

NOACA

Technical Memorandum

2003 AM PEAK PERIOD

VEHICLE OCCUPANCY SURVEYS AND VEHICLE COUNTS



The Northeast Ohio Areawide Coordinating Agency (NOACA) is a public Organization serving the counties of and municipalities & townships within Cuyahoga, Geauga, Lake, Lorain and Medina (covering an area with 2.1 million people). NOACA is the agency designated or recognized to perform the following functions:

- **Serve as the Metropolitan Planning Organization (MPO), with responsibility for comprehensive cooperative and continuous planning for highways, public transit, and bikeways, as defined in the Transportation Equity Act for the 21st Century.**
- **Perform continuous water quality, transportation-related air quality and other environmental planning functions.**
- **Administer the area clearinghouse function, which includes providing local government with the opportunity to review a wide variety of local or state applications for federal funds.**
- **Conduct transportation and environmental planning and related demographic, economic and land use research.**
- **Serve as an information center for transportation and environmental and related planning.**
- **At NOACA Governing Board direction, provide transportation and environmental planning assistance to the 172 units of local, general purpose government.**

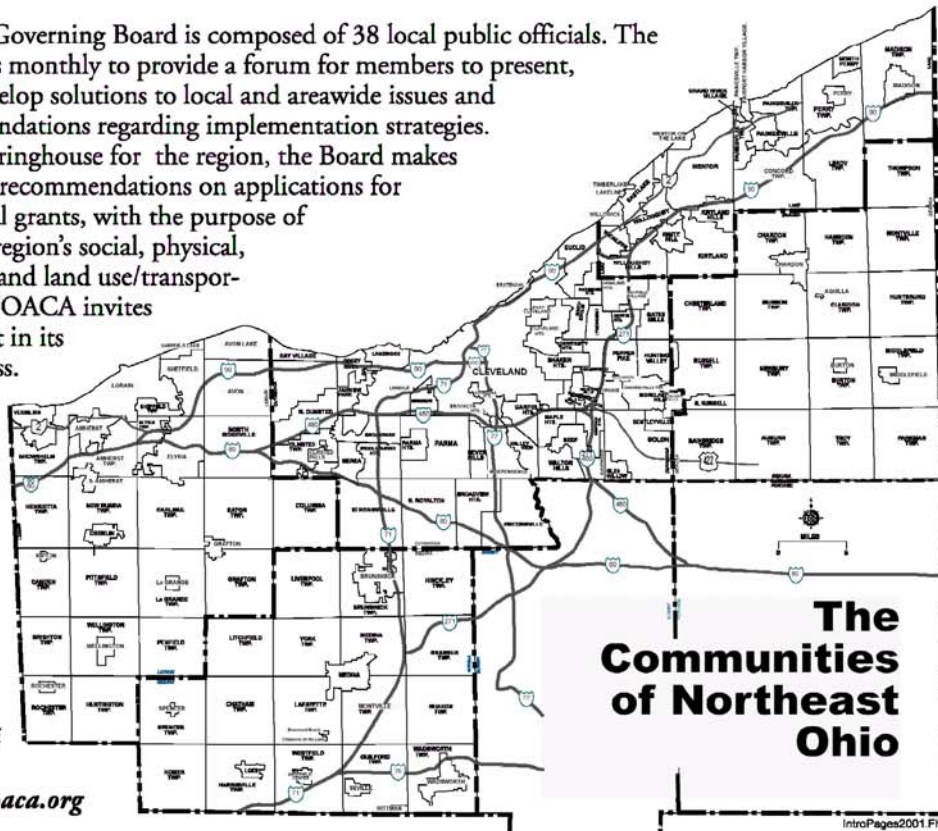
The NOACA Governing Board is composed of 38 local public officials. The Board convenes monthly to provide a forum for members to present, discuss and develop solutions to local and areawide issues and make recommendations regarding implementation strategies. As the area clearinghouse for the region, the Board makes comments and recommendations on applications for state and federal grants, with the purpose of enhancing the region's social, physical, environmental and land use/transportation fabric. NOACA invites you to take part in its planning process.

Feel free to participate, to ask questions and to learn more about areawide planning. For more information, call:

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<p>12) Abstracts</p> <p>This memorandum looks at vehicle occupancy and vehicle count information at six locations around the Cuyahoga County line. The samples were conducted in the AM peak period in an attempt to capture traditional commuter trips into Cuyahoga County.</p>	
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**2003 AM PEAK PERIOD
VEHICLE OCCUPANCY SURVEYS
AND
VEHICLE COUNTS**

June 2003

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Abstract

Since 1998 NOACA has been performing Vehicle Occupancy (VO) studies at various locations in the five-county region. In 2003, as in previous years, the AM peak period (7:00 – 9:00AM) was surveyed. The six sites surveyed in 2003 were major non-freeway commuter routes into Cuyahoga County. These six routes were also studied in 2000 and 2001. A two-direction vehicle count was also conducted at the same time as the VO surveys at all sites.

These surveys and vehicle counts are completed to give planners an idea of the effectiveness of ridesharing initiatives. Also, they are used to see if certain growth areas in our region are carrying more vehicle traffic on the roadways surveyed than in previous years.

The data show steady VO rates and traffic volumes at the sites analyzed in 2003 when compared to previous years data. The cumulative VO rate has remained unchanged at 1.08 persons per passenger vehicle for all three years these six sites were studied.

In 1998 NOACA started conducting vehicle occupancy surveys at six locations in the Cleveland CBD for the purpose of monitoring Vehicle Occupancy (VO) rates in the NOACA region. Vehicle Occupancy can be defined simply as the average number of people in vehicles. Specifically the number of drivers plus the number of passengers divided by the total number of vehicles. Again in 1999 vehicle occupancy surveys were conducted on weekdays in the morning peak periods in the months of May and June. The 1999 surveys were conducted at seven locations, five of the locations were at employment areas outside the Cleveland CBD and two locations were Cleveland CBD sites that were surveyed in 1998.

In 2000 surveys were conducted at eight locations, six of the locations were at or near county lines and two locations were at employment areas outside the Cleveland CBD that were surveyed in 1999. In 2001 and 2003, NOACA conducted vehicle occupancy surveys and peak period 2-way vehicle counts at six locations near the Cuyahoga County Line and the surrounding counties.

The following table is a list of the locations surveyed in 2003, their VO rate and the percent of Single Occupant Vehicles (SOV's). (All vehicle counts were taken two directions and vehicle occupancy data was collected in the inbound direction into Cuyahoga County.)

**Vehicle Occupancy Surveys
Completed in FY 2003**

Site No.	Location of Survey Site	VO Rate	% of SOV of Passenger Vehicles	% SOV of Total Vehicles
1.	Euclid Ave. (US-20) East of I-90 near Cuyahoga/Lake County Line	1.07	93.9	85.3
2.	Mayfield Rd. (US-322) East of SR-91 near Cuyahoga/Geauga County Line	1.11	90.1	84.2
3.	SOM Center Rd (SR-91) South of Glenwood Rd. near Cuyahoga/Summit County Line	1.07	93.3	86.5
4.	Center Ridge Rd. (US-20) near Cuyahoga/Lorain County Line	1.09	91.4	83.7
5.	Pearl Rd. (US-42) South of Boston Rd. near Cuyahoga/Medina County Line	1.07	94.0	89.1
6.	Chillicothe Rd. (SR-306) South of US-422	1.09	92.0	85.8

The overall (VO) rate for the six locations at or near County Lines was 1.08 .The percentage of passenger vehicles with single occupancy was 92.3% and 85.7% of all vehicles surveyed. The (VO) rate for the same six locations surveyed in 2000 and 2001 is listed in the table below.

**Comparison of VO rates
(2000,2001 and 2003)**

Year of survey	VO rate	% SOV of Passenger Vehicles	% SOV of Total Vehicles
Sites 1- 6 in 2000	1.08	92.3	85.7
Sites 1- 6 in 2001	1.08	92.2	84.7
Sites 1- 6 in 2003	1.08	92.8	85.4

The sites that were sampled in 2003 show little change when compared to previous years of data. The combined totals in the table above show that the percentage of SOV when compared to passenger vehicles and total vehicles were between 92–93% and 84-86% respectively for all years sampled.

A summary of the years 2000,2001 and 2003 are listed in tables below for each site that was surveyed. Even when we look at the individual sites, little change can be seen in the VO rates and in the volumes of vehicles in the peak direction. One noticeable exception to this is on Site 1 (Euclid Avenue (US-20) east of I-90). During spring of 2003, major construction was conducted on the SR-2/I-90 east interchange. The interchange was closed, which caused a much higher volume of traffic through site one.

NOACA
Vehicle Occupancy Summary
SITE NO.1 - 2000, 2001 and 2003
Euclid Ave. (US-20) East of I-90 near Cuyahoga/Lake County Line

Year	Total Passenger Vehicles	Total Passenger Vehicle Occupancy	Average Vehicle Occupancy	Trucks	Buses	Total Vehicles
2000	943	1046	1.11	186	10	1139
2001	915	1009	1.10	134	11	1060
2003	1435	1533	1.07	133	13	1581

NOACA
 Vehicle Occupancy Summary
SITE NO.2 - 2000, 2001 and 2003
 Mayfield Rd. (US-322) East of SR-91 near Cuyahoga/Geauga County Line

Year	Total Passenger Vehicles	Total Passenger Vehicle Occupancy	Average Vehicle Occupancy	Trucks	Buses	Total Vehicles
2000	1761	1891	1.07	81	20	1862
2001	1801	1968	1.09	106	34	1941
2003	1795	1984	1.11	101	25	1921

NOACA
 Vehicle Occupancy Summary
SITE NO.3 - 2000, 2001 and 2003
 SOM Center Rd (SR-91) South of Glenwood Rd. near Cuyahoga/Summit County Line

Year	Total Passenger Vehicles	Total Passenger Vehicle Occupancy	Average Vehicle Occupancy	Trucks	Buses	Total Vehicles
2000	1194	1259	1.05	65	9	1268
2001	1228	1311	1.07	95	10	1333
2003	976	1047	1.07	63	14	1053

NOACA
 Vehicle Occupancy Summary
SITE NO.4 - 2000, 2001 and 2003
 Center Ridge Rd. (US-20) near Cuyahoga/Lorain County Line

Year	Total Passenger Vehicles	Total Passenger Vehicle Occupancy	Average Vehicle Occupancy	Trucks	Buses	Total Vehicles
2000	686	745	1.09	83	3	772
2001	716	786	1.10	70	8	794
2003	731	797	1.09	60	7	798

NOACA
 Vehicle Occupancy Summary
SITE NO.5 - 2000, 2001 and 2003
 Pearl Rd. (US-42) South of Boston Rd. near Cuyahoga/Medina County Line

Year	Total Passenger Vehicles	Total Passenger Vehicle Occupancy	Average Vehicle Occupancy	Trucks	Buses	Total Vehicles
2000	1203	1251	1.04	48	7	1258
2001	1197	1269	1.06	63	12	1272
2003	1135	1217	1.07	55	8	1198

NOACA
 Vehicle Occupancy Summary
SITE NO.6 - 2000, 2001 and 2003
 Chillicothe Rd. (SR-306) South of US-422

Year	Total Passenger Vehicles	Total Passenger Vehicle Occupancy	Average Vehicle Occupancy	Trucks	Buses	Total Vehicles
2000	1780	1960	1.10	112	27	1919
2001	1739	1900	1.09	108	27	1874
2003	1822	1982	1.09	107	25	1954

NOACA staff reviewed another source of vehicle occupancy data; a report by the Federal Highway Administration, A Improved Vehicle Occupancy Data Collection Methods, was used to review current state of practice methods to collected vehicle occupancy data. The report outlined five primary methods for collecting vehicle occupancy data:

1. Traditional roadside windshield method
2. Recently developed carousel method
3. Photographic surveillance
4. Mail out or telephone surveys
5. Accident data extraction method

The overwhelming majority of vehicle occupancy data are collected by the windshield observational method. This method is generally considered the most accurate and reliable. This method counts the number of vehicles as well as the passengers within the vehicle.

NOACA uses the traditional roadside windshield method to collect vehicle occupancy data, but during FY 2003 again looked into the use of highway accident data files to develop vehicle occupancy rates.

The following data were extracted from the 2000 and 2001 NOACA five-county highway accident database (the most recent data available). Each data set represents one year of accident records and all purposes of travel. The 2000 data are in parenthesis below the 2001 data in the Five-County Regional table. The use of accident data give a much larger sample size over a larger geographic

area. The tables below show VO rates for the five-county region as well as each county within the region.

**Vehicle Occupancy
Using NOACA's Accident Database
(Five County Region Information)**

Five County Region	Total Vehicles in Accidents	Total Number of Persons in Vehicles	Vehicle Occupancy Rate
All Year	120,024 (123,480)	144,485 (153,717)	1.20 (1.24)
Weekdays	93,643 (95,302)	111,494 (116,589)	1.19 (1.22)

**Vehicle Occupancy
Using NOACA's Accident Database
(Each county within the five county region)**

By County	All Year	Weekdays	Weekdays 7 to 8 AM	Weekdays 8 to 9 AM
Cuyahoga	1.15	1.15	1.13	1.11
Geauga	1.38	1.36	1.40	1.60
Lake	1.29	1.27	1.22	1.30
Lorain	1.28	1.28	1.33	1.34
Medina	1.36	1.31	1.35	1.20

Conclusion

A basic measure of the efficiency of moving people is vehicle occupancy, which indicates the number of people carried in each vehicle. NOACA staff has collected vehicle occupancy data to help monitor VO rates in the region. Staff will continue to collect data and develop data collection methods to produce the most accurate and reliable information. These data surveys aid NOACA in determining travel mode trends in the region.

Vehicle Occupancy Survey Sheets for survey sites No. 1 through No. 6 taken in FY 2003 are included in this report, along with the Peak Period Vehicle Count Sheet for each of the sites.

Following the attached survey sheets, there is a map that shows the overall VO rate for each site. This map shows a general location and VO rate for all sites studied by NOACA since 1998.

NOACA
VEHICLE OCCUPANCY SURVEY SHEET
SITE NO.1 - FY 2003

LOCATION: Euclid Ave.(US20), East of I90

DIRECTION: Westbound
TIME OF SURVEY: 7:00 - 9:00 AM
DAY OF WEEK: Tuesday
DATE: May 20, 2003
WEATHER: Cloudy

TIME: AM	DRIVER ONLY	DRIVER +1	DRIVER +2	DRIVER +3	DRIVER +4	TOTAL PASSENGER VEHICLES	TOTAL OCCUPANCY	TRUCKS	BUSES
7:00 - 7:15	169	11	0	2	0	182	199	9	3
7:15 - 7:30	171	12	0	1	0	184	199	8	1
7:30 - 7:45	172	5	0	0	1	178	187	17	2
7:45 - 8:00	214	15	1	0	0	230	247	16	1
8:00 - 8:15	181	13	0	0	0	194	207	24	2
8:15 - 8:30	158	15	1	0	0	174	191	23	1
8:30 - 8:45	166	4	0	0	0	170	174	20	2
8:45 - 9:00	117	6	0	0	0	123	129	16	1
TOTAL PASSENGER VEHICLES	1348	81	2	3	1	1435		133	13
TOTAL OCCUPANCY	1348	162	6	12	5		1533		

AVERAGE OCCUPANCY
(PASSENGER VEHICLES) =

TOTAL HEAVY TRUCKS =

TOTAL BUS =

TOTAL VEHICLES
7:00 to 9:00 am =

NOACA
PEAK PERIOD VEHICLE COUNT
SITE NO.1 - FY 2003

LOCATION: Euclid Ave.(US20), East of I90

DIRECTION: TWO-WAY COUNT

TIME OF SURVEY: 7:00 - 9:00 AM

DAY OF WEEK: Tuesday

DATE: May 20, 2003

WEATHER: Cloudy

TIME: AM	WESTBOUND				EASTBOUND			
	TOTAL PASSENGER VEHICLES	TRUCKS	BUSES	TOTAL VEHICLES	TOTAL PASSENGER VEHICLES	TRUCKS	BUSES	TOTAL VEHICLES
7:00 - 7:15	182	9	3	194	36	4	0	40
7:15 - 7:30	184	8	1	193	44	7	1	52
7:30 - 7:45	178	17	2	197	49	3	3	55
7:45 - 8:00	230	16	1	247	59	4	3	66
8:00 - 8:15	194	24	2	220	61	4	1	66
8:15 - 8:30	174	23	1	198	57	7	1	65
8:30 - 8:45	170	20	2	192	75	9	1	85
8:45 - 9:00	123	16	1	140	81	3	0	84
TOTAL PASSENGER VEHICLES	1435	133	13	1581	462	41	10	513

NOACA
VEHICLE OCCUPANCY SURVEY SHEET
SITE NO.2 - FY 2003

LOCATION: US-322, east of SR-91

DIRECTION: Westbound
TIME OF SURVEY: 7:00-9:00 AM
DAY OF WEEK: Wednesday
DATE: May 21, 2003
WEATHER: Cloudy

TIME: AM	DRIVER ONLY	DRIVER +1	DRIVER +2	DRIVER +3	DRIVER +4	TOTAL PASSENGER VEHICLES	TOTAL OCCUPANCY	TRUCKS	BUSES
7:00 - 7:15	191	19	2	0	0	212	235	8	3
7:15 - 7:30	221	27	0	0	0	248	275	8	1
7:30 - 7:45	206	19	0	1	0	226	248	14	7
7:45 - 8:00	200	20	1	0	0	221	243	10	8
8:00 - 8:15	207	16	1	1	0	225	246	20	4
8:15 - 8:30	227	22	0	1	0	250	275	17	0
8:30 - 8:45	199	21	0	1	0	221	245	15	2
8:45 - 9:00	167	25	0	0	0	192	217	9	0
TOTAL PASSENGER VEHICLES	1618	169	4	4	0	1795		101	25
TOTAL OCCUPANCY	1618	338	12	16	0		1984		

AVERAGE OCCUPANCY
(PASSENGER VEHICLES) =

TOTAL HEAVY TRUCKS =

TOTAL BUS =

TOTAL VEHICLES
7:00 to 9:00 am =

NOACA
PEAK PERIOD VEHICLE COUNT
SITE NO.2 - FY 2003

LOCATION: US-322, east of SR-91

DIRECTION: TWO-WAY COUNT

TIME OF SURVEY: 7:00 - 9:00 AM

DAY OF WEEK: Wednesday

DATE: May 21, 2003

WEATHER: Cloudy

TIME: AM	WESTBOUND				EASTBOUND			
	TOTAL PASSENGER VEHICLES	TRUCKS	BUSES	TOTAL VEHICLES	TOTAL PASSENGER VEHICLES	TRUCKS	BUSES	TOTAL VEHICLES
7:00 - 7:15	212	8	3	223	54	7	3	64
7:15 - 7:30	248	8	1	257	84	1	4	89
7:30 - 7:45	226	14	7	247	141	11	6	158
7:45 - 8:00	221	10	8	239	173	8	7	188
8:00 - 8:15	225	20	4	249	108	10	1	119
8:15 - 8:30	250	17	0	267	91	12	0	103
8:30 - 8:45	221	15	2	238	98	15	1	114
8:45 - 9:00	192	9	0	201	99	11	0	110
TOTAL PASSENGER VEHICLES	1795	101	25	1921	848	75	22	945

NOACA
VEHICLE OCCUPANCY SURVEY SHEET
SITE NO.3 - FY 2003

LOCATION: SR-91 (North of Glenwood Dr.)

DIRECTION: Northbound
TIME OF SURVEY: 7:00 - 9:00 AM
DAY OF WEEK: Thursday
DATE: May 22, 2003
WEATHER: Sunny

TIME: AM	DRIVER ONLY	DRIVER +1	DRIVER +2	DRIVER +3	DRIVER +4	TOTAL PASSENGER VEHICLES	TOTAL OCCUPANCY	TRUCKS	BUSES
6:45 - 7:00	120	2	0	0	0	122	124	2	2
7:00 - 7:15	110	10	0	0	0	120	130	5	1
7:15 - 7:30	115	4	1	0	0	120	126	8	1
7:30 - 7:45	159	3	3	0	0	165	174	8	3
7:45 - 8:00	131	13	1	0	0	145	160	5	1
8:00 - 8:15	103	7	1	0	0	111	120	13	0
8:15 - 8:30	99	9	0	0	0	108	117	9	2
8:30 - 8:45	74	11	0	0	0	85	96	13	4
TOTAL PASSENGER VEHICLES	911	59	6	0	0	976		63	14
TOTAL OCCUPANCY	911	118	18	0	0		1047		

AVERAGE OCCUPANCY
(PASSENGER VEHICLES) =

TOTAL HEAVY TRUCKS =

TOTAL BUS =

TOTAL VEHICLES
7:00 to 9:00 am =

NOACA
PEAK PERIOD VEHICLE COUNT
SITE NO.3 - FY 2003

LOCATION: SR-91 (North of Glenwood Dr.)

DIRECTION: TWO-WAY COUNT

TIME OF SURVEY: 7:00 - 9:00 AM

DAY OF WEEK: Thursday

DATE: May 22, 2003

WEATHER: Sunny

TIME: AM	NORTHBOUND				SOUTHBOUND			
	TOTAL PASSENGER VEHICLES	TRUCKS	BUSES	TOTAL VEHICLES	TOTAL PASSENGER VEHICLES	TRUCKS	BUSES	TOTAL VEHICLES
7:00 - 7:15	122	2	2	126	78	2	1	81
7:00 - 7:15	120	5	1	126	67	4	2	73
7:15 - 7:30	120	8	1	129	65	4	1	70
7:30 - 7:45	165	8	3	176	71	26	1	98
7:45 - 8:00	145	5	1	151	112	9	1	122
8:00 - 8:15	111	13	0	124	76	6	4	86
8:15 - 8:30	108	9	2	119	90	11	2	103
8:30 - 8:45	85	13	4	102	72	12	1	85
TOTAL PASSENGER VEHICLES	976	63	14	1053	631	74	13	718

NOACA
VEHICLE OCCUPANCY SURVEY SHEET
SITE NO.4 - FY 2003

LOCATION: US-20 (Center Ridge Rd.)
Cuyahoga/Lorain Co. line
DIRECTION: Eastbound
TIME OF SURVEY: 6:45 - 8:45 AM
DAY OF WEEK: Wednesday
DATE: May 14, 2003
WEATHER: Sunny

TIME: AM	DRIVER ONLY	DRIVER +1	DRIVER +2	DRIVER +3	DRIVER +4	TOTAL PASSENGER VEHICLES	TOTAL OCCUPANCY	TRUCKS	BUSES
6:45 - 7:00	43	3	0	0	0	46	49	2	0
7:00 - 7:15	71	4	0	0	0	75	79	3	0
7:15 - 7:30	77	13	0	0	0	90	103	7	1
7:30 - 7:45	95	8	0	0	0	103	111	10	0
7:45 - 8:00	134	12	1	0	0	147	161	11	0
8:00 - 8:15	97	6	1	0	0	104	112	10	3
8:15 - 8:30	74	9	1	0	0	84	95	10	3
8:30 - 8:45	77	5	0	0	0	82	87	7	0
TOTAL PASSENGER VEHICLES	668	60	3	0	0	731		60	7
TOTAL OCCUPANCY	668	120	9	0	0		797		

AVERAGE OCCUPANCY
(PASSENGER VEHICLES) =

TOTAL HEAVY TRUCKS =

TOTAL BUS =

TOTAL VEHICLES
6:45 to 8:45 am =

NOACA
PEAK PERIOD VEHICLE COUNT
SITE NO.4 - FY 2003

LOCATION: US-20 (Center Ridge Rd.)
Cuyahoga/Lorain Co. line

DIRECTION: TWO-WAY COUNT

TIME OF SURVEY: 6:45 - 8:45 AM

DAY OF WEEK: Wednesday

DATE: May 14, 2003

WEATHER: Sunny

TIME: AM	EASTBOUND			WESTBOUND				
	TOTAL PASSENGER VEHICLES	TRUCKS	BUSES	TOTAL VEHICLES	TOTAL PASSENGER VEHICLES	TRUCKS	BUSES	TOTAL VEHICLES
6:45 - 7:00	46	2	0	48	24	2	0	26
7:00 - 7:15	75	3	0	78	25	4	1	30
7:15 - 7:30	90	7	1	98	55	4	0	59
7:30 - 7:45	103	10	0	113	41	2	2	45
7:45 - 8:00	147	11	0	158	47	0	0	47
8:00 - 8:15	104	10	3	117	62	4	2	68
8:15 - 8:30	84	10	3	97	52	1	2	55
8:30 - 8:45	82	7	0	89	32	0	1	33
TOTAL PASSENGER VEHICLES	731	60	7	798	338	17	8	363

NOACA
VEHICLE OCCUPANCY SURVEY SHEET
SITE NO.5 - FY 2003

LOCATION: US-42/Boston Rd
Cuyahoga/Medina Co. line
DIRECTION: Northbound
TIME OF SURVEY: 7:00 - 9:00 AM
DAY OF WEEK: Tuesday
DATE: May 13, 2003
WEATHER: Cloudy

TIME: AM	DRIVER ONLY	DRIVER +1	DRIVER +2	DRIVER +3	DRIVER +4	TOTAL PASSENGER VEHICLES	TOTAL OCCUPANCY	TRUCKS	BUSES
7:00 - 7:15	155	7	2	1	0	165	179	2	2
7:15 - 7:30	161	12	1	0	0	174	188	9	2
7:30 - 7:45	152	4	0	0	0	156	160	6	0
7:45 - 8:00	125	10	0	0	0	135	145	4	1
8:00 - 8:15	128	4	2	0	2	136	152	6	1
8:15 - 8:30	134	5	0	0	0	139	144	9	0
8:30 - 8:45	123	9	1	0	0	133	144	11	1
8:45 - 9:00	89	8	0	0	0	97	105	8	1
TOTAL PASSENGER VEHICLES	1067	59	6	1	2	1135		55	8
TOTAL OCCUPANCY	1067	118	18	4	10		1217		

AVERAGE OCCUPANCY
(PASSENGER VEHICLES) =

TOTAL HEAVY TRUCKS =

TOTAL BUS =

TOTAL VEHICLES
6:45 to 8:45 am =

NOACA
PEAK PERIOD VEHICLE COUNT
SITE NO.5 - FY 2003

LOCATION: US-42 / Boston Rd.
Cuyahoga/Medina Co. line

DIRECTION: TWO-WAY COUNT

TIME OF SURVEY: 7:00 - 9:00 AM

DAY OF WEEK: Tuesday

DATE: May 13, 2003

WEATHER: Cloudy

TIME: AM	NORTHBOUND				SOUTHBOUND			
	TOTAL PASSENGER VEHICLES	TRUCKS	BUSES	TOTAL VEHICLES	TOTAL PASSENGER VEHICLES	TRUCKS	BUSES	TOTAL VEHICLES
7:00 - 7:15	165	2	2	169	45	5	1	51
7:15 - 7:30	174	9	2	185	70	3	1	74
7:30 - 7:45	156	6	0	162	63	6	0	69
7:45 - 8:00	135	4	1	140	60	14	1	75
8:00 - 8:15	136	6	1	143	67	9	0	76
8:15 - 8:30	139	9	0	148	49	9	0	58
8:30 - 8:45	133	11	1	145	51	9	2	62
8:45 - 9:00	97	8	1	106	54	8	0	62
TOTAL PASSENGER VEHICLES	1135	55	8	1198	459	63	5	527

NOACA
VEHICLE OCCUPANCY SURVEY SHEET
SITE NO.6 - FY 2003

LOCATION: Chillicothe Road (SR306)/south of US422

DIRECTION: Northbound

TIME OF SURVEY: 7:00 - 9:00 AM

DAY OF WEEK: Thursday

DATE: May 29, 2003

WEATHER: sunny

TIME: AM	DRIVER ONLY	DRIVER +1	DRIVER +2	DRIVER +3	DRIVER +4	TOTAL PASSENGER VEHICLES	TOTAL OCCUPANCY	TRUCKS	BUSES
6:45 - 7:00	191	16	2	0	0	209	229	4	4
7:00 - 7:15	234	21	3	0	0	258	285	7	3
7:15 - 7:30	236	19	1	0	0	256	277	13	0
7:30 - 7:45	209	14	0	0	0	223	237	6	0
7:45 - 8:00	212	13	1	0	1	227	246	15	0
8:00 - 8:15	201	15	2	0	0	218	237	29	8
8:15 - 8:30	210	22	0	0	0	232	254	19	4
8:30 - 8:45	183	14	2	0	0	199	217	14	6
TOTAL PASSENGER VEHICLES	1676	134	11	0	1	1822		107	25
TOTAL OCCUPANCY	1676	268	33	0	5		1982		

AVERAGE OCCUPANCY
(PASSENGER VEHICLES) =

TOTAL HEAVY TRUCKS =

TOTAL BUS =

TOTAL VEHICLES
6:45 to 8:45 am =

NOACA
PEAK PERIOD VEHICLE COUNT
SITE NO.6 - FY 2003

LOCATION: Chillicothe Road (SR306)/south of US422

DIRECTION: TWO-WAY COUNT

TIME OF SURVEY: 7:00 - 9:00 AM

DAY OF WEEK: Thursday

DATE: May 29, 2003

WEATHER: Sunny

TIME: AM	NORTHBOUND				SOUTHBOUND			
	TOTAL PASSENGER VEHICLES	TRUCKS	BUSES	TOTAL VEHICLES	TOTAL PASSENGER VEHICLES	TRUCKS	BUSES	TOTAL VEHICLES
6:45 - 7:00	209	4	4	217	69	4	1	74
7:00 - 7:15	258	7	3	268	71	12	0	83
7:15 - 7:30	256	13	0	269	103	18	3	124
7:30 - 7:45	223	6	0	229	70	10	3	83
7:45 - 8:00	227	15	0	242	121	21	1	143
8:00 - 8:15	218	29	8	255	96	18	7	121
8:15 - 8:30	232	19	4	255	121	18	5	144
8:30 - 8:45	199	14	6	219	129	23	0	152
TOTAL PASSENGER VEHICLES	1822	107	25	1954	780	124	20	924

NOACA
PEAK PERIOD VEHICLE COUNT
SITE NO.6 - FY 2003

LOCATION: Chillicothe Road (SR306)/south of US422

DIRECTION: TWO-WAY COUNT

TIME OF SURVEY: 7:00 - 9:00 AM

DAY OF WEEK: Thursday

DATE: May 29, 2003

WEATHER: Sunny

TIME: AM	NORTHBOUND				SOUTHBOUND			
	TOTAL PASSENGER VEHICLES	TRUCKS	BUSES	TOTAL VEHICLES	TOTAL PASSENGER VEHICLES	TRUCKS	BUSES	TOTAL VEHICLES
6:45 - 7:00	209	4	4	217	69	4	1	74
7:00 - 7:15	258	7	3	268	71	12	0	83
7:15 - 7:30	256	13	0	269	103	18	3	124
7:30 - 7:45	223	6	0	229	70	10	3	83
7:45 - 8:00	227	15	0	242	121	21	1	143
8:00 - 8:15	218	29	8	255	96	18	7	121
8:15 - 8:30	232	19	4	255	121	18	5	144
8:30 - 8:45	199	14	6	219	129	23	0	152
TOTAL PASSENGER VEHICLES	1822	107	25	1954	780	124	20	924

AM PEAK PERIOD

VEHICLE OCCUPANCY/ COUNT SURVEYS

VOC COUNT YR.

X.XX (XXXX) -2003

X.XX (XXXX) -2001

X.XX (XXXX) -2000

X.XX (XXXX) -1999

X.XX (XXXX) -1998

