

ANNUAL TRANSPORTATION REPORT CARD

REPORTING PERIOD: FISCAL YEAR 2008

PREPARED BY:

**CITY OF PASADENA
DEPARTMENT OF TRANSPORTATION**

Introduction

In support of the *2004 General Plan Mobility Element*, the *Annual Transportation Report Card* was established to inform and update constituents on the performance of key elements of the City's public road and transit system. Additionally, the Report Card measures the effectiveness of traffic mitigation measures and the trip reduction ordinance.

Since 2006, the Report Card has been updated annually and includes the following three sections: traffic count database, travel time and speed studies of arterials, and the Pasadena Area Rapid Transit System (ARTS) annual ridership report. The Report Card is also used to help city staff in managing multimodal corridors to promote and improve citywide transportation services. For example, the ARTS Bus ridership report is conducted annually to assist city staff in determining the effectiveness of the bus routes, stop locations, and headways.

Section 1: Traffic Count Database

As new developments have increased, the amount of traffic in the city likewise has increased. This is clearly shown through historical traffic counts collected by the city. In 2006, the Department of Transportation (DOT) implemented a user friendly search engine located on the transportation website where the public may retrieve traffic volumes via portable document format (pdf). The following link accesses the website as well as easy to follow instructions on how to search for turning movement volumes.

http://cityofpasadena.net/trans/trafficoperations/show_files.asp

Currently, staff members are working to develop a Geographic Information System (GIS) base traffic count map. This will allow the public to visually see historical traffic counts on a map in place of retrieving pdf documents. The anticipated release of the GIS format traffic count map is early 2010.

Section 2: Travel Time & Speed Studies

An effective methodology for measuring travel time and speed for corridors is to conduct a “floating car” travel time study. In the floating car technique, the driver is instructed to travel according to the traffic flow speed. Travel time studies are widely used to document congestion and to quantify the actual impact of mitigation improvements. The Department of Transportation worked closely with the Transportation Advisory Commission (TAC) to identify 15 corridors to be studied.

Upon review of available technologies, the use of Global Positioning System (GPS) technology allows for the most efficient and convenient way of data collection. Specialized hardware and software from GeoStats were selected for the task of collecting data. The equipment consisted of a data storage unit (called a Data Logger), a GPS receiver/antenna, and a cord to connect the Data Logger to the GPS receiver. GeoStats supplied two computer software programs referred to as Geologger Download Utility and TravTime.

The morning, mid-day and the evening peak travel periods were defined as the time periods to gather the data. The morning peak period is 7 a.m. to 10 a.m.; the mid-day peak is 10 am to 3 pm; and the evening peak period is 4 p.m. to 6 p.m. All data gathering runs were limited to Tuesdays, Wednesdays, and Thursdays. The Department of Transportation staff drove assigned routes three times during each time period. Drivers were instructed to maintain a consistent driving style. The driver should drive with the flow of traffic and not to weave in and out of lanes. It is optimal for travel time studies to have a sample size from two to six runs for each time period and corridor studied. It was determined that three runs would be sufficient for each corridor. The gathering of data took approximately 2 weeks.

Once all the data was downloaded from the Data Logger and analyzed using the TravTime software, the results were tabulated and listed in Appendix A by segment. A chart comparing the 2008 versus 2007 segment data is located in Appendix B. Graphs and charts comparing three years of collected average speed and travel time data of each route is located in Appendix C.

A new addition to the Report Card this year includes results that are shown graphically on the city’s website through Google Maps©. The following links accesses a map of the corridors and their respective average travel times and speeds, respectively, by direction and year.

Click on Map below to see Average Travel Time:



Click on Map below to see Average Speeds:



Section 3: Area Rapid Transit System (ARTS)

The Department of Transportation tracks ridership information for the City's Pasadena Area Rapid Transit System (ARTS) service on a fiscal year basis. Located in Appendix D is the ARTS 2008 Ridership Information. The information is collected and reported to the department by the City's contractor. The information presented in this report looks at the overall number of passenger boardings or trips, the number of passenger trips on each of the routes, and the number of passengers per service hour operated.

The following is a snapshot of the ARTS service:

Fiscal Year 2008	
Service Area:	23 Square Miles
Population based on Metro 2005 Data:	146,166
Annual Passenger Trips:	1,654,147
Annual Service Hours:	60,917
Annual Service Miles:	637,063
Total Operating Expenses:	\$4,104,965
Annual Farebox Revenue:	\$516,353
Farebox Recovery Ratio:	13%

Conclusion

Travel Time & Speed Studies

In 2008, out of the 15 corridors that were studied only two corridors: Arroyo Pkwy and Hill Avenue had an increase in travel time greater than one minute compared to the year prior. As noted on the map, lane closures due to on-street construction projects caused delay in travel time during the study period. Consequently, the average speeds of Arroyo Pkwy and Hill Ave have decreased by three or more miles per hour. One corridor that has shown substantial improvement from the year prior is Fair Oaks Avenue with a decrease of approximately two minutes in average travel time and increase in average speeds by approximately three miles per hour. This may be the result of DOT engineers fine tuning traffic signals at the Gold Line Metro Rail grade crossings and the completion of on-street construction on Raymond Avenue which parallels Fair Oaks Avenue.

Even though development has increased significantly throughout the city within the last couple of years, the travel time and speed data has remained relatively constant with only minor fluctuations. Therefore, it is reasonable to assume that the traffic mitigation measures and trip reduction program have been effective in maintaining the “status quo” of traffic flow on city arterials.

Pasadena Area Rapid Transit System Report

Overall, ridership decreased by 3 percent in Fiscal Year 2008 compared to ridership in Fiscal Year 2007. There are several factors that may have affected ridership. Weather appears to have been one factor due to the significant increase in rain fall during late autumn and winter compared to the prior year. Another factor is the change in Pasadena Unified School District's policy to allow more students to attend schools closer to their homes. This may have impacted student trips.

It is interesting to note that while ridership on the Local Lines decreased, ridership on the Feeder Lines increased. Additionally, while the overall ridership dropped by three percent during the past fiscal year, the full fare passenger category showed an increase in ridership of six percent.

The operating costs for the ARTS program are broken into three categories: 1) contract costs, 2) fuel costs, and 3) administrative costs. Both contract and fuel costs have significantly increased; however, administrative costs decreased due the reduction in printing cost activities. In FY08, overall system operating costs increased by 7%; however, the increased numbers of hours operated off-set this resulting in a cost per hour increase of only 5%.

Continued growth in transit ridership and improvement of travel time along major corridors is expected with the on-going efforts of city staff and the public. A larger sample over the course of several years is necessary in determining trends of increases or decreases in average travel time and speed along study corridors. Future annual report cards will contain updated information and data for further comparison and analysis. The report will evolve as technology and resources become available in the future.

**Appendix A:
Average Travel Time & Speed Segment Data
2008**

**City of Pasadena Department of Transportation
Annual Transportation Report Card Travel Time Studies 2008**

STREET NAME	FROM	TO	DIRECTION	DISTANCE (MILES)	TRAVEL TIME (MINUTES)			SPEED (MPH)		
					AM	MD	PM	AM	MD	PM
ARROYO PK	GLENARM	CALIFORNIA	NB	0.6	1.36	1.92	2.61	25	18	13
	CALIFORNIA	DEL MAR		0.3	1.86	1.26	1.64	10	15	12
	DEL MAR	GREEN		0.3	2.10	1.37	1.34	8	12	13
	GREEN	COLORADO		0.1	0.49	0.23	0.75	11	24	7
	COLORADO	GREEN	SB	0.1	0.20	0.41	0.61	27	13	9
	GREEN	DEL MAR		0.3	1.00	1.36	1.59	17	12	11
	DEL MAR	CALIFORNIA		0.3	1.53	1.83	3.07	13	10	6
	CALIFORNIA	GLENARM		0.6	2.25	1.91	1.94	15	18	18
CALIFORNIA BL	ORANGE GROVE	FAIR OAKS	EB	0.5	2.15	1.97	1.61	14	15	18
	FAIR OAKS	ARROYO PKWY		0.2	1.05	2.02	2.04	10	5	5
	ARROYO PKWY	LOS ROBLES		0.3	1.19	0.84	1.39	17	24	15
	LOS ROBLES	LAKE AVE		0.5	2.15	1.63	1.32	15	19	24
	LAKE AVE	LOS ROBLES	WB	0.5	1.47	2.41	2.04	21	13	15
	LOS ROBLES	ARROYO PKWY		0.3	1.32	0.61	1.74	15	34	12
	ARROYO PKWY	FAIR OAKS		0.2	1.55	1.00	1.30	7	10	8
	FAIR OAKS	ORANGE GROVE		0.5	1.49	1.65	1.67	20	18	18
COLORADO BL	ARROYO PKWY	LOS ROBLES	EB	0.5	0.95	1.41	2.21	22	15	10
	LOS ROBLES	LAKE AVE		0.5	1.40	2.29	1.56	22	14	20
	LAKE AVE	HILL AVE		0.6	2.20	2.14	2.29	17	18	16
	HILL AVE	ALLEN AVE		0.5	1.70	2.30	2.56	17	12	11
	ALLEN AVE	SAN GABRIEL		1.1	2.75	3.27	2.65	23	19	24
	SAN GABRIEL	ALLEN AVE	WB	1.1	3.08	4.44	3.11	21	14	20
	ALLEN AVE	HILL AVE		0.5	2.40	1.94	2.26	12	15	12
	HILL AVE	LAKE AVE		0.6	1.44	2.66	2.13	26	14	18
	LAKE AVE	LOS ROBLES		0.5	1.77	1.99	1.79	18	16	17
	LOS ROBLES	ARROYO PKWY		0.5	1.37	1.46	1.26	15	14	17

STREET NAME	FROM	TO	DIRECTION	DISTANCE (MILES)	TRAVEL TIME (MINUTES)			SPEED (MPH)		
					AM	MD	PM	AM	MD	PM
DEL MAR BL	ORANGE GROVE	ARROYO PKWY	EB	0.7	2.89	2.91	3.13	14	14	13
	ARROYO PKWY	LOS ROBLES		0.4	1.27	1.07	1.20	16	20	17
	LOS ROBLES	LAKE AVE		0.5	2.07	2.04	1.68	15	15	19
	LAKE AVE	HILL AVE		0.6	1.43	1.30	1.70	27	30	23
	HILL AVE	ALLEN AVE		0.5	0.97	0.82	0.86	29	34	33
	ALLEN AVE	SAN GABRIEL		1.1	2.49	2.53	2.85	26	25	22
	SAN GABRIEL	ALLEN AVE	WB	1.1	3.41	2.57	2.20	19	25	29
	ALLEN AVE	HILL AVE		0.5	1.14	0.88	0.81	25	32	35
	HILL AVE	LAKE AVE		0.6	2.27	2.11	2.18	17	18	18
	LAKE AVE	LOS ROBLES		0.5	1.84	1.53	1.24	17	20	25
	LOS ROBLES	ARROYO PKWY		0.4	1.74	2.00	2.71	12	11	8
	ARROYO PKWY	ORANGE GROVE		0.7	2.45	2.28	2.27	17	18	18
FAIR OAKS AV	GLENARM	CALIFORNIA	NB	0.6	1.43	2.43	1.65	24	14	21
	CALIFORNIA	DEL MAR		0.3	1.20	1.03	1.40	17	19	14
	DEL MAR	GREEN		0.3	0.58	0.85	0.47	28	19	35
	GREEN	COLORADO		0.1	0.24	0.43	0.17	22	13	32
	COLORADO	CORSON		0.4	1.37	1.62	2.21	16	13	10
	MAPLE	ORANGE GROVE		0.4	1.65	1.03	1.49	13	22	15
	ORANGE GROVE	WASHINGTON	0.8	2.01	1.46	1.76	23	31	26	
	WASHINGTON	ORANGE GROVE	SB	0.8	2.35	1.93	1.77	19	24	26
	ORANGE GROVE	MAPLE		0.4	0.83	1.17	1.30	27	19	17
	CORSON	COLORADO		0.4	1.92	1.20	1.17	11	18	18
	COLORADO	GREEN		0.1	0.15	0.29	0.31	35	18	17
	GREEN	DEL MAR		0.3	0.92	0.70	1.11	18	23	15
DEL MAR	CALIFORNIA	0.3		1.07	2.92	1.69	19	7	12	
CALIFORNIA	GLENARM	0.6	1.32	1.21	1.85	26	28	19		
FOOTHILL BL	WALNUT	SAN GABRIEL	EB	0.7	2.26	2.35	1.96	25	25	29
	SAN GABRIEL	MADRE		1.0	1.35	1.48	1.79	30	27	22
	MADRE	ROSEMEAD		0.5	1.92	1.43	1.92	16	22	16
	ROSEMEAD	MADRE	WB	0.5	1.70	1.38	1.76	18	23	18
	MADRE	SAN GABRIEL		1.0	1.53	2.44	1.31	26	17	31
SAN GABRIEL	WALNUT	0.7	1.88	1.82	2.02	31	32	29		

STREET NAME	FROM	TO	DIRECTION	DISTANCE (MILES)	TRAVEL TIME (MINUTES)			SPEED (MPH)		
					AM	MD	PM	AM	MD	PM
GREEN ST	ST JOHN	ARROYO PKWY	EB	0.5	1.55	2.37	2.47	19	12	12
	ARROYO PKWY	LOS ROBLES		0.4	1.21	1.76	1.85	26	18	17
	LOS ROBLES	LAKE AVE		0.5	1.38	1.12	2.02	15	19	10
	LAKE AVE	HILL AVE		0.6	1.56	1.89	3.46	24	20	11
HILL AV	DEL MAR	COLORADO	NB	0.3	0.98	1.27	0.94	18	14	19
	COLORADO	WALNUT		0.2	0.54	0.56	0.58	27	26	25
	WALNUT	CORSON		0.2	0.76	0.66	0.53	13	15	18
	MAPLE	ORANGE GROVE		0.3	0.78	0.90	1.74	26	23	12
	ORANGE GROVE	WASHINGTON		0.8	1.45	1.44	1.61	32	32	29
	WASHINGTON	ORANGE GROVE	SB	0.8	2.42	1.69	1.64	19	27	28
	ORANGE GROVE	MAPLE		0.3	1.11	0.81	1.34	18	25	15
	CORSON	WALNUT		0.2	0.92	0.31	0.33	10	31	29
	WALNUT	COLORADO		0.2	2.53	1.13	1.78	6	13	8
	COLORADO	DEL MAR		0.3	1.08	0.75	0.81	16	23	22
LAKE AV	DEL MAR	COLORADO	NB	0.4	1.54	1.05	2.36	14	21	9
	COLORADO	WALNUT		0.3	1.19	1.11	1.83	13	14	8
	WALNUT	CORSON		0.1	0.70	0.57	0.44	10	13	16
	MAPLE	ORANGE GROVE		0.4	1.54	1.09	1.56	14	20	14
	ORANGE GROVE	WASHINGTON		0.8	2.17	1.74	2.07	21	26	22
	WASHINGTON	ORANGE GROVE	SB	0.8	2.88	2.30	2.28	16	20	20
	ORANGE GROVE	MAPLE		0.4	1.38	1.00	1.41	16	22	16
	CORSON	WALNUT		0.1	0.26	1.02	0.37	28	7	19
	WALNUT	COLORADO		0.3	0.48	0.58	1.25	31	26	12
	COLORADO	DEL MAR		0.4	1.53	1.82	2.19	14	12	10
LINCOLN AV	ORANGE GROVE	MOUNTAIN	NB	0.5	1.17	1.15	1.10	28	28	30
	MOUNTAIN	HOWARD		0.8	1.60	1.73	1.91	30	28	25
	HOWARD	MOUNTAIN	SB	0.8	1.30	1.19	1.12	25	27	29
	MOUNTAIN	ORANGE GROVE		0.5	2.20	1.98	2.24	22	25	22

STREET NAME	FROM	TO	DIRECTION	DISTANCE (MILES)	TRAVEL TIME (MINUTES)			SPEED (MPH)		
					AM	MD	PM	AM	MD	PM
WALNUT ST	FAIR OAKS	LOS ROBLES	EB	0.5	1.43	1.32	1.51	22	24	21
	LOS ROBLES	LAKE AVE		0.5	1.62	1.10	1.69	19	28	19
	LAKE AVE	HILL AVE		0.6	2.05	1.61	1.52	18	24	25
	HILL AVE	ALLEN AVE		0.5	0.88	1.13	1.46	32	25	19
	ALLEN AVE	FOOTHILL		0.1	0.35	0.40	0.50	24	21	17
	FOOTHILL	ALLEN AVE	WB	0.1	0.47	0.33	0.55	18	26	15
	ALLEN AVE	HILL AVE		0.5	1.09	0.95	0.83	26	30	34
	HILL AVE	LAKE AVE		0.6	1.49	1.62	2.29	25	23	16
	LAKE AVE	LOS ROBLES		0.5	1.59	1.31	1.97	20	24	16
	LOS ROBLES	FAIR OAKS		0.5	2.11	1.61	1.78	15	19	18
WASHINGTON BL	FAIR OAKS	LOS ROBLES	EB	0.5	1.91	1.43	1.26	16	22	25
	LOS ROBLES	LAKE AV		0.5	2.12	1.34	2.40	15	24	14
	LAKE AV	LOS ROBLES	WB	0.5	2.16	1.38	1.33	15	23	24
	LOS ROBLES	FAIR OAKS		0.5	0.93	0.88	1.29	33	35	24

**Appendix B:
Average Travel Time &
Speeds Segment Comparison Data
2008 vs 2007**

**City of Pasadena Department of Transportation
Annual Transportation Report Card Travel Time Comparison Studies 2008 vs 2007**

STREET NAME	FROM	TO	DIRECTION	DISTANCE (MILES)	TRAVEL TIME (MINUTES)			SPEED (MPH)		
					AM	MD	PM	AM	MD	PM
ARROYO PK	GLENARM	CALIFORNIA	NB	0.6	-0.35	0.07	1.02	5.12	-1.16	-7.90
	CALIFORNIA	DEL MAR		0.3	0.68	0.15	0.68	-5.65	-1.77	-8.31
	DEL MAR	GREEN		0.3	1.15	0.71	0.31	-9.99	-12.70	-3.50
	GREEN	COLORADO		0.1	0.16	-0.86	0.08	-4.89	18.58	-0.82
	COLORADO	GREEN	SB	0.1	0.00	0.02	0.24	0.39	-0.84	-6.12
	GREEN	DEL MAR		0.3	-0.10	0.28	0.32	1.88	-3.67	-2.42
	DEL MAR	CALIFORNIA		0.3	0.67	0.74	2.28	-9.46	-7.52	-17.75
CALIFORNIA	GLENARM	0.6	-0.24	0.44	0.44	1.20	-5.05	-5.39		
CALIFORNIA BL	ORANGE GROVE	FAIR OAKS	EB	0.5	-0.04	0.01	-0.26	1.00	0.00	2.00
	FAIR OAKS	ARROYO PKWY		0.2	-0.45	0.86	0.12	3.00	-4.00	0.00
	ARROYO PKWY	LOS ROBLES		0.3	-0.39	0.02	0.32	4.00	-1.00	-4.00
	LOS ROBLES	LAKE AVE		0.5	0.52	0.11	-0.21	-4.00	-1.00	4.00
	LAKE AVE	LOS ROBLES	WB	0.5	0.19	1.17	0.69	-3.00	-12.00	-8.00
	LOS ROBLES	ARROYO PKWY		0.3	-0.36	-1.00	0.21	3.00	21.00	-1.00
	ARROYO PKWY	FAIR OAKS		0.2	0.16	-0.39	-0.10	0.00	3.00	1.00
FAIR OAKS	ORANGE GROVE	0.5	-0.33	-0.27	-0.45	4.00	3.00	4.00		
COLORADO BL	ARROYO PKWY	LOS ROBLES	EB	0.5	-0.58	-0.66	-0.25	2.00	0.00	-3.00
	LOS ROBLES	LAKE AVE		0.5	-0.27	-0.22	-0.30	3.00	2.00	3.00
	LAKE AVE	HILL AVE		0.6	0.73	0.32	0.29	-9.00	-3.00	-3.00
	HILL AVE	ALLEN AVE		0.5	0.33	0.21	0.63	-4.00	-1.00	-4.00
	ALLEN AVE	SAN GABRIEL		1.1	0.10	0.59	-0.32	-1.00	-5.00	3.00
	SAN GABRIEL	ALLEN AVE	WB	1.1	0.38	1.70	1.06	-3.00	-9.00	-11.00
	ALLEN AVE	HILL AVE		0.5	0.78	-0.40	0.22	-5.00	3.00	-2.00
	HILL AVE	LAKE AVE		0.6	-0.45	-0.01	-0.28	6.00	0.00	2.00
	LAKE AVE	LOS ROBLES		0.5	0.09	-0.23	-0.58	-1.00	2.00	4.00
LOS ROBLES	ARROYO PKWY	0.5	-0.08	-1.10	-0.29	-6.00	2.00	-3.00		

STREET NAME	FROM	TO	DIRECTION	DISTANCE (MILES)	TRAVEL TIME (MINUTES)			SPEED (MPH)		
					AM	MD	PM	AM	MD	PM
DEL MAR BL	ORANGE GROVE	ARROYO PKWY	EB	0.7	-1.13	0.51	-0.12	4.31	-2.79	0.24
	ARROYO PKWY	LOS ROBLES		0.4	0.63	0.12	0.32	-16.52	-2.43	-6.54
	LOS ROBLES	LAKE AVE		0.5	0.26	-0.02	-0.49	-1.92	0.30	4.57
	LAKE AVE	HILL AVE		0.6	-0.15	-0.57	-0.20	2.81	8.51	2.65
	HILL AVE	ALLEN AVE		0.5	-0.07	-0.06	-0.03	2.07	2.42	0.62
	ALLEN AVE	SAN GABRIEL		1.1	0.69	0.41	0.37	-9.49	-4.90	-3.70
	SAN GABRIEL	ALLEN AVE	WB	1.1	0.87	0.08	-0.67	-6.00	-1.00	7.00
	ALLEN AVE	HILL AVE		0.5	0.19	-0.21	-0.47	-5.00	6.00	13.00
	HILL AVE	LAKE AVE		0.6	0.41	-0.36	0.39	-4.00	2.00	-3.00
	LAKE AVE	LOS ROBLES		0.5	0.37	-0.27	-0.25	-4.00	3.00	4.00
	LOS ROBLES	ARROYO PKWY		0.4	0.39	0.51	1.56	-4.00	-3.00	-10.00
ARROYO PKWY	ORANGE GROVE	0.7		0.44	-0.54	-0.07	-4.00	3.00	0.00	
FAIR OAKS AV	GLENARM	CALIFORNIA	NB	0.6	-0.96	-0.21	-2.12	9.92	1.10	11.69
	CALIFORNIA	DEL MAR		0.3	0.38	-0.06	-0.82	-7.46	1.19	5.15
	DEL MAR	GREEN		0.3	0.01	0.24	-0.67	0.01	-7.87	20.73
	GREEN	COLORADO		0.1	-0.24	-0.53	-0.46	11.11	6.51	22.85
	COLORADO	CORSON		0.4	-0.60	0.43	-0.60	4.78	-4.69	1.78
	MAPLE	ORANGE GROVE		0.4	0.49	0.23	-0.17	-5.55	-6.40	1.89
	ORANGE GROVE	WASHINGTON		0.8	0.24	0.07	-0.32	-3.33	-1.79	3.97
	WASHINGTON	ORANGE GROVE	SB	0.8	0.64	0.09	-0.31	-7.59	-1.34	3.73
	ORANGE GROVE	MAPLE		0.4	-0.51	0.00	0.50	9.82	-0.06	-10.92
	CORSON	COLORADO		0.4	1.02	-0.56	-0.85	-12.73	6.00	7.47
	COLORADO	GREEN		0.1	-0.34	-0.11	-0.06	23.94	4.49	2.40
	GREEN	DEL MAR		0.3	-0.02	-0.50	-0.02	0.67	10.13	0.59
	DEL MAR	CALIFORNIA		0.3	-2.97	-1.68	-0.40	13.55	2.79	2.72
CALIFORNIA	GLENARM	0.6	-0.18	-0.42	0.33	2.97	7.20	-3.47		
FOOTHILL BL	WALNUT	SAN GABRIEL	EB	0.7	0.60	0.46	-0.39	-10.00	-5.00	4.00
	SAN GABRIEL	MADRE		1.0	-0.27	-0.20	-0.57	5.00	3.00	5.00
	MADRE	ROSEMEAD		0.5	0.29	0.35	-0.66	-3.00	-7.00	4.00
	ROSEMEAD	MADRE	WB	0.5	0.48	-0.34	0.54	-8.00	5.00	-8.00
	MADRE	SAN GABRIEL		1.0	0.36	1.37	-0.11	-8.00	-20.00	3.00
SAN GABRIEL	WALNUT	0.7	-0.14	-0.31	-0.22	2.00	5.00	3.00		

STREET NAME	FROM	TO	DIRECTION	DISTANCE (MILES)	TRAVEL TIME (MINUTES)			SPEED (MPH)		
					AM	MD	PM	AM	MD	PM
GREEN ST	ST JOHN	ARROYO PKWY	EB	0.5	-0.64	0.05	-0.04	6.00	-1.00	0.00
	ARROYO PKWY	LOS ROBLES		0.4	0.37	0.09	0.58	1.00	5.00	0.00
	LOS ROBLES	LAKE AVE		0.5	-0.15	-0.56	0.55	-5.00	0.00	-11.00
	LAKE AVE	HILL AVE		0.6	0.24	0.02	1.46	-5.00	0.00	-8.00
HILL AV	DEL MAR	COLORADO	NB	0.3	-0.15	0.34	0.17	3.00	-5.00	-4.00
	COLORADO	WALNUT		0.2	0.01	-0.06	-0.03	0.00	3.00	1.00
	WALNUT	CORSON		0.2	0.32	-0.11	0.23	-9.00	2.00	-14.00
	MAPLE	ORANGE GROVE		0.3	0.14	0.17	0.56	-6.00	-5.00	-5.00
	ORANGE GROVE	WASHINGTON		0.8	-0.01	-0.04	0.07	0.00	1.00	-1.00
	WASHINGTON	ORANGE GROVE	SB	0.8	0.40	-0.03	0.07	-4.00	0.00	-1.00
	ORANGE GROVE	MAPLE		0.3	0.06	-0.08	0.44	-1.00	2.00	-8.00
	CORSON	WALNUT		0.2	0.64	0.00	-0.06	-25.00	0.00	4.00
	WALNUT	COLORADO		0.2	2.07	0.44	1.34	-25.00	-8.00	-25.00
	COLORADO	DEL MAR		0.3	0.22	-0.13	-0.02	-4.00	3.00	1.00
LAKE AV	DEL MAR	COLORADO	NB	0.4	-0.54	-0.60	0.31	4.00	8.00	-2.00
	COLORADO	WALNUT		0.3	0.06	0.34	0.14	0.00	-6.00	-1.00
	WALNUT	CORSON		0.1	0.39	-0.40	-0.41	-13.00	6.00	7.00
	MAPLE	ORANGE GROVE		0.4	0.30	-0.78	0.38	-4.00	8.00	-5.00
	ORANGE GROVE	WASHINGTON		0.8	-0.01	0.11	-0.39	0.00	-2.00	3.00
	WASHINGTON	ORANGE GROVE	SB	0.8	1.17	0.13	0.02	-11.00	-1.00	0.00
	ORANGE GROVE	MAPLE		0.4	-0.25	-1.23	-0.34	2.00	12.00	3.00
	CORSON	WALNUT		0.1	-0.30	0.19	-0.59	15.00	-2.00	12.00
	WALNUT	COLORADO		0.3	-0.31	-0.43	0.32	12.00	11.00	-4.00
	COLORADO	DEL MAR		0.4	-0.14	0.42	0.83	1.00	-3.00	-6.00
LINCOLN AV	ORANGE GROVE	MOUNTAIN	NB	0.5	0.12	0.00	0.08	-3.00	0.00	-2.00
	MOUNTAIN	HOWARD		0.8	-0.03	-0.05	0.34	0.00	1.00	-6.00
	HOWARD	MOUNTAIN	SB	0.8	-0.96	-1.00	-0.90	4.00	5.00	5.00
	MOUNTAIN	ORANGE GROVE		0.5	1.03	1.12	1.17	-6.00	-13.00	-8.00

STREET NAME	FROM	TO	DIRECTION	DISTANCE (MILES)	TRAVEL TIME (MINUTES)			SPEED (MPH)		
					AM	MD	PM	AM	MD	PM
WALNUT ST	FAIR OAKS	LOS ROBLES	EB	0.5	-0.03	-0.10	0.10	1.00	2.00	-1.00
	LOS ROBLES	LAKE AVE		0.5	0.22	-1.33	0.23	-3.00	15.00	-2.00
	LAKE AVE	HILL AVE		0.6	0.61	0.25	-0.31	-8.00	-4.00	4.00
	HILL AVE	ALLEN AVE		0.5	-0.01	0.24	0.47	0.00	-7.00	-10.00
	ALLEN AVE	FOOTHILL		0.1	-0.03	0.11	0.27	2.00	-8.00	-19.00
	FOOTHILL	ALLEN AVE	WB	0.1	0.05	-0.45	0.29	-2.00	15.00	-17.00
	ALLEN AVE	HILL AVE		0.5	-0.14	-0.29	-0.73	3.00	7.00	16.00
	HILL AVE	LAKE AVE		0.6	-0.14	0.11	0.74	2.00	-2.00	-8.00
	LAKE AVE	LOS ROBLES		0.5	0.00	-0.77	-0.16	0.00	9.00	1.00
	LOS ROBLES	FAIR OAKS		0.5	0.28	-0.10	0.13	-2.00	1.00	-1.00
WASHINGTON BL	FAIR OAKS	LOS ROBLES	EB	0.5	-0.19	0.28	-0.06	1.36	-5.11	0.79
	LOS ROBLES	LAKE AV		0.5	0.05	0.09	-0.57	-0.69	-1.90	2.50
	LAKE AV	LOS ROBLES	WB	0.5	0.66	0.25	0.23	-6.98	-5.59	-4.57
	LOS ROBLES	FAIR OAKS		0.5	-0.19	-0.04	-0.32	5.43	1.32	5.21

**Appendix C:
Average Travel Time & Speeds
Route Comparison Data
2006 to 2008**

**City of Pasadena Department of Transportation
Annual Transportation Report Card Average Travel Time Comparison Study 2008 vs 2007**

STREET NAME	FROM	TO	DIRECTION	DISTANCE (MILES)	Travel Time (Minutes)				
					2006	2007	2008	2008 vs 2007	
								min.	percent.
ARROYO PK	GLENARM	COLORADO	NB	1.30	3.60	4.38	5.64	1.27	29%
	COLORADO	GLENARM	SB	1.30	5.23	4.20	5.90	1.70	40%
*NOTE: ARROYO PKWY UNDER CONSTRUCTION IN 2008.									
CALIFORNIA BL	ORANGE GROVE	LAKE AVE	EB	1.50	5.98	6.25	6.45	0.20	3%
	LAKE AVE	ORANGE GROVE	WB	1.50	6.00	6.24	6.08	-0.16	-3%
COLORADO BL	ARROYO PKWY	SAN GABRIEL	EB	3.20	10.71	10.36	10.56	0.20	2%
	SAN GABRIEL	ARROYO PKWY	WB	3.20	10.34	10.76	11.03	0.27	3%

STREET NAME	FROM	TO	DIRECTION	DISTANCE (MILES)	Travel Time (Minutes)				
					2006	2007	2008	2008 vs 2007	
								min.	percent.
DEL MAR BL	ORANGE GROVE	SAN GABRIEL	EB	3.80	7.18	7.69	8.09	0.40	5%
	SAN GABRIEL	ORANGE GROVE	WB	3.80	8.54	8.70	9.54	0.85	10%
*Note: Del Mar route did not include Orange Grove to Arroyo Parkway Segment in 2005.									
FAIR OAKS AV	GLENARM	WASHINGTON	NB	2.90	9.98	10.72	8.83	-1.89	-18%
	WASHINGTON	GLENARM	SB	2.90	9.27	11.18	9.06	-2.12	-19%
FOOTHILL BL	WALNUT	ROSEMEAD	EB	2.20	5.34	5.62	5.49	-0.13	-2%
	ROSEMEAD	WALNUT	WB	2.20	4.98	4.74	5.28	0.54	11%

STREET NAME	FROM	TO	DIRECTION	DISTANCE (MILES)	Travel Time (Minutes)				
					2006	2007	2008	2008 vs 2007	
								min.	percent.
GREEN ST	ST JOHN	HILL AVE	EB	2.00	5.43	4.55	5.42	0.87	19%
Note: Green Street route did not include St John to Arroyo Parkway segment in 2005.									
HILL AV	DEL MAR	WASHINGTON	NB	1.80	4.67	4.38	4.91	0.54	12%
	WASHINGTON	DEL MAR	SB	1.80	4.65	4.43	6.22	1.79	40%
*Note: On-street construction on Hill Av in 2008.									
LAKE AV	DEL MAR	WASHINGTON	NB	2.00	5.19	5.28	4.90	-0.38	-7%
	WASHINGTON	DEL MAR	SB	2.00	5.79	5.33	5.08	-0.25	-5%
LINCOLN AV	ORANGE GROVE	HOWARD	NB	1.30	2.71	2.73	2.89	0.15	6%
	HOWARD	ORANGE GROVE	SB	1.30	3.15	3.19	3.34	0.15	5%

STREET NAME	FROM	TO	DIRECTION	DISTANCE (MILES)	Travel Time (Minutes)				
					2006	2007	2008	2008 vs 2007	
								min.	percent.
ORANGE GROVE BL (EAST-WEST)	FAIR OAKS	SAN GABRIEL	EB	3.20	7.89	8.35	7.63	-0.72	-9%
	SAN GABRIEL	FAIR OAKS	WB	3.20	8.05	7.36	8.09	0.73	10%
ORANGE GROVE BL (NORTH-SOUTH)	COLUMBIA ST	COLORADO	NB	1.50	4.03	3.77	3.78	0.01	0%
	COLORADO	COLUMBIA ST	SB	1.50	3.66	3.54	3.77	0.23	6%
SAN GABRIEL BL	SAN PASQUAL	FOOTHILL	NB	0.90	2.44	2.43	2.57	0.14	6%
	FOOTHILL	SAN PASQUAL	SB	0.90	1.96	1.92	2.33	0.41	21%
UNION ST	HILL AVE	ST JOHN	WB	2.00	4.40	4.65	4.24	-0.40	-9%

Note: Union Street route did not include St John to Arroyo Parkway segment in 2005.

STREET NAME	FROM	TO	DIRECTION	DISTANCE (MILES)	Travel Time (Minutes)				
					2006	2007	2008	2008 vs 2007	
								min.	percent.
WALNUT ST	FAIR OAKS	FOOTHILL	EB	2.20	6.57	5.96	6.19	0.23	4%
	FOOTHILL	FAIR OAKS	WB	2.20	7.34	7.06	6.66	-0.39	-6%
WASHINGTON BL	FAIR OAKS	LAKE AV	EB	1.00	3.11	3.62	3.49	-0.13	-4%
	LAKE AV	FAIR OAKS	WB	1.00	2.70	2.46	2.66	0.20	8%

**City of Pasadena Department of Transportation
Annual Transportation Report Card Average Speed Comparison Study 2008 vs 2007**

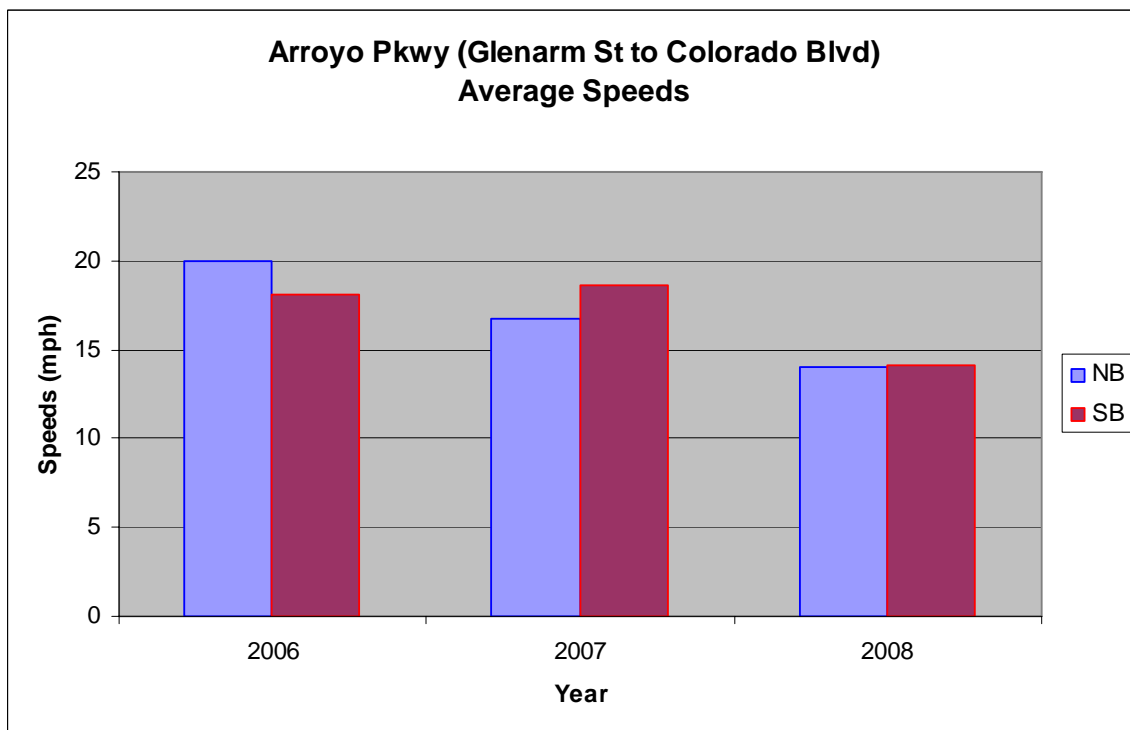
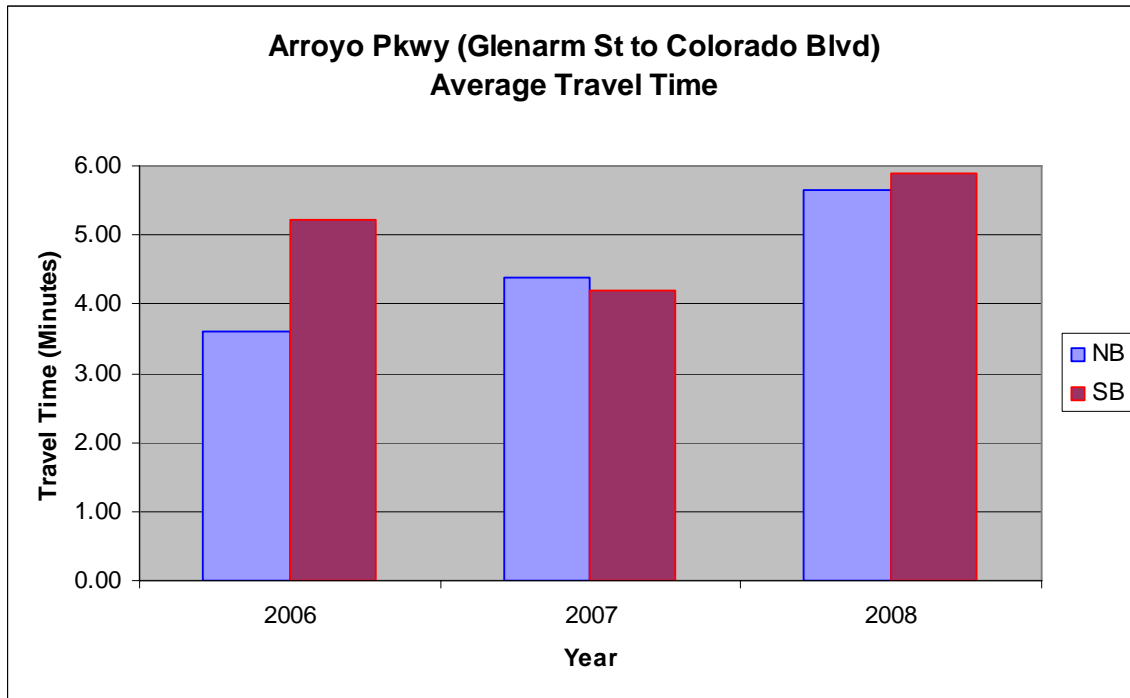
STREET NAME	FROM	TO	DIRECTION	DISTANCE (MILES)	Speed (mph)				
					2006	2007	2008	2008 vs 2007	
								mph	percent.
ARROYO PK	GLENARM	COLORADO	NB	1.30	20	17	14	-3	-18%
	COLORADO	GLENARM	SB	1.30	18	19	14	-5	-26%
*NOTE: ARROYO PKWY UNDER CONSTRUCTION IN 2008.									
CALIFORNIA BL	ORANGE GROVE	LAKE AVE	EB	1.50	16	15	15	0	0%
	LAKE AVE	ORANGE GROVE	WB	1.50	16	15	16	1	7%
COLORADO BL	ARROYO PKWY	SAN GABRIEL	EB	3.20	18	19	17	-2	-11%
	SAN GABRIEL	ARROYO PKWY	WB	3.20	19	18	17	-1	-6%

STREET NAME	FROM	TO	DIRECTION	DISTANCE (MILES)	Speed (mph)				
					2006	2007	2008	2008 vs 2007	
								mph	percent.
DEL MAR BL	ORANGE GROVE	SAN GABRIEL	EB	3.80	27	25	23	-2	-8%
	SAN GABRIEL	ORANGE GROVE	WB	3.80	22	21	21	0	0%
*Note: Del Mar route did not include Orange Grove to Arroyo Parkway Segment in 2005.									
FAIR OAKS AV	GLENARM	WASHINGTON	NB	2.90	19	17	20	3	18%
	WASHINGTON	GLENARM	SB	2.90	18	17	20	3	18%
FOOTHILL BL	WALNUT	ROSEMEAD	EB	2.20	25	24	24	0	0%
	ROSEMEAD	WALNUT	WB	2.20	26	28	25	-3	-11%

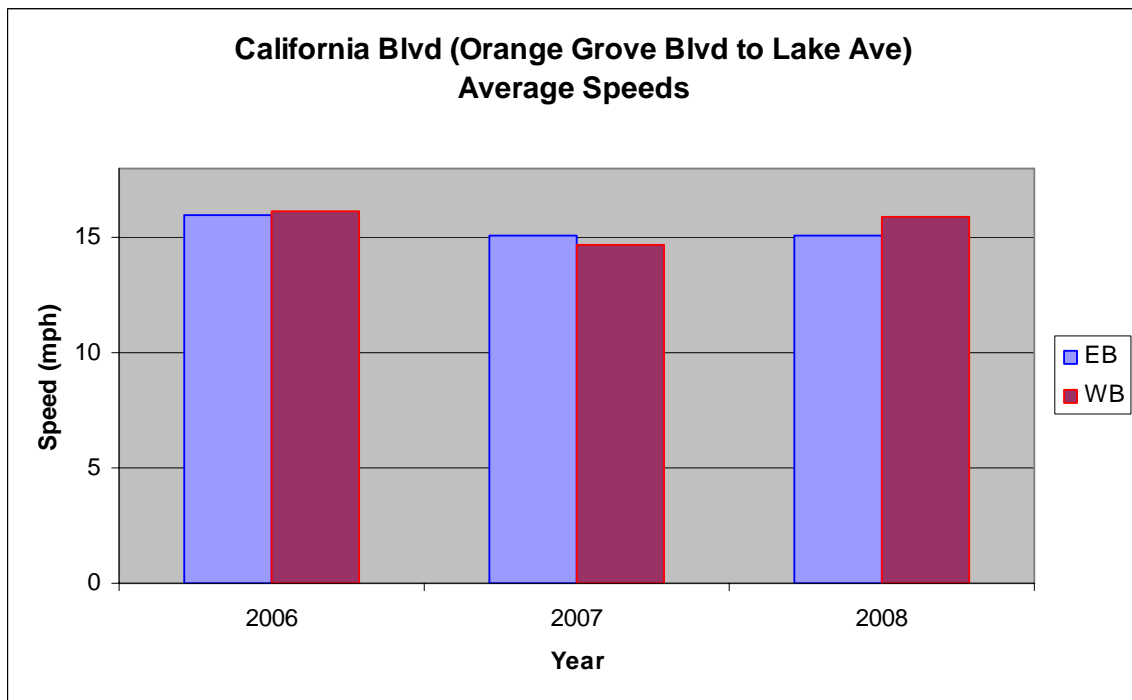
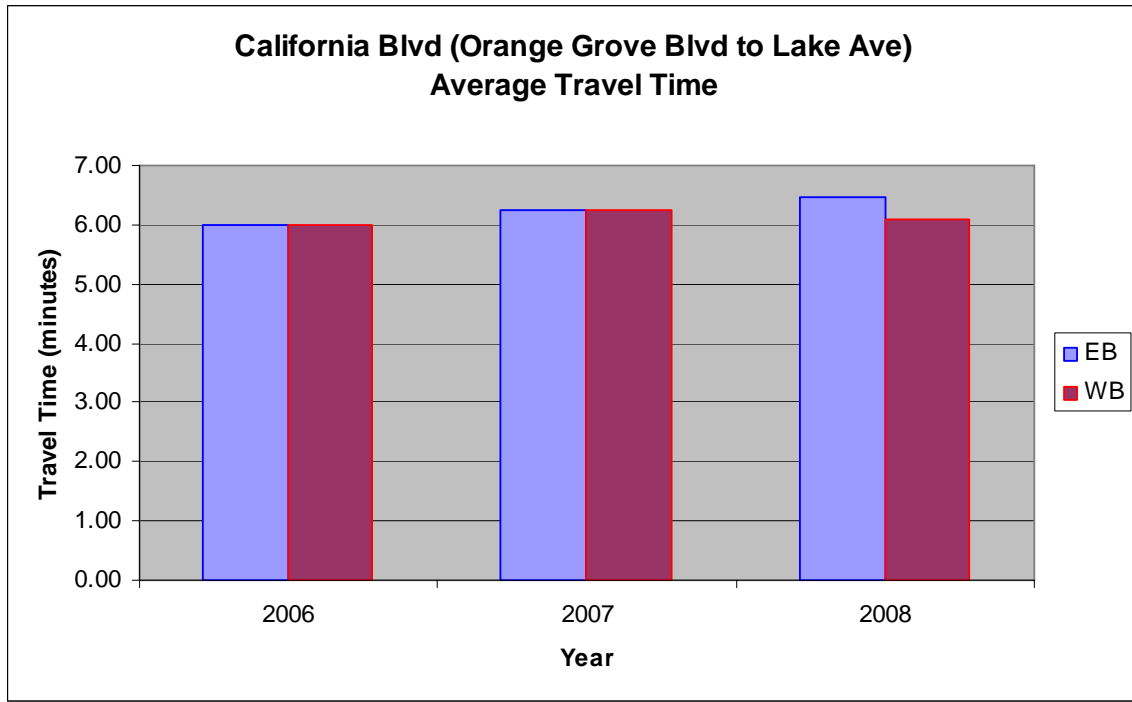
STREET NAME	FROM	TO	DIRECTION	DISTANCE (MILES)	Speed (mph)				
					2006	2007	2008	2008 vs 2007	
								mph	percent.
GREEN ST	ST JOHN	HILL AVE	EB	2.00	17	18	17	-1	-6%
Note: Green Street route did not include St John to Arroyo Parkway segment in 2005.									
HILL AV	DEL MAR	WASHINGTON	NB	1.80	23	25	22	-3	-12%
	WASHINGTON	DEL MAR	SB	1.80	24	27	19	-8	-30%
*Note: On-street construction on Hill Av in 2008.									
LAKE AV	DEL MAR	WASHINGTON	NB	2.00	16	15	16	1	7%
	WASHINGTON	DEL MAR	SB	2.00	15	15	18	3	20%
LINCOLN AV	ORANGE GROVE	HOWARD	NB	1.30	30	30	28	-2	-7%
	HOWARD	ORANGE GROVE	SB	1.30	28	27	25	-2	-7%

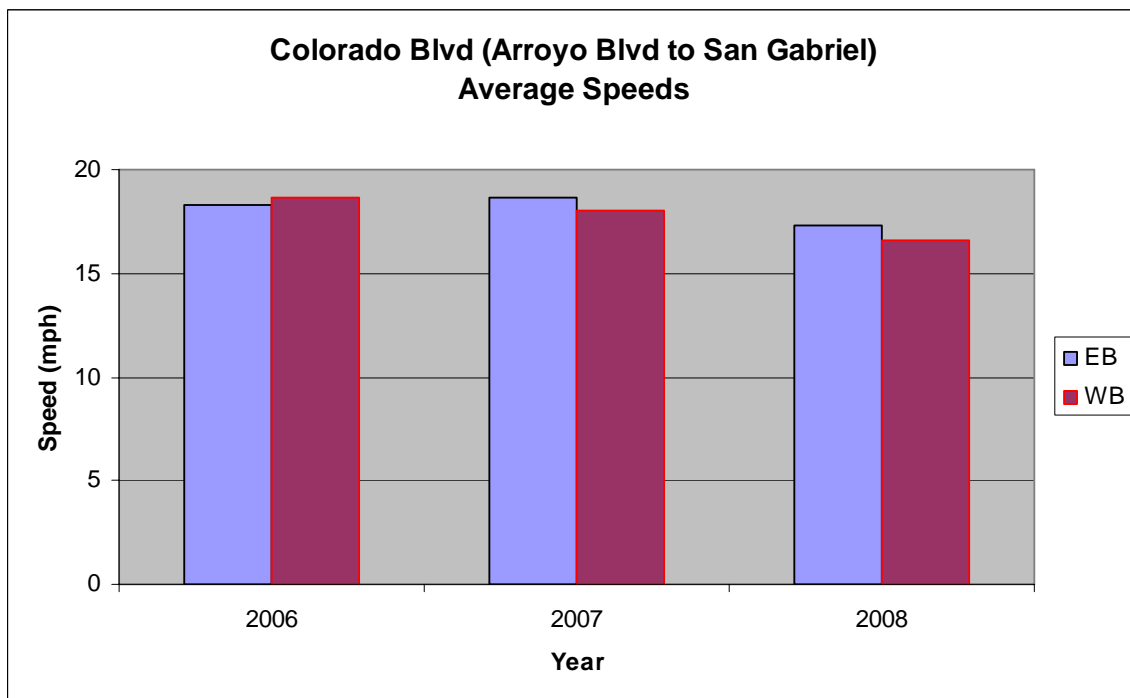
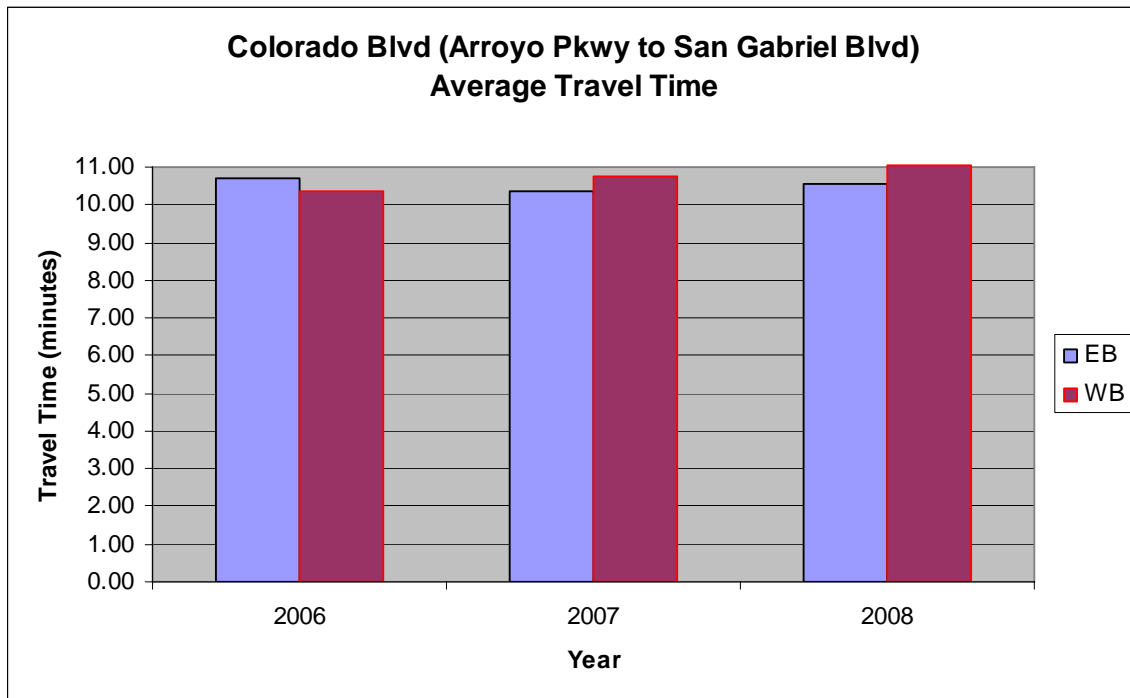
STREET NAME	FROM	TO	DIRECTION	DISTANCE (MILES)	Speed (mph)				
					2006	2007	2008	2008 vs 2007	
								mph	percent.
ORANGE GROVE BL (EAST-WEST)	FAIR OAKS	SAN GABRIEL	EB	3.20	25	25	26	1	4%
	SAN GABRIEL	FAIR OAKS	WB	3.20	25	29	26	-3	-10%
ORANGE GROVE BL (NORTH-SOUTH)	COLUMBIA ST	COLORADO	NB	1.50	24	26	25	-1	-4%
	COLORADO	COLUMBIA ST	SB	1.50	27	28	25	-3	-11%
SAN GABRIEL BL	SAN PASQUAL	FOOTHILL	NB	0.90	22	22	21	-1	-5%
	FOOTHILL	SAN PASQUAL	SB	0.90	27	27	23	-4	-15%
UNION ST	HILL AVE	ST JOHN	WB	2.00	21	20	22	2	10%
Note: Union Street route did not include St John to Arroyo Parkway segment in 2005.									

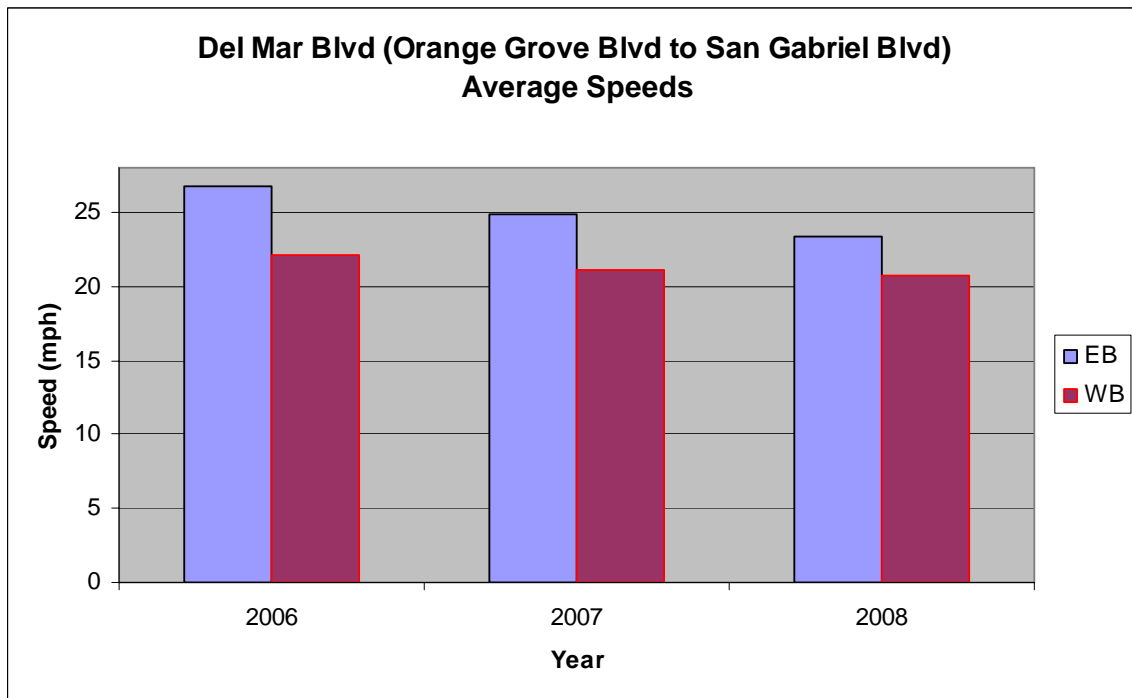
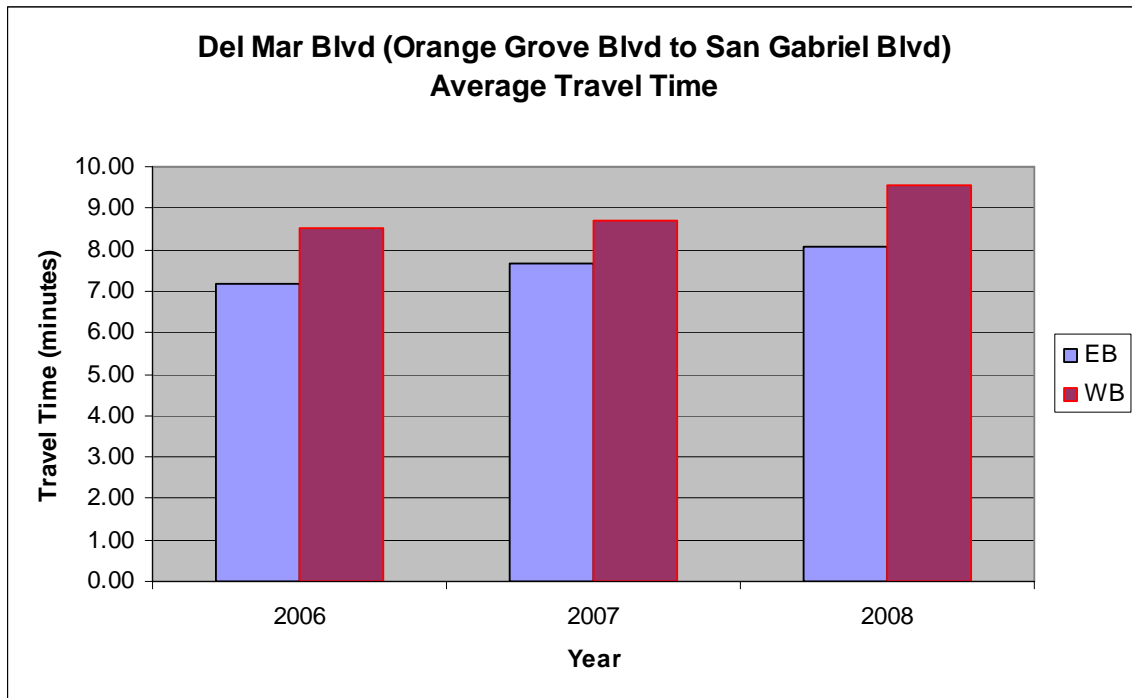
STREET NAME	FROM	TO	DIRECTION	DISTANCE (MILES)	Speed (mph)				
					2006	2007	2008	2008 vs 2007	
								mph	percent.
WALNUT ST	FAIR OAKS	FOOTHILL	EB	2.20	23	25	23	-2	-8%
	FOOTHILL	FAIR OAKS	WB	2.20	21	21	22	1	5%
WASHINGTON BL	FAIR OAKS	LAKE AV	EB	1.00	21	20	19	-1	-5%
	LAKE AV	FAIR OAKS	WB	1.00	25	27	26	-1	-4%



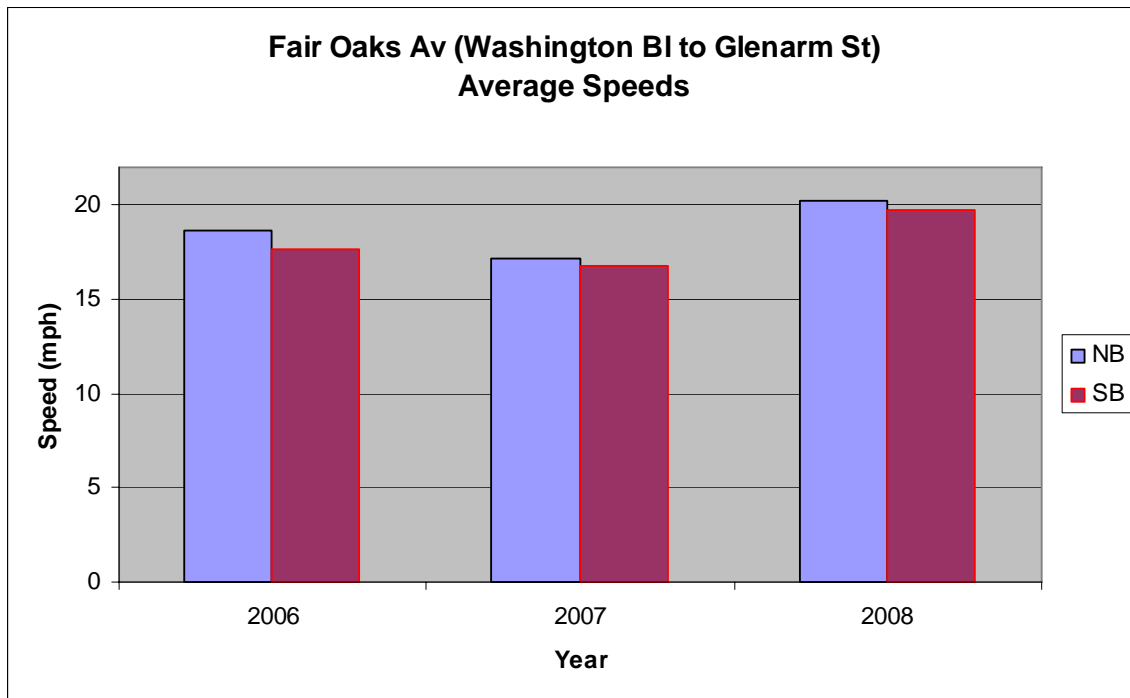
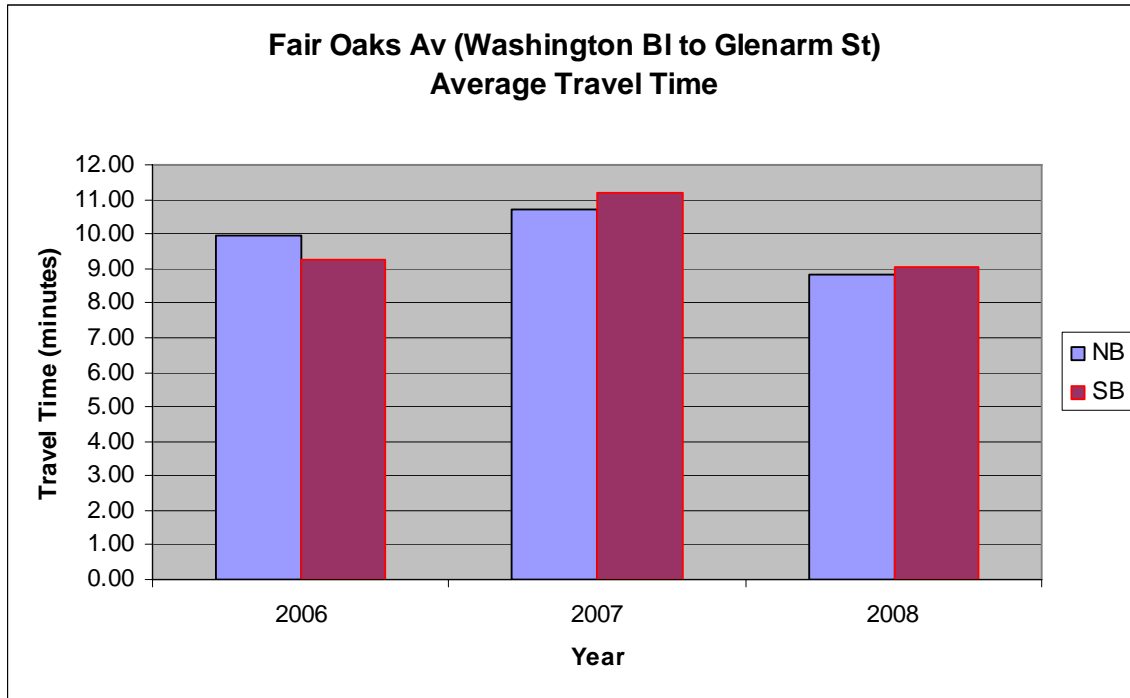
*Note: Construction along Arroyo Parkway contributed to delay in travel time and decrease in speeds in 2008.

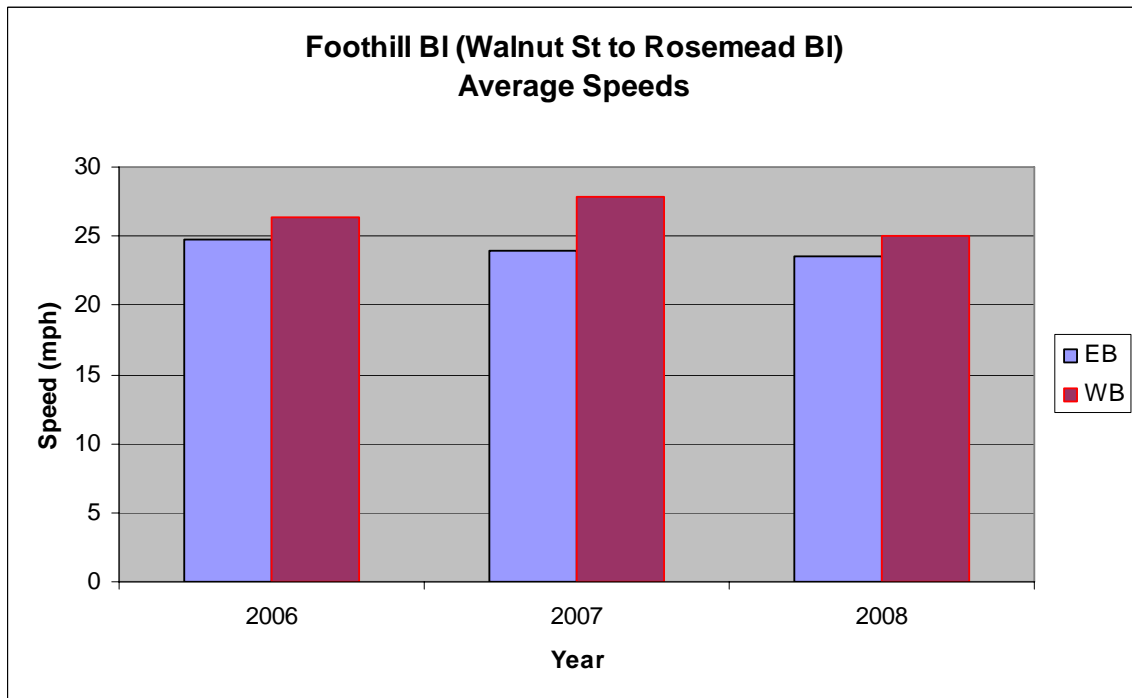
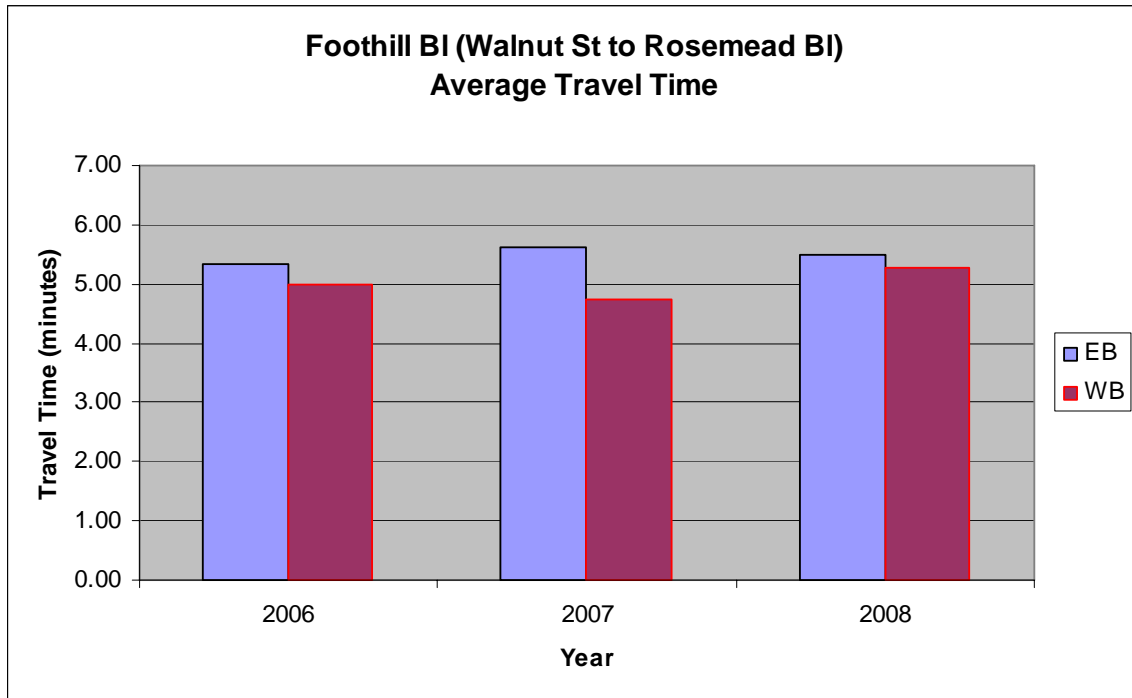


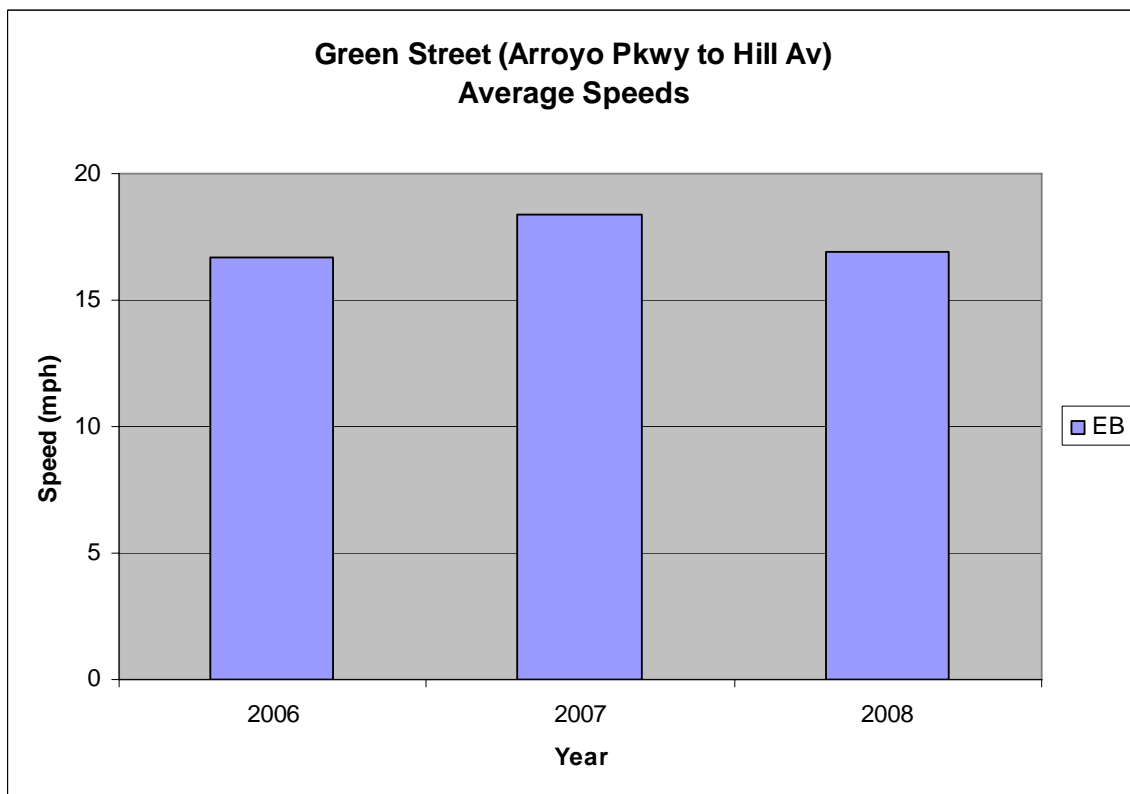
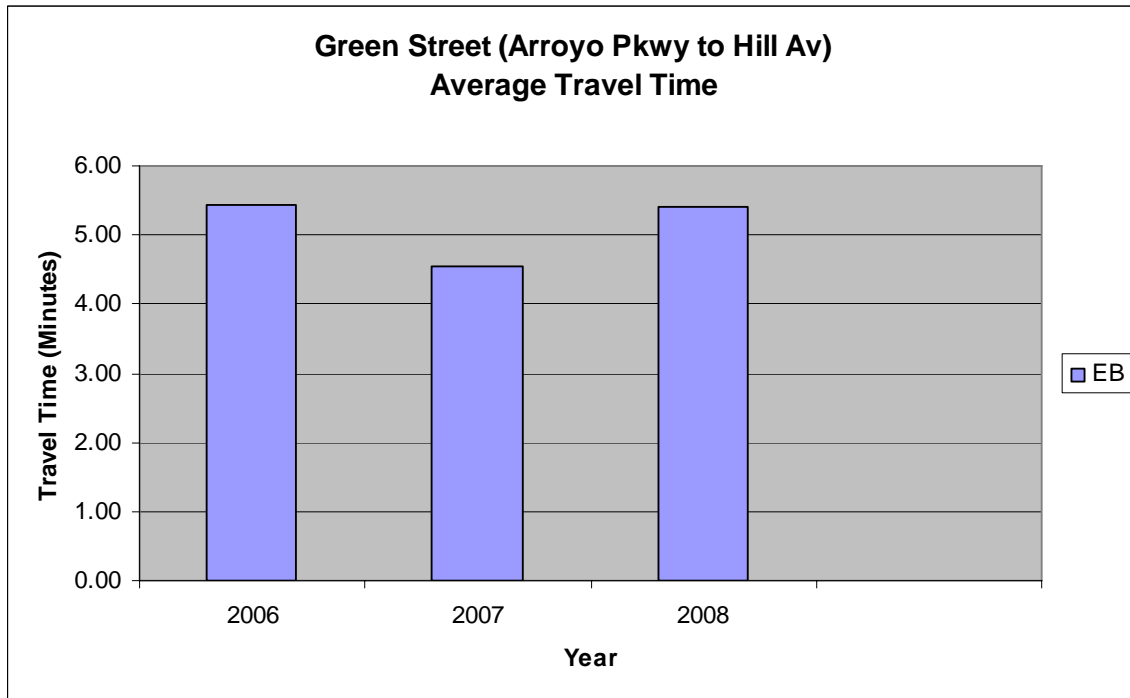




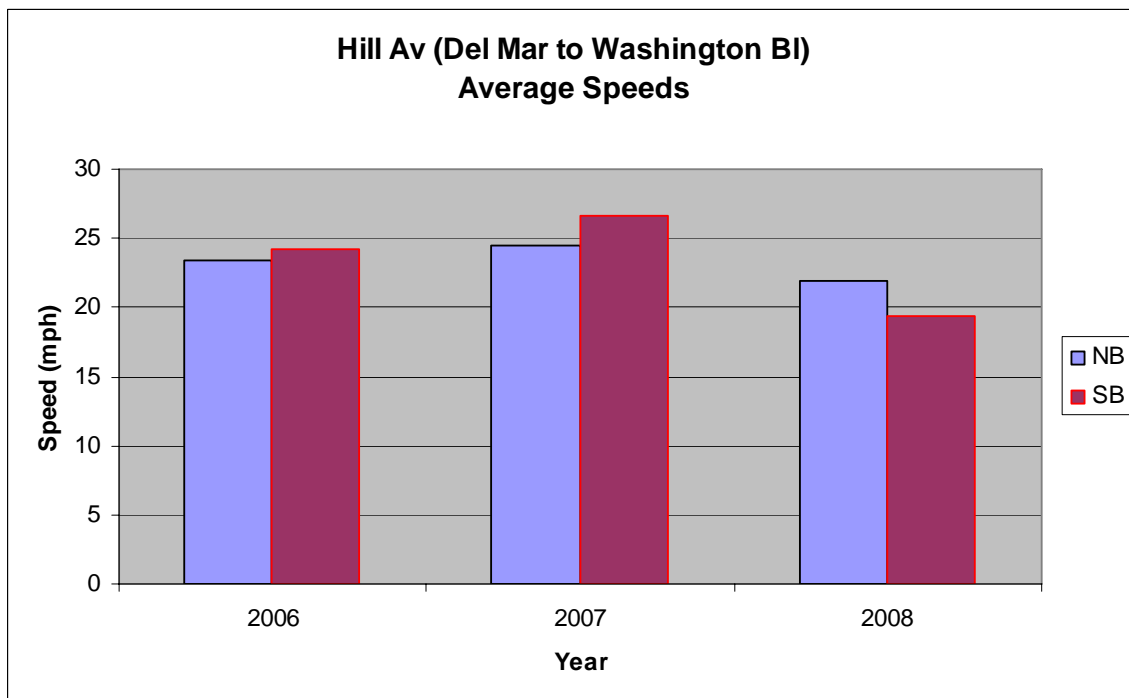
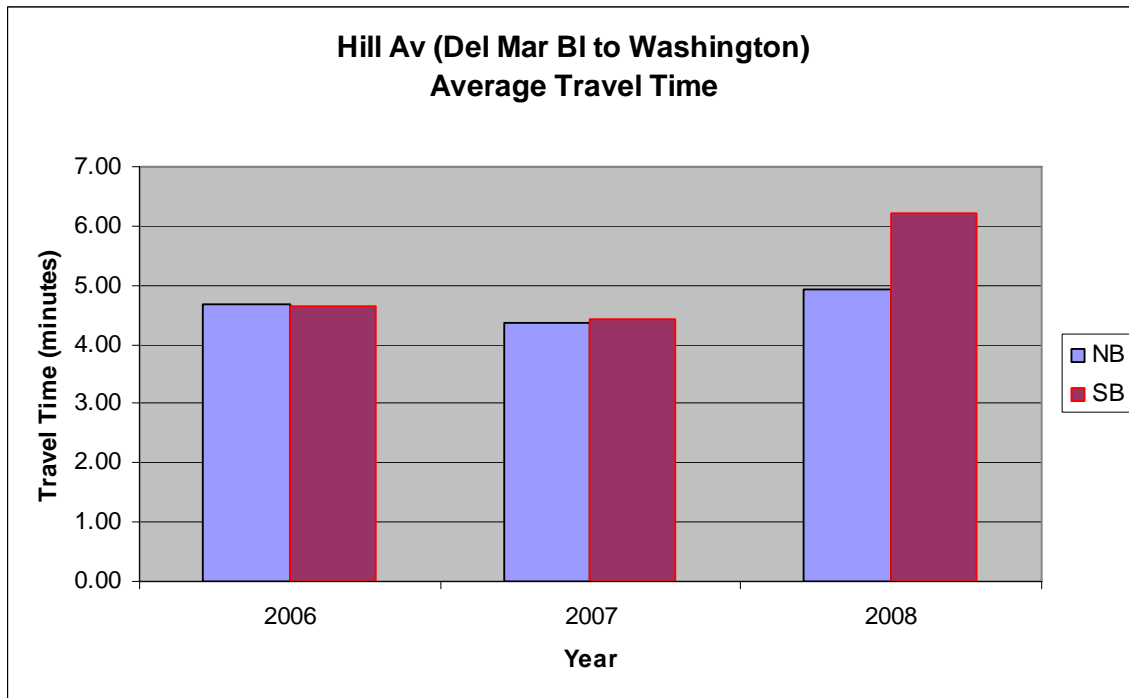
*Note: Del Mar route did not include Orange Grove to Arroyo Parkway Segment in 2006.



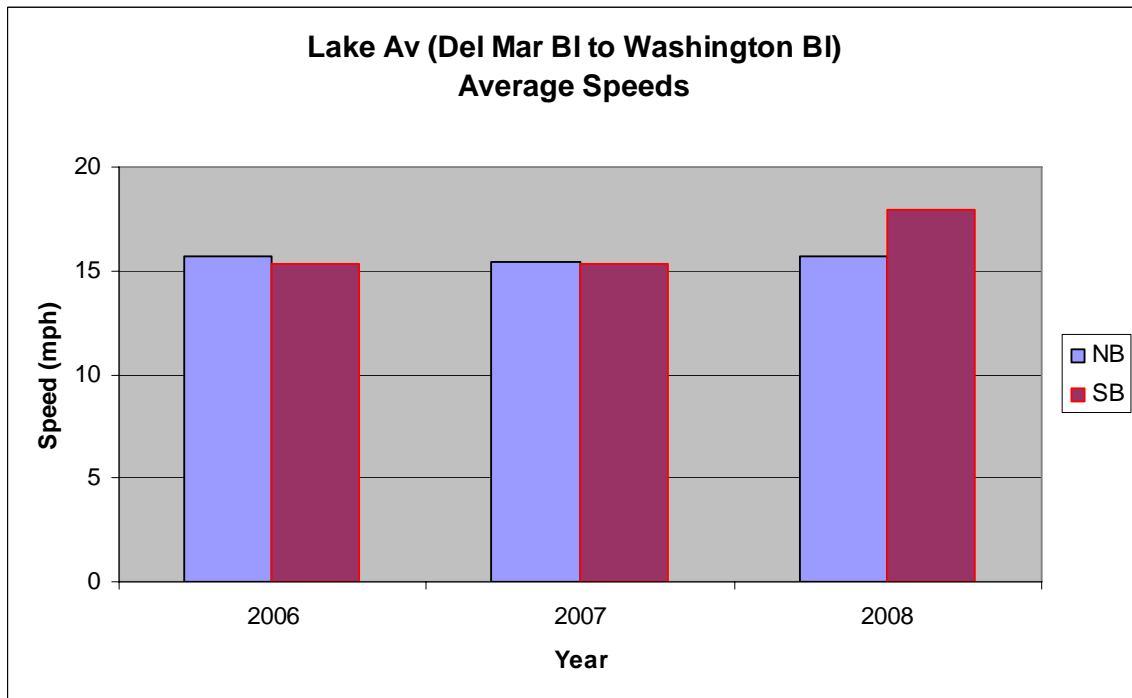
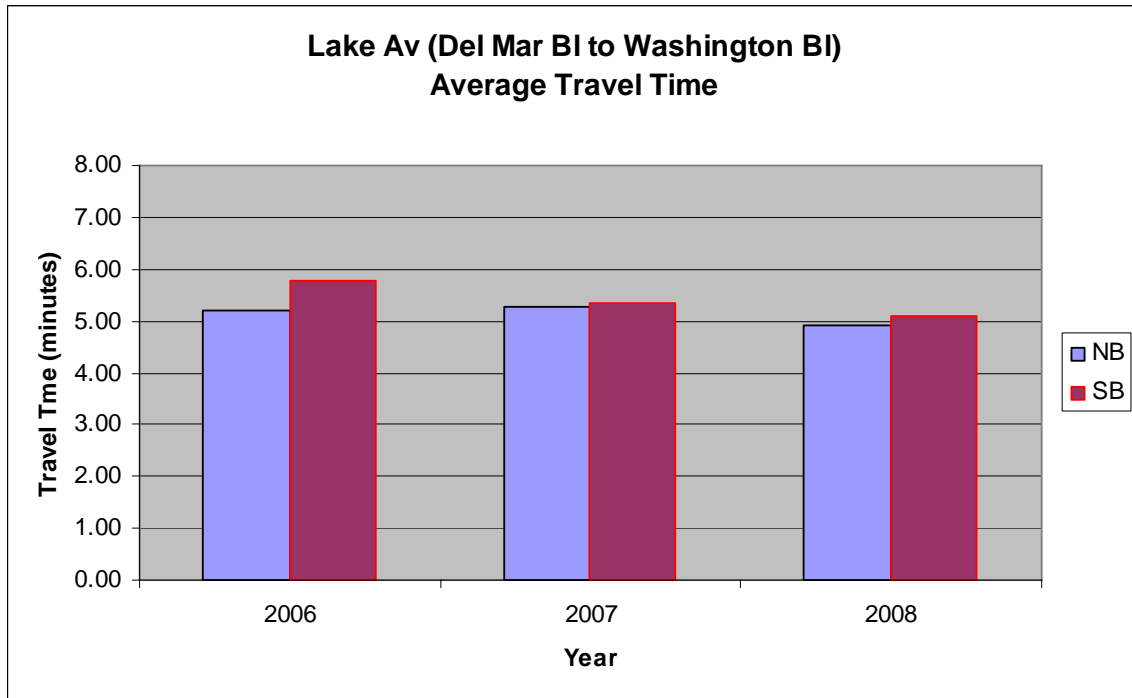


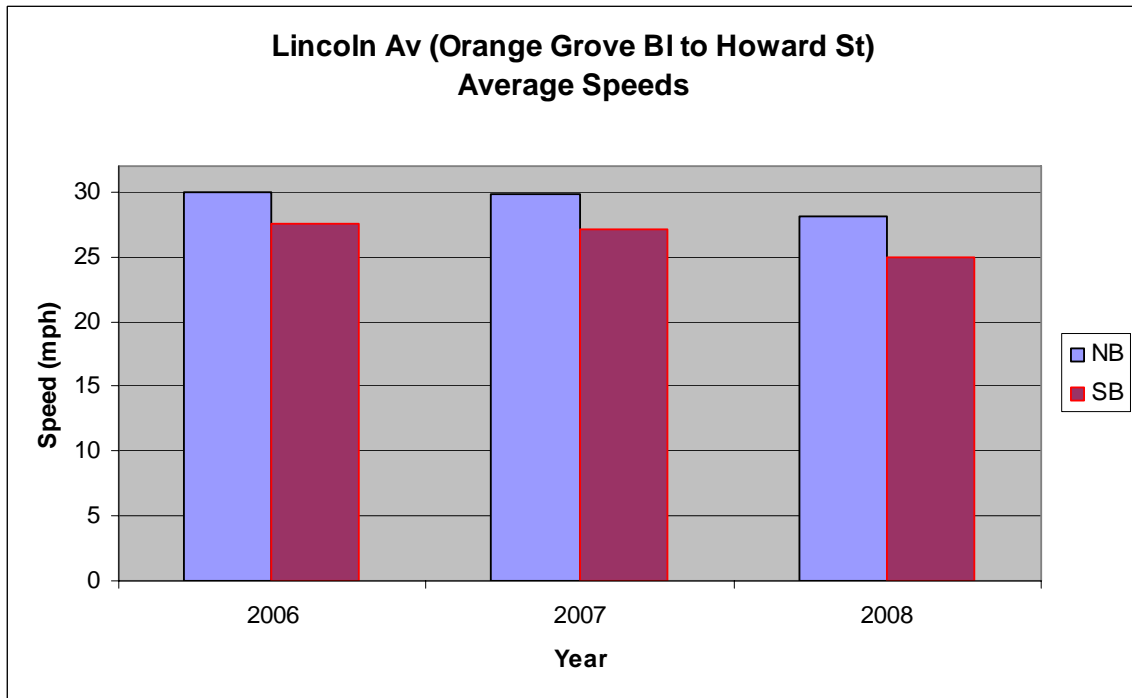
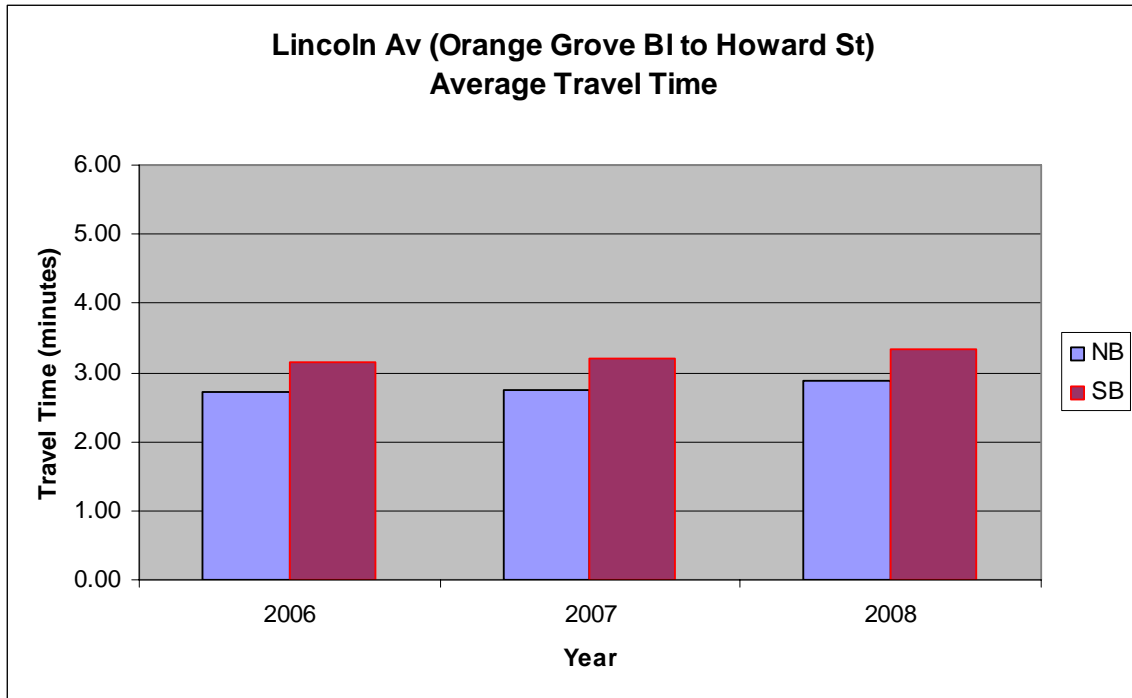


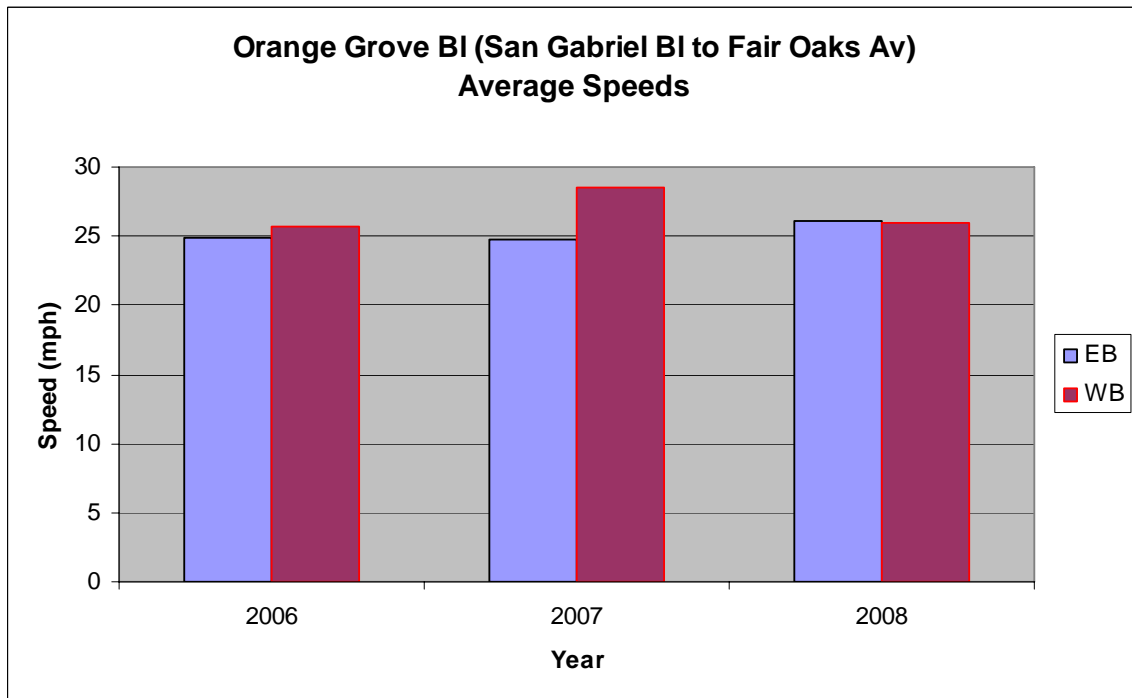
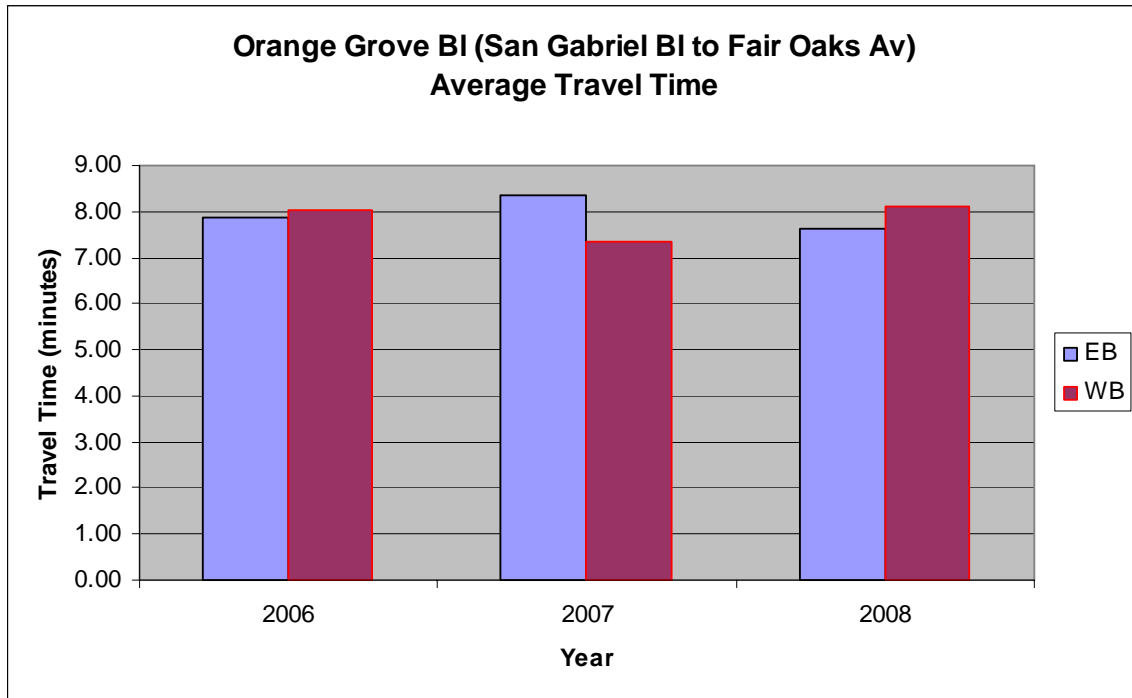
*Note: Green Street route did not include St John to Arroyo Parkway segment in 2006.

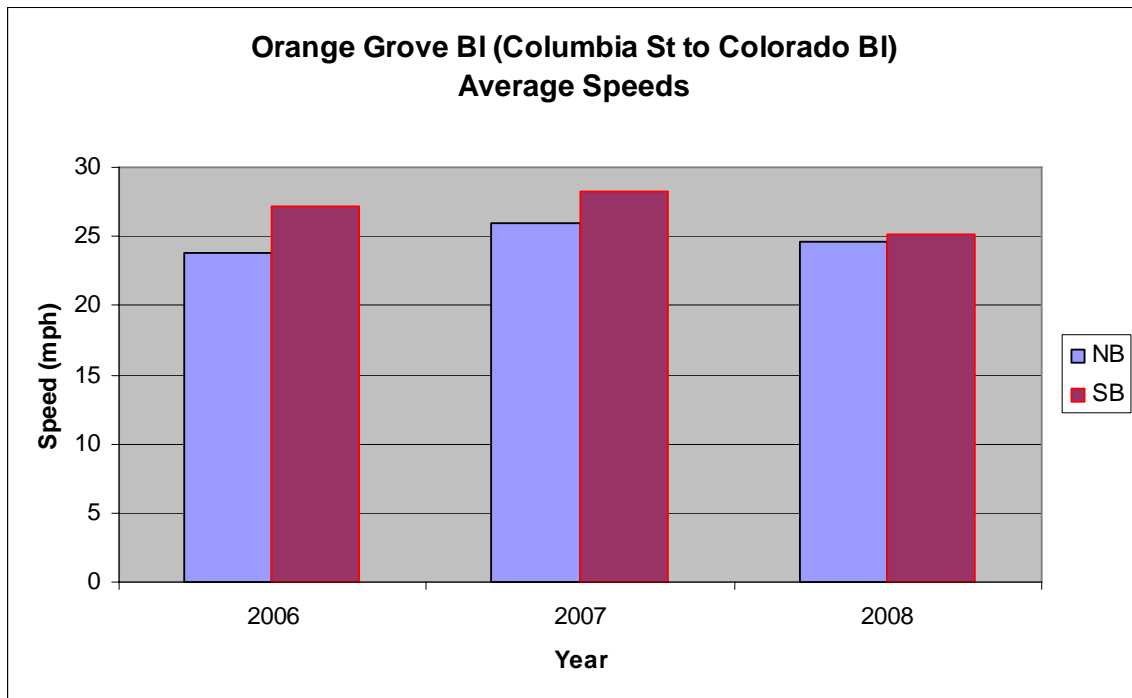
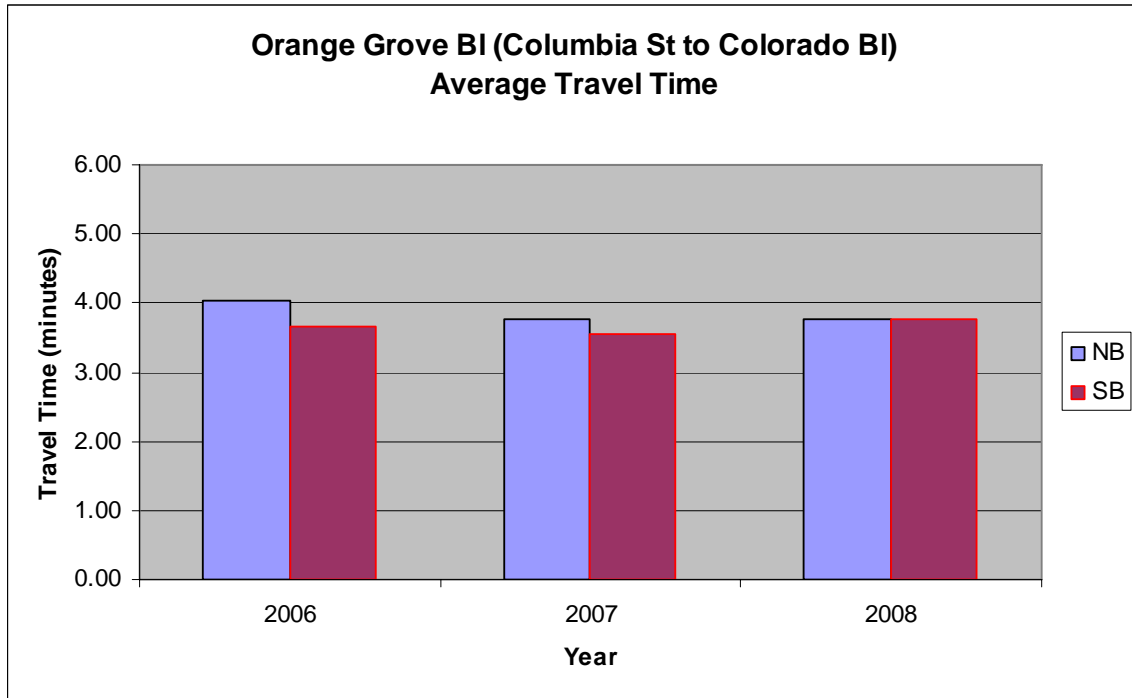


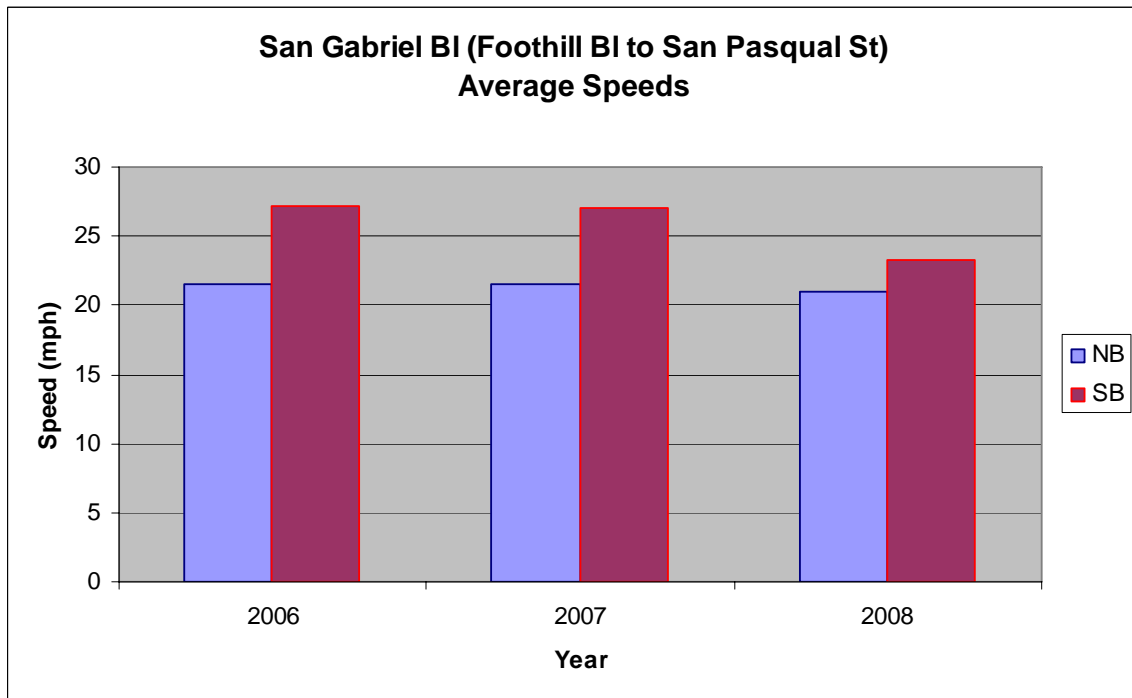
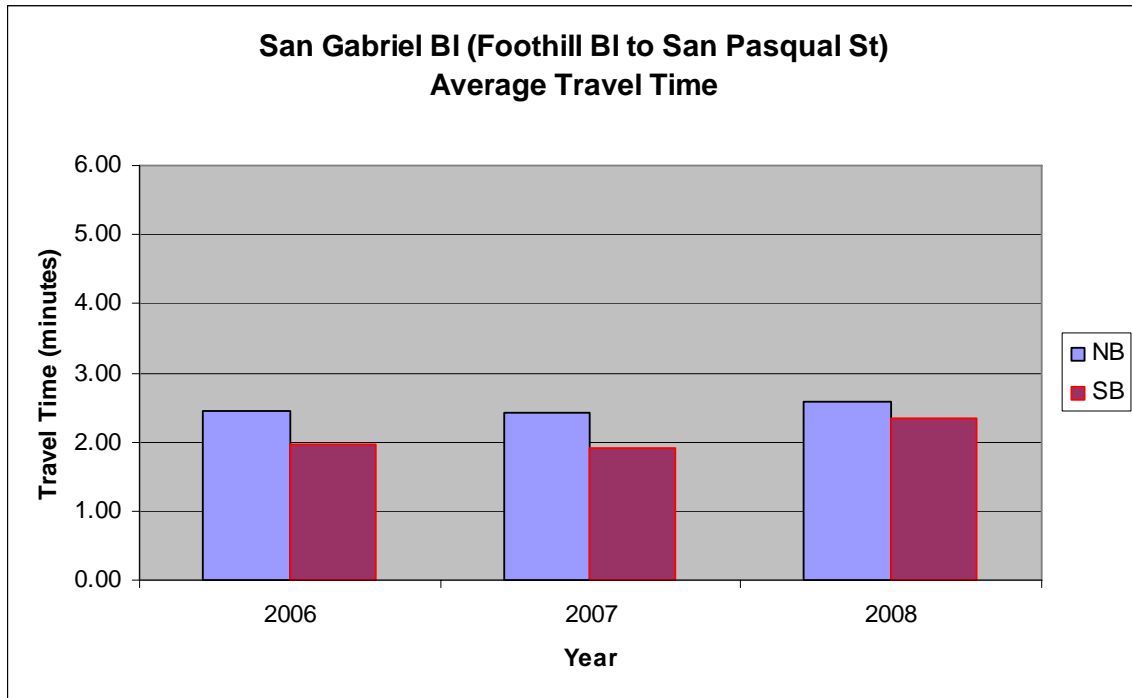
*Note: Construction along Hill Avenue contributed to delay in travel time and decrease in speeds in 2008.

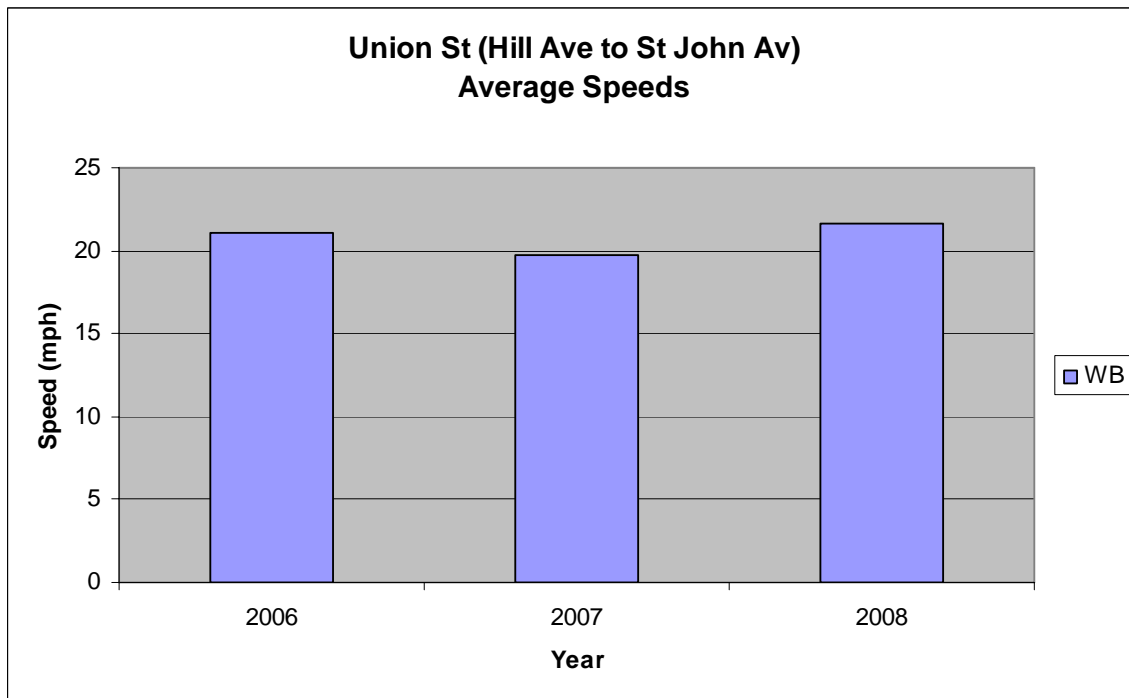
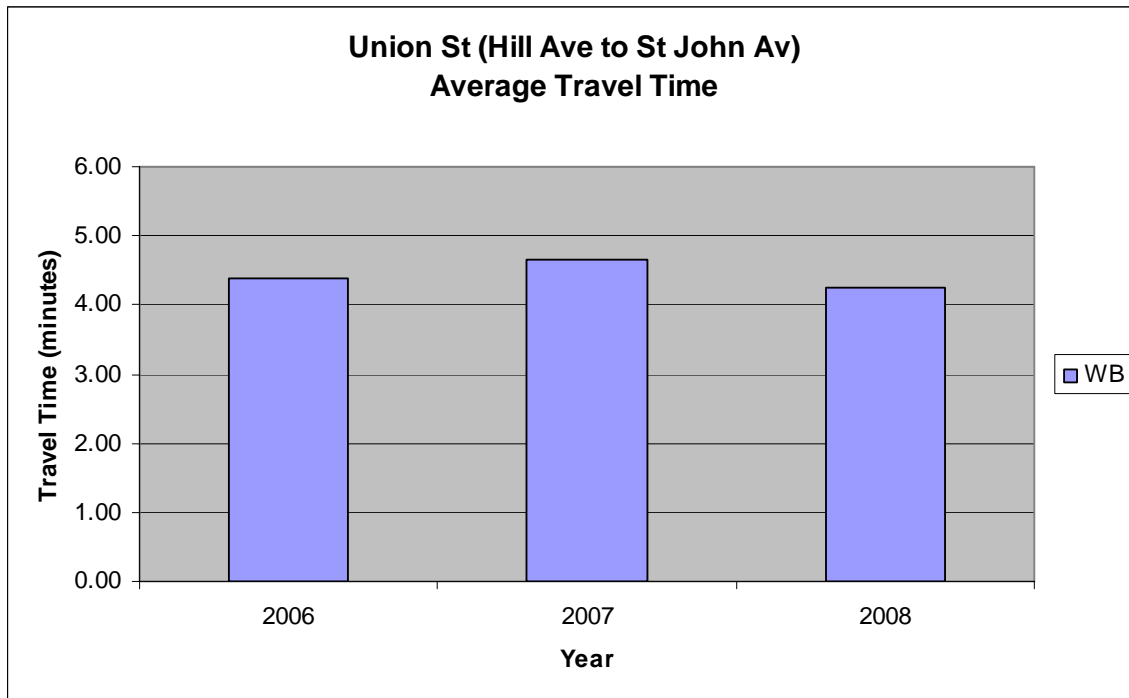




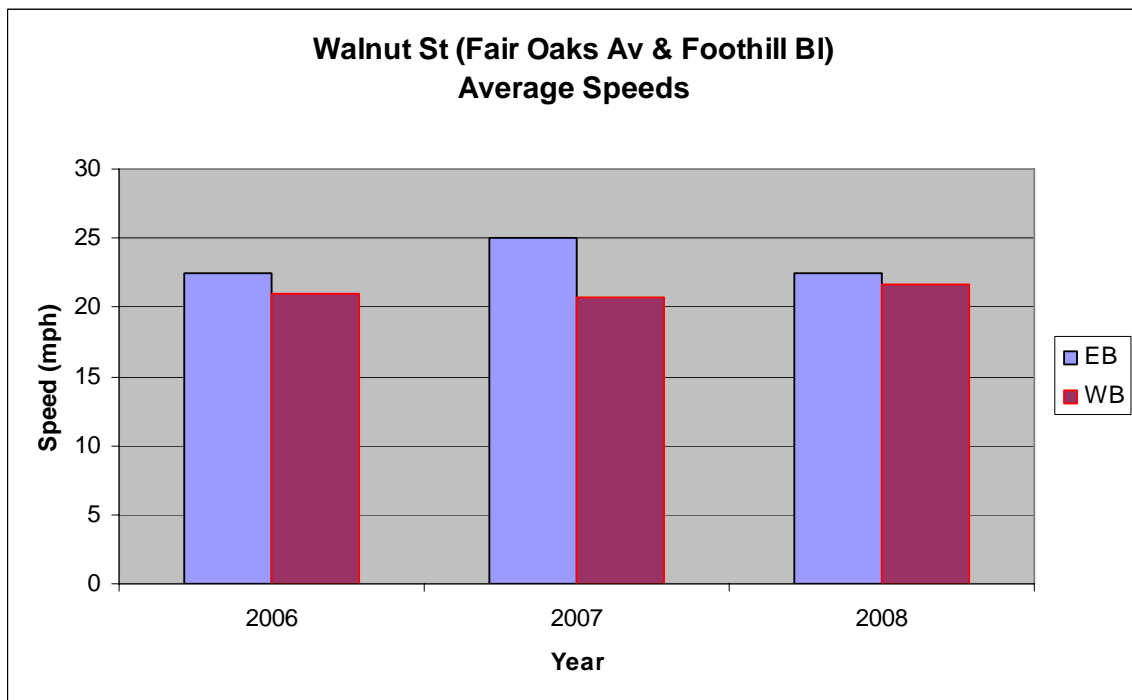
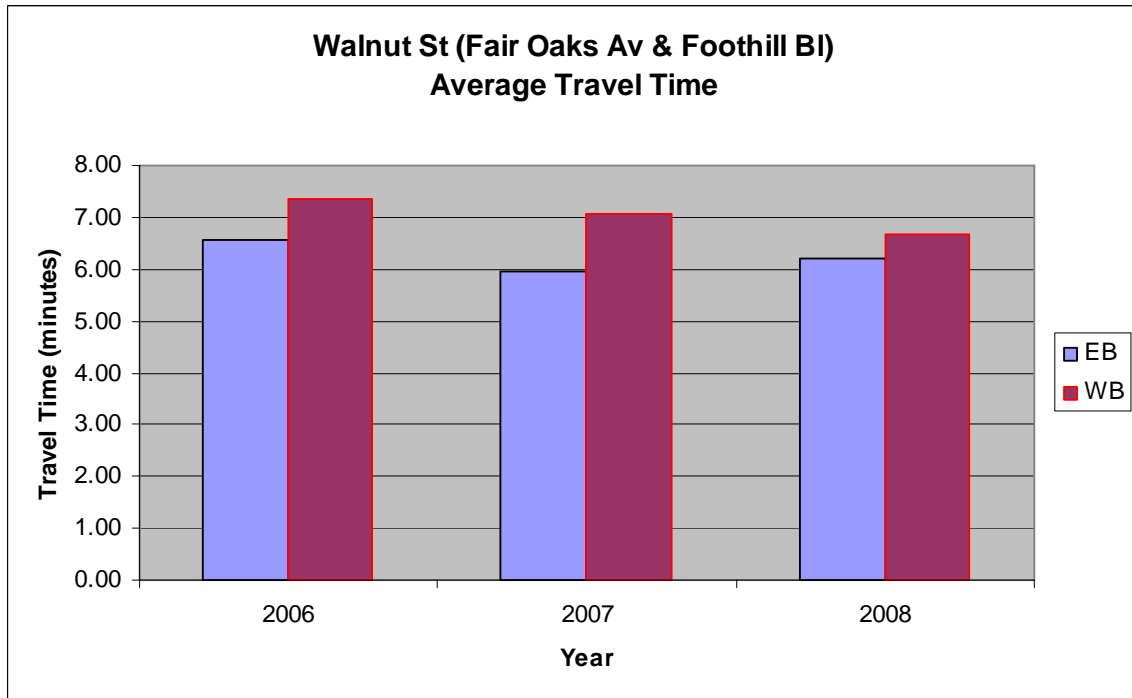


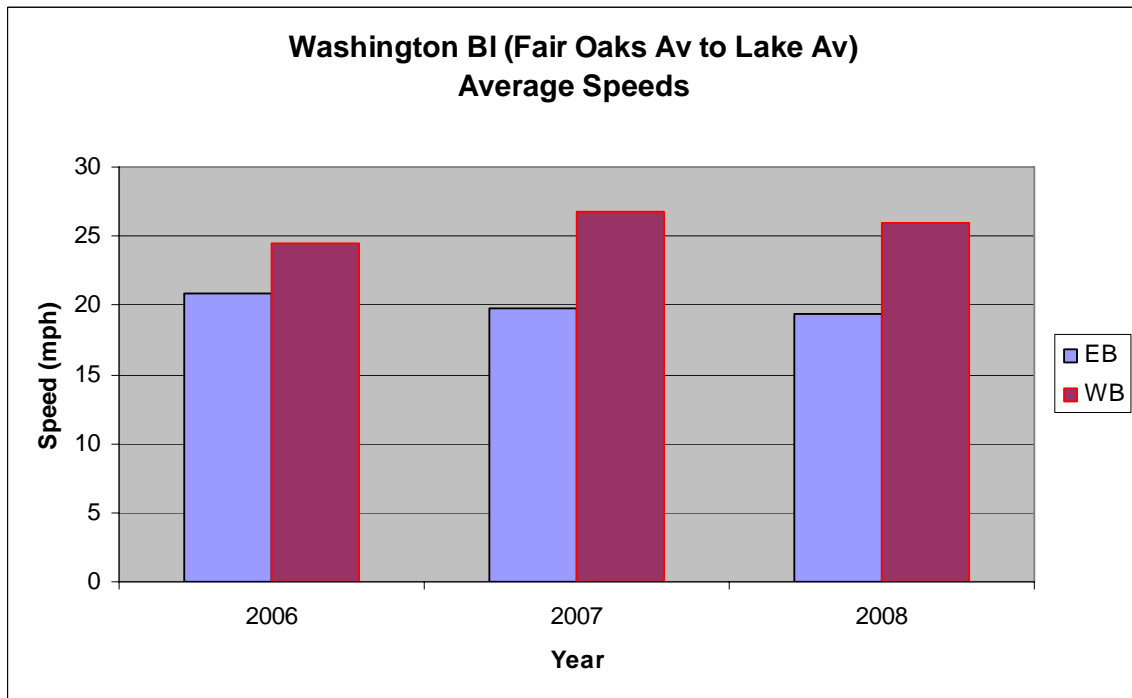
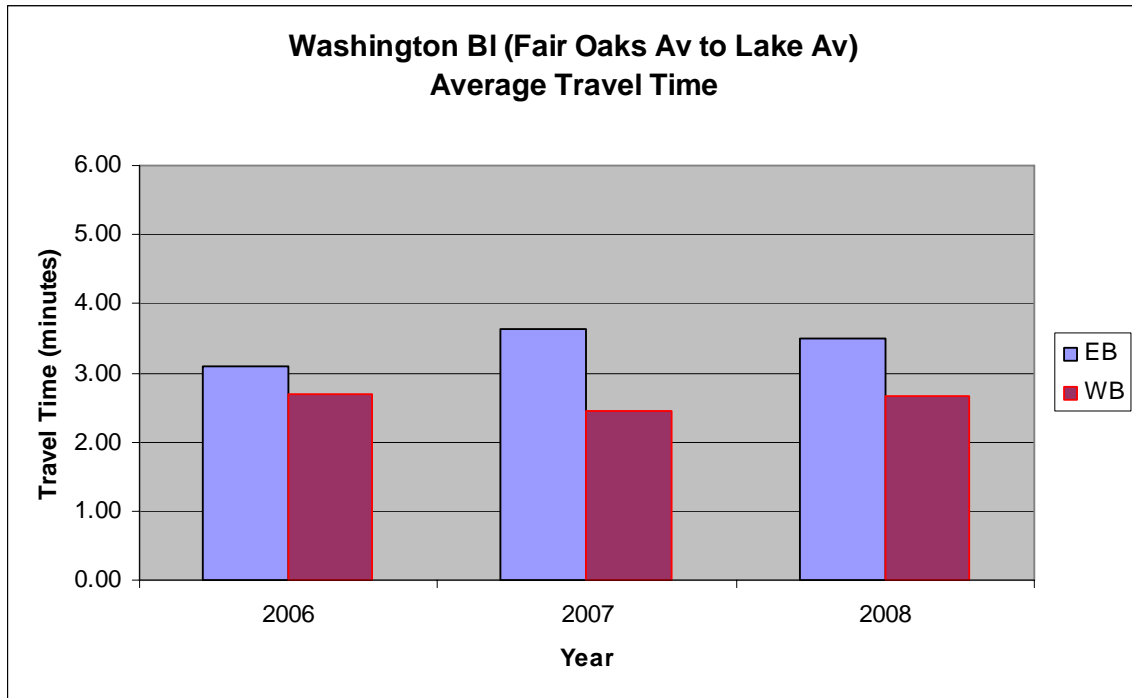






*Note: Union Street route did not include St John to Arroyo Parkway segment in 2006.





Appendix D:
Pasadena Area Rapid Transit System (ARTS)
Fiscal Year 2008 System Information



Pasadena ARTS
System Information
Fiscal Year 2008
Final Draft



January 2009



Pasadena ARTS **System Information Report**

The annual System Information Report provides an in depth look at the operating and financial performance for the fiscal year starting July 1, 2007 and ending June 30, 2008. The report documents overall service statistics such as the number of operating hours and miles and examines performance effectiveness and efficiency. Information from the most current year is compared to information from the prior year to track trends. The data used in the report has been submitted to Metro and has been reviewed by their auditors.



Pasadena ARTS

Brief Program Overview

The Pasadena Area Rapid Transit System (ARTS) is a community circulator serving the City of Pasadena since June 1994. The ARTS provides local transit service, complementing the regional transit service provided by the Metropolitan Transportation Authority (Metro) and Foothill Transit.

The ARTS service has undergone significant developments. In March 2002, the City restructured service from two routes to four routes. In June 2003, the ARTS system was again expanded to add two new routes – one connecting JPL and the west Pasadena area of Linda Vista to the Memorial Park Gold Line and the second providing coverage to East Pasadena. Another change to service included starting Route 10 at 7:00am. In July 2003, with the opening of the Gold Line, ARTS passengers began paying fares for the service.

There was another service change in late February 2005. As part of this service change, additional peak service was added to Route 20, Route 31 and Route 40 with the addition of a bus on each route. This action increased service frequency on the three routes. Service on Routes 10 and 60 were restructured. Route 10 was changed to provide service along Del Mar to Caltech and the Gold Line Allen Station. Route 60 was reconfigured to provide service to the eastern area of Del Mar with connections between the Sierra Madre Villa Gold Line station and Pasadena City College. A new route, Route 70, was implemented to provide coverage to the southwest area of the City and tie these neighborhoods to the Fillmore Gold Line station.

In Spring 2007 service changes were made to a few of the bus routes. Schedule adjustments were made to the ARTS Route 31/32 to increase the peak hour frequency for commuters traveling between the Sierra Madre Villa Gold Line Station and the New York Drive/Bradley Street employment center – including the EarthLink campus. In addition, minor schedule changes were made to the ARTS Route 51/52 to provide better bus connections for Art Center students. The ARTS Route 70 route and schedule changed as well. The Route 70 was modified to provide service to Old Pasadena from the South Orange Grove and Avenue 64 areas.

ARTS Service “Snap Shot”

Fiscal Year 2008	
Service Area:	23 Square Miles
Population based on Metro 2005 Data:	146,166
Annual Passenger Trips:	1,654,147
Annual Service Hours:	60,917
Annual Service Miles:	637,063
Total Operating Expenses:	\$4,104,965
Annual Farebox Revenue:	\$516,353
Farebox Recovery Ratio:	13%

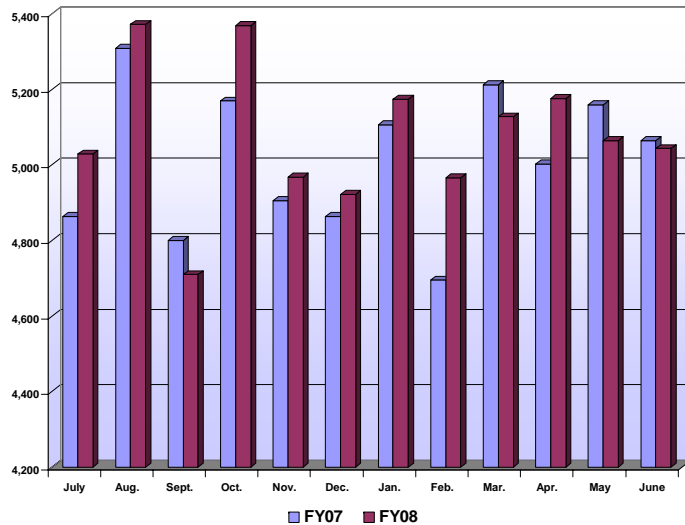
Service Productivity Indicators

Service productivity indicators are used by transit agencies to measure the effectiveness and efficiency of service that is provided. These indicators include:

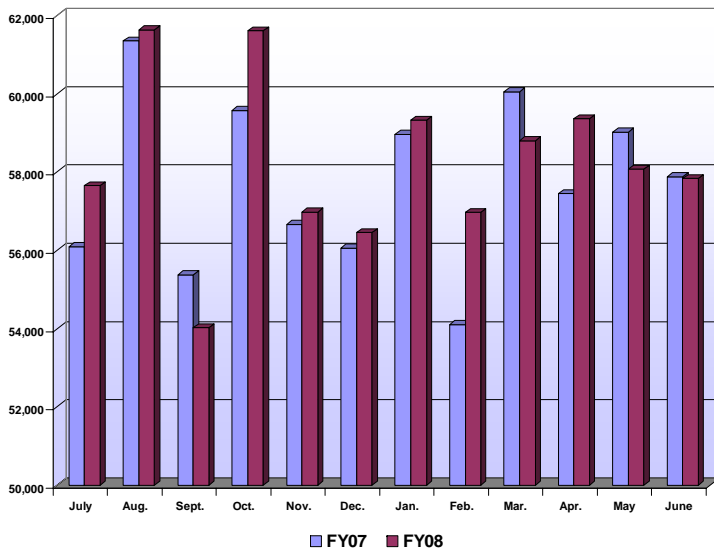
- Ridership Based
 - Growth or decrease in ridership
 - Passengers per hour
- Cost Based
 - Cost per hour
 - Cost per passenger
 - Subsidy per passenger

This report uses these productivity indicators to examine the effectiveness and efficiency of service provided during Fiscal Year 2008.

Operational Statistics: Hours & Miles



The charts to the left show the service hours and miles operated in Fiscal Years 2007 and 2008. The minor variation in service levels is due to the differences in the number of weekdays in each month. Weekday service is significantly different from weekend service both in the average daily hours and miles operated.

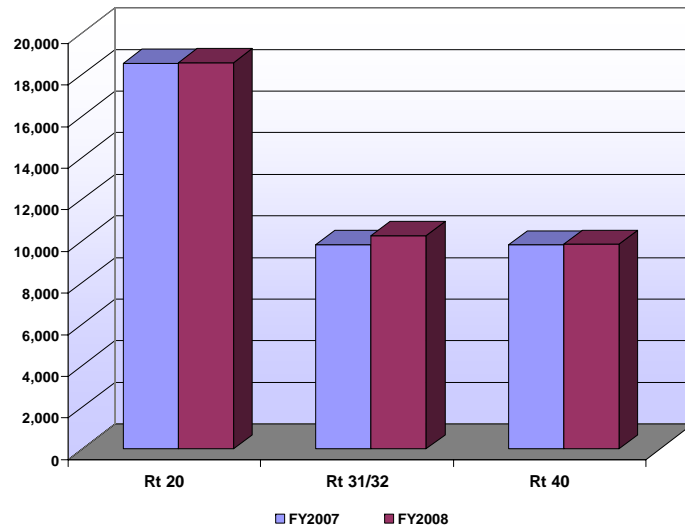


	<u>FY07</u>	<u>FY08</u>	<u>Variance</u>
Service Hours System Wide	60,151	60,917	+ 1%

	<u>FY07</u>	<u>FY08</u>	<u>Variance</u>
Service Miles System Wide	692,574	698,668	+ 1%

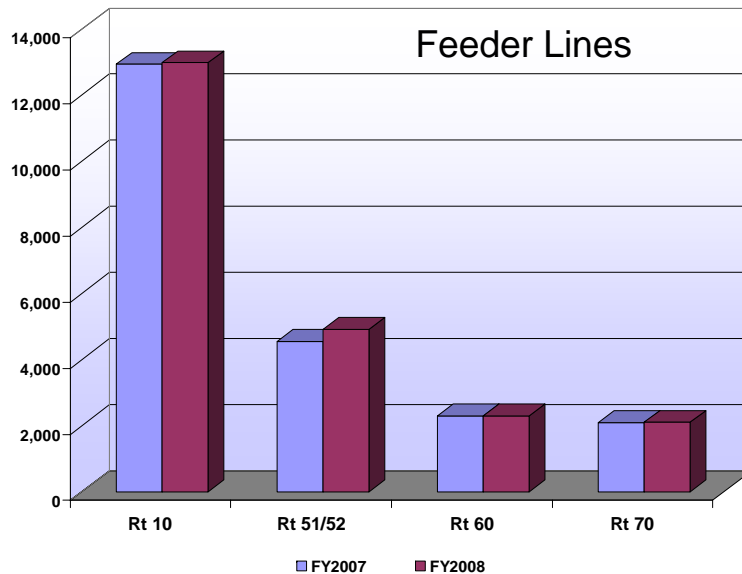
Operational Statistics: Hours

Local Lines



The charts to the left show the service hours and miles operated in Fiscal Years 2007 and 2008. The routes are broken into two categories, Local Lines and Feeder Lines. Local Lines connect major neighborhood service areas to diverse community destination centers as well as schools, shopping centers and Gold Line Stations. The Feeder Lines provide links between the business districts and Gold Line stations or link low density residential neighborhoods to the central district. Additionally several of these routes operate only during commute times (Routes 52, 60 & 70) and three don't operate on the weekends (Routes 51/52, 60 & 70).

Feeder Lines



Annual Service Hours by Route

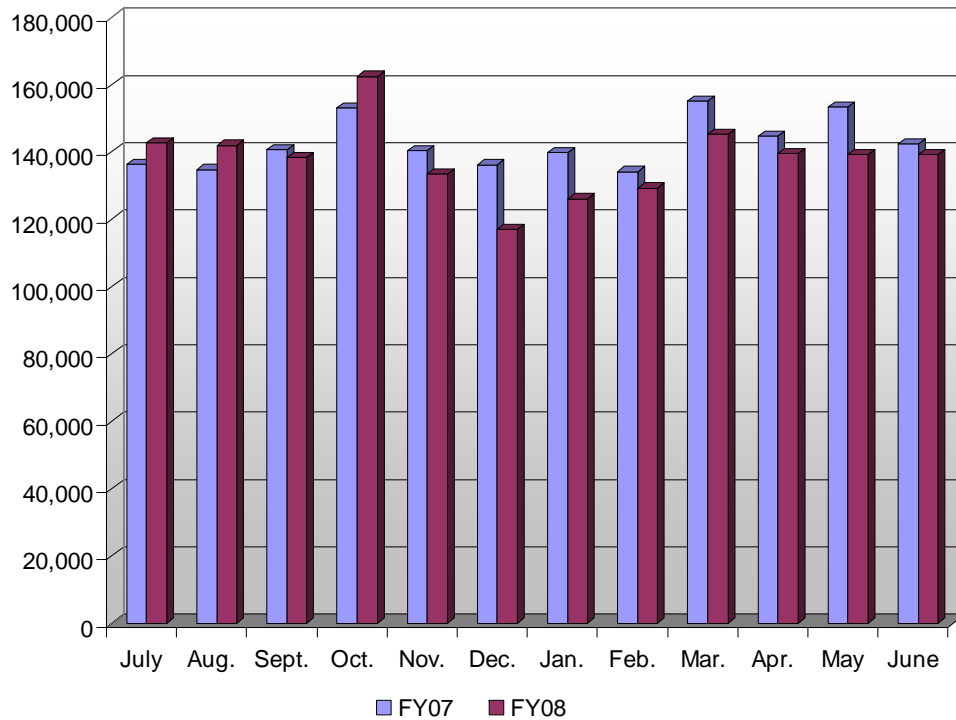
	<u>FY07</u>	<u>FY08</u>
System Wide:	60,151	60,917
Route 10	12,968	12,973
Route 20	18,567	18,569
Route 31/32	9,866	10,246
Route 40	9,845	9,832
Route 50	4,541	4,906
Route 60	2,284	2,294
Route 70	2,080	2,096

Service Productivity Indicator

**RIDERSHIP BASED
PERFORMANCE**

Ridership: System-Wide

	<u>FY07</u>	<u>FY08</u>	<u>Variance</u>
System Wide	1,710,832	1,654,147	- 3%

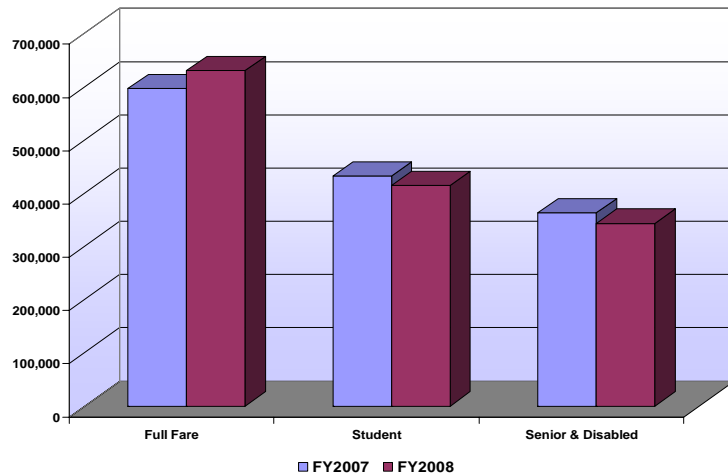


Ridership decreased overall by 3 percent in Fiscal Year 2008 compared to ridership in Fiscal Year 2007. There are several factors that may have affected ridership:

- Weather appears to have been a factor, there was significantly more rain fall during late autumn and winter than there was in the prior year. Both youth and elderly and disabled passenger groups are more likely to either not ride in the rain or, in the case of students, have someone drive them in a car.
- The Pasadena Unified School District's policy change to allow more students to attend schools closer to their homes may have also impacted student trips.

Ridership: Comparison by Fare Category

Cash Paying Passengers

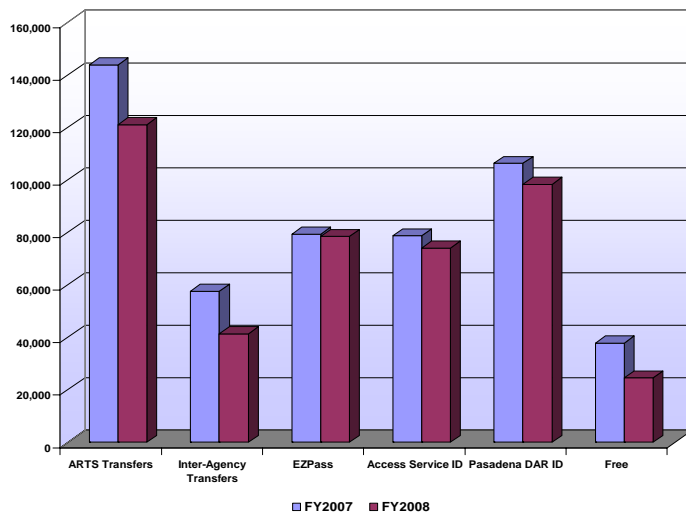


Understanding who is using the bus service is very important and the key tool for this information is the fare category of the passengers when they board the bus.

It is interesting to note that while the overall ridership dropped by three percent during the past fiscal year, the full fare passenger category showed an increase in ridership of six percent.

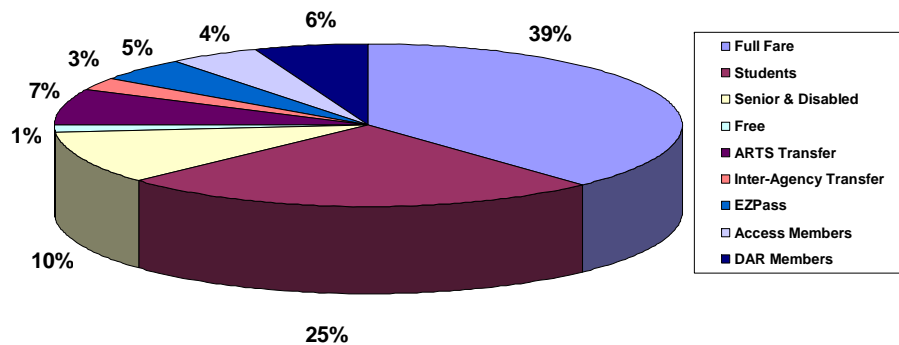
As noted in the “Other Passengers” chart to the left, ridership in these non-fare paying categories was lower in FY2008.

Other Passengers

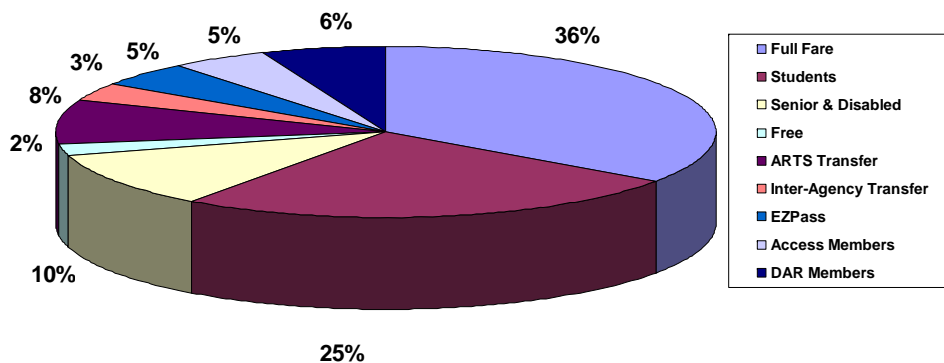


In FY2008 there were fewer passengers who board the bus from another bus, either another ARTS bus (ARTS Transfers) or another agency bus (Inter-Agency Transfer).

Ridership: Passengers by Fare Category



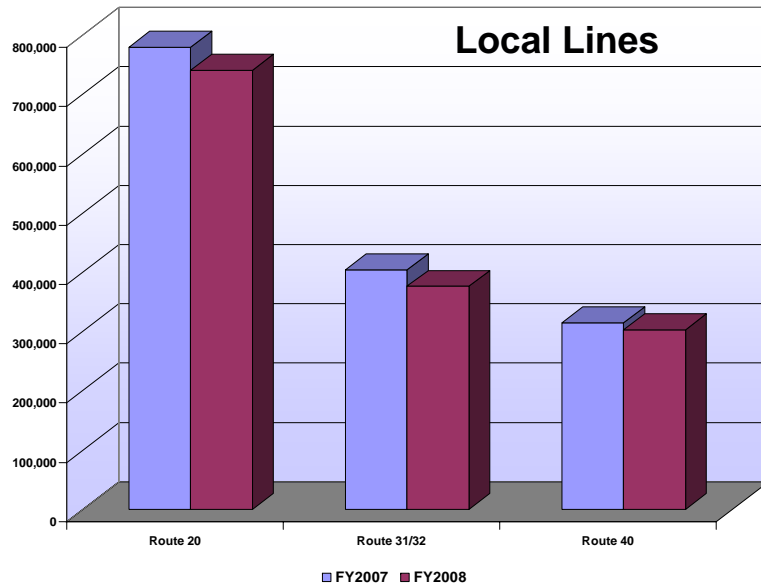
FY08



FY07

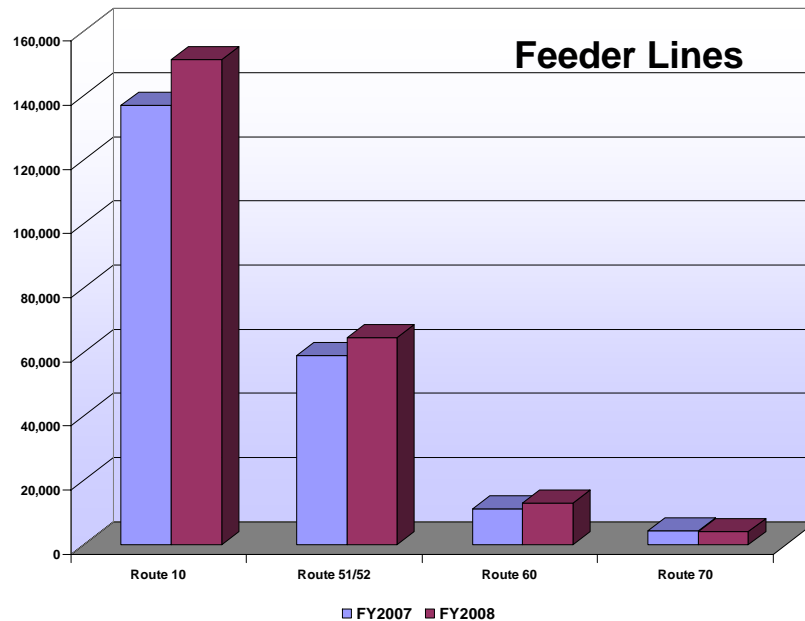
- The distribution of ridership by fare category has remained stable for the past several years as seen in the two charts to the left.
- The largest group of riders are those who pay the full fare of 50 cents. Students age six years through 12th grade comprise the second largest group of riders and pay 25 cents.
- Seniors and persons with disabilities comprise the third largest group of riders. This category includes three subsets: people who pay the 25 cents cash fare, people with disabilities who board showing an Access Service card membership and Pasadena Dial-A-Rider members.
- The fourth largest category are people who board the ARTS bus with a transfer from either another ARTS bus or another agency bus (Inter-Agency Transfer) such as Metro, Foothill Transit, or Montebello Bus Lines.

Ridership: Comparison by Route



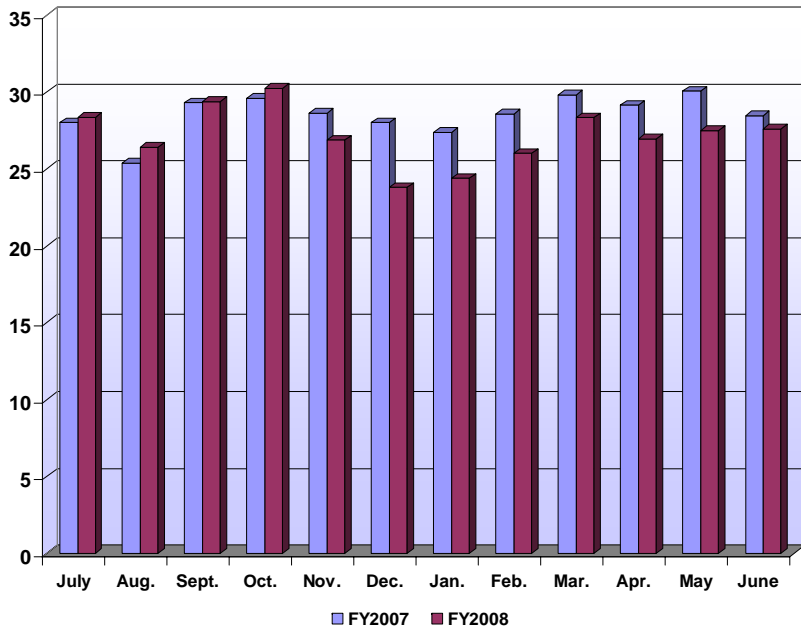
The overall number of passengers using each route provides an important look at how well a route is used. Pasadena ARTS routes are broken into two categories, Local Lines and Feeder Lines. Local Lines connect major neighborhood service areas to diverse community destination centers as well as schools, shopping centers and Gold Line Stations. The Feeder Lines provide links between the business districts and Gold Line stations or link low density residential neighborhoods to the central district. Additionally several of these routes operate only during commute times (Routes 52, 60 & 70) and three don't operate on the weekends (Routes 51/52, 60 & 70).

The Local Lines, Routes 20, 31/32 and 40, are carry the majority of the ridership. Ridership on these lines did decrease last year. Ridership on Route 20 was 5 percent lower; ridership on Routes 31/32 was 7 percent lower; and ridership on Route 40 was 4 percent lower.



It is interesting to note that while the ridership on the Local Lines dropped, ridership on the Feeder Lines increased. Route 10 had a 10 percent increase; Routes 51/52 also had an increase of 10 percent and Route 60 had a 15 percent increase. Unfortunately Route 70 had a decrease of 6 percent.

Ridership: Passengers Per Hour



One measurement of service effectiveness is the number of passengers carried per service hour. A comparison of the number of passengers per hour for the last two years is shown on the chart to the left, with details displayed in the table below.

While there was a 3 percent decrease in the overall ridership, the system wide average passenger an hour decreased 7 percent.

	<u>FY07</u>	<u>FY08</u>	<u>Variance</u>
System Wide:	29	27	- 07%
Route 10	11	12	+09%
Route 20	42	40	-05%
Route 31/32	41	37	-10%
Route 40	32	31	-03%
Route 50	13	13	+0%
Route 60	5	6	+20%
Route 70	2	2	+0%

Ridership: Passengers Per Hour by Service Line

The Department of Transportation has established ridership productivity measures for the Pasadena ARTS service. The standard and the actual passengers per service hour statistics are shown below.

For the ARTS, two standards have been used, one for “Local Lines” and one for “Feeder Lines”. The local lines are Routes 20, 30 (31/32) and 40. These are the lines that connect major neighborhood service areas to diverse community destination centers as well as schools, shopping centers and Gold Line Stations. Routes 10, 51/52, 60 and 70 are Feeder Lines as they either provide links between the business districts and Gold Line stations (Route 10) or link low density residential neighborhoods to the central district (Routes 51/52, 60 and 70). Additionally two of these routes operate only during commute times and don’t operate on the weekends.

FY 2006	Local Lines	Feeder Lines	Total System
Standard	26	10	
1 st Quarter	31	9	23
2 nd Quarter	32	8	23
3 rd Quarter	32	8	23
4 th Quarter	35	10	26
Year Total	33	9	24

FY 2007	Local Lines	Feeder Lines	Total System
Standard	26	10	
1 st Quarter	38	10	28
2 nd Quarter	40	10	29
3 rd Quarter	40	10	29
4 th Quarter	40	10	29
Year Total	39	10	29

FY 2008	Local Lines	Feeder Lines	Total System
Standard	26	10	
1 st Quarter	38	10	28
2 nd Quarter	37	10	27
3 rd Quarter	35	11	26
4 th Quarter	37	11	27
Year Total	37	10	27

Performance: Agency Review

Agency	FY06 Passengers per Hour	FY07 Passengers per Hour	FY08 Passengers per Hour
Alhambra	29	28	32
Baldwin Park	17	14	12
Carson	19	20	22
Cerritos on Wheels	8	9	10
Cudahy	49	41	37
El Monte	26	26	27
Glendale Bee	28	25	24
Huntington Park	21	20	15
Monterey Park Spirit	21	24	24
Palos Verde	9	10	11
Pasadena ARTS	24	29	27
West Covina Go West	11	9	8
West Hollywood	8	7	6

The City of Pasadena participates in the Metro county-wide incentive program for local fixed-route transit services. The chart to the left shows how Pasadena compares to other agencies operating in this program.

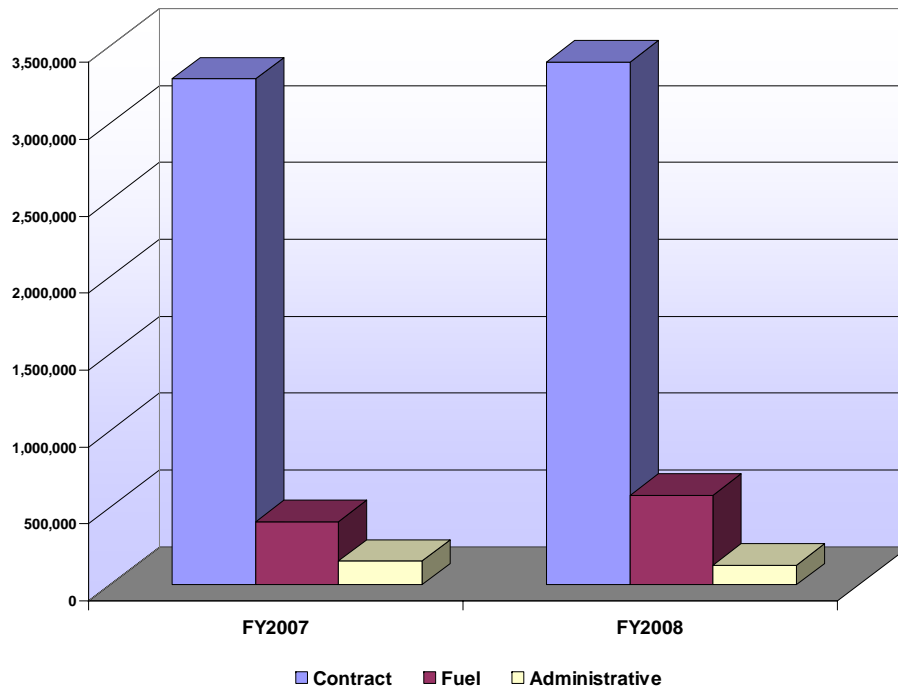
Service Productivity Indicator

COST BASED PERFORMANCE

Operating Costs

Annual Costs

	<u>FY07</u>	<u>FY08</u>	<u>Variance</u>
Contract	\$3,286,643	\$ 3,397,549	+ 3 %
Fuel	408,710	580,156	+ 42 %
Administrative	<u>153,627</u>	<u>127,260</u>	- 17 %
Total Costs	\$3,848,980	\$ 4,104,965	+ 7 %



The operating costs for the ARTS program are broken into three cost centers: 1) contract costs (service contract and other contracts), 2) fuel costs, and 3) administrative costs.

Contract costs are the highest cost center for the ARTS program. In FY08 there was a three percent increase in costs in this area. This has been due to the stability of the service contract with First Transit.

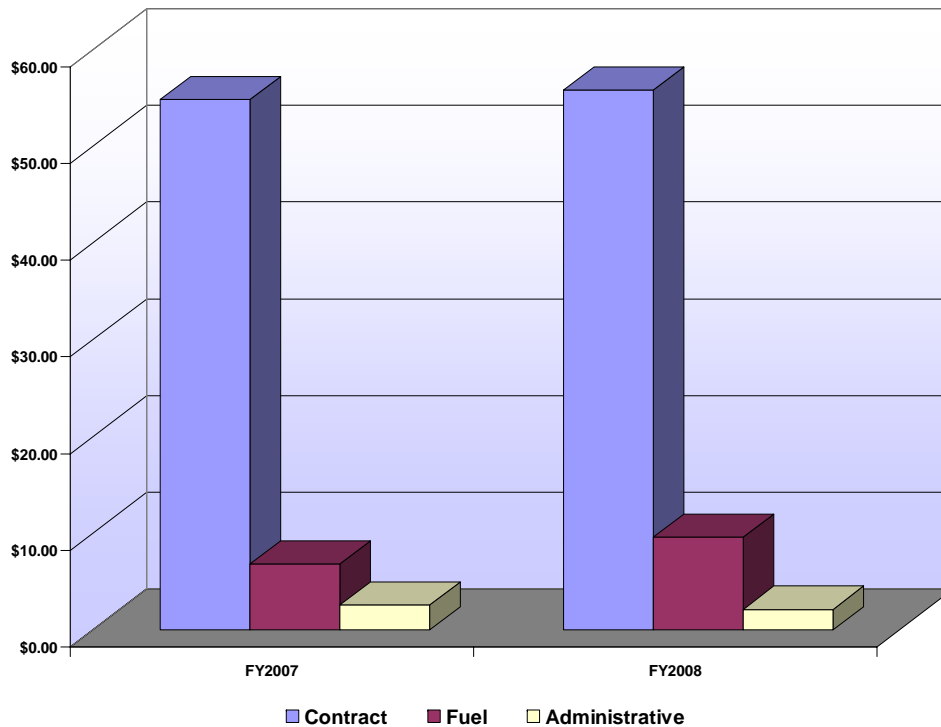
The increase in fuel costs was significant this year, reflecting the trend in the general economy.

Administrative costs decreased due to several factors: reduction in printing costs activities that resulted in higher costs and allocation of personnel costs,

Operating Costs: Cost per Hour

	<u>FY07</u>	<u>FY08</u>	<u>Variance</u>
Contract	\$54.78	\$55.77	+ 2%
Fuel	6.81	9.52	+ 40%
Administrative	<u>2.56</u>	<u>2.09</u>	- 18%
Total Cost	\$64.16	\$67.39	+ 5%

In FY08, overall system operating costs increased by 7%; however, the increased numbers of hours operated off-set this resulting in a cost per hour increase of only 5%. The impact of the increasing cost of fuel can be seen in this performance indicator.



Operating Costs: Cost Per Passenger

	<u>FY07</u>	<u>FY08</u>	<u>Variance</u>
Cost per Passenger	\$ 2.25	\$ 2.48	+ 10%
Revenue per Passenger	.26	.31	+ 18%
Subsidy per Passenger	\$ 1.99	\$ 2.17	+ 9%
Farebox Recovery	12%	13%	+ 7%

The increase in operating costs per passenger trip is a result of the decrease in ridership of three percent and the increase in operating costs of seven percent.

The increase in revenue per passenger reflects the increase ridership in the full fare passenger category and the decrease in ridership in the fare categories where no fare is paid.

Farebox recovery represents the amount of operating costs recovered from passenger fares.

Operating Costs: Cost Per Route

Annual Cost by Route		
	FY2007	FY2008
System Wide	\$3,848,980	\$4,104,965
Route 10	829,805	874,201
Route 20	1,188,077	1,251,294
Route 31/32	631,312	690,439
Route 40	629,968	662,541
Route 50	290,572	330,597
Route 60	146,150	154,584
Route 70	133,096	141,241

The chart to the left shows the total annual cost allocated by route based on the percentage of hours operated on each route. These costs include fixed and variable costs. The fixed costs would be things such as overhead or management costs for both the contractor and the City. The variable costs would include things such as bus operator pay, fuel costs and vehicle maintenance costs. Based on this, if a route is considered for elimination to save costs, not all of the costs are saved, the fixed costs would be reallocated to the other routes.

FY08 Performance: Agency Review

Agency	Service Hours Operated	Cost per Hour	Cost per Passenger	Subsidy per Trip	Farebox Recovery Ratio
Alhambra	16,263	47.88	1.52	1.27	16%
Baldwin Park	24,508	40.54	3.49	2.89	17%
Carson	29,687	59.41	2.67	2.38	11%
Cerritos on Wheels	25,848	47.35	4.97	4.56	8%
Cudahy	3,070	43.38	1.17	1.17	0%
El Monte	23,593	64.52	2.35	1.99	16%
Glendale Bee	90,567	74.07	3.12	2.87	8%
Huntington Park	20,994	38.13	2.58	2.23	14%
Monterey Park	18,646	67.59	2.81	2.68	5%
Palos Verde Transit	18,454	83.62	7.58	5.91	22%
Pasadena ARTS	60,917	67.39	2.48	2.17	13%
West Covina	20,397	61.97	7.10	6.87	3%
West Hollywood	10,812	68.44	11.07	11.04	0.3%

The City of Pasadena participates in the Metro county-wide incentive program for local fixed-route transit operators.

The chart to the left shows how Pasadena compares in FY08 to other agencies operating in this program.

Of the 13 operators included in this review, Pasadena is the second largest in terms of the number of hours operated: 60,917, or 13% of all hours for this group of operators. Glendale at 90,567 hours is the largest and has 19% of the total hours.

FY07 Performance: Agency Review

Agency	Cost per Hour	Cost per Passenger	Subsidy per Trip	Farebox Recovery Ratio
Alhambra	45.80	1.62	1.38	15%
Baldwin Park	36.85	2.72	2.19	20%
Carson	55.32	2.71	2.43	10%
Cerritos on Wheels	48.32	5.44	5.01	8%
Cudahy	41.94	1.03	1.03	0%
El Monte	61.27	2.32	1.96	18%
Glendale Bee	69.16	2.72	2.48	9%
Huntington Park	42.13	2.11	1.82	14%
Monterey Park Spirit	61.26	2.57	2.40	6%
Palos Verde Transit	78.87	8.24	6.65	19%
Pasadena ARTS	63.99	2.25	1.99	12%
West Covina	53.80	5.83	5.58	4%
West Hollywood	64.36	9.03	9.00	4%

The City of Pasadena participates in the Metro county-wide incentive program for local fixed-route programs. The chart to the left shows how Pasadena compares in FY07 to other agencies operating in this program. The data is from a November 2007 report and may change following a complete audit.

The cost per passenger for each system relies on the performance of each operator in generating ridership.

The subsidy per trip relies on the number of passengers, the established fare and the average fare paid by each rider. The greater the number of discounts given to various fare categories, i.e., students, seniors, etc., the lower the average fare is in relation to the base fare.

Farebox recovery represents the amount of operating costs recovered from passenger fares.

FY06 Performance: Agency Review

Agency	Cost per Hour	Cost per Passenger	Subsidy per Trip	Farebox Recovery Ratio
Alhambra	44.02	1.51	1.27	16%
Baldwin Park	36.85	2.18	1.80	17%
Carson	58.38	3.02	2.73	9%
Cerritos on Wheels	48.27	5.94	5.47	8%
Cudahy	43.58	.89	.89	0
El Monte	59.39	2.25	1.88	17%
Glendale Bee	69.67	2.51	2.37	5%
Huntington Park	41.79	2.00	1.73	14%
Monterey Park Spirit	60.91	2.85	2.70	6%
Palos Verde Transit	73.55	8.25	6.67	19%
Pasadena ARTS	67.06	2.82	2.54	10%
West Covina	42.85	3.98	3.71	7%
West Hollywood	59.32	7.93	7.89	1%

The City of Pasadena participates in the Metro county-wide incentive program for local fixed-route programs. The chart to the left shows how Pasadena compares in FY06 to other agencies operating in this program.