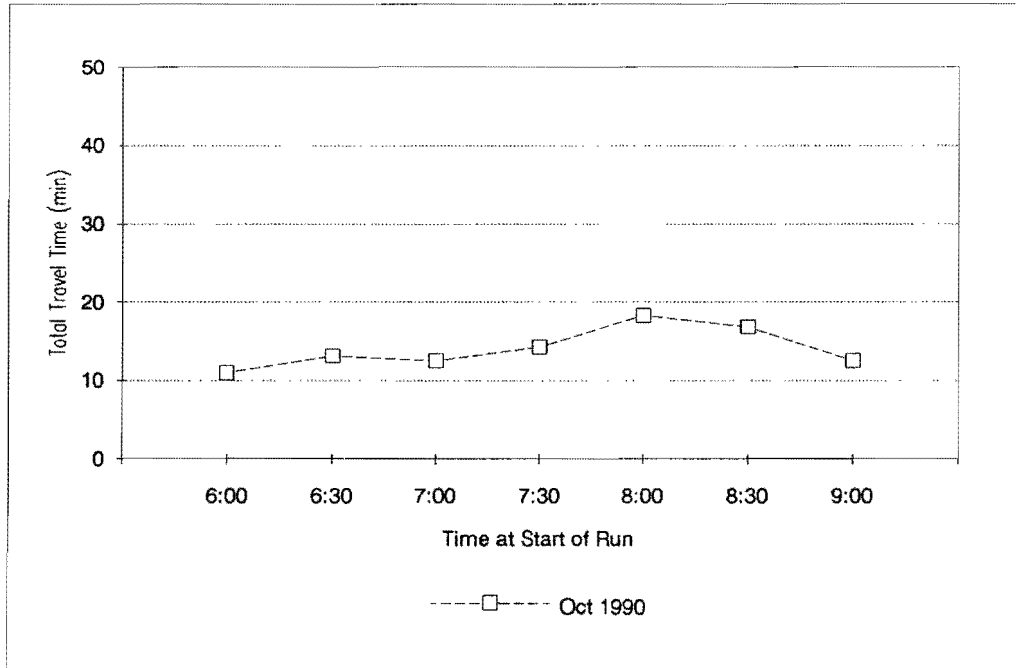


(a) Northbound

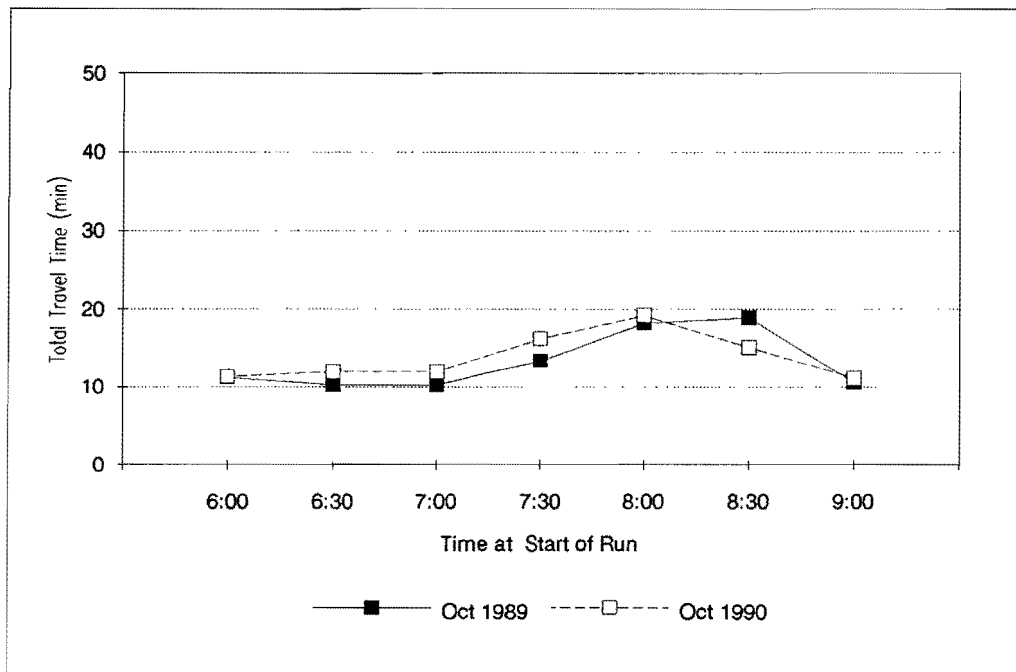


(b) Southbound

Figure D-4. P.M. Peak Period Total Travel Time Between I-635 and CBD: Inwood (October 1989)

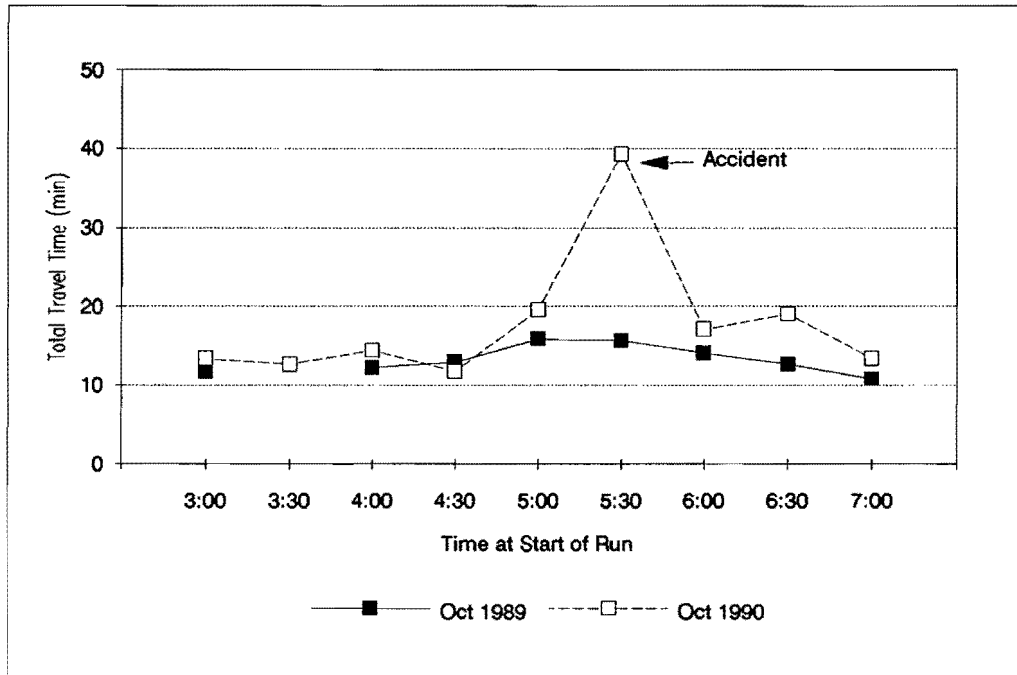


(a) Northbound

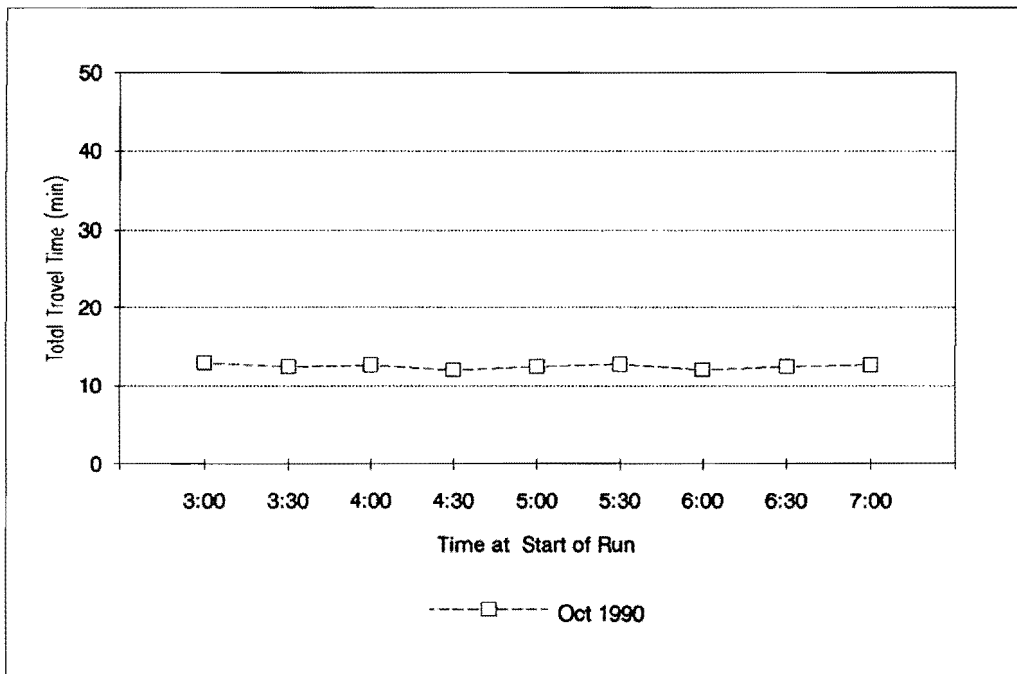


(b) Southbound

Figure D-5. A.M. Peak Period Total Travel Time Between I-635 and CBD: DNT (October 1989 and 1990)

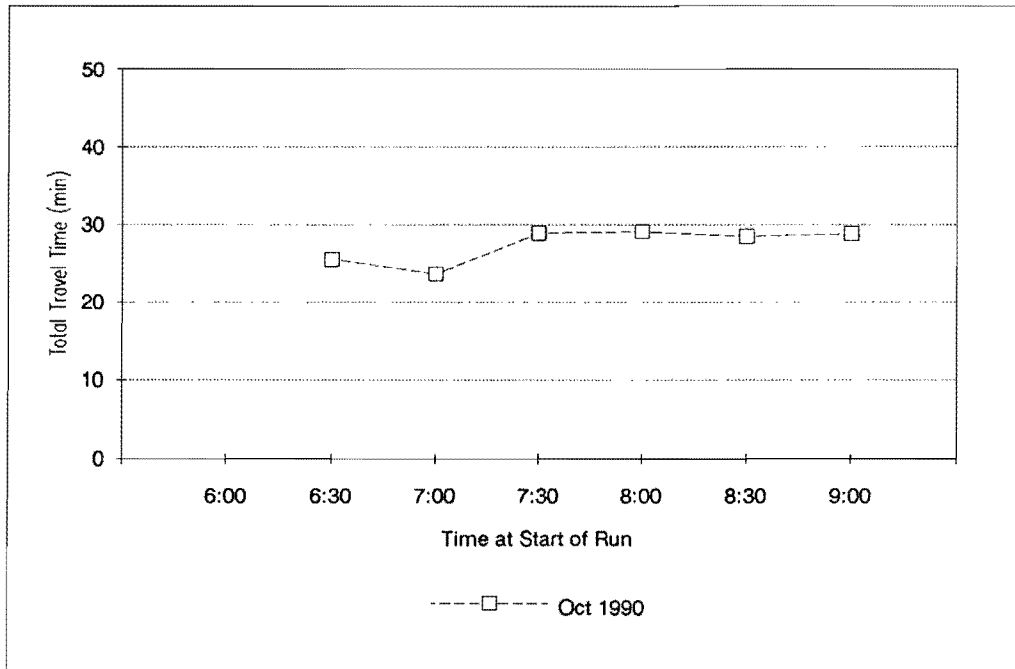


(a) Northbound

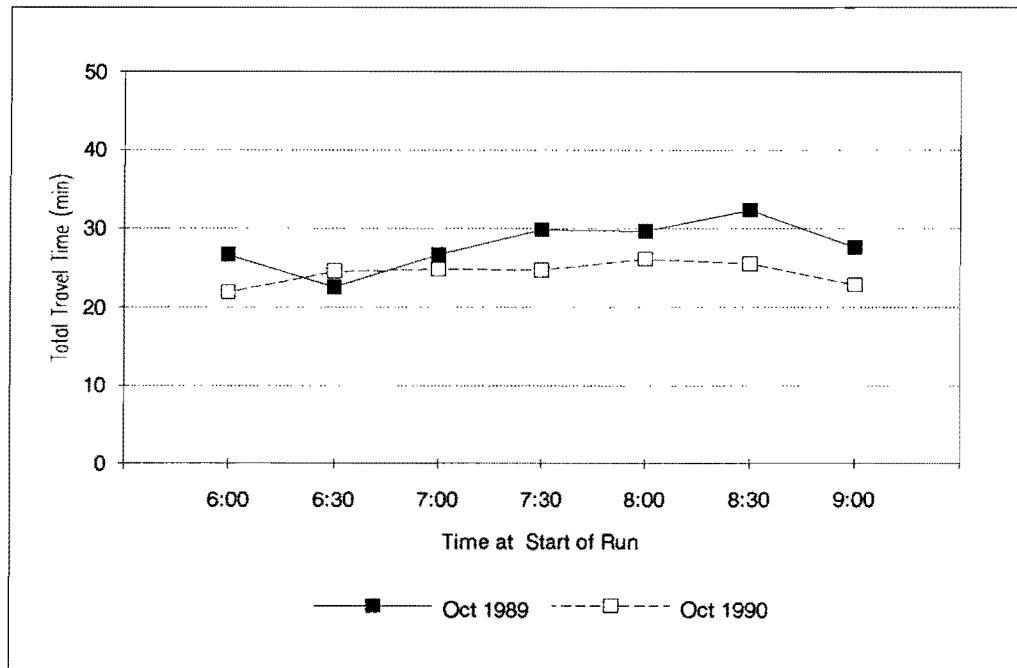


(b) Southbound

Figure D-6. P.M. Peak Period Total Travel Time Between I-635 and CBD: DNT (October 1989 and 1990)

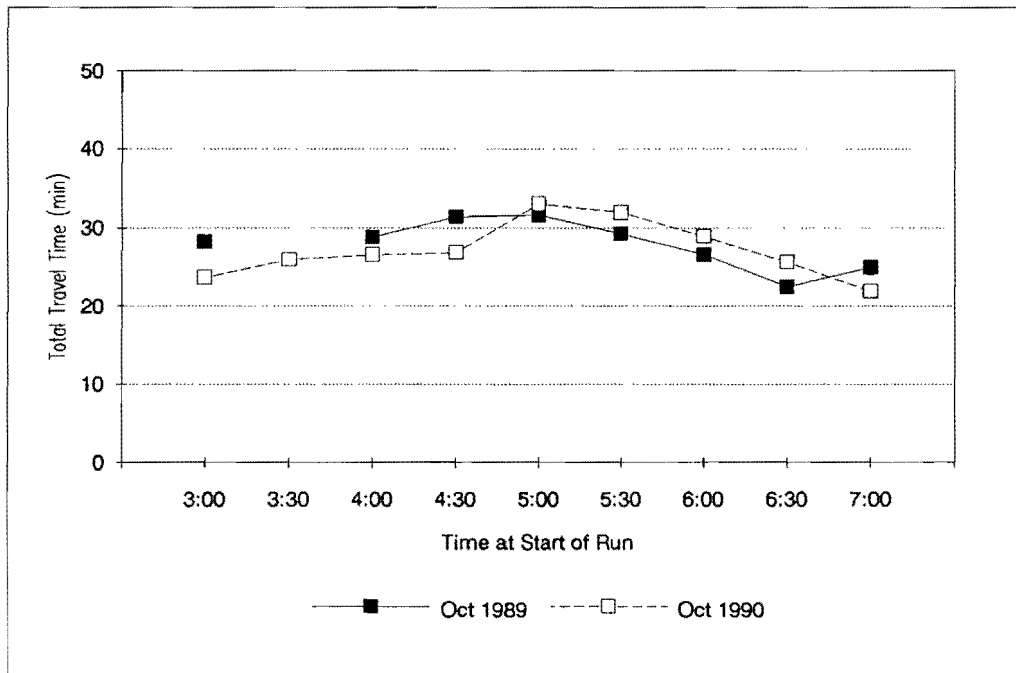


(a) Northbound

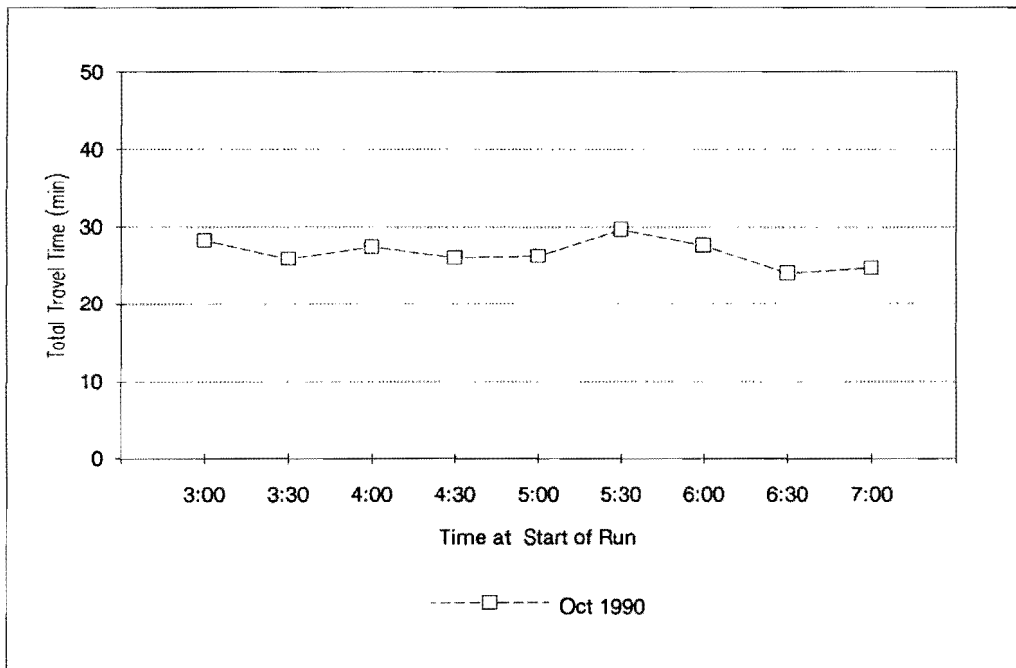


(b) Southbound

Figure D-7. A.M. Peak Period Total Travel Time Between I-635 and CBD: Preston (October 1989 and 1990)

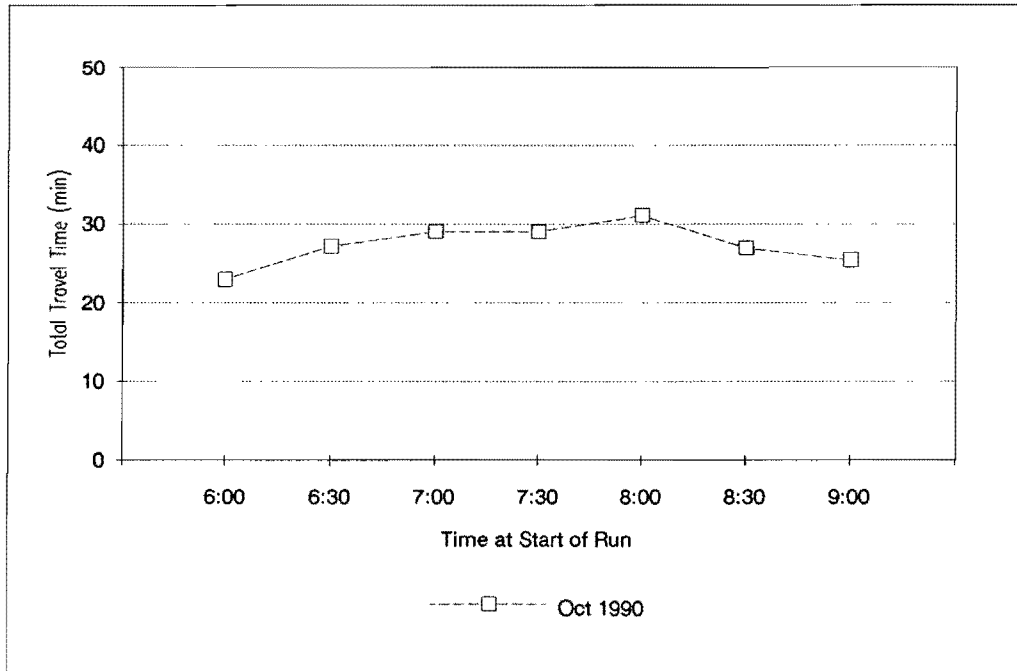


(a) Northbound

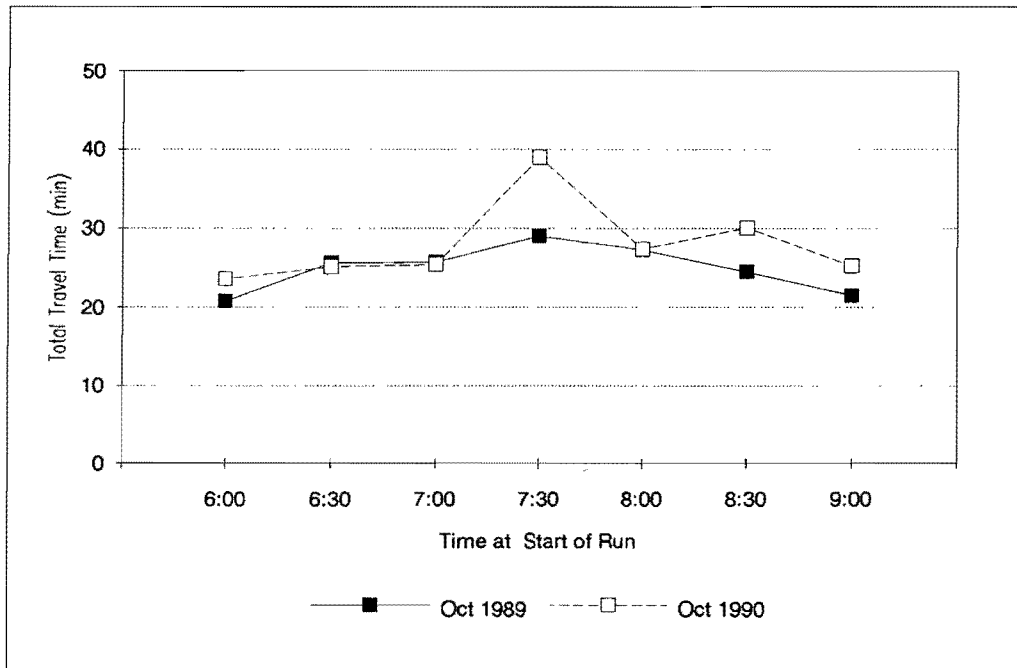


(b) Southbound

Figure D-8. P.M. Peak Period Total Travel Time Between I-635 and CBD: Preston (October 1989 and 1990)

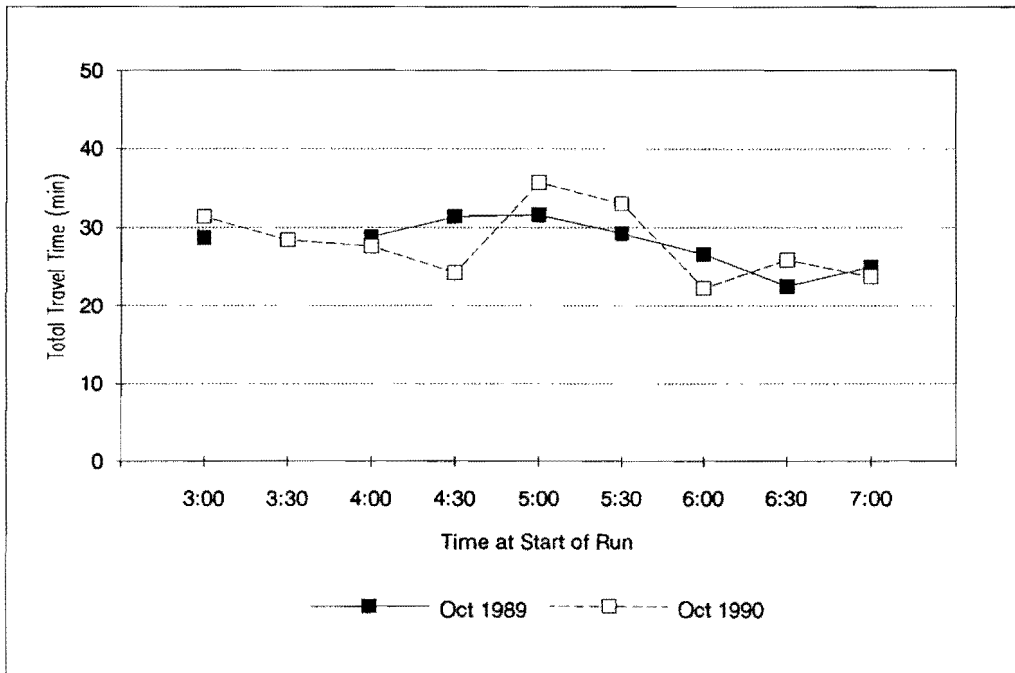


(a) Northbound

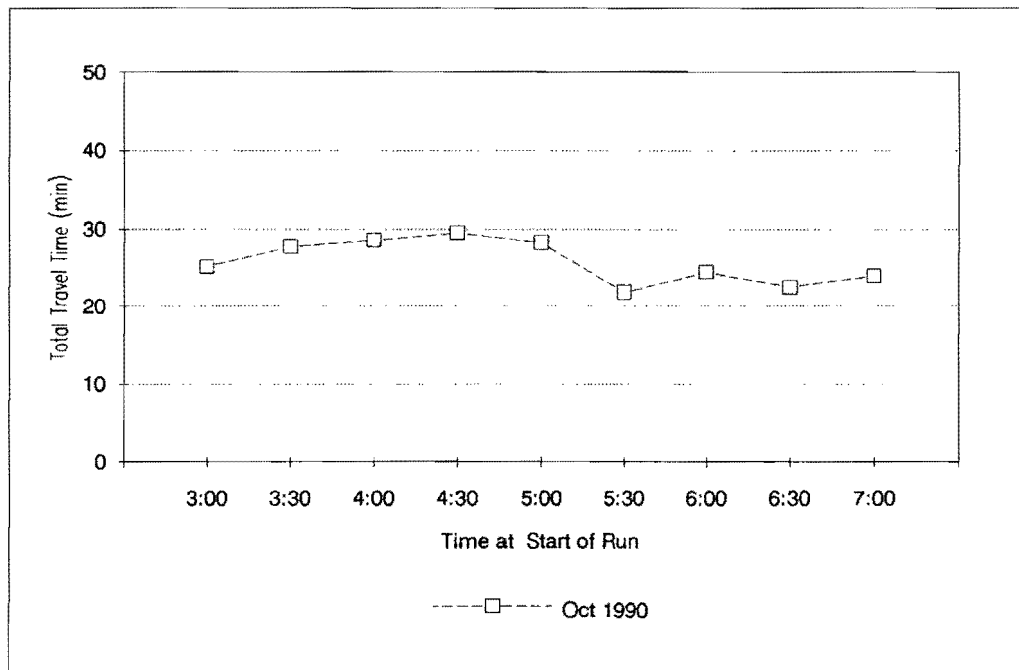


(b) Southbound

Figure D-9. A.M. Peak Period Total Travel Time Between I-635 and CBD: Hillcrest (October 1989 and 1990)

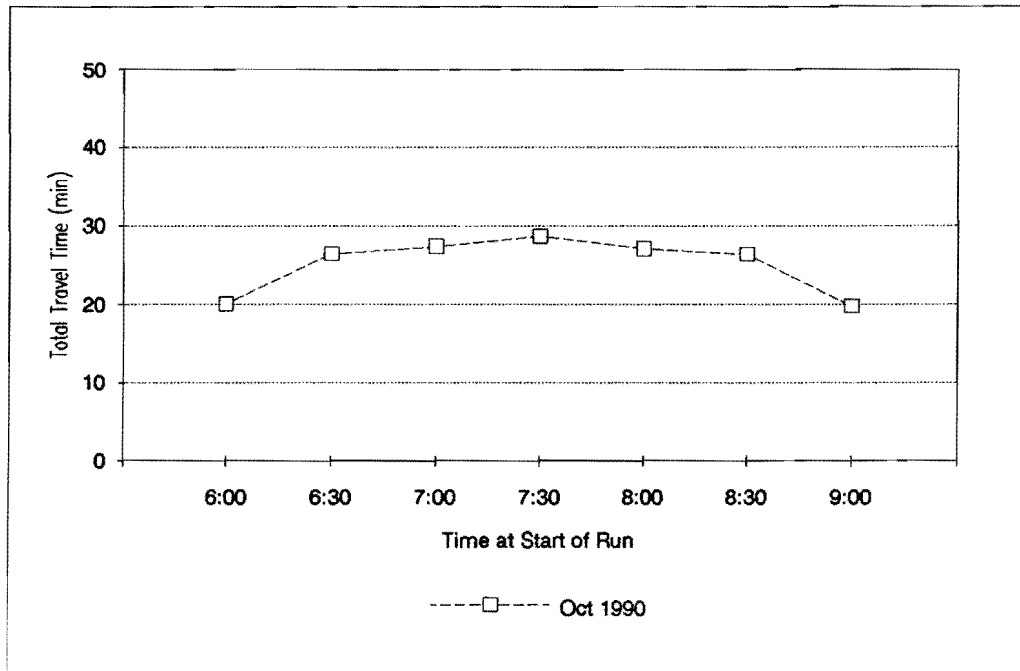


(a) Northbound

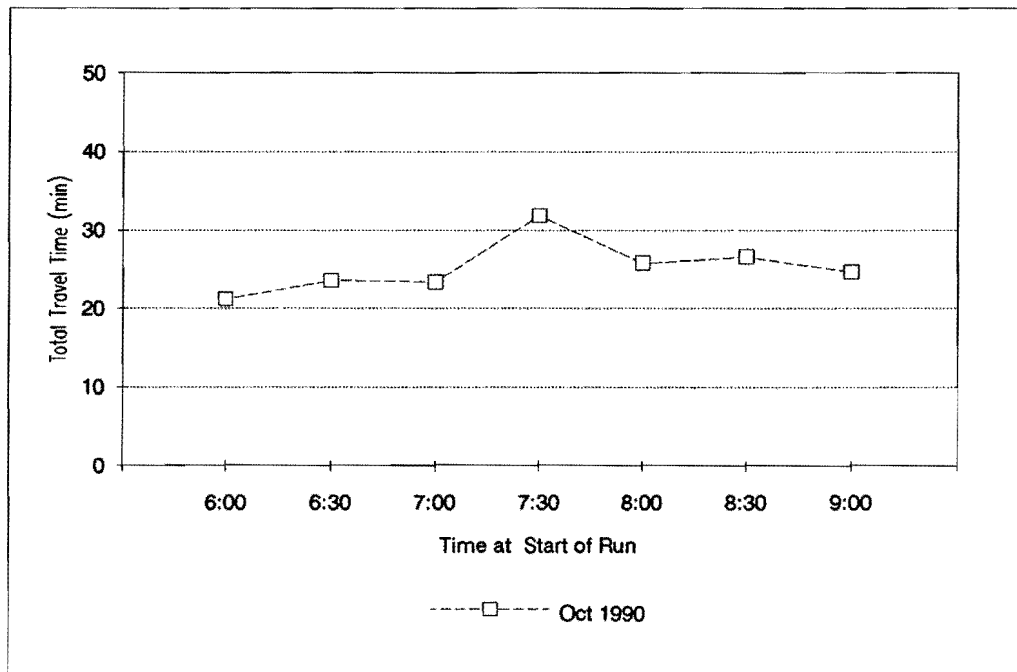


(b) Southbound

Figure D-10. P.M. Peak Period Total Travel Time Between I-635 and CBD: Hillcrest (October 1989 and 1990)

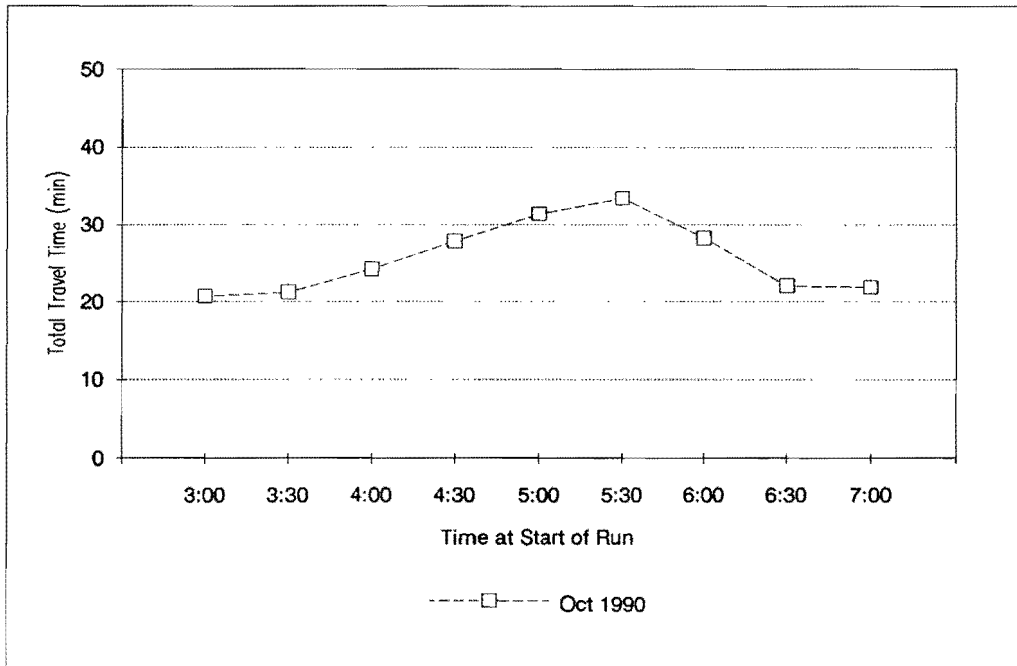


(a) Northbound

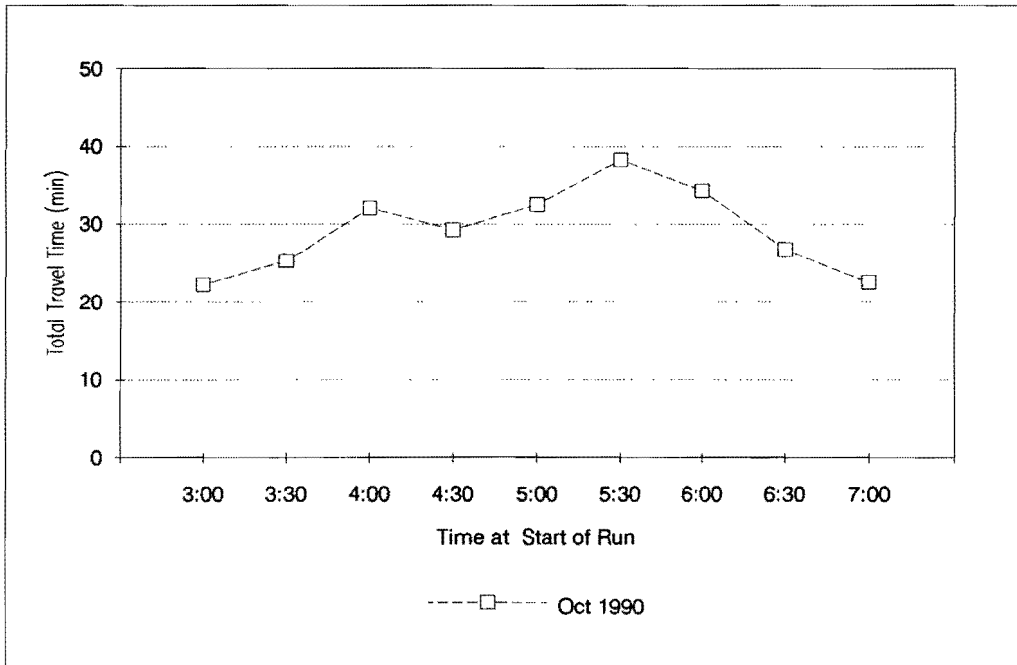


(b) Southbound

Figure D-11. A.M. Peak Period Total Travel Time Between I-635 and CBD: US-75 Frontage Road (October 1990)

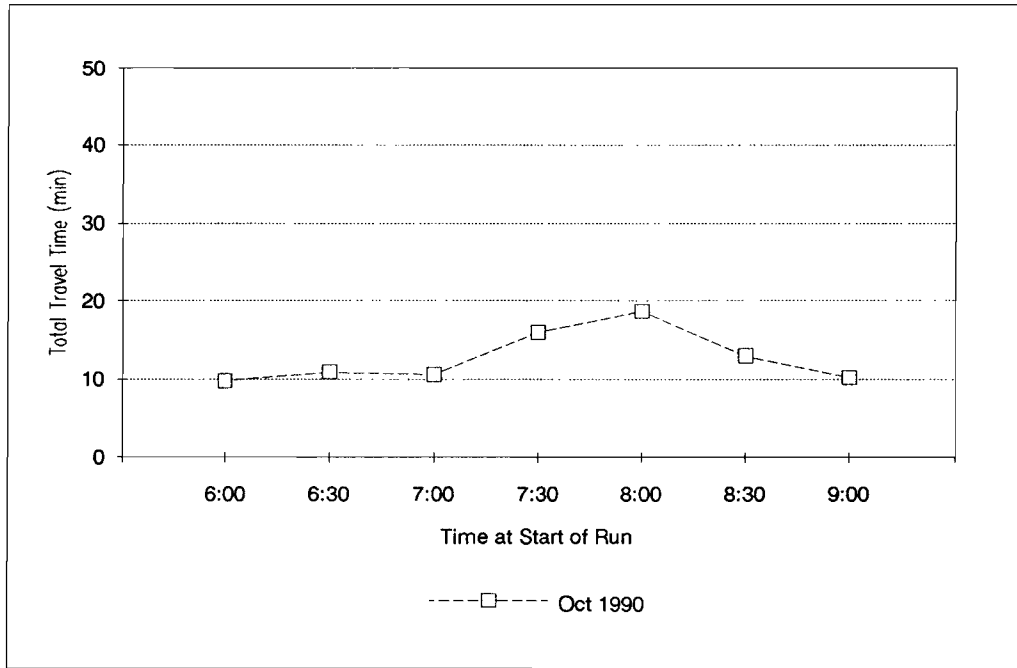


(a) Northbound

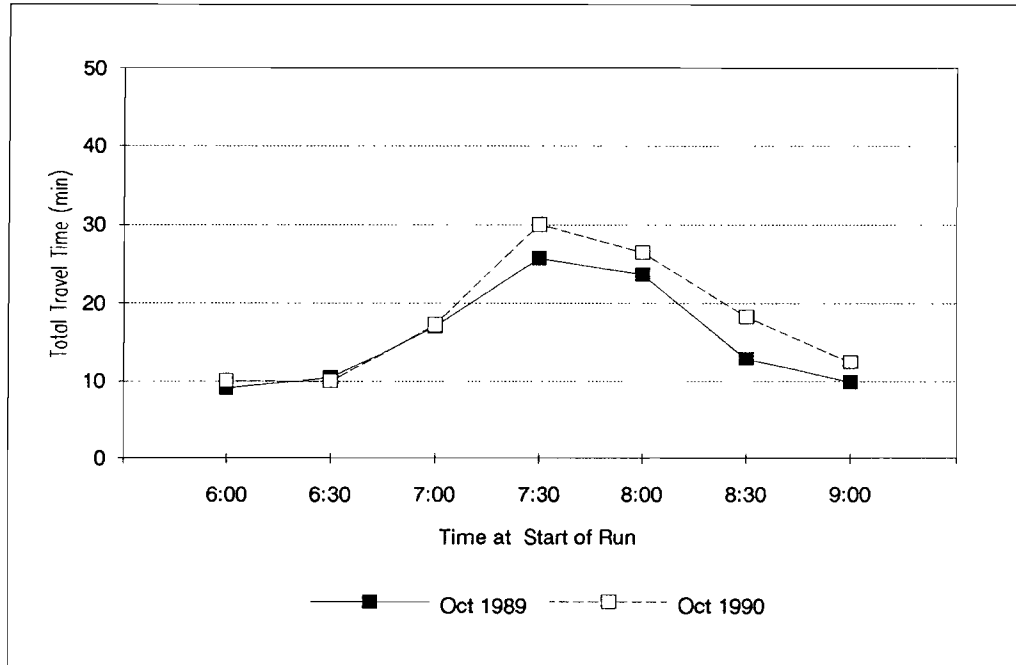


(b) Southbound

Figure D-12. P.M. Peak Period Total Travel Time Between I-635 and CBD: US-75 Frontage Road (October 1990)

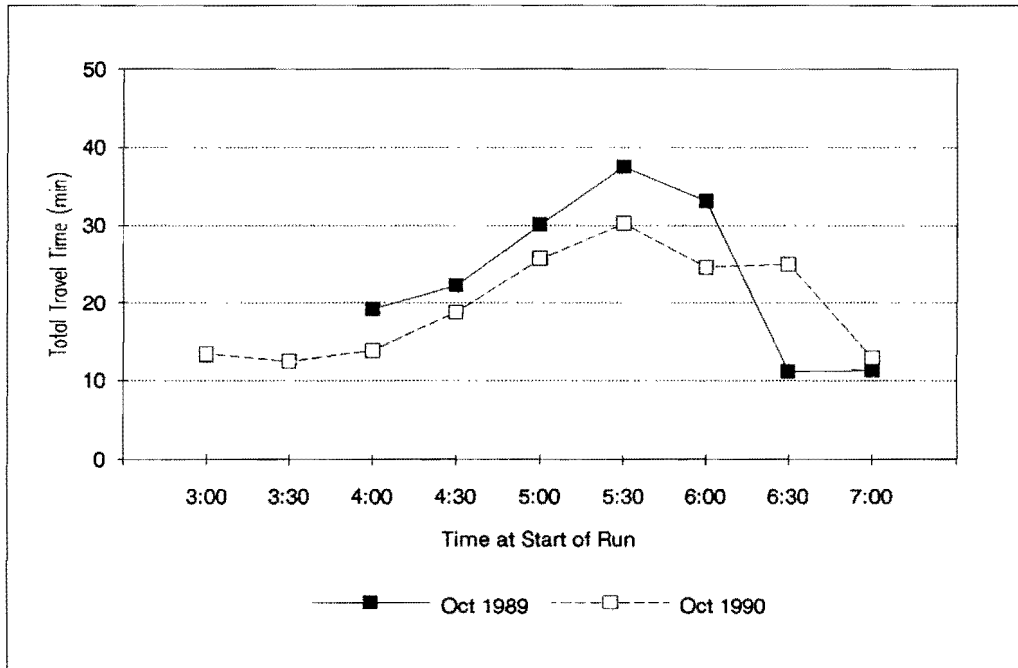


(a) Northbound

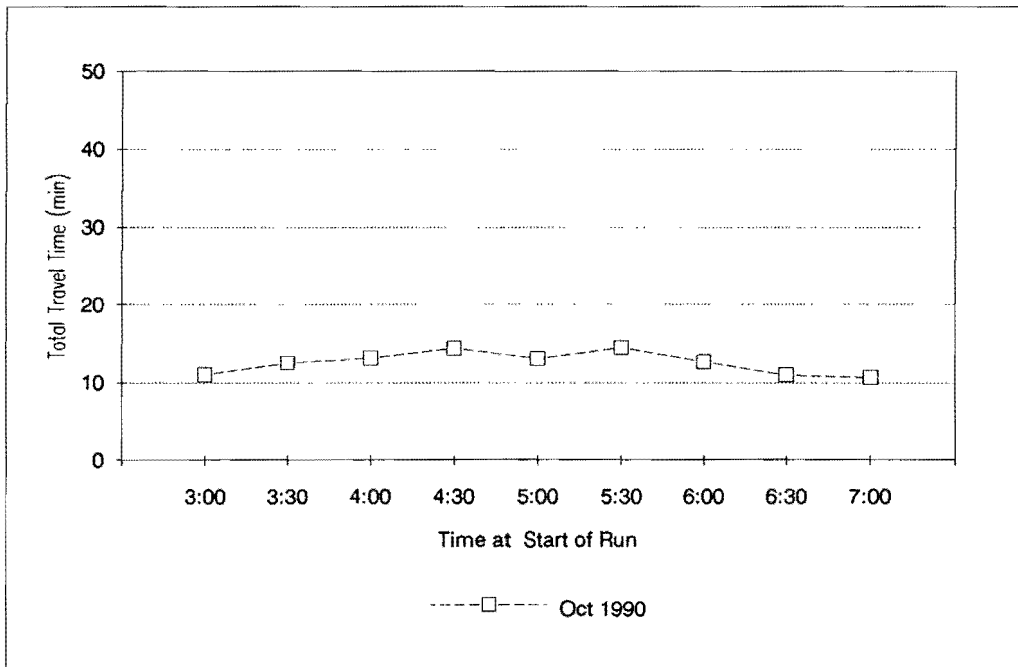


(b) Southbound

Figure D-13. A.M. Peak Period Total Travel Time Between I-635 and CBD: US-75 (October 1989 and 1990)

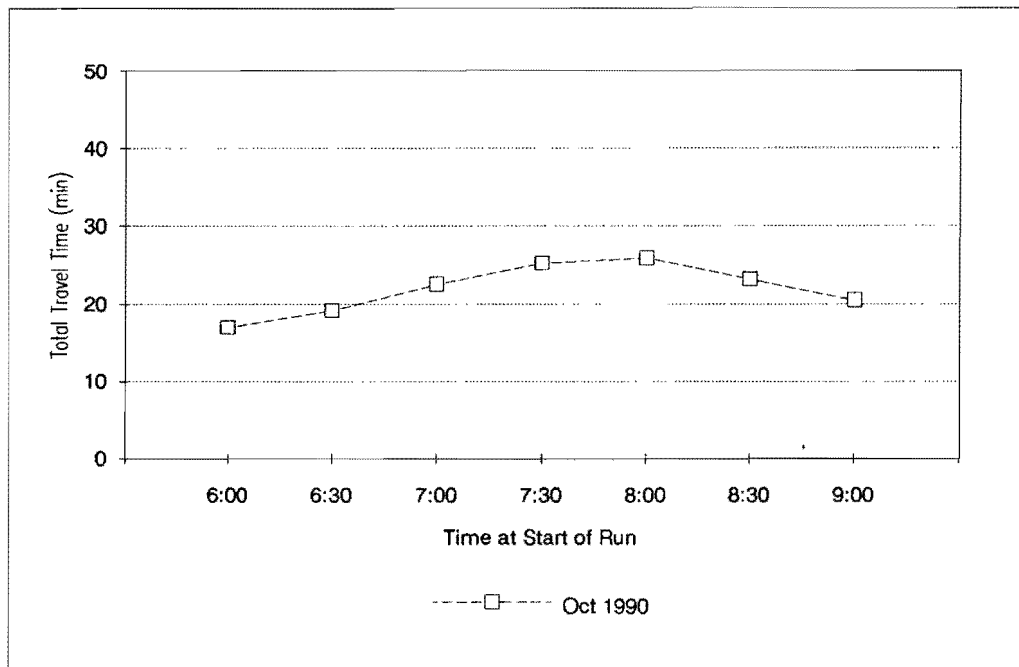


(a) Northbound

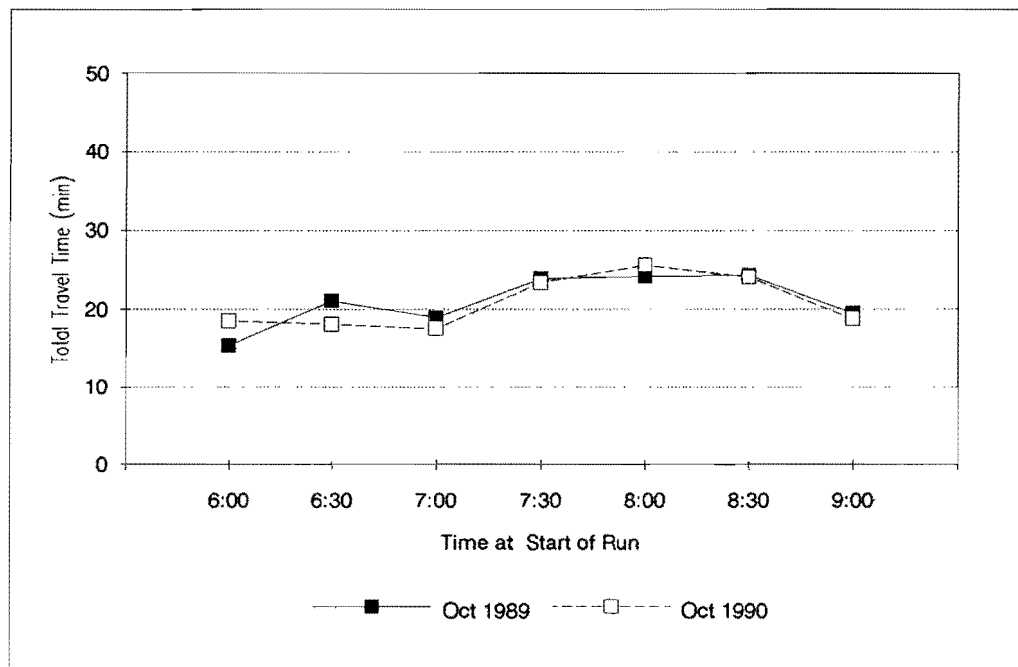


(b) Southbound

Figure D-14. P.M. Peak Period Total Travel Time Between I-635 and CBD: US-75 (October 1989 and 1990)

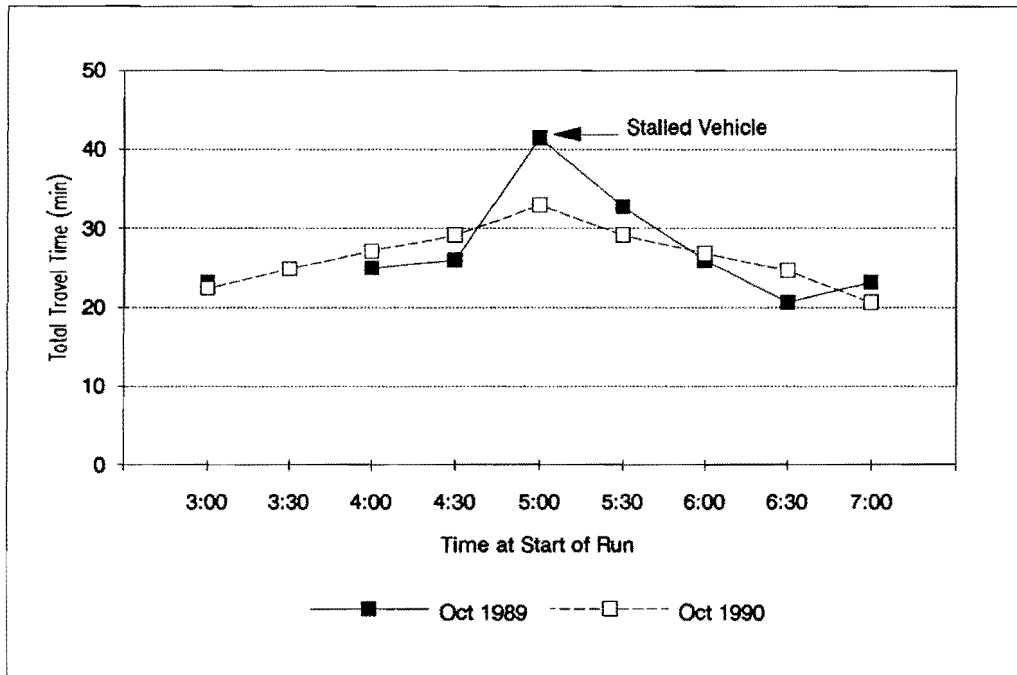


(a) Northbound

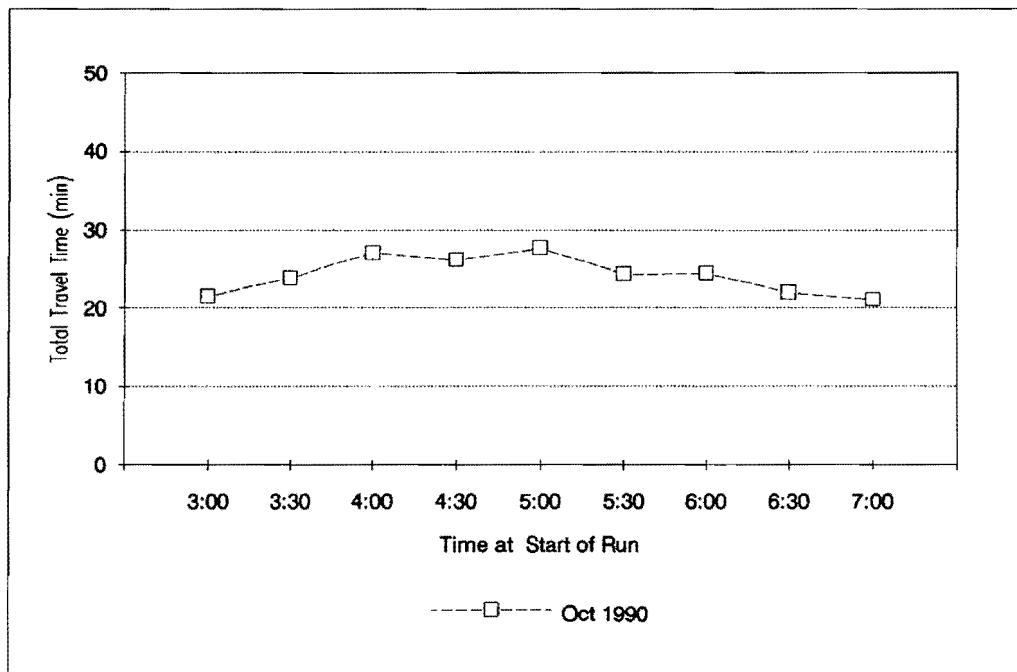


(b) Southbound

Figure D-15. A.M. Peak Period Total Travel Time Between I-635 and CBD: Greenville (October 1989 and 1990)

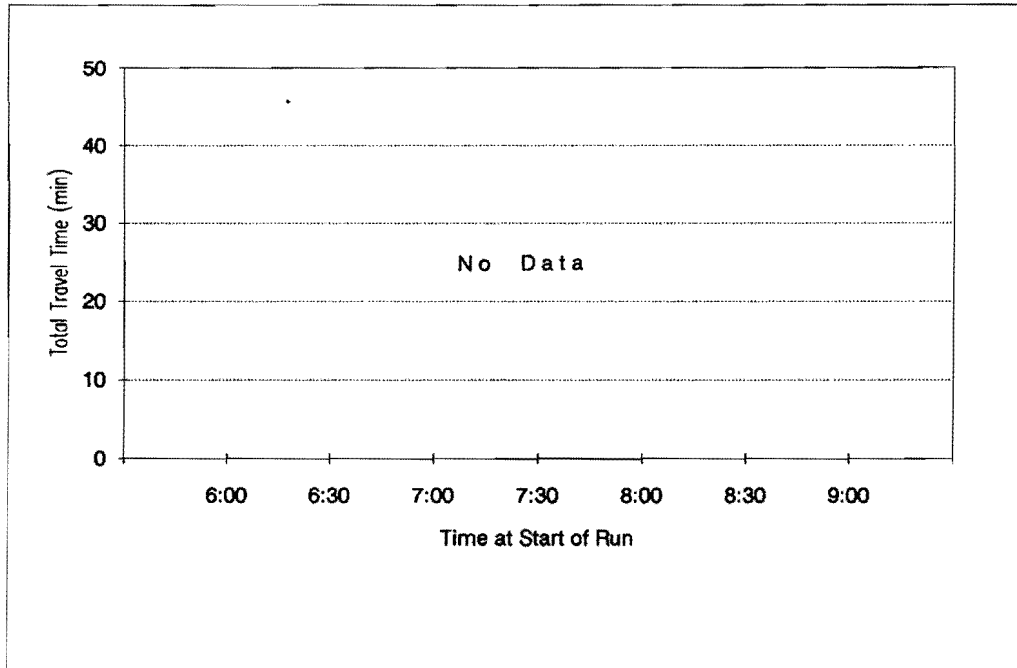


(a) Northbound

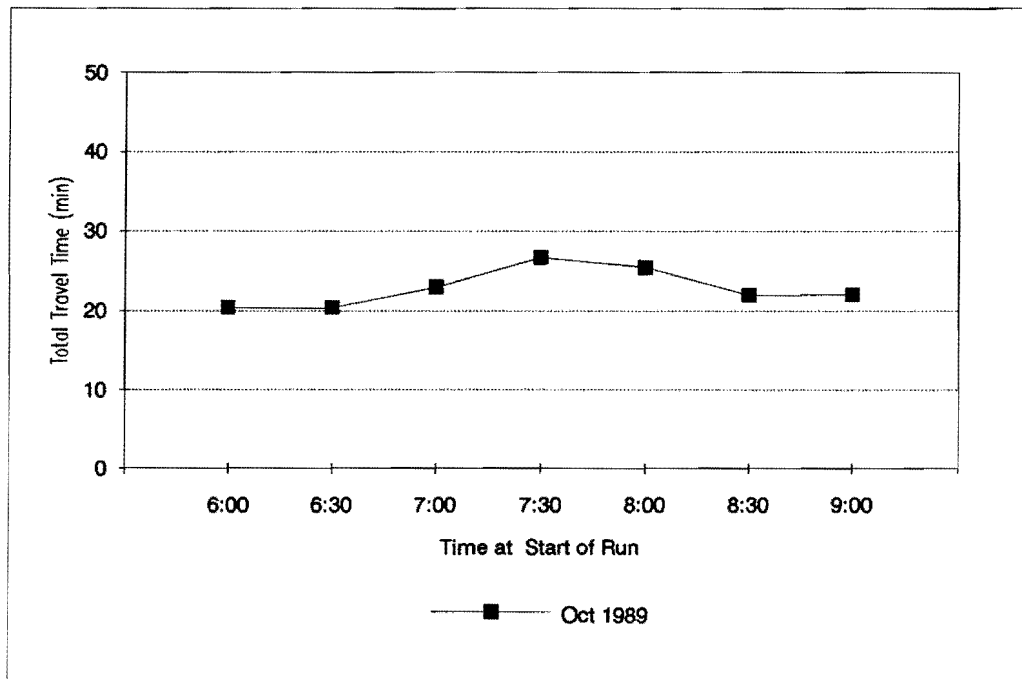


(b) Southbound

Figure D-16. P.M. Peak Period Total Travel Time Between I-635 and CBD: Greenville (October 1989 and 1990)

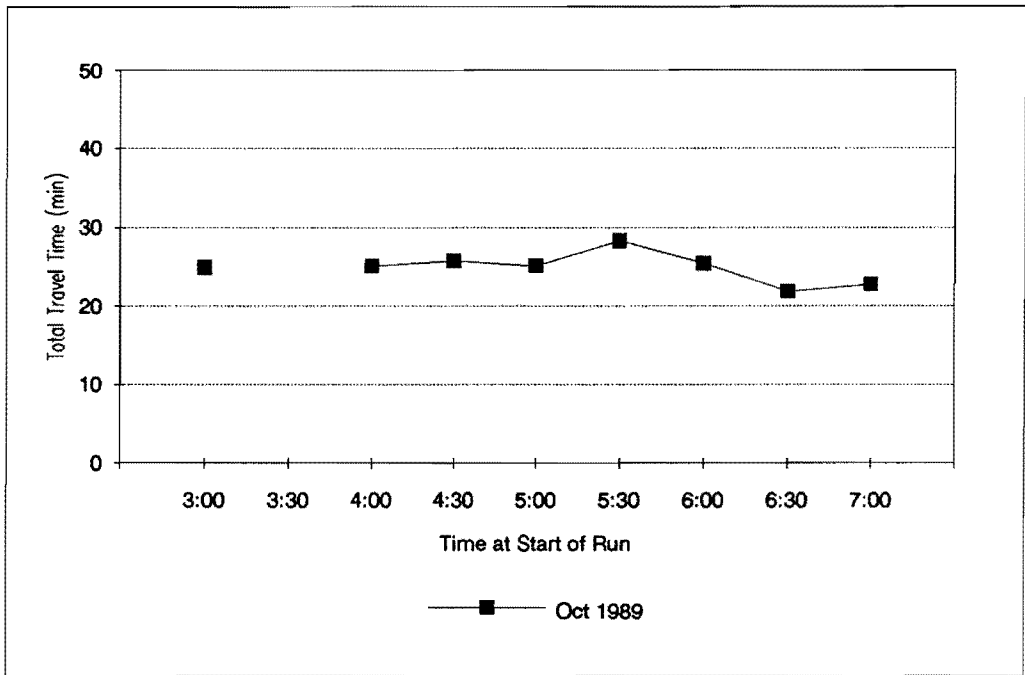


(a) Northbound

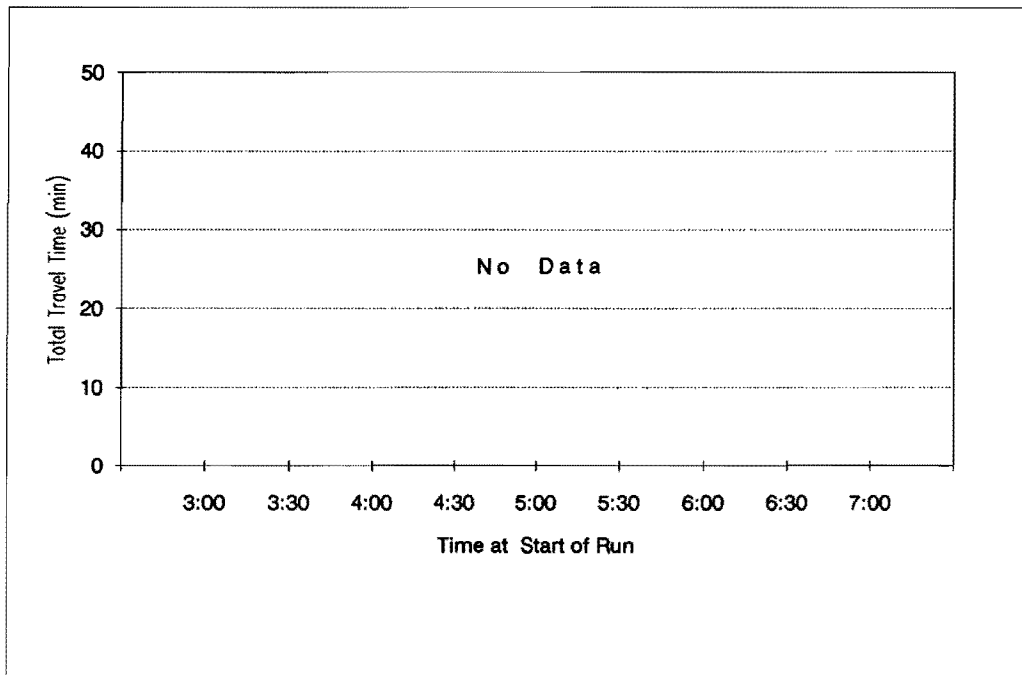


(b) Southbound

Figure D-17. A.M. Peak Period Total Travel Time Between I-635 and CBD: Abrams (October 1989)

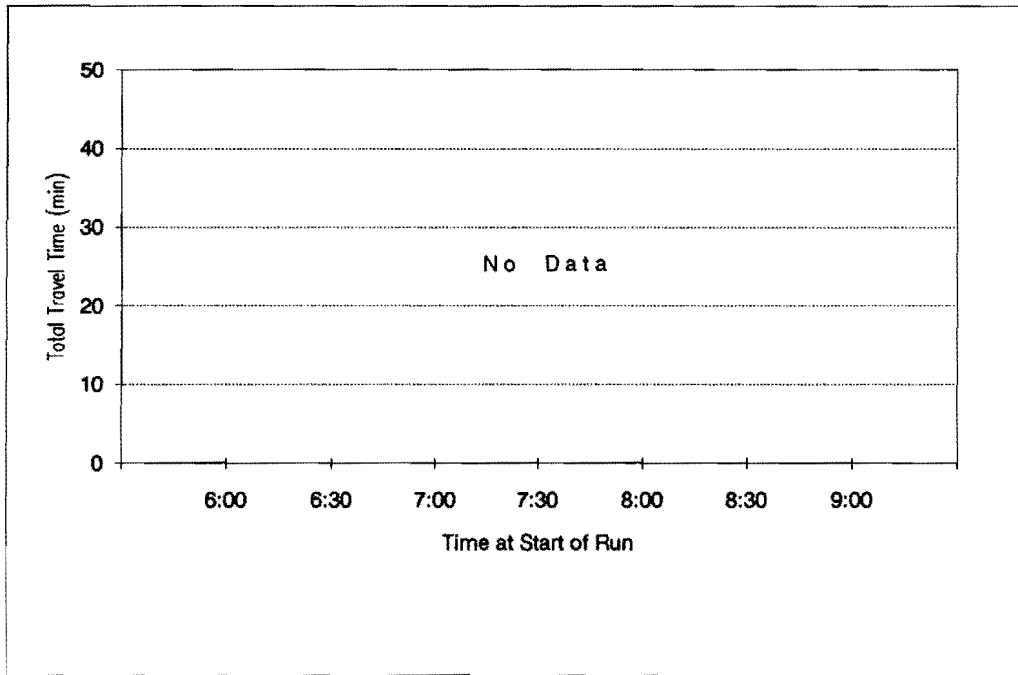


(a) Northbound

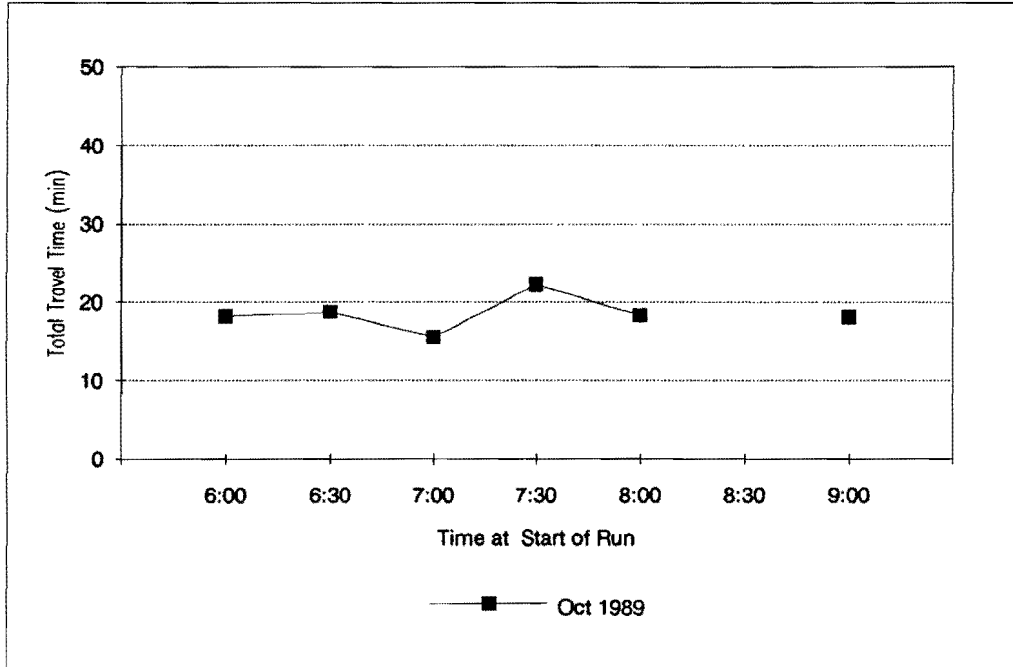


(b) Southbound

Figure D-18. P.M. Peak Period Total Travel Time Between I-635 and CBD: Abrams (October 1989)

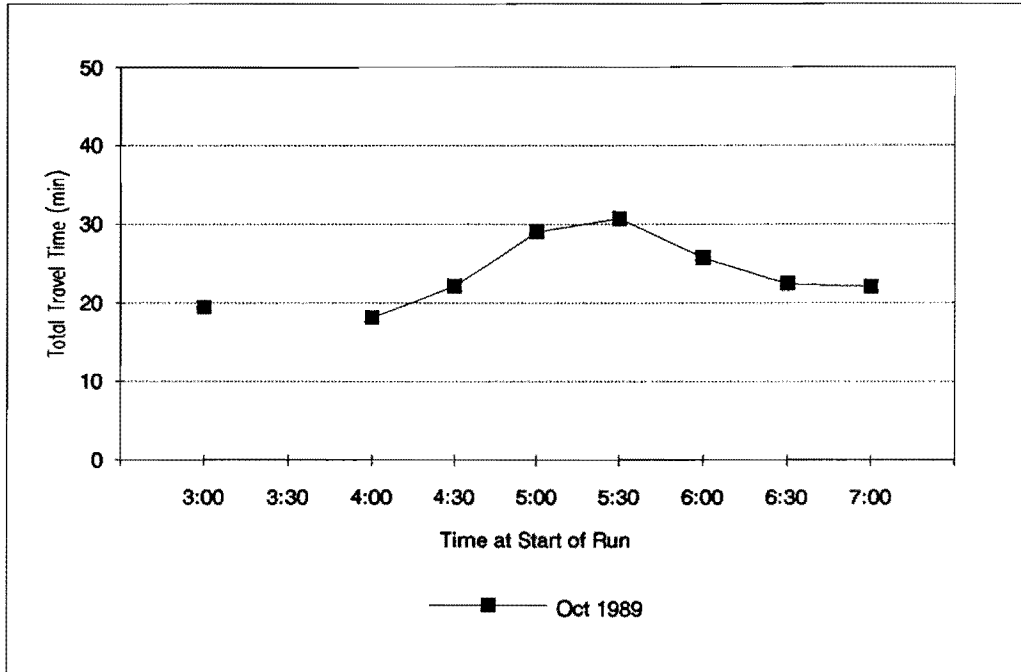


(a) Northbound

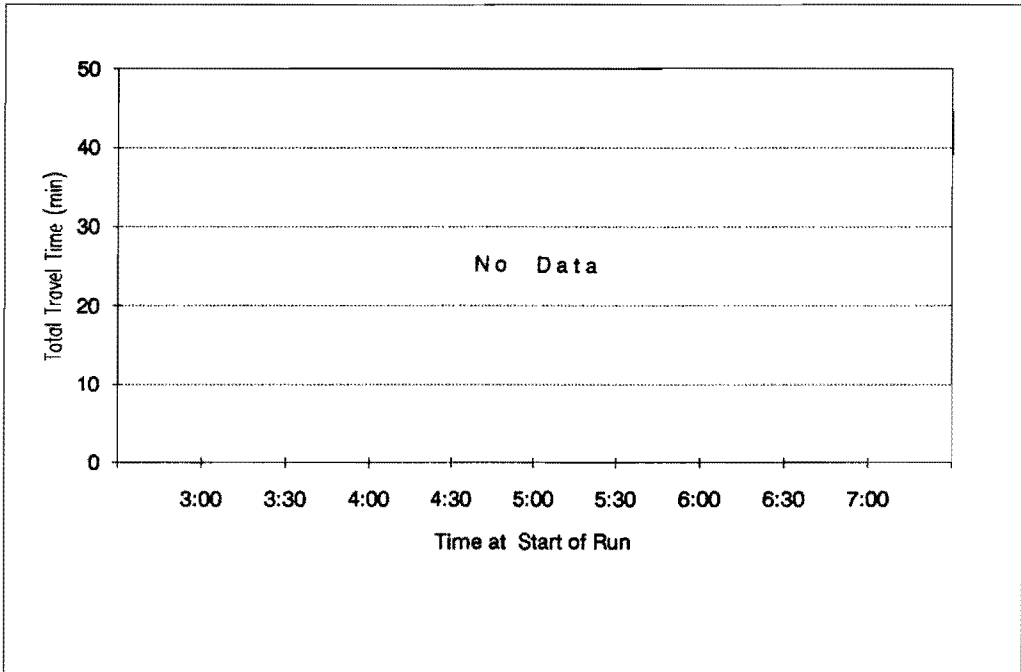


(b) Southbound

Figure D-19. A.M. Peak Period Total Travel Time Between I-635 and CBD: Skillman (October 1989)

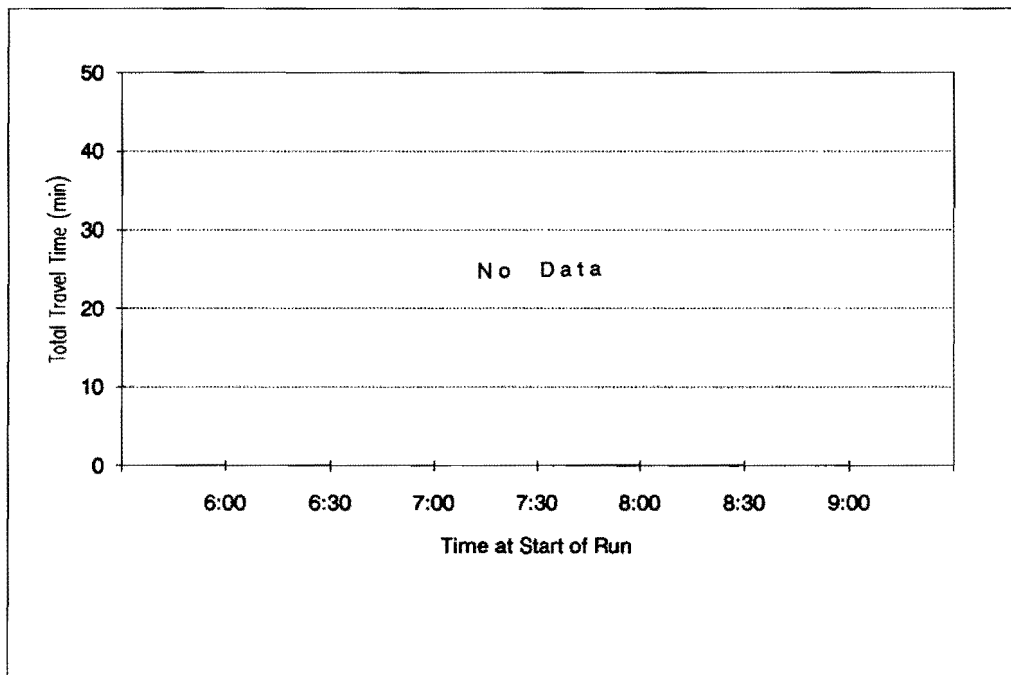


(a) Northbound

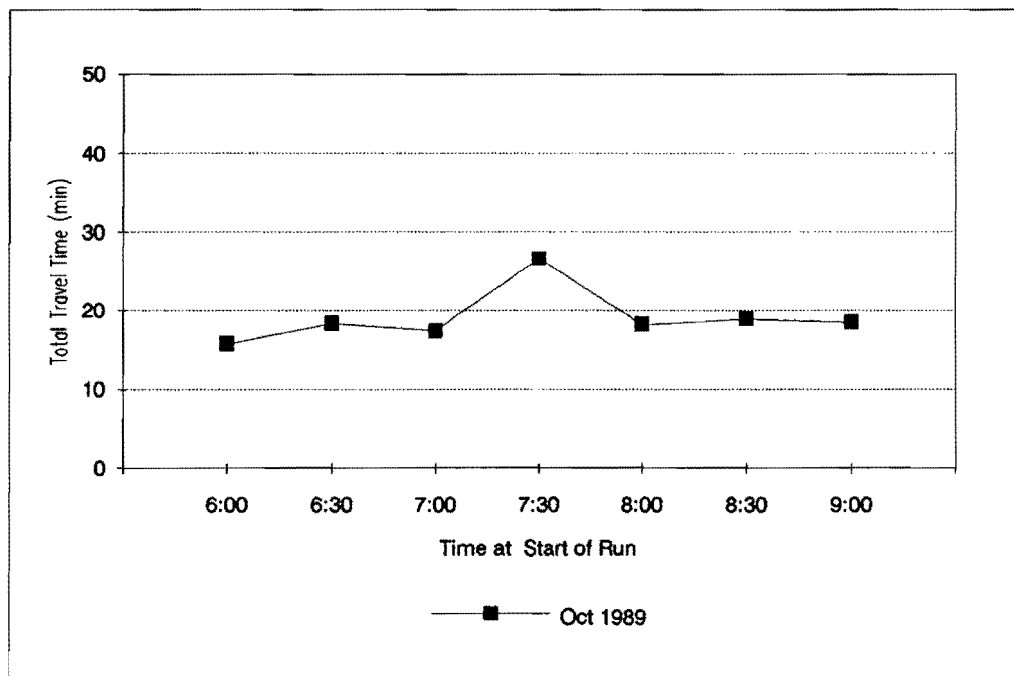


(b) Southbound

Figure D-20. P.M. Peak Period Total Travel Time Between I-635 and CBD: Skillman (October 1989)

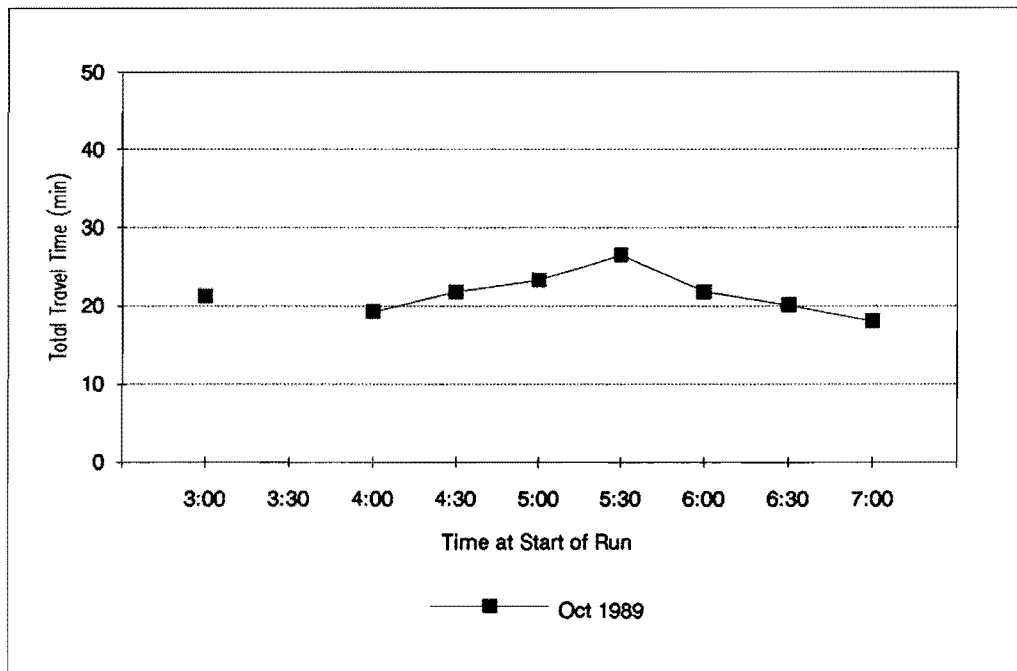


(a) Northbound

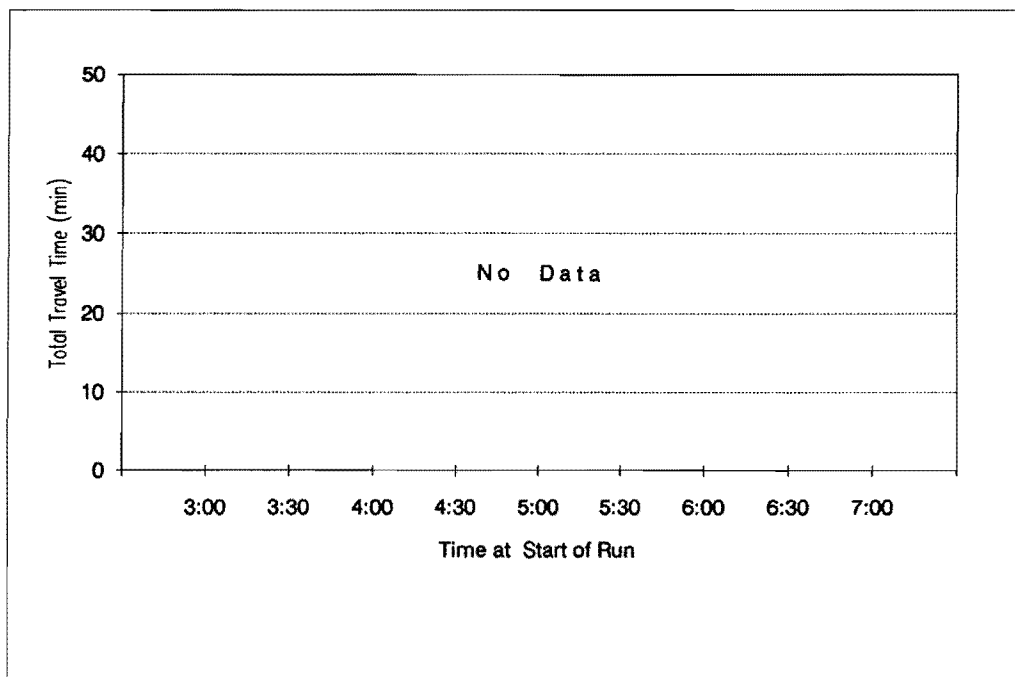


(b) Southbound

Figure D-21. A.M. Peak Period Total Travel Time Between I-635 and CBD: Garland (October 1989)



(a) Northbound



(b) Southbound

Figure D-22. P.M. Peak Period Total Travel Time Between I-635 and CBD: Garland (October 1989)

APPENDIX E

OCTOBER 1990 PEAK PERIOD AVERAGE TRAVEL SPEEDS

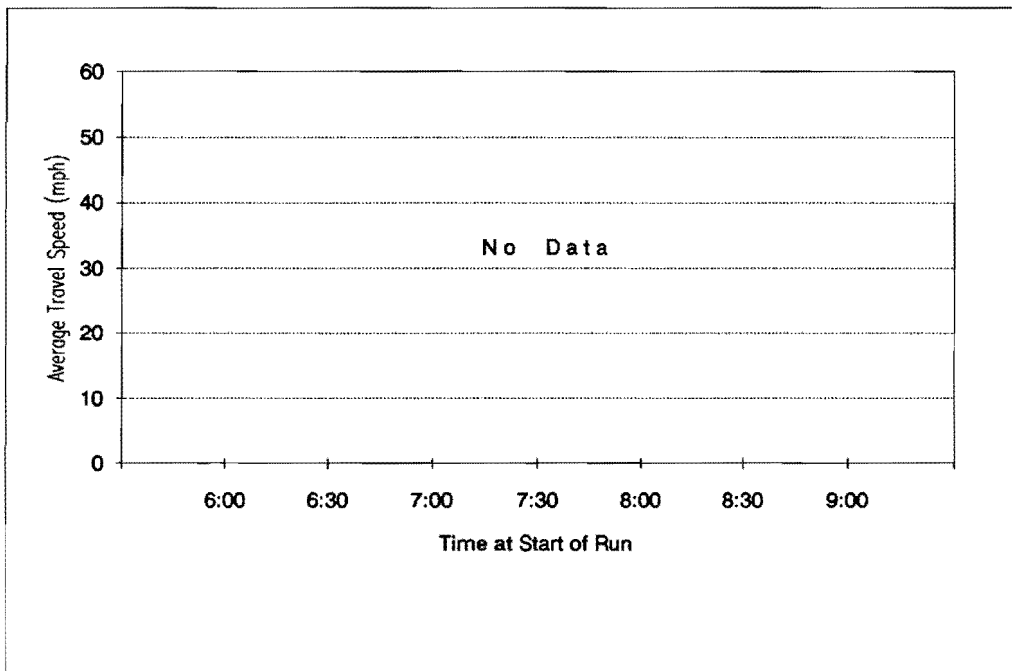
Table E-1. Peak Period, Peak Direction Average Travel Speed (mph) - (October 1990)

Run Beginning		Alternative Route										
		Garland	Abrams	Skillman	Greenville	US-75	US-75 Fr. Rd.	Hillcrest	Preston	DNT	Inwood	Midway
A.M. Peak Period South-bound	6:00	-	-	-	30	55	27	25	26	53	-	-
	6:30	-	-	-	31	56	23	24	24	50	-	-
	7:00	-	-	-	32	32	24	23	23	50	-	-
	7:30	-	-	-	24	19	17	20	24	37	-	-
	8:00	-	-	-	22	21	21	22	22	31	-	-
	8:30	-	-	-	23	31	21	20	23	39	-	-
	9:00	-	-	-	30	44	23	23	25	53	-	-
P.M. Peak Period North-Bound	3:00	-	-	-	25	42	24	19	25	45	-	-
	3:30	-	-	-	23	45	23	21	23	47	-	-
	4:00	-	-	-	21	42	20	21	22	41	-	-
	4:30	-	-	-	20	30	18	24	22	51	-	-
	5:00	-	-	-	17	22	15	16	18	31	-	-
	5:30	-	-	-	20	18	15	18	18	15	-	-
	6:00	-	-	-	21	23	17	26	20	35	-	-
	6:30	-	-	-	23	23	23	23	23	31	-	-
	7:00	-	-	-	28	45	23	25	27	44	-	-

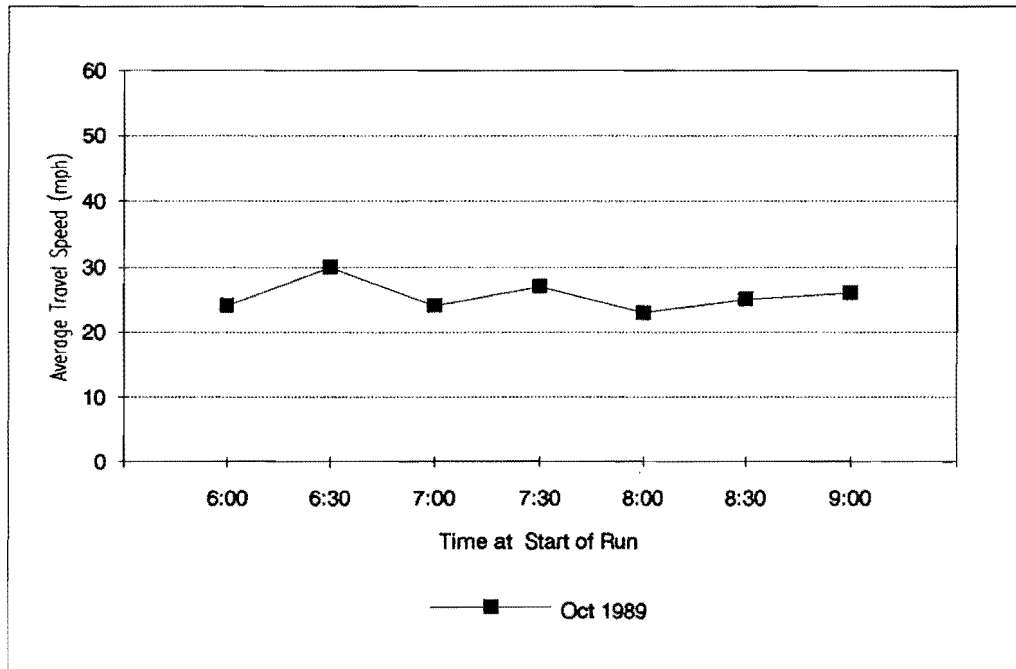
Table E-2. Peak Period, Off-Peak Direction Average Travel Speed (mph) - (October 1990)

Run Beginning		Alternative Route										
		Garland	Abrams	Skillman	Greenville	US-75	US-75 Fr. Rd.	Hillcrest	Preston	DNT	Inwood	Midway
A.M. Peak Period North-bound	6:00	-	-	-	34	57	30	25	-	54	-	-
	6:30	-	-	-	30	51	18	21	23	45	-	-
	7:00	-	-	-	25	52	18	20	25	48	-	-
	7:30	-	-	-	23	35	17	20	20	42	-	-
	8:00	-	-	-	22	38	18	19	20	33	-	-
	8:30	-	-	-	25	42	19	22	21	35	-	-
	9:00	-	-	-	28	54	25	23	20	48	-	-
P.M. Peak Period South-Bound	3:00	-	-	-	26	50	25	23	21	46	-	-
	3:30	-	-	-	24	45	22	21	22	48	-	-
	4:00	-	-	-	21	43	17	21	21	47	-	-
	4:30	-	-	-	21	40	19	20	22	49	-	-
	5:00	-	-	-	20	45	17	21	22	48	-	-
	5:30	-	-	-	23	39	14	27	20	47	-	-
	6:00	-	-	-	23	45	16	24	21	49	-	-
	6:30	-	-	-	25	51	21	26	24	48	-	-
	7:00	-	-	-	27	52	25	25	24	47	-	-

ES

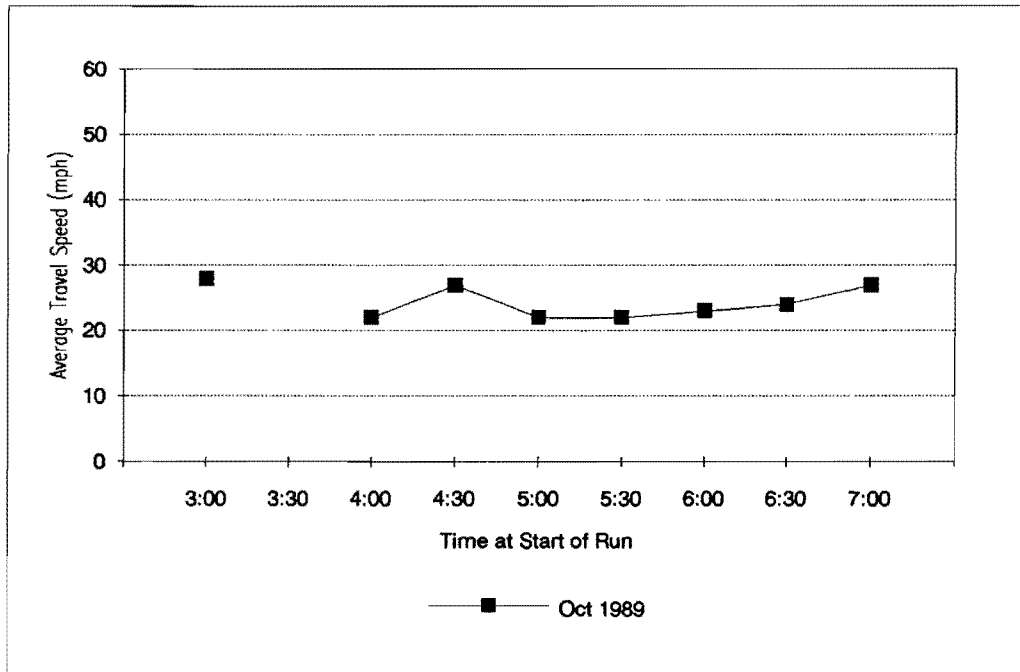


(a) Northbound

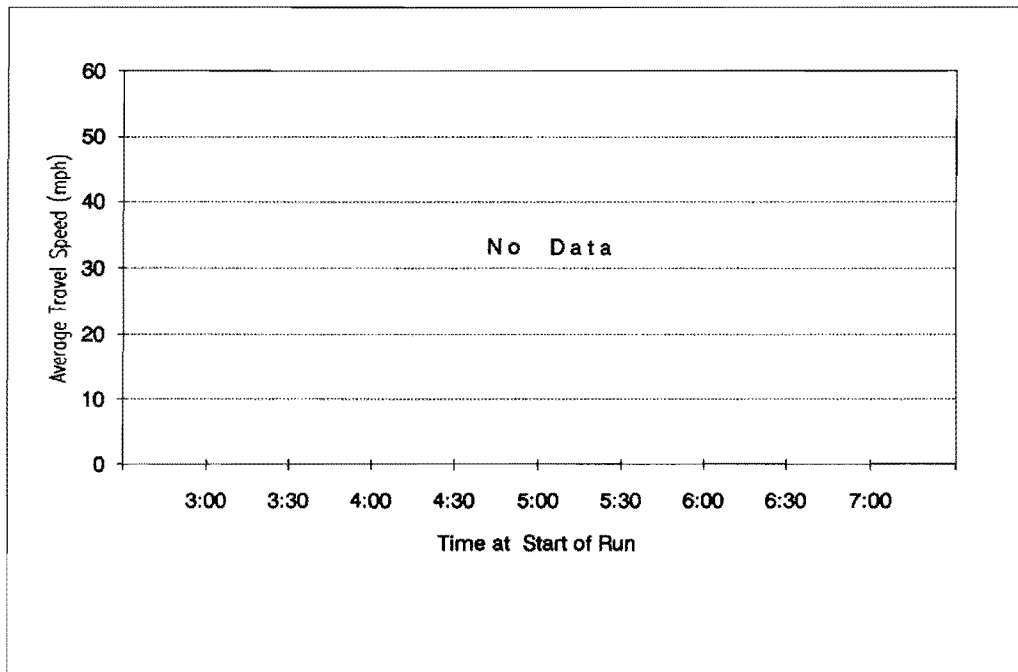


(b) Southbound

Figure E-1. A.M. Peak Period Average Travel Speed Between I-635 and CBD: Midway (October 1989)

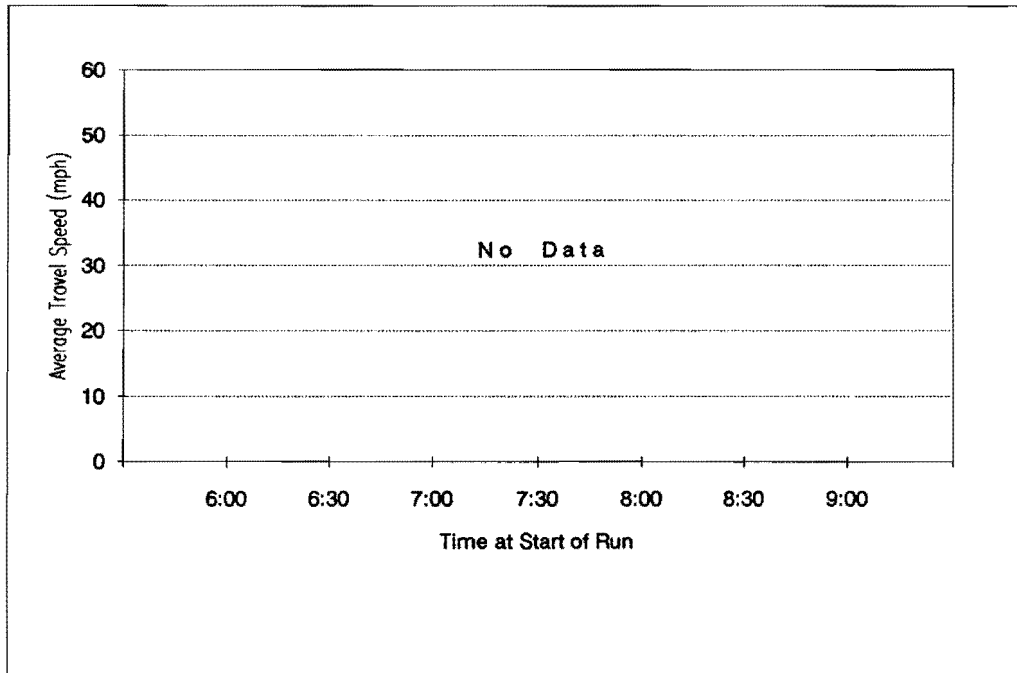


(a) Northbound

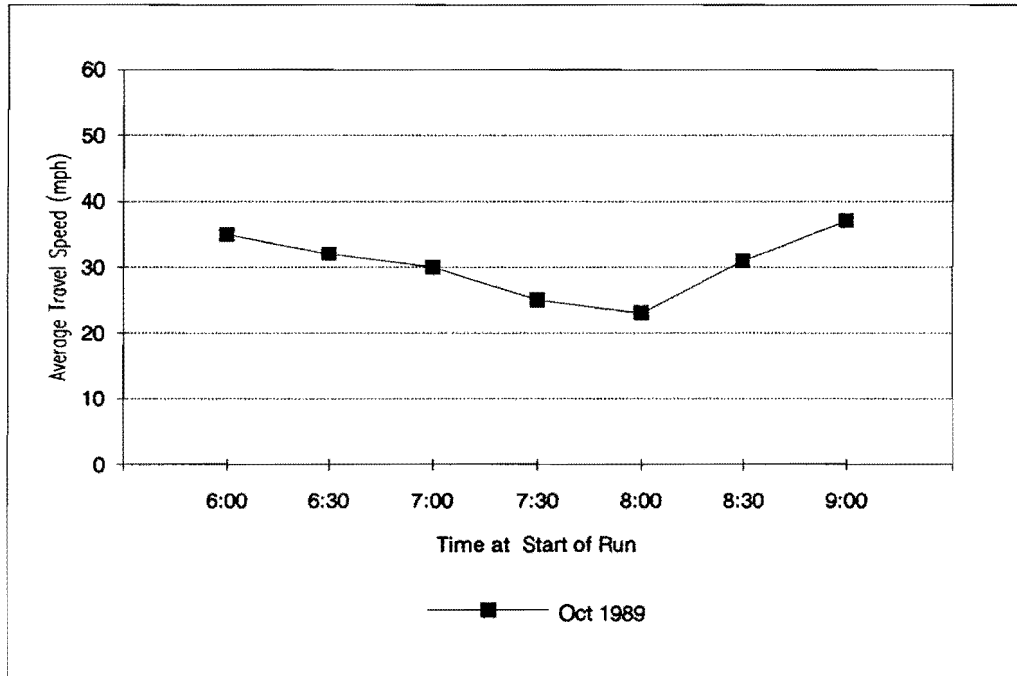


(b) Southbound

Figure E-2. P.M. Peak Period Average Travel Speed Between I-635 and CBD: Midway (October 1989)

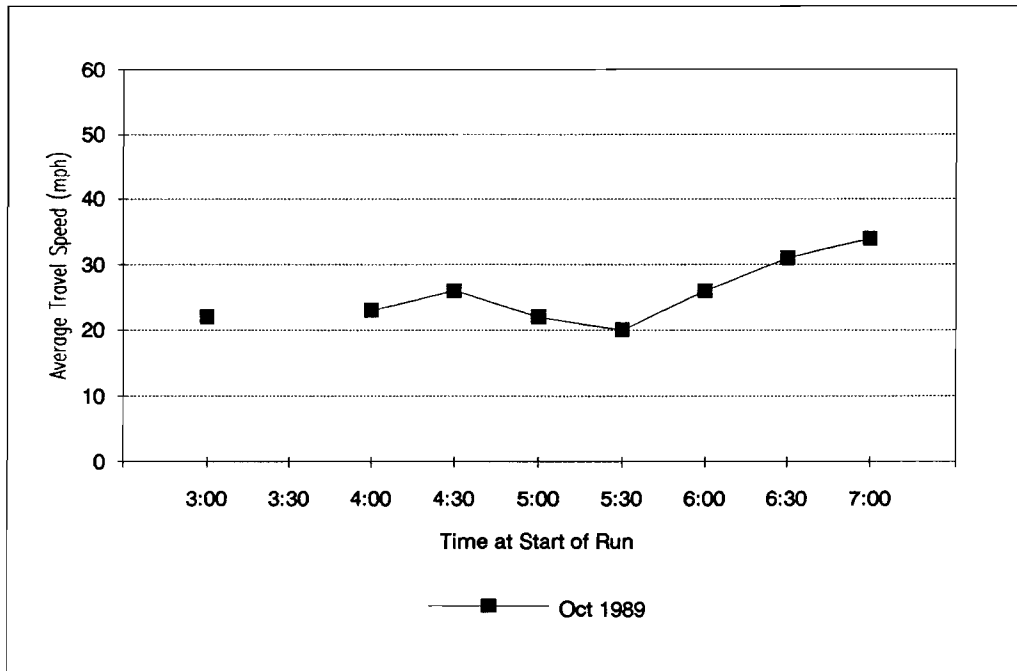


(a) Northbound

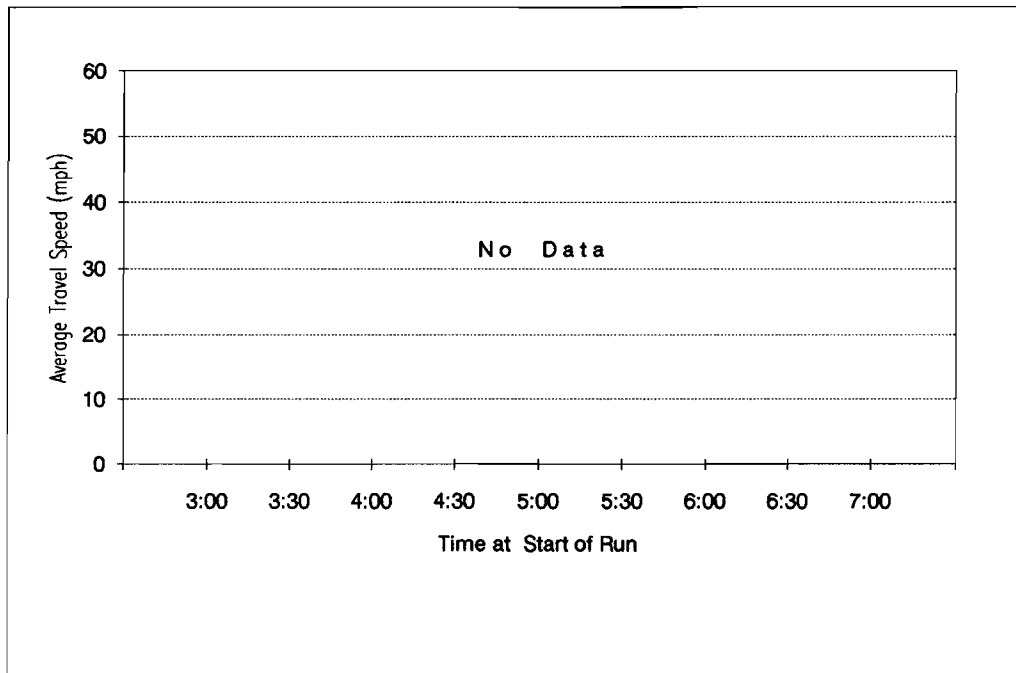


(b) Southbound

Figure E-3. A.M. Peak Period Average Travel Speed Between I-635 and CBD: Inwood (October 1989)

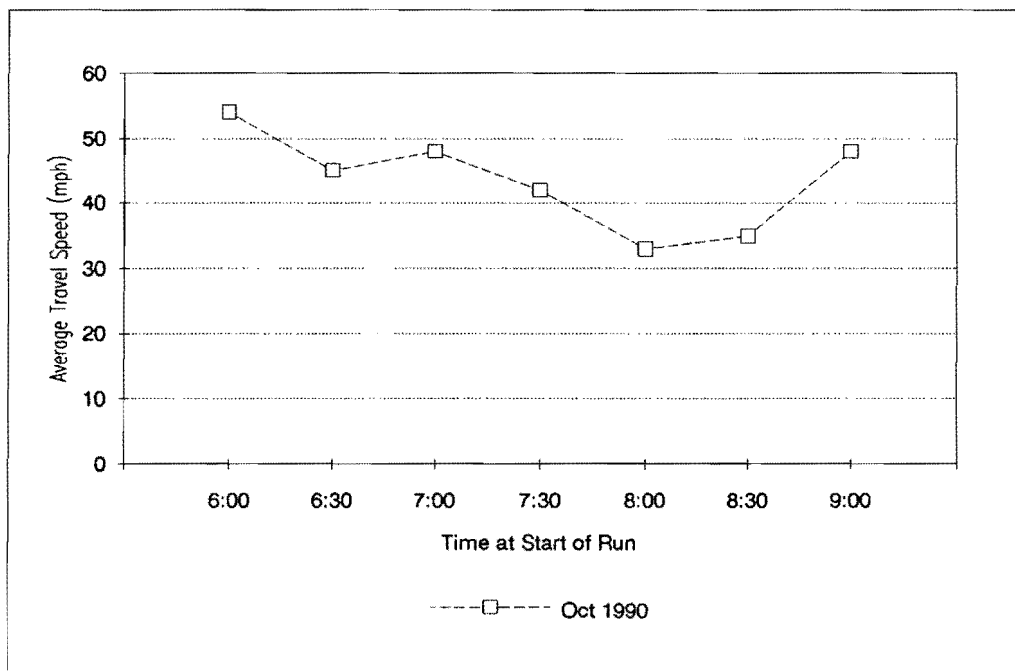


(a) Northbound

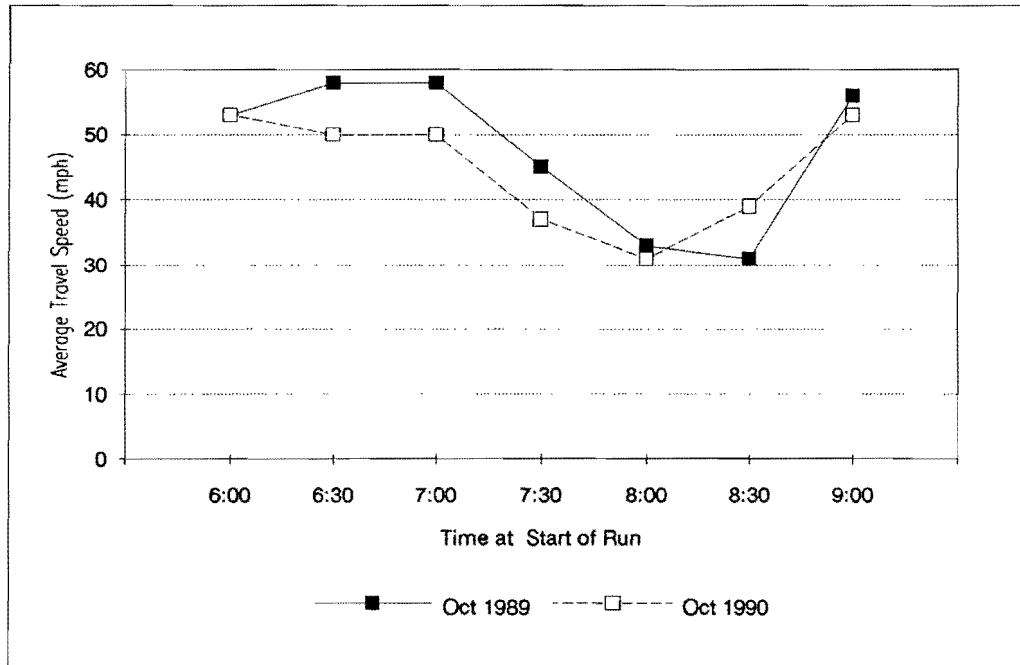


(b) Southbound

Figure E-4. P.M. Peak Period Average Travel Speed Between I-635 and CBD: Inwood (October 1989)

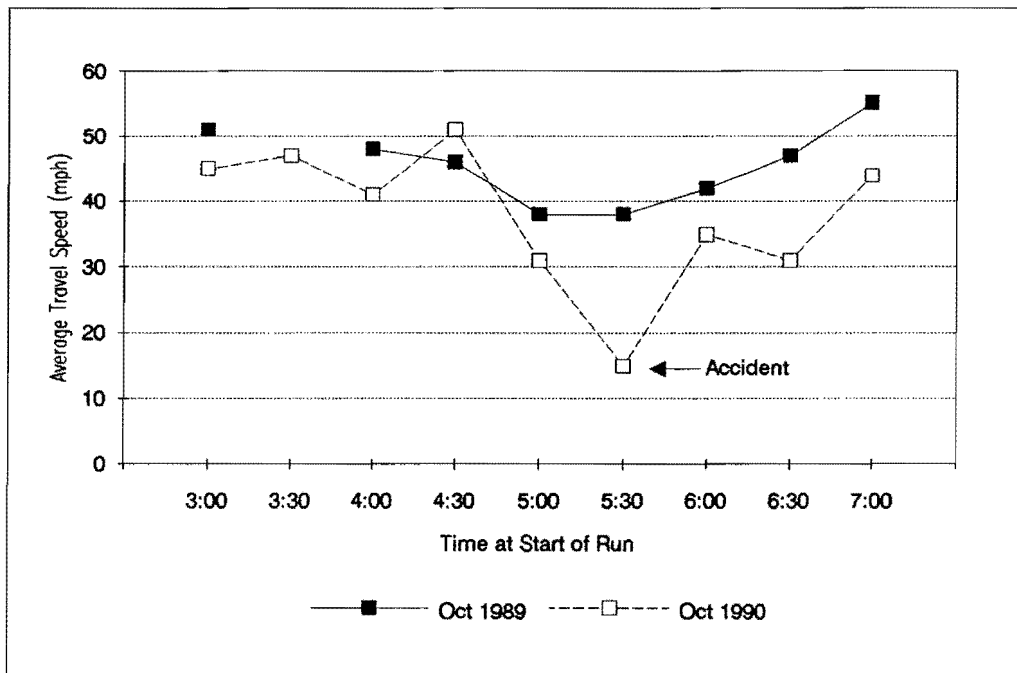


(a) Northbound

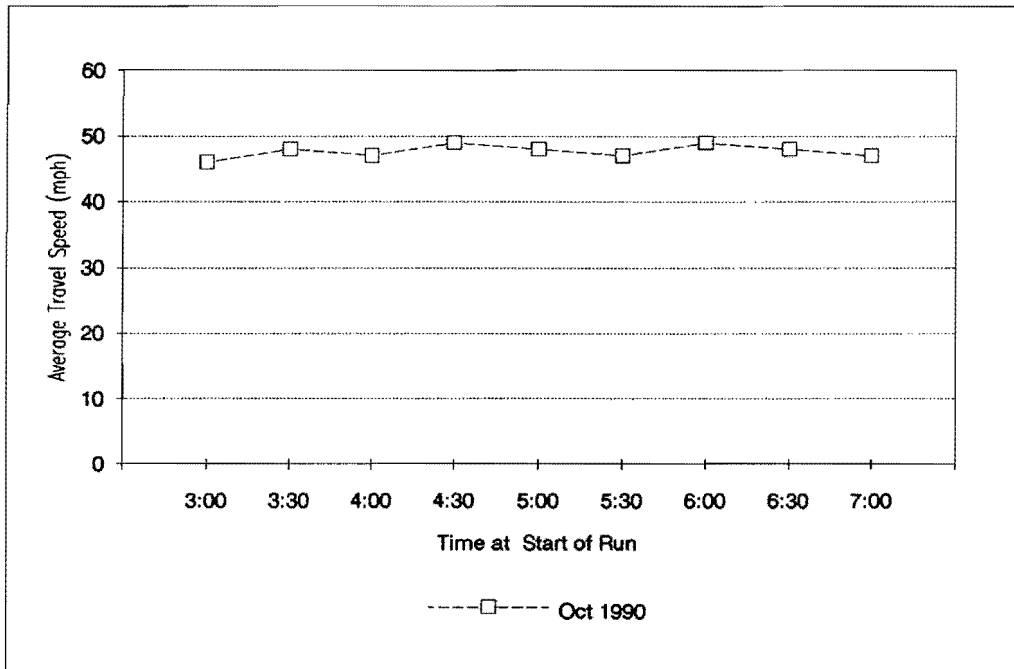


(b) Southbound

Figure E-5. A.M. Peak Period Average Travel Speed Between I-635 and CBD: DNT (October 1989 and 1990)

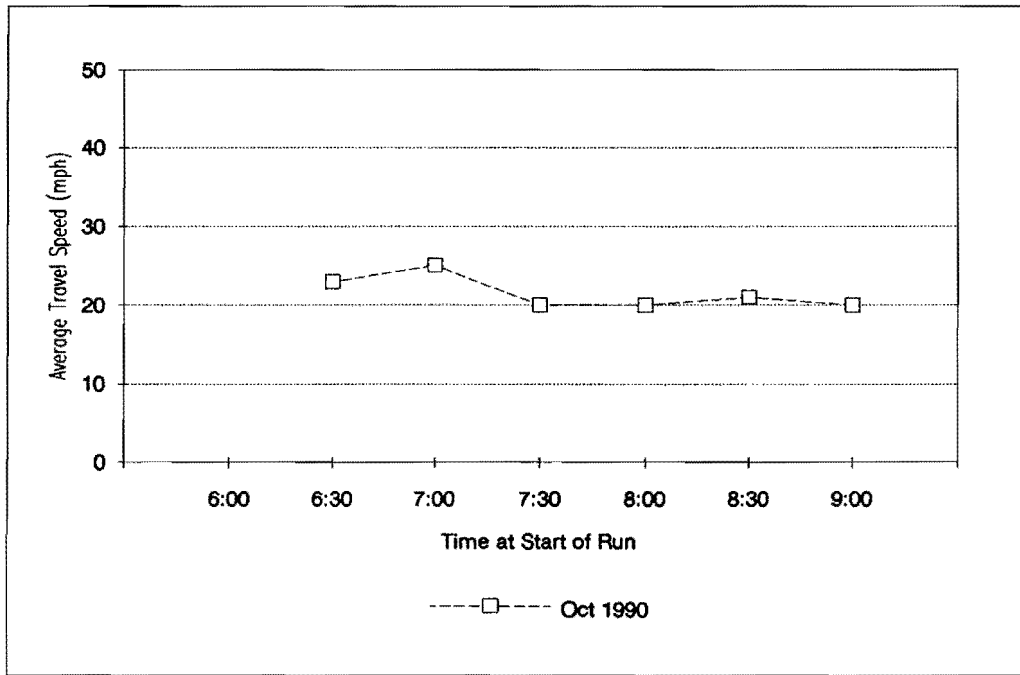


(a) Northbound

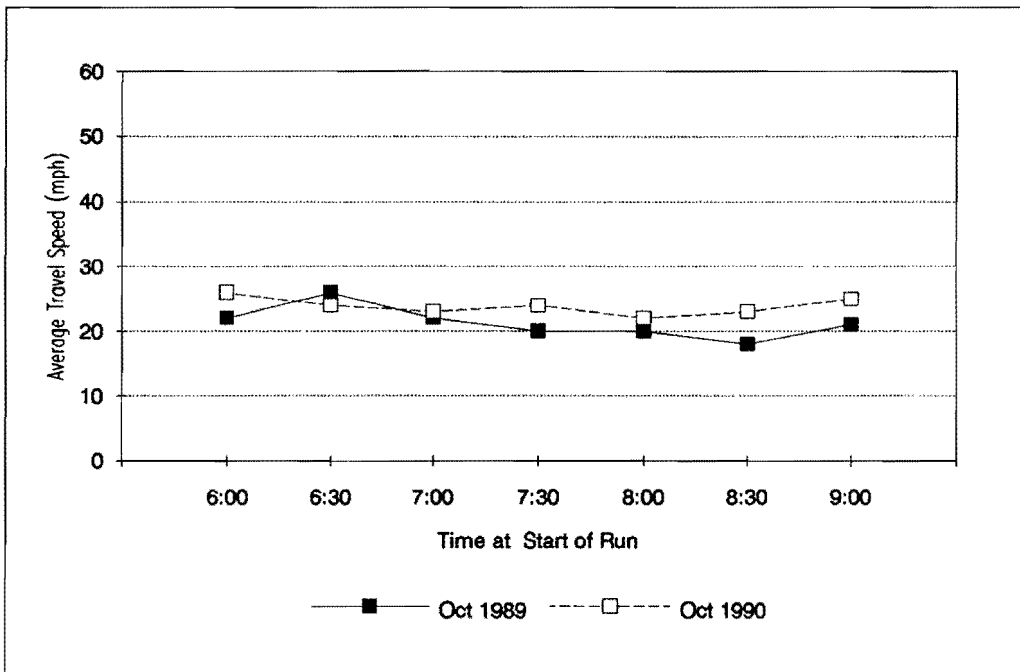


(b) Southbound

Figure E-6. P.M. Peak Period Average Travel Speed Between I-635 and CBD: DNT (October 1989 and 1990)

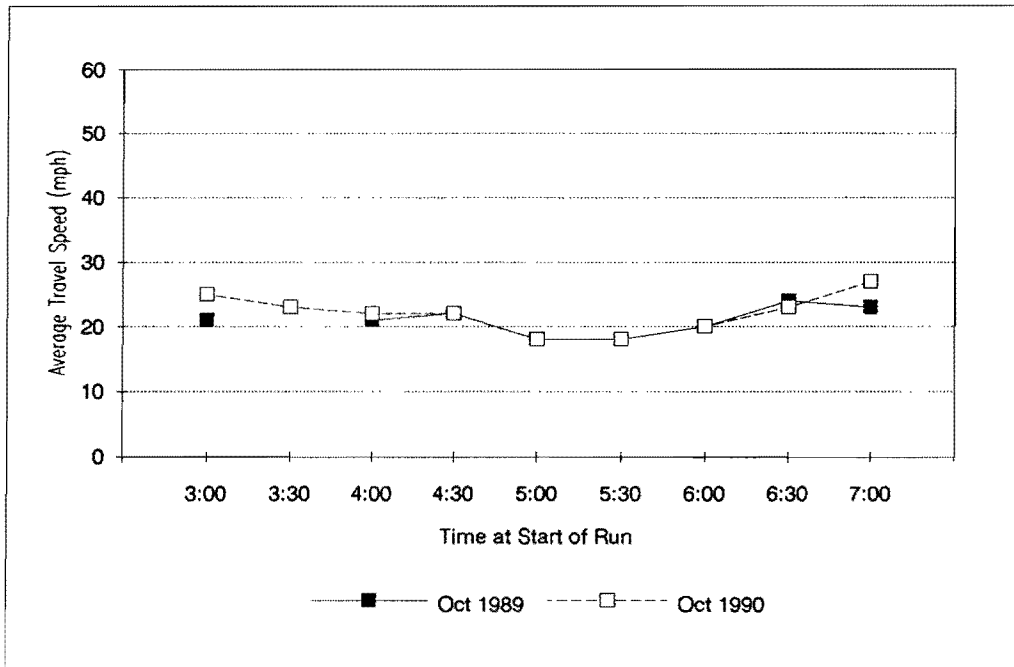


(a) Northbound

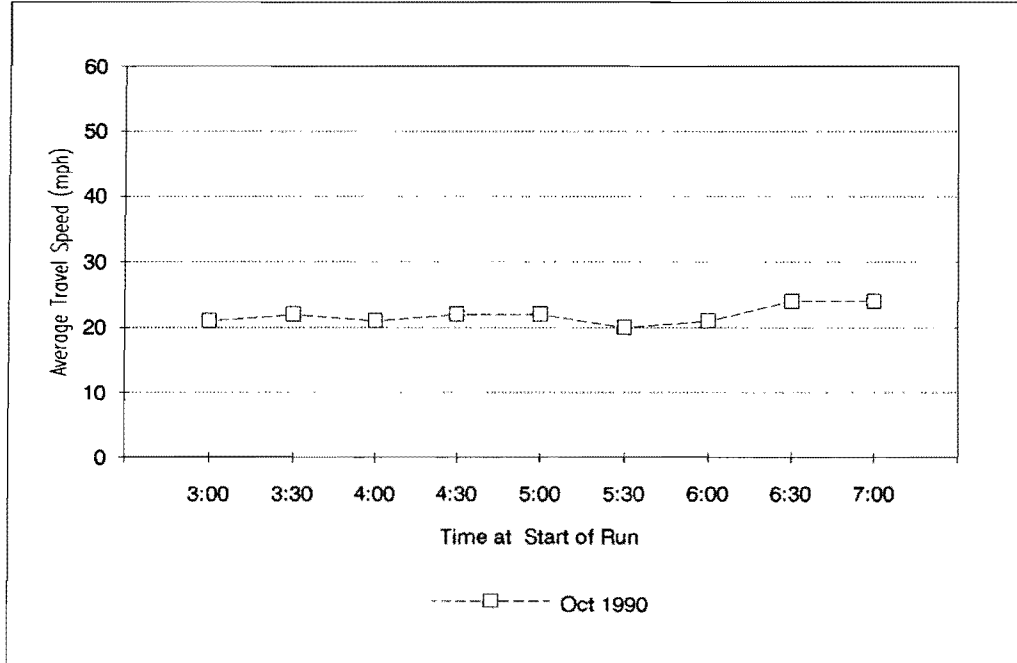


(b) Southbound

Figure E-7. A.M. Peak Period Average Travel Speed Between I-635 and CBD: Preston (October 1989 and 1990)

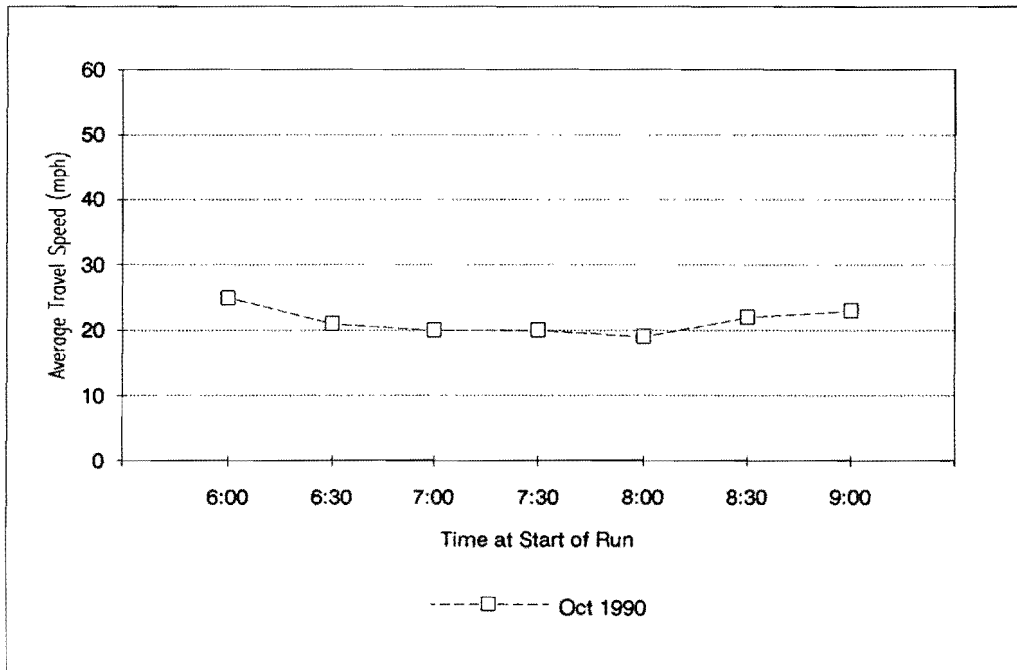


(a) Northbound

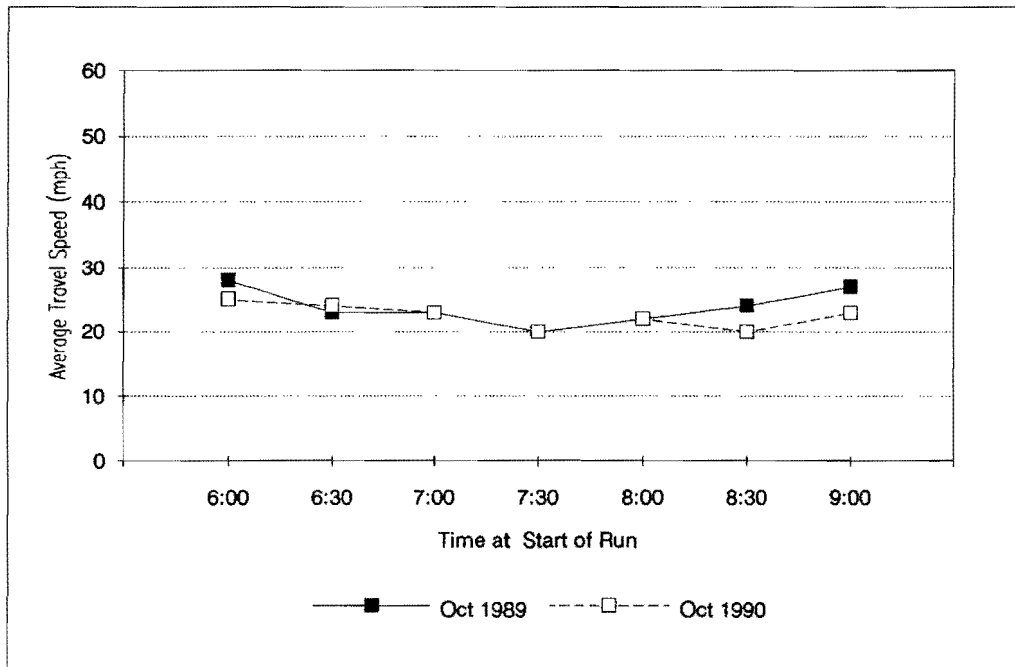


(b) Southbound

Figure E-8. P.M. Peak Period Average Travel Speed Between I-635 and CBD: Preston (October 1989 and 1990)

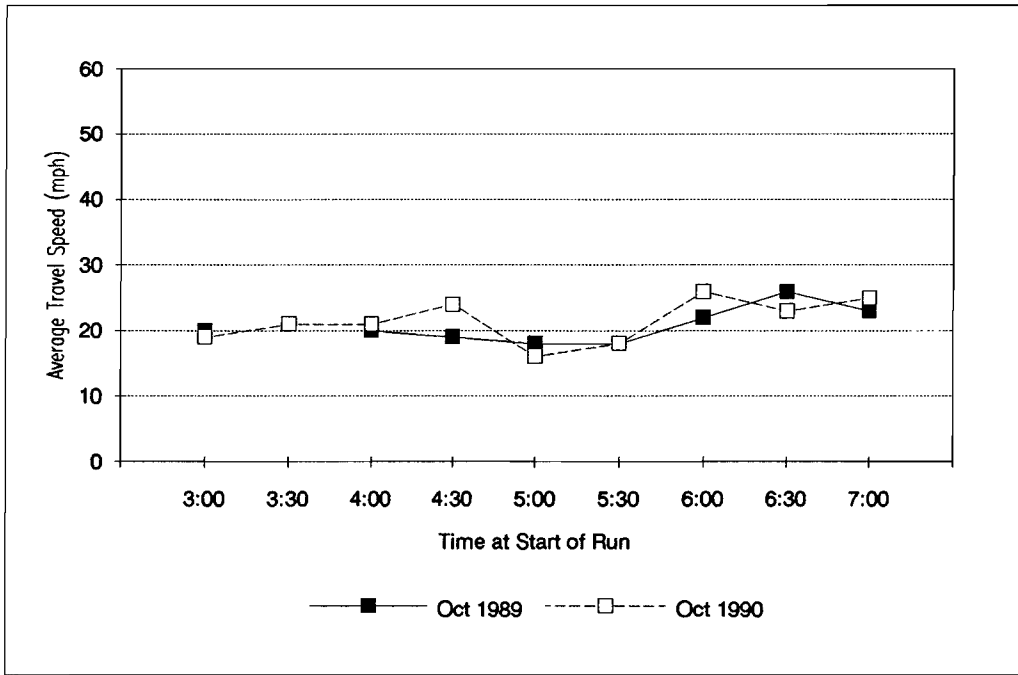


(a) Northbound

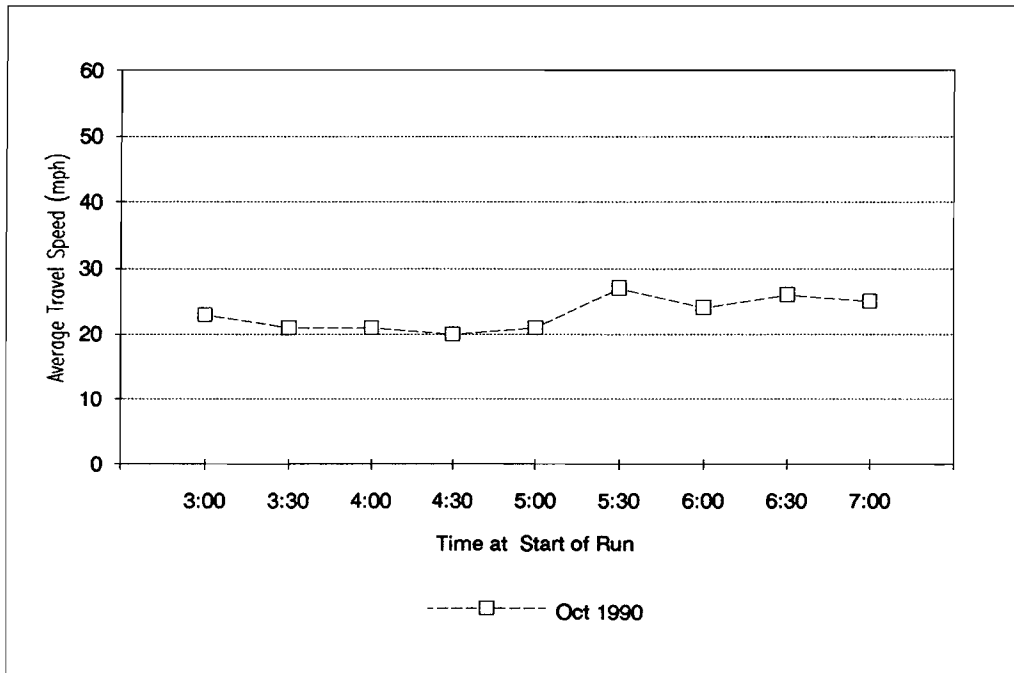


(b) Southbound

Figure E-9. A.M. Peak Period Average Travel Speed Between I-635 and CBD: Hillcrest (October 1989 and 1990)

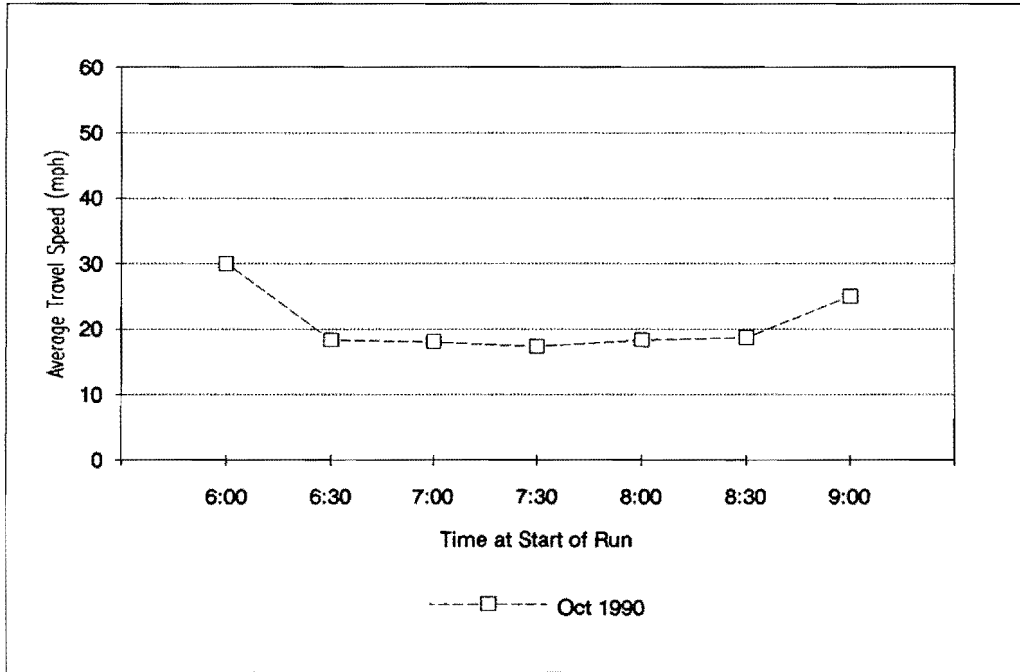


(a) Northbound

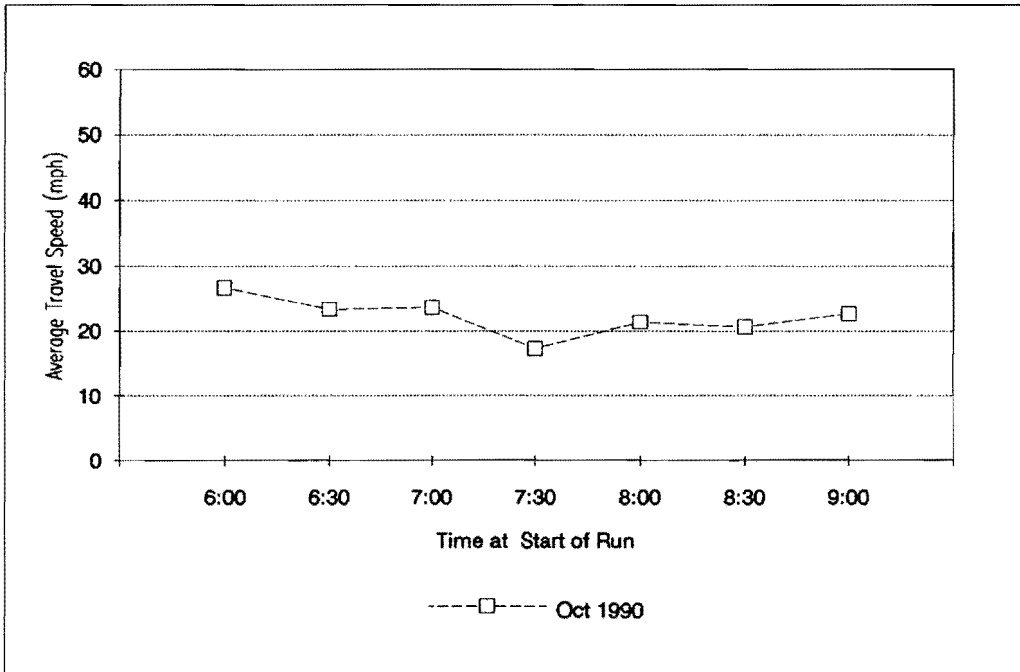


(b) Southbound

Figure E-10. P.M. Peak Period Average Travel Speed Between I-635 and CBD: Hillcrest (October 1989 and 1990)

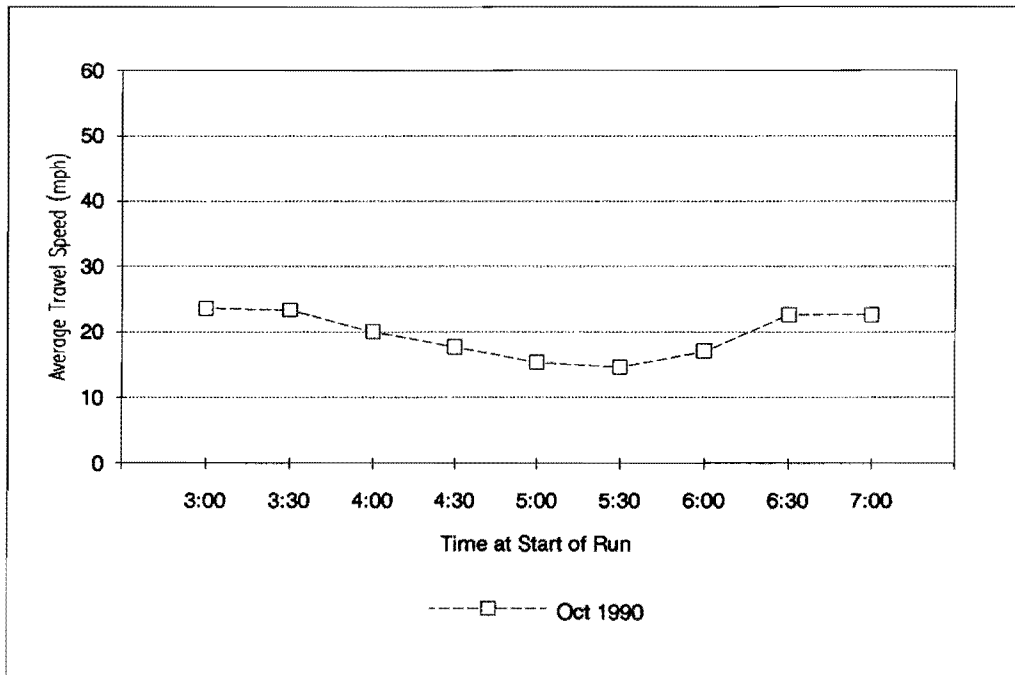


(a) Northbound

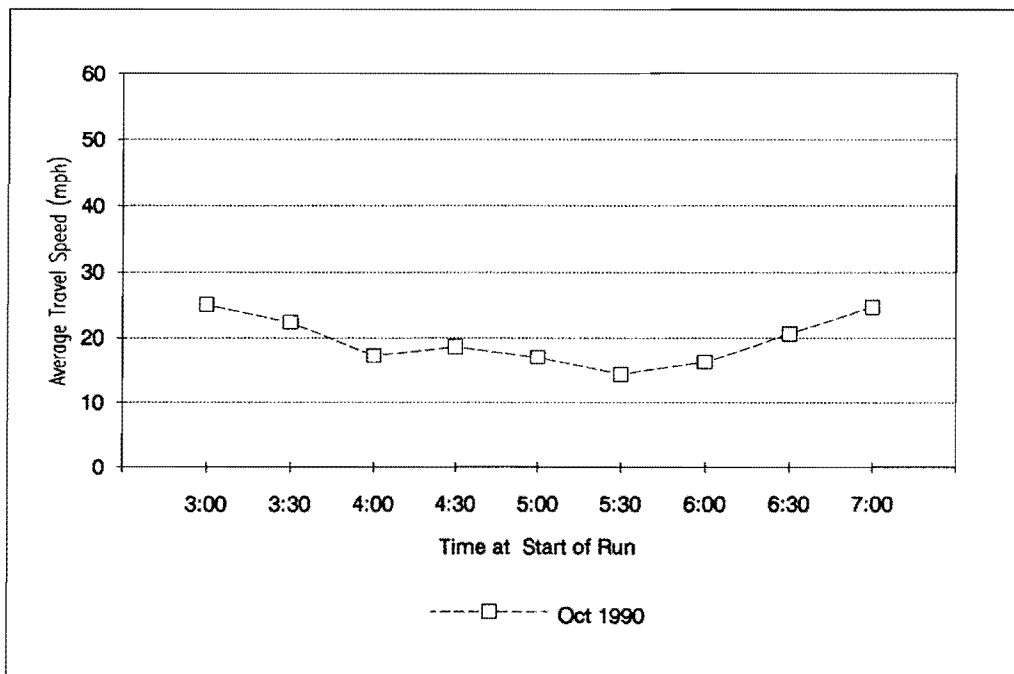


(b) Southbound

Figure E-11. A.M. Peak Period Average Travel Speed Between I-635 and CBD: US-75 Frontage Road (October 1990)

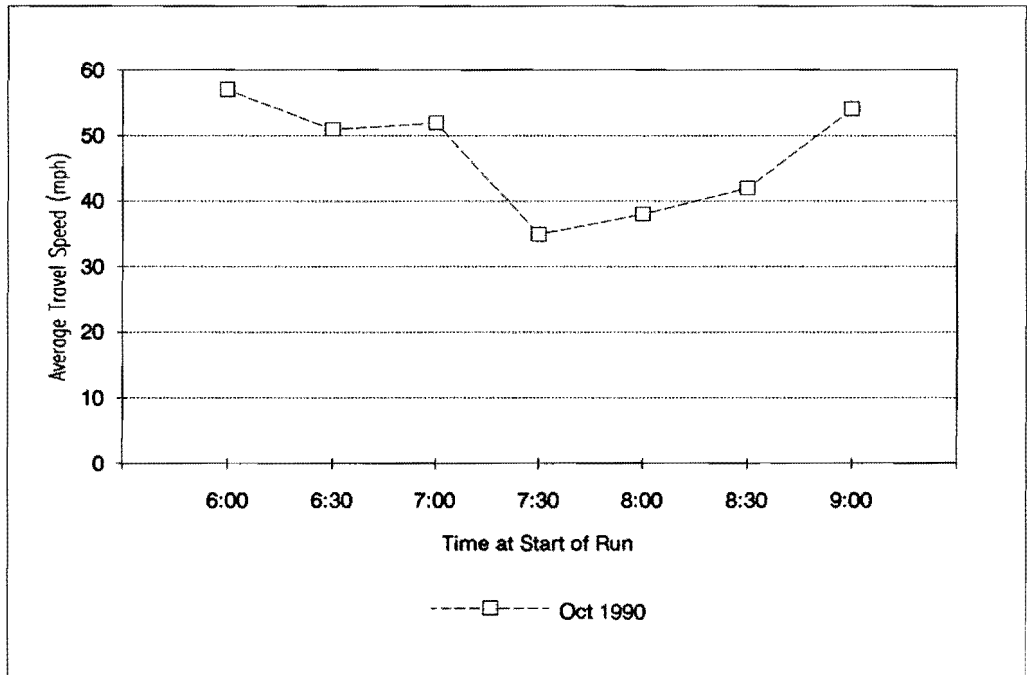


(a) Northbound

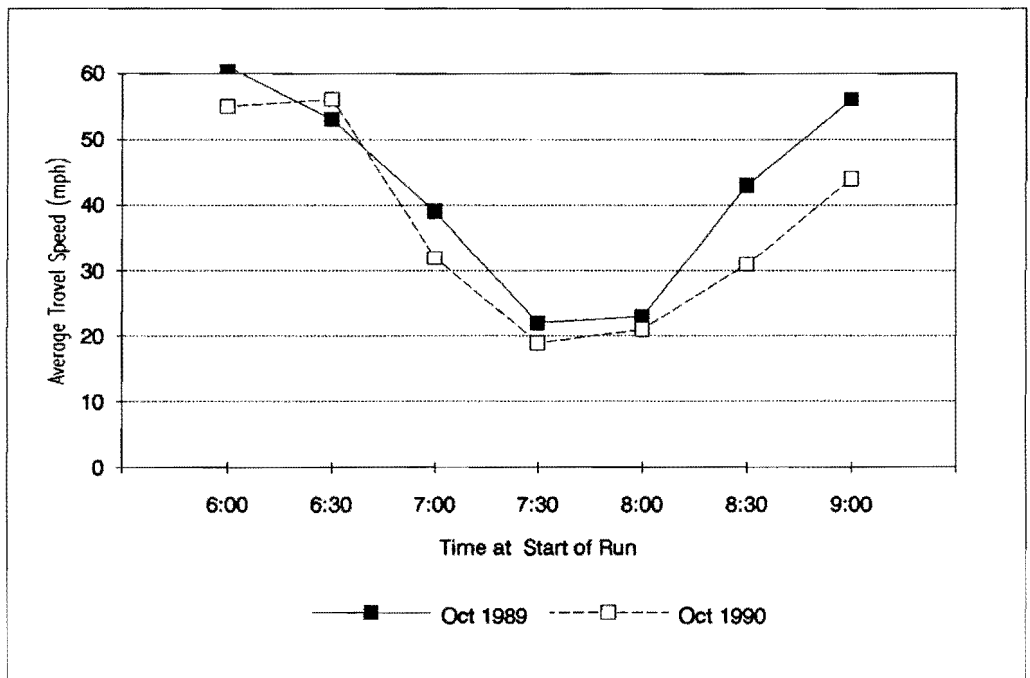


(b) Southbound

Figure E-12. P.M. Peak Period Average Travel Speed Between I-635 and CBD: US-75 Frontage Road (October 1990)

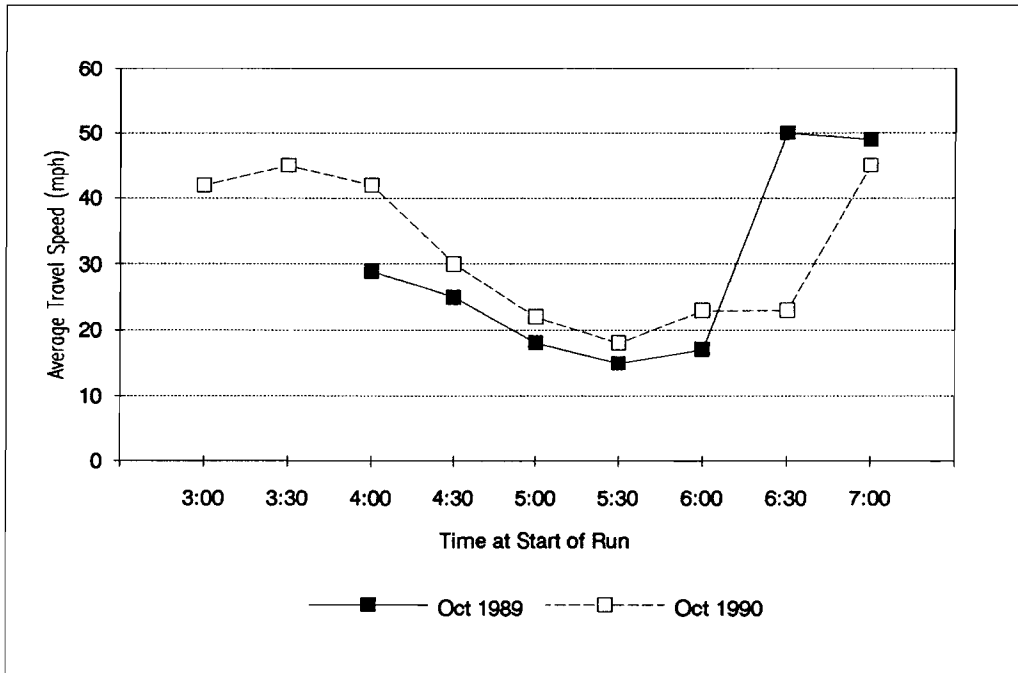


(a) Northbound

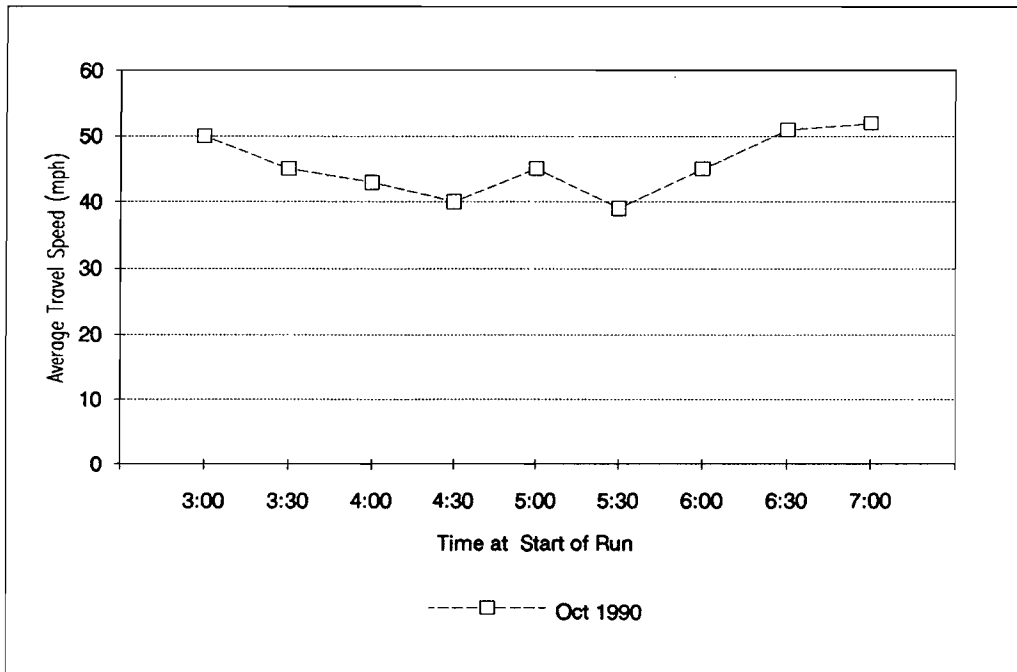


(b) Southbound

Figure E-13. A.M. Peak Period Average Travel Speed Between I-635 and CBD: US-75 (October 1989 and 1990)

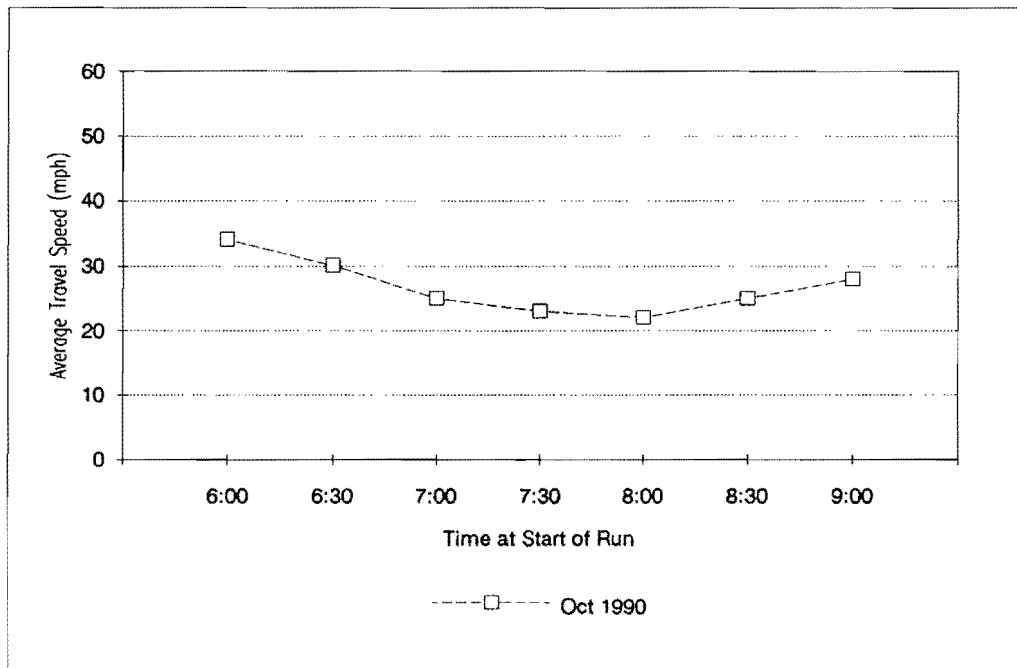


(a) Northbound

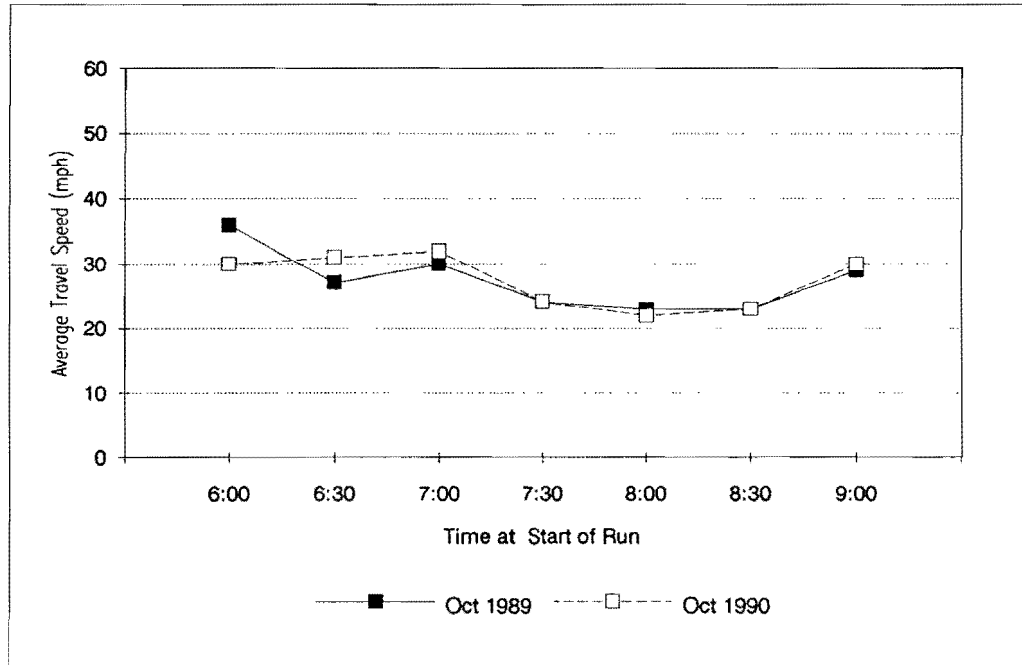


(b) Southbound

Figure E-14. P.M. Peak Period Average Travel Speed Between I-635 and CBD: US-75 (October 1989 and 1990)

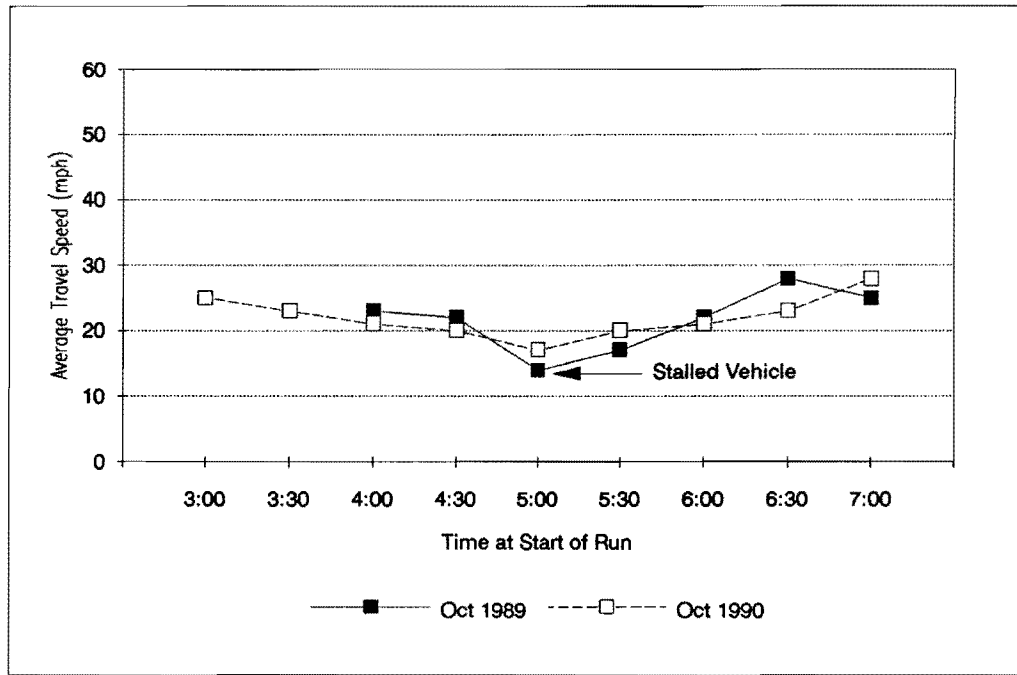


(a) Northbound

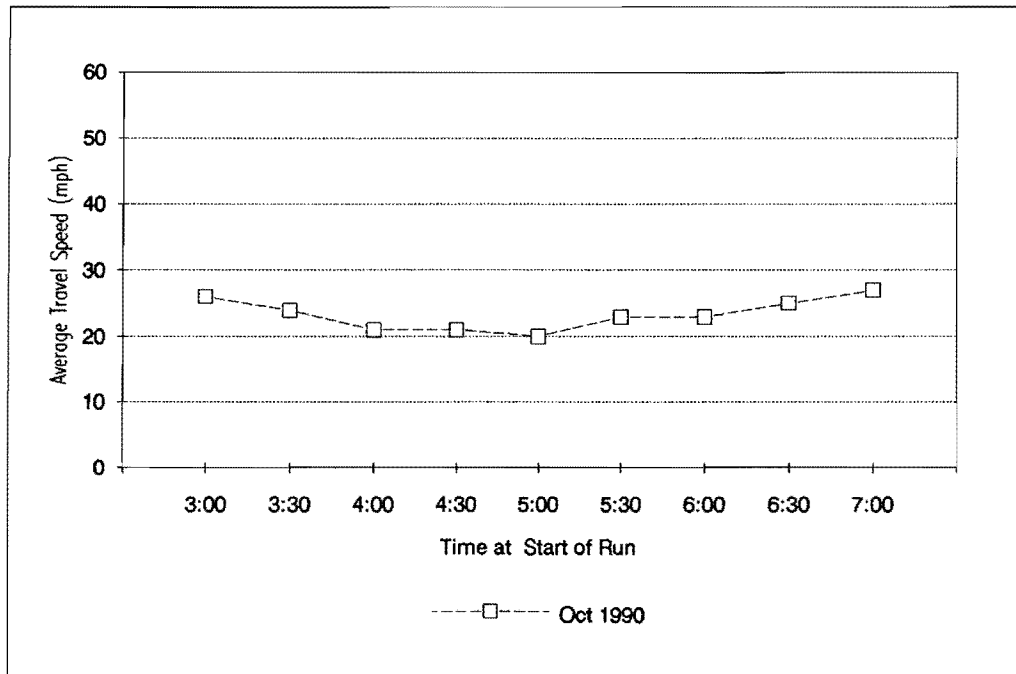


(b) Southbound

Figure E-15. A.M. Peak Period Average Travel Speed Between I-635 and CBD: Greenville (October 1989 and 1990)

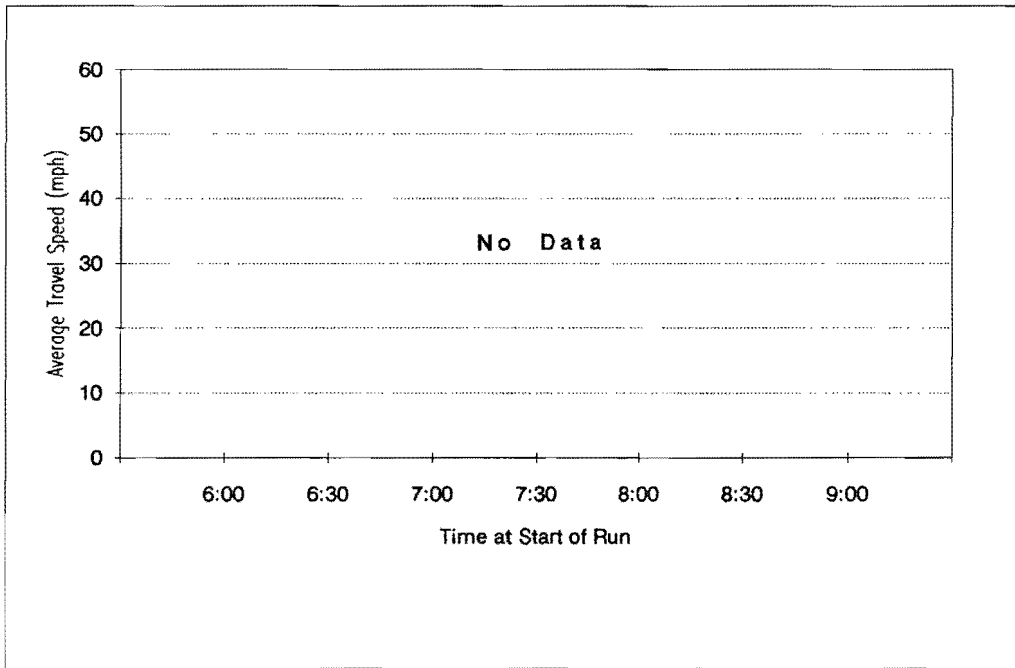


(a) Northbound

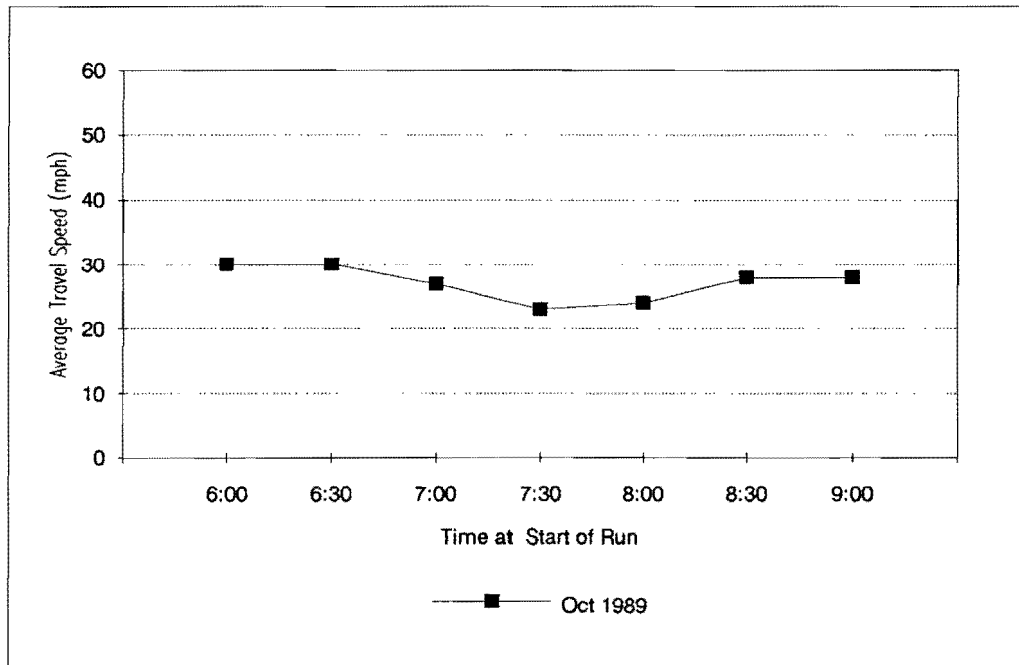


(b) Southbound

Figure E-16. P.M. Peak Period Average Travel Speed Between I-635 and CBD: Greenville (October 1989 and 1990)

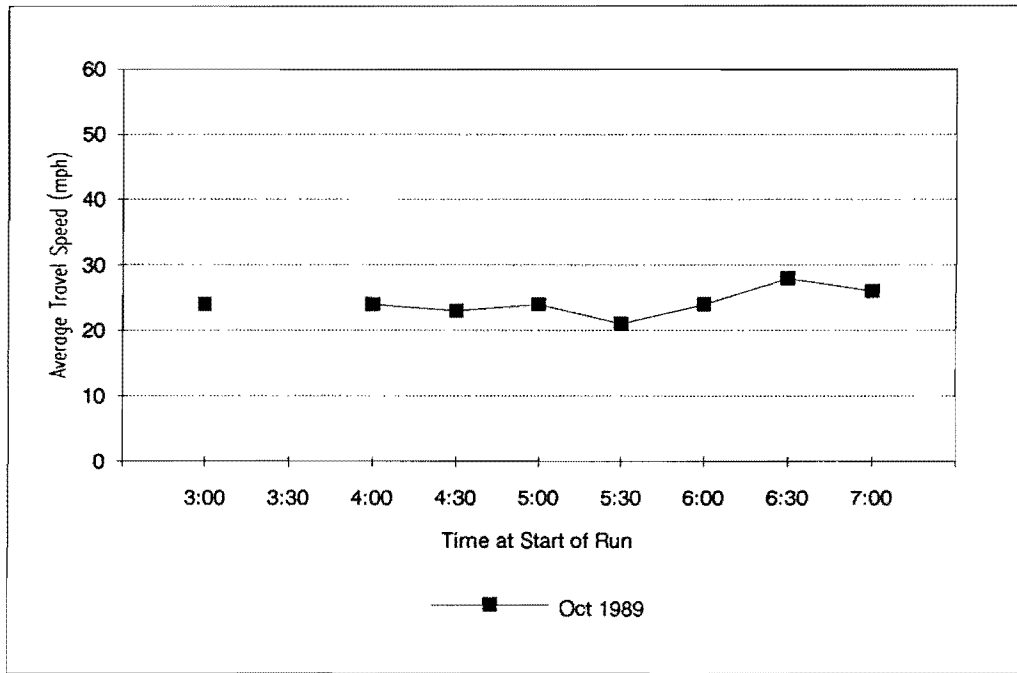


(a) Northbound

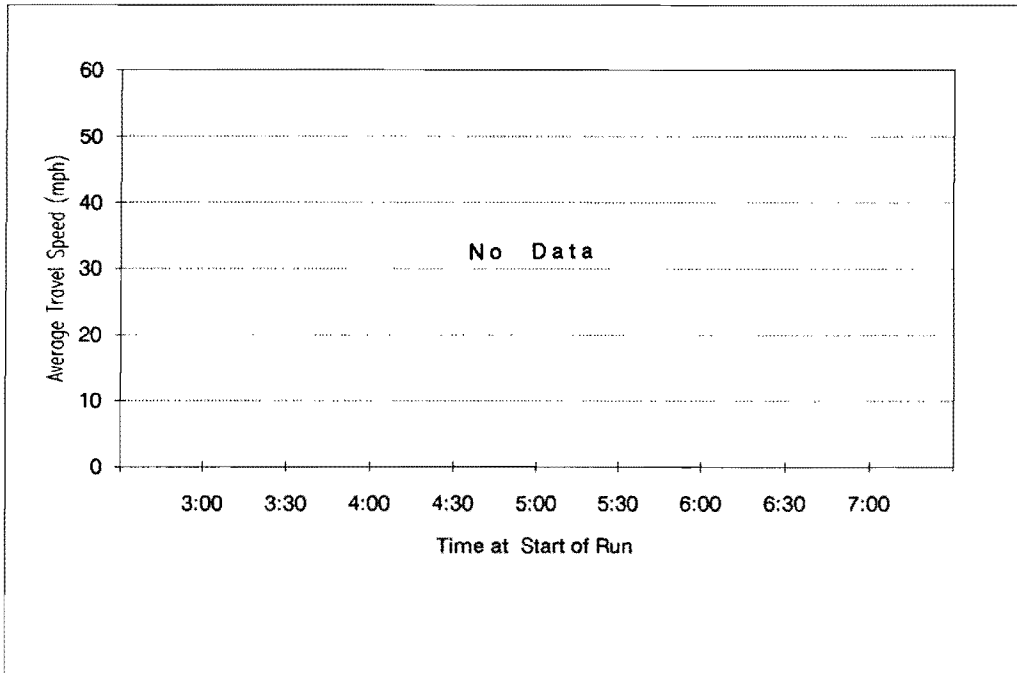


(b) Southbound

Figure E-17. A.M. Peak Period Average Travel Speed Between I-635 and CBD: Abrams (October 1989)

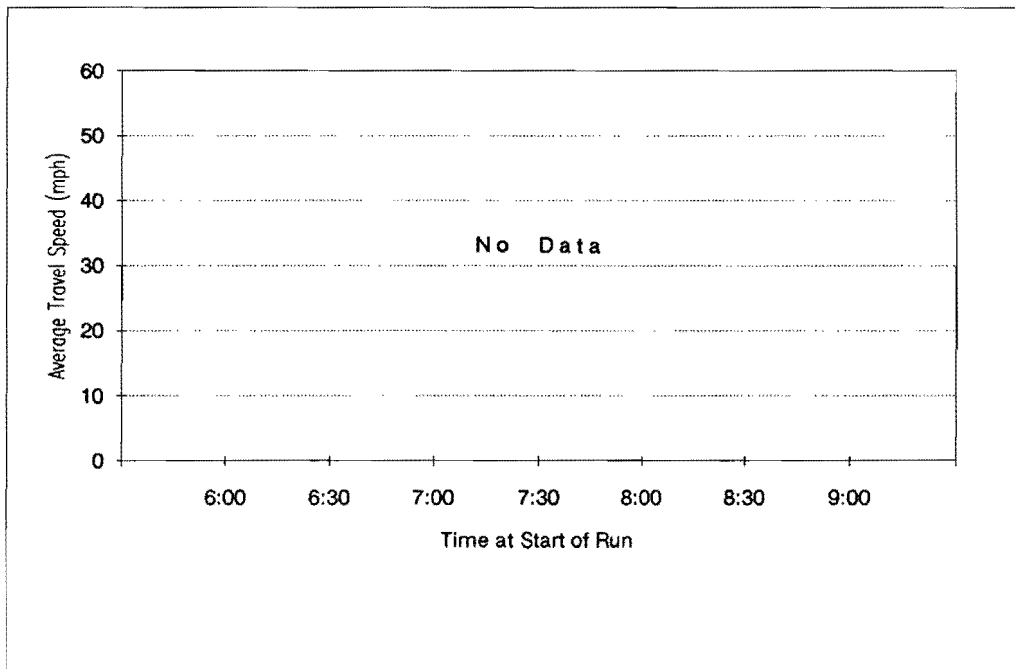


(a) Northbound

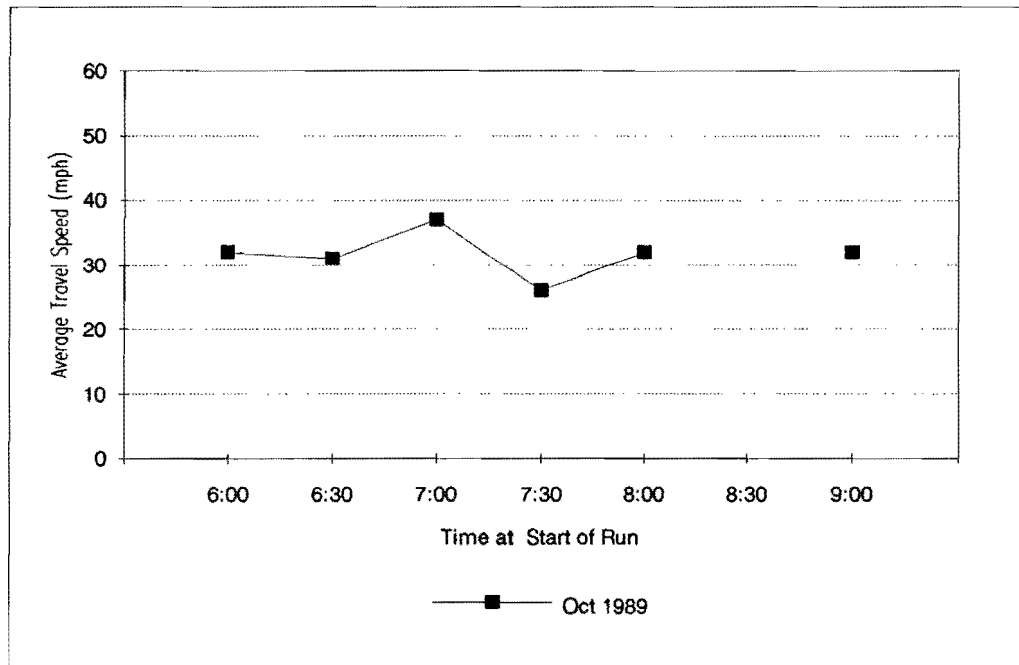


(b) Southbound

Figure E-18. P.M. Peak Period Average Travel Speed Between I-635 and CBD: Abrams (October 1989)

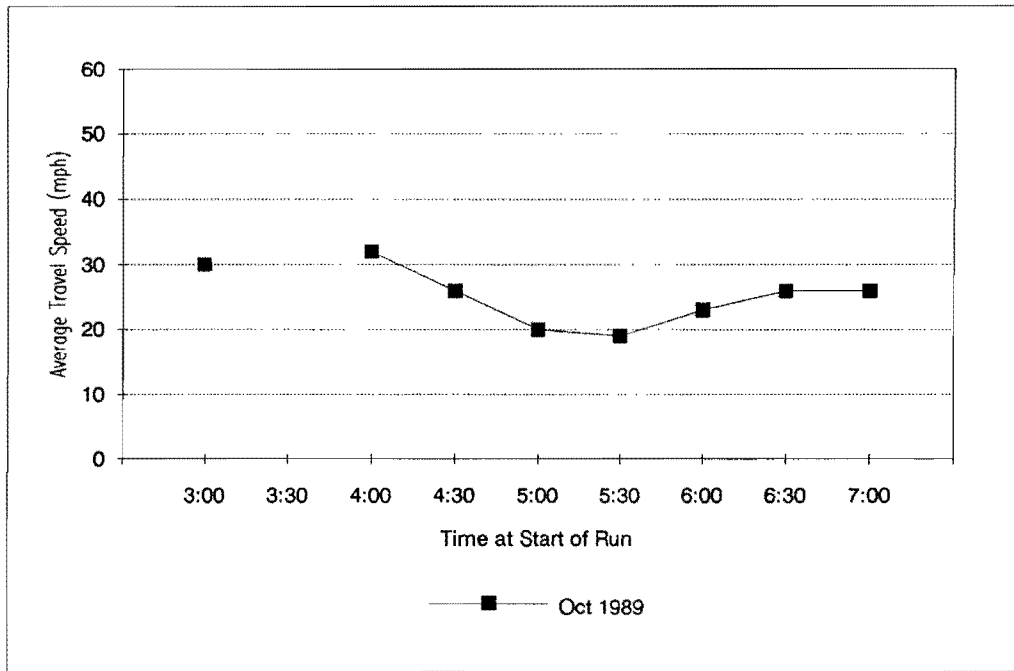


(a) Northbound

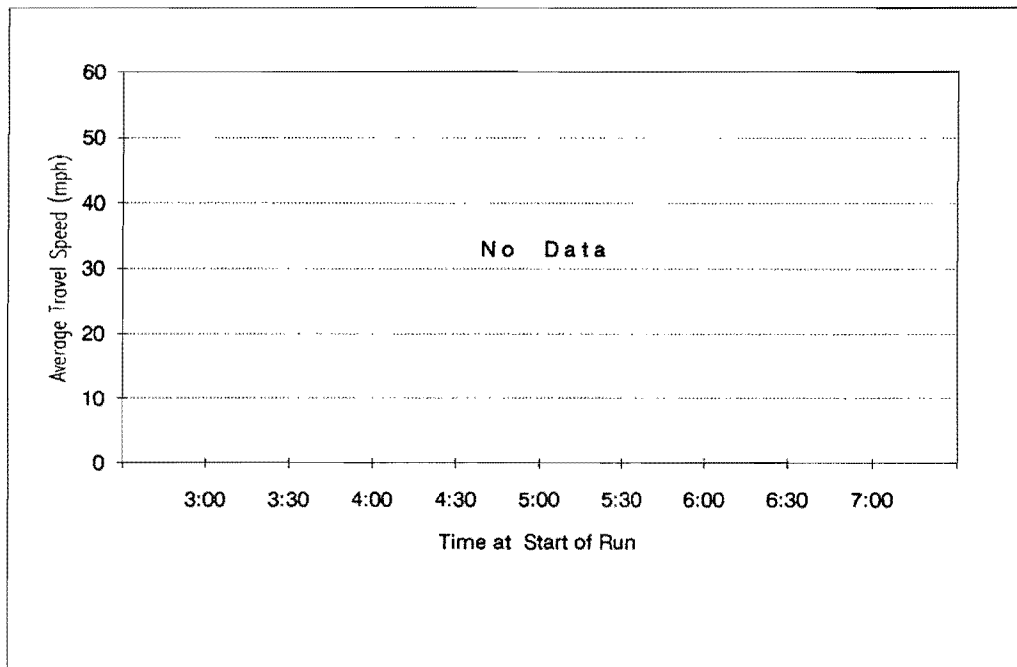


(b) Southbound

Figure E-19. A.M. Peak Period Average Travel Speed Between I-635 and CBD: Skillman (October 1989)

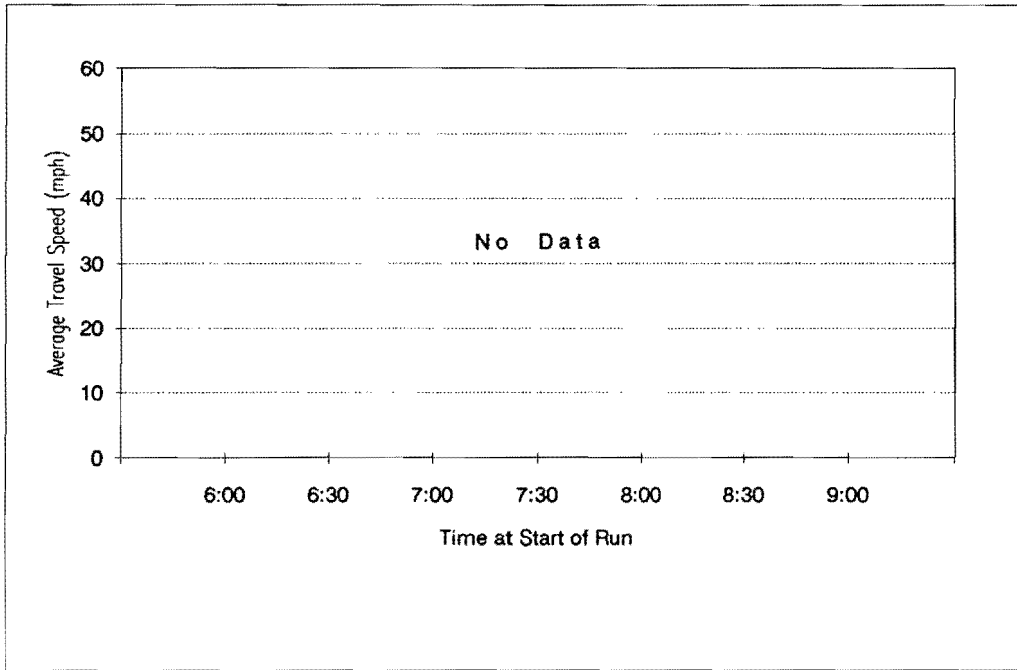


(a) Northbound

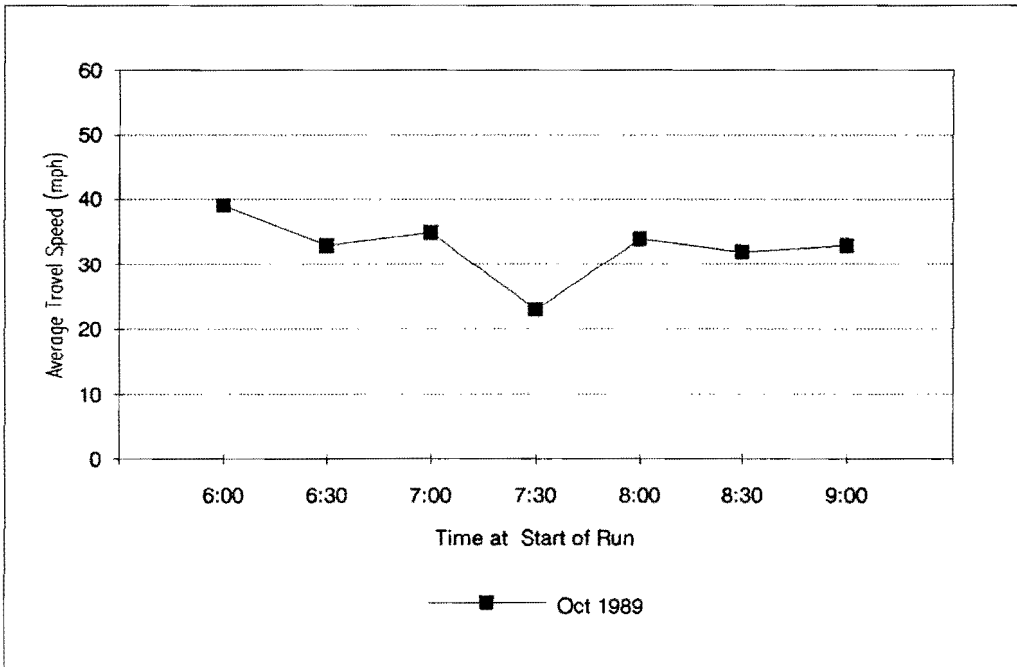


(b) Southbound

Figure E-20. P.M. Peak Period Average Travel Speed Between I-635 and CBD: Skillman (October 1989)

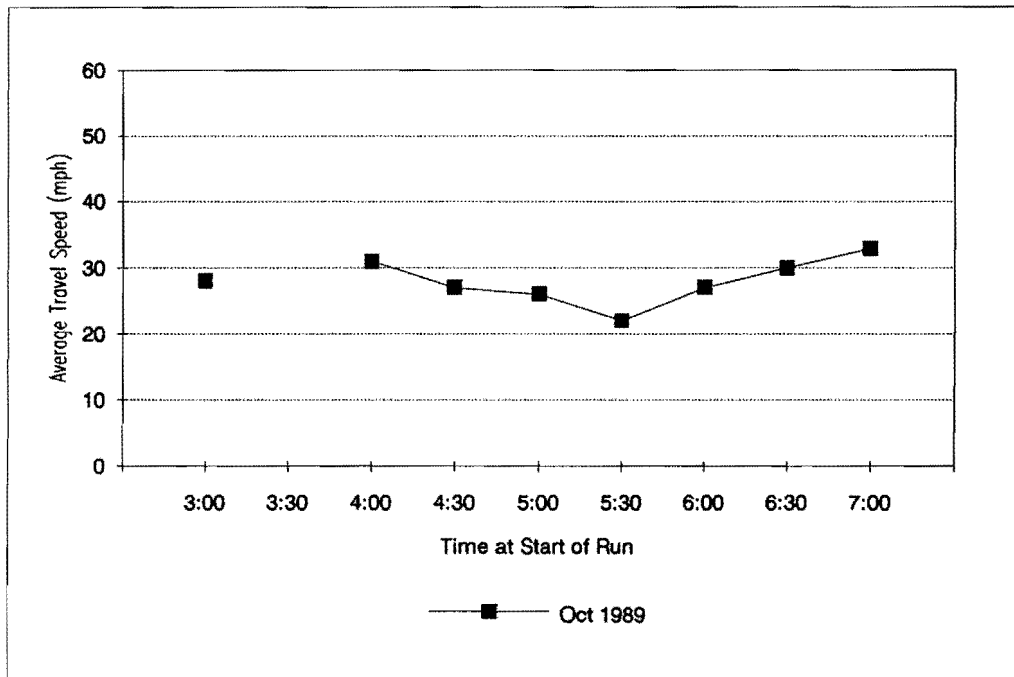


(a) Northbound

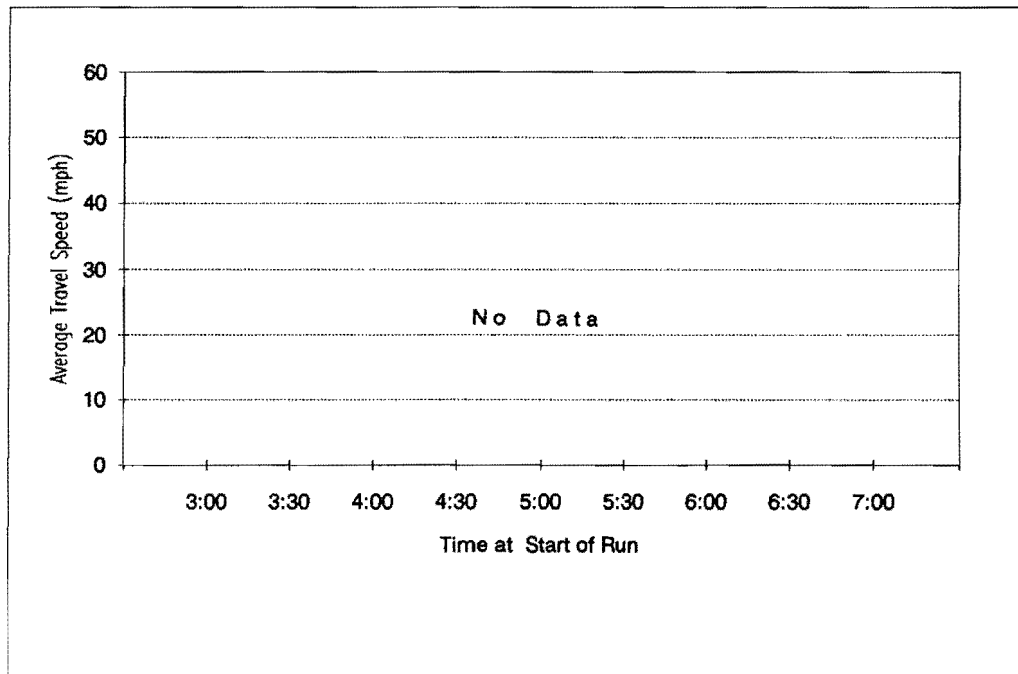


(b) Southbound

Figure E-21. A.M. Peak Period Average Travel Speed Between I-635 and CBD: Garland (October 1989)



(a) Northbound



(b) Southbound

Figure E-22. P.M. Peak Period Average Travel Speed Between I-635 and CBD: Garland (October 1989)

APPENDIX F

MAY 1991 SCREEN LINE TRAFFIC VOLUME TABLES

TABLE F-1. Loop 12 (Northwest Highway) Screen Line Average Traffic Volumes (May 1991): Southbound

Hour Ending	ROUTE									
	Abrams	Skillman	Greenville	US 75	Hillcrest	Preston	DNT	Inwood	Midway	Total
1	100	154	212	859	28	26	154	38	45	1716
2	60	101	107	543	15	16	79	16	20	857
3	51	75	93	396	10	7	62	9	14	717
4	30	56	27	306	6	4	33	6	12	480
5	30	66	19	333	7	14	65	17	19	570
6	69	179	56	909	27	39	336	74	45	1734
7	218	882	310	3059	130	212	2011	482	280	7584
8	566	2581	1694	3544	631	853	5281	1449	1091	17710
9	645	2211	1633	3143	811	1286	4918	1608	1178	17431
10	546	944	909	3478	631	936	3046	917	625	12030
11	566	725	792	3554	515	831	2007	712	511	10213
12	685	772	1113	3626	649	930	2095	763	627	11260
13	724	827	1347	3177	618	1026	2069	772	690	11250
14	725	802	1189	2477	594	1044	2136	729	634	10330
15	722	787	1126	3361	654	1049	2250	830	603	11382
16	759	825	1127	3756	632	1041	2444	941	746	12271
17	836	908	1223	3826	770	872	3040	977	744	13196
18	926	1020	1509	3895	939	1050	3431	955	846	14571
19	904	1105	1198	3795	775	755	2548	721	644	12445
20	744	923	963	2259	462	504	1601	432	513	8401
21	611	787	807	2969	274	342	1113	333	469	7705
22	458	603	721	3223	234	260	942	324	340	7105
23	326	448	550	2886	127	146	673	171	206	5536
24	204	307	432	1928	69	83	372	101	103	3599
24 Hr. Total	11525	18088	19157	61400	9606	13326	42706	13377	11006	200193

TABLE F-2. Loop 12 (Northwest Highway) Screen Line Average Traffic Volumes (May 1991): Northbound

Hour Ending	ROUTE									
	Abrams	Skillman	Greenville	US 75	Hillcrest	Preston	DNT	Inwood	Midway	Total
1	131	239	256	1162	24	45	256	46	53	2212
2	66	107	154	850	13	24	151	21	28	1414
3	54	122	149	693	16	17	119	18	23	1211
4	32	60	46	359	8	9	68	8	12	602
5	29	39	29	411	8	16	94	9	11	646
6	68	78	47	879	18	31	266	33	35	1455
7	210	284	227	3039	104	127	1260	180	162	5593
8	548	578	762	3856	354	391	2911	589	475	10464
9	640	589	1008	3983	492	482	2834	643	481	11152
10	545	450	650	3384	372	483	1957	529	410	8780
11	510	477	697	3370	359	604	1622	480	403	8522
12	632	602	985	3918	412	771	1928	569	489	10306
13	758	707	1335	3838	485	916	1934	689	556	11218
14	733	672	1245	3869	504	890	2094	761	519	11287
15	747	796	1147	3933	535	1010	2256	793	540	11759
16	774	968	1114	4115	514	968	2720	877	650	12700
17	870	1464	1335	3867	604	942	3995	1030	831	14938
18	1013	2344	1872	3597	774	1070	5083	1407	1301	18461
19	970	1690	1467	3960	585	1007	4150	951	868	15648
20	753	1006	951	3747	364	636	2031	482	513	10483
21	674	916	783	3136	260	509	1295	346	383	8302
22	535	783	760	3185	250	409	1104	290	285	7551
23	358	540	601	2621	134	230	949	174	185	5792
24	236	408	425	2110	67	101	566	121	103	4137
24 Hr. Total	11886	15899	18045	87882	7256	11688	41645	11016	9316	194633

TABLE F-3. Mockingbird/Buckner Screen Line Average Traffic Volumes (May 1991): Southbound

Hour Ending	ROUTE											Total
	Garland	Abrams	Skillman	Matilda	Greenville	US 75	Hillcrest	Preston	DNT	Inwood	Lemmon	
1	*	96	71	19	169	905	18	36	178	*	*	1490
2	*	56	39	9	78	458	9	16	84	*	*	749
3	*	48	43	11	63	396	2	11	72	*	*	646
4	*	21	15	4	31	287	3	6	50	*	*	397
5	*	24	18	1	19	341	0	12	64	*	*	479
6	*	51	43	2	30	965	6	30	258	*	*	1385
7	*	211	330	8	133	3442	44	128	1558	*	*	5854
8	*	786	1324	86	623	5883	218	562	4837	*	*	14319
9	*	830	1311	100	682	5131	369	867	4977	*	*	14267
10	*	622	433	73	403	4751	271	624	2808	*	*	9985
11	*	589	348	89	442	4244	249	648	2008	*	*	8617
12	*	675	408	112	557	4476	290	689	2087	*	*	9294
13	*	759	460	141	634	4577	376	784	2116	*	*	9847
14	*	754	467	124	679	4786	358	852	2419	*	*	10439
15	*	754	496	108	615	4415	316	795	2251	*	*	9750
16	*	820	517	135	598	4900	329	776	2398	*	*	10473
17	*	834	563	143	689	4953	281	760	2891	*	*	11114
18	*	960	622	193	720	5069	325	766	3109	*	*	11764
19	*	1000	625	185	731	4490	282	650	2360	*	*	10323
20	*	745	490	154	666	3500	236	464	1474	*	*	7759
21	*	613	381	132	565	2902	145	398	918	*	*	6054
22	*	559	364	107	501	3050	126	299	872	*	*	5878
23	*	358	258	76	406	2515	86	184	649	*	*	4532
24	*	212	136	41	266	1571	34	86	355	*	*	2701
24 Hr. Total	0	12377	9782	2053	10330	77967	4373	10443	40791	0	0	166116

TABLE F-4. Mockingbird/Buckner Screen Line Average Traffic Volumes (May 1991): Northbound

Hour Ending	ROUTE											Total
	Garland	Abrams	Skillman	Matilda	Greenville	US 75	Hillcrest	Preston	DNT	Inwood	Lemmon	
1	*	109	79	48	177	1184	22	48	248	*	*	1915
2	*	59	38	30	134	722	10	26	152	*	*	1171
3	*	35	30	21	79	563	5	14	127	*	*	874
4	*	23	18	11	46	316	2	8	83	*	*	507
5	*	22	15	12	42	435	1	6	102	*	*	635
6	*	82	50	22	78	1123	11	30	284	*	*	1658
7	*	285	203	98	150	3637	37	103	1320	*	*	5833
8	*	753	579	280	176	3733	127	369	2609	*	*	8626
9	*	938	626	311	178	4188	219	574	2652	*	*	9686
10	*	815	470	220	165	3802	224	522	1782	*	*	8000
11	*	798	448	236	152	3789	232	602	1810	*	*	7867
12	*	975	483	233	149	4384	252	631	2110	*	*	9217
13	*	940	588	349	108	4562	290	761	2089	*	*	9667
14	*	921	546	341	90	4674	288	774	2216	*	*	9850
15	*	926	588	289	147	4624	270	752	2347	*	*	9923
16	*	1007	651	325	133	4833	247	710	2733	*	*	10639
17	*	1097	825	368	147	5117	329	802	4030	*	*	12815
18	*	1347	1280	601	181	4731	442	995	5112	*	*	14669
19	*	1157	874	409	146	4431	305	742	3601	*	*	11665
20	*	854	516	280	177	4307	233	489	1863	*	*	8719
21	*	700	396	208	173	3330	200	397	1180	*	*	6584
22	*	518	310	204	154	3349	141	356	1007	*	*	6039
23	*	346	214	116	258	3459	115	222	835	*	*	5565
24	*	215	144	79	264	2254	55	122	535	*	*	3688
24 Hr. Total	0	14922	10031	5091	3482	77547	4057	10055	40807	0	0	165792

TABLE F-5. Oak Lawn/Lemmon/Peak Screen Line Average Traffic Volumes (May 1991): Southbound

Hour Ending	ROUTE													Total
	Columbia	Gaston	Live Oak	Ross	US-75	Cole	Turtle Creek	Oaklawn	Lemmon	Cedar Springs	Maple	DNT	Harry Hines	
1	*	50	44	84	818	39	24	100	189	203	*	143	*	1694
2	*	35	25	56	464	28	15	56	106	134	*	82	*	1005
3	*	24	23	46	364	23	12	56	95	129	*	61	*	833
4	*	22	24	41	273	11	8	26	56	55	*	49	*	565
5	*	29	22	44	341	10	11	27	47	45	*	58	*	634
6	*	102	84	97	1062	35	26	40	95	65	*	225	*	1831
7	*	482	462	366	3673	88	121	161	349	204	*	1389	*	7295
8	*	1220	1819	1212	5934	429	675	628	1075	572	*	4959	*	18523
9	*	1249	2043	1426	5686	764	1182	792	1395	742	*	5729	*	21030
10	*	583	708	731	4086	335	599	588	901	564	*	3525	*	12620
11	*	469	451	550	3667	261	402	567	847	531	*	1988	*	9733
12	*	500	500	567	3842	319	458	729	979	614	*	2136	*	10644
13	*	637	717	703	4040	434	520	666	1393	816	*	2095	*	12221
14	*	659	654	691	4070	410	561	628	1352	840	*	2336	*	12401
15	*	546	496	636	3934	316	425	723	1240	710	*	2189	*	11215
16	*	488	448	593	4304	278	385	688	1375	733	*	2460	*	11752
17	*	474	453	645	4995	366	369	664	1467	819	*	2904	*	13156
18	*	423	429	560	4876	349	388	725	1446	862	*	3275	*	13333
19	*	378	361	419	3728	289	360	665	1176	732	*	2465	*	10573
20	*	298	285	347	2948	269	298	514	941	644	*	1536	*	8060
21	*	244	241	298	2263	234	177	456	764	589	*	939	*	6205
22	*	203	167	242	2393	185	141	426	675	501	*	871	*	5604
23	*	159	129	206	1964	141	97	330	567	471	*	583	*	4647
24	*	101	76	135	1353	106	50	180	468	316	*	349	*	3134
24 Hr. Total	0	9375	10661	10697	71078	5739	7304	10837	19000	11891	0	42344	0	198926

TABLE F-6. Oak Lawn/Lemmon/Peak Screen Line Average Traffic Volumes (May 1991): Northbound

Hour Ending	ROUTE													Total
	Columbia	Gaston	Live Oak	Ross	US-75	McKinney	Turtle Creek	Oaklawn	Lemmon	Cedar Springs	Maple	DNT	Harry Hines	
1	*	82	72	128	949	87	52	128	199	151	*	226	*	2054
2	*	51	37	87	638	30	23	81	120	76	*	127	*	1270
3	*	43	30	91	477	26	16	63	104	75	*	107	*	1032
4	*	21	18	49	321	14	10	31	81	41	*	60	*	626
5	*	27	15	46	375	9	10	24	89	31	*	98	*	724
6	*	56	36	57	1098	10	9	37	242	54	*	275	*	1874
7	*	142	83	138	3765	48	46	123	807	171	*	1201	*	6524
8	*	381	200	340	4963	165	136	373	1317	322	*	2778	*	10975
9	*	374	247	438	4850	236	228	608	1151	330	*	2642	*	10904
10	*	346	275	466	3330	204	262	534	896	308	*	1723	*	8344
11	*	424	341	553	3384	244	308	548	872	360	*	1613	*	8647
12	*	559	572	738	3727	360	445	763	1351	521	*	2013	*	11049
13	*	669	681	831	3751	493	557	896	1606	607	*	2050	*	12141
14	*	526	508	747	3861	464	522	776	1326	561	*	2053	*	11344
15	*	576	488	803	3884	388	454	716	1261	520	*	2233	*	11323
16	*	730	608	883	4187	389	467	734	1149	516	*	2680	*	12323
17	*	1032	1207	1397	5146	550	692	806	1392	631	*	4059	*	16912
18	*	1305	1892	1831	4826	1034	1302	1038	1677	830	*	5534	*	21269
19	*	734	875	966	4583	562	777	770	1264	672	*	3949	*	15182
20	*	442	428	531	3504	379	421	553	1018	534	*	1990	*	9800
21	*	374	311	441	2881	293	277	474	861	489	*	1251	*	7652
22	*	300	243	345	2573	257	258	428	728	449	*	1035	*	6616
23	*	224	159	278	2311	213	219	324	666	404	*	839	*	5637
24	*	201	126	228	1547	149	123	192	417	278	*	636	*	3897
24 Hr. Total	0	9619	9452	12442	70731	6584	7614	11020	20574	8931	0	41153	0	198120

TABLE F-7. US-75 Screen Line Average Traffic Volumes (May 1991): Eastbound

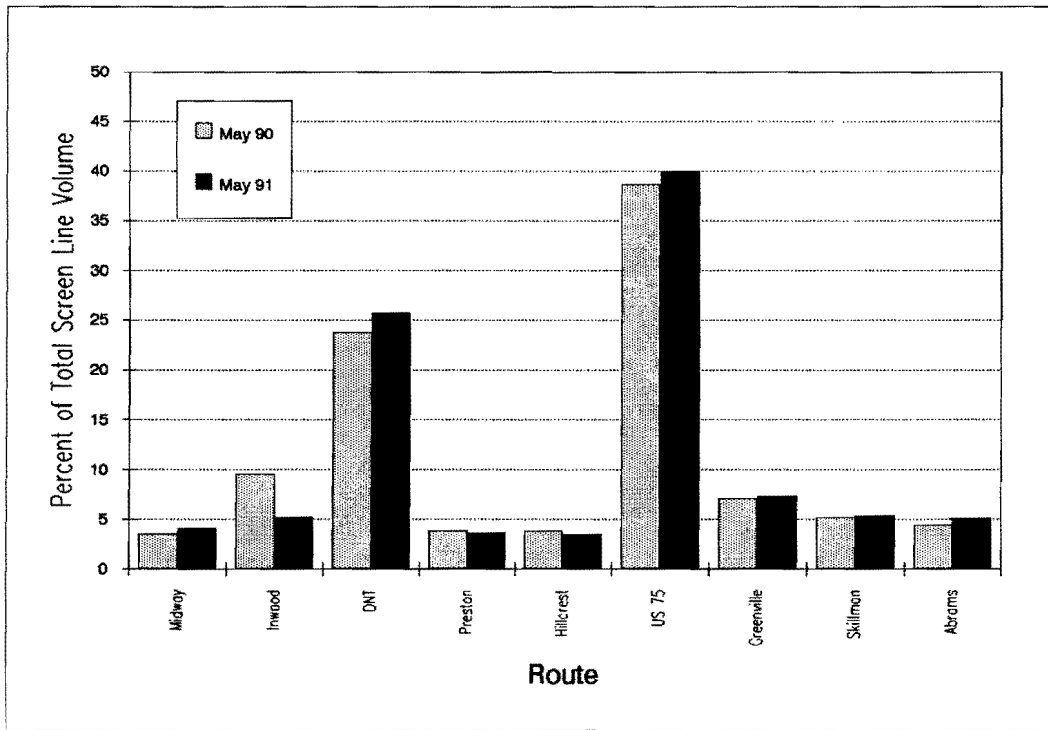
Hour Ending	ROUTE																		
	Forest	Royal	Walnut	Park Lane	Loop 12	Caruth Haven	South western	Lovers	University	Yale	Mocking bird	McCommas	Monticello	Hender son	Fitzhugh	Haskell	Lemmon	Hall	Total
1	77	56	118	180	323	45	20	120	44	13	156	29	18	134	279	54	167	37	1888
2	43	25	53	87	201	12	10	76	28	8	81	17	11	85	215	39	114	12	1117
3	21	14	57	52	173	13	6	43	19	6	52	9	4	67	167	29	102	14	848
4	20	11	43	37	72	7	4	15	14	2	23	4	2	23	107	18	62	11	475
5	21	6	28	21	66	4	4	18	9	1	26	5	0	20	58	26	35	9	357
6	53	30	86	61	108	12	7	30	12	0	46	5	4	34	96	58	74	9	725
7	222	152	469	200	370	64	38	91	44	3	136	19	18	110	231	242	250	30	2689
8	616	513	1036	656	864	258	130	276	96	21	305	40	51	206	475	551	501	67	6662
9	872	782	1656	793	1008	340	200	475	218	44	465	63	81	345	650	541	605	94	9234
10	763	481	1254	632	933	177	178	443	193	47	637	95	103	389	617	361	625	110	8036
11	877	425	1225	668	1050	160	157	486	208	53	666	124	117	468	672	315	651	126	8468
12	1213	469	1239	882	1373	205	186	556	263	73	925	192	164	577	823	383	814	178	10517
13	1441	604	1280	1213	1601	298	243	692	329	88	1030	216	168	737	886	500	882	186	12394
14	1327	621	1497	1108	1620	243	233	634	315	86	939	165	153	691	859	489	978	183	12141
15	1416	615	1440	1094	1744	216	215	654	304	87	972	181	150	701	922	395	960	184	12250
16	1590	798	1422	1075	2096	184	260	708	327	93	996	170	162	705	1061	365	1044	209	13265
17	2288	1241	1543	1203	2649	249	333	744	383	94	1163	314	233	880	1196	501	1169	282	16465
18	2639	1590	1752	1601	3034	405	600	1026	631	129	1416	601	429	1085	1321	473	1442	365	20539
19	1984	1221	1596	1508	2621	396	426	920	378	86	1271	361	265	846	1052	309	934	217	16393
20	924	517	957	1211	1797	261	269	782	229	55	975	222	178	759	852	227	651	145	11031
21	614	299	717	875	1504	210	163	687	203	44	819	180	129	652	675	203	529	148	8751
22	486	255	536	1108	1433	211	147	590	213	75	745	146	102	582	667	190	490	120	8098
23	270	184	427	568	1010	147	82	402	136	39	540	100	75	446	588	189	472	118	5793
24	197	91	263	346	651	97	32	294	93	27	303	62	45	298	441	101	329	56	3726
24 Hr. Total	19976	11000	20694	17279	28301	4234	3943	10764	4689	1174	14707	3320	2662	10842	14910	6559	13880	2910	191844

TABLE F-8. US-75 Screen Line Average Traffic Volume (May 1991): Westbound

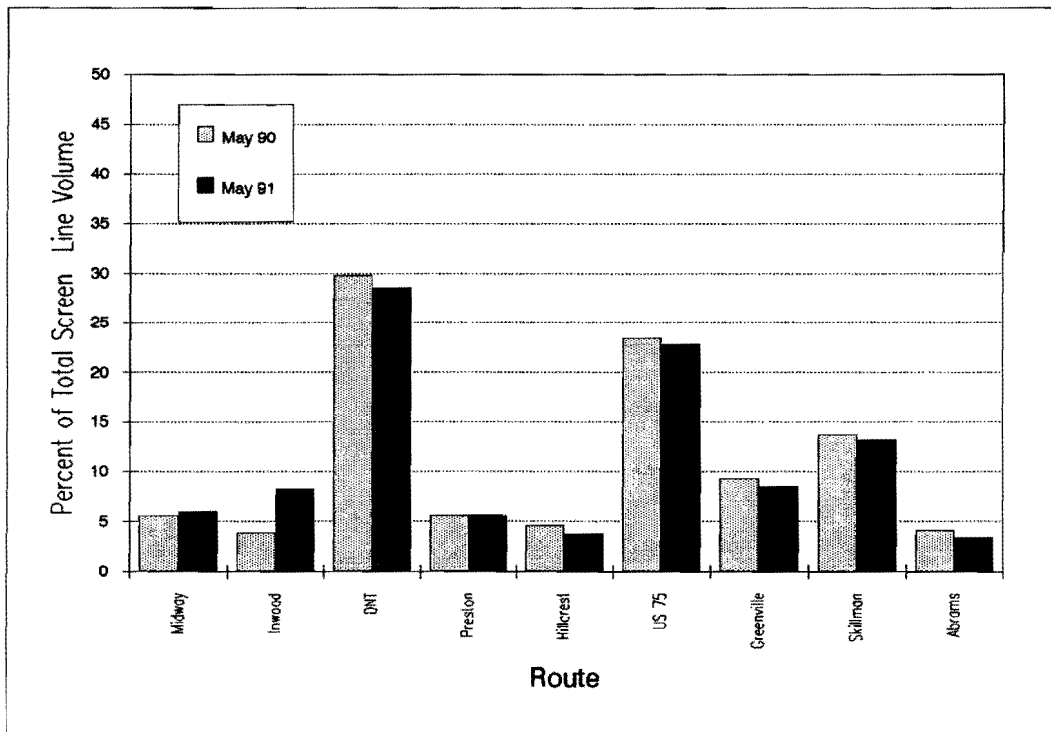
Hour Ending	ROUTE																		
	Forest	Royal	Walnut	Park Lane	Loop 12	Caruth Haven	South western	Lovers	University	Yale	Mocking bird	McCommas	Monticello	Hender son	Fitzhugh	Haskell	Lemmon	Hall	Total
1	220	105	131	187	222	33	40	117	80	58	155	27	24	140	203	43	133	39	1957
2	155	65	73	104	135	13	31	66	46	73	83	12	12	85	139	21	81	25	1219
3	115	40	55	74	121	14	21	62	45	78	70	10	10	79	121	21	58	18	1012
4	108	25	24	34	84	4	12	27	14	20	52	6	5	40	78	12	49	14	608
5	96	20	21	35	140	9	13	21	15	17	52	3	5	36	81	13	88	18	683
6	198	83	67	101	342	17	29	91	53	46	175	16	22	88	212	47	274	55	1916
7	881	399	422	402	1567	77	211	462	202	152	782	71	144	346	670	164	934	223	8129
8	2332	1263	1245	944	3013	385	656	1284	915	607	1849	349	576	781	1159	488	1503	462	19993
9	2207	1129	1127	952	2796	270	788	1238	915	632	1976	429	667	1010	1187	531	1371	591	19818
10	1285	641	924	704	1624	185	424	727	524	302	1231	186	240	640	772	246	757	230	11642
11	1062	568	1005	733	1575	168	327	617	397	266	1028	132	185	567	696	245	696	215	10506
12	1089	630	1137	941	1726	210	352	637	487	288	1063	135	214	681	751	402	758	230	11733
13	1163	695	1279	1045	1651	241	428	765	546	344	1222	182	253	690	759	420	782	270	12735
14	1232	690	1159	994	1741	221	419	713	518	386	1237	202	270	703	784	398	790	229	12686
15	1135	603	1177	878	1630	178	370	647	479	412	1167	165	228	571	824	318	870	212	11864
16	1143	675	1167	758	1632	191	339	677	528	428	1083	142	221	579	868	422	842	232	11947
17	1100	665	1309	855	1662	271	370	677	522	565	987	128	209	588	903	658	917	276	12662
18	1119	736	1471	993	1848	358	382	637	593	473	943	129	198	603	884	686	978	275	13306
19	816	625	1105	824	1657	186	442	692	488	336	975	129	217	604	713	333	752	183	11079
20	609	466	823	713	1502	126	336	535	315	189	833	118	153	500	598	189	481	144	8632
21	458	367	663	553	1034	106	260	415	256	137	626	92	134	418	504	158	486	129	6796
22	378	334	597	520	726	132	225	386	181	133	572	83	86	347	468	179	484	117	5948
23	267	251	431	382	579	100	159	287	152	107	425	61	84	292	410	129	406	102	4624
24	192	158	279	305	376	57	94	187	92	84	252	35	49	185	304	86	276	75	3086
24 Hr. Total	19390	11233	17711	14031	29387	3558	6930	11947	8363	6153	18838	2842	4186	10573	14090	6229	14766	4364	204583

APPENDIX G

**MAY 1991 SCREEN LINE TRAFFIC VOLUMES:
PERCENTAGE OF TOTAL SCREEN LINE VOLUME BY ROUTE**

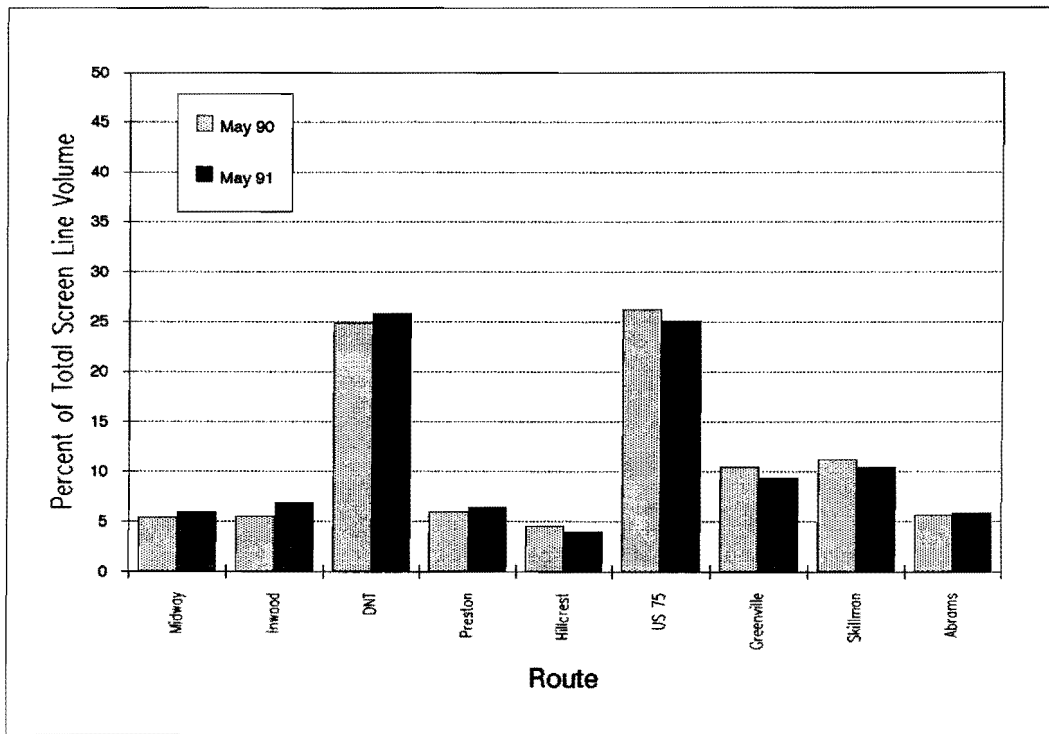


a) Northbound

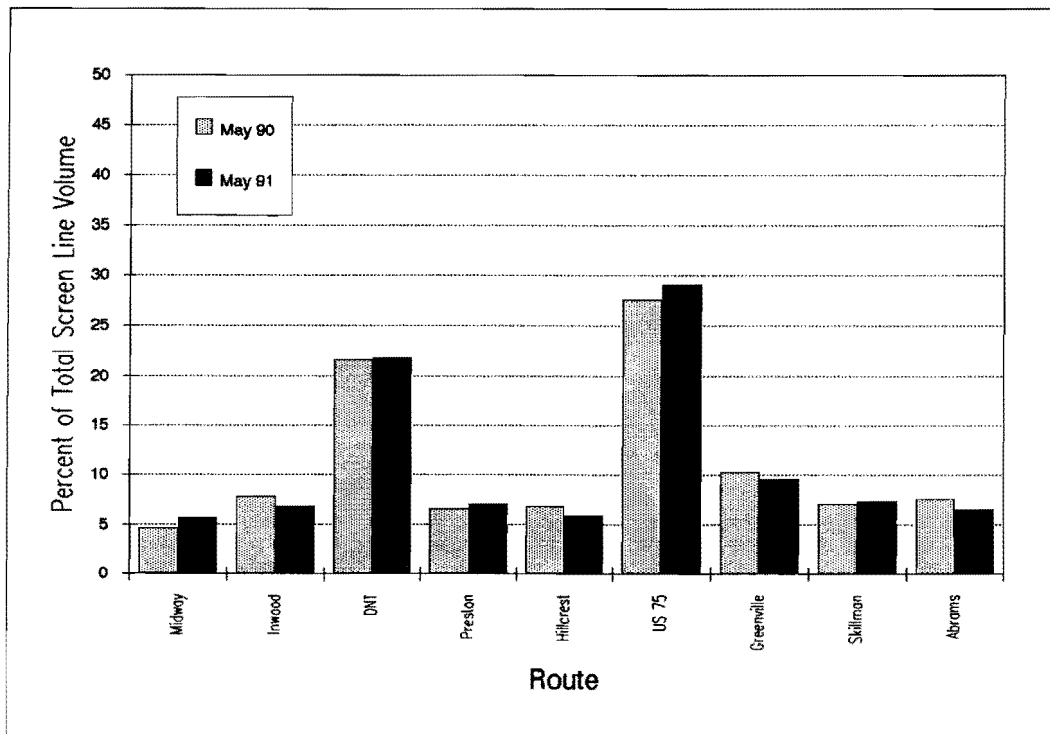


b) Southbound

Figure G-1. Percent of Total Screen Line Volume by Route:
Loop 12 - AM Peak Period (May 1990 and 1991)

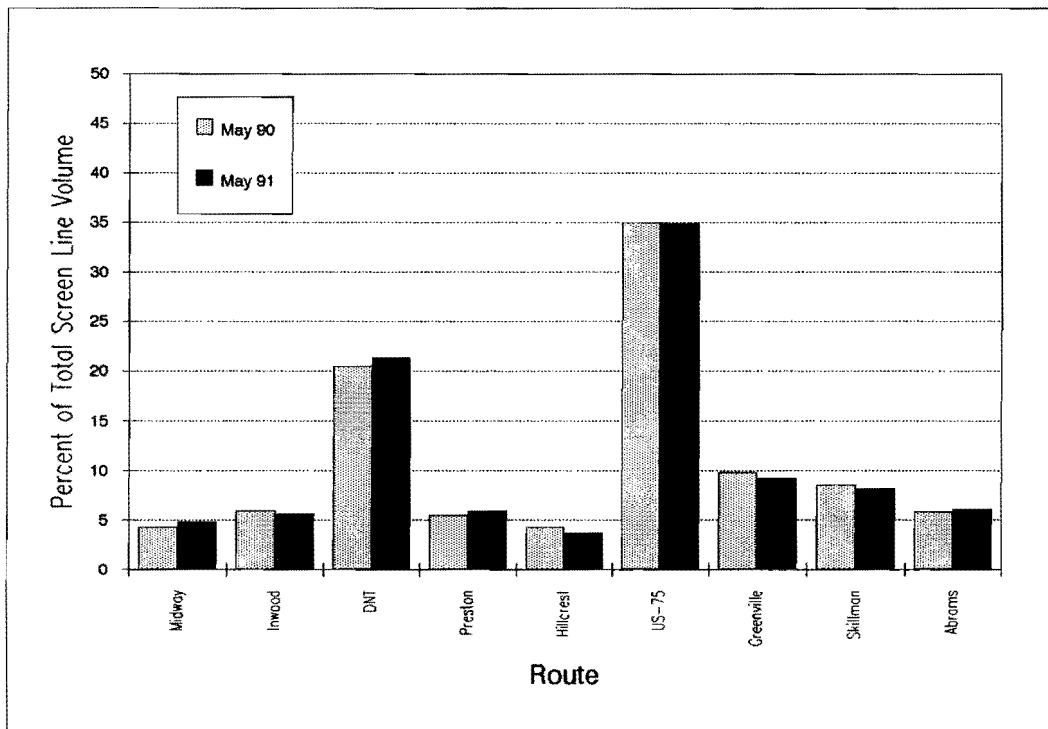


a) Northbound

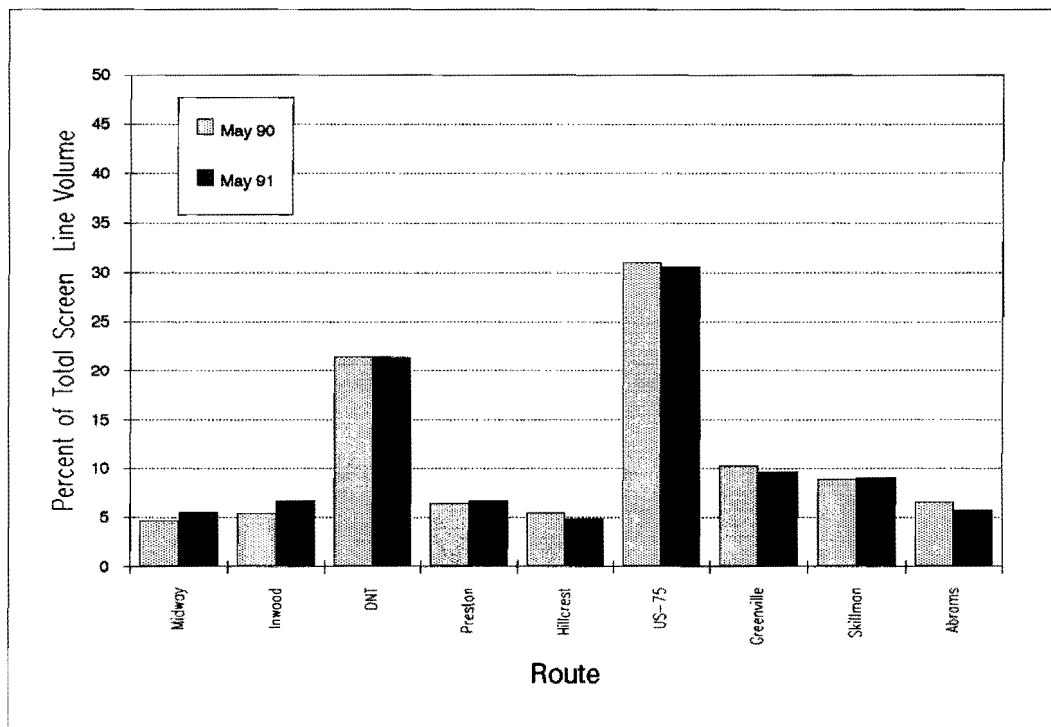


b) Southbound

Figure G-2. Percent of Total Screen Line Volume by Route:
Loop 12 - P.M. Peak Period (May 1990 and 1991)

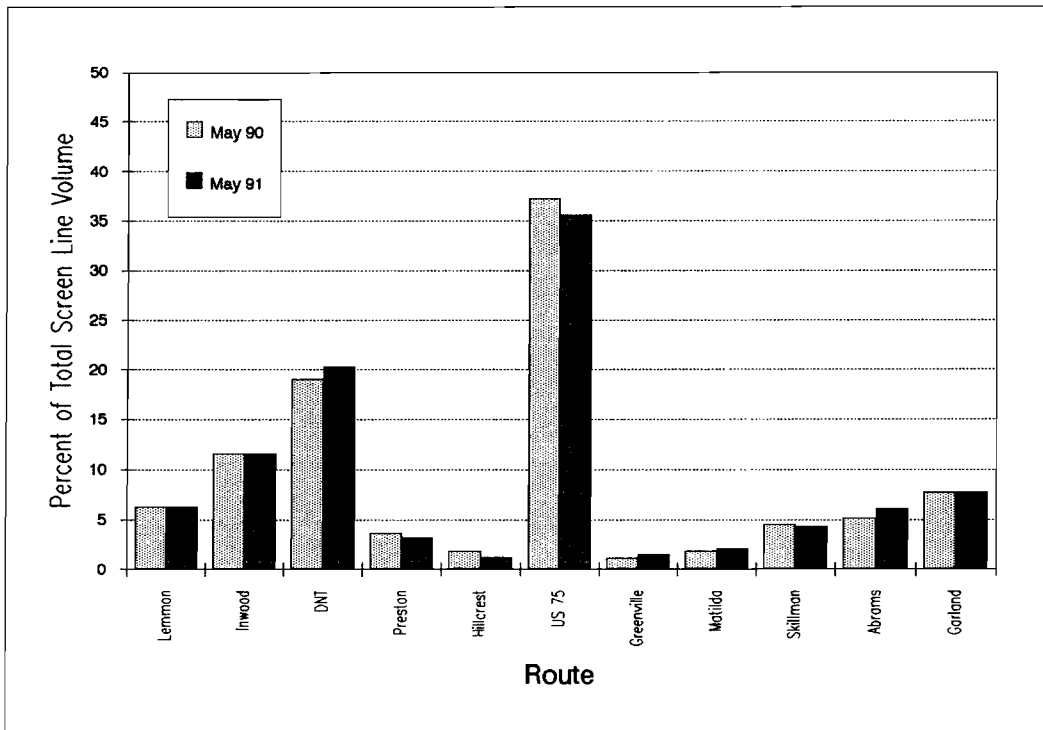


a) Northbound

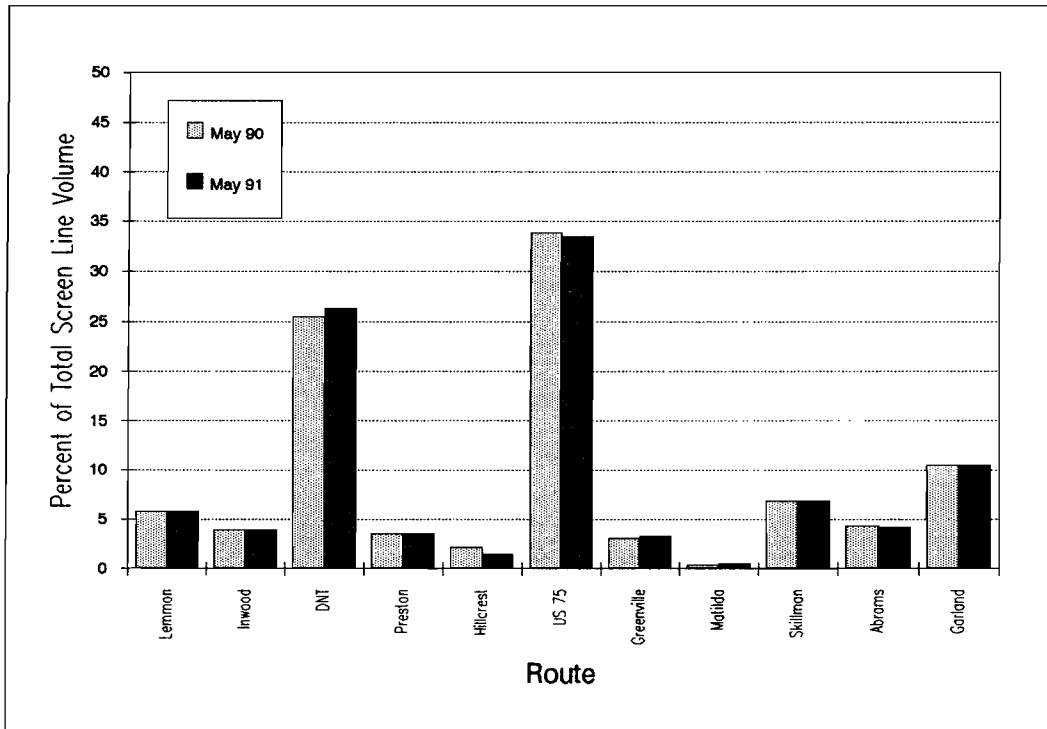


b) Southbound

Figure G-3. Percent of Total Screen Line Volume by Route:
Loop 12 - 24 Hour Period (May 1990 and 1991)

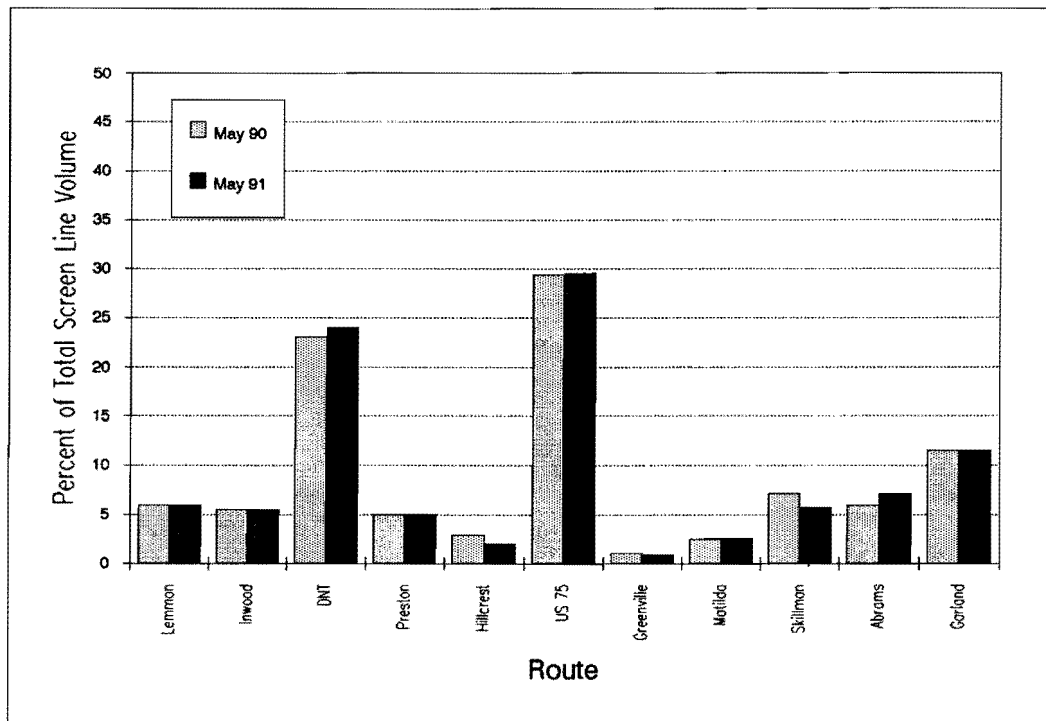


a) Northbound

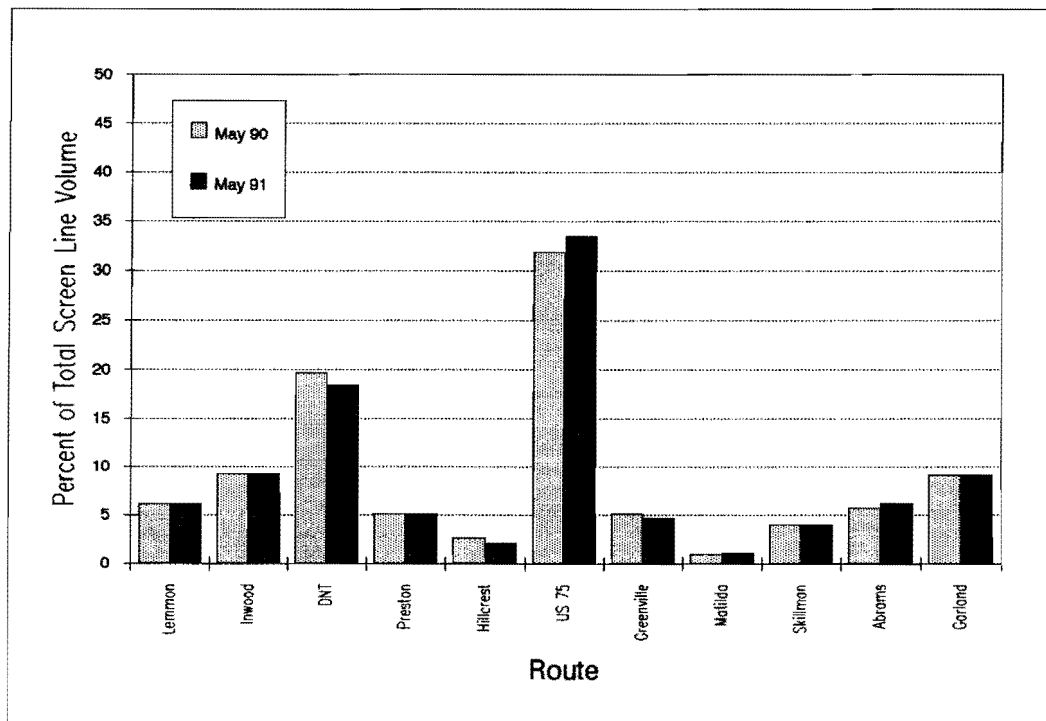


b) Southbound

Figure G-4. Percent of Total Screen Line Volume by Route:
Mockingbird/ Buckner - A.M. Peak Period (May 1990 and 1991)

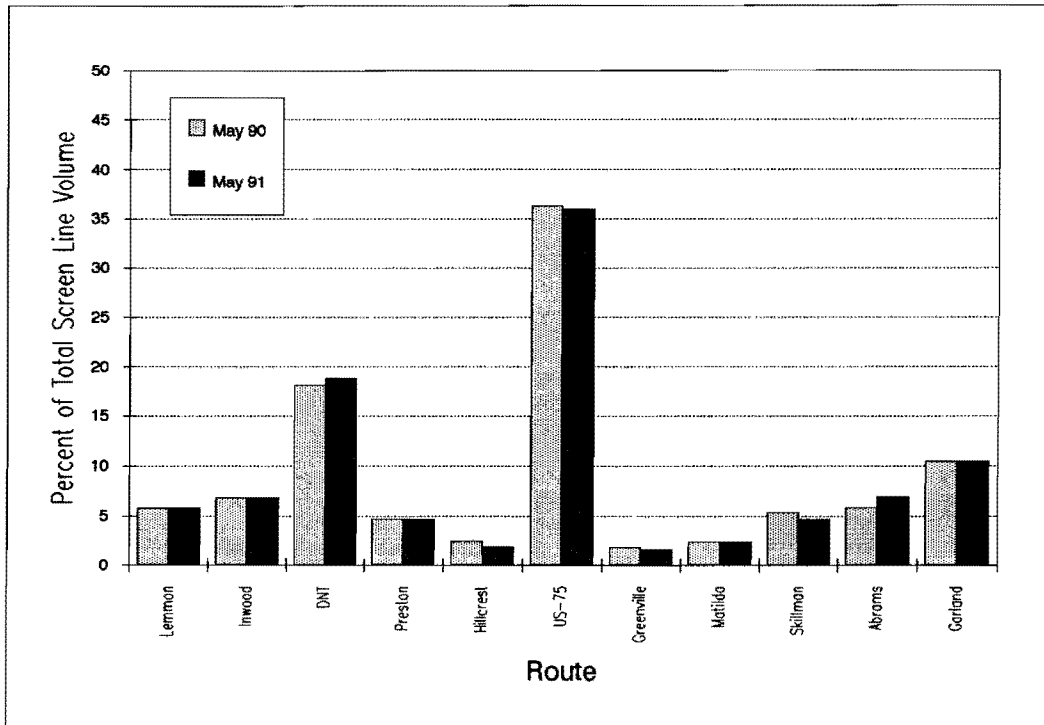


a) Northbound

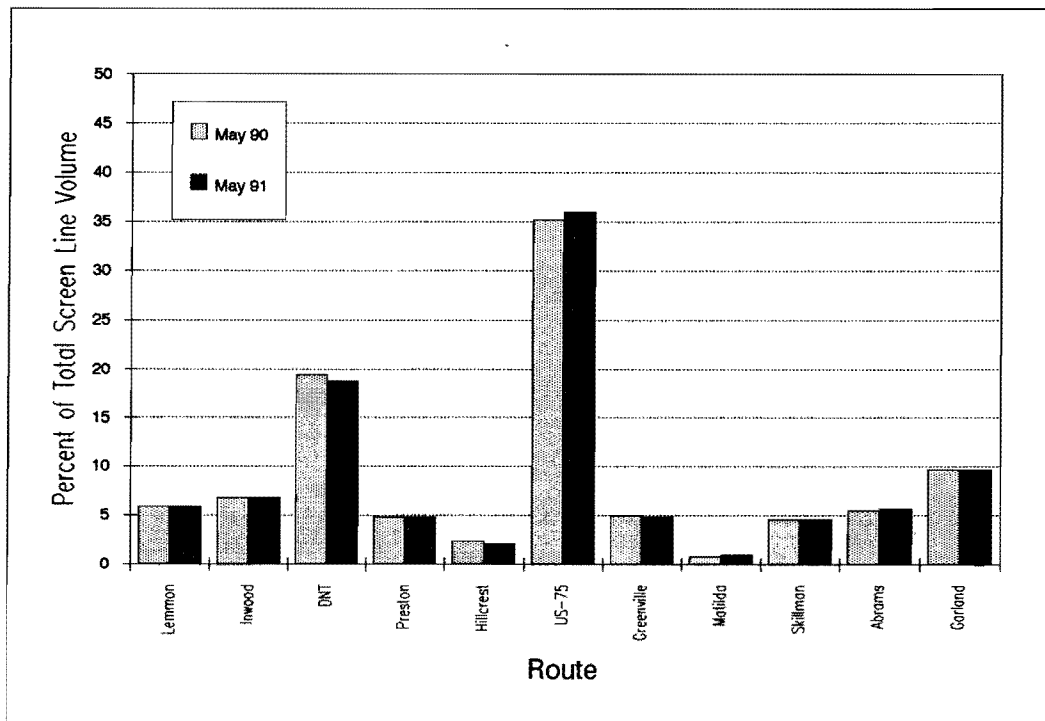


b) Southbound

Figure G-5. Percent of Total Screen Line Volume by Route:
Mockingbird/ Buckner - P.M. Peak Period (May 1990 and 1991)

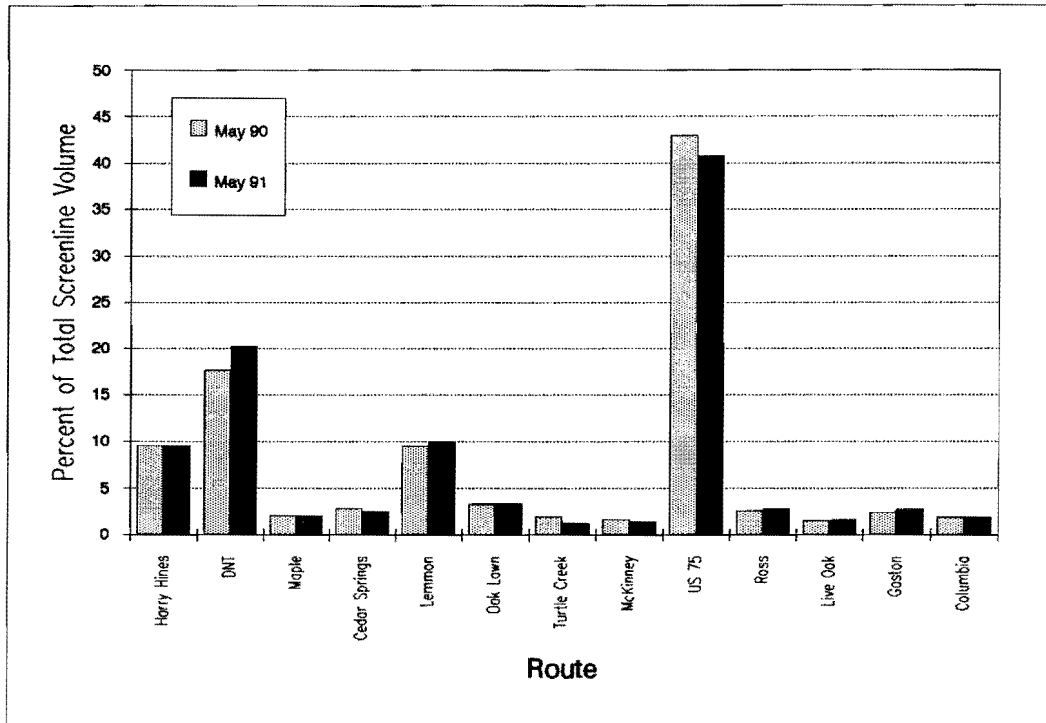


a) Northbound

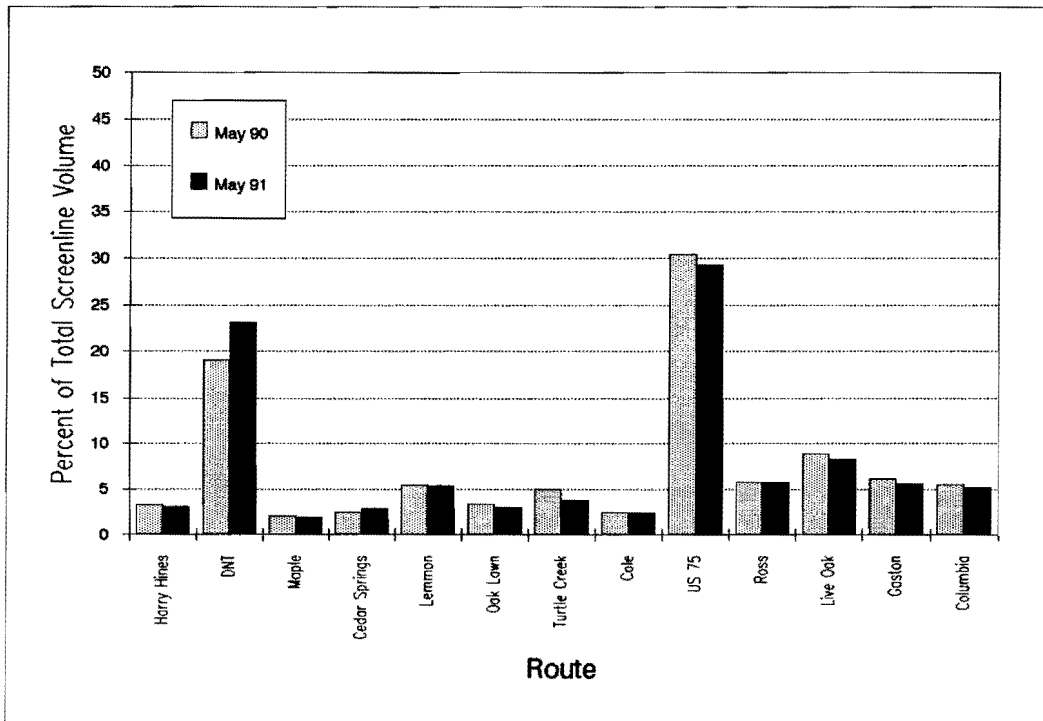


b) Southbound

Figure G-6. Percent of Total Screen Line Volume by Route:
Mockingbird/Buckner - 24 Hour Period (May 1990 and 1991)



a) Northbound



b) Southbound

Figure G-7. Percent of Total Screen Line Volume by Route:
Oak Lawn/Lemmon/Peak - A.M. Peak Period (May 1990 and 1991)

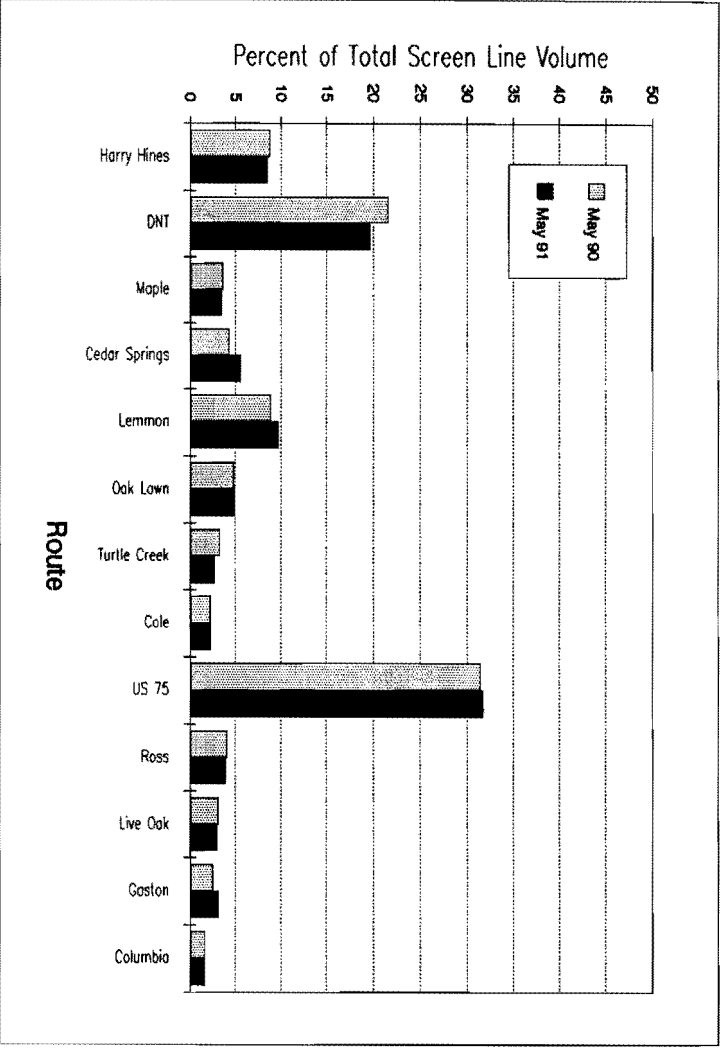
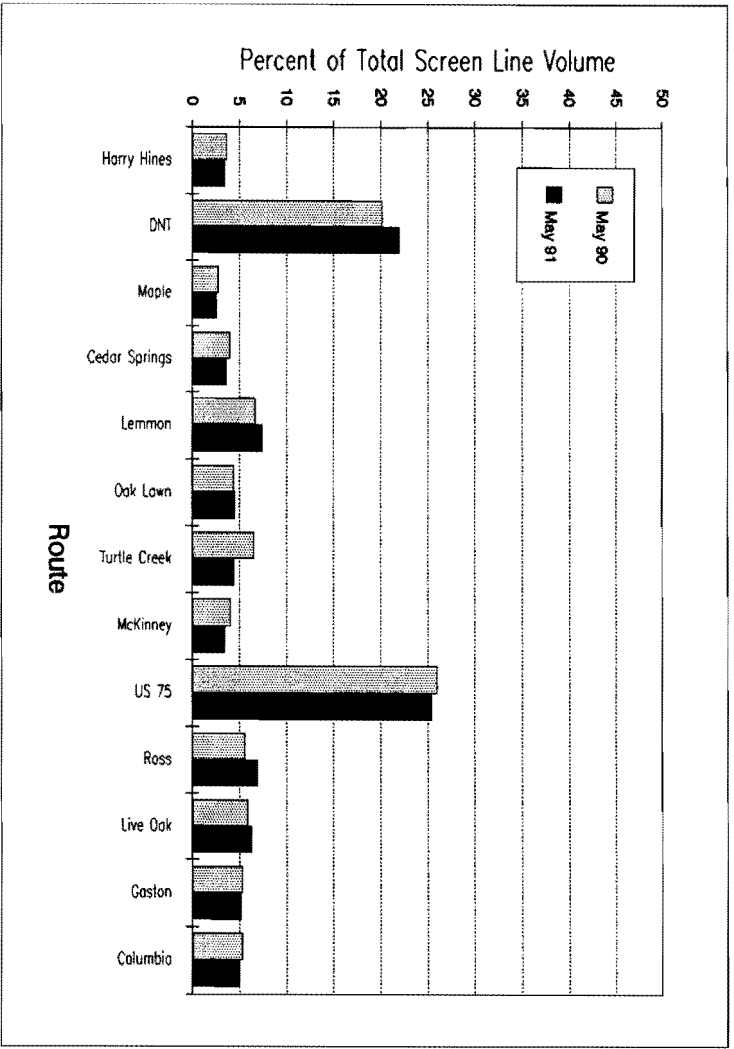
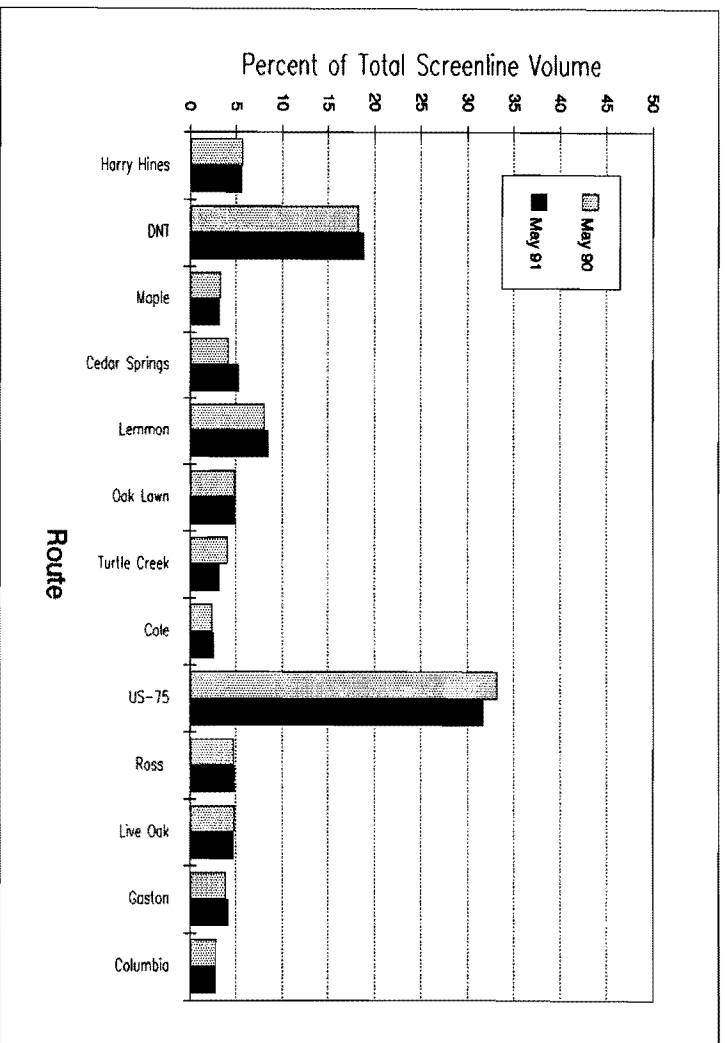
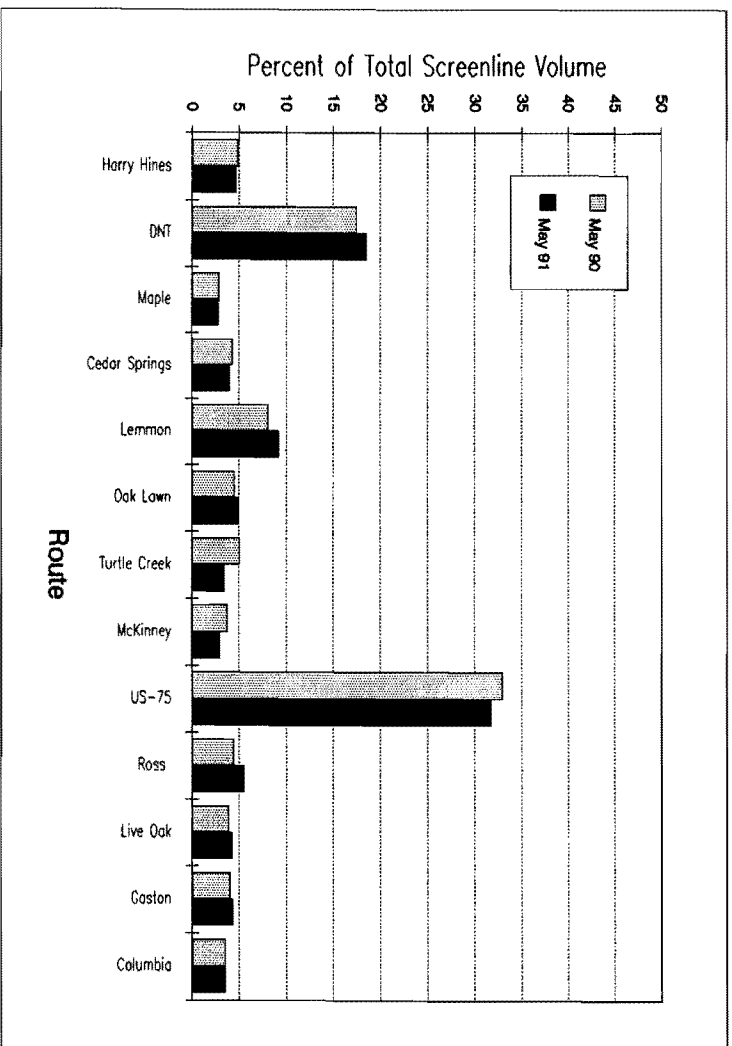
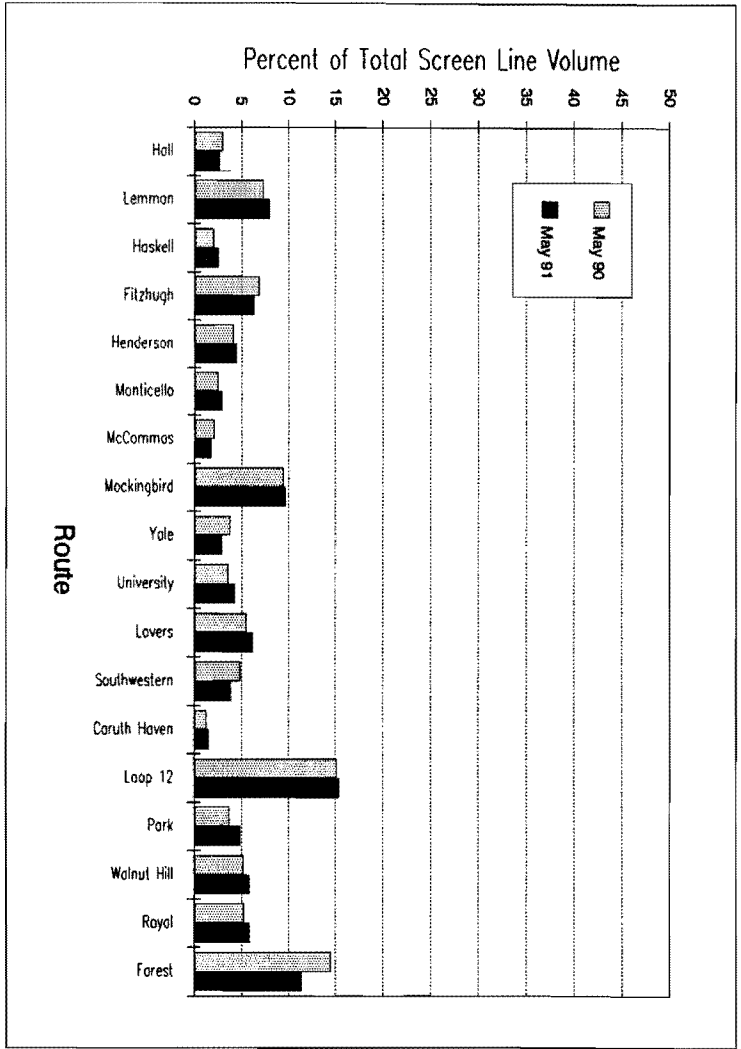
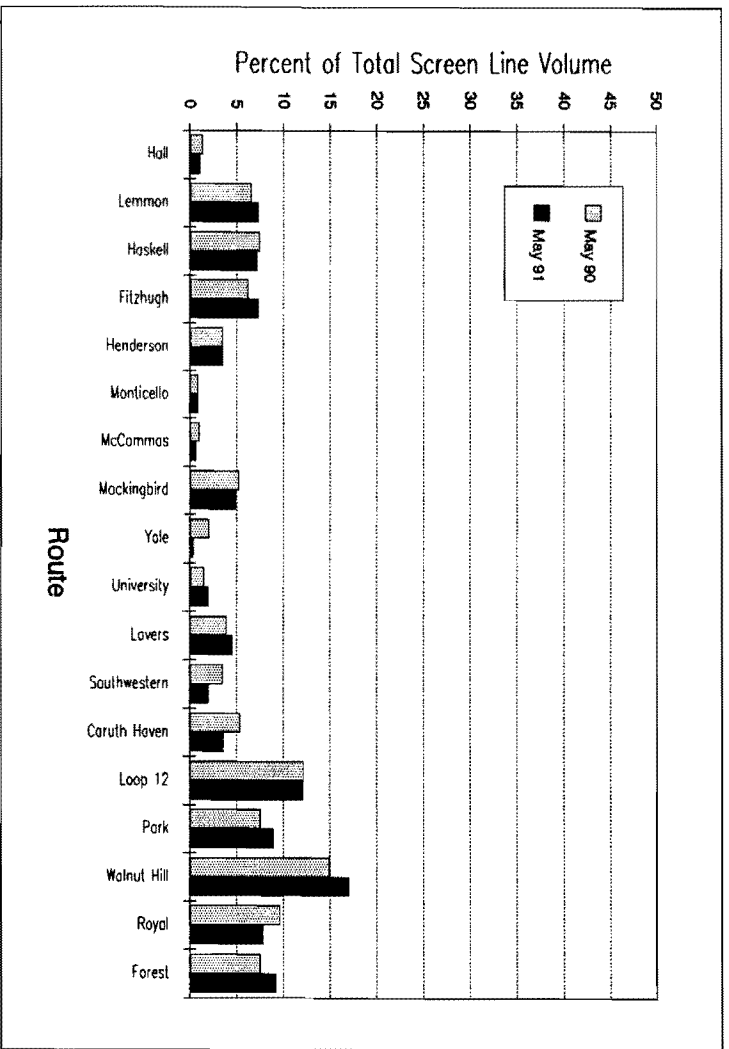


Figure G-8. Percent of Total Screen Line Volume by Route:
 Oak Lawn/Lemmon/Peak - P.M. Peak Period (May 1990 and 1991)



**Figure G-9. Percent of Total Screen Line Volume by Route:
Oak Lawn/Lemmon/Peak - 24 Hour Period (May 1990 and 1991)**



**Figure G-10. Percent of Total Screen Line Volume by Route:
US-75 - A.M. Peak Period (May 1990 and 1991)**

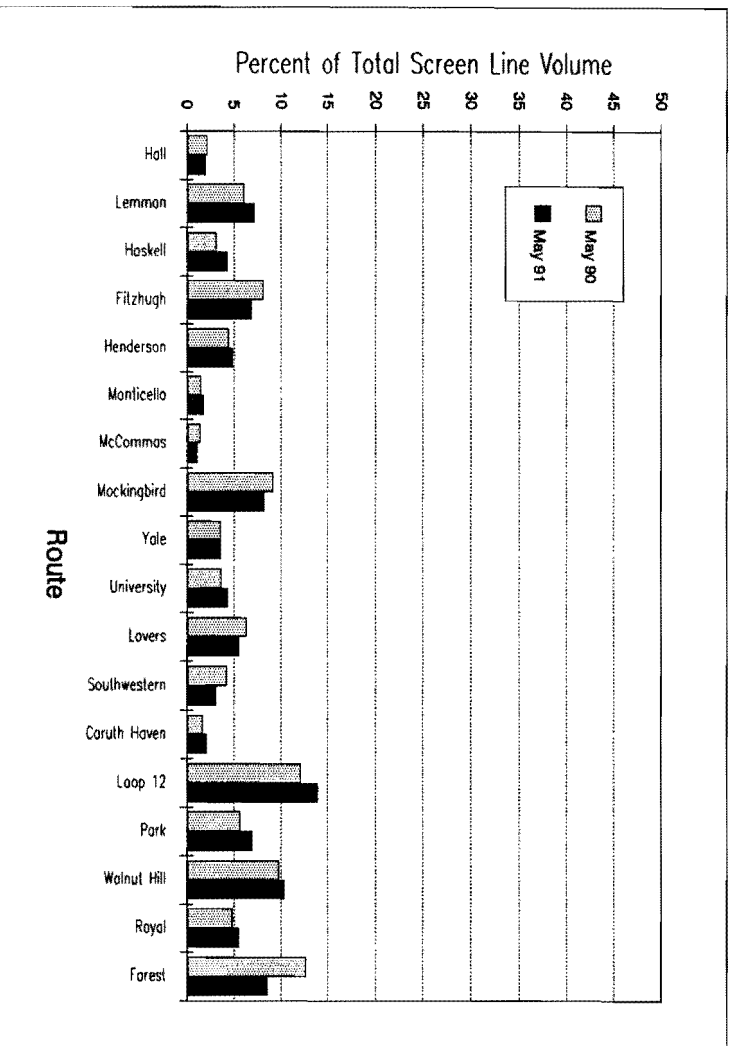
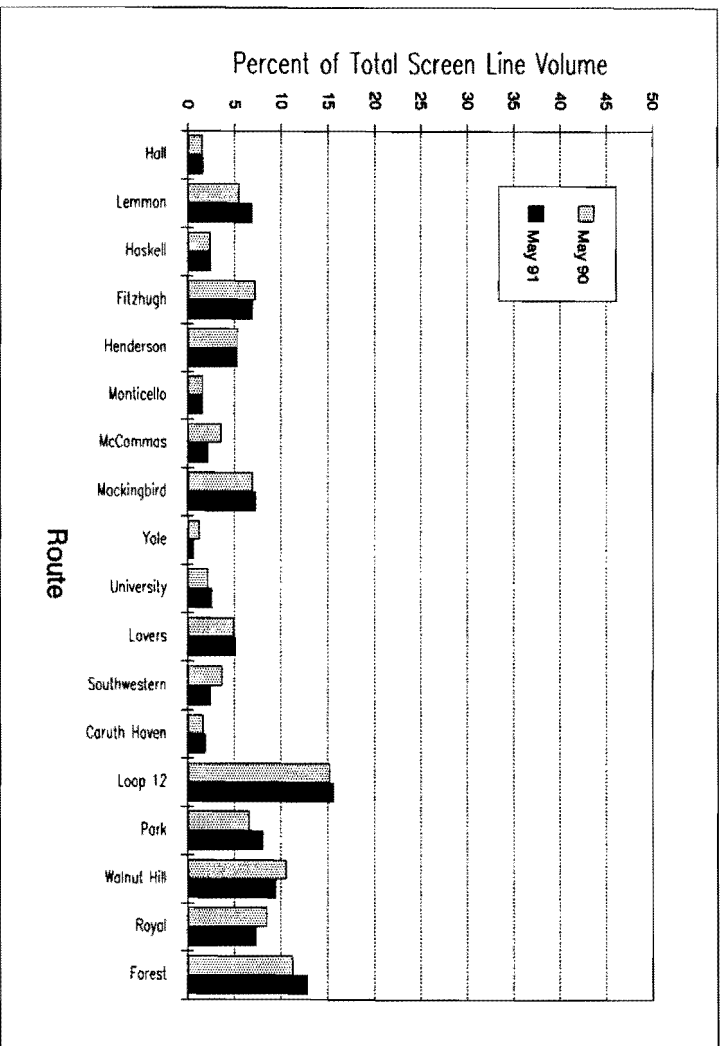
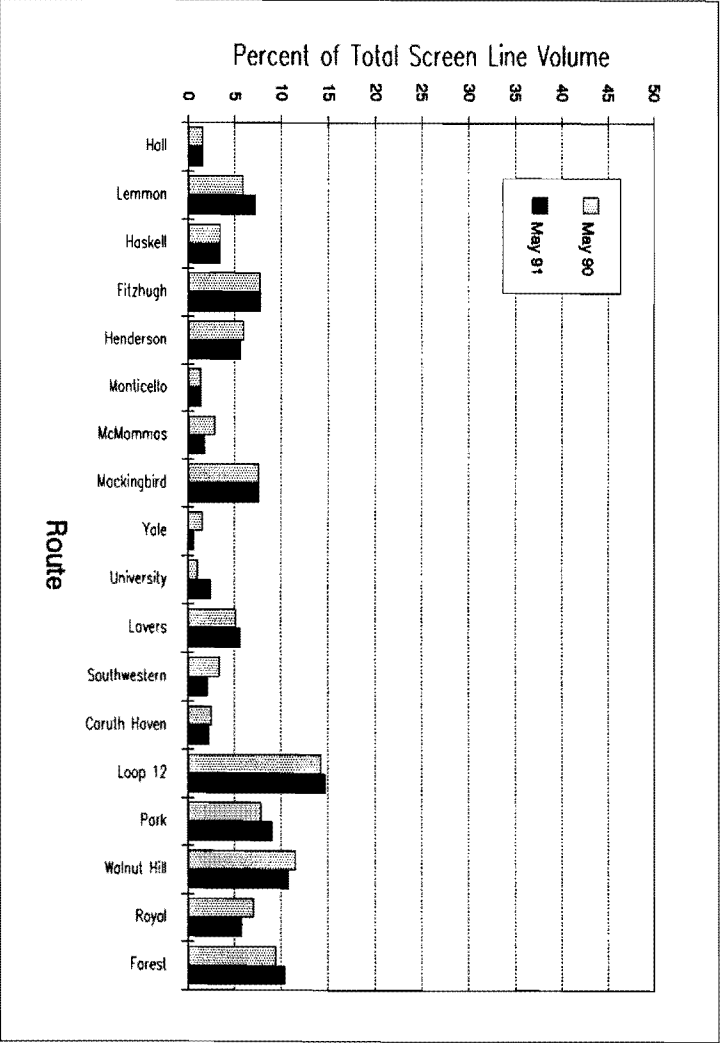
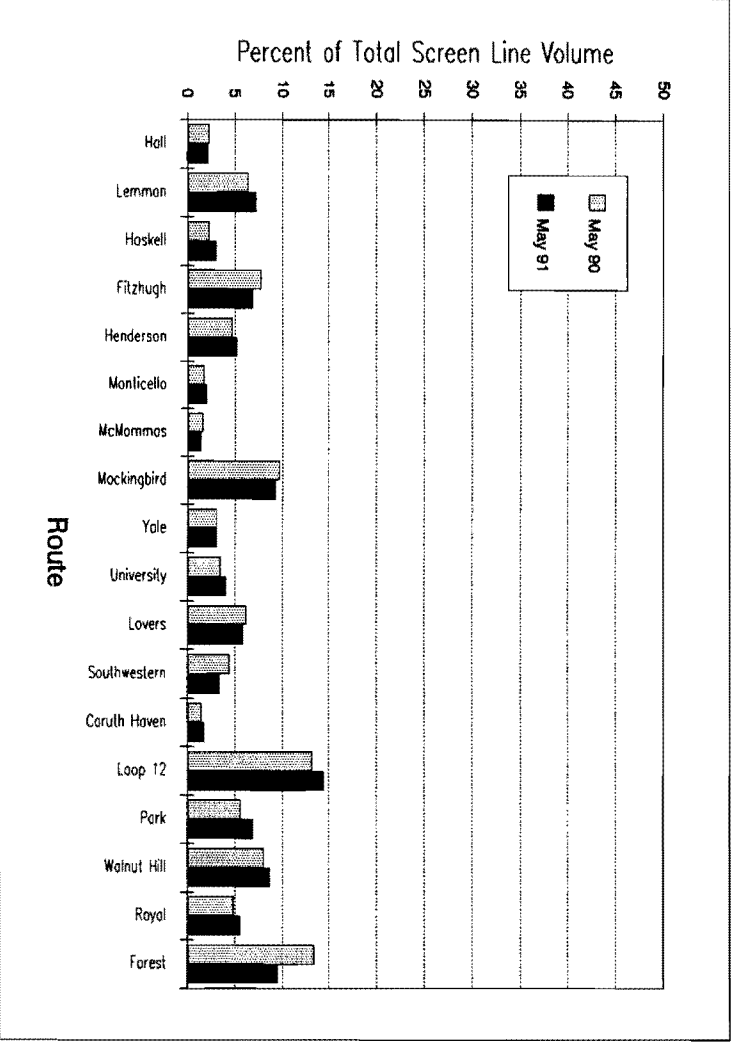


Figure G11. Percent of Total Screen Line Volume by Route:
US-75 - P.M. Peak Period (May 1990 and 1991)



a) Eastbound

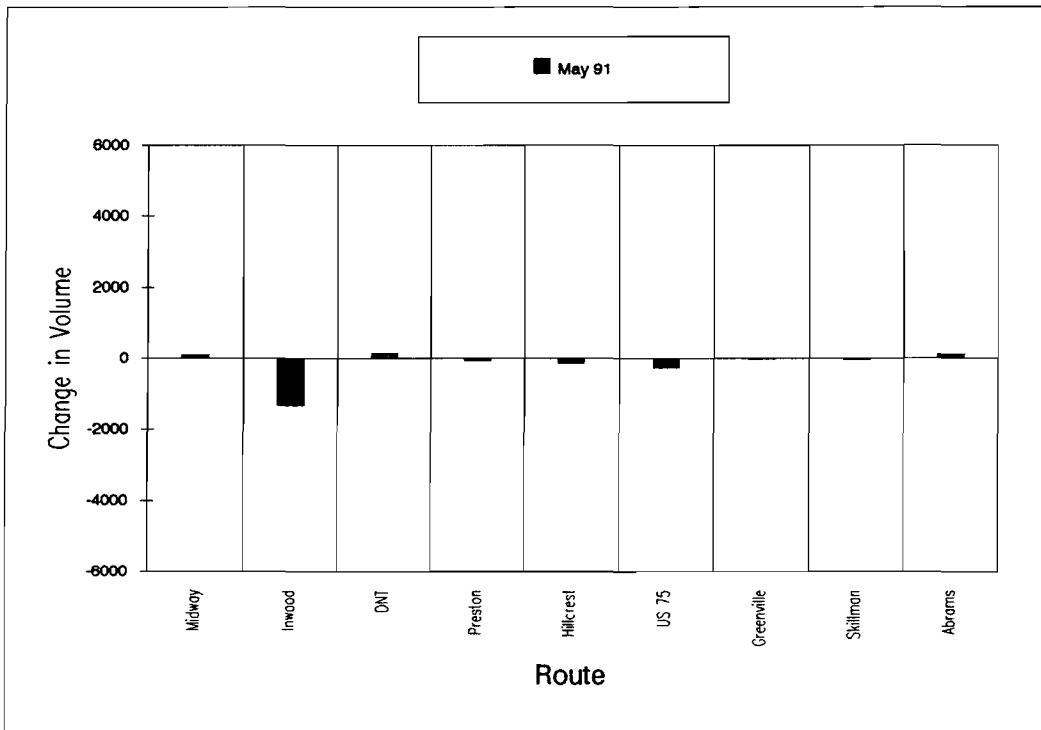


b) Westbound

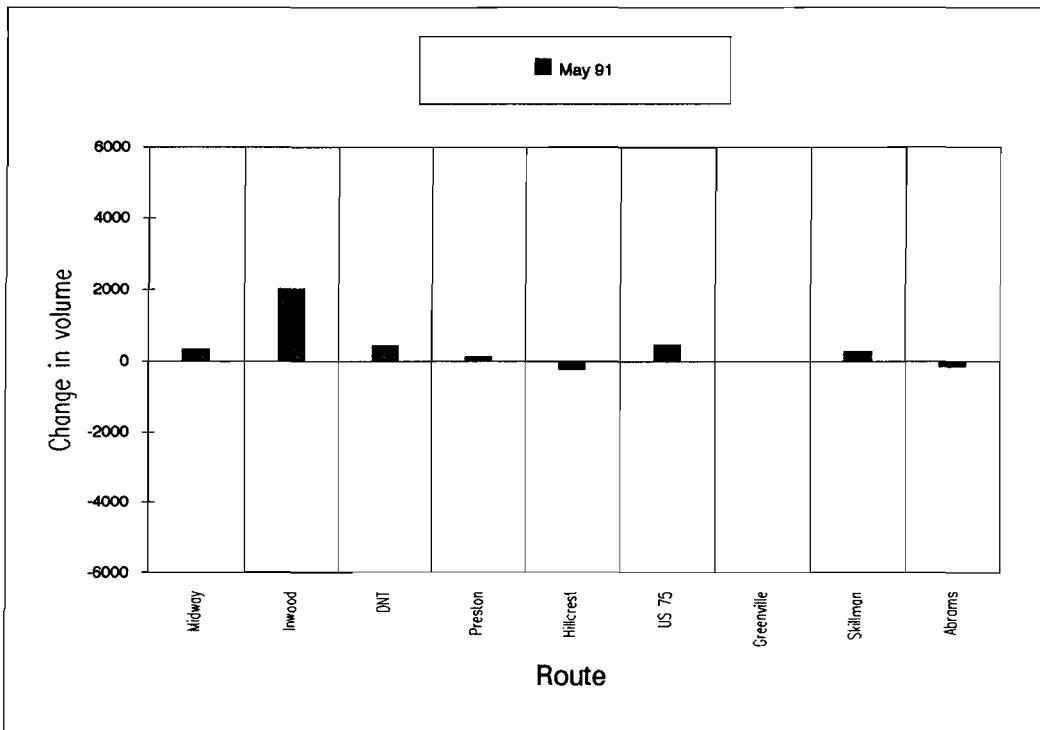
Figure G-12. Percent of Total Screen Line Volume by Route:
US-75 - 24 Hour Period (May 1990 and 1991)

APPENDIX H

CHANGES IN VOLUME FROM MAY 1990 TO MAY 1991

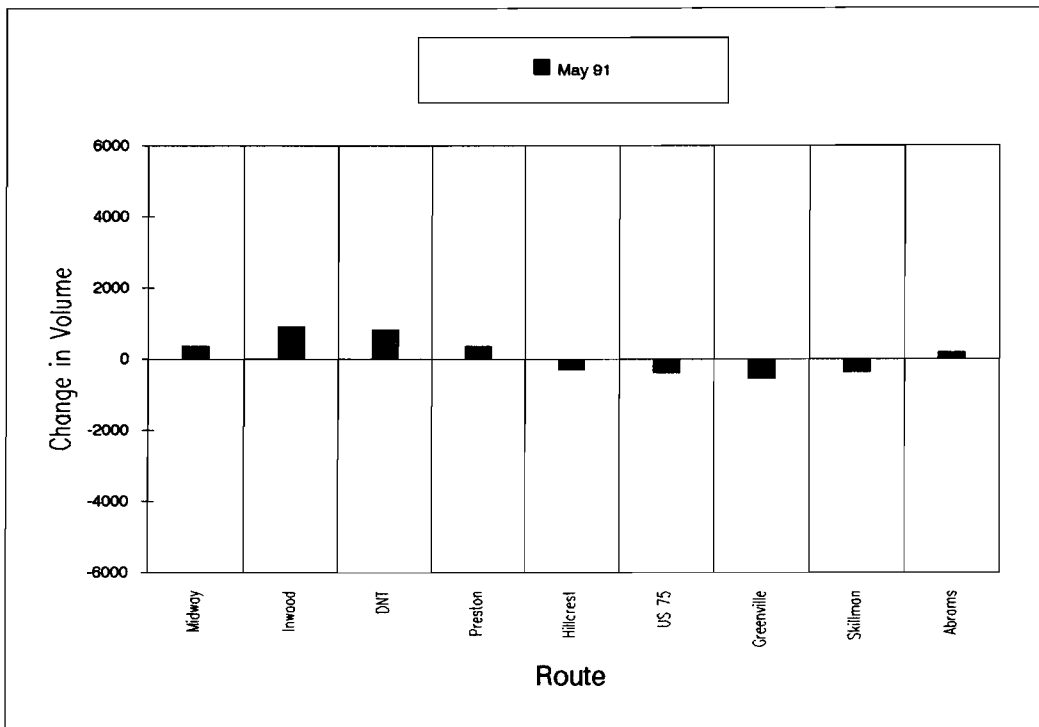


a) Northbound

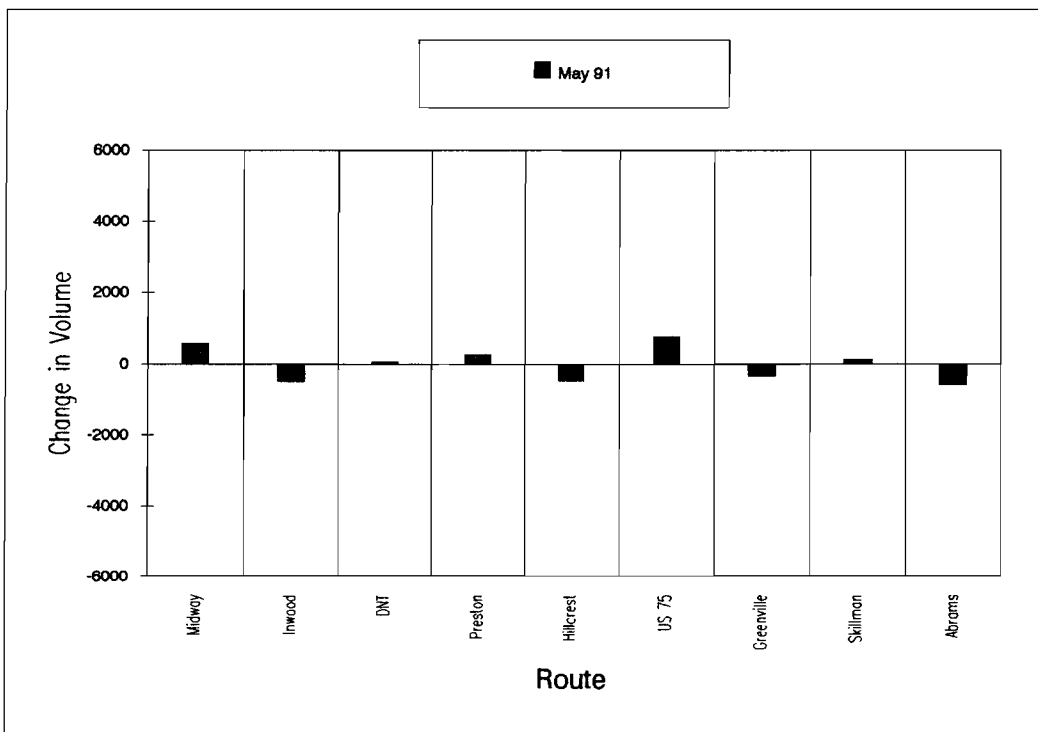


b) Southbound

Figure H-1. Change in Volume as Compared to May 1990:
Loop 12 Screen Line - A.M. Peak Period

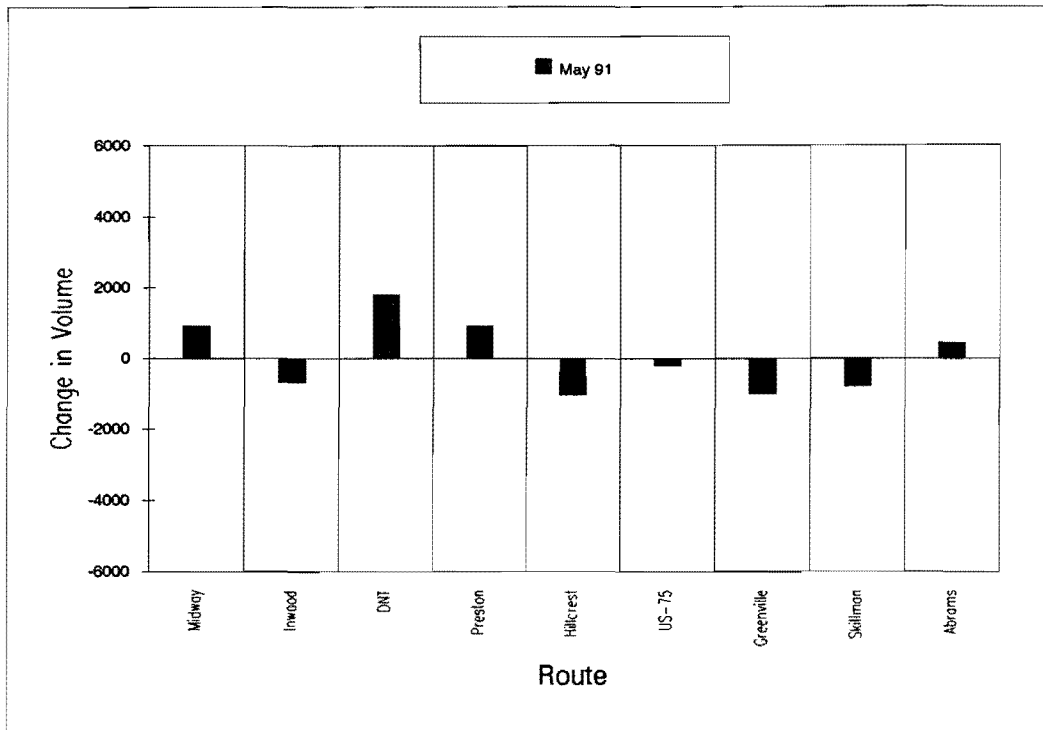


a) Northbound

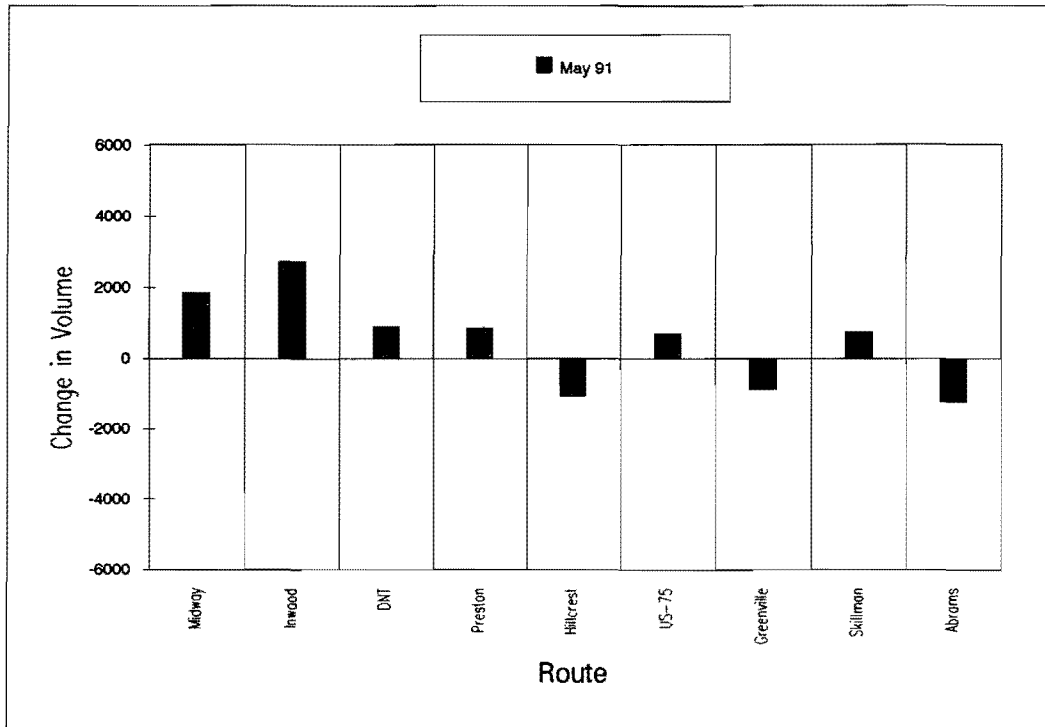


b) Southbound

Figure H-2. Change in Volume by Route as Compared to May 1990:
Loop 12 Screen Line - P.M. Peak Period

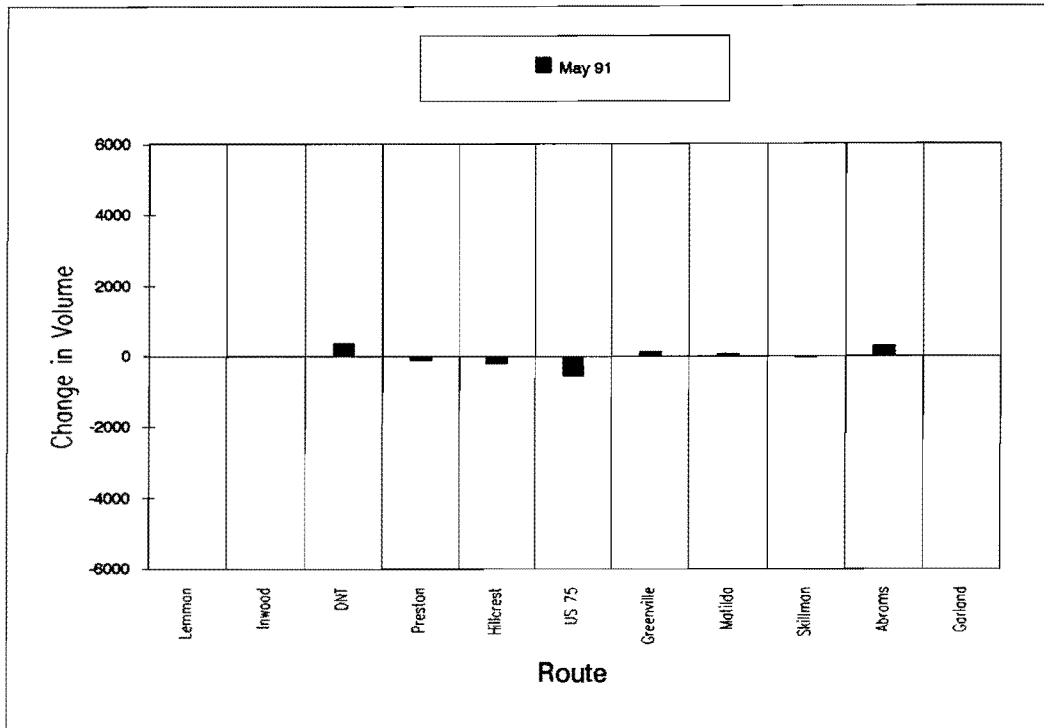


a) Northbound

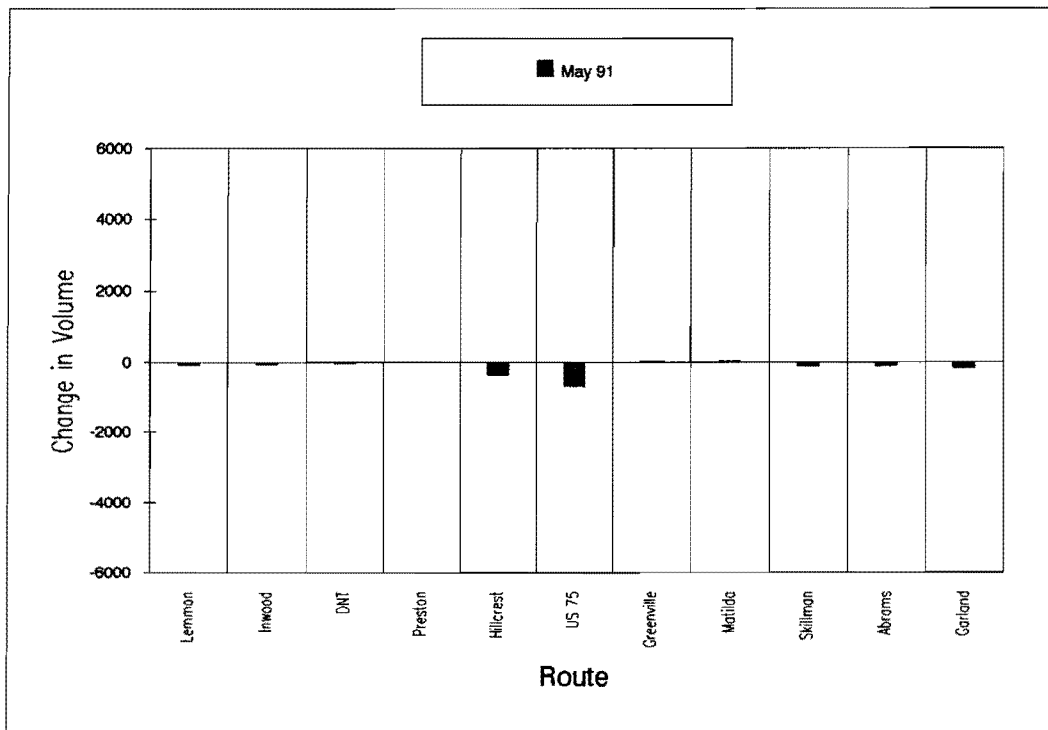


b) Southbound

Figure H-3. Change in Volume as Compared to May 1990
Loop 12 Screen Line - 24 Hour Period

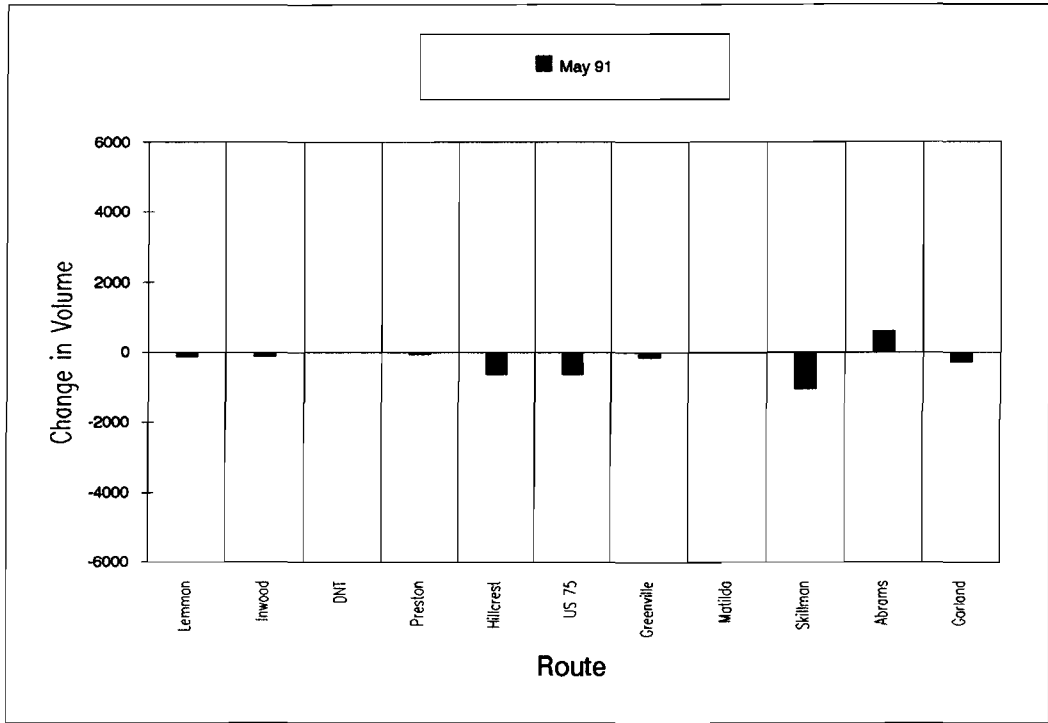


a) Northbound

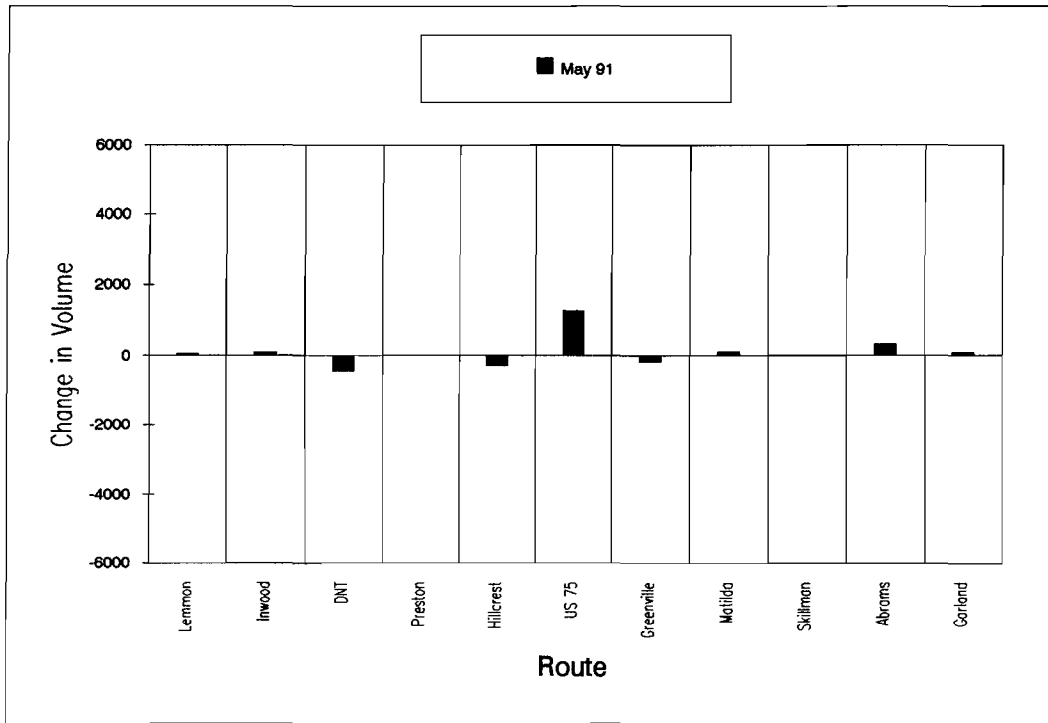


b) Southbound

Figure H-4. Change in Volume as Compared to May 1990:
Mockingbird/ Buckner Screen Line - A. M. Peak Period

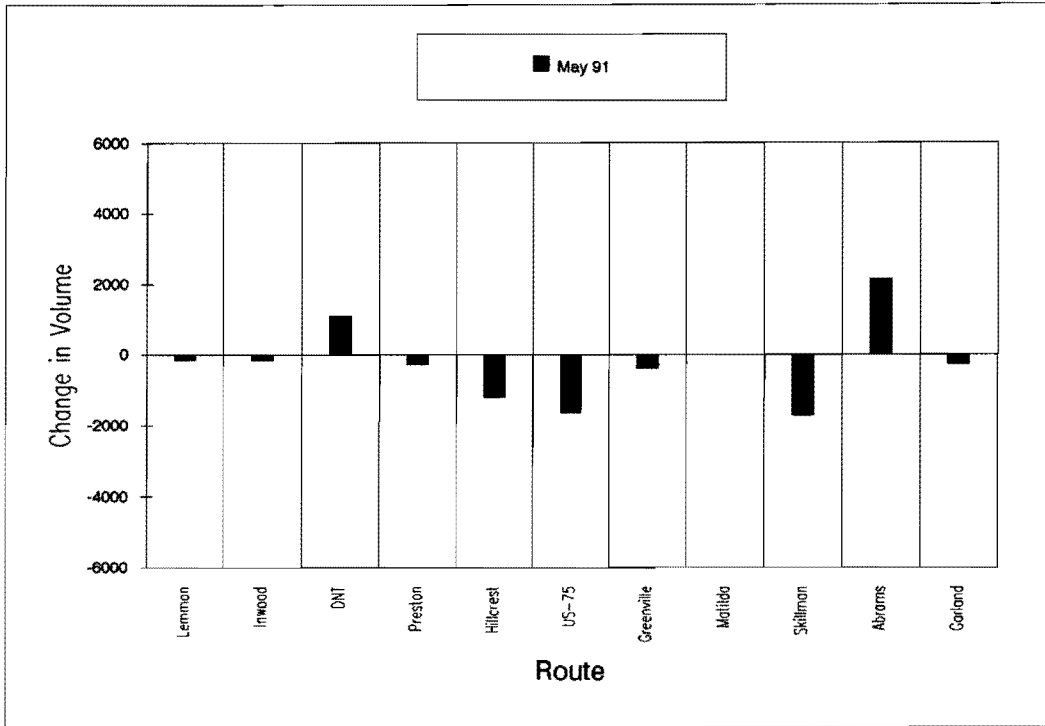


a) Northbound

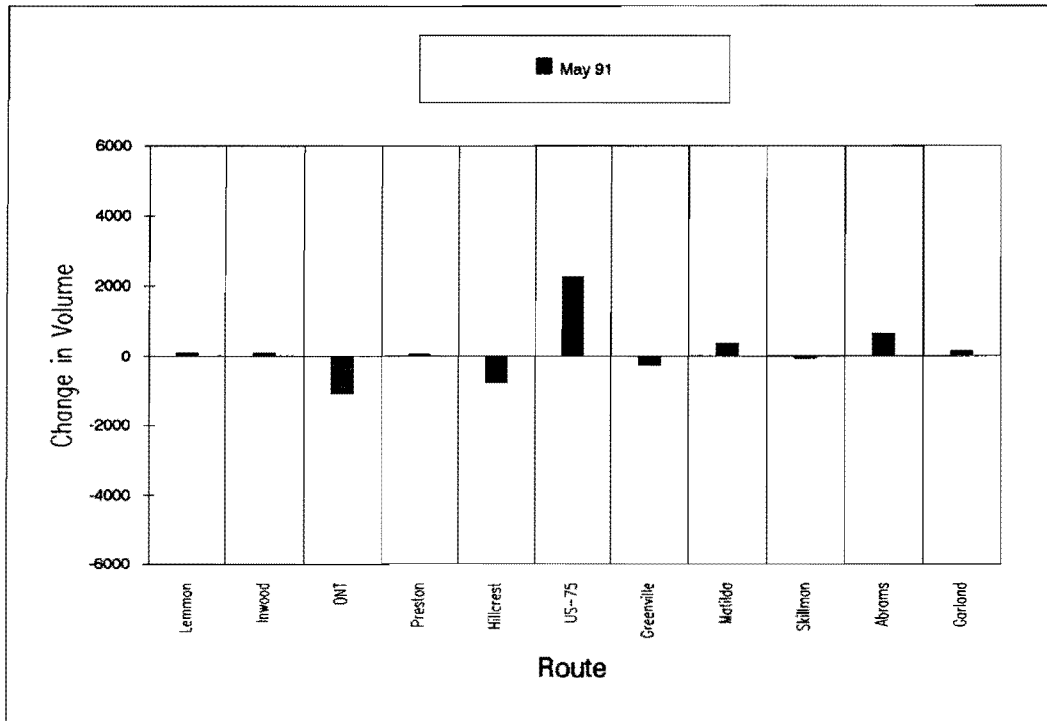


b) Southbound

Figure H-5. Change in Volume as Compared to May 1990:
Mockingbird/ Buckner Screen Line - P.M. Peak Period

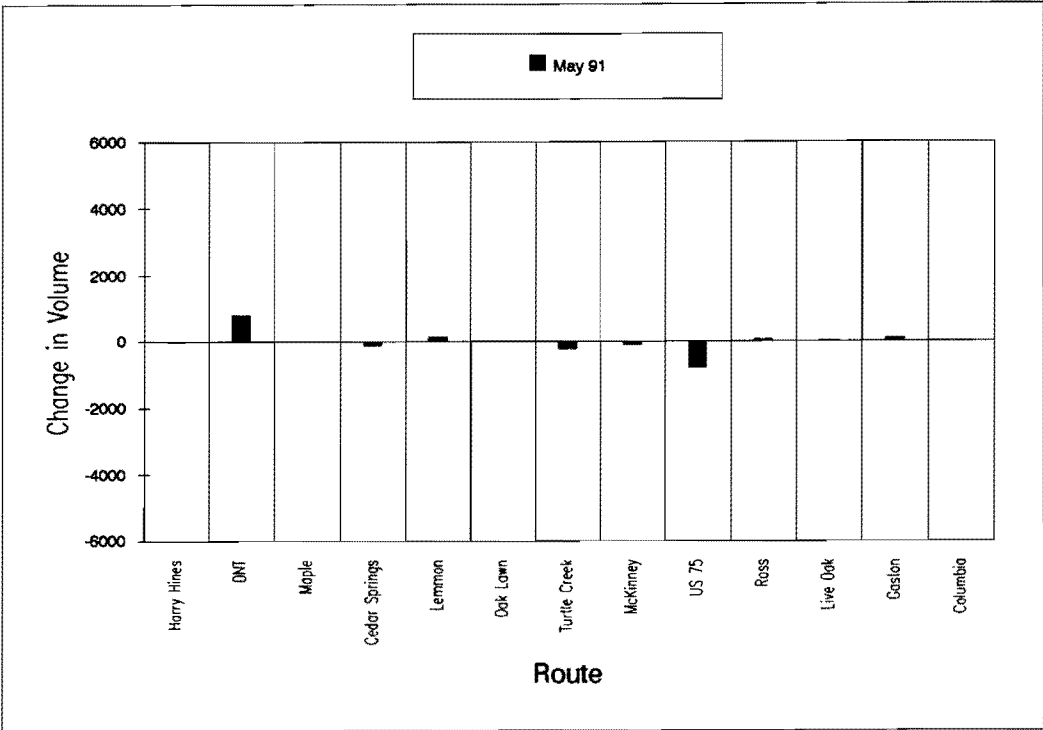


a) Northbound

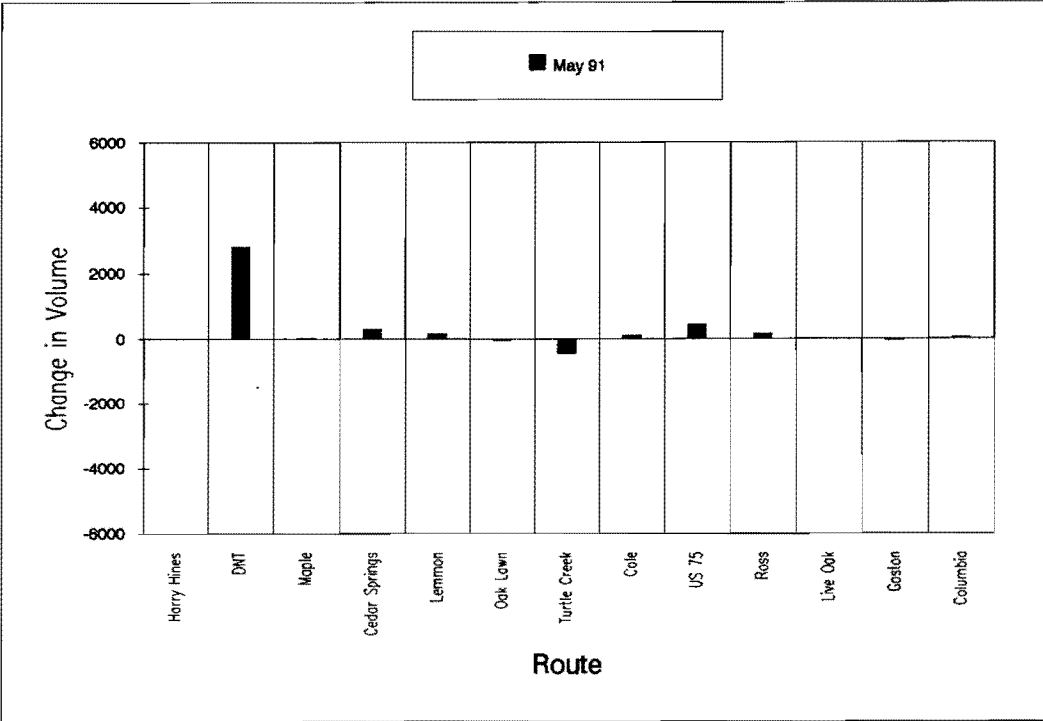


b) Southbound

Figure H-6. Change in Volume as Compared to May 1990:
Mockingbird/ Buckner Screen Line - 24 Hour Period

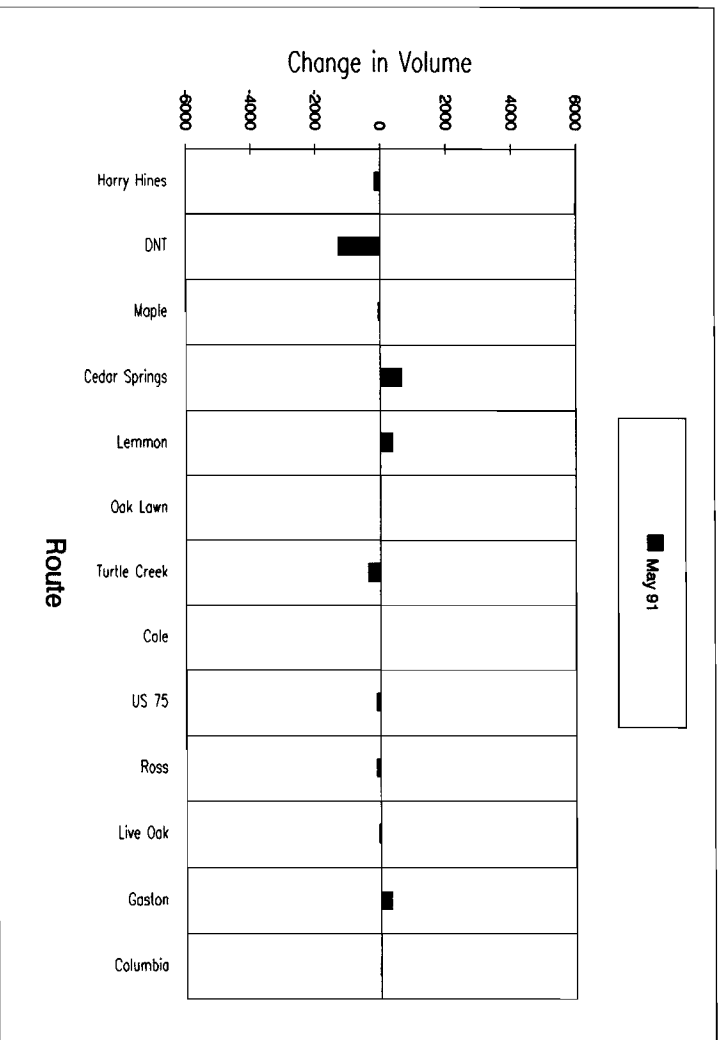
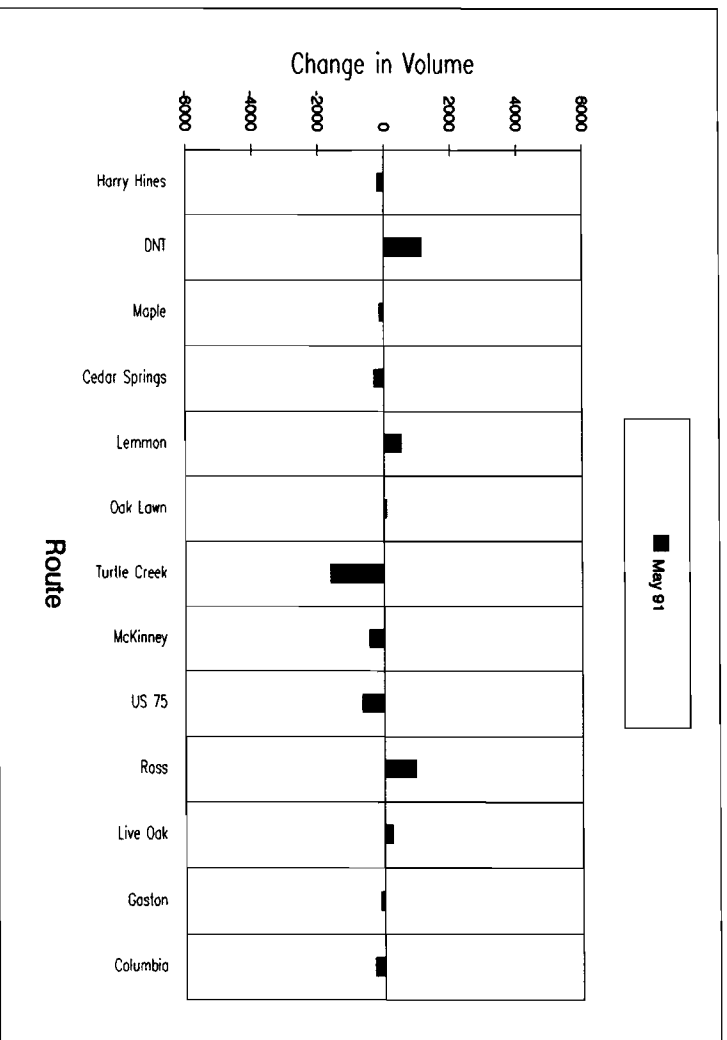


a) Northbound



b) Southbound

Figure H-7. Change in Volume as Compared to May 1990
Oak Lawn/Lemmon/Peak Screen Line - A.M. Peak Period



**Figure H-8. Change in Volume as Compared to May 1990
Oak Lawn/Lemmon/Peak Screen Line - P.M. Peak Period**

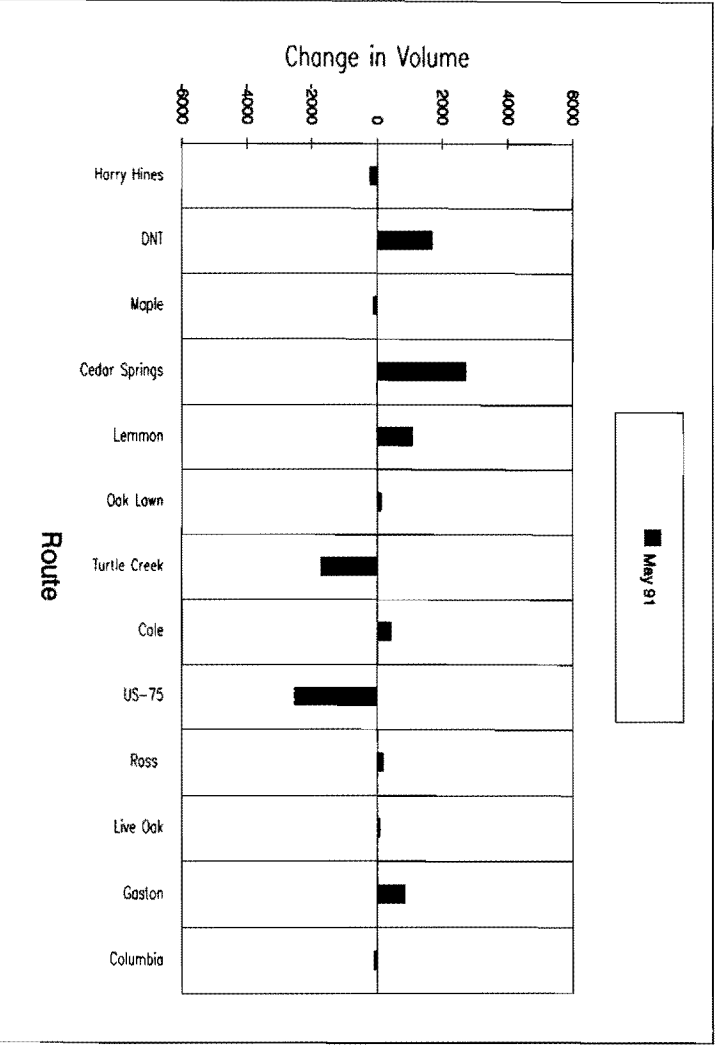
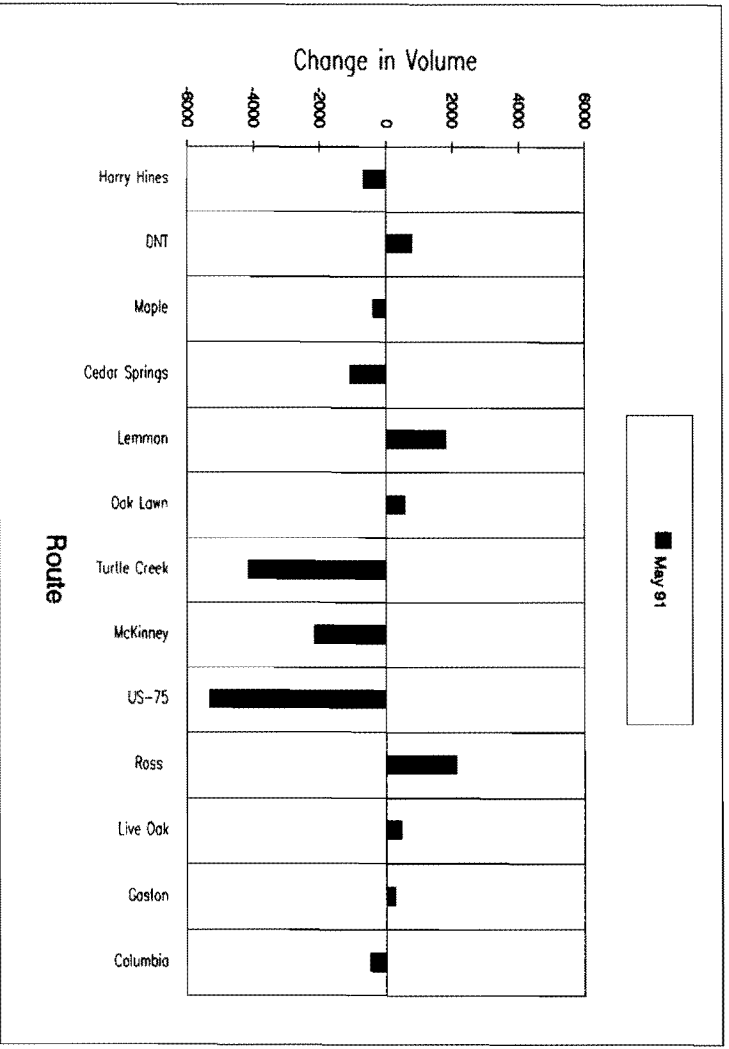


Figure H-9. Change in Volume as Compared to May 1990
Oak Lawn/Lemmon/Peak Screen Line - 24 Hour Period

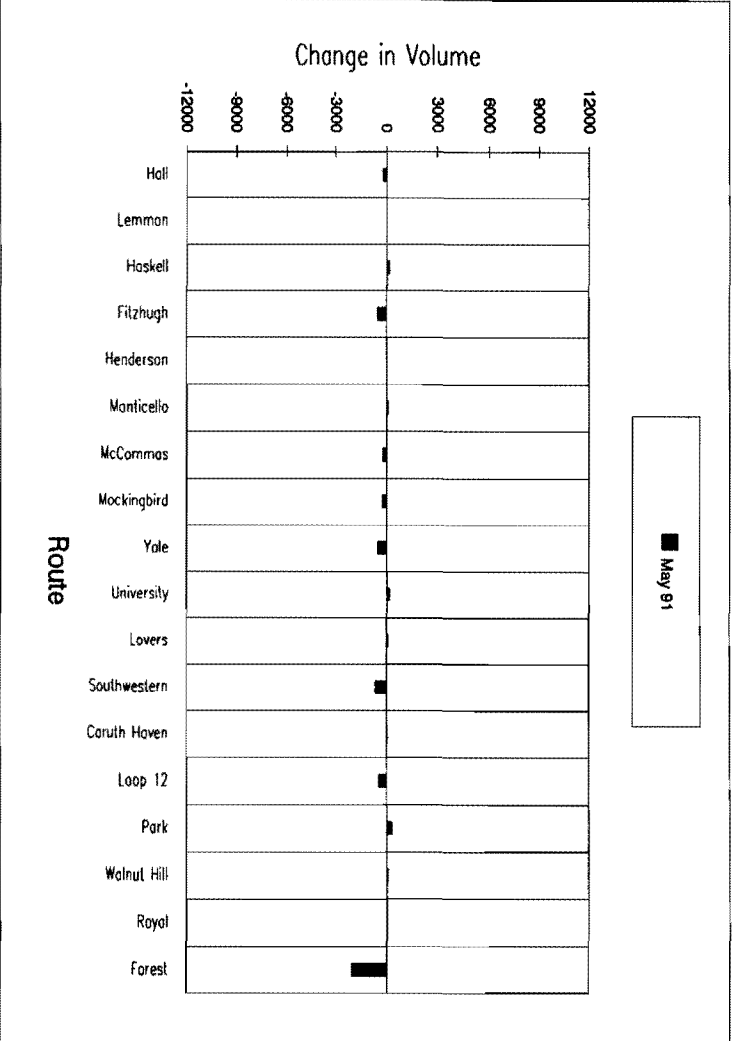
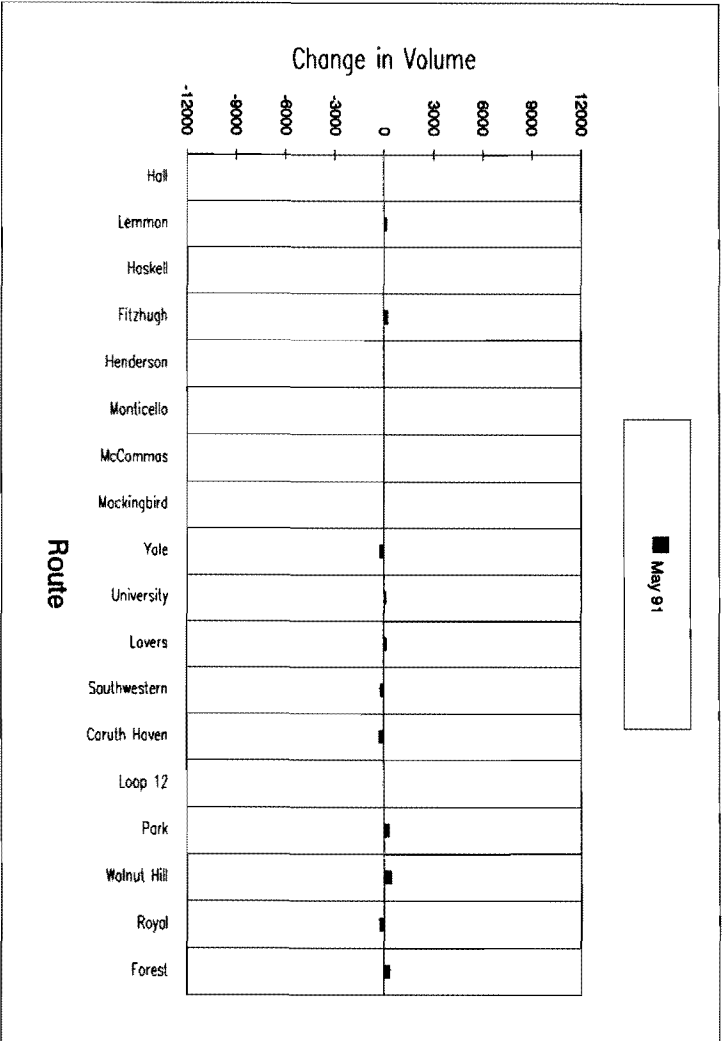


Figure H-10. Change in Volume as Compared to May 1990:
US-75 Screen Line - A.M. Peak Period

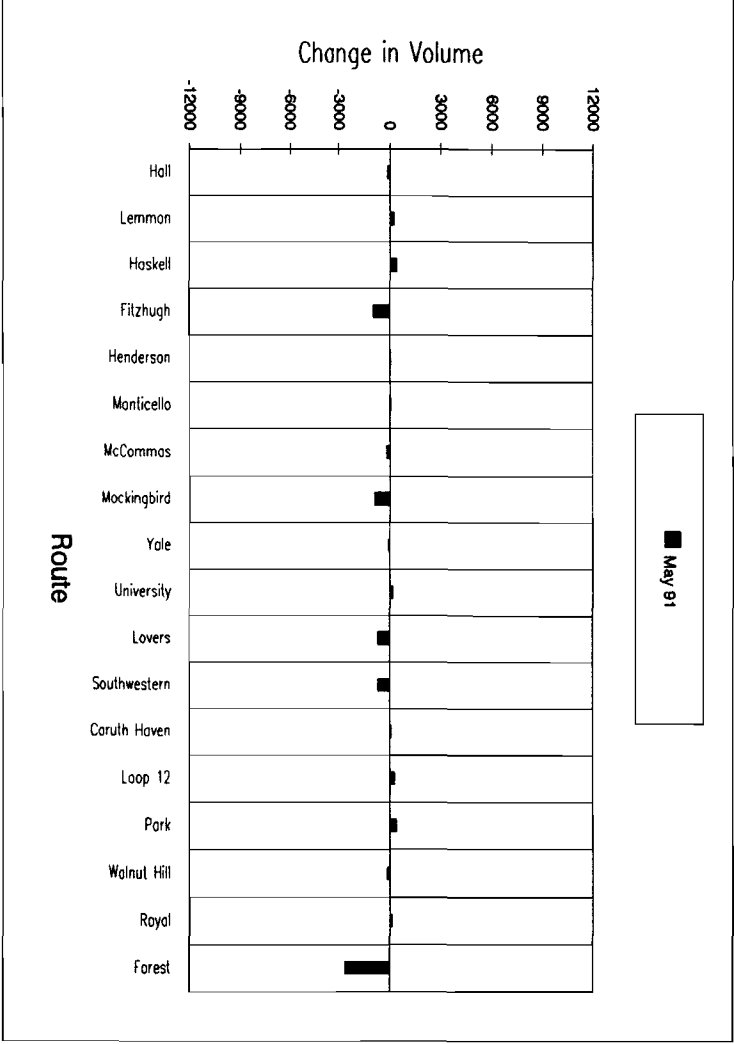
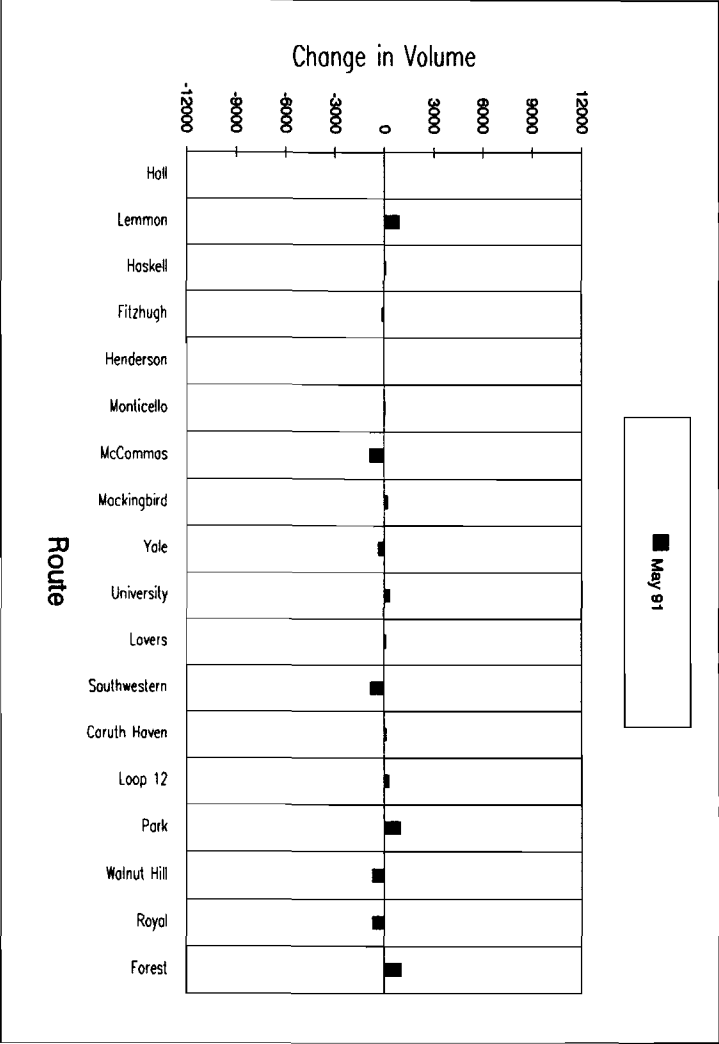


Figure H-11. Change in Volume as Compared to May 1990:
US-75 Screen Line - P.M. Peak Period

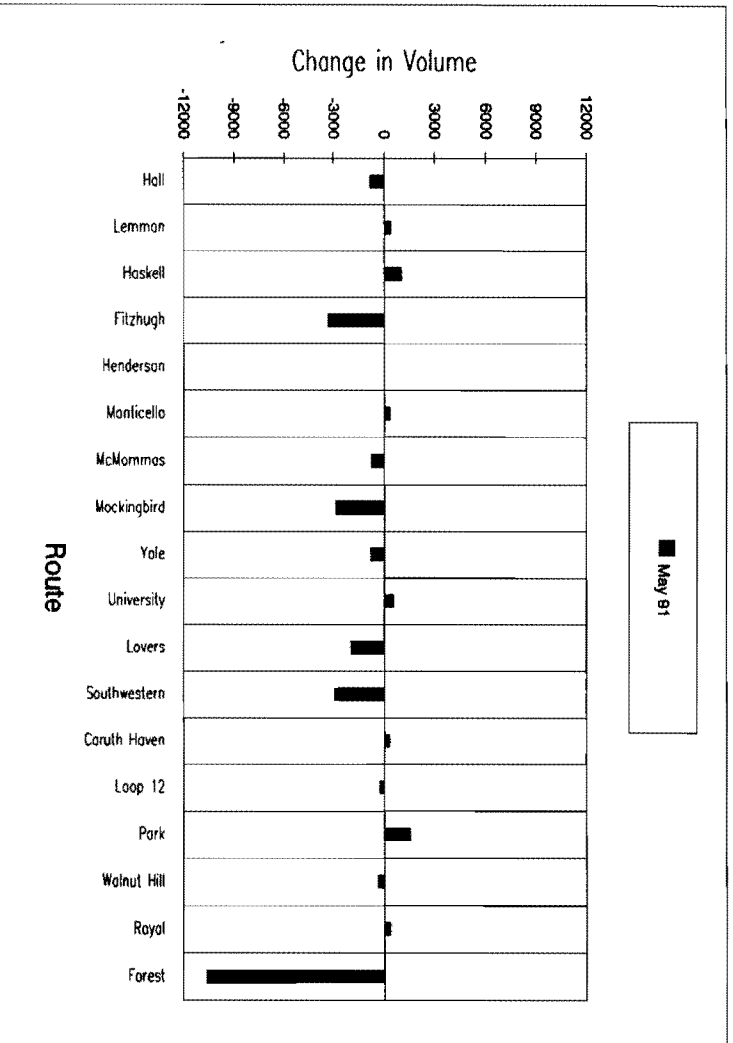
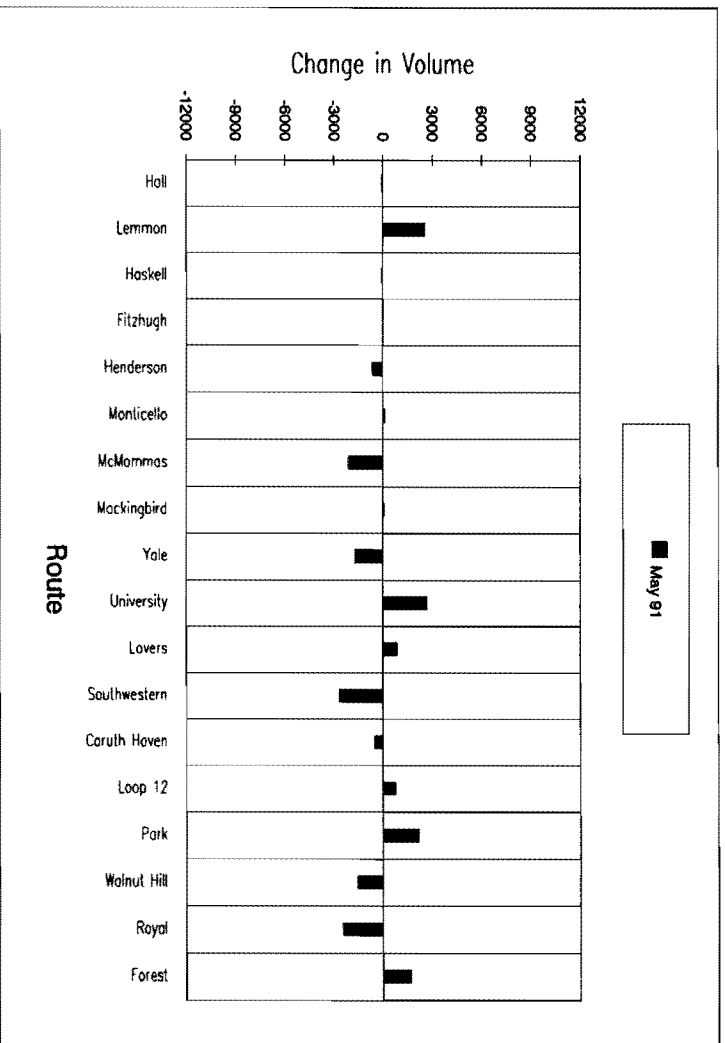


Figure H-12. Change in Volume as Compared to May 1990:
US-75 Screen Line - 24 Hour Period

APPENDIX I

MAY 1991 PEAK PERIOD TRAVEL TIMES

Table I-1. Peak Period, Peak Direction Total Travel Time on North-South Routes (min) - (May 1991)

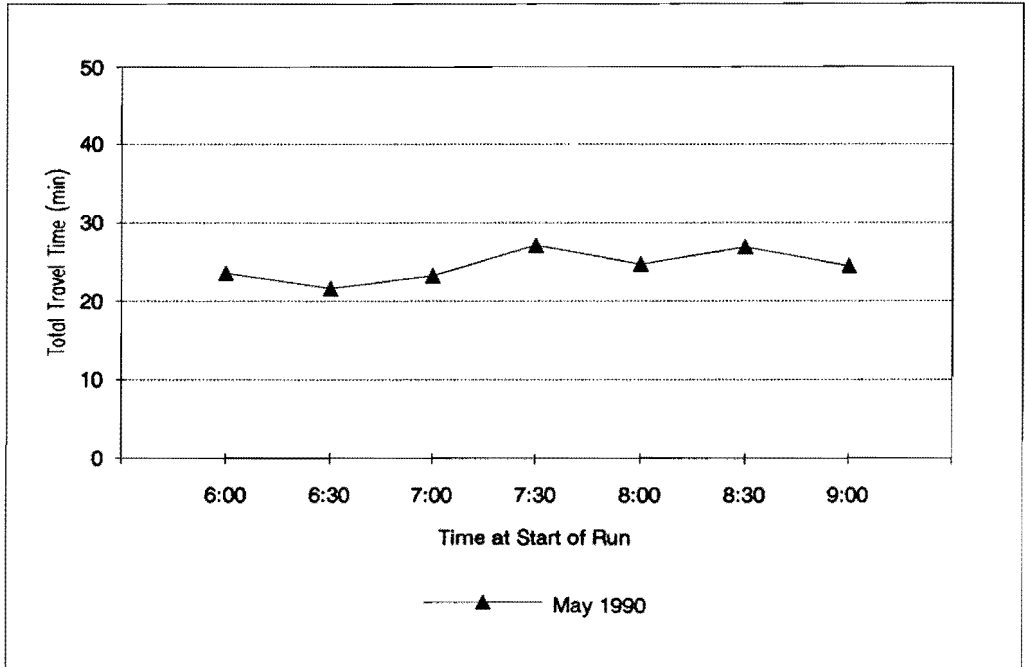
Run Beginning		Alternative Route										
		Garland	Abrams	Skillman	Greenville	US-75	US-75 Fr. Rd.	Hillcrest	Preston	DNT	Inwood	Midway
AM Peak Period	6:00	-	21.72	18.57	18.53	9.59	17.93	-	18.63	12.05	-	-
	6:30	-	19.57	18.28	19.87	9.64	18.15	-	24.45	11.20	-	-
	7:00	-	31.80	18.80	19.95	11.46	18.10	-	25.70	11.25	-	-
	7:30	-	28.08	19.70	20.53	22.96	29.07	-	30.42	11.38	-	-
South- bound	8:00	-	27.23	19.72	23.30	21.65	30.97	-	29.17	15.22	-	-
	8:30	-	23.07	18.90	21.13	17.16	27.92	-	29.95	12.80	-	-
	9:00	-	20.55	17.68	19.23	13.66	19.75	-	25.37	10.65	-	-
PM Peak Period North- bound	3:00	-	23.45	21.70	23.22	14.65	17.07	-	30.18	12.13	-	-
	3:30	-	26.15	22.83	26.07	14.82	20.70	-	27.32	12.65	-	-
	4:00	-	24.17	21.60	27.68	14.71	21.32	-	29.70	12.50	-	-
	4:30	-	22.20	21.68	28.45	15.78	20.62	-	28.82	12.12	-	-
	5:00	-	24.30	25.37	31.02	21.98	28.92	-	33.00	12.18	-	-
	5:30	-	29.53	29.50	33.62	27.63	30.07	-	30.50	19.30	-	-
	6:00	-	22.63	24.15	27.63	21.64	24.40	-	30.42	12.97	-	-
	6:30	-	22.35	19.47	24.52	17.69	24.03	-	24.78	12.85	-	-
	7:00	-	21.00	21.92	23.27	12.32	22.27	-	23.77	11.43	-	-

Table I-2. Peak Period, Off-Peak Direction Total Travel Time on North-South Routes (min) - (May 1991)

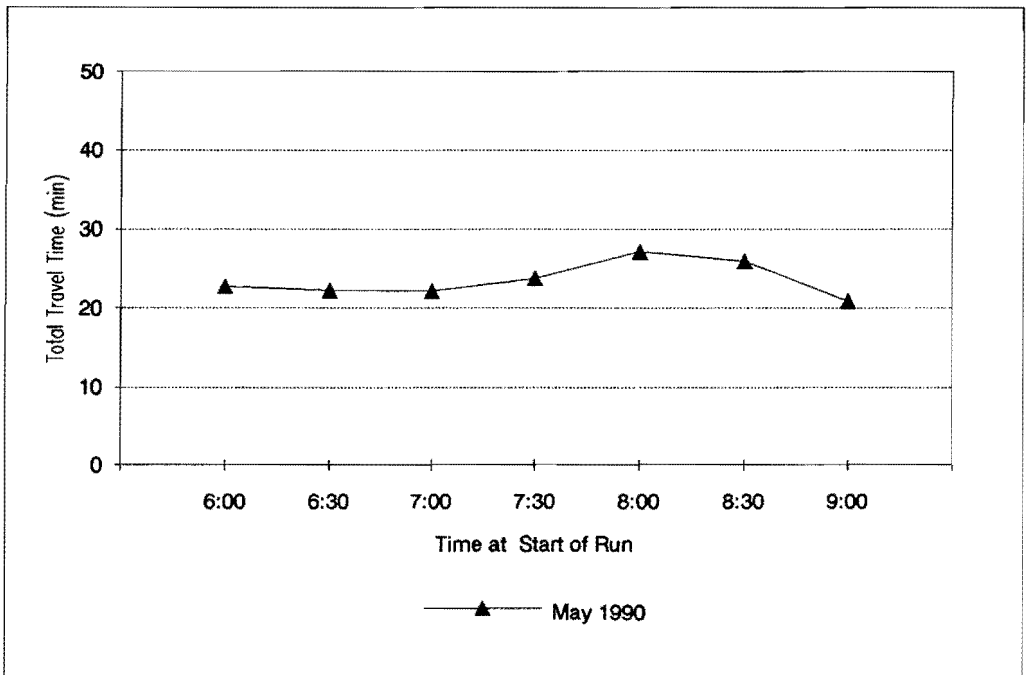
Run Beginning		Alternative Route										
		Garland	Abrams	Skillman	Greenville	US-75	US-75 Fr. Rd.	Hillocrest	Preston	DNT	Inwood	Midway
A.M. Peak Period North-bound	6:00	-	22.48	21.33	18.50	9.85	17.20	-	20.83	12.82	-	-
	6:30	-	22.77	19.07	19.23	10.74	28.23	-	25.43	11.78	-	-
	7:00	-	22.33	21.73	21.10	9.59	28.35	-	26.78	11.37	-	-
	7:30	-	29.25	22.23	22.82	15.44	29.77	-	24.78	12.50	-	-
	8:00	-	26.52	23.73	25.22	15.06	28.67	-	29.75	12.63	-	-
	8:30	-	24.85	18.17	25.02	14.46	29.92	-	27.52	11.88	-	-
	9:00	-	22.47	19.22	19.63	11.29	23.78	-	20.97	11.83	-	-
P.M. Peak Period South-Bound	3:00	-	-	19.68	22.48	13.85	26.00	-	25.68	11.95	-	-
	3:30	-	22.52	20.25	23.22	16.48	24.87	-	27.02	11.10	-	-
	4:00	-	24.48	16.70	30.60	17.59	30.02	-	25.75	12.23	-	-
	4:30	-	23.07	21.45	28.63	18.15	34.23	-	29.15	11.48	-	-
	5:00	-	27.85	23.72	31.83	16.36	28.87	-	28.77	12.50	-	-
	5:30	-	26.07	19.85	-	18.59	28.67	-	28.43	11.68	-	-
	6:00	-	21.12	20.47	28.57	15.94	30.60	-	28.37	14.20	-	-
	6:30	-	20.60	19.13	25.82	13.78	20.62	-	22.37	10.75	-	-
	7:00	-	20.85	18.48	20.70	11.07	16.63	-	26.77	12.55	-	-

Table I-3. Peak Period Total Travel Time on East-West Routes (min) - (May 1991)

Run Beginning		Alternative Route					
		Eastbound			Westbound		
		Loop 12	Lemmon	Mockingbird	Loop 12	Lemmon	Mockingbird
A.M. Peak Period	6:00	10.23	-	-	10.95	-	-
	6:30	9.08	-	-	12.45	-	-
	7:00	12.00	-	-	12.08	-	-
	7:30	10.48	-	-	17.42	-	-
	8:00	12.48	-	-	15.17	-	-
	8:30	10.65	-	-	11.33	-	-
	9:00	12.57	-	-	9.47	-	-
P.M. Peak Period	3:00	14.08	-	-	10.68	-	-
	3:30	12.23	-	-	13.12	-	-
	4:00	11.47	-	-	10.83	-	-
	4:30	12.73	-	-	11.38	-	-
	5:00	17.68	-	-	10.80	-	-
	5:30	20.08	-	-	10.83	-	-
	6:00	17.77	-	-	10.60	-	-
	6:30	14.18	-	-	11.70	-	-
	7:00	11.12	-	-	8.53	-	-

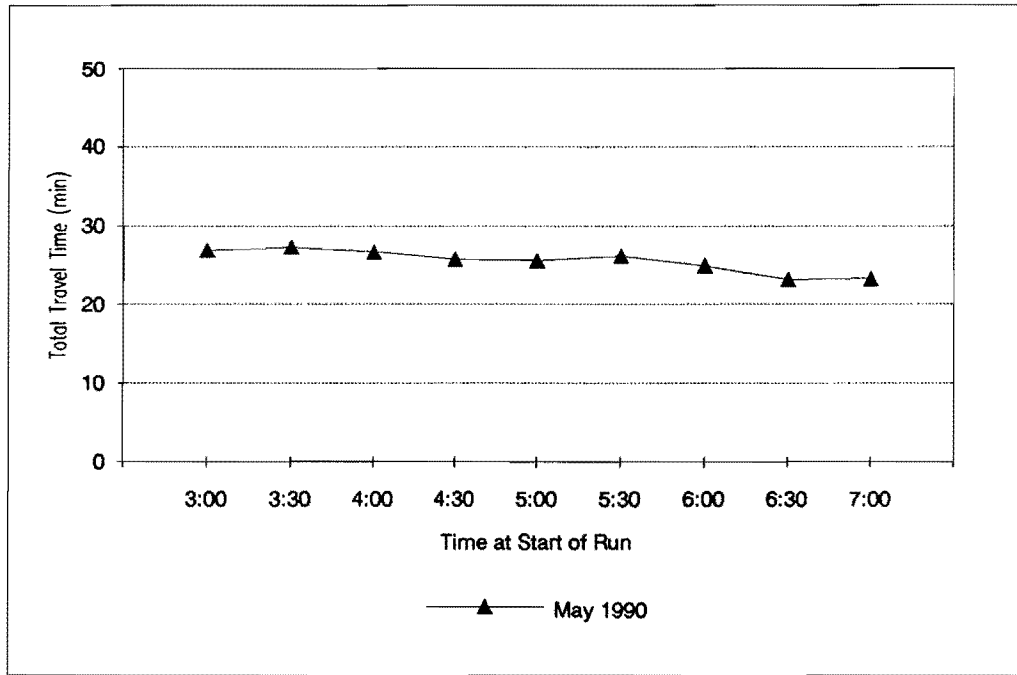


(a) Northbound

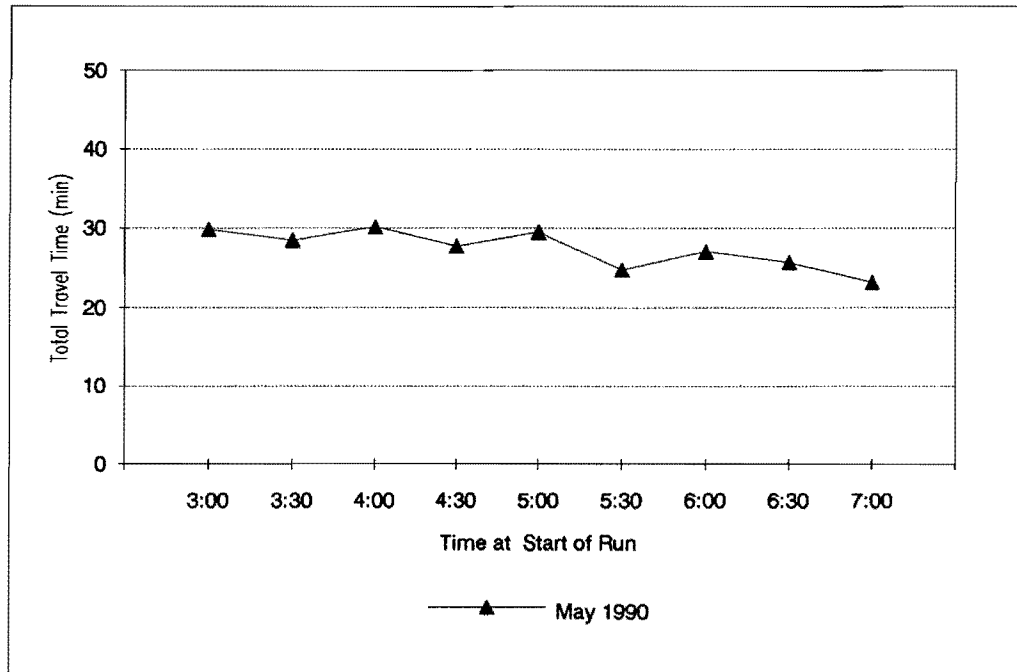


(b) Southbound

Figure I-1. A.M. Peak Period Total Travel Time Between I-635 and CBD: Midway (May 1990)

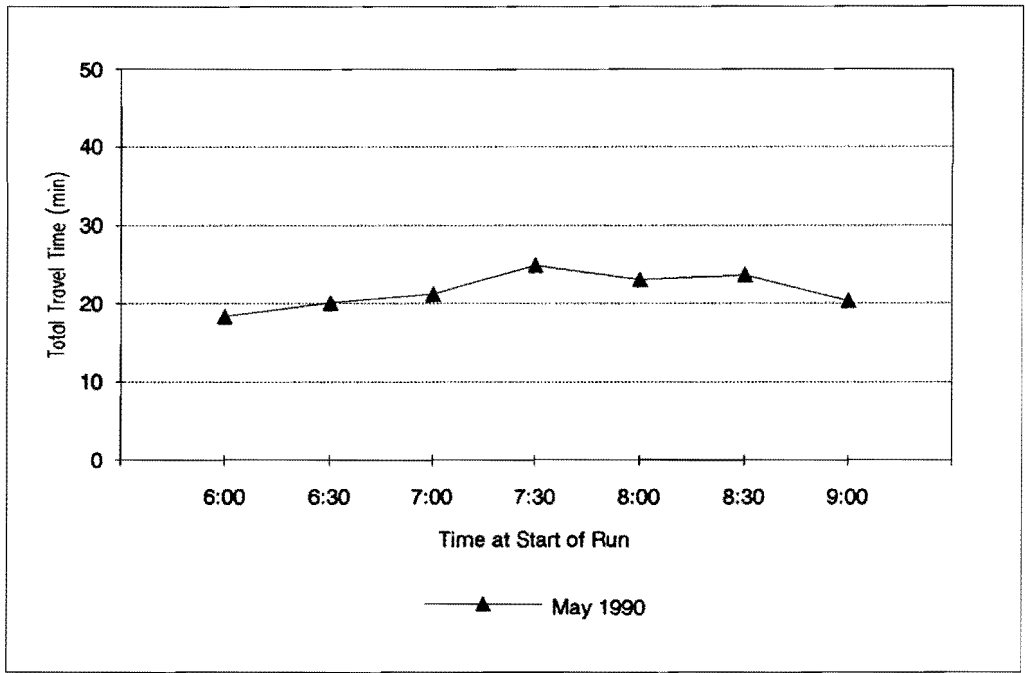


(a) Northbound

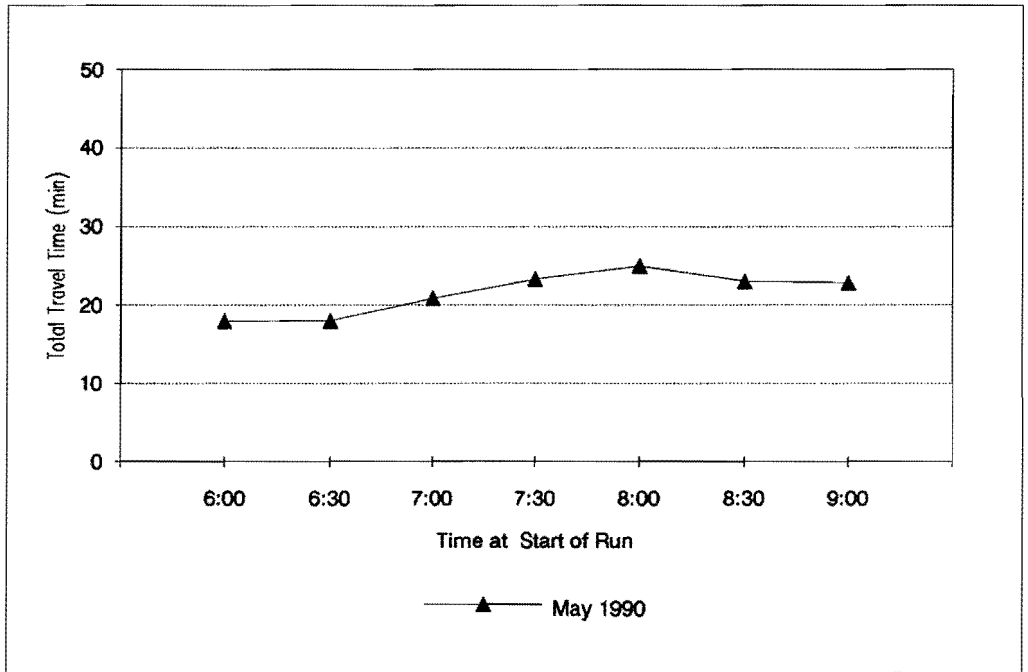


(b) Southbound

Figure I-2. P.M. Peak Period Total Travel Time Between I-635 and CBD: Midway (May 1990)

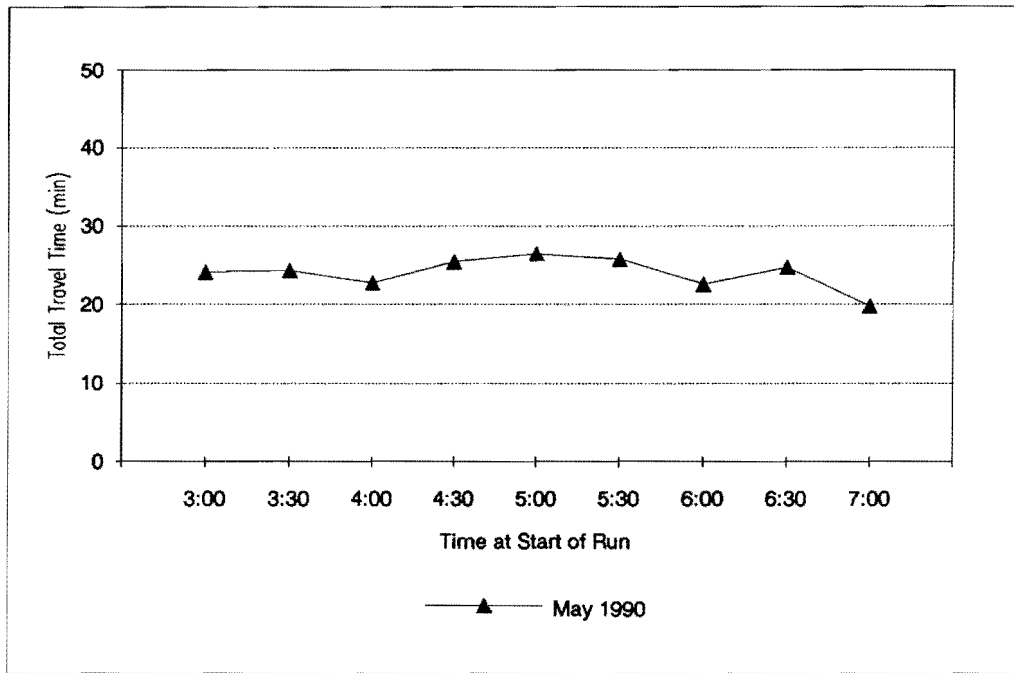


(a) Northbound

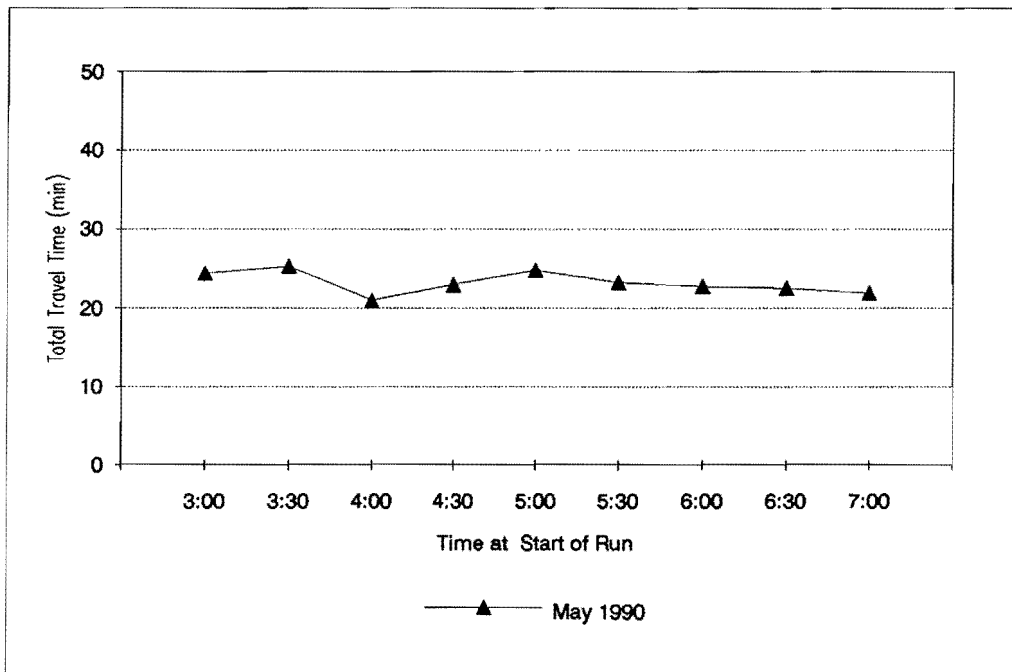


(b) Southbound

Figure I-3. A.M. Peak Period Total Travel Time Between I-635 and CBD: Inwood (May 1990)

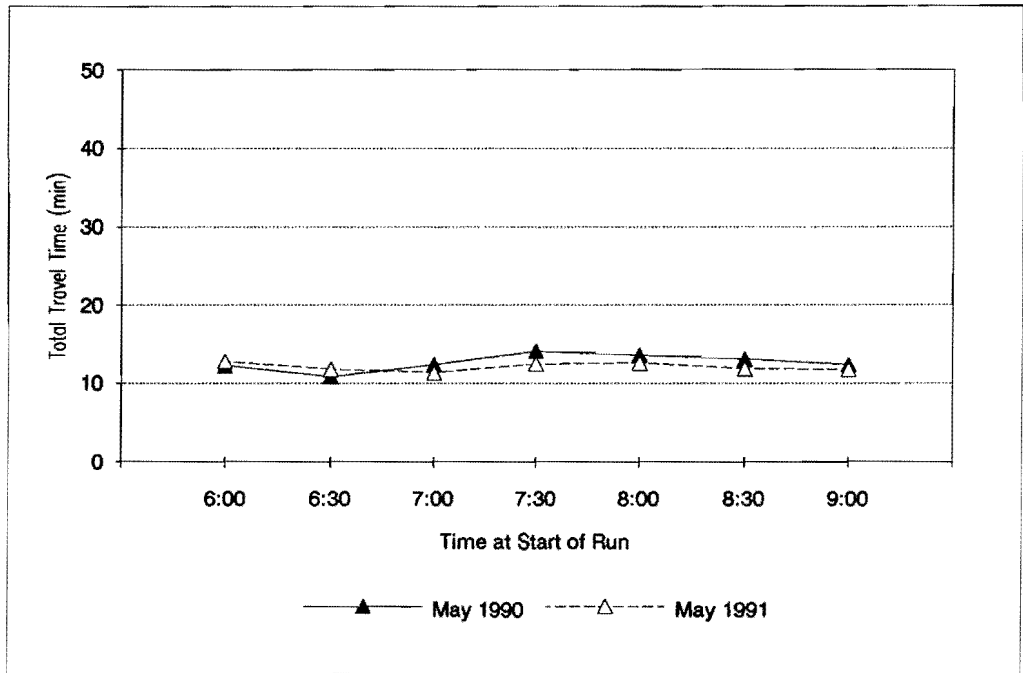


(a) Northbound

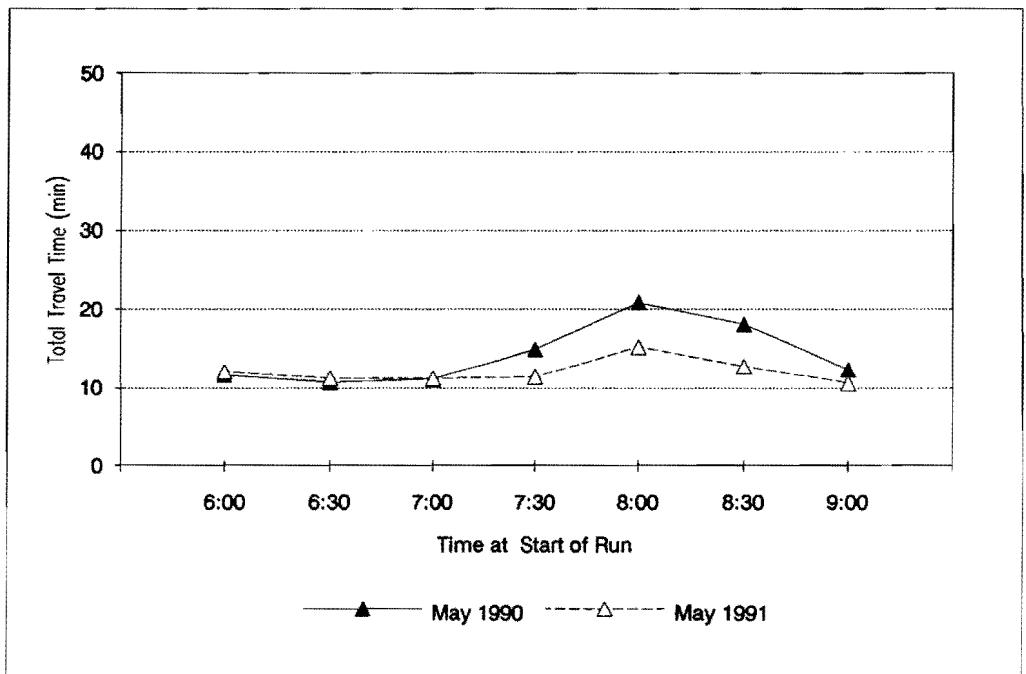


(b) Southbound

Figure I-4. P.M. Peak Period Total Travel Time Between I-635 and CBD: Inwood (May 1990)

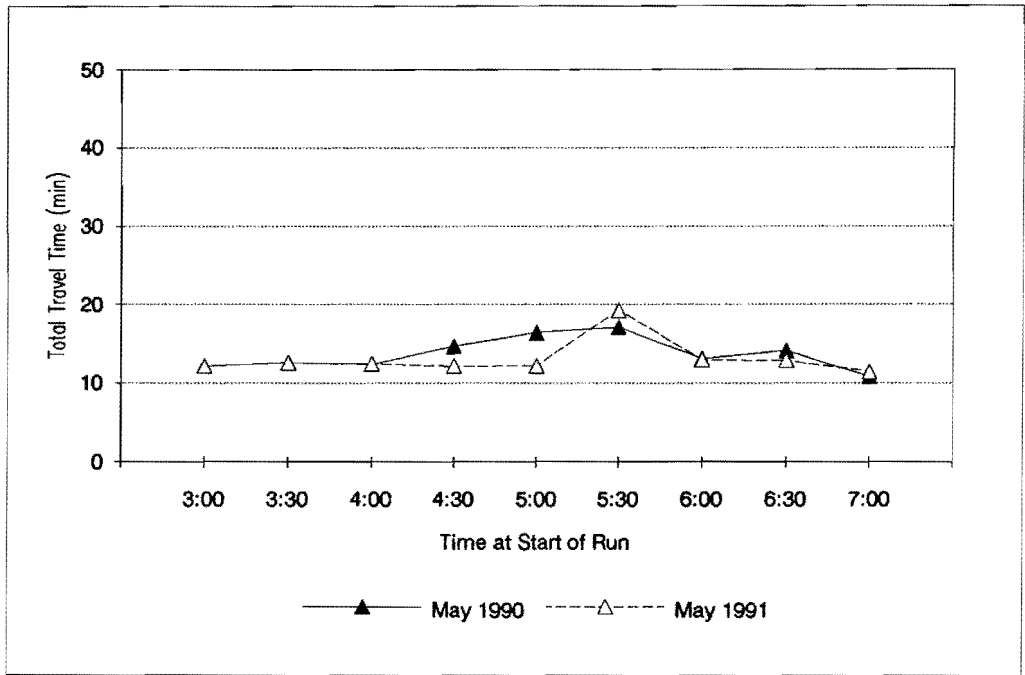


(a) Northbound

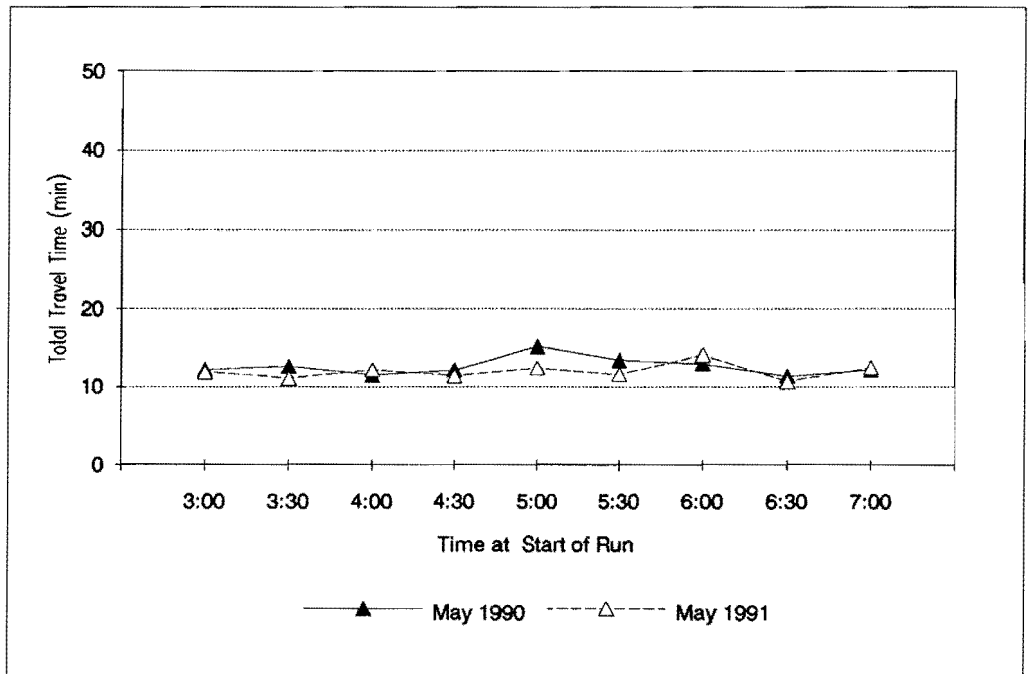


(b) Southbound

Figure I-5. A.M. Peak Period Total Travel Time Between I-635 and CBD: DNT (May 1990 and 1991)

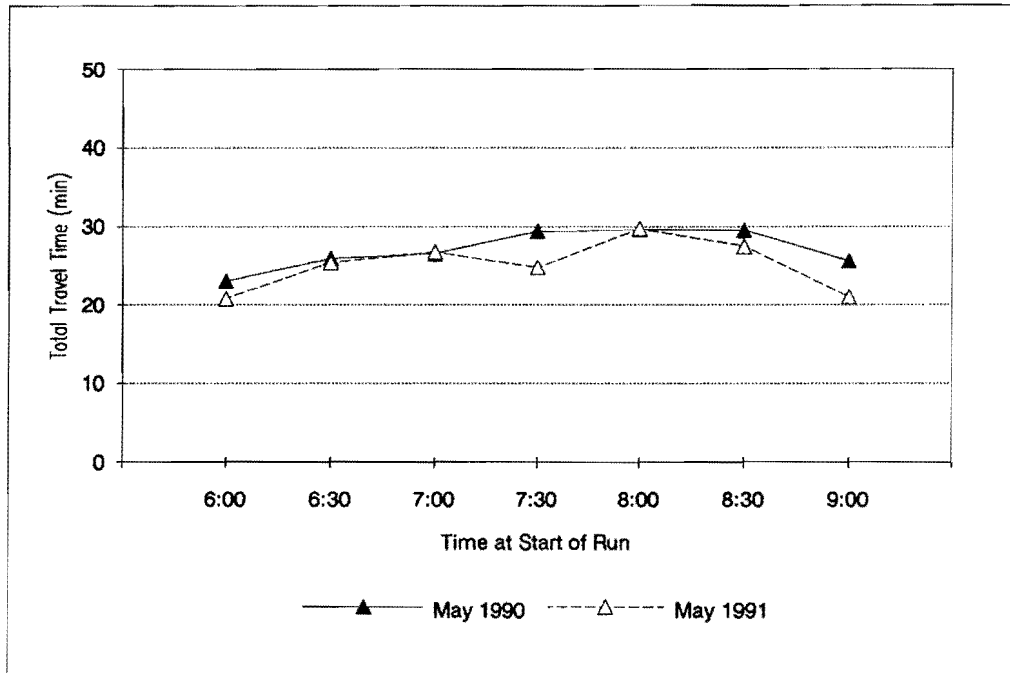


(a) Northbound

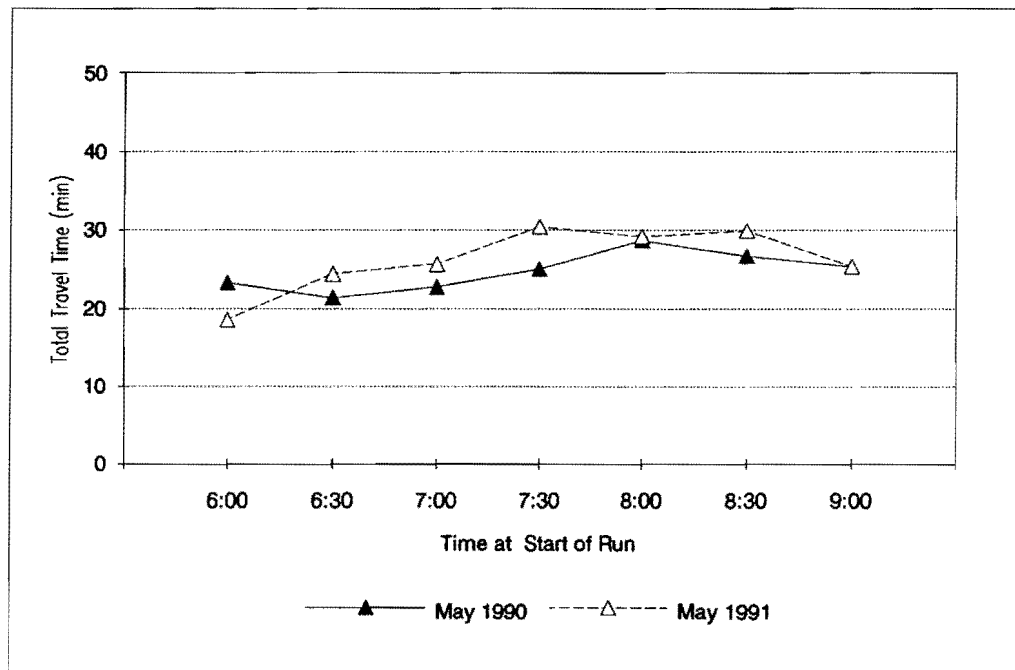


(b) Southbound

Figure I-6. P.M. Peak Period Total Travel Time Between I-635 and CBD: DNT (May 1990 and 1991)

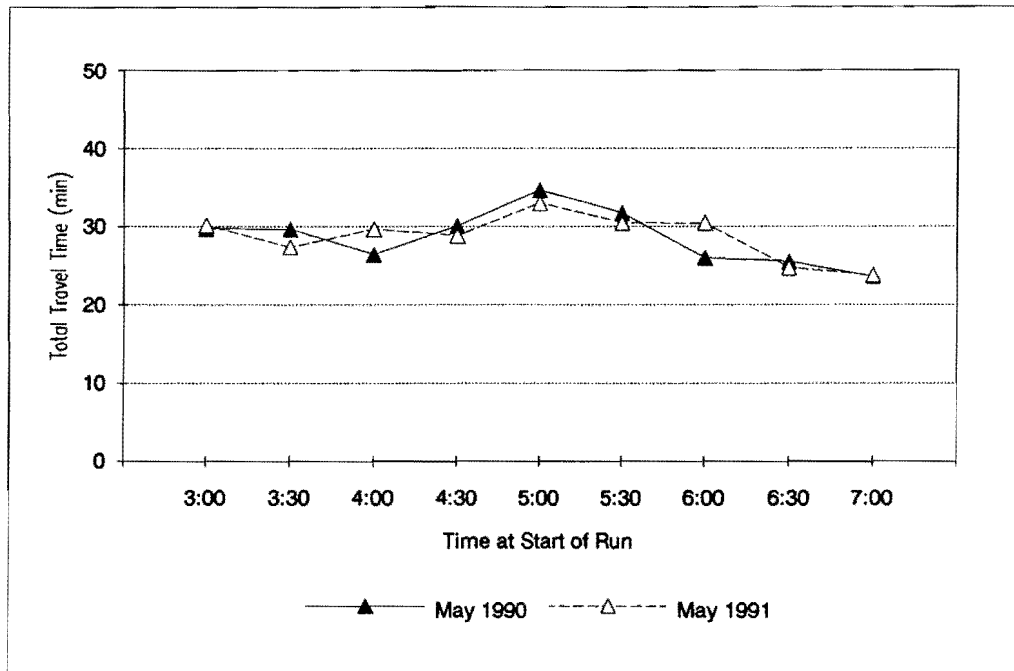


(a) Northbound

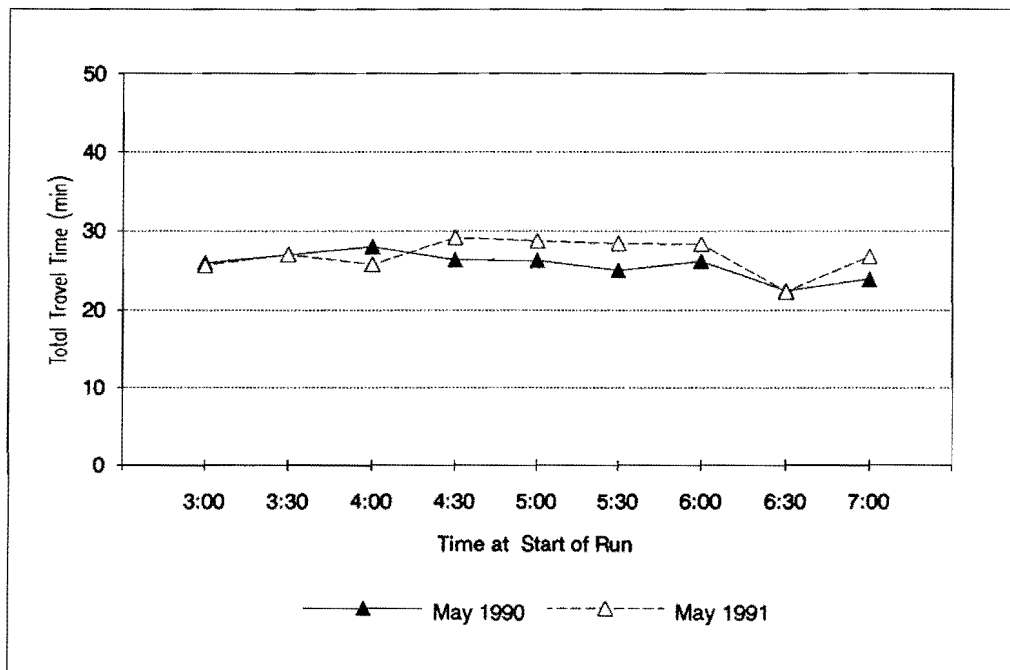


(b) Southbound

Figure I-7. A.M. Peak Period Total Travel Time Between I-635 and CBD: Preston (May 1990 and 1991)

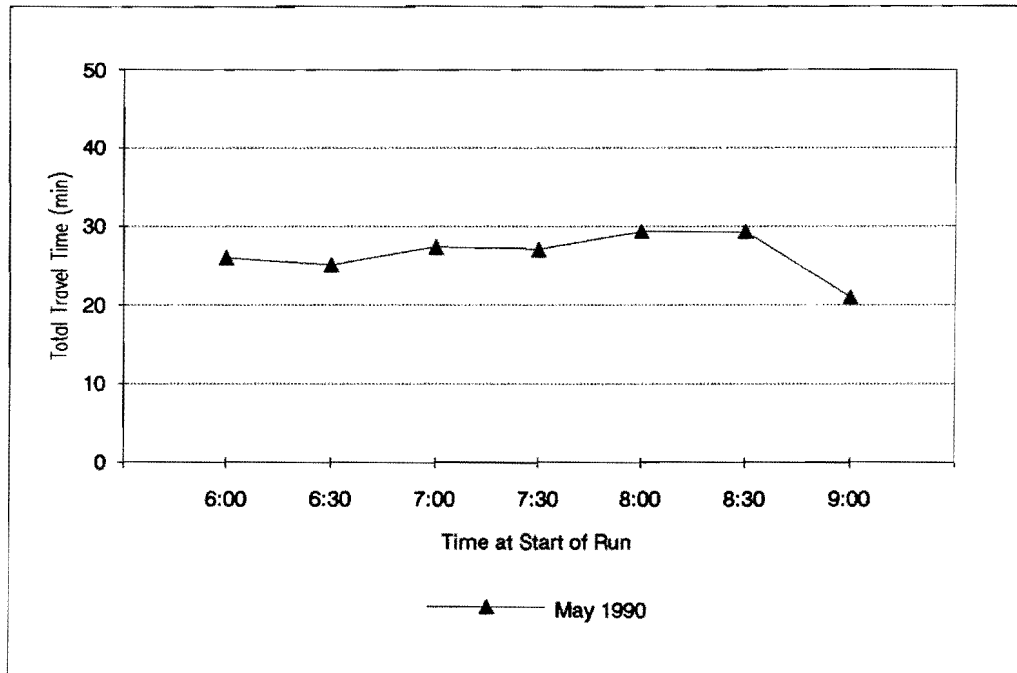


(a) Northbound

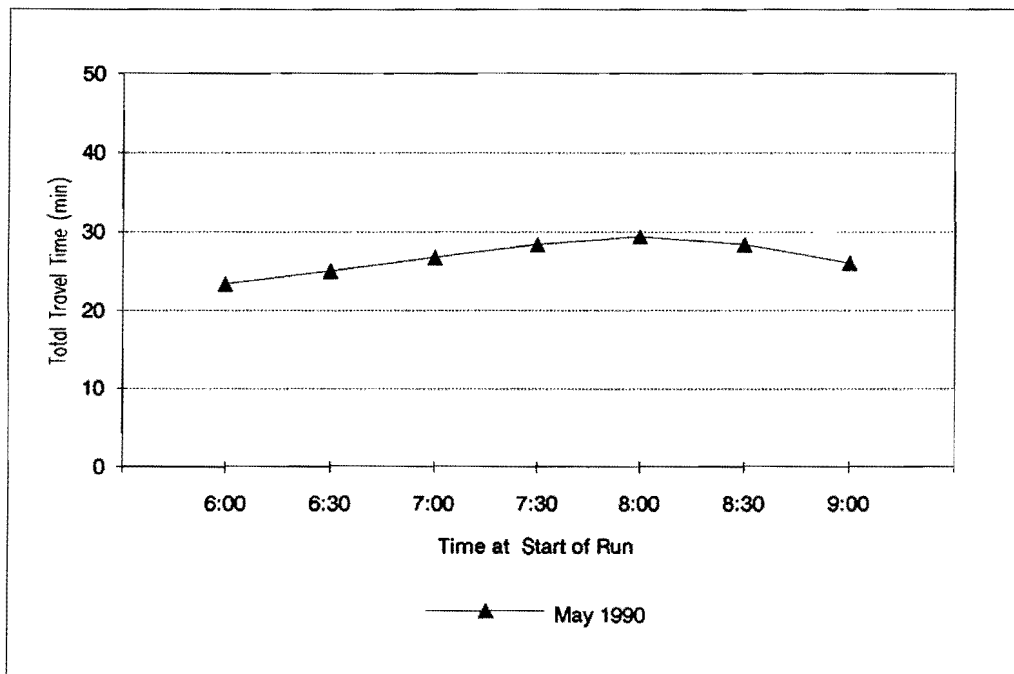


(b) Southbound

Figure I-8. P.M. Peak Period Total Travel Time Between I-635 and CBD: Preston (May 1990 and 1991)

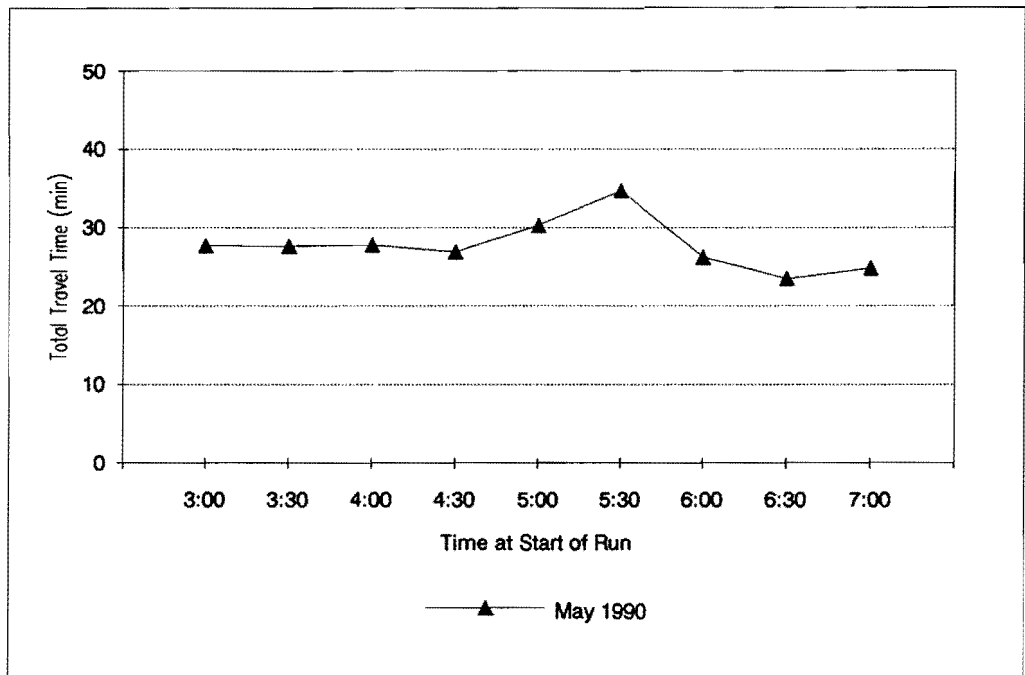


(a) Northbound

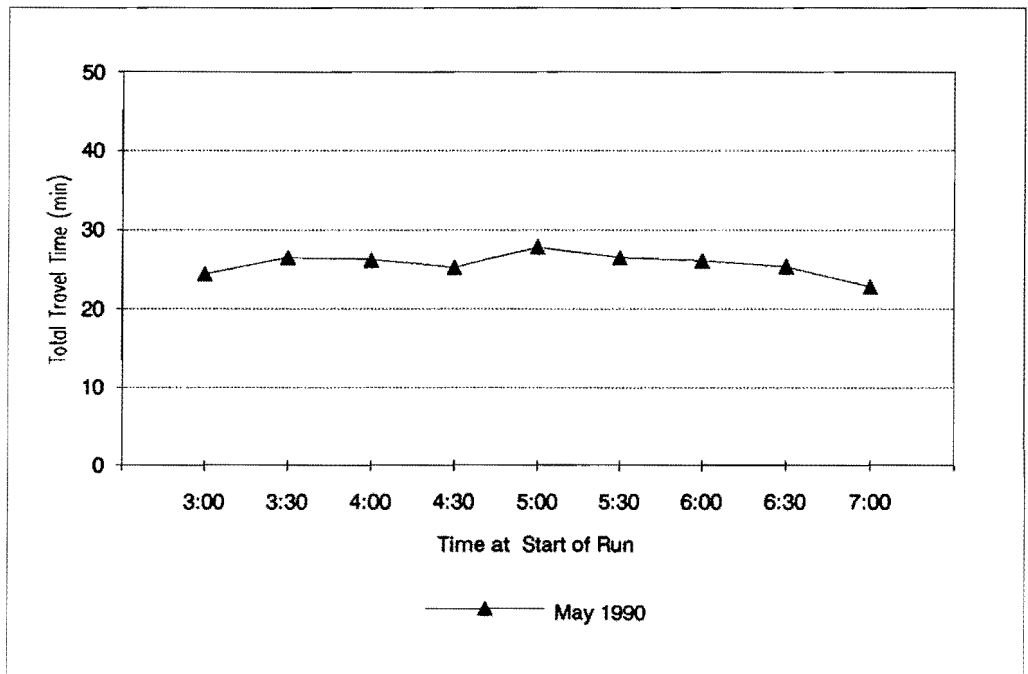


(b) Southbound

Figure I-9. A.M. Peak Period Total Travel Time Between I-635 and CBD: Hillcrest (May 1990)

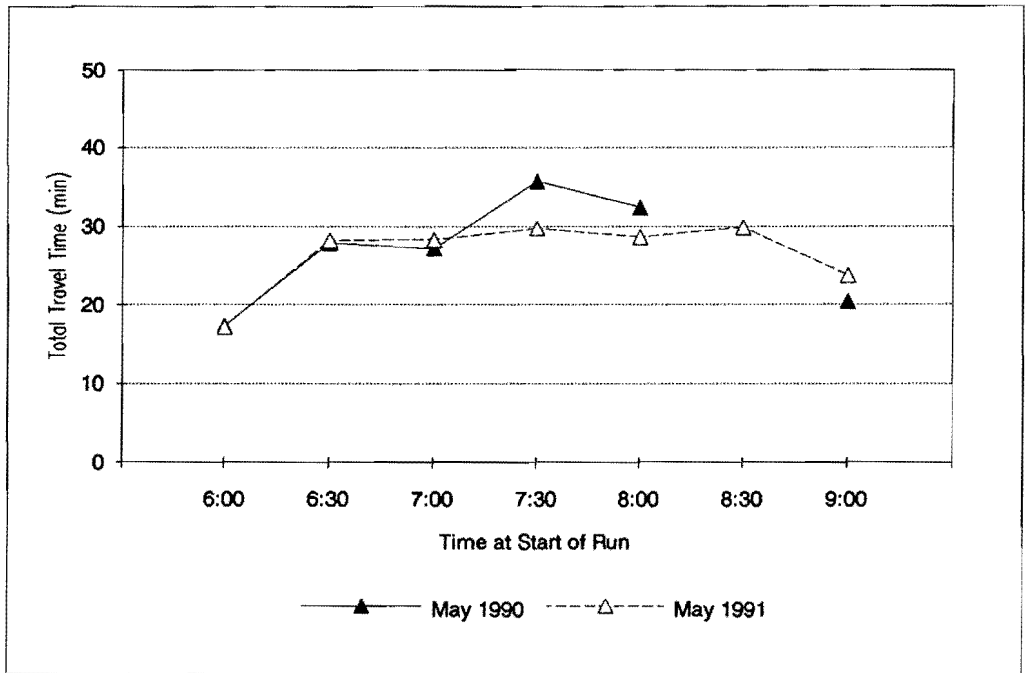


(a) Northbound

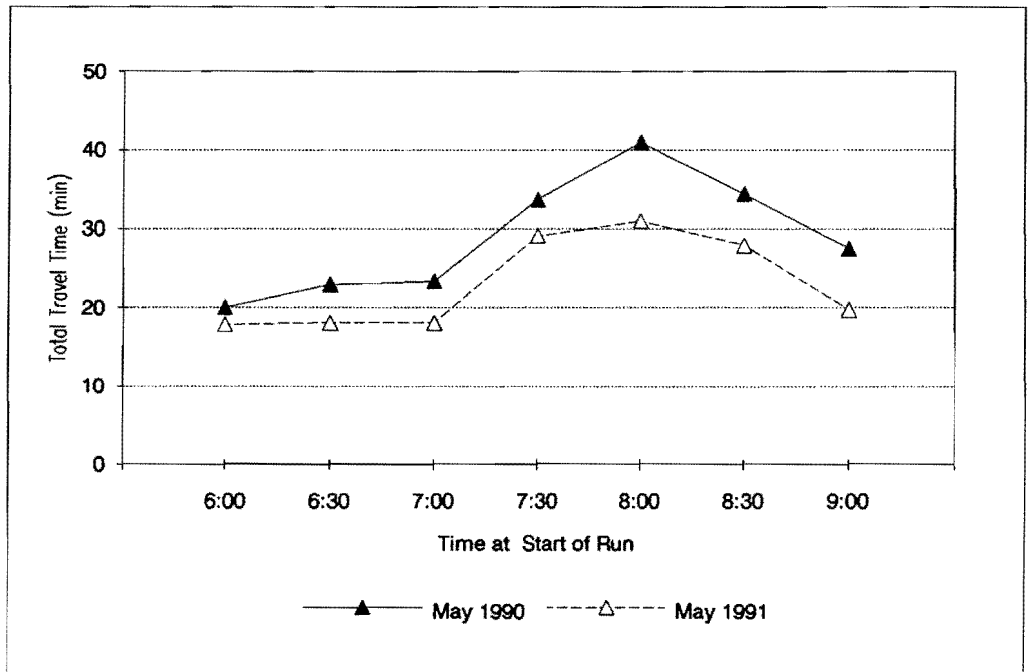


(b) Southbound

Figure I-10. P.M. Peak Period Total Travel Time Between I-635 and CBD: Hillcrest (May 1990)

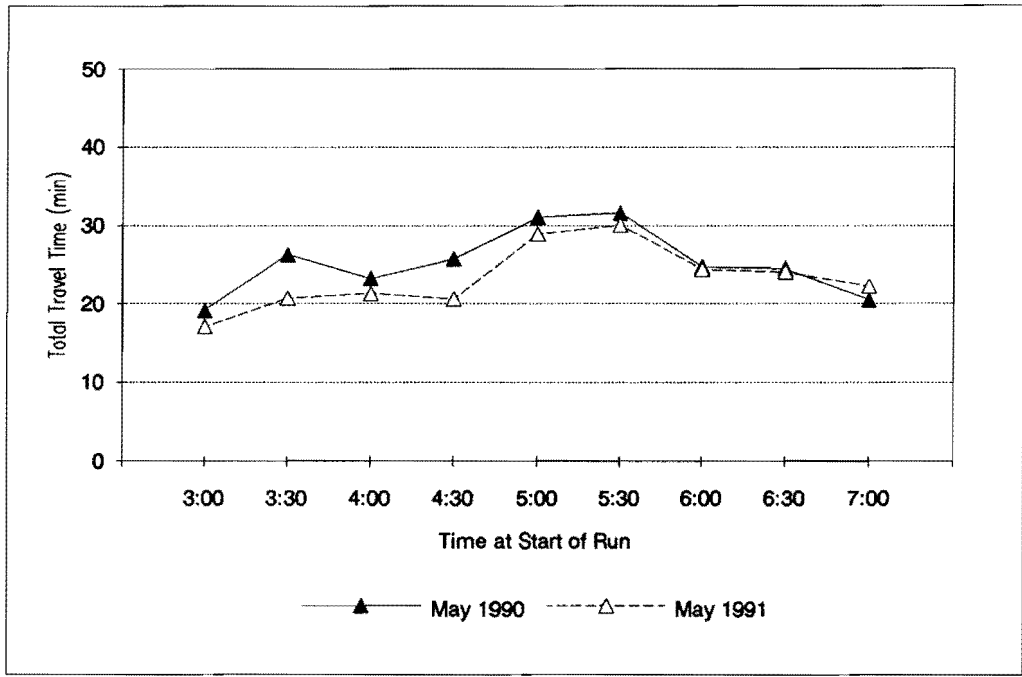


(a) Northbound

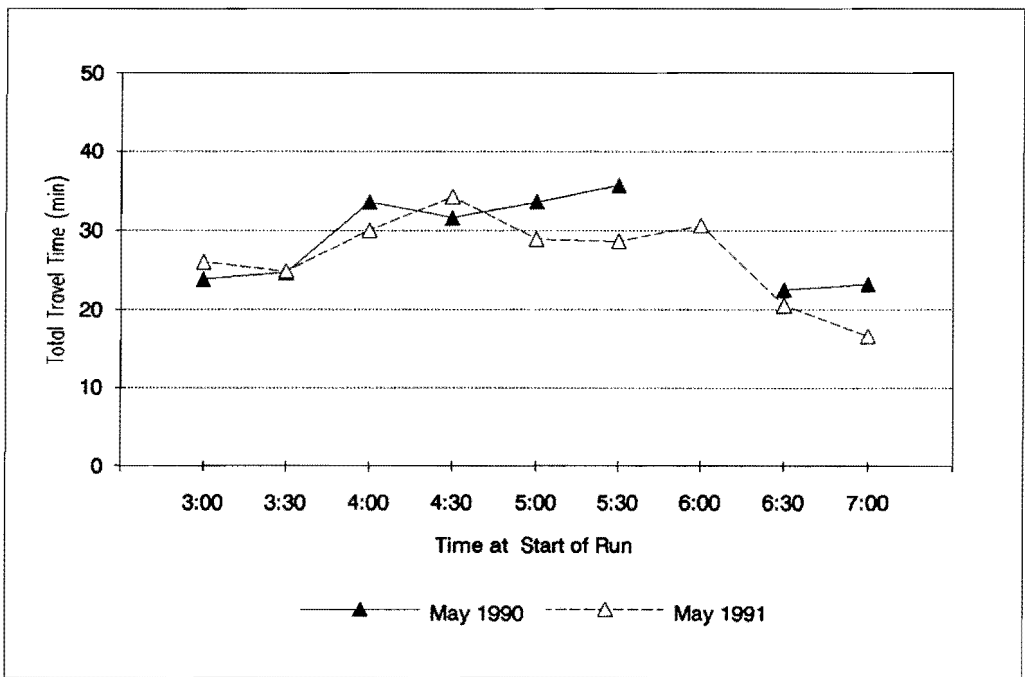


(b) Southbound

Figure I-11. A.M. Peak Period Total Travel Time Between I-635 and CBD: US-75 Frontage Road (May 1990 and 1991)

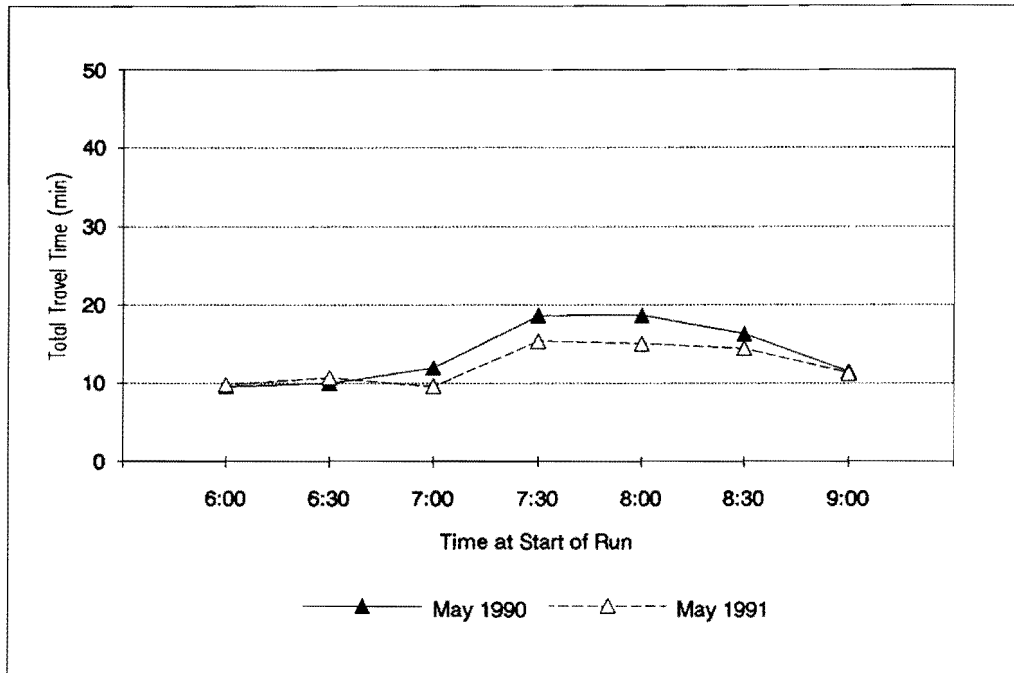


(a) Northbound

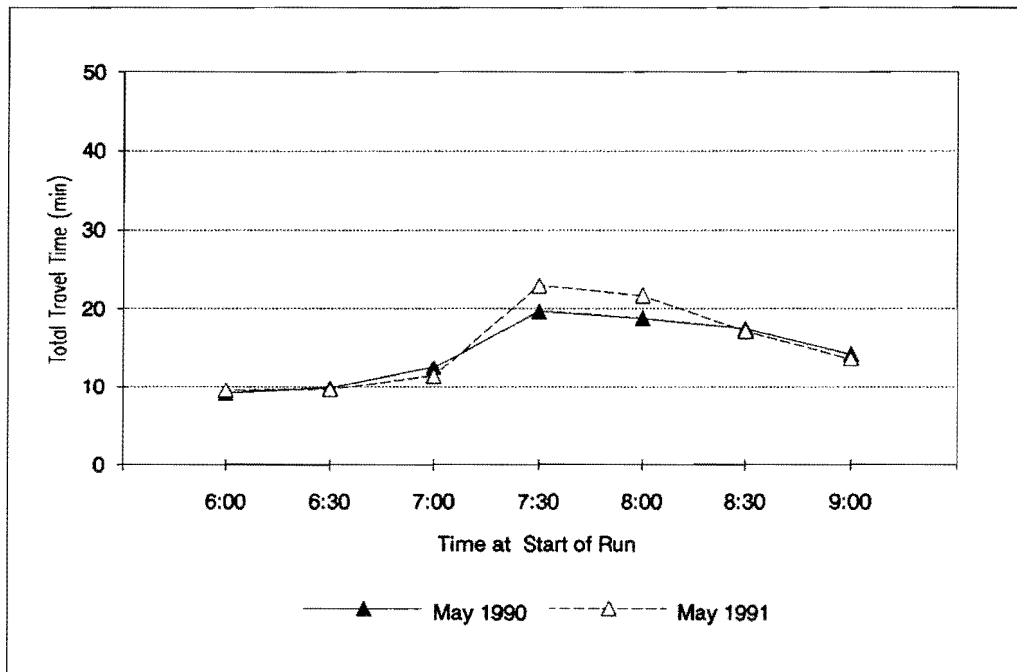


(b) Southbound

Figure I-12. P.M. Peak Period Total Travel Time Between I-635 and CBD: US-75 Frontage Road (May 1990 and 1991)

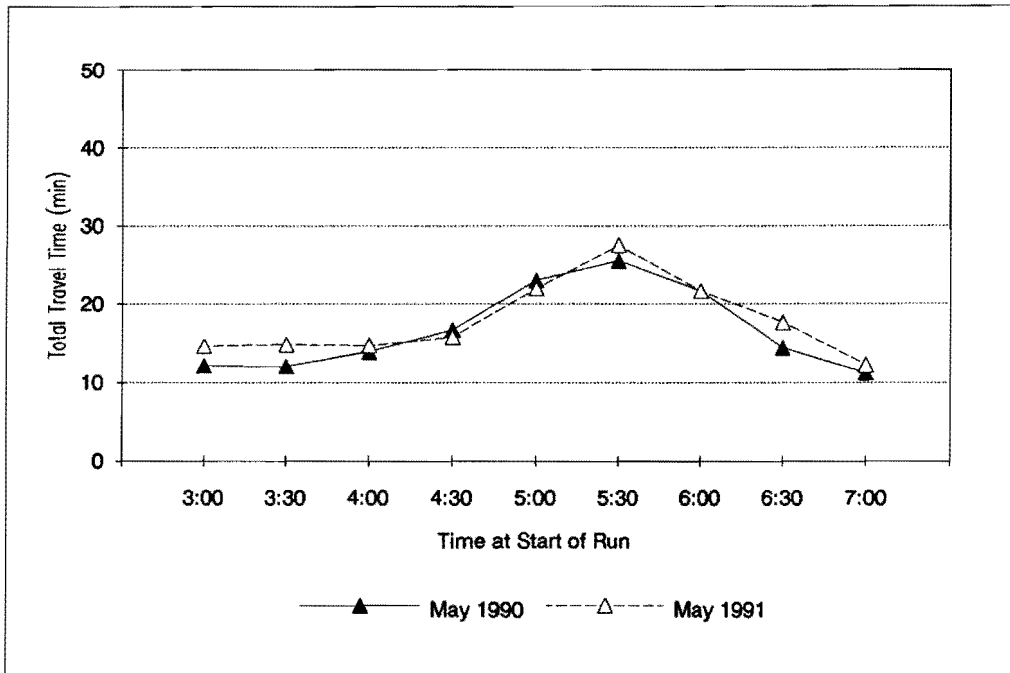


(a) Northbound

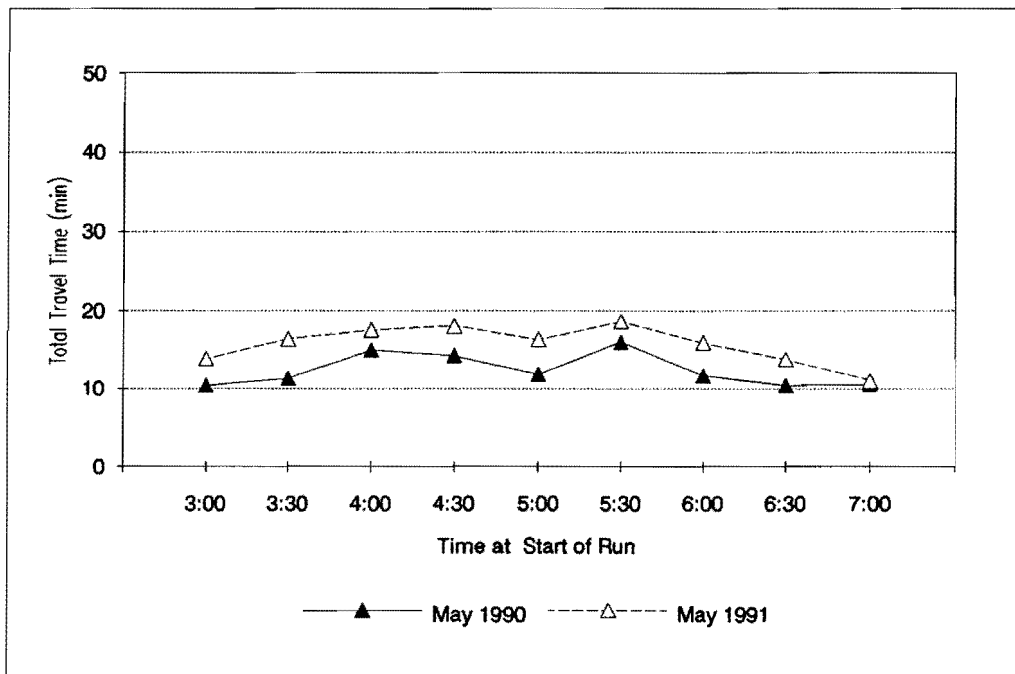


(b) Southbound

Figure I-13. A.M. Peak Period Total Travel Time Between I-635 and CBD: US-75 (May 1990 and 1991)

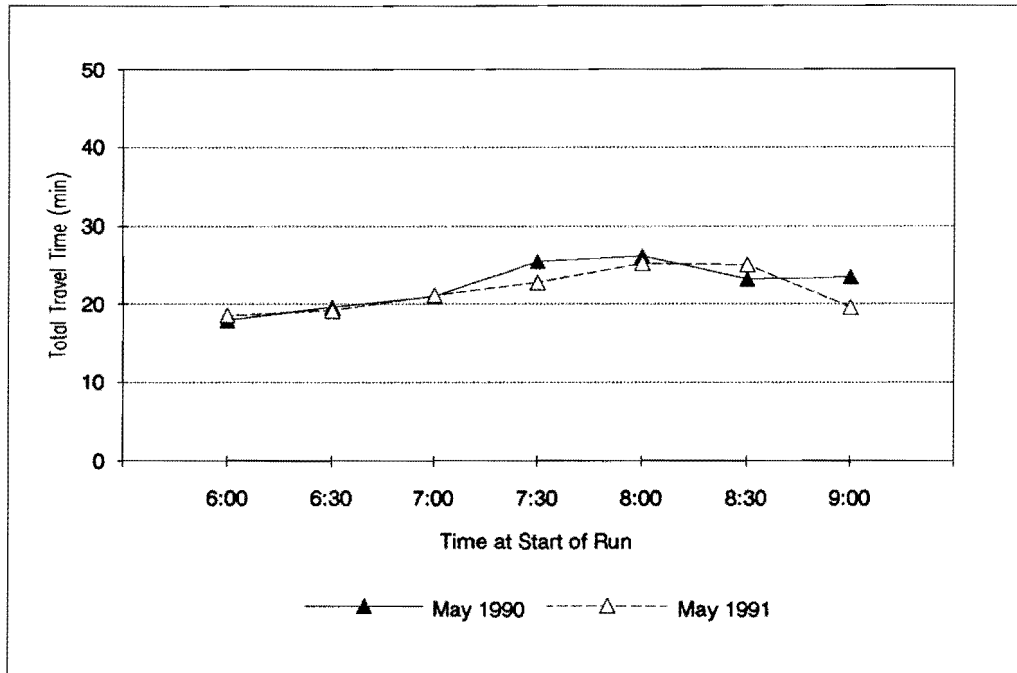


(a) Northbound

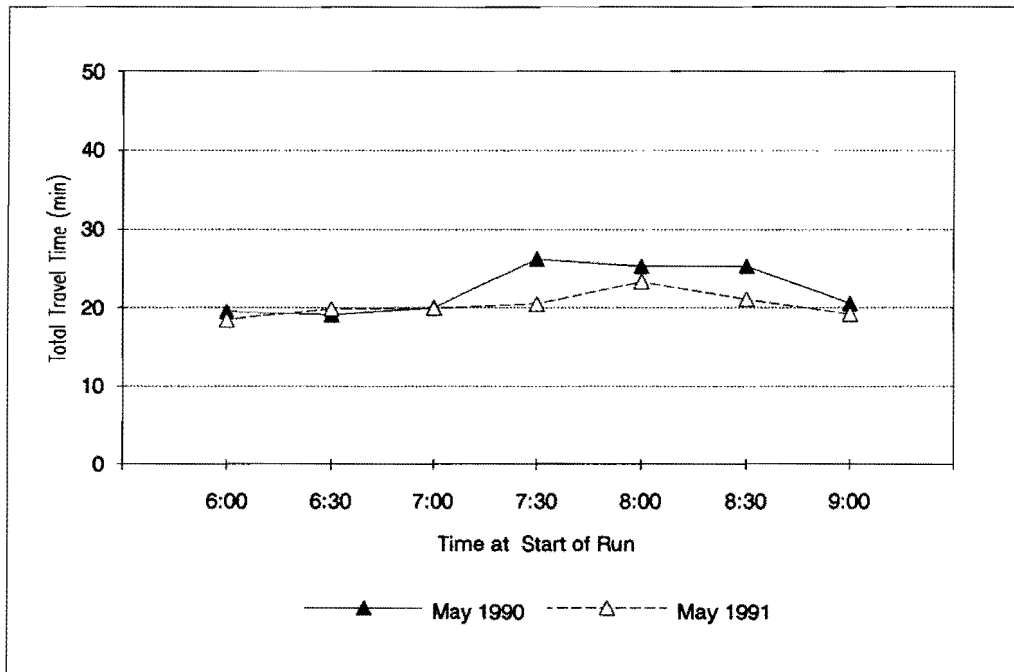


(b) Southbound

Figure I-14. P.M. Peak Period Total Travel Time Between I-635 and CBD: US-75 (May 1990 and 1991)

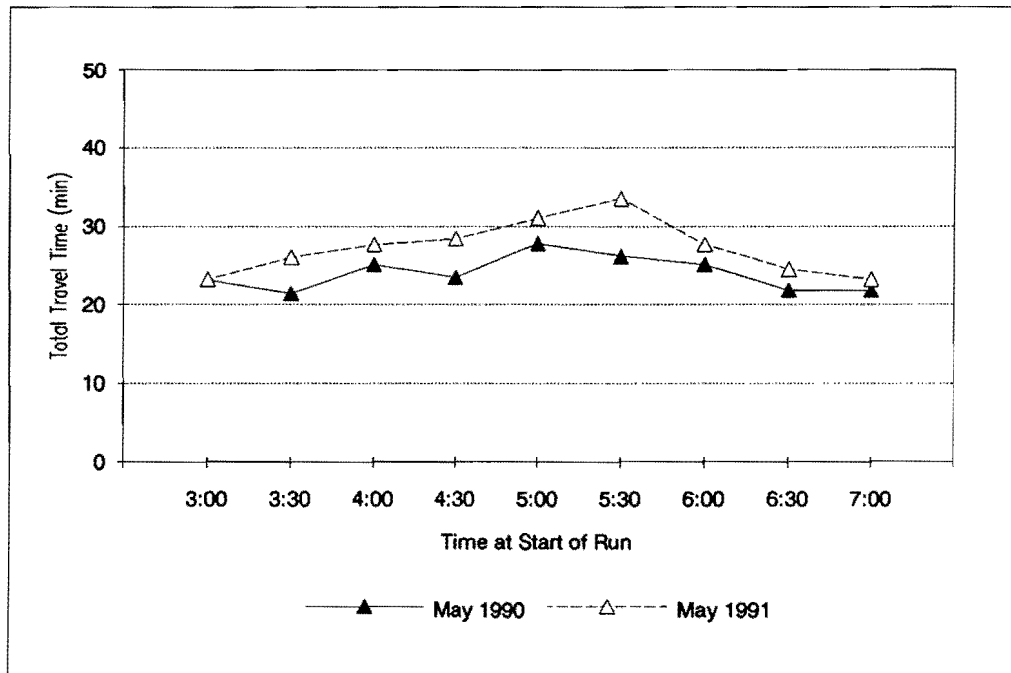


(a) Northbound

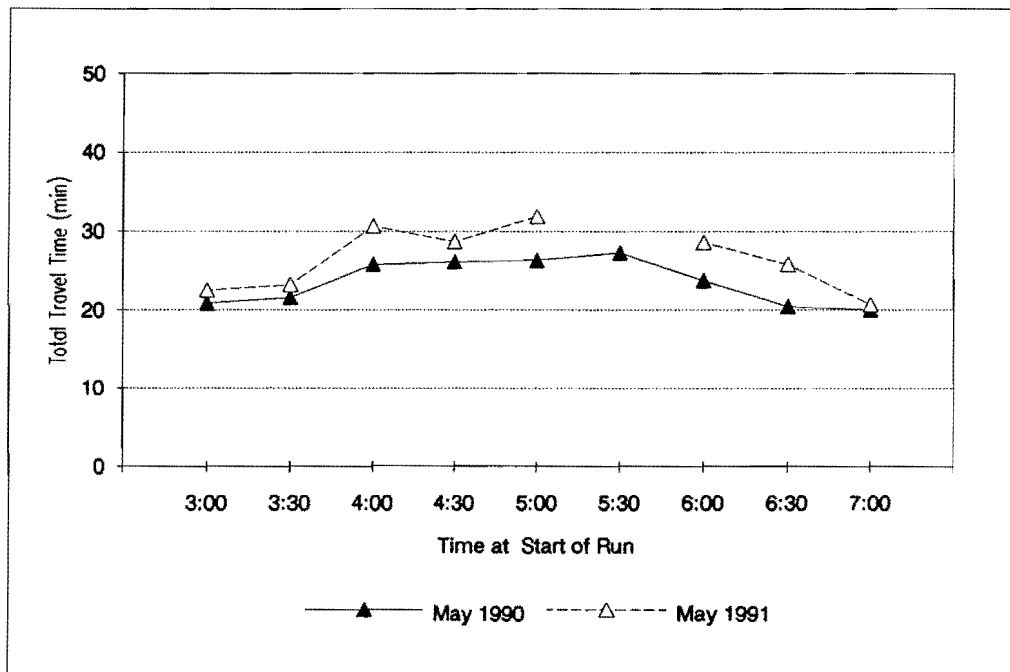


(b) Southbound

Figure I-15. A.M. Peak Period Total Travel Time Between I-635 and CBD: Greenville (May 1990 and 1991)

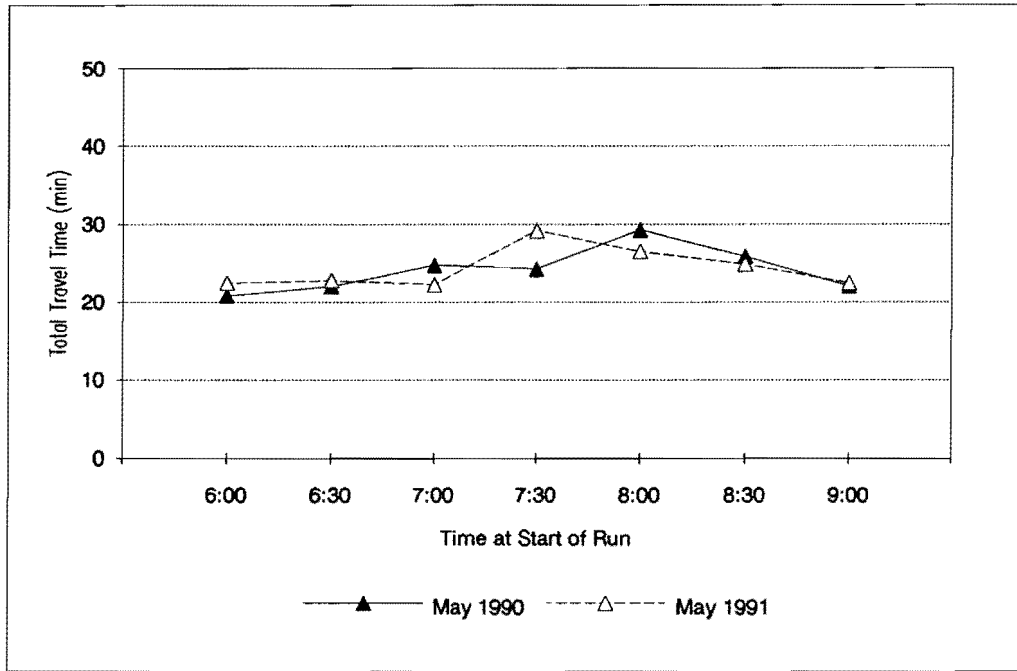


(a) Northbound

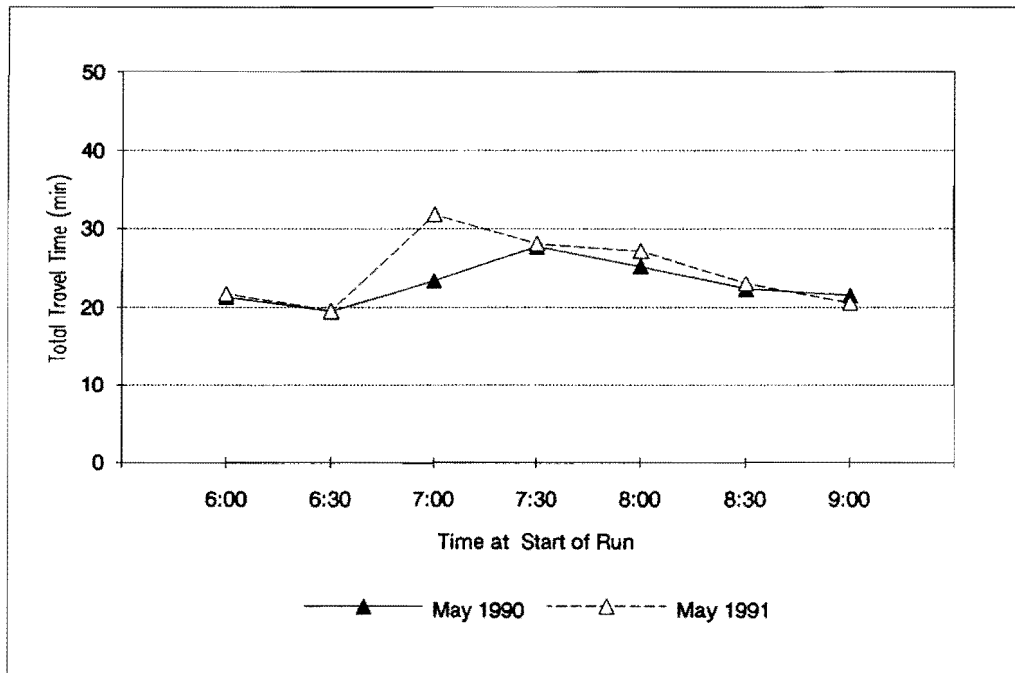


(b) Southbound

Figure I-16. P.M. Peak Period Total Travel Time Between I-635 and CBD: Greenville (May 1990 and 1991)

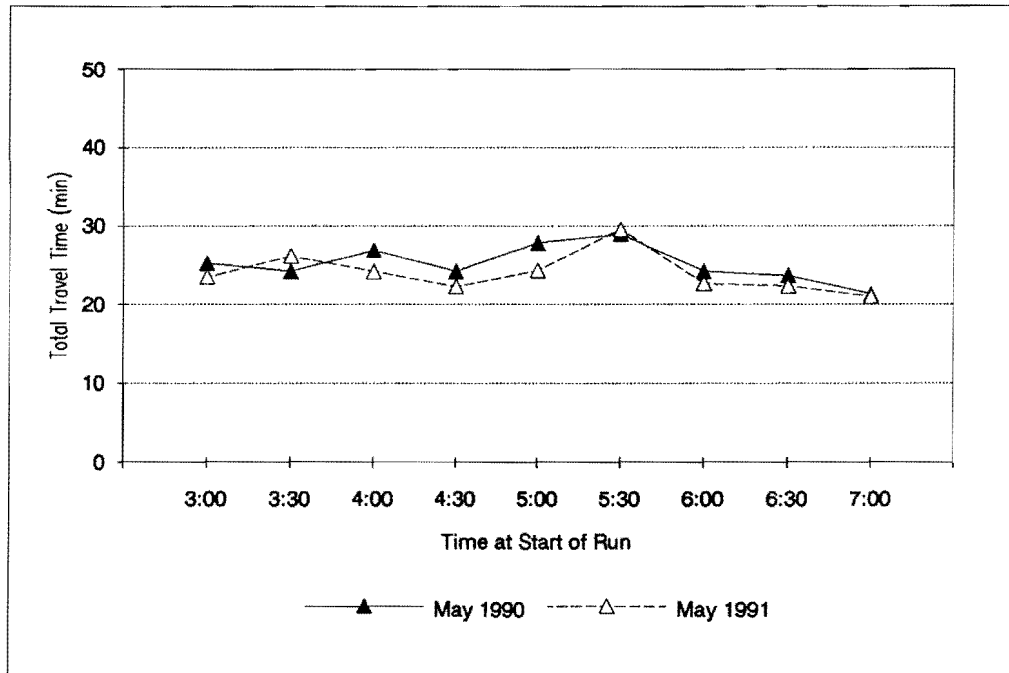


(a) Northbound

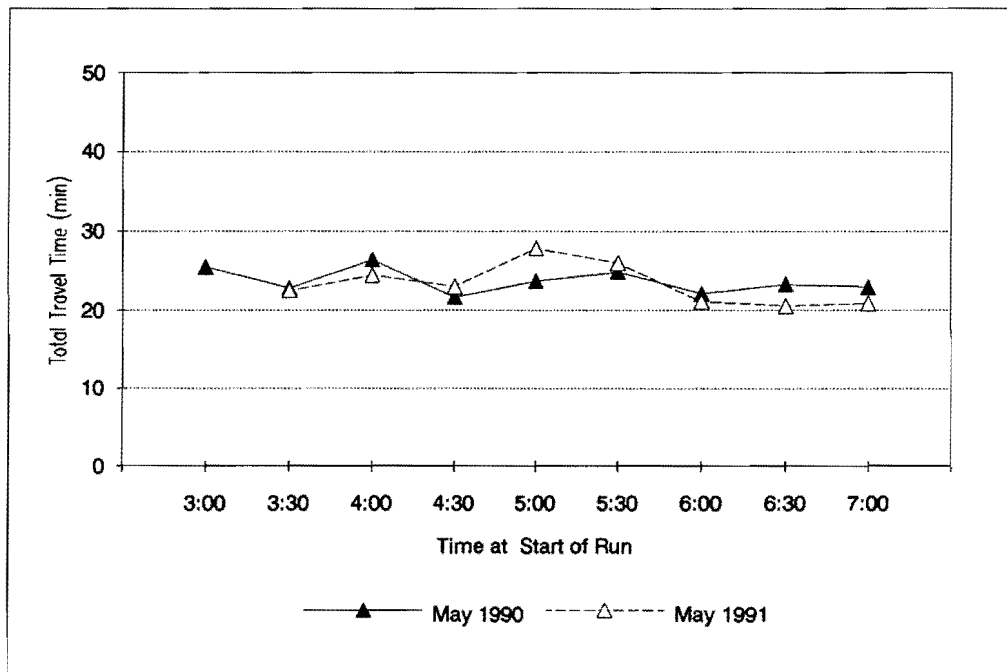


(b) Southbound

Figure I-17. A.M. Peak Period Total Travel Time Between I-635 and CBD: Abrams (May 1990 and 1991)

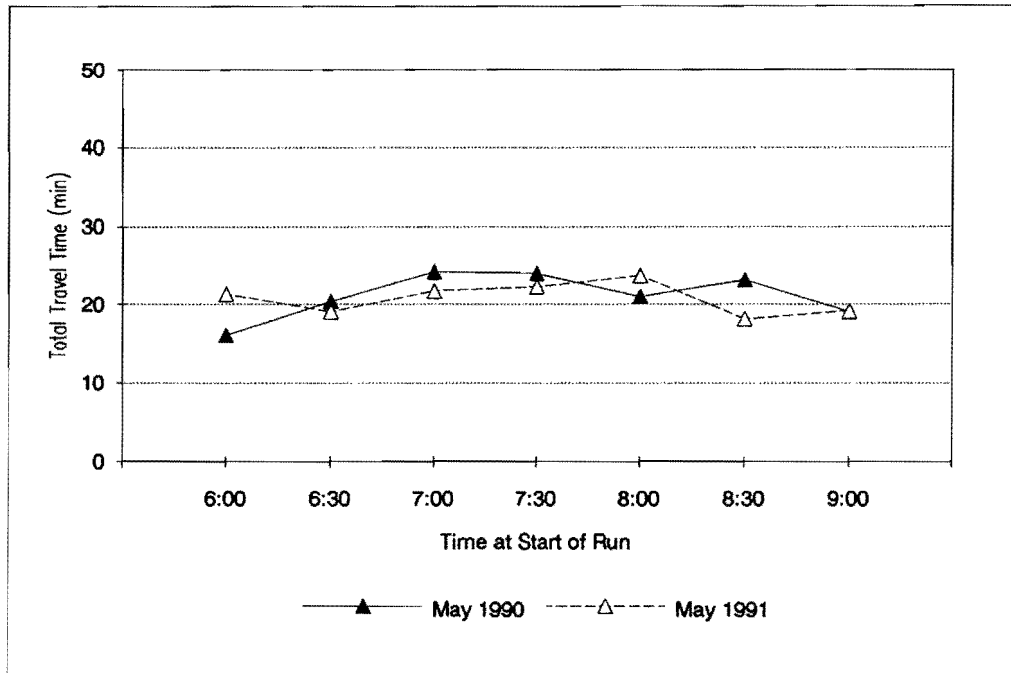


(a) Northbound

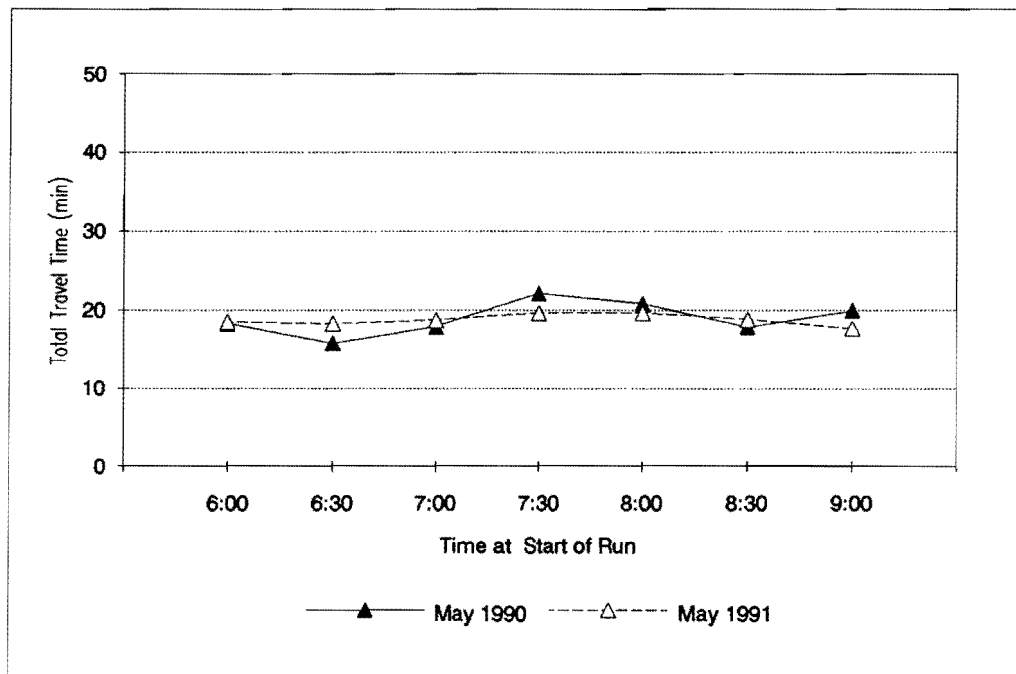


(b) Southbound

Figure I-18. P.M. Peak Period Total Travel Time Between I-635 and CBD: Abrams (May 1990 and 1991)

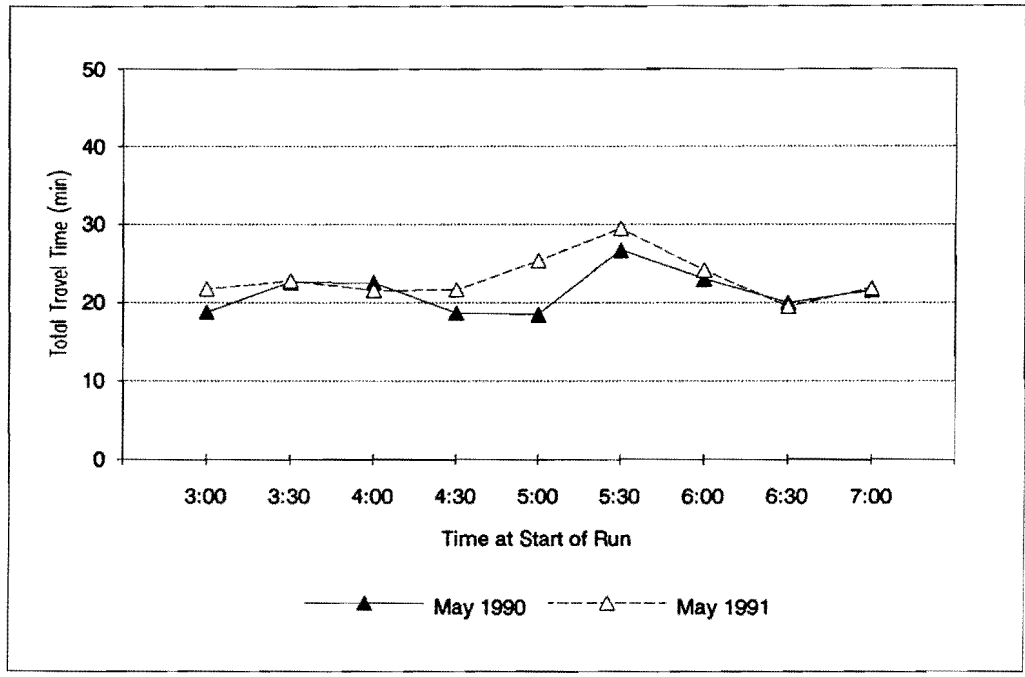


(a) Northbound

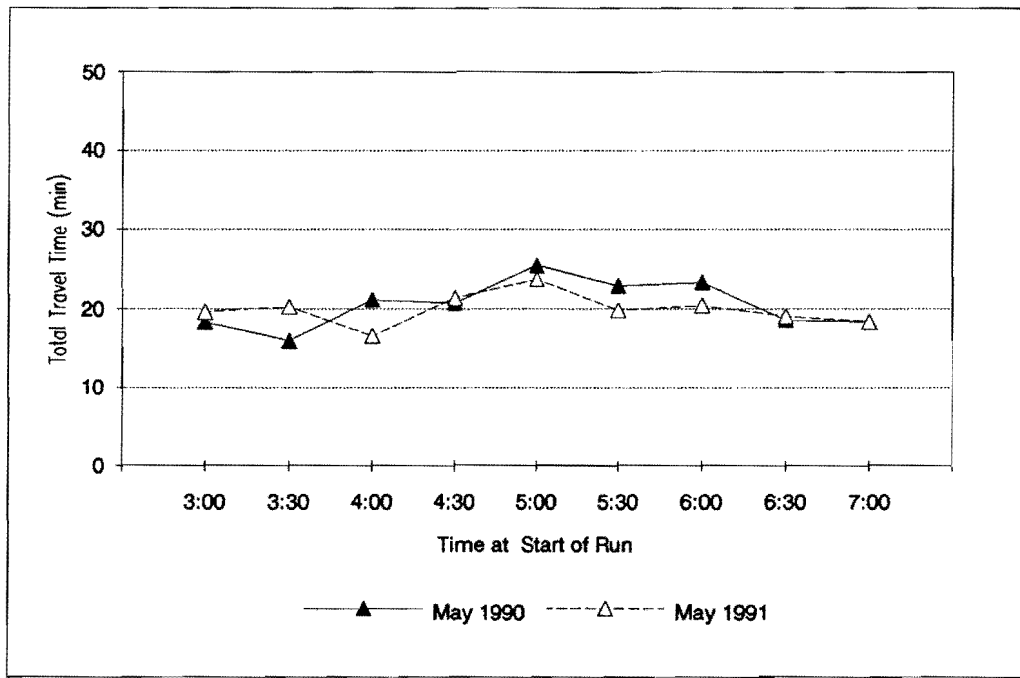


(b) Southbound

Figure I-19. A.M. Peak Period Total Travel Time Between I-635 and CBD: Skillman (May 1990 and 1991)

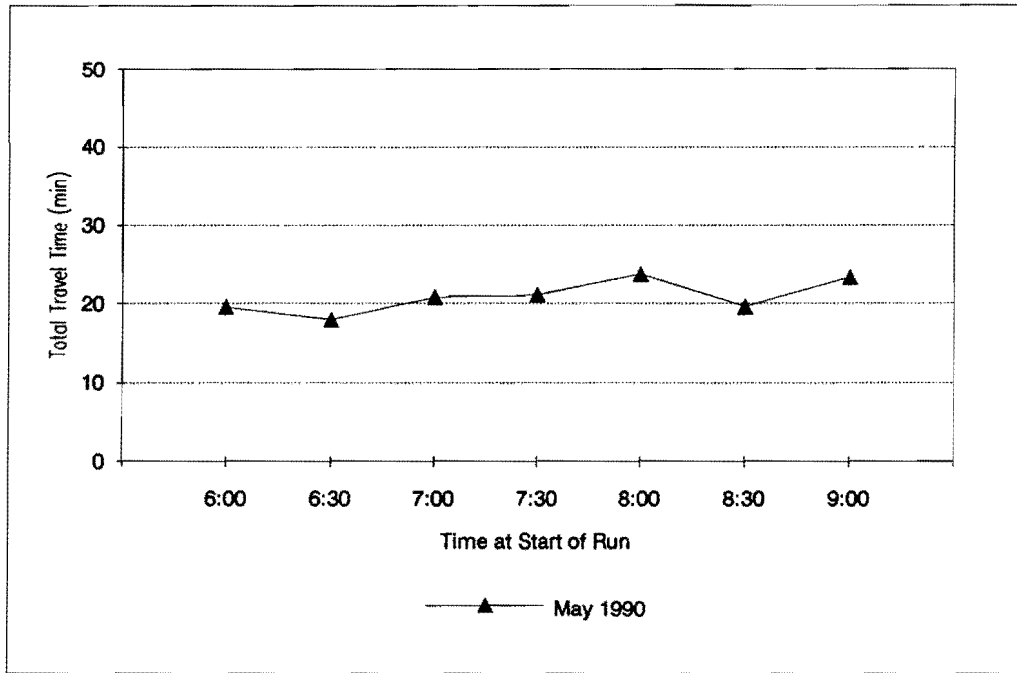


(a) Northbound

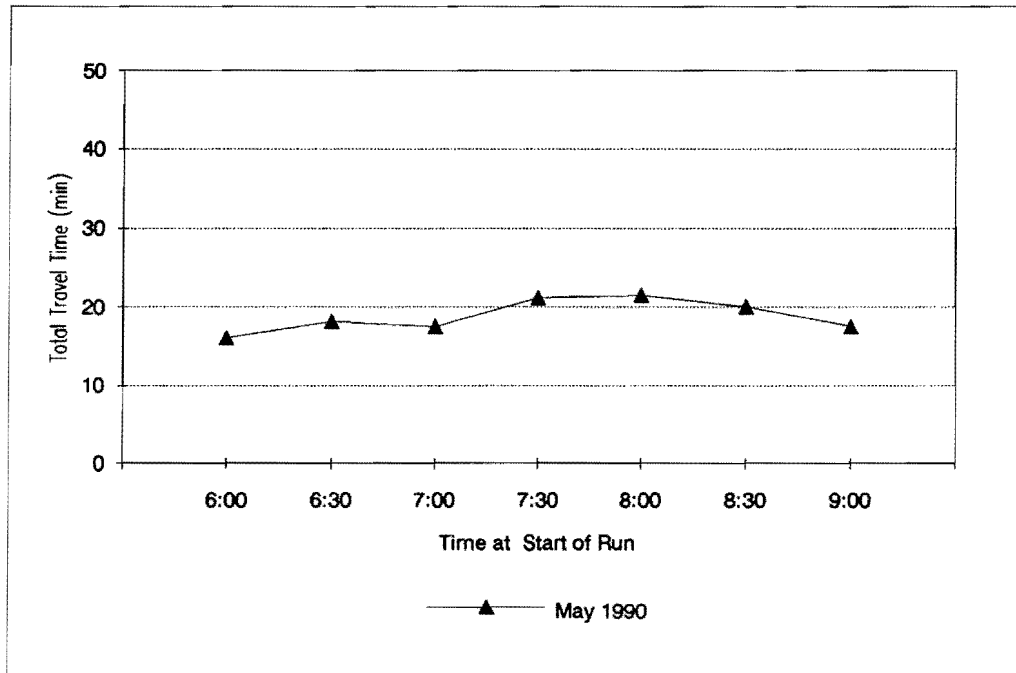


(b) Southbound

Figure I-20. P.M. Peak Period Total Travel Time Between I-635 and CBD: Skillman (May 1990 and 1991)

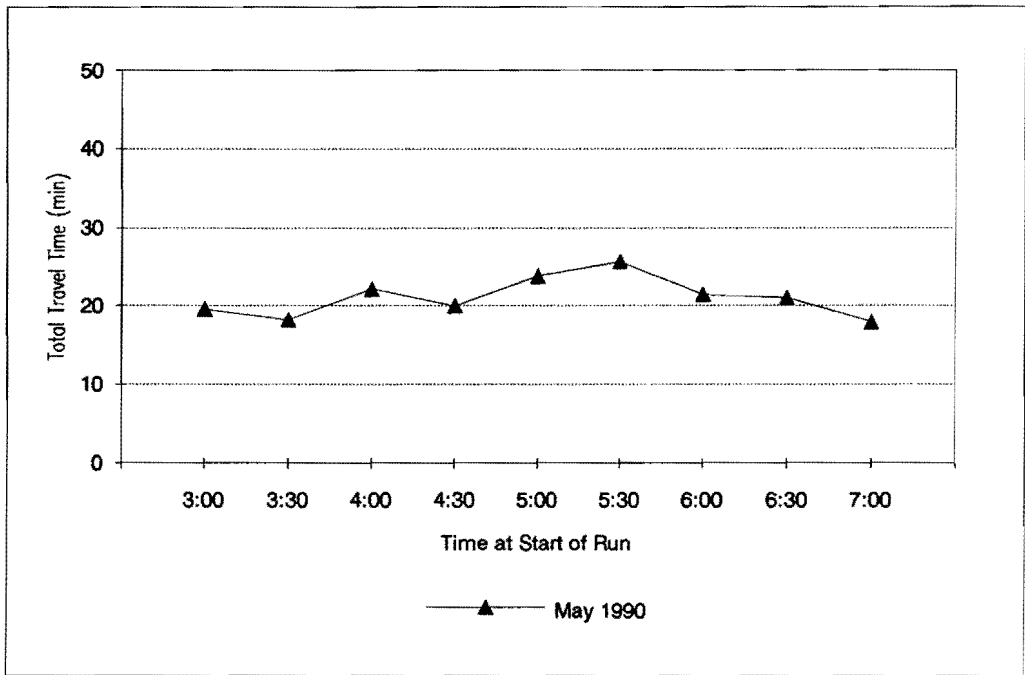


(a) Northbound

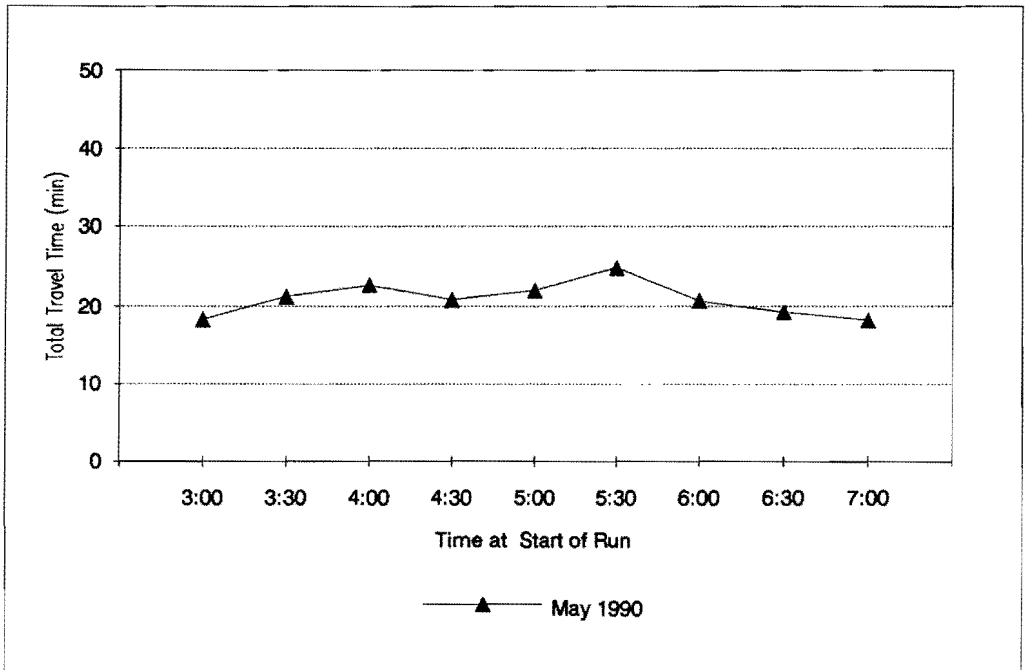


(b) Southbound

Figure I-21. A.M. Peak Period Total Travel Time Between I-635 and CBD: Garland (May 1990)

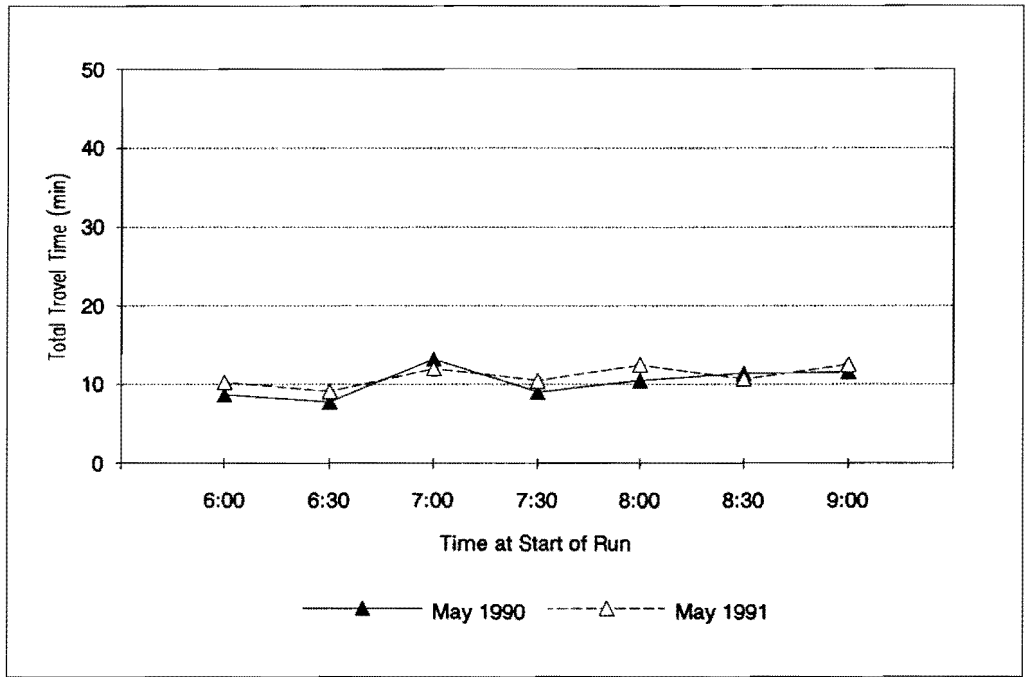


(a) Northbound

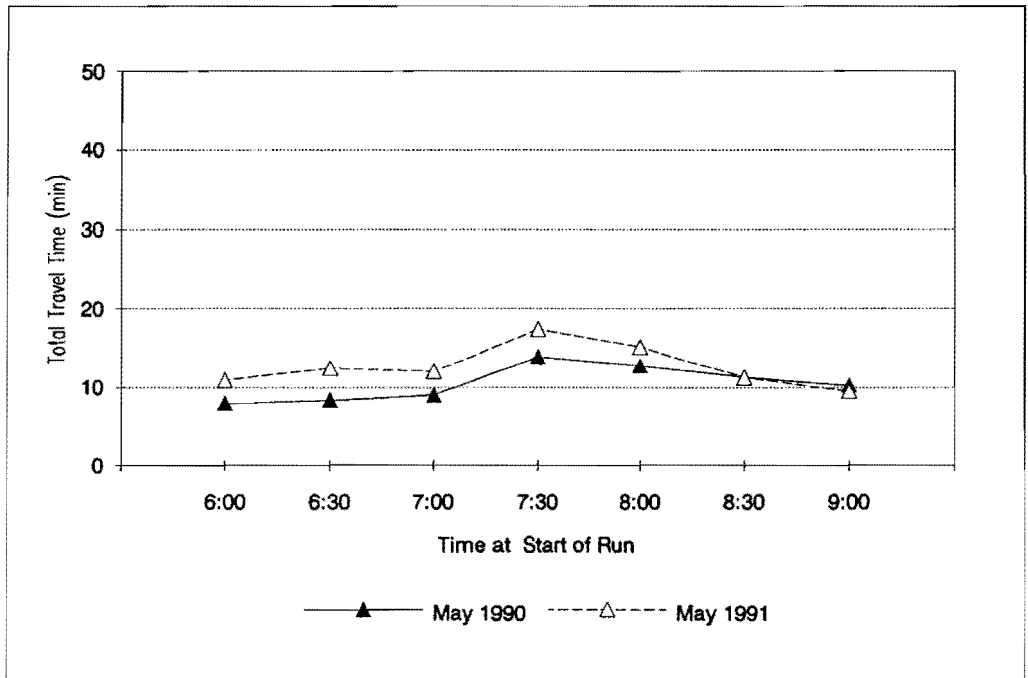


(b) Southbound

Figure I-22. P.M. Peak Period Total Travel Time Between I-635 and CBD: Garland (May 1990)

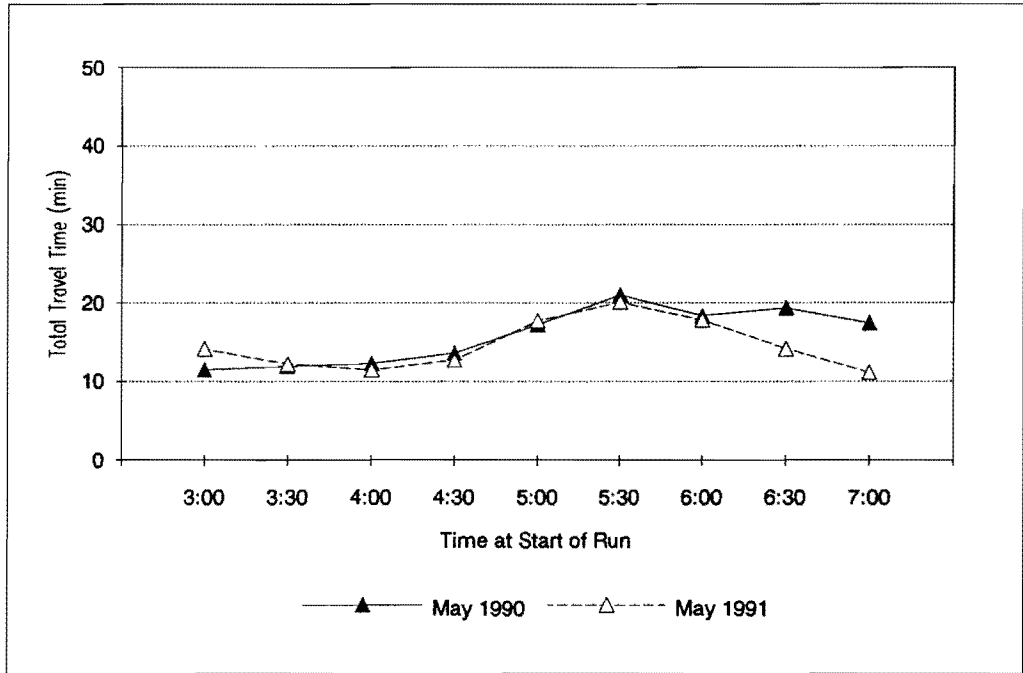


(a) Eastbound

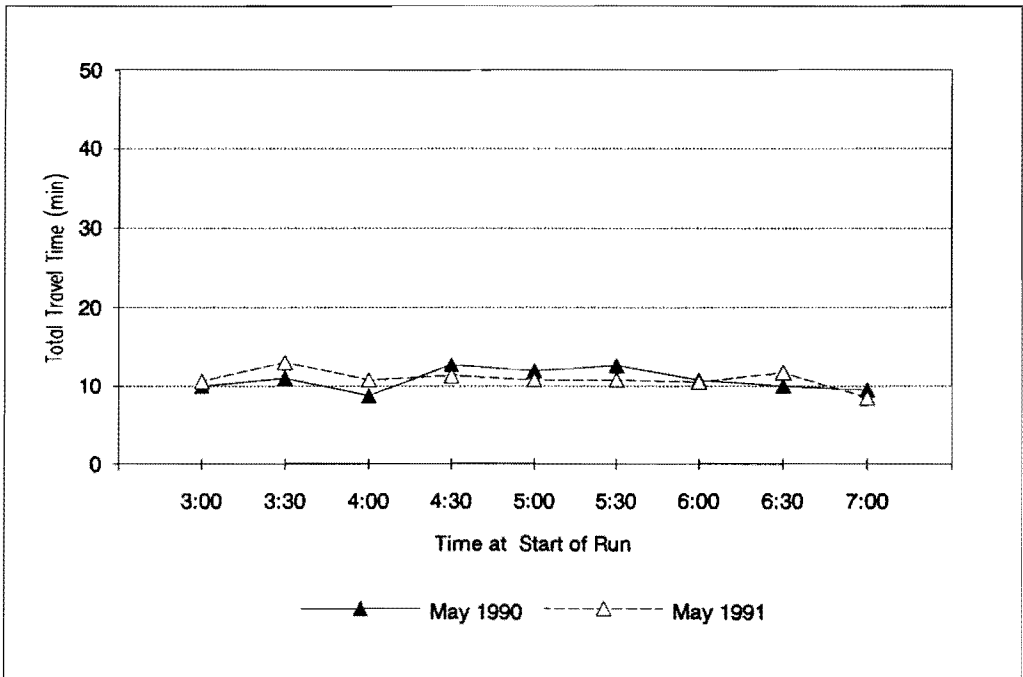


(b) Westbound

Figure I-23. A.M. Peak Period Total Travel Time Between Midway and Abrams: Loop 12 (May 1990 and 1991)

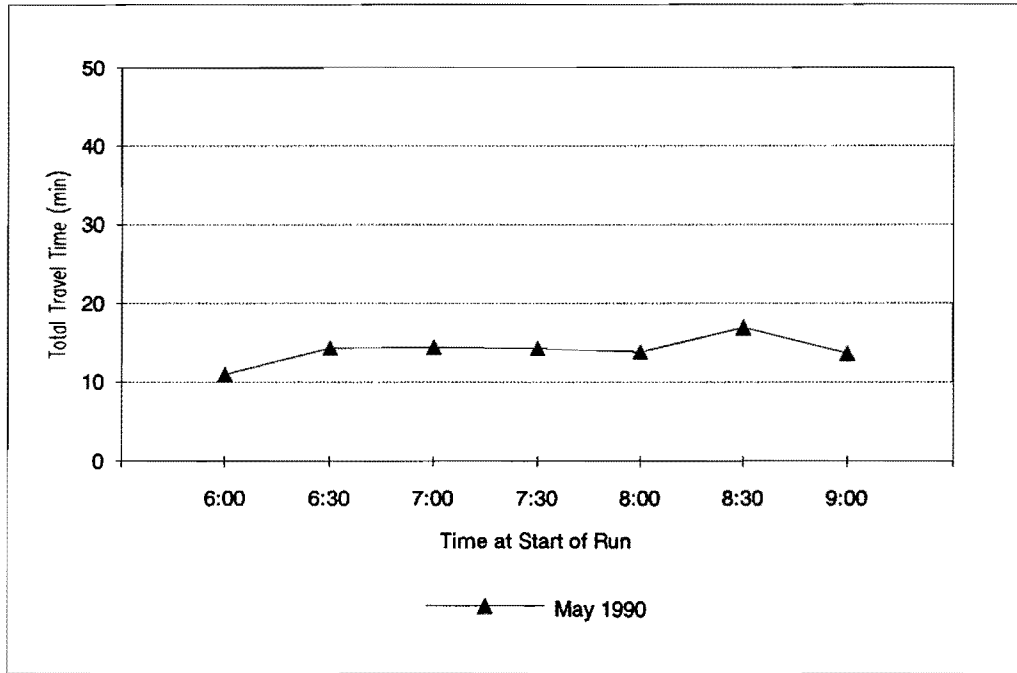


(a) Eastbound

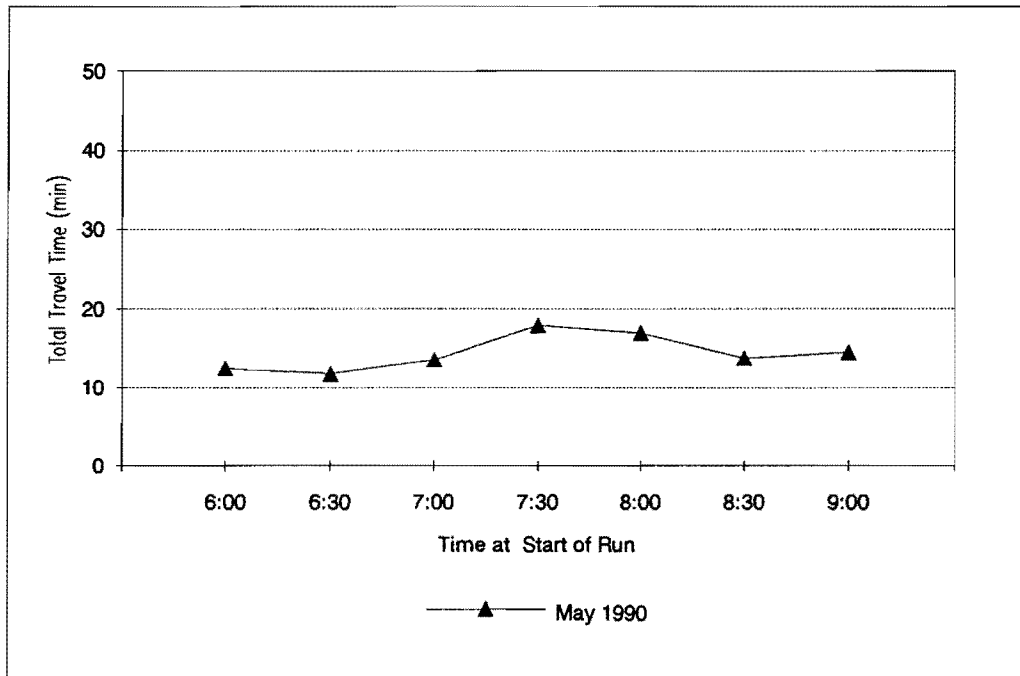


(b) Westbound

Figure I-24. P.M. Peak Period Total Travel Time Between Midway and Abrams: Loop12 (May 1990 and 1991)

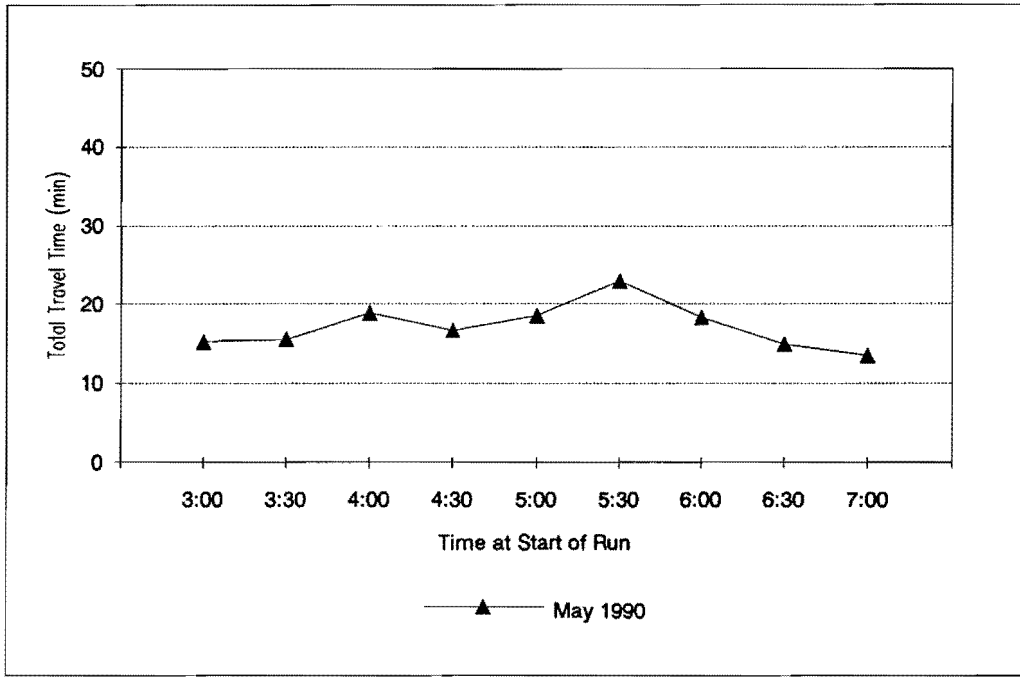


(a) Eastbound

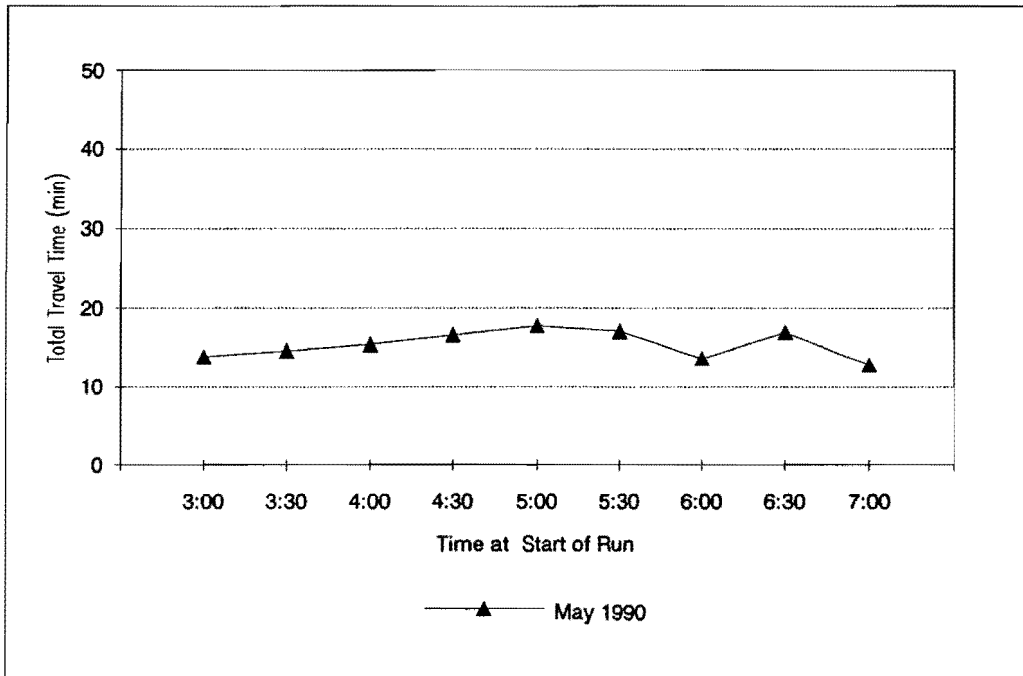


(b) Westbound

Figure I-25. A.M. Peak Period Total Travel Time Between Lemmon and Abrams: Mockingbird (May 1990)

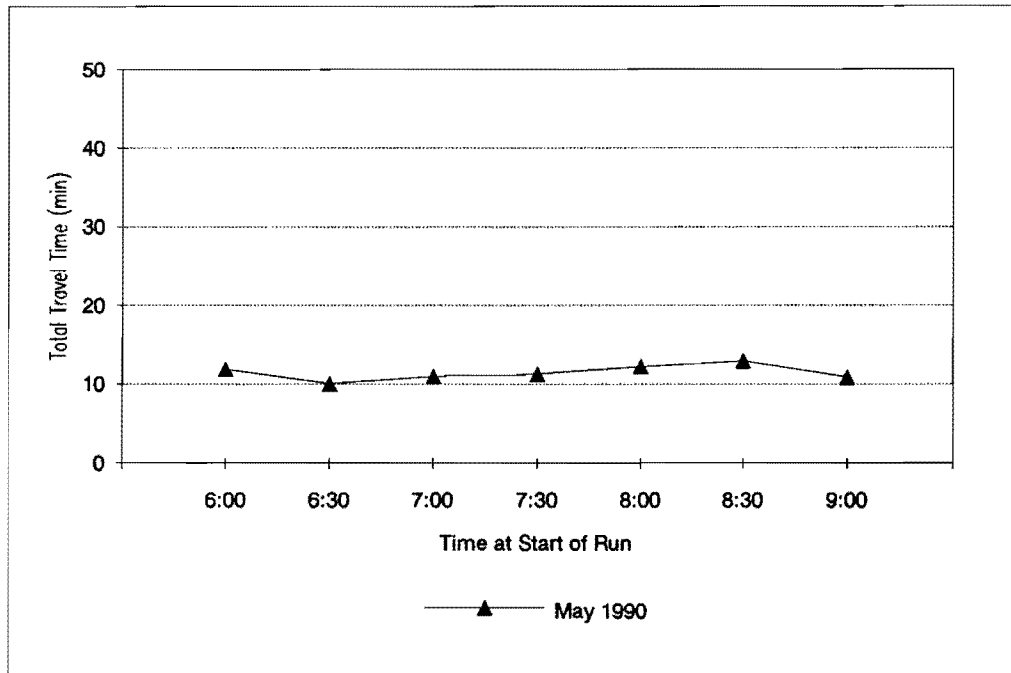


(a) Eastbound

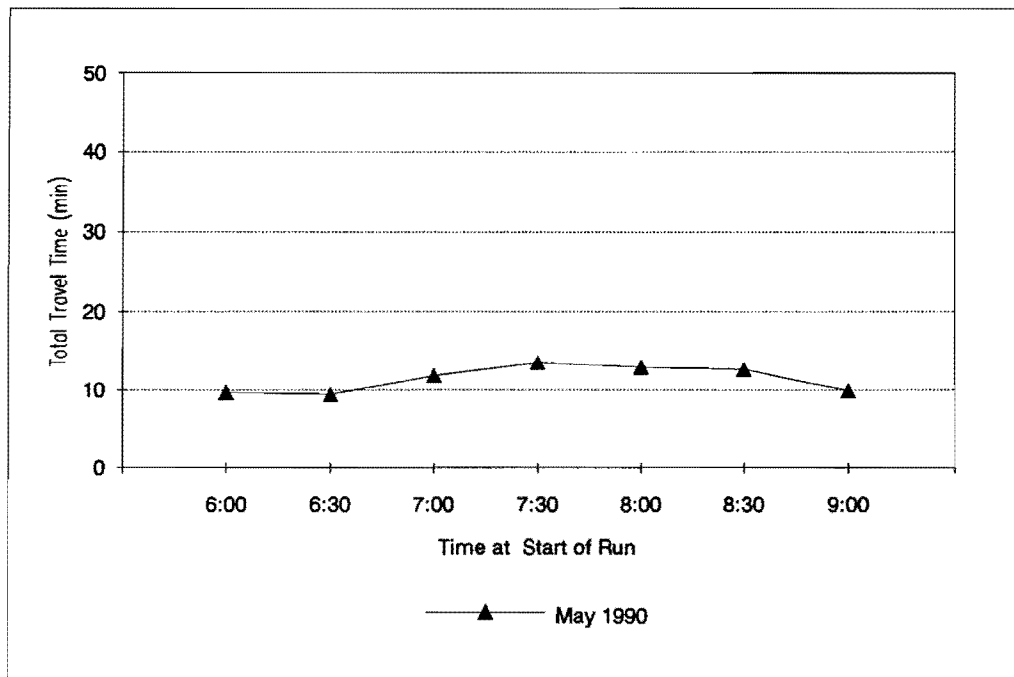


(b) Westbound

Figure I-26. P.M. Peak Period Total Travel Time Between Lemmon and Abrams: Mockingbird (May 1990)

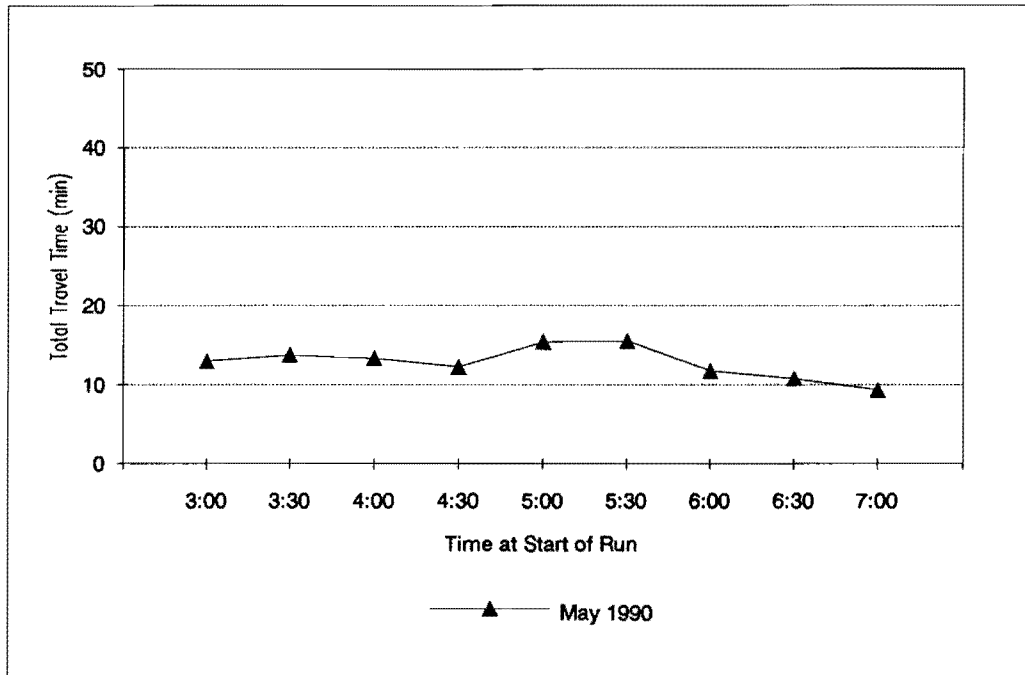


(a) Eastbound

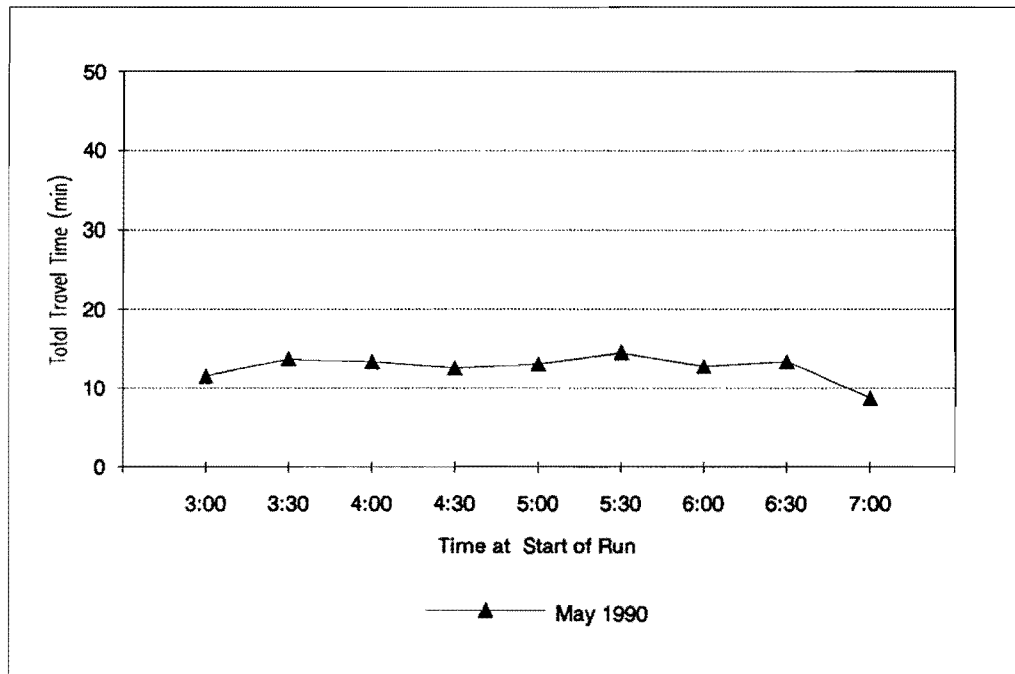


(b) Westbound

Figure I-27. A.M. Peak Period Total Travel Time Between Harry Hines and Main: Lemmon (May 1990)



(a) Eastbound



(b) Westbound

Figure I-28. P.M. Peak Period Total Travel Time Between Harry Hines and Main: Lemmon (May 1990)

APPENDIX J

MAY 1991 PEAK PERIOD AVERAGE TRAVEL SPEEDS

Table J-1. Peak Period, Peak Direction Average Travel Speed on North-South Routes (mph) - (May 1991)

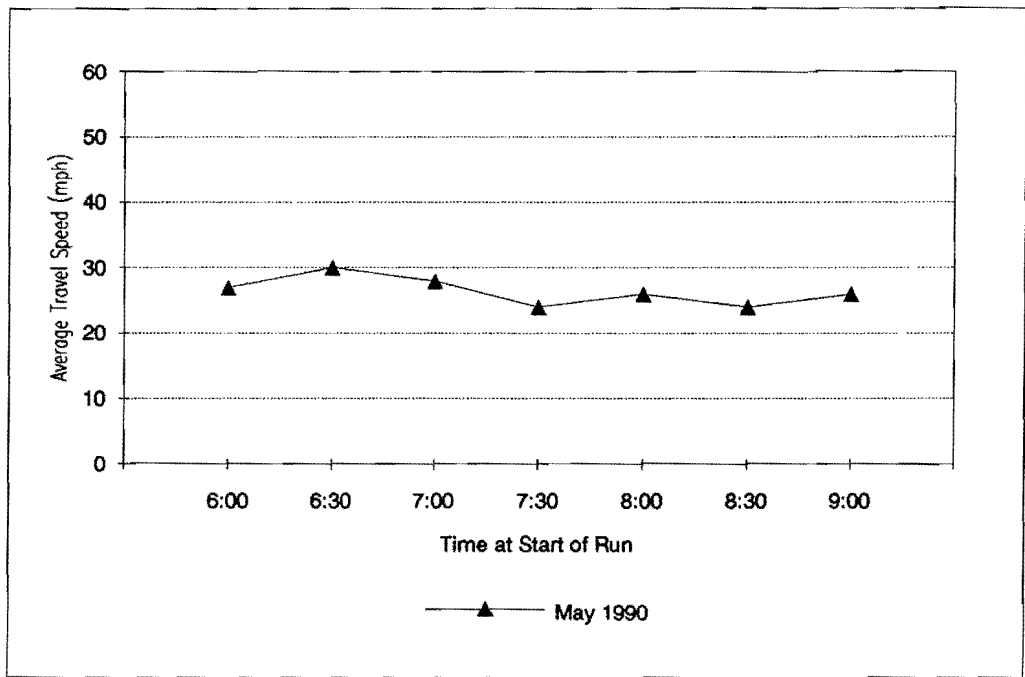
Run Beginning		Alternative Route										
		Garland	Abrams	Skillman	Greenville	US-75	US-75 Fr. Rd.	Hillcrest	Preston	DNT	Inwood	Midway
A.M. Peak Period	6:00	-	29	31	30	58	31	-	31	49	-	-
	6:30	-	32	32	28	58	30	-	24	53	-	-
	7:00	-	19	31	28	48	31	-	23	53	-	-
South- bound	7:30	-	22	29	27	24	19	-	19	52	-	-
	8:00	-	23	29	24	26	18	-	20	39	-	-
	8:30	-	27	31	27	32	20	-	19	46	-	-
	9:00	-	30	33	29	41	28	-	23	56	-	-
P.M. Peak Period	3:00	-	26	27	25	38	29	-	19	49	-	-
	3:30	-	23	25	22	40	24	-	21	47	-	-
	4:00	-	25	27	21	39	23	-	19	48	-	-
North- Bound	4:30	-	27	27	20	36	24	-	20	49	-	-
	5:00	-	25	23	18	26	17	-	18	49	-	-
	5:30	-	20	20	17	21	16	-	19	31	-	-
	6:00	-	27	24	21	24	20	-	19	46	-	-
	6:30	-	27	30	23	33	20	-	23	46	-	-
	7:00	-	29	26	25	48	22	-	24	52	-	-

Table J-2. Peak Period, Off-Peak Direction Average Travel Speed on North-South Routes (mph) - (May 1991)

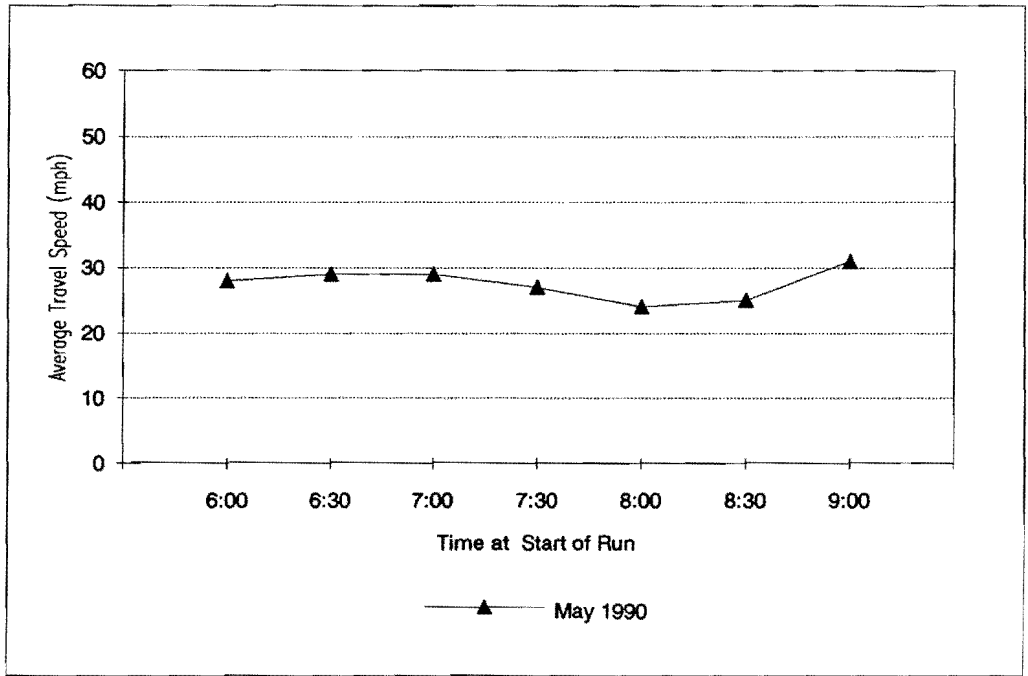
Run Beginning		Alternative Route											
		Garland	Abrams	Skillman	Greenville	US-75	US-75 Fr. Rd.	Hillcrest	Preston	DNT	Inwood	Midway	
A.M. Peak Period	6:00	-	27	27	31	58	28	-	28	47	-	-	
	6:30	-	26	30	30	52	17	-	22	51	-	-	
	7:00	-	26	27	27	57	17	-	22	53	-	-	
	7:30	-	21	26	25	38	16	-	23	48	-	-	
	North-bound	8:00	-	23	24	23	39	17	-	19	47	-	-
		8:30	-	24	32	23	39	16	-	21	50	-	-
		9:00	-	27	30	29	48	20	-	28	50	-	-
P.M. Peak Period	3:00	-	-	29	25	46	21	-	23	50	-	-	
	3:30	-	28	29	24	41	22	-	22	54	-	-	
	4:00	-	25	35	18	41	18	-	23	49	-	-	
	4:30	-	27	27	20	37	16	-	20	52	-	-	
	5:00	-	22	24	18	35	19	-	20	48	-	-	
	South-Bound	5:30	-	24	29	-	36	19	-	20	51	-	-
		6:00	-	29	28	20	39	18	-	20	42	-	-
		6:30	-	30	30	22	44	27	-	26	55	-	-
		7:00	-	30	31	27	51	33	-	22	47	-	-

Table J-3. Peak Period Average Travel Speed on East-West Routes (mph) - (May 1991)

Run Beginning		Alternative Route					
		Eastbound			Westbound		
		Loop 12	Lemmon	Mockingbird	Loop 12	Lemmon	Mockingbird
A.M. Peak Period	6:00	31	-	-	29	-	-
	6:30	35	-	-	26	-	-
	7:00	27	-	-	27	-	-
	7:30	31	-	-	18	-	-
	8:00	26	-	-	21	-	-
	8:30	30	-	-	28	-	-
	9:00	26	-	-	34	-	-
P.M. Peak Period	3:00	23	-	-	30	-	-
	3:30	26	-	-	25	-	-
	4:00	28	-	-	30	-	-
	4:30	25	-	-	28	-	-
	5:00	18	-	-	30	-	-
	5:30	16	-	-	30	-	-
	6:00	18	-	-	30	-	-
	6:30	23	-	-	28	-	-
	7:00	29	-	-	38	-	-

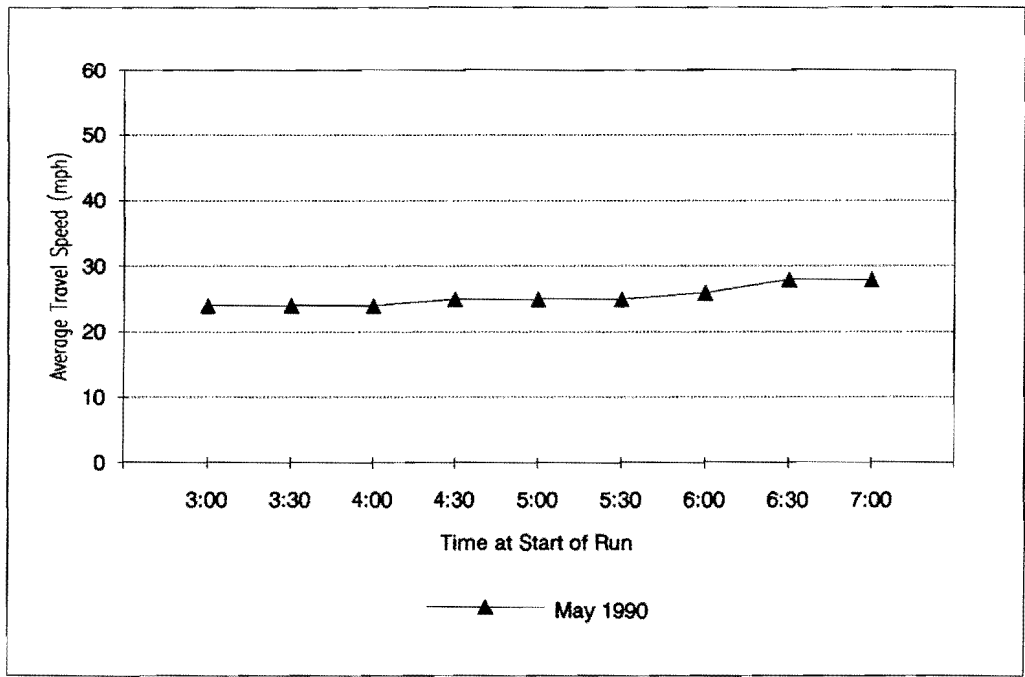


(a) Northbound

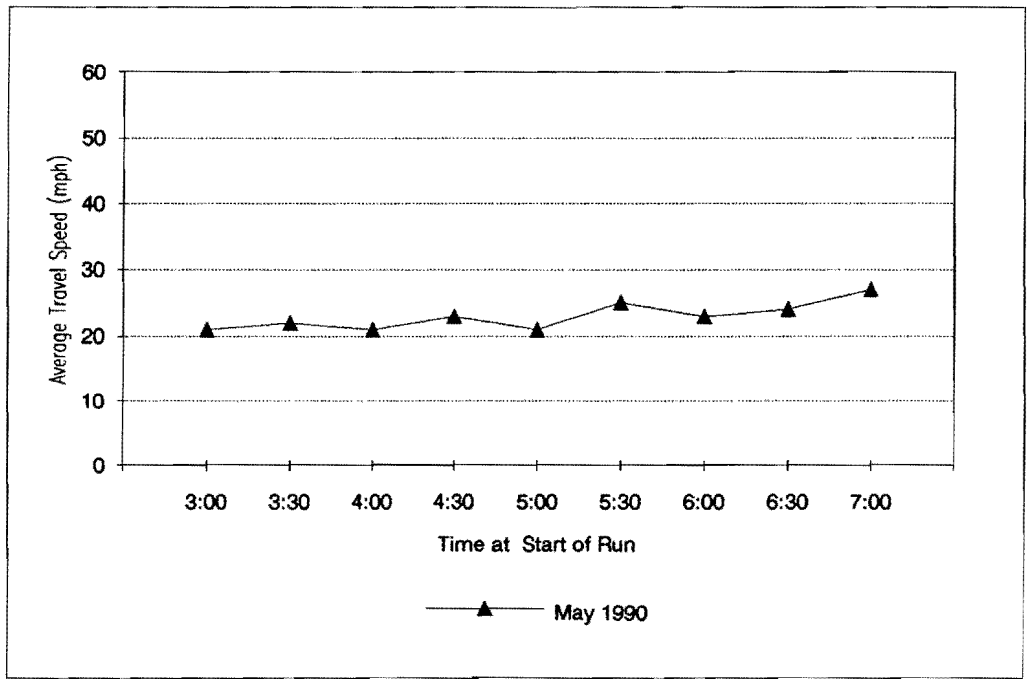


(b) Southbound

Figure J-1. A.M. Peak Period Average Travel Speed Between I-635 and CBD: Midway (May 1990)

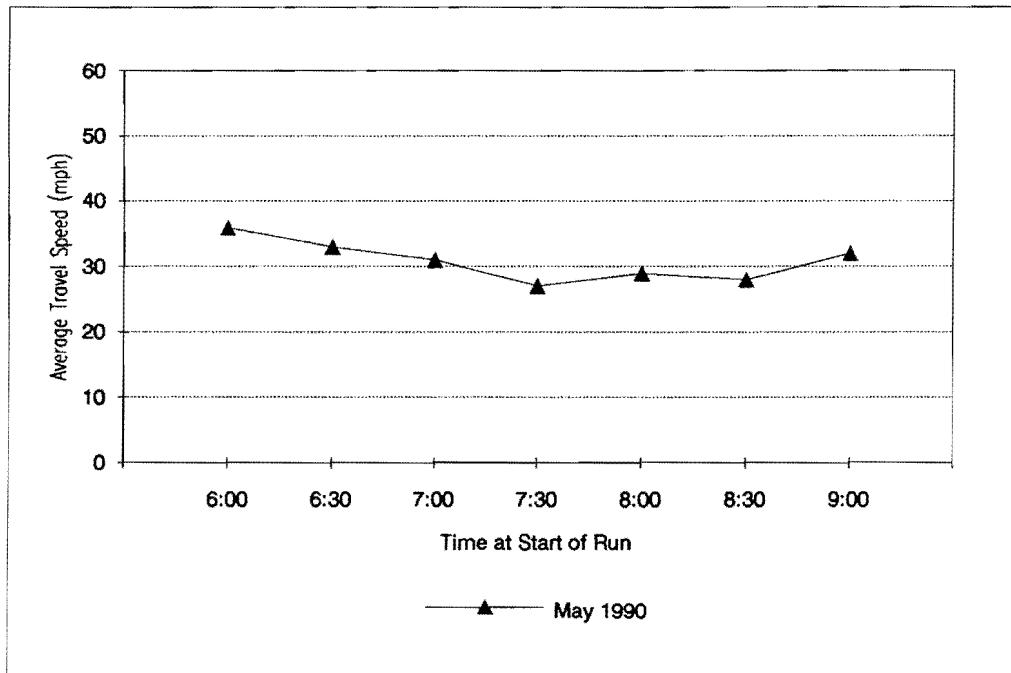


(a) Northbound

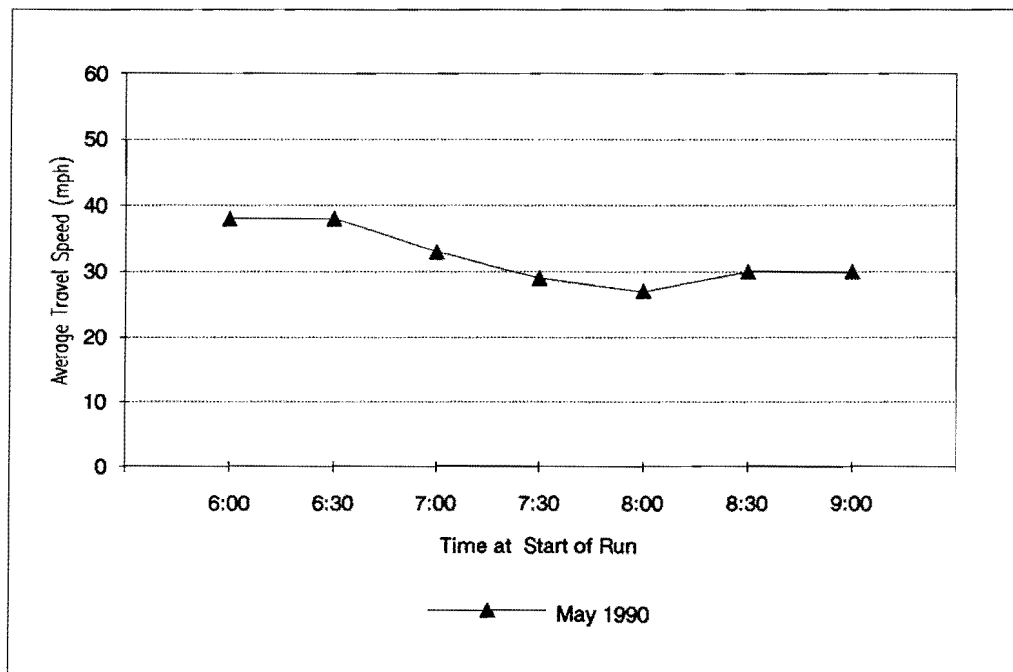


(b) Southbound

Figure J-2. P.M. Peak Period Average Travel Speed Between I-635 and CBD: Midway (May 1990)

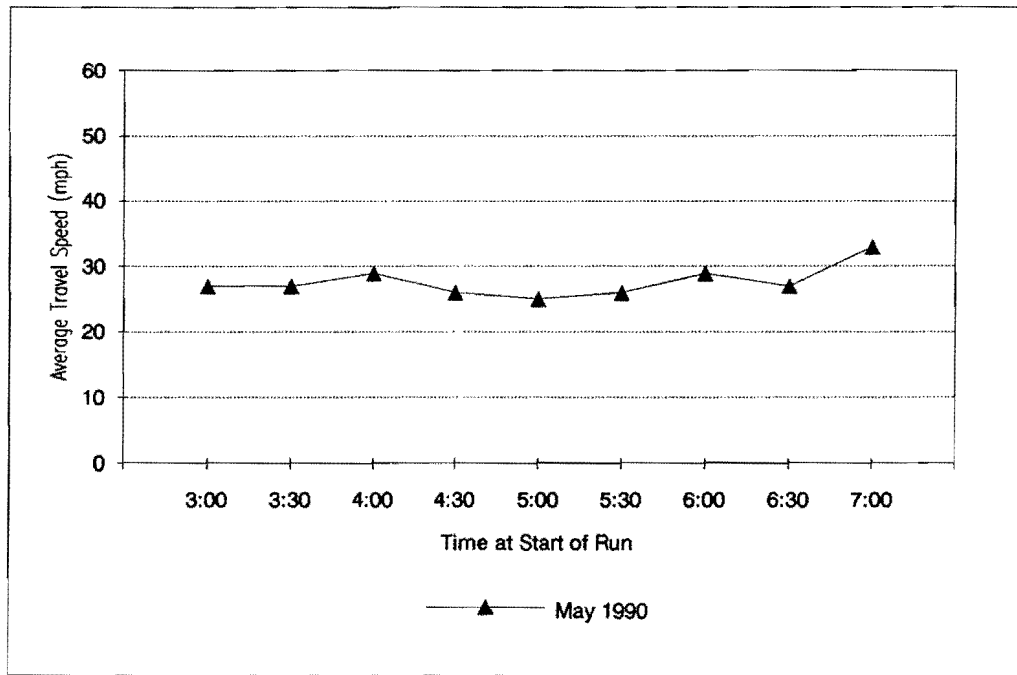


(a) Northbound

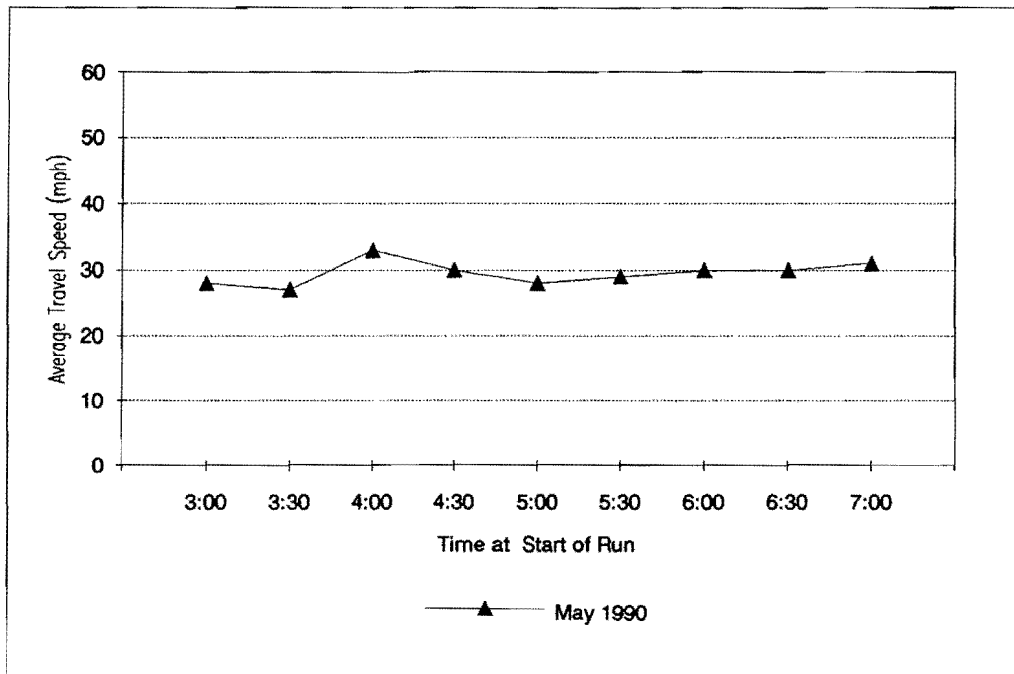


(b) Southbound

Figure J-3. A.M. Peak Period Average Travel Speed Between I-635 and CBD: Inwood (May 1990)

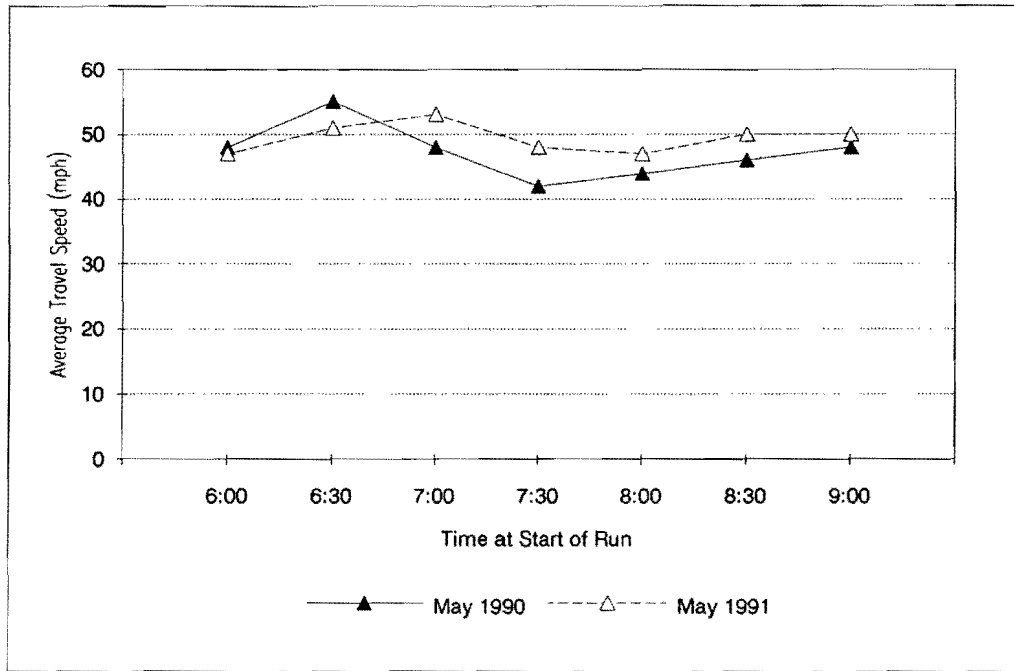


(a) Northbound

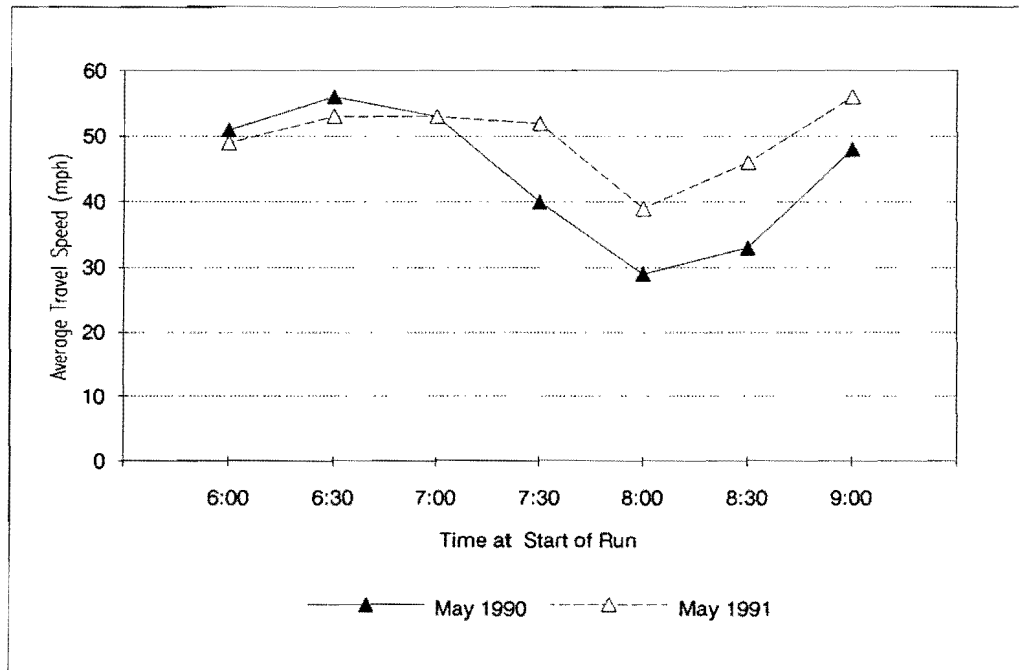


(b) Southbound

Figure J-4. P.M. Peak Period Average Travel Speed Between I-635 and CBD: Inwood (May 1990)

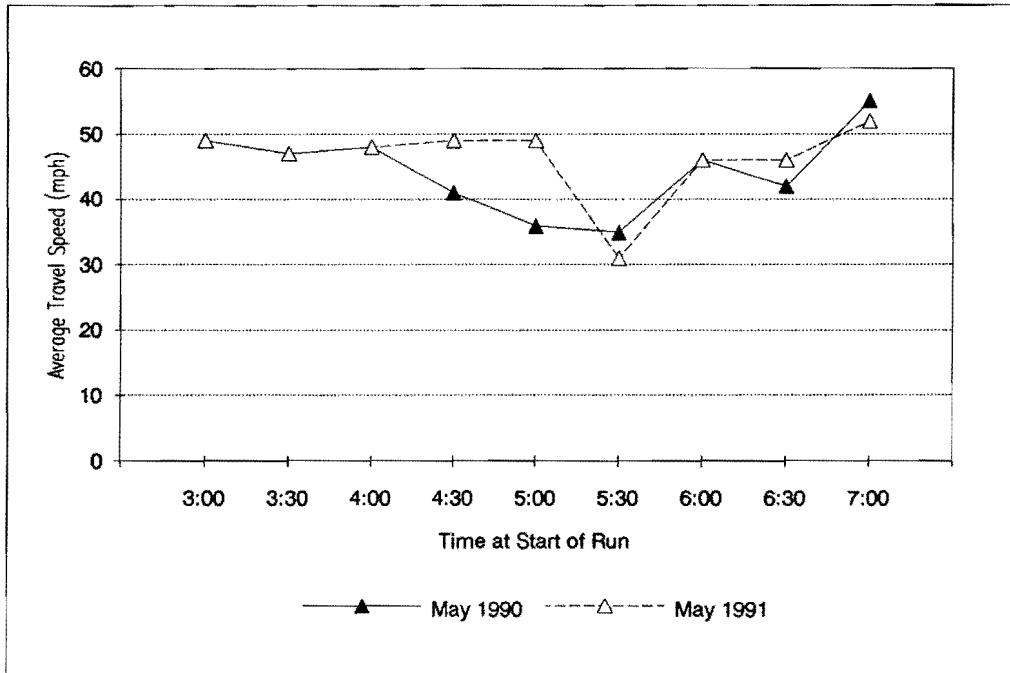


(a) Northbound

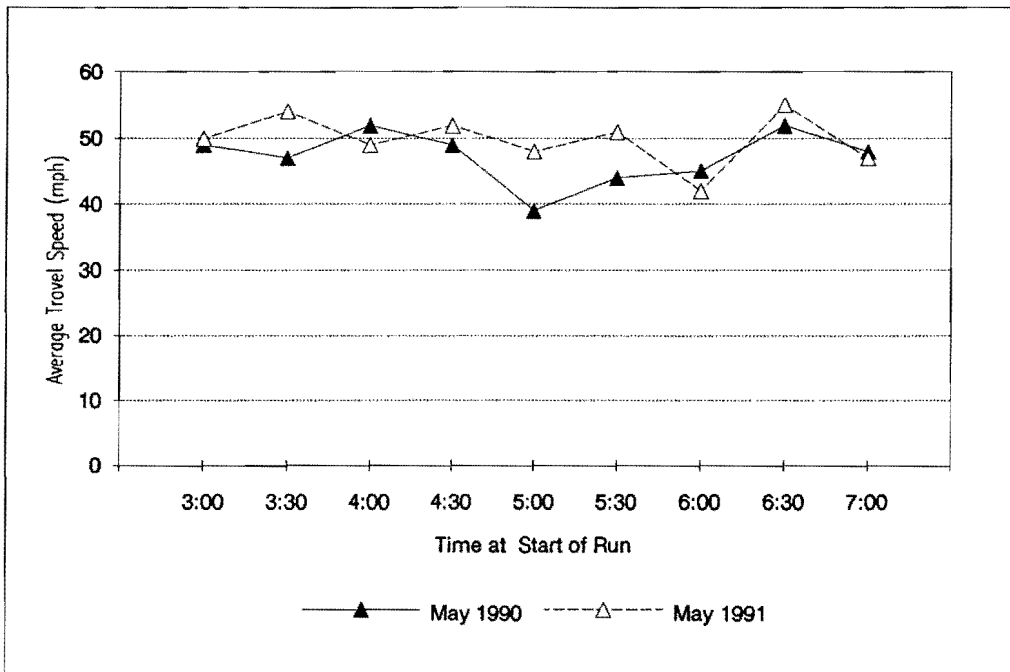


(b) Southbound

Figure J-5. A.M. Peak Period Average Travel Speed Between I-635 and CBD: DNT (May 1990 and 1991)

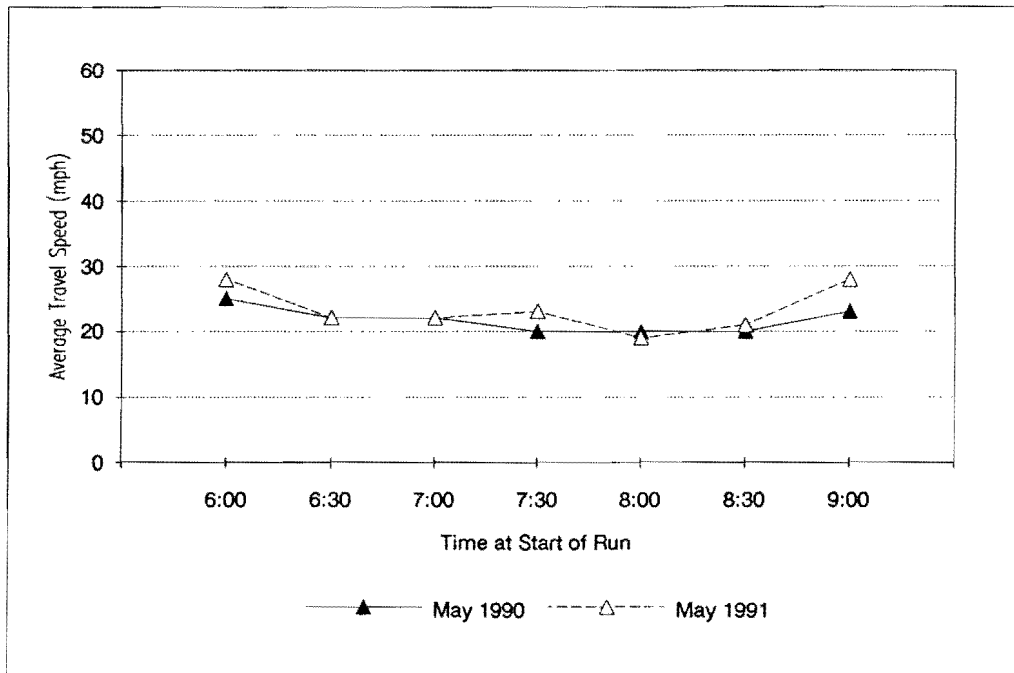


(a) Northbound

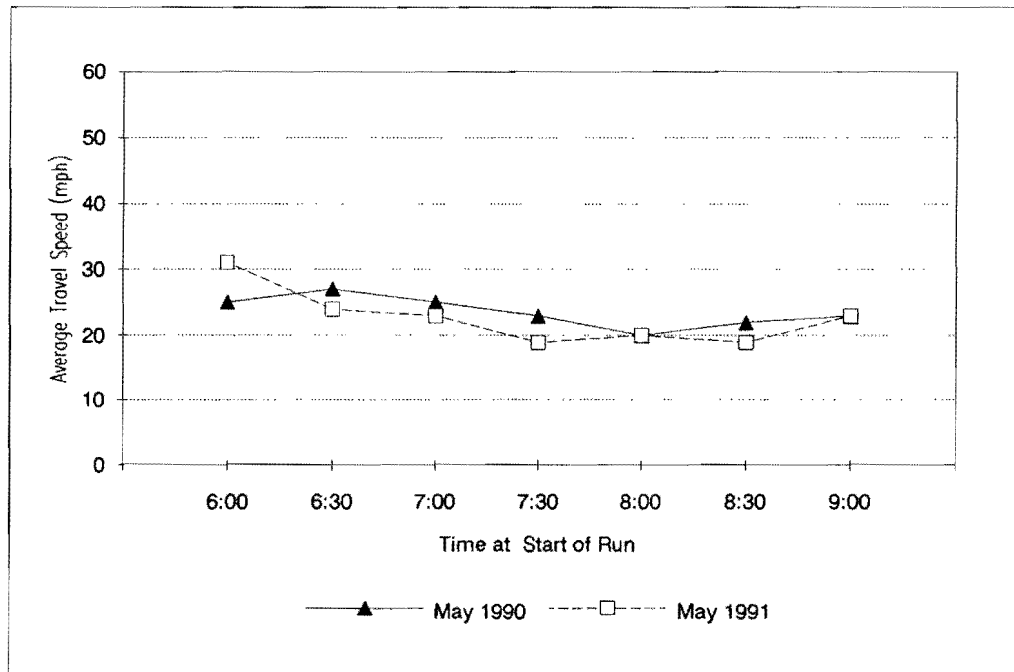


(b) Southbound

Figure J-6. P.M. Peak Period Average Travel Speed Between I-635 and CBD: DNT (May 1990 and 1991)

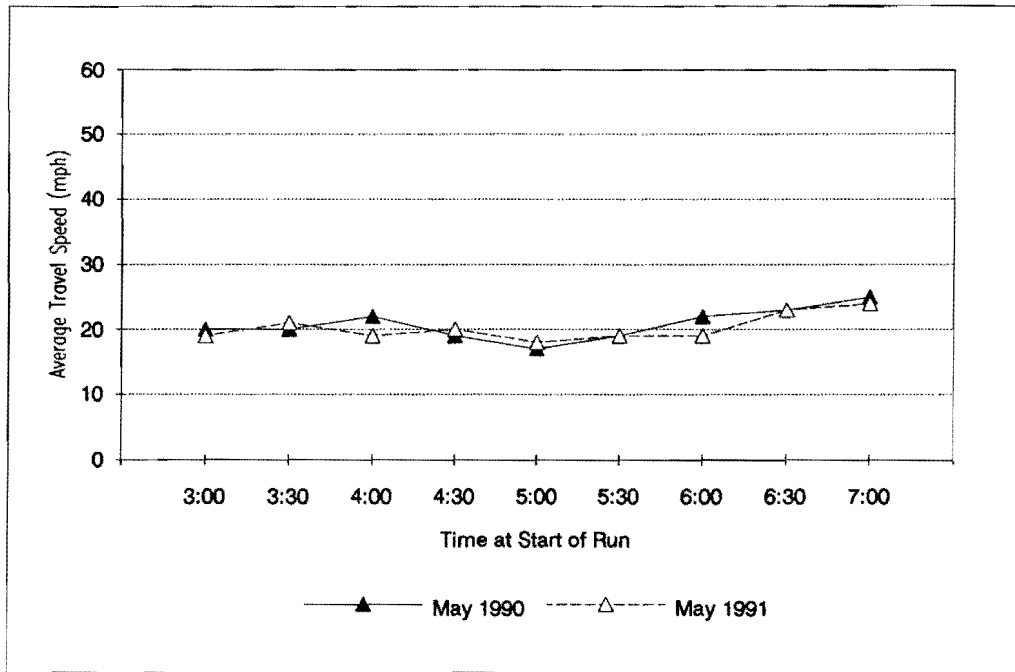


(a) Northbound

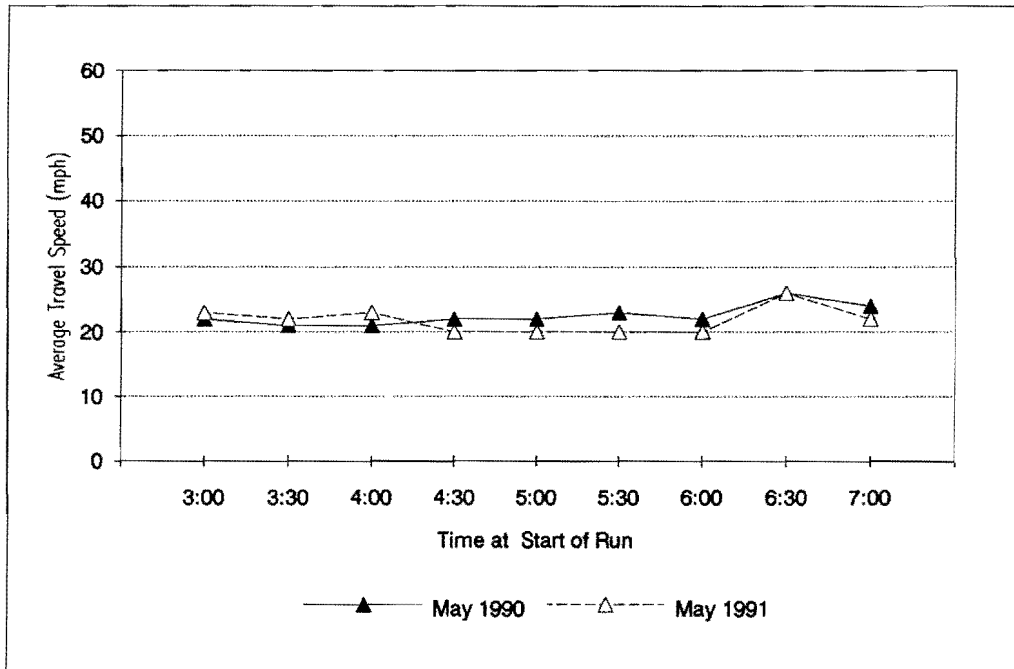


(b) Southbound

Figure J-7. A.M. Peak Period Average Travel Speed Between I-635 and CBD: Preston (May 1990 and 1991)

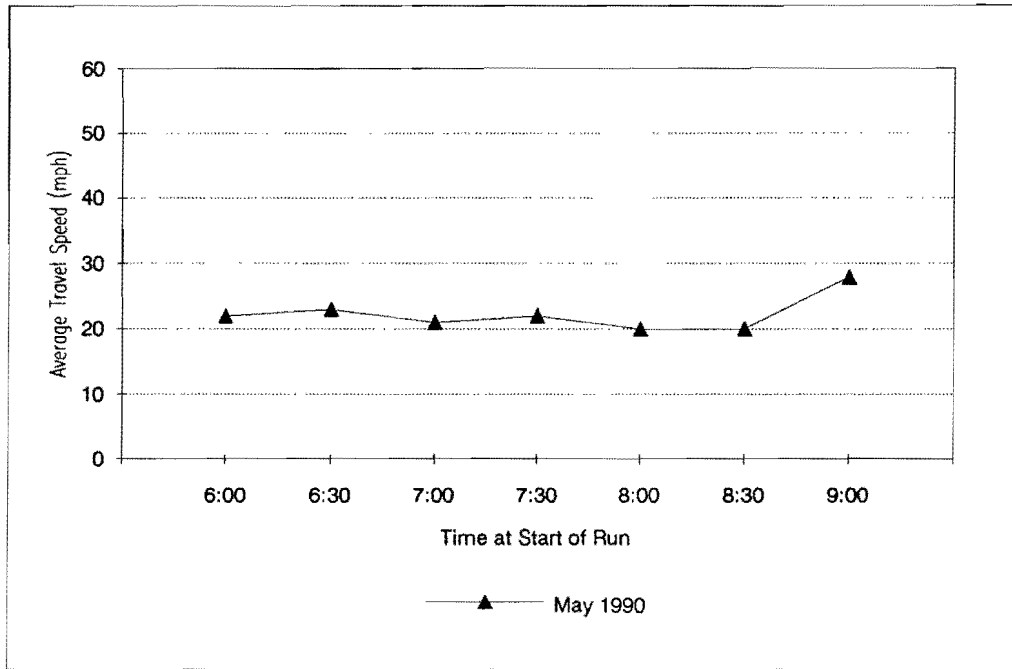


(a) Northbound

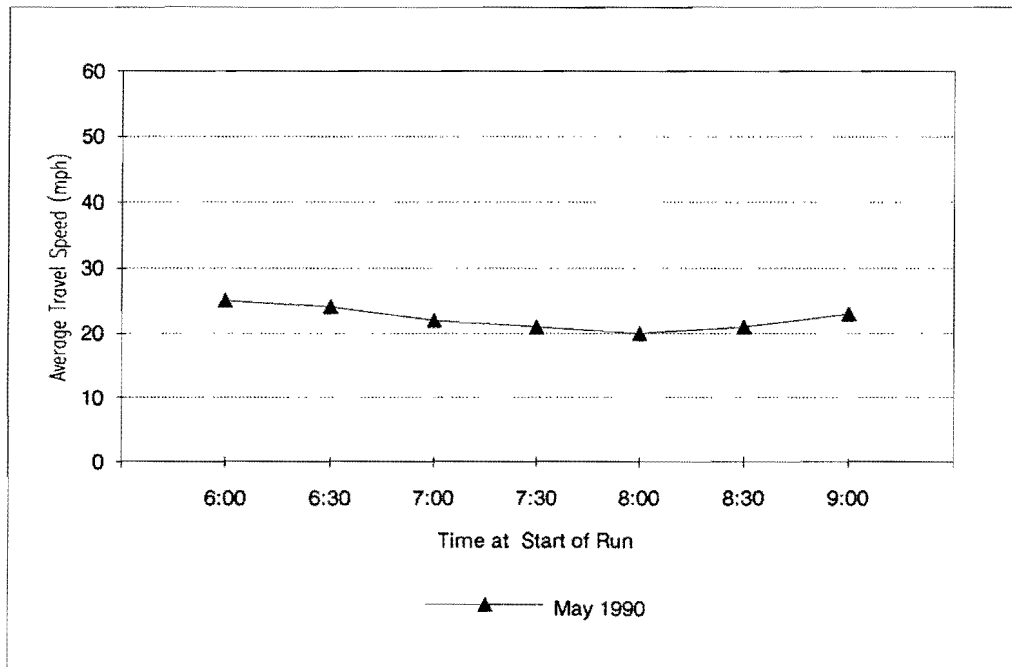


(b) Southbound

Figure J-8. P.M. Peak Period Average Travel Speed Between I-635 and CBD: Preston (May 1990 and 1991)

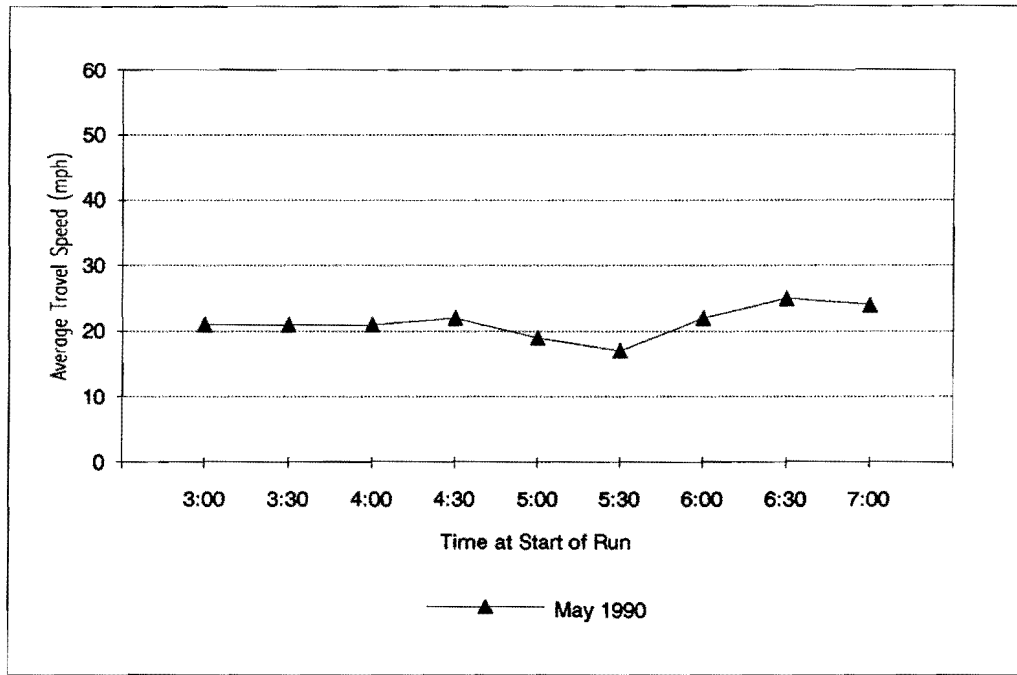


(a) Northbound

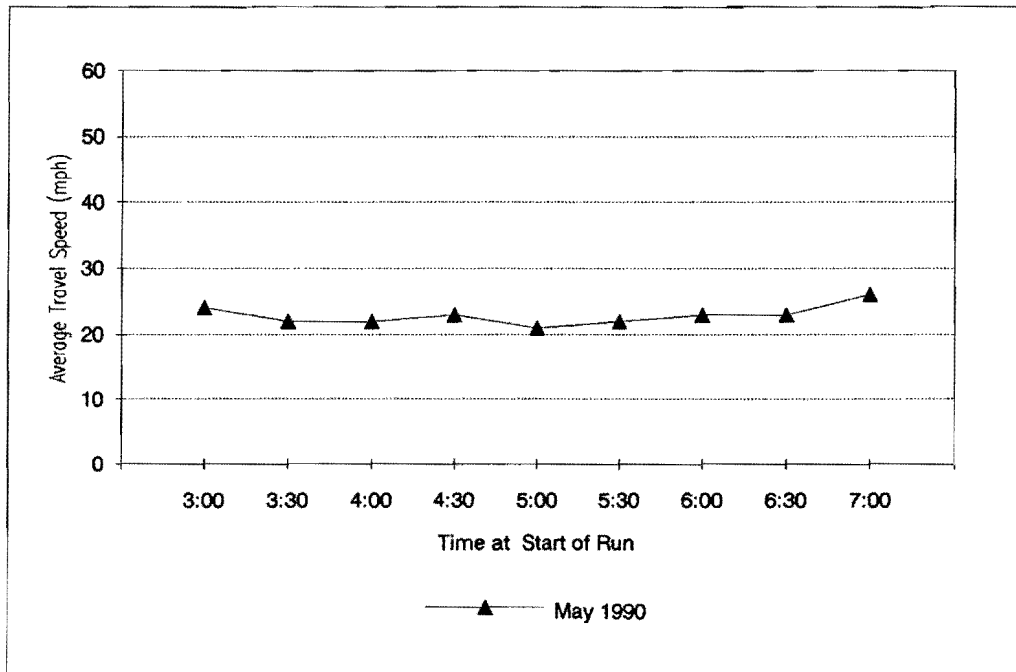


(b) Southbound

Figure J-9. A.M. Peak Period Average Travel Speed Between I-635 and CBD: Hillcrest (May 1990)

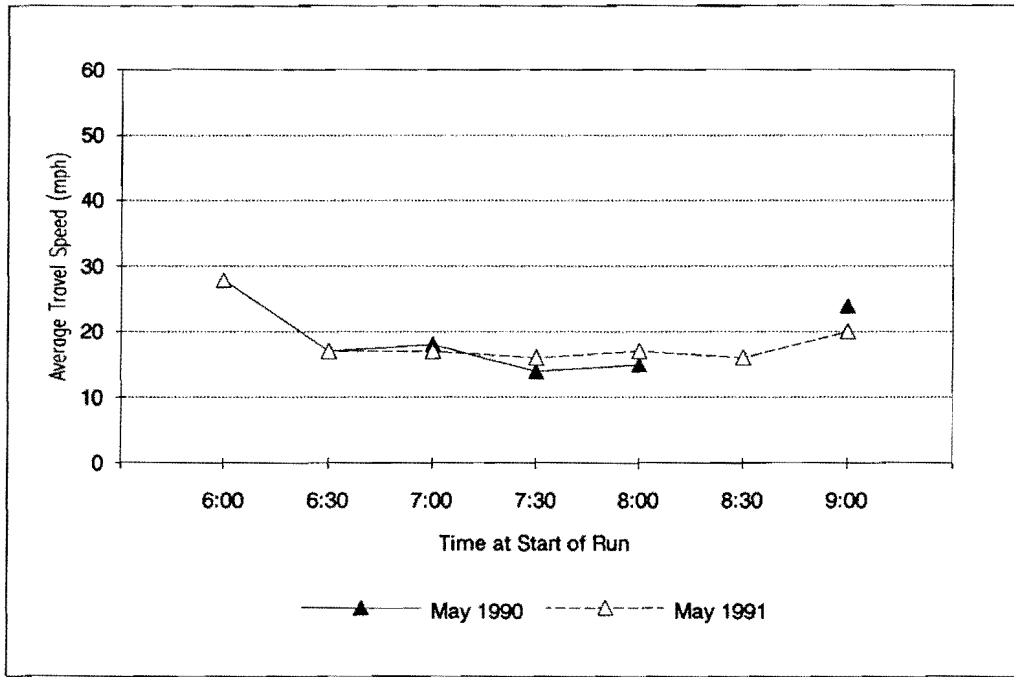


(a) Northbound

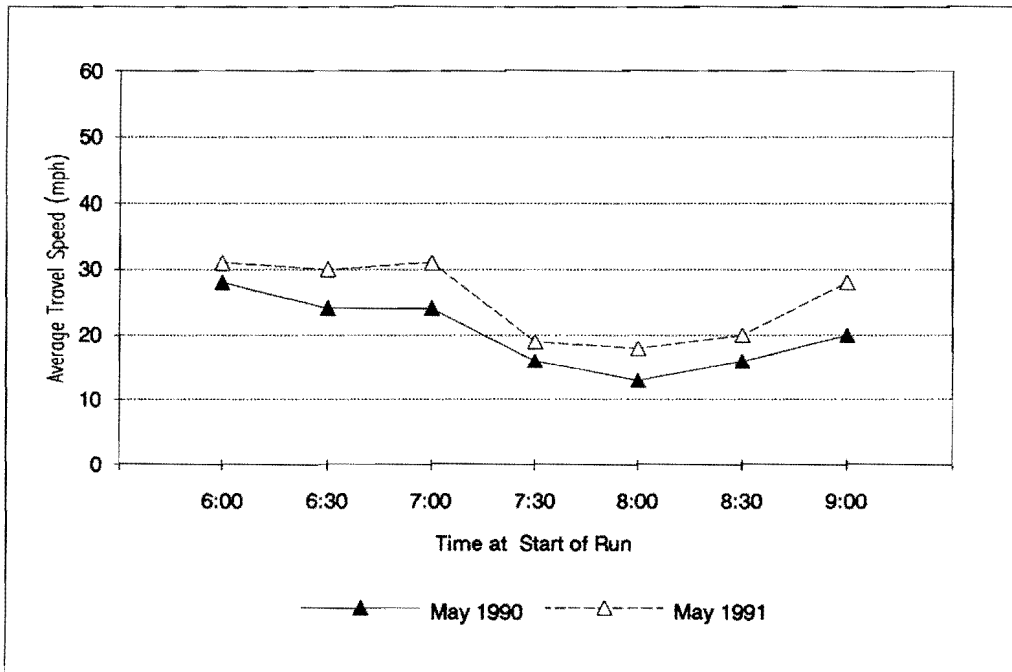


(b) Southbound

Figure J-10. P.M. Peak Period Average Travel Speed Between I-635 and CBD: Hillcrest (May 1990)

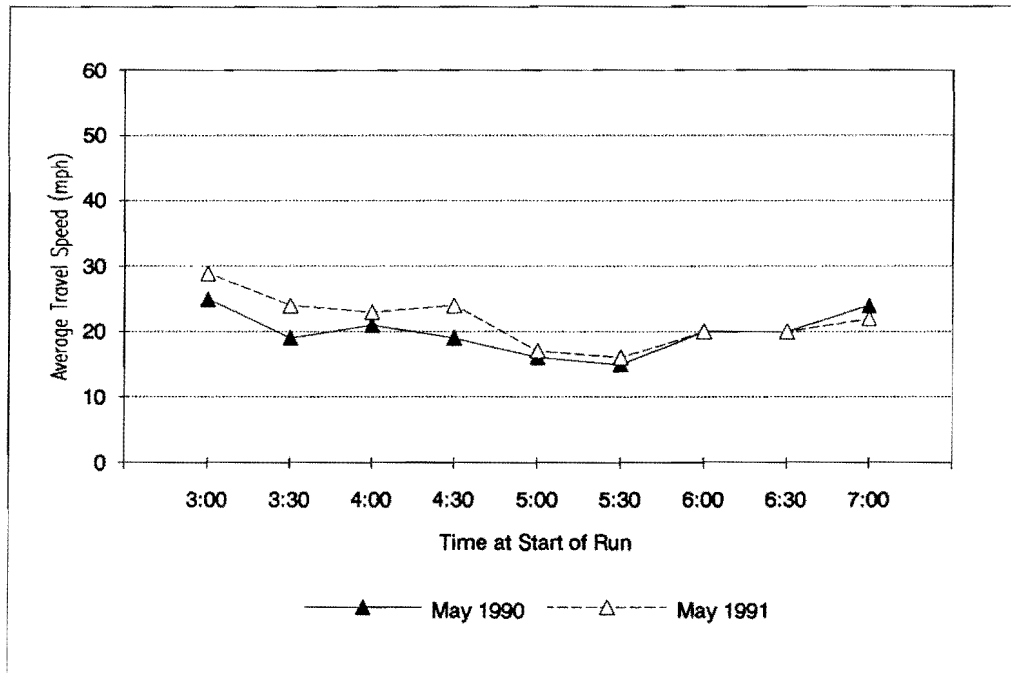


(a) Northbound

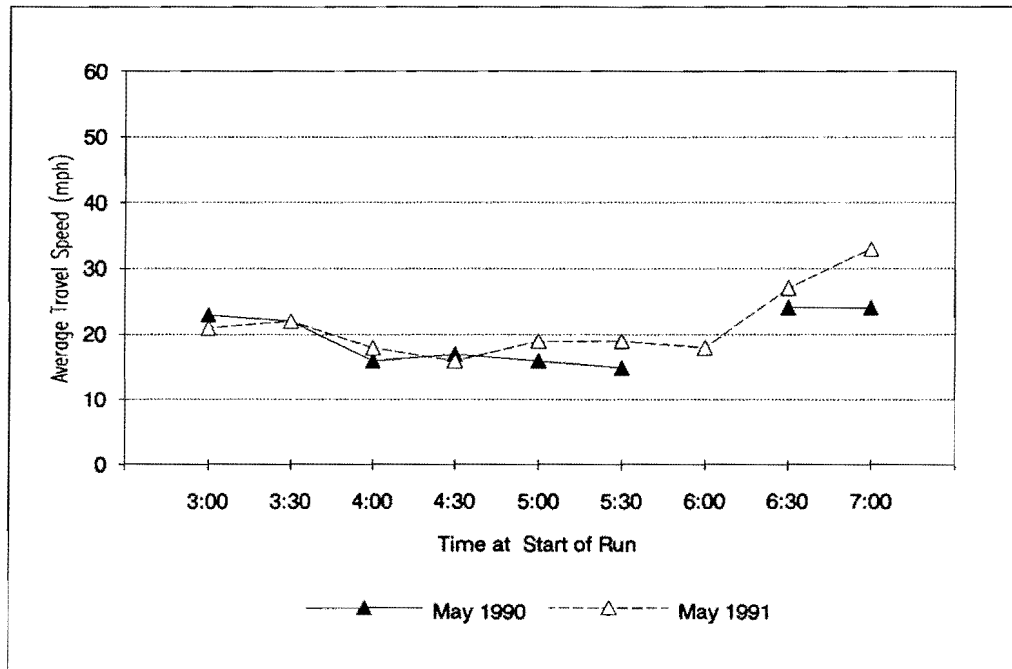


(b) Southbound

Figure J-11. A.M. Peak Period Average Travel Speed Between I-635 and CBD: US-75 Frontage Road (May 1990 and 1991)

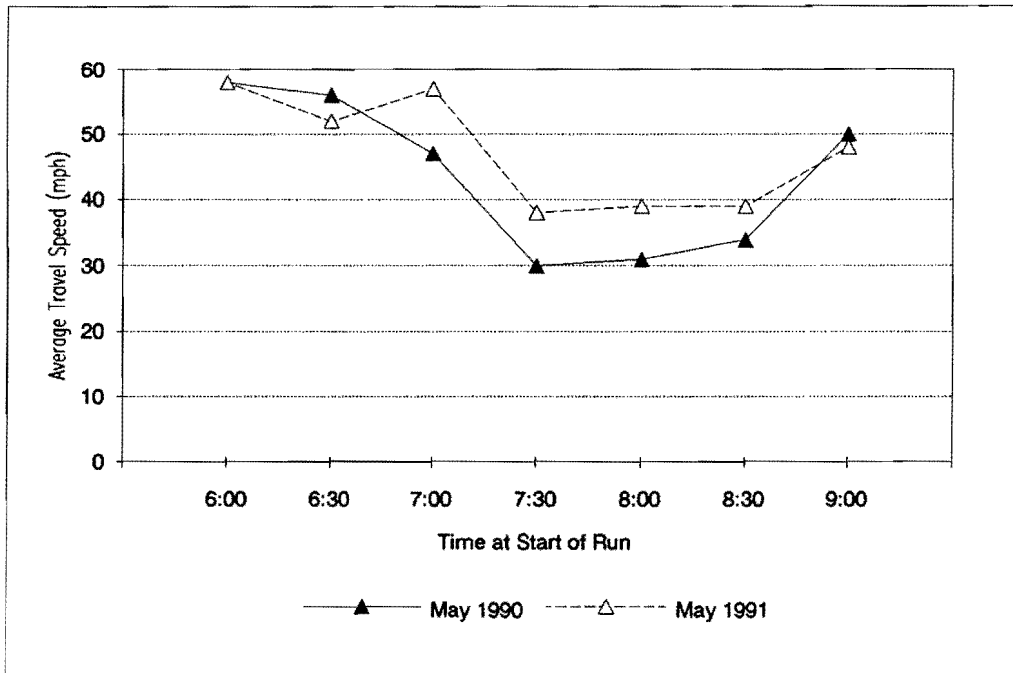


(a) Northbound

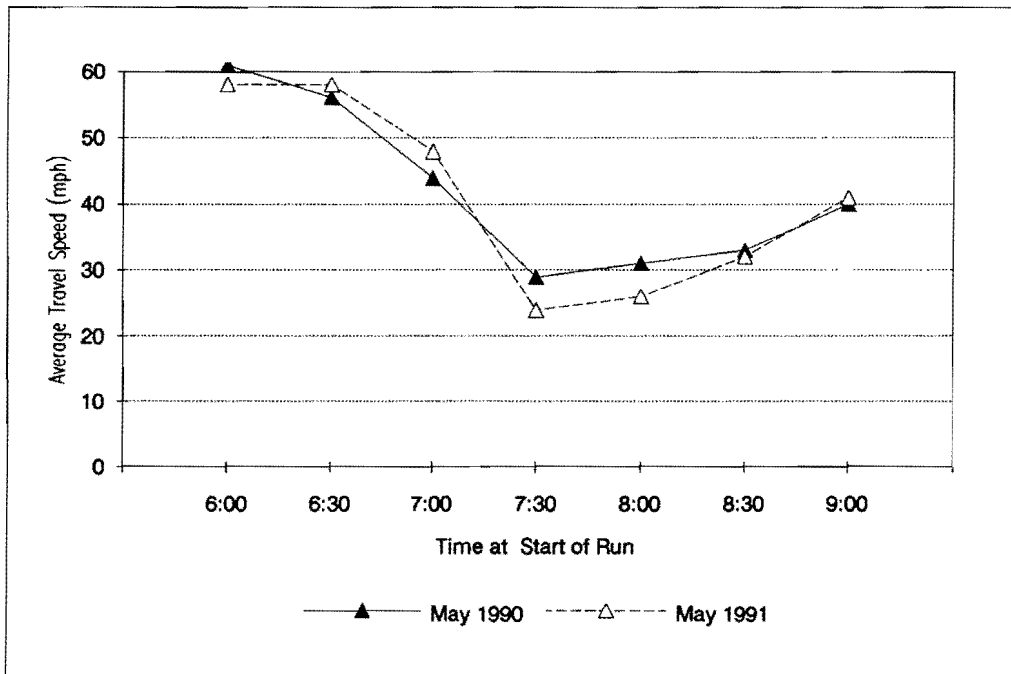


(b) Southbound

Figure J-12. P.M. Peak Period Average Travel Speed Between I-635 and CBD: US-75 Frontage Road (May 1990 and 1991)

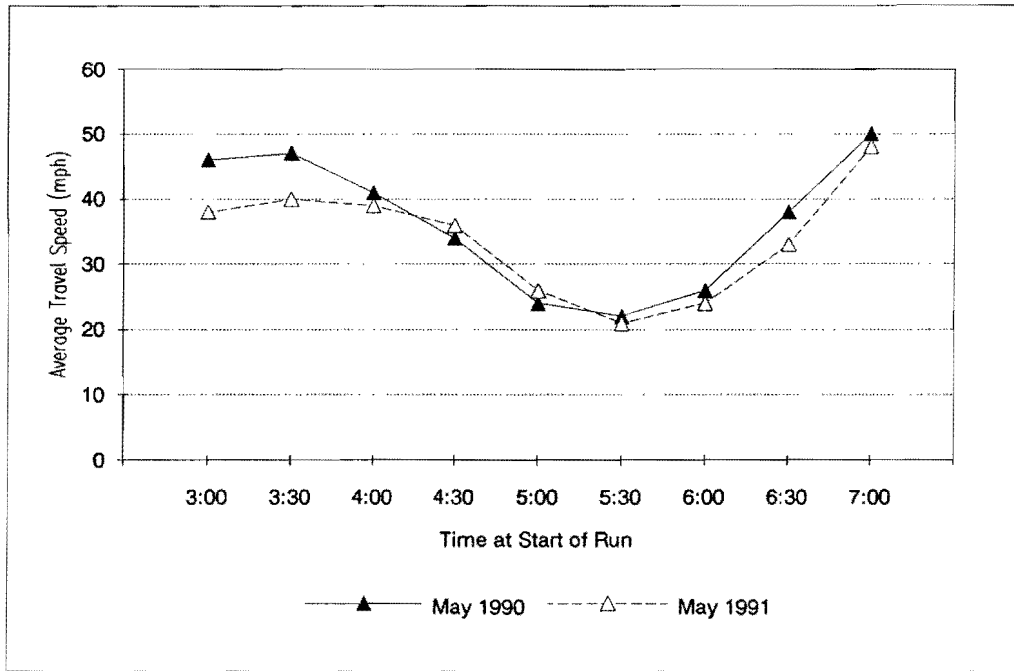


(a) Northbound

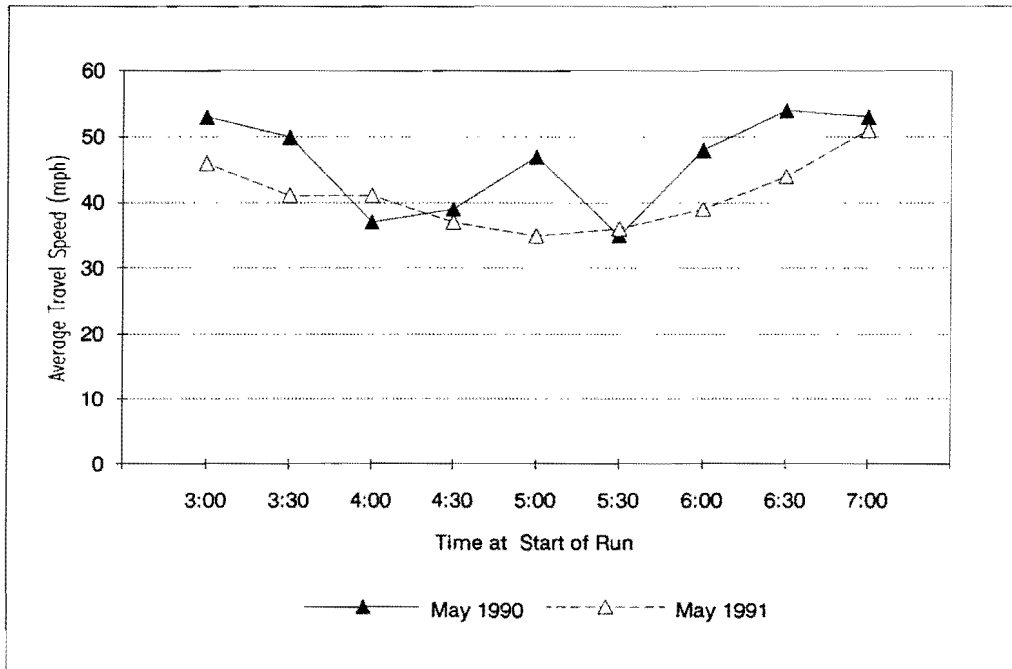


(b) Southbound

Figure J-13. A.M. Peak Period Average Travel Speed Between I-635 and CBD: US-75 (May 1990 and 1991)

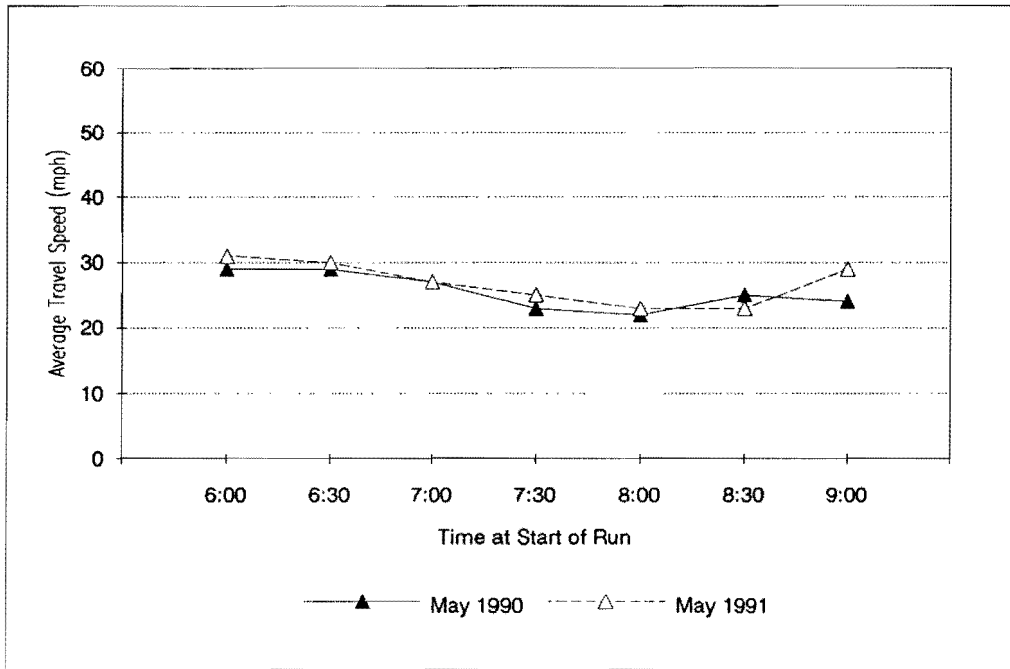


(a) Northbound

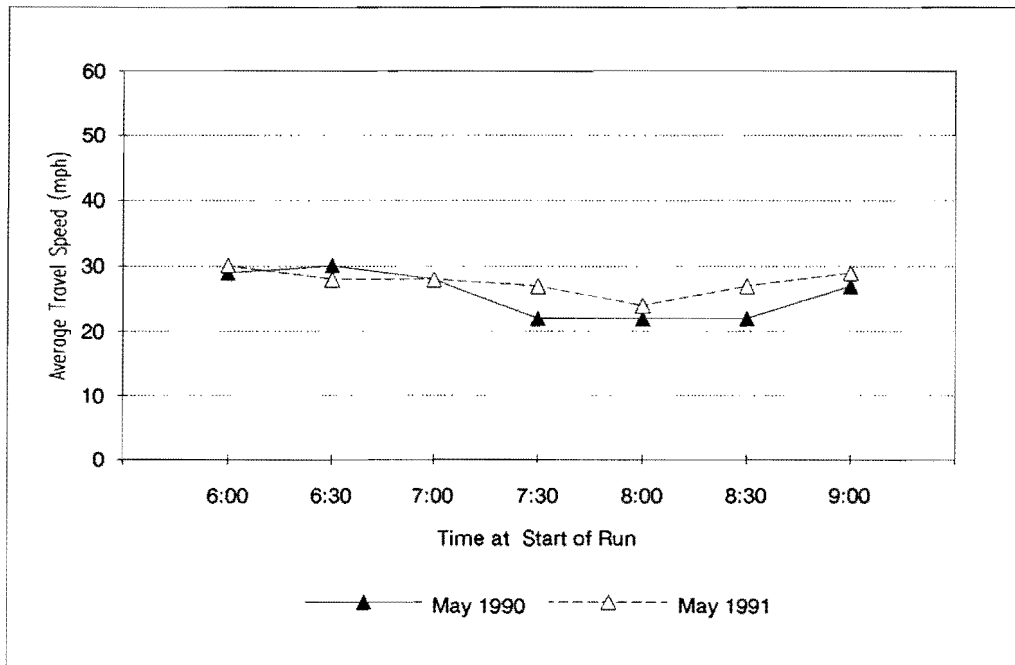


(b) Southbound

Figure J-14. P.M. Peak Period Average Travel Speed Between I-635 and CBD: US-75 (May 1990 and 1991)

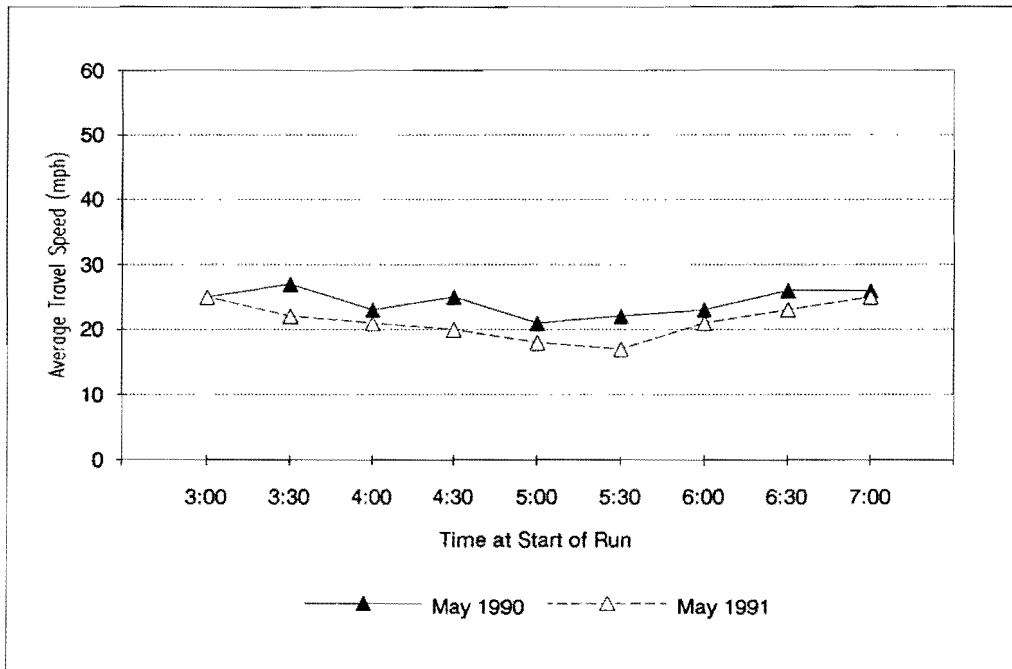


(a) Northbound

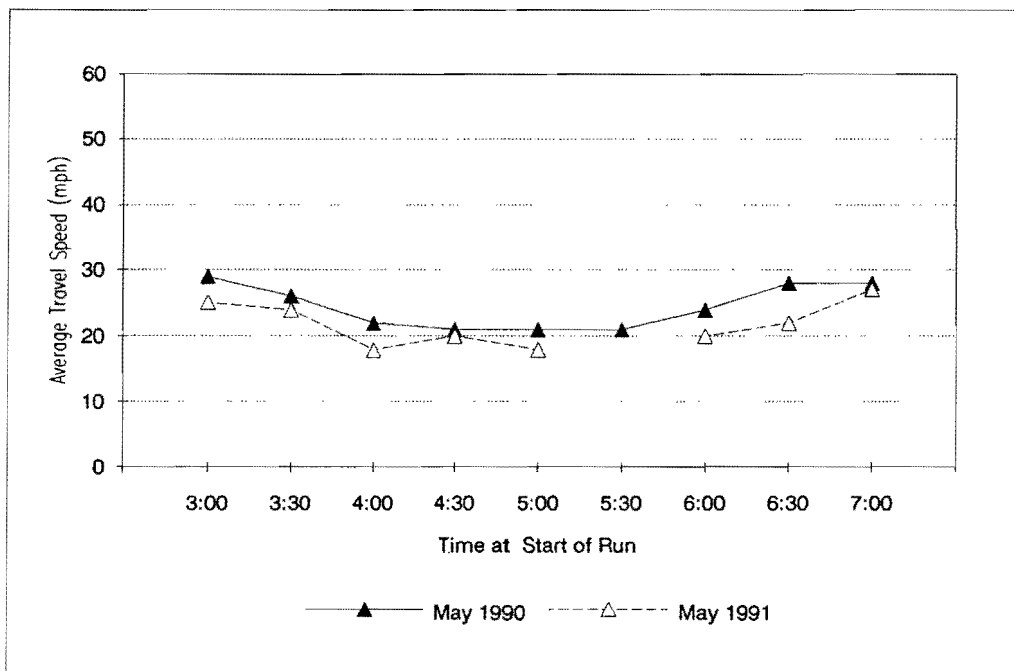


(b) Southbound

Figure J-15. A.M. Peak Period Average Travel Speed Between I-635 and CBD: Greenville (May 1990 and 1991)

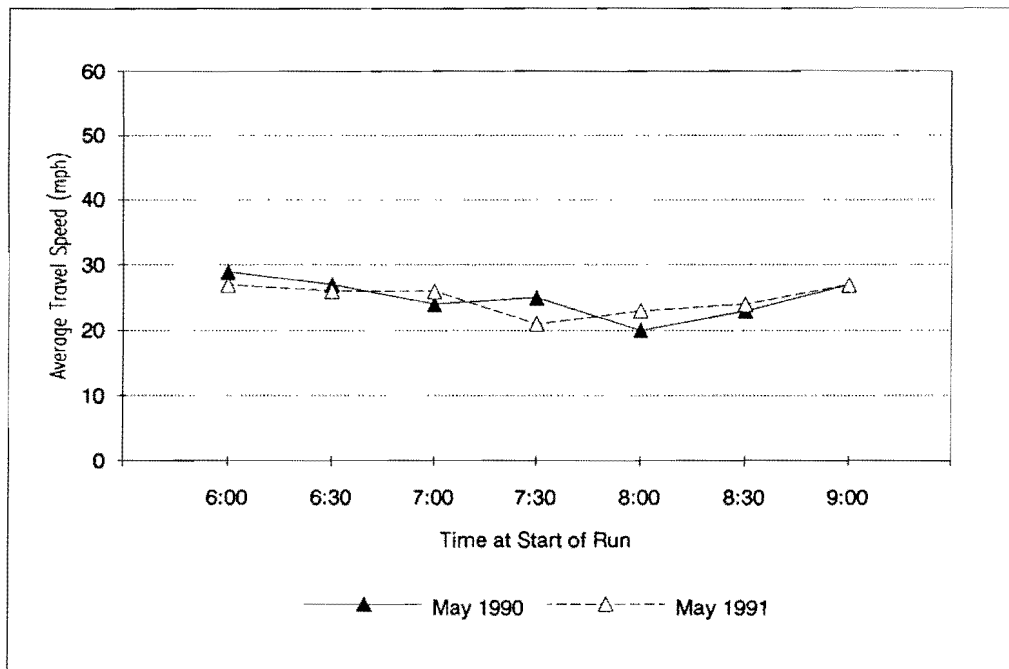


(a) Northbound

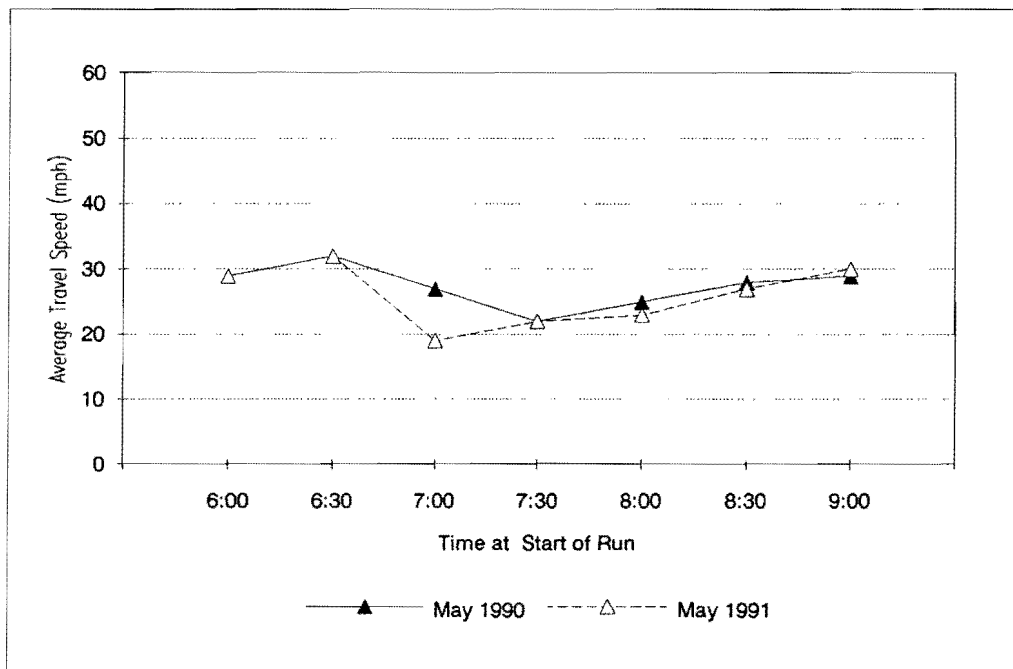


(b) Southbound

Figure J-16. P.M. Peak Period Average Travel Speed Between I-635 and CBD: Greenville (May 1990 and 1991)

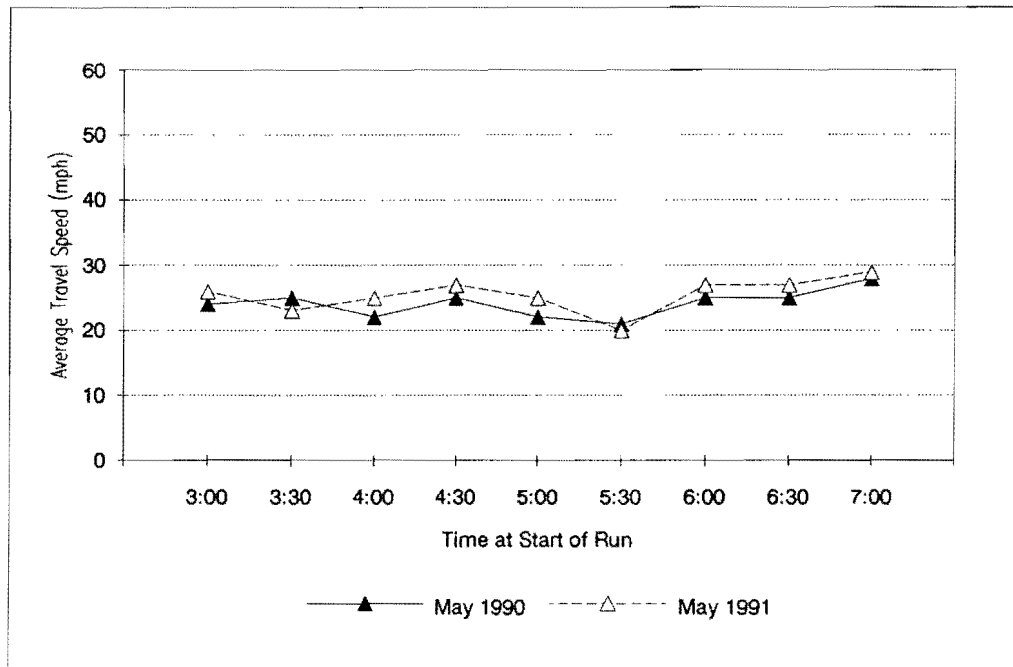


(a) Northbound

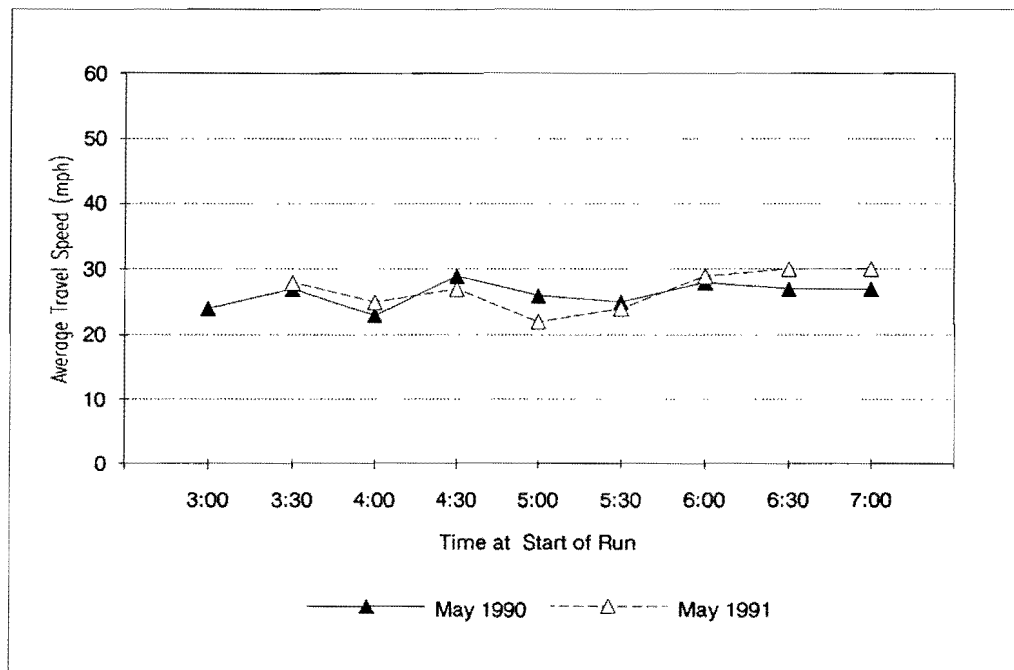


(b) Southbound

Figure J-17. A.M. Peak Period Average Travel Speed Between I-635 and CBD: Abrams (May 1990 and 1991)

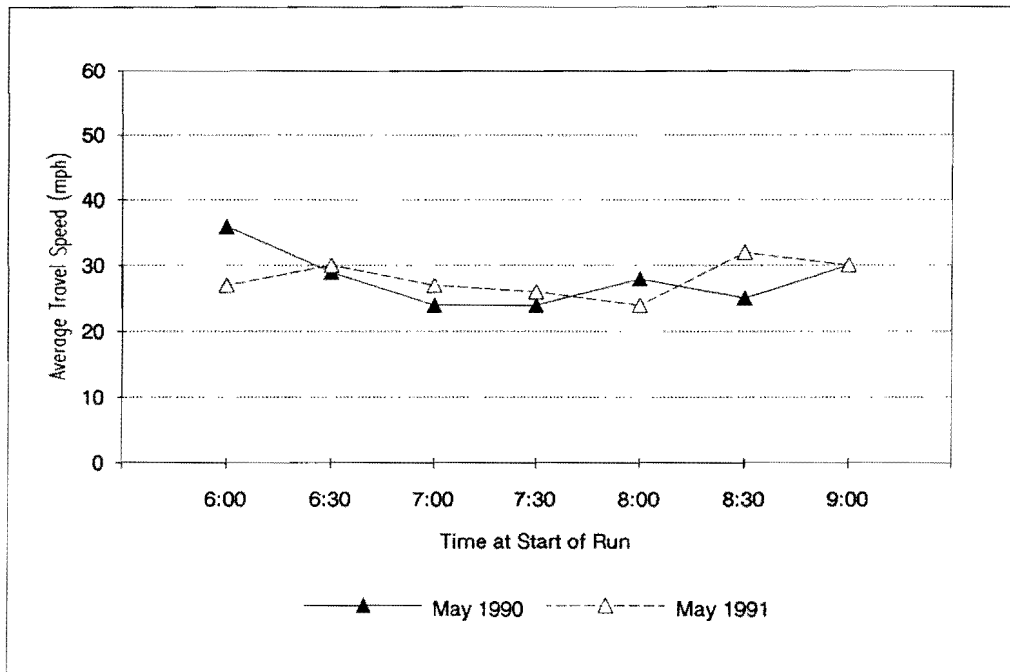


(a) Northbound

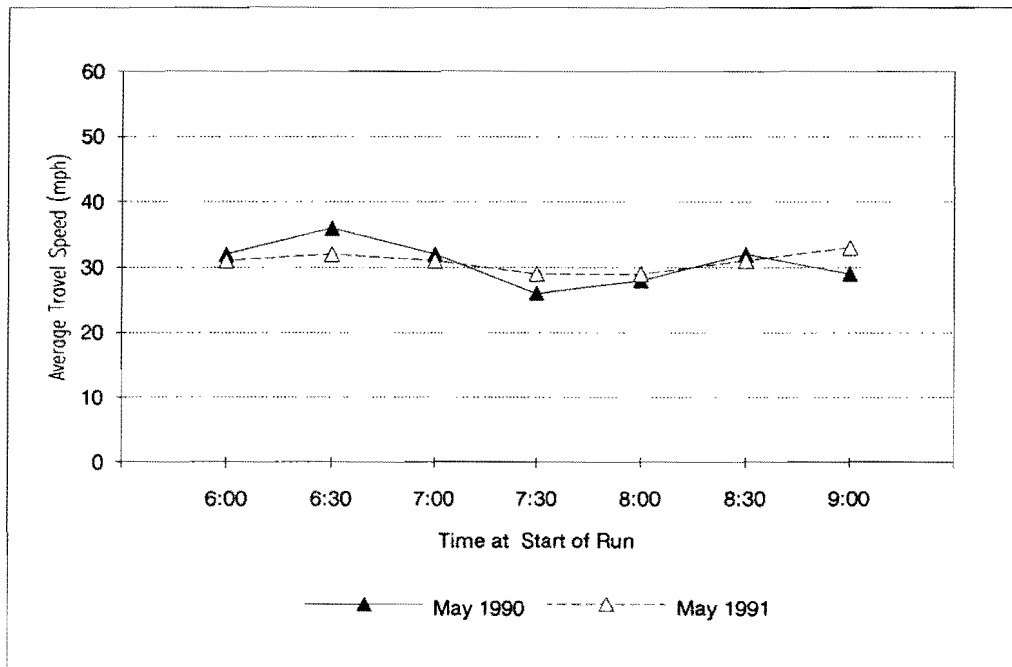


(b) Southbound

Figure J-18. P.M. Peak Period Average Travel Speed Between I-635 and CBD: Abrams (May 1990 and 1991)

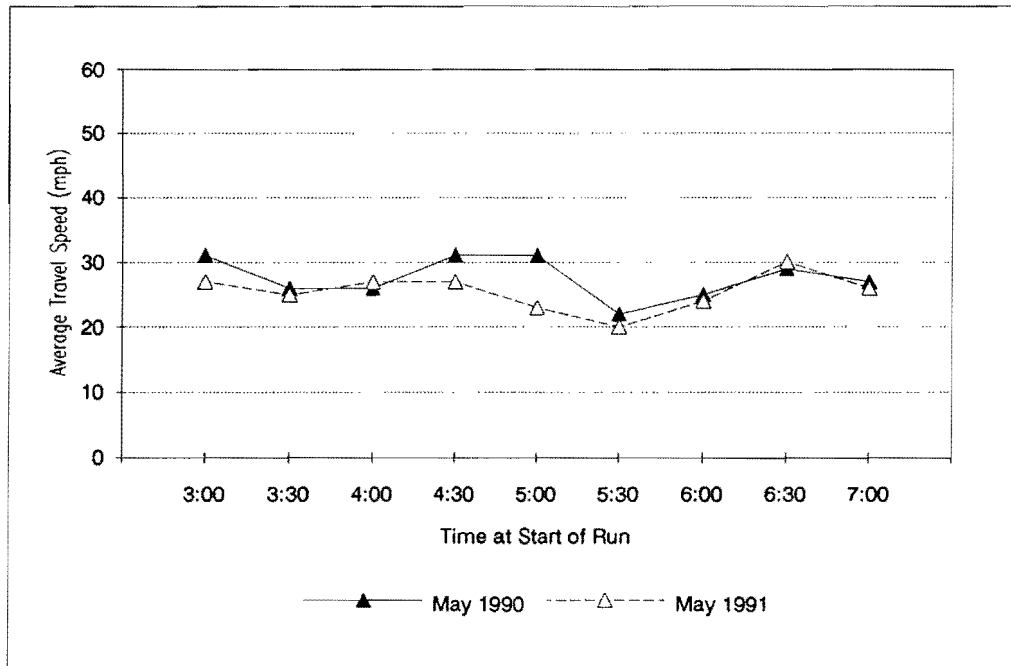


(a) Northbound

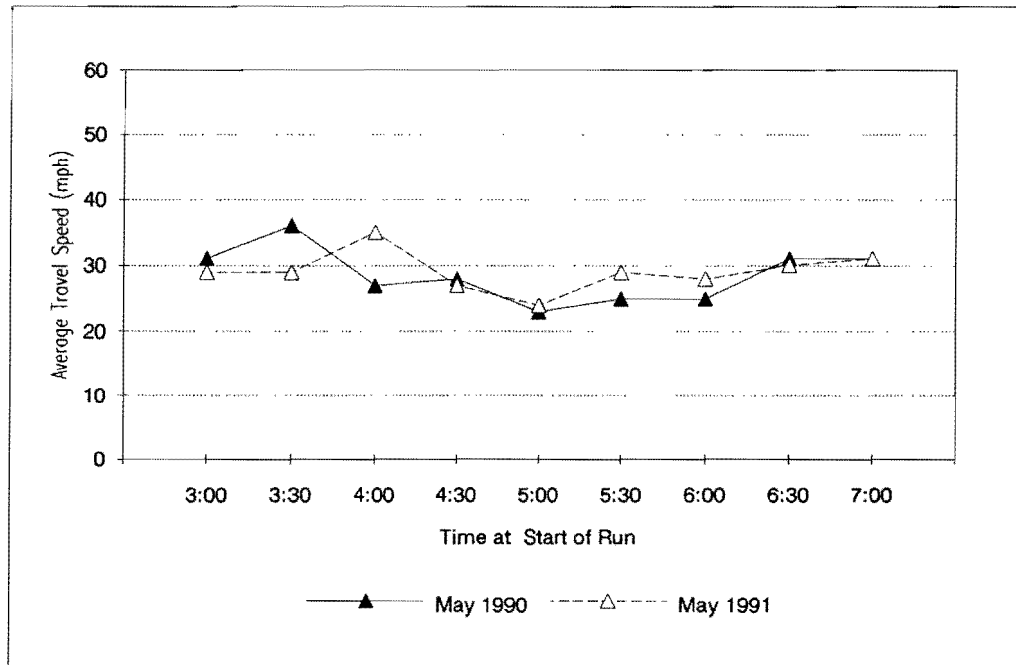


(b) Southbound

Figure J-19. A.M. Peak Period Average Travel Speed Between I-635 and CBD: Skillman (May 1990 and 1991)

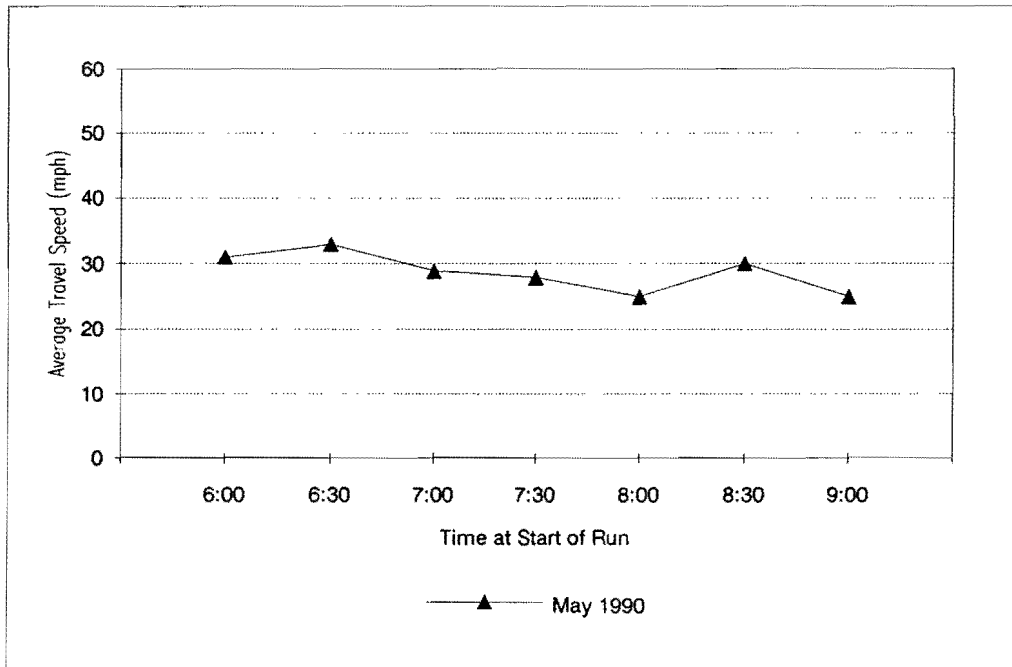


(a) Northbound

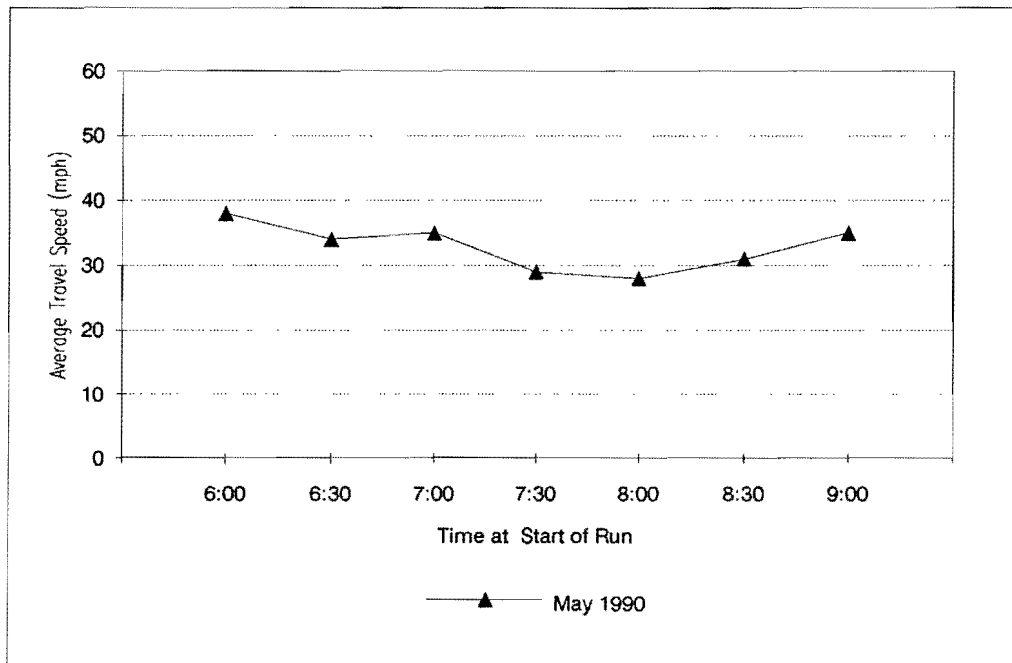


(b) Southbound

Figure J-20. P.M. Peak Period Average Travel Speed Between I-635 and CBD: Skillman (May 1990 and 1991)

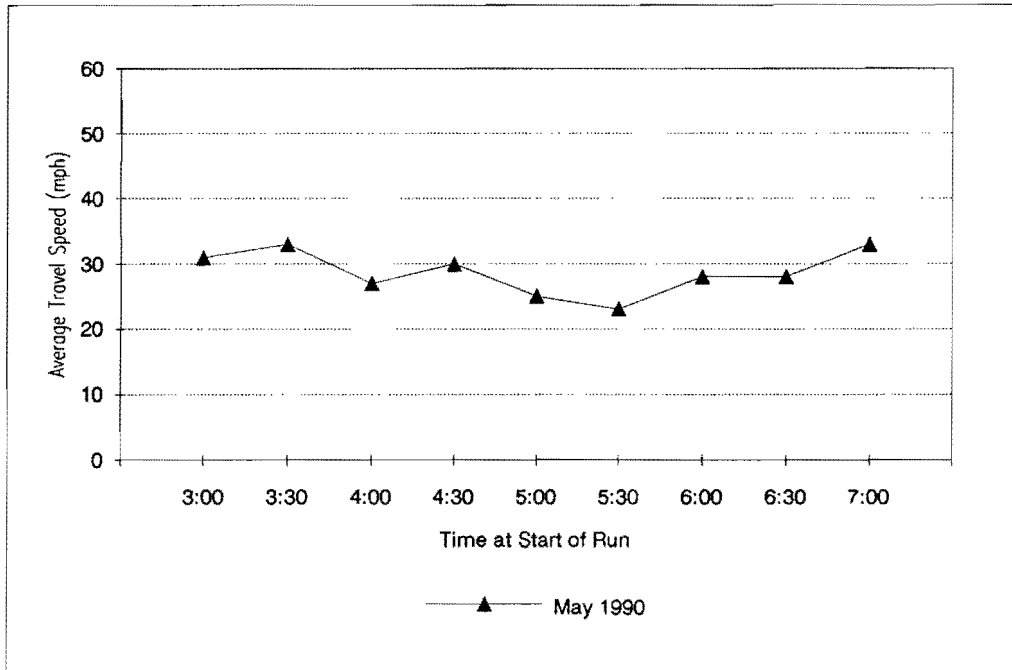


(a) Northbound

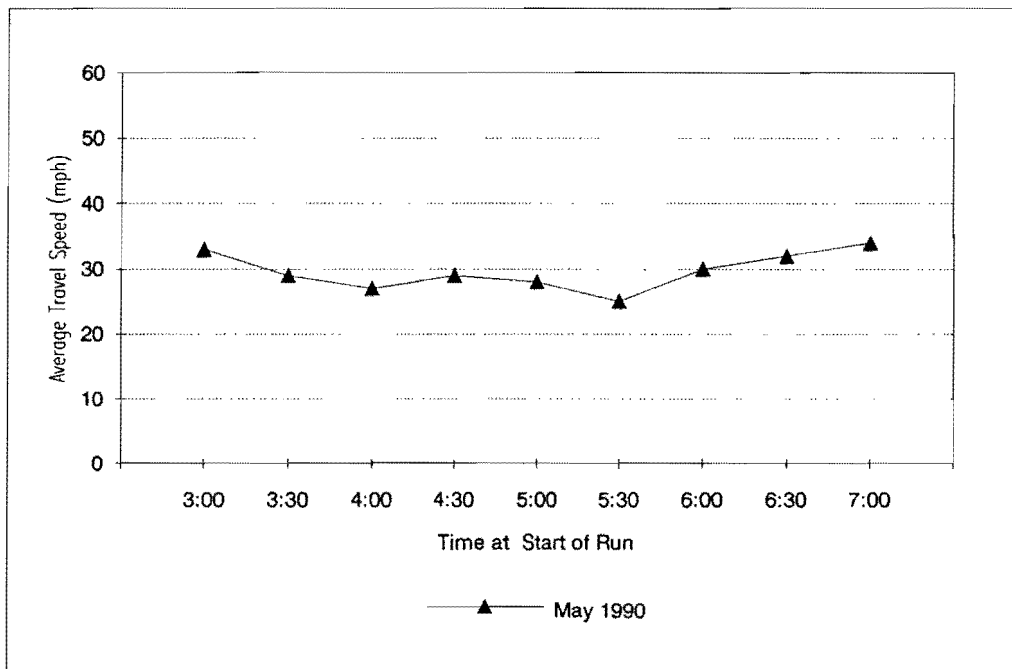


(b) Southbound

Figure J-21. A.M. Peak Period Average Travel Speed Between I-635 and CBD: Garland (May 1990)

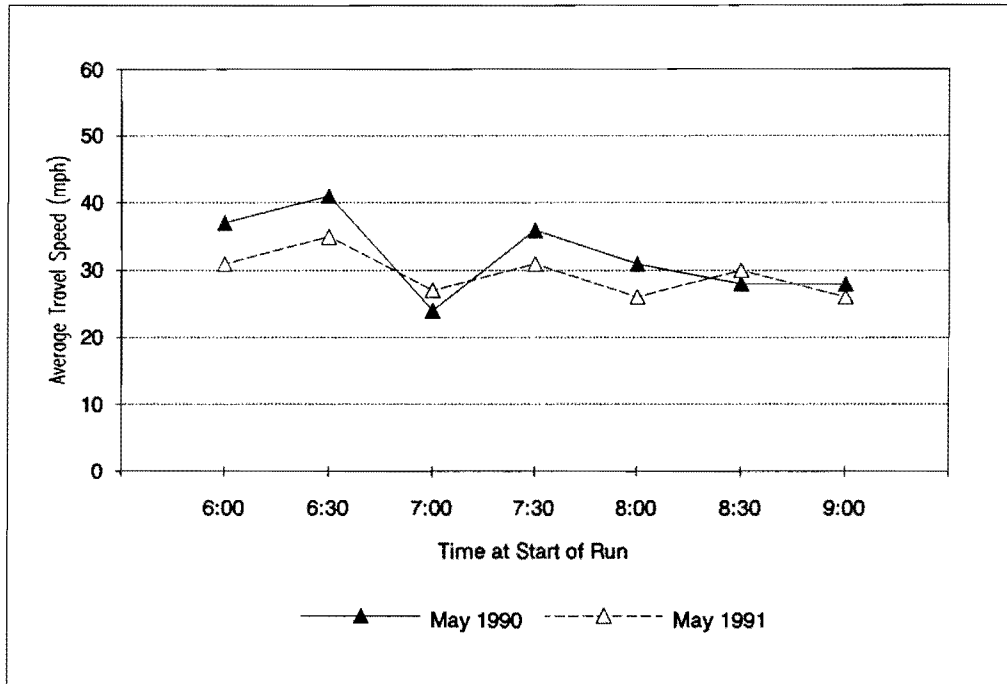


(a) Northbound

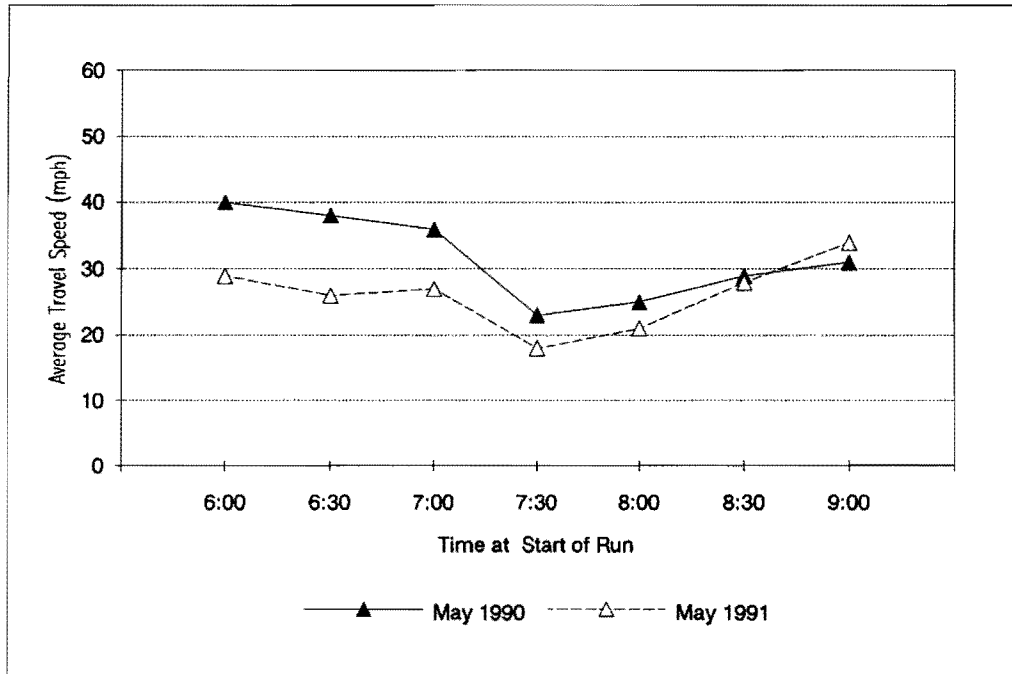


(b) Southbound

Figure J-22. P.M. Peak Period Average Travel Speed Between I-635 and CBD: Garland (May 1990)

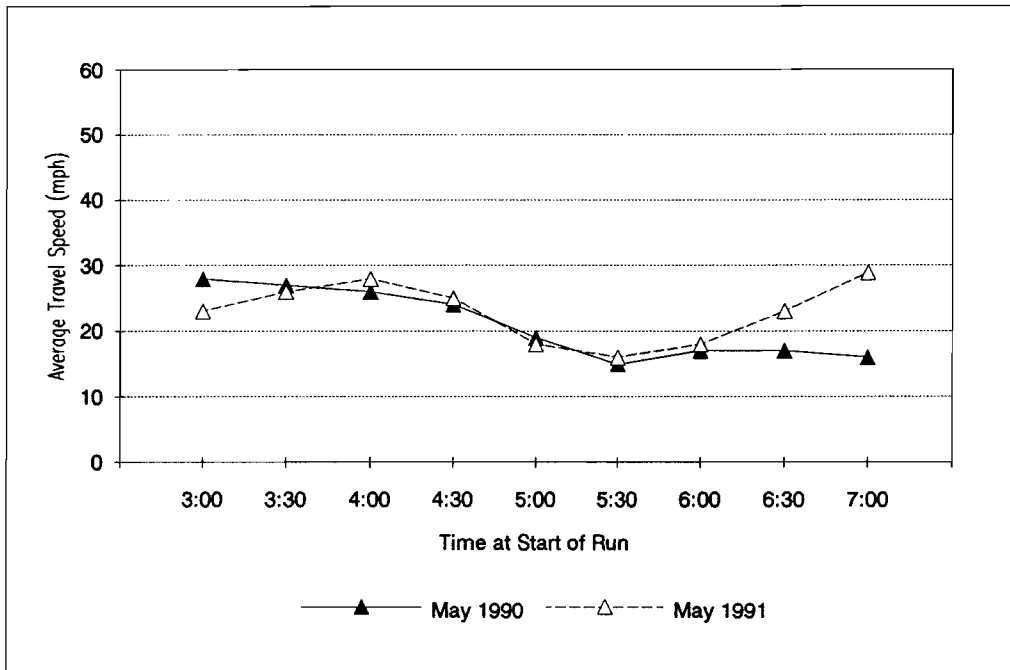


(a) Eastbound

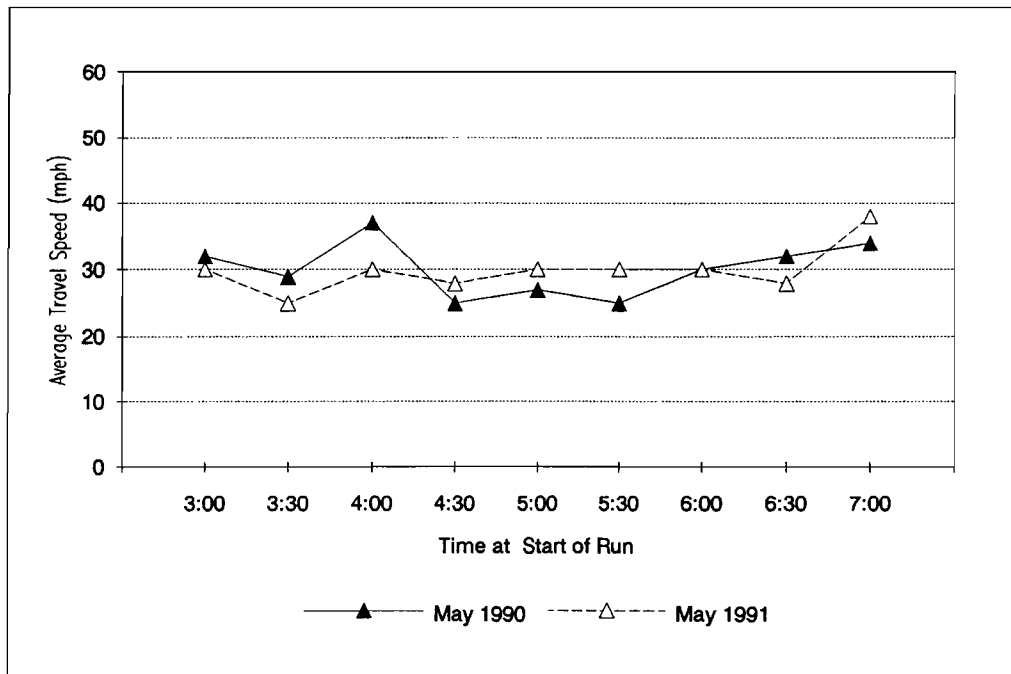


(b) Westbound

Figure J-23. A.M. Peak Period Average Travel Speed Between Midway and Abrams: Loop 12 (May 1990 and 1991)

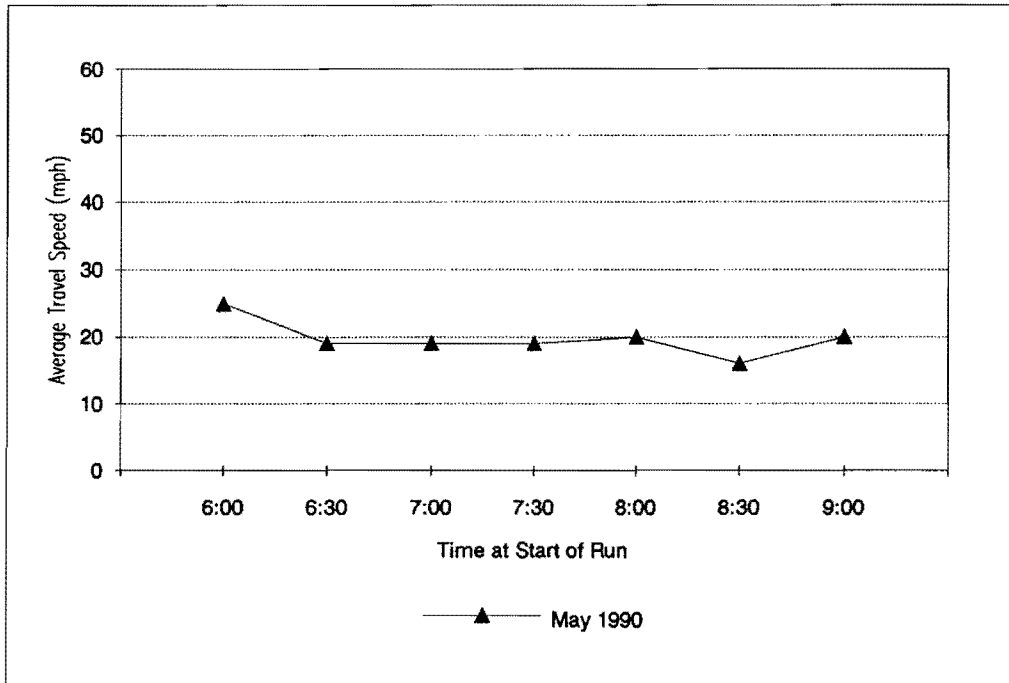


(a) Eastbound

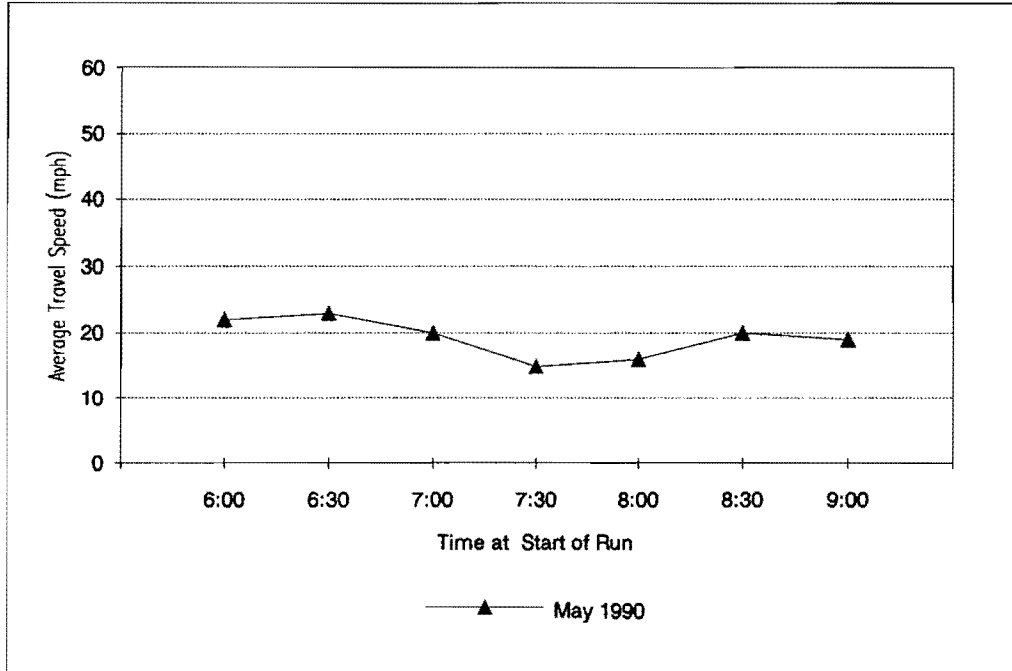


(b) Westbound

Figure J-24. P.M. Peak Period Average Travel Speed Between Midway and Abrams: Loop 12 (May 1990 and 1991)

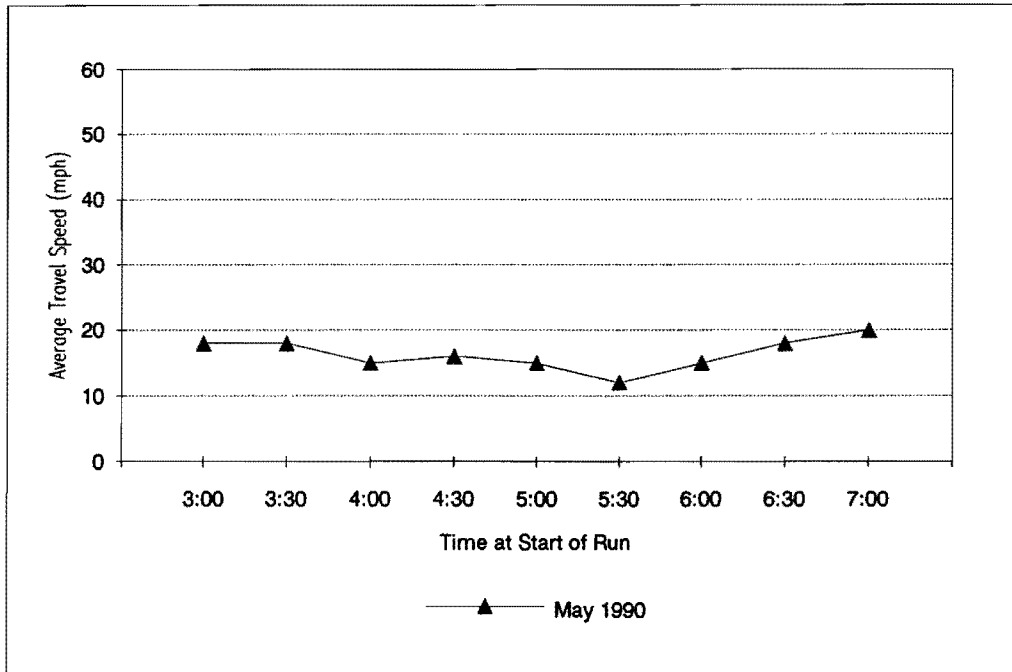


(a) Eastbound

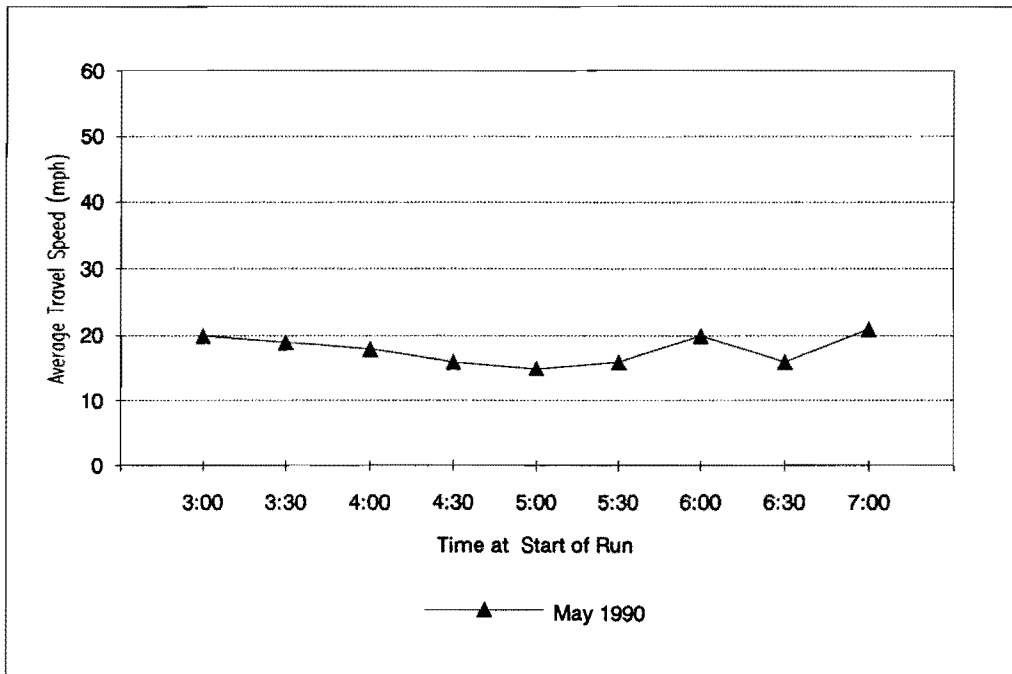


(b) Westbound

Figure J-25. A.M. Peak Period Average Travel Speed Between Lemmon and Abrams: Mockingbird (May 1990)

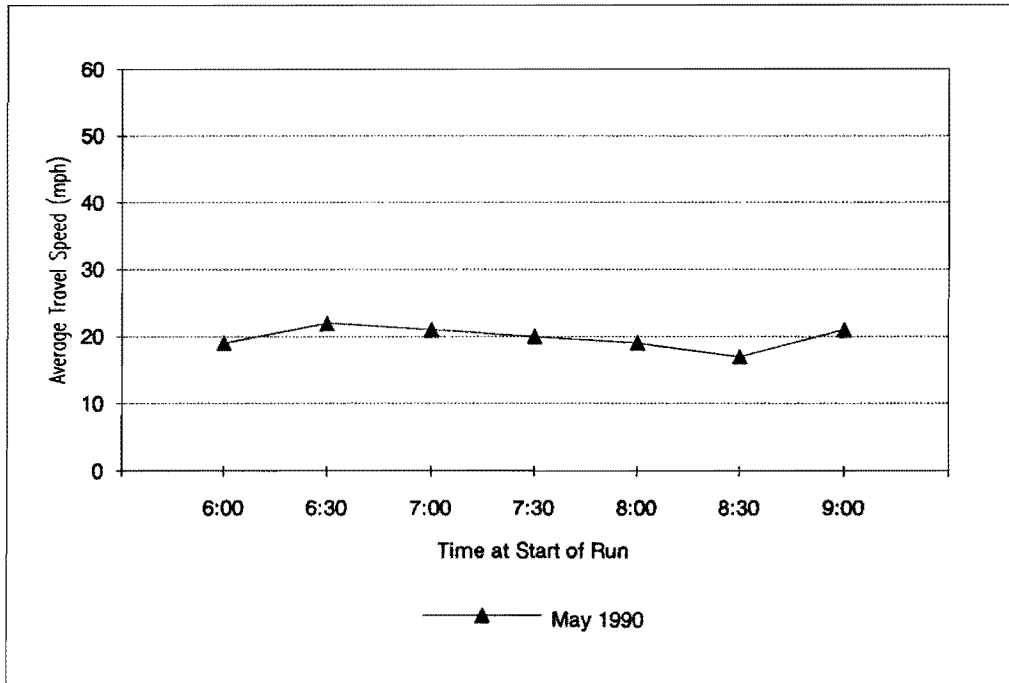


(a) Eastbound

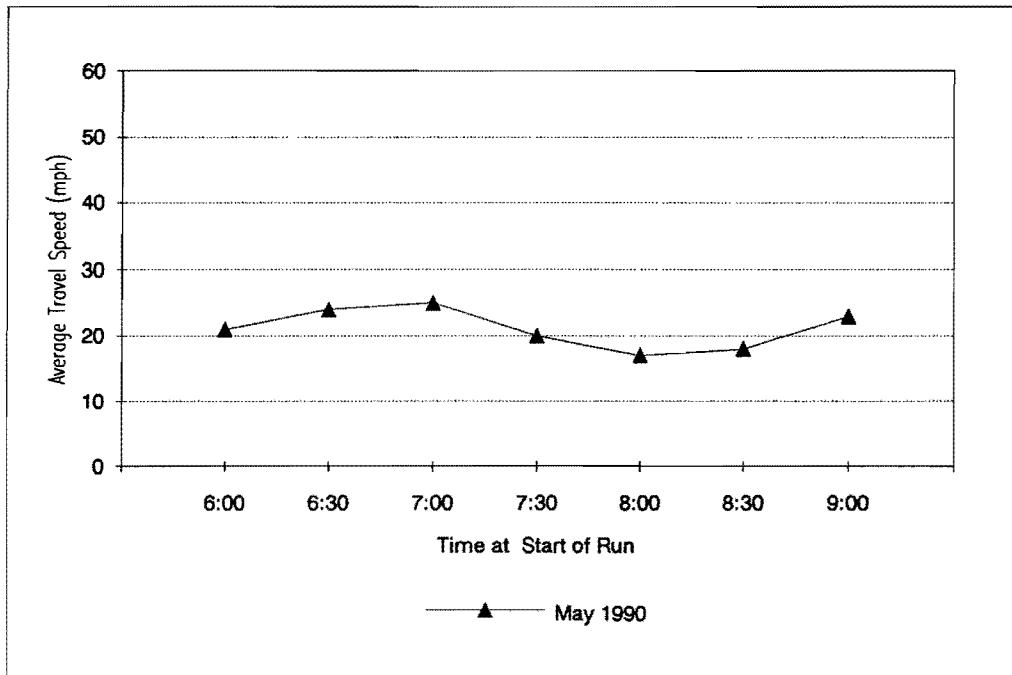


(b) Westbound

Figure J-26. P.M. Peak Period Average Travel Speed Between Lemmon and Abrams: Mockingbird (May 1990)

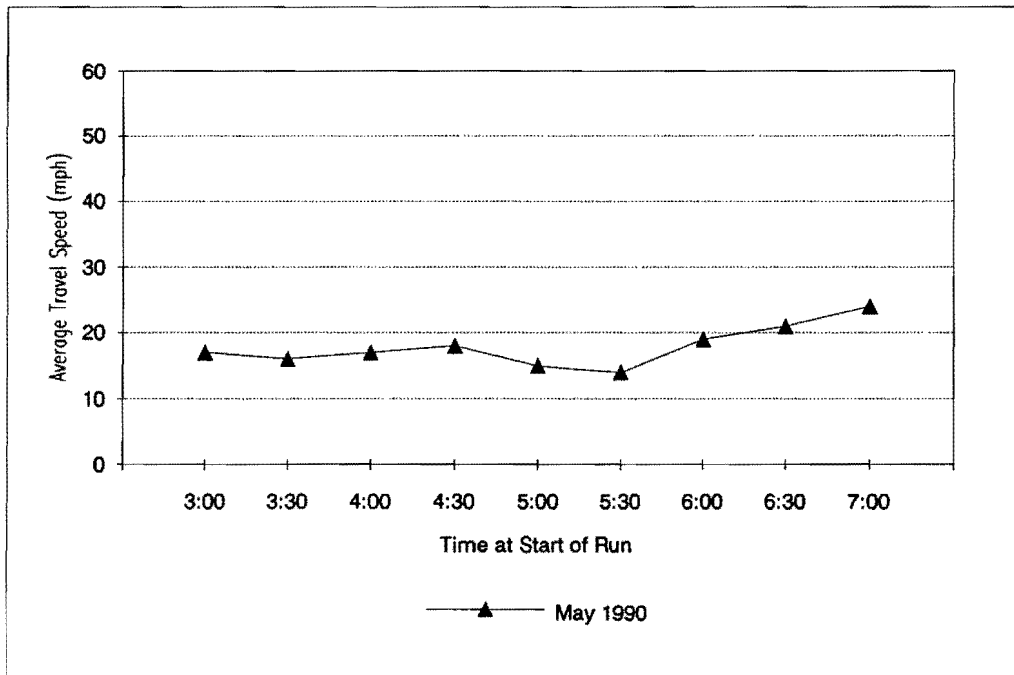


(a) Eastbound

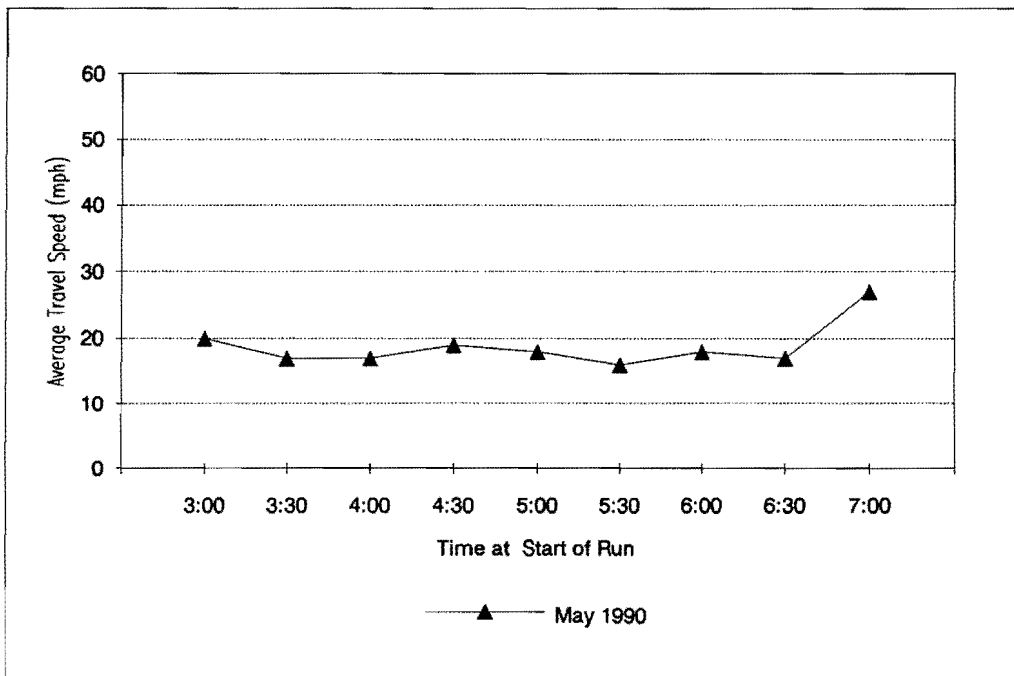


(b) Westbound

Figure J-27. A.M. Peak Period Average Travel Speed Between Harry Hines and Main: Lemmon (May 1990)



(a) Eastbound



(b) Westbound

Figure J-28. P.M. Peak Period Average Travel Speed Between Harry Hines and Main: Lemmon (May 1990)

