

Results of Video Survey for the
Metrolina Regional Model - External Travel Survey
presented by Jeffrey Woodson to NATMEC 2002
Advanced Travel Time & OD Techniques
on May 13, 2002



Metrolina Regional Model – External Travel Survey

- A. Participating Agencies and Firms
- B. Objectives of the Study
- C. Video-based Survey Procedures
- D. OD and Travel Time Results



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Participating Agencies and Firms

- A. City of Charlotte, NC
- B. North Carolina DOT
- C. South Carolina DOT
- D. Transfo
- E. The Louis Berger Group
- F. Titan Atlantic



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Objectives

- A. Develop travel forecasting model for large region
- B. Compile data for trip generation, trip distribution, mode split, and trip assignment
- C. Conduct data collection based on priorities and resources available
- D. Collect as much data as operationally feasible



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Video-based Survey Procedures

- A. Video cameras “capture” license plates
- B. License plates “processed” using software
- C. License plates matched between survey sites
- D. Traffic counts used to expand survey results
- E. Travel times applied to classify internal/
external or through trips



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Reasons for Selecting Video Procedures

- A. Counts, speeds, and license plates known for same time period
- B. Data available in 15-minute increments
- C. All data collected on the same day
- D. Very accurate & robust data base ...



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Video Image of License Plate



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Video Data Collection



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Video Data Processing



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License Plate Reading

	PLATE IMAGE
	SEPARATED CHRS
	CHOSEN FONT
	BEST LETTERS
	BEST DIGITS
	PLATE



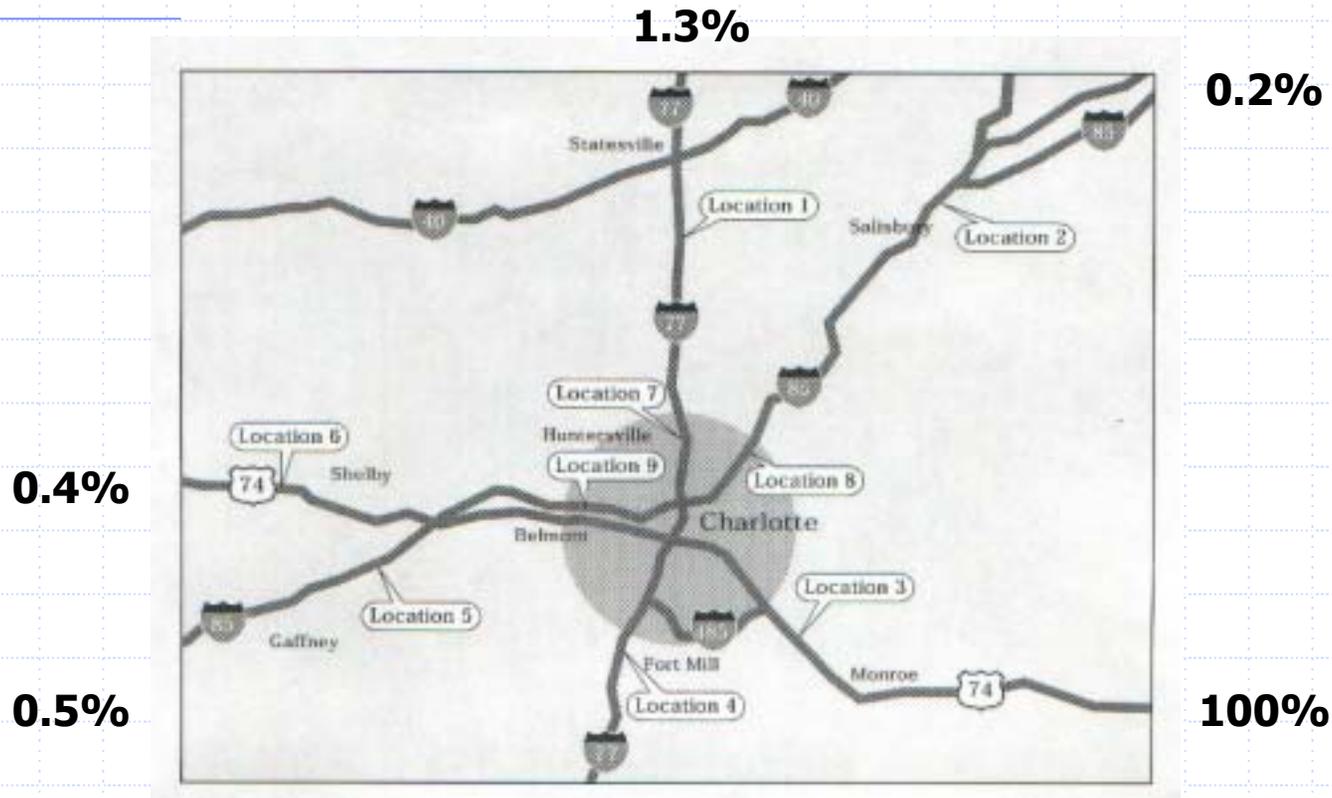
License Plate Reviewing

Log File Entry Editor

Plate	State	Time	Date	Ptag
JSL03H		10330739	19051998	Belway 8
5579WV		10331076	19051998	Belway 8
VBL18G		10331427	19051998	Belway 8
+CHSEP_F4		10331744	19051998	Belway 8
3689WV		10332314	19051998	Belway 8
RLS45J		10332871	19051998	Belway 8

Previous Page Next Page Save Data

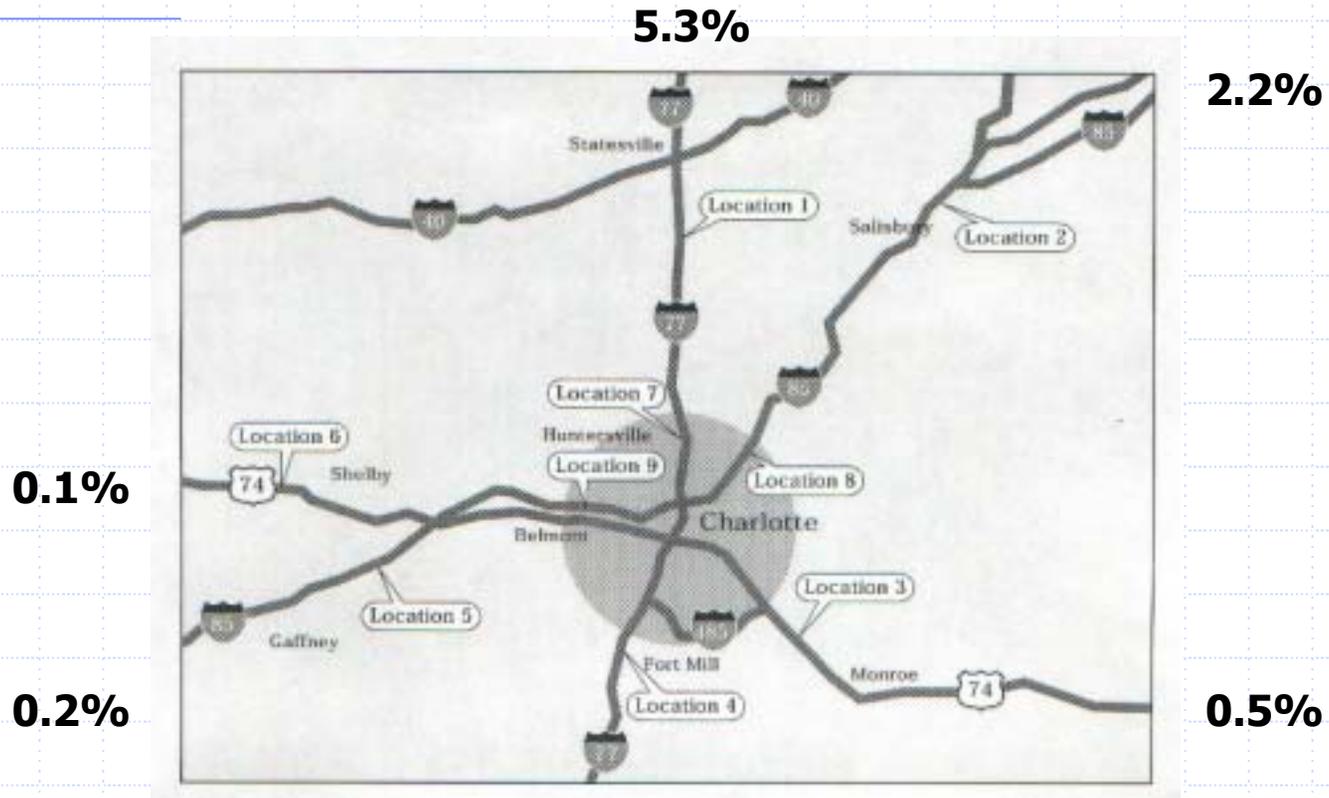
ODs from Location 3 (US 74 East - Heading Westbound)



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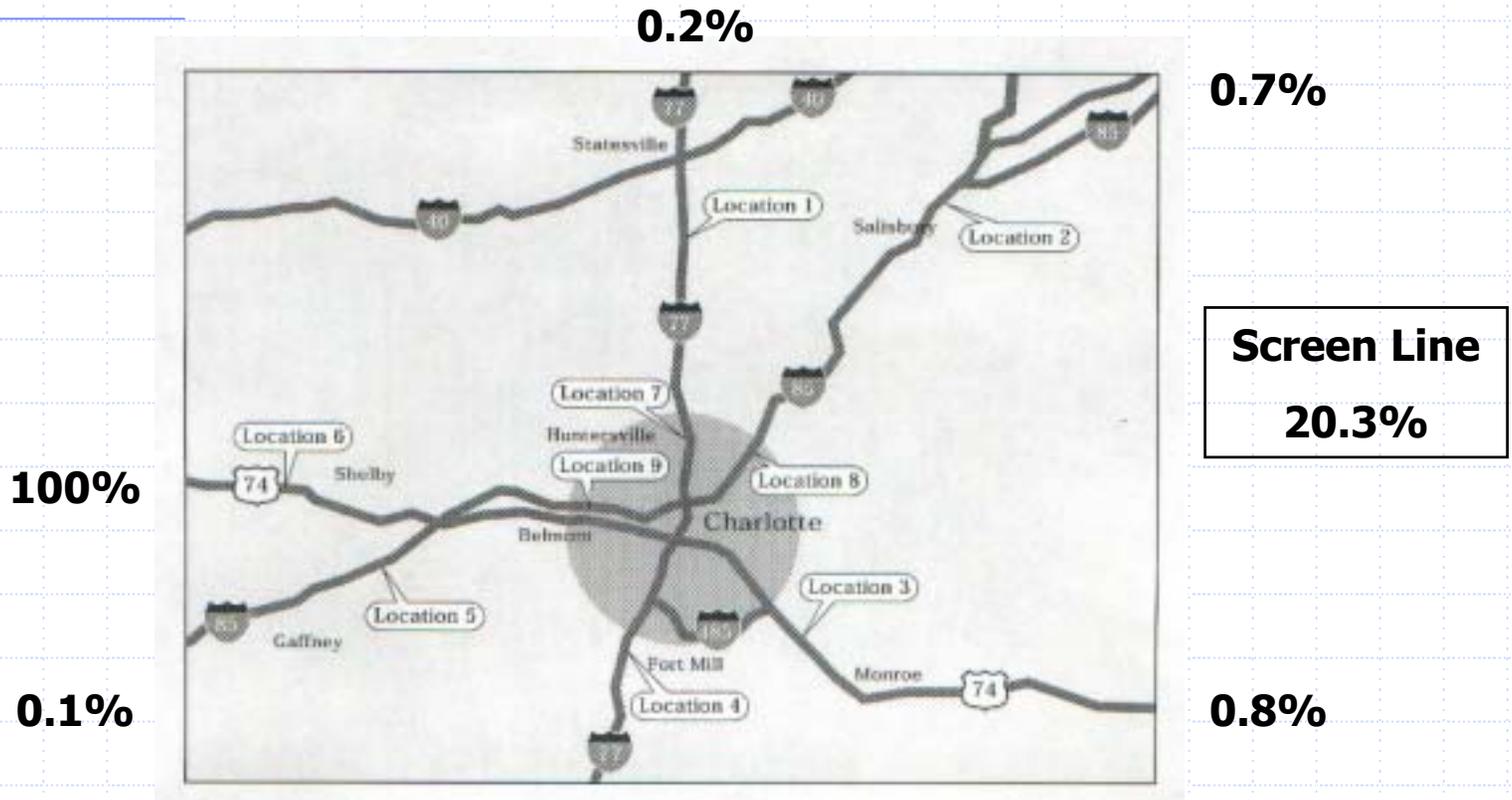
ODs from Location 4 (I-77 South - Heading Northbound)



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ODs from Location 6 (US 74 West - Heading Eastbound)



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Hourly OD and Travel Time Results

Passenger - Inbound From Site 1 - SB	Time of Day		Screenline	Through
	Beginning	Inbound		
	7:00-8:00 am	964	22.2%	7.3%
	8:00-9:00 am	782	47.6%	17.5%
	9:00-10:00 am	817	47.8%	20.9%
	10:00-11:00 am	806	47.3%	19.3%
	11:00-12:00 pm	928	43.4%	19.2%
	12:00-1:00 pm	995	51.4%	18.9%
	1:00-2:00 pm	1,081	49.2%	20.6%
	2:00-3:00 pm	1,017	55.6%	20.2%
	3:00-4:00 pm	1,320	43.2%	15.7%
	4:00-5:00 pm	1,489	39.8%	18.9%
	5:00-6:00 pm	1,562	15.7%	9.0%
	6:00-7:00 pm	1,253	33.1%	11.3%
	Total	13,014	39.9%	16.1%



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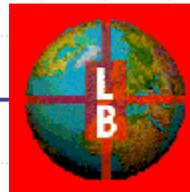


Hourly OD and Travel Time Results

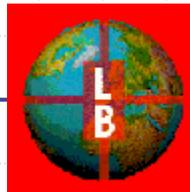
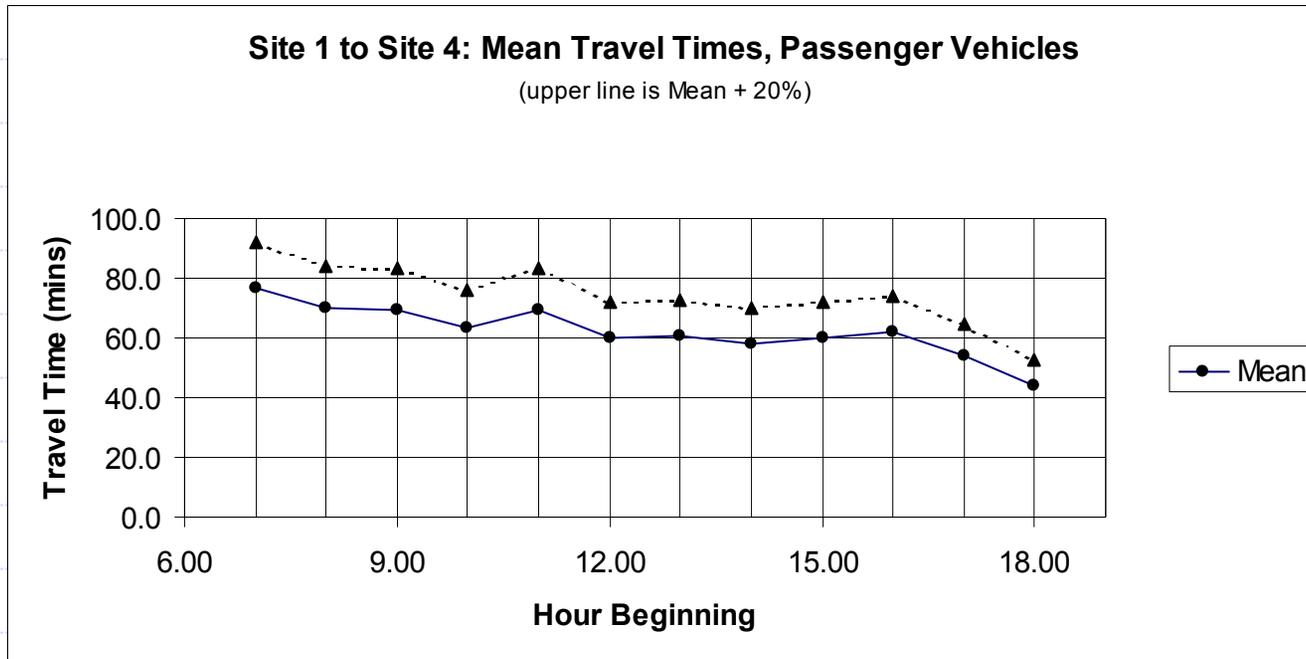
Site 1 to Site 4 - Commercial Vehicles			
Hour	Mean	Mean	Obs,
Beginning	Trav Time	+ 20%	n
7.00	122.1	146.5	17
8.00	101.9	122.3	27
9.00	96.0	115.2	56
10.00	67.9	81.5	54
11.00	73.3	88.0	53
12.00	67.4	80.9	47
13.00	63.2	75.8	33
14.00	76.7	92.0	33
15.00	48.4	58.1	33
16.00	56.2	67.4	23
17.00	51.2	61.4	30
18.00	44.8	53.8	27



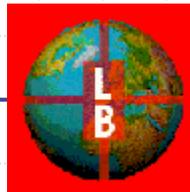
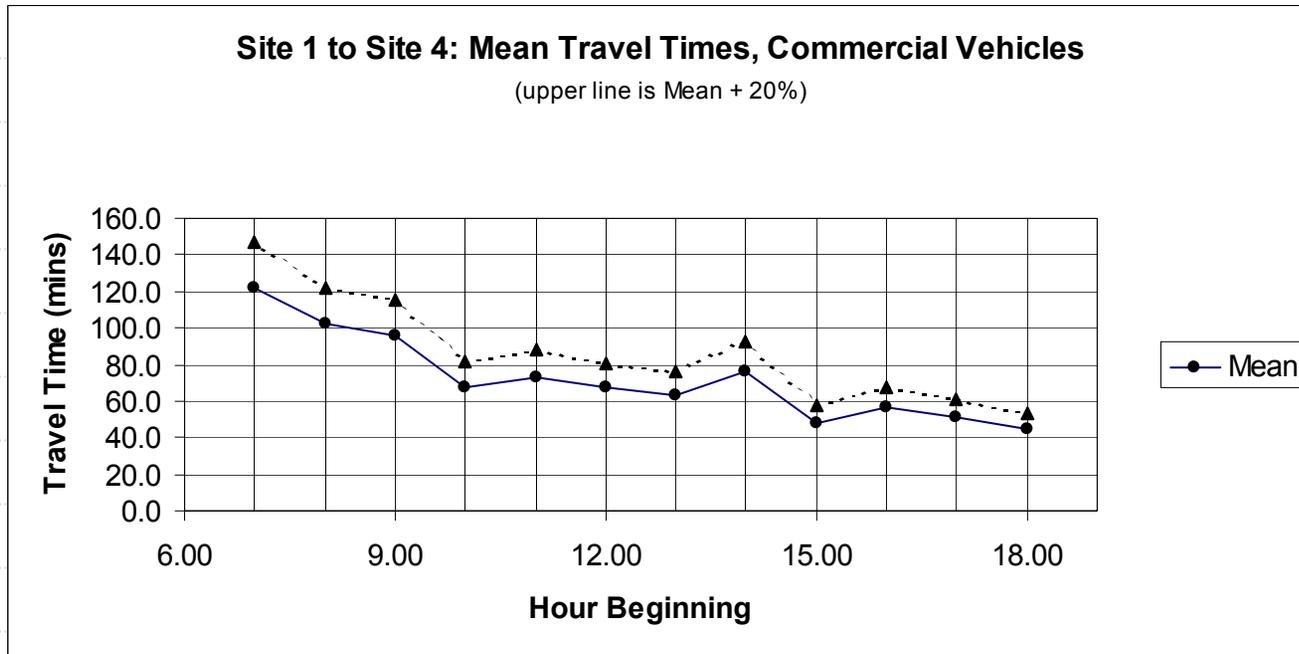
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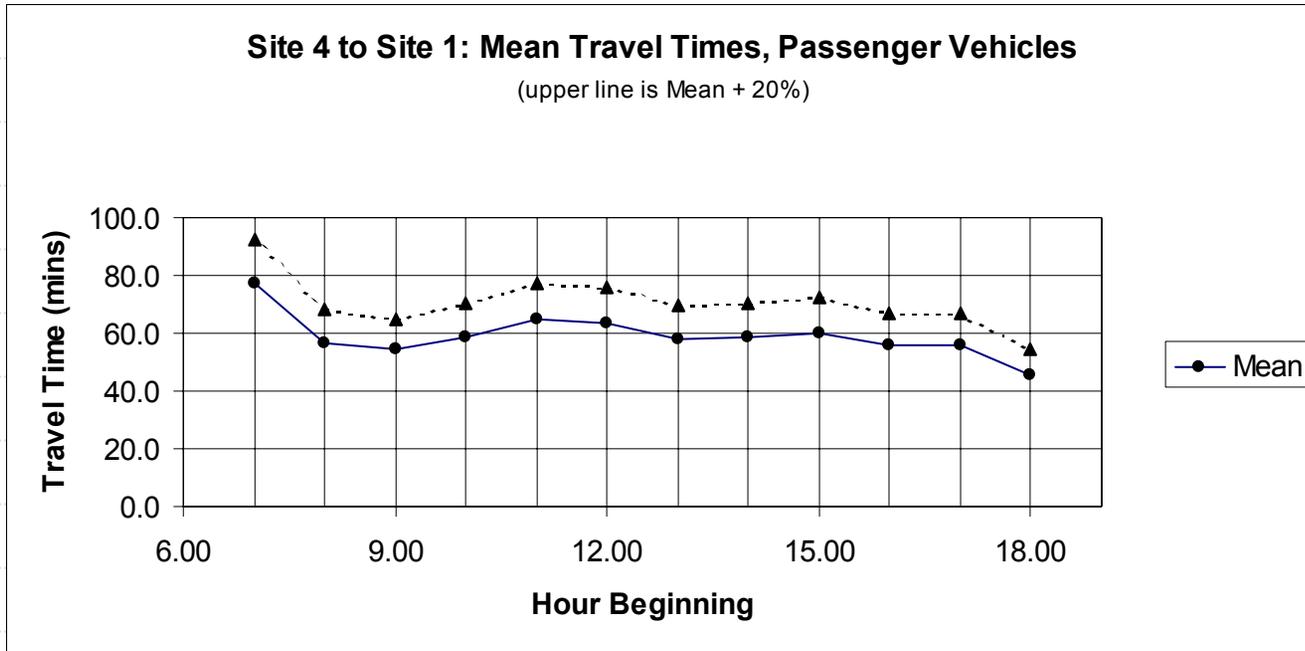
Hourly OD and Travel Time Results



Hourly OD and Travel Time Results



Hourly OD and Travel Time Results











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**AUTOMATED VIDEO-BASED
INFORMATION**