

FIRST EVALUATION REPORT ON  
THE OAKLAND COUNTY ALCOHOL  
ENFORCEMENT/EDUCATION PROJECT

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<p>The four-year Alcohol Enforcement/Education Project was begun in the fall of 1979 to try to reduce alcohol-related accidents in Oakland County, Michigan, by a combination of selective police enforcement and public education. It has the specific goals of reducing alcohol-related fatal and injury accidents by at least 15 percent county-wide and by at least 30 percent in selected target areas. It also seeks to increase drunk driving arrests in the Sheriff's Department by 30 percent and in the local police departments by 15 percent.</p> <p>The Highway Safety Research Institute is responsible for evaluating the effectiveness of the Project in meeting its goals. This first-year report presents available baseline and first-year statistical data on alcohol-related accidents, drunk driving arrests, court handling of drunk driving cases, and public opinion related to alcohol and driving.</p> <p>It was found that for 1978 and 1979, 22.2 percent of the county-wide fatal and injury accidents were alcohol-related, so the goal is to reduce this to 19 percent. In 1979 there were about 5600 drunk driving arrests in Oakland County, including 518 made by the Sheriff's Department. A special Alcohol Enforcement Team composed primarily of Sheriff's deputies made 387 arrests in its first six months, and total Sheriff's Department arrests more than doubled compared to the same period in 1979.</p>			
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## INTRODUCTION

In September of 1979 a new four-year program to combat drunk driving was begun in Oakland County, Michigan. Primary responsibility for the Oakland County Alcohol Enforcement/Education Project lies with the Traffic Improvement Association of Oakland County (TIA), which is overall coordinator for the Project, and with the Oakland County Sheriff's Department. Financial support for the Project is provided by federal grant funds through the Michigan Office of Highway Safety Planning.

Oakland County is the largest suburban county in the Detroit metropolitan area with close to 1,000,000 people residing in 61 political subdivisions (26 cities, 12 villages, and 23 townships). Pontiac is the county seat, and other large communities include the cities of Southfield, Royal Oak, Farmington Hills, and Troy, and Waterford and Bloomfield Townships. The population is concentrated toward the southern and eastern parts of the county, and there are substantial rural areas to the north and west. There are 42 separate local police agencies serving the county. In addition, two Michigan State Police (MSP) posts are located in the county, at Pontiac and Northville, and two other nearby posts (Brighton and Romeo) serve parts of the county. Sixteen district courts with 32 judges provide first-level court services in the different parts of the county.

The primary Project activity is the deployment of special police patrol personnel at the times and places of large numbers of past alcohol-related accidents. Planning for this special patrol effort is carried out by TIA using its computerized data base of Oakland County accidents. TIA is also responsible for carrying out an educational program to inform the general public about the dangers of drunk driving and about the special program to apprehend drunk drivers. In addition, TIA is involved in more specific educational activities with persons relevant to the Project such as police officers, driver training teachers, and

district court judges and prosecutors. The Sheriff's Department provides most of the Alcohol Enforcement Team personnel and has responsibility for the coordination and record-keeping of the Team's operations. The Pontiac MSP post and a number of local police departments have also provided personnel and cars for the team. While the primary purpose of the Alcohol Enforcement Team is saturation enforcement of the drunk driving laws in the target areas of deployment, naturally Team personnel carry out many other law enforcement activities in their assigned areas of patrol.

The overall goal of this four-year Project is to reduce the suffering and costs caused by alcohol-related accidents in Oakland County. Specifically, the Project aims to reduce the county-wide rate of alcohol-related fatal and injury accidents by 15 percent and to reduce the rate in the specified selective enforcement "target areas" by 30 percent.

In addition, the Project has specified four intermediate goals each of which can play a role in the attainment of the primary goal, the reduction of alcohol-related accidents. These are:

- (1) To increase drunk driving arrests by 30 percent in the Sheriff's Department, by 15 percent in the 41 local police departments in the county, and by 50 percent in the selected target areas.
- (2) To implement a drunk driving selective enforcement program in the Sheriff's Department and in at least half of the eleven police departments serving populations over 25,000.
- (3) To significantly improve the minimum level of performance of judges and prosecutors in handling drunk driving cases.
- (4) To significantly increase public awareness of the magnitude of the alcohol-related traffic accident problem and public support for firm drunk driving enforcement measures.

In order to obtain an evaluation of the effectiveness of the Alcohol Enforcement/Education Project in attaining the above-stated goals, the Michigan Office of Highway Safety Planning contracted with the Highway Safety Research Institute of the University of Michigan. With the assistance of TIA and the Sheriff's Department, the Highway Safety Research Institute (HSRI) staff have been collecting statistical data on alcohol-related accidents and drunk driving arrests in Oakland County. They have also been collecting data on district court handling and dispositions of drunk driving cases, and they carried out a baseline public opinion survey among Oakland County drivers. It is expected that this survey will be repeated during each of the three remaining years of the Project.

This report is the first of an expected series of annual reports evaluating the Alcohol Enforcement/Education Project. It provides baseline statistical data on alcohol-related accidents and drunk driving arrests and covers the first six months of the Alcohol Enforcement Team operation (April-September 1980). The report is divided into four sections covering the four main types of statistical data analyzed: accidents, arrests, court cases, and public opinion. It concludes with a brief summary section.



## 1. OAKLAND COUNTY ACCIDENT DATA, 1974-1979

As mentioned in the Introduction, the primary goal of the Alcohol Enforcement/Education Project is to reduce the incidence of alcohol-related accidents in Oakland County. However, no results on this primary evaluation indicator are yet available because it is more efficient to analyze a full year of accident data at one time, and the total 1980 data will not be available from the Michigan State Police until the spring of 1981. Therefore, this section analyzes only accident data from HSRI's Michigan accident files for years prior to the start-up of the Alcohol Enforcement Team.

Table 1.1 and Figures 1.1 - 1.4 provide information on trends in all accidents and in alcohol-related accidents<sup>1</sup> in Oakland County from 1974 through 1979. The data show that there have been substantial increases in all kinds of reported accidents over this six-year period, although there was a small decline in reported property-damage-only accidents from 1978 to 1979. Fatal accidents also declined from 1978 to 1979 but were still slightly above the six-year average. At least fatal accidents do not seem to be increasing as rapidly as property-damage-only and other injury accidents. However, given the relatively small numbers of fatal accidents in Oakland County, one would expect considerable fluctuation around the average of 150.8. Overall, the six-year data show an increase of 23 percent in property-damage-only accidents, an increase of 25 percent in fatal and injury accidents, and an increase of 24 percent in all accidents.

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<sup>1</sup>An alcohol-related accident is defined as one in which the HBD (Had Been Drinking or using drugs) box is checked for one or more of the principals in the accident. In most cases this involves a subjective judgement on the part of the police officer, since objective test results are not frequently obtained. While there will be some variation in reporting practice among individual officers, the year-to-year trends observed in the total data are inferred to indicate valid differences in alcohol-related accidents.

TABLE 1.1  
Alcohol-Related Accidents in Oakland County by Degree of Severity by Quarter 1974-1979

	Fatal Accidents			Other Injury Accidents			Property Damage- only Accidents			Fatal and Injury Accidents			All Accidents		
	Total	Alcohol Related Total	Alcohol Related Percent	Total	Alcohol Related Total	Alcohol Related Percent	Total	Alcohol Related Total	Alcohol Related Percent	Total	Alcohol Related Total	Alcohol Related Percent	Total	Alcohol Related Total	Alcohol Related Percent
<b>1974</b>															
1st Quarter	30	14	46.7	2337	429	18.4	5771	617	10.7	2367	443	18.7	8138	1060	13.0
2nd Quarter	37	16	43.2	2563	490	19.1	4610	586	12.7	2600	506	19.5	7210	1092	15.1
3rd Quarter	40	17	42.5	2786	546	19.6	4452	566	12.7	2826	563	19.9	7278	1129	15.5
4th Quarter	39	20	51.3	2959	603	20.4	6946	742	10.7	2998	623	20.8	9944	1365	13.7
Total	146	67	45.9	10645	2068	19.4	21779	2511	11.5	10791	2135	19.8	32570	4646	14.3
<b>1975</b>															
1st Quarter	33	17	51.5	2229	464	20.8	5574	634	11.4	2262	481	21.3	7836	1115	14.2
2nd Quarter	37	14	37.8	2633	552	21.0	4815	590	12.3	2670	566	21.2	7485	1156	15.4
3rd Quarter	44	26	59.1	2858	603	21.1	4802	610	12.7	2902	629	21.7	7704	1239	16.1
4th Quarter	40	18	45.0	2970	659	22.2	6393	839	13.1	3010	677	22.5	9403	1516	16.1
Total	154	75	48.7	10690	2278	21.3	21584	2673	12.4	10844	2353	21.7	32428	5026	15.5
<b>1976</b>															
1st Quarter	23	8	34.8	2803	505	18.0	6928	645	9.3	2826	513	18.2	9754	1158	11.9
2nd Quarter	37	19	51.4	2896	589	20.3	5484	742	13.5	2933	608	20.7	8417	1350	16.0
3rd Quarter	53	31	58.5	3102	704	22.7	5408	778	14.4	3155	735	23.3	8563	1513	17.7
4th Quarter	35	23	65.7	3363	731	21.7	7536	937	12.4	3398	754	22.2	10934	1691	15.5
Total	148	81	54.7	12164	2529	20.8	25356	3102	12.2	12312	2610	21.2	37668	5712	15.2
<b>1977</b>															
1st Quarter	23	12	52.2	2929	538	18.4	7016	719	10.2	2952	550	18.6	9968	1269	12.7
2nd Quarter	39	23	59.0	2980	621	20.8	5553	709	12.8	3019	644	21.3	8572	1353	15.8
3rd Quarter	38	12	31.6	3156	637	20.2	5603	757	13.5	3194	649	20.3	8797	1406	16.0
4th Quarter	40	21	52.5	3328	733	22.0	7976	899	11.3	3368	754	22.4	11344	1653	14.6
Total	140	68	48.6	12393	2529	20.4	26148	3084	11.8	12533	2597	20.7	38681	5681	14.7
<b>1978</b>															
1st Quarter	27	10	37.0	3120	575	18.4	8917	773	8.7	3147	585	18.6	12064	1358	11.3
2nd Quarter	50	29	58.0	3167	675	21.3	5991	784	13.1	3217	704	21.9	9208	1488	16.2
3rd Quarter	46	23	50.0	3121	688	22.0	5813	787	13.5	3167	711	22.5	8980	1498	16.7
4th Quarter	41	25	61.0	3595	869	24.2	7509	988	13.2	3636	894	24.6	11145	1882	16.9
Total	164	87	53.0	13003	2807	21.6	28230	3332	11.8	13167	2894	22.0	41397	6226	15.0
<b>1979</b>															
1st Quarter	36	18	50.0	3437	717	20.9	8337	859	10.3	3473	735	21.2	11810	1594	13.5
2nd Quarter	33	16	48.5	3191	706	22.1	5837	723	12.4	3224	722	22.4	9061	1445	15.9
3rd Quarter	44	20	45.5	3209	742	23.1	5525	743	13.4	3253	762	23.4	8778	1505	17.1
4th Quarter	40	21	52.5	3469	808	23.3	7180	912	12.7	3509	829	23.6	10689	1741	16.3
Total	153	75	49.0	13306	2973	22.3	26879	3237	12.0	13459	3048	22.6	40338	6285	15.6



FIGURE 1.1 ALCOHOL-RELATED ACCIDENTS (ALL TYPES)  
OAKLAND COUNTY, 1974-1979, BY QUARTER

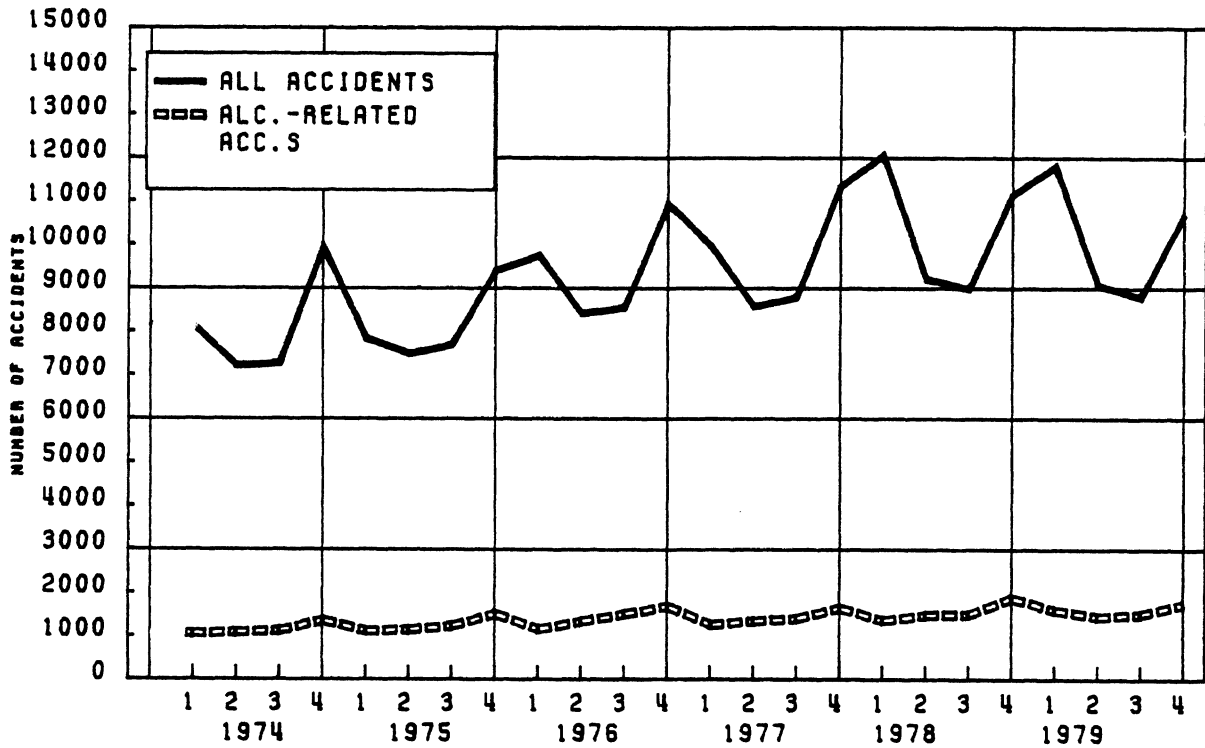


FIGURE 1.2 ALCOHOL-RELATED FATAL AND INJURY ACCIDENTS  
OAKLAND COUNTY, 1974-1979, BY QUARTER

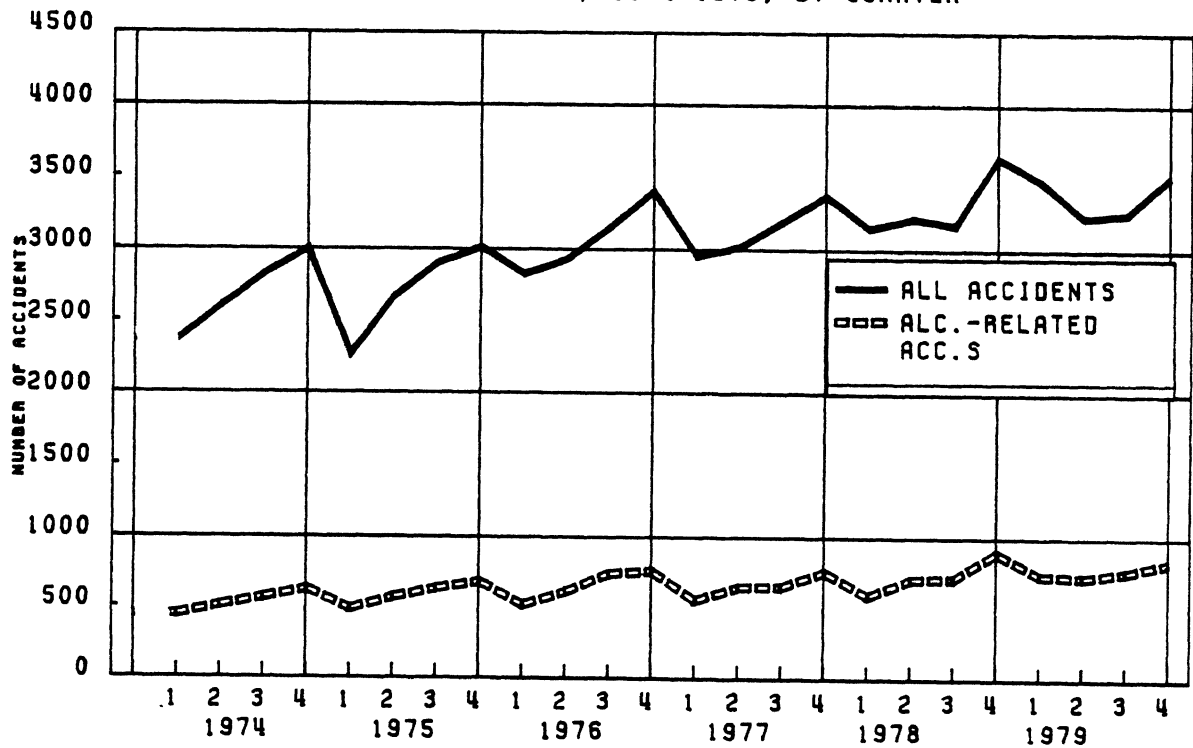


FIGURE 1.3 ALCOHOL-RELATED ACCIDENTS: ALL; FATAL & INJURY  
OAKLAND COUNTY, 1974-1979

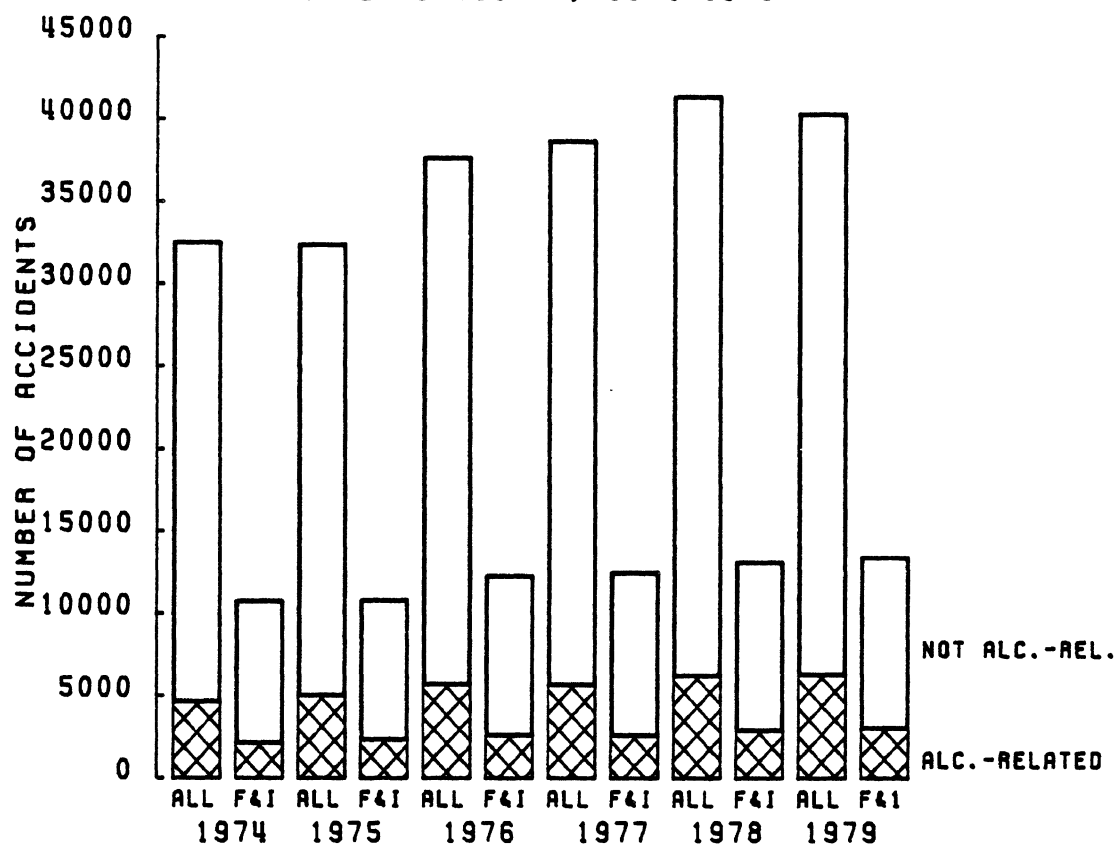
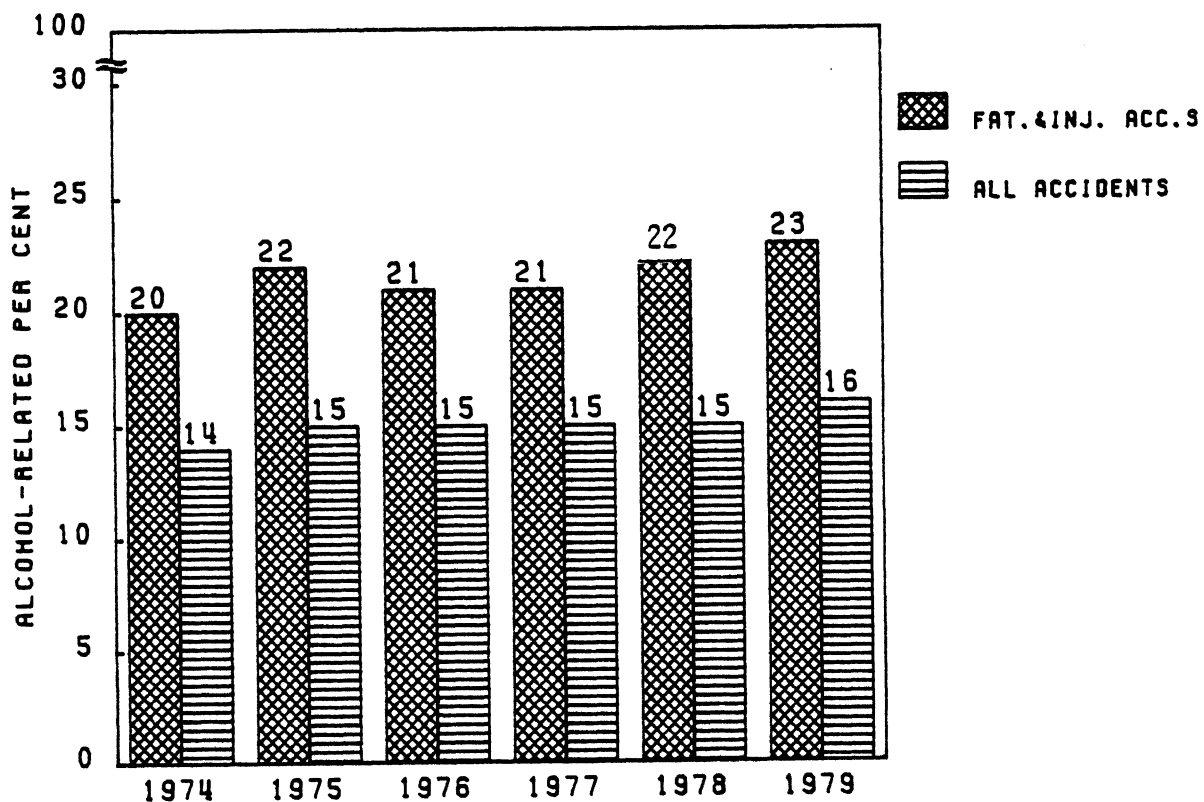


FIGURE 1.4 ALCOHOL-RELATED ACCIDENT PERCENTAGES  
OAKLAND COUNTY, 1974-1979



The data show even larger increases in alcohol-related accidents specifically. From 1974 through 1979 alcohol-related property-damage-only accidents went up 29 percent, alcohol-related fatal and injury accidents went up 43 percent, and the overall increase for all alcohol-related accidents was 35 percent. Alcohol-related accidents increased every year except for a slight drop in both property-damage and injury accidents from 1976 to 1977. During this period, the alcohol-related percentage of all property-damage-only accidents went from 11.5 to 12.0, a 9 percent increase, and the alcohol-related percentage of all fatal and injury accidents went from 19.8 to 22.6, a 14 percent increase. In each year the more serious the accident, the more likely alcohol was to be involved, and for the six years exactly 50 percent of the fatal accidents were alcohol-related.

The stated goal of the Alcohol Enforcement/Education Project is to "reduce the county-wide rate of alcohol-related fatal and injury accidents by 15 percent." The baseline period for comparison with the operational period is not specified, but in view of the trend of increasing alcohol involvement in Oakland County accidents, it seems reasonable to use the two years prior to Project operation as the baseline period. For 1978 and 1979 combined, the rate of alcohol involvement in fatal and injury accidents was 22.32 percent, and thus the basic goal of the Project is to reduce this rate to less than 18.97 percent during the Project period. If the property-damage-only alcohol-related accident rate is also to be reduced 15 percent, this would mean a change from 11.92 percent to 10.13 percent.

Table 1.1 and Figures 1.1 and 1.2 also show how accident rates vary by quarter within each calendar year. In each of the six years, the numbers of fatal and injury accidents were highest during the fall quarter, and, except in 1979, the numbers were lowest during the winter quarter (Figure 1.2). However, for property-damage-only accidents, the fall quarter was highest

1974-1977, while the winter quarter was a high second in those years, and in 1978 and 1979 the winter quarter surpassed the fall quarter. For both types of accidents during all six years the alcohol-related percentage was lowest in the winter quarter. For five of the six years the alcohol-related percentage of fatal and injury accidents was highest in the fall quarter and the summer quarter was second, but for property-damage-only accidents the alcohol-related percentage was highest in the summer quarter for five of the six years, and the spring quarter was also above the winter quarter during three years.

Table 1.2 presents data on all reported accidents and alcohol-related accidents for 60 civil divisions, all of Oakland County, and all Sheriff's Department patrol areas combined in 1978 and 1979. Figure 1.5 shows the 1979 numbers of alcohol-related property-damage and fatal and injury accidents for 14 large police jurisdictions, the Sheriff's Department patrol areas, and the rest of Oakland County. These data demonstrate that among alcohol-related accidents, the number of fatal and injury accidents make up almost half of the total, while fatal and injury accidents are only about 30 percent of all non-alcohol-related accidents. Table 1.2 also shows considerable variation among various civil divisions in their percentages of alcohol-related accidents. In general the more rural areas have higher alcohol-related percentages than the urban areas. Oak Park, Lathrup Village, and Birmingham have particularly low alcohol-related rates, while Addison, Groveland, Holly, and Springfield Townships have the highest alcohol-related rates.

### 1.1 Time Characteristics of Alcohol-Related Accidents

Table 1.3 and Figures 1.6 and 1.7 present data on Oakland County accidents by hour of the day for 1977-1979. While all property-damage and injury accidents peak in the late afternoon, alcohol-related accidents increase gradually throughout the day to a peak in the 2-3 a.m. period. At this time 72 percent of the

TABLE 1.2  
Oakland County Alcohol-Related Accidents by Civil Division,  
1978-1979

Civil Division	Year	Fatal & Injury Accident			All Accidents		
		All	Alcohol Related	Alcohol Related Percent	All	Alcohol Related	Alcohol Related Percent
Addison Township	1978	44	17	38.6	132	34	25.8
	1979	51	19	37.3	123	36	29.3
Avon Township	1978	456	121	26.5	1350	245	18.1
	1979	458	105	22.9	1378	204	14.8
Bloomfield Township	1978	629	110	17.5	1866	227	12.2
	1979	599	93	15.5	1784	227	12.7
Brandon Township	1978	77	25	32.5	230	54	23.5
	1979	56	10	17.9	156	19	12.2
Commerce Township	1978	227	57	25.1	719	147	20.4
	1979	235	75	31.9	638	142	22.3
Groveland Township	1978	62	21	33.9	153	36	23.5
	1979	63	28	44.4	141	41	29.1
Highland Township	1978	156	39	25.0	421	76	18.1
	1979	141	31	22.0	392	71	18.1
Holly Township	1978	61	24	39.3	150	37	24.7
	1979	73	26	35.6	166	46	27.7
Independence Township	1978	268	76	28.4	890	194	21.8
	1979	245	83	33.9	746	206	27.6
Lyon Township	1978	149	46	30.9	390	74	19.0
	1979	143	46	32.2	336	78	23.2

TABLE 1.2 (Continued)

Civil Division	Year	Fatal & Injury Accidents			All Accidents		
		All	Alcohol Related	Alcohol Related Percent	All	Alcohol Related	Alcohol Related Percent
Milford Township	1978	99	31	31.3	282	58	20.6
	1979	88	30	34.1	208	60	28.8
Novi Township	1978	2	1	50.0	14	2	14.3
	1979	2	1	50.0	6	2	33.3
Oakland Township	1978	94	33	35.1	267	66	24.7
	1979	100	27	27.0	235	42	17.9
Orion Township	1978	234	54	23.1	714	110	15.4
	1979	230	62	27.0	668	125	18.7
Oxford Township	1978	95	27	28.4	245	45	18.4
	1979	82	22	26.8	251	46	18.3
Pontiac Township	1978	348	115	33.0	974	209	21.5
	1979	323	185	26.3	923	174	18.9
Rose Township	1978	38	8	21.1	96	17	17.7
	1979	48	14	29.2	91	29	31.9
Royal Oak Township	1978	8	2	25.0	27	4	14.8
	1979	47	5	10.6	181	15	8.3
Springfield Township	1978	81	29	35.8	210	53	25.2
	1979	76	27	35.5	223	56	25.1
Waterford Township	1978	1032	253	24.5	3090	546	17.7
	1979	1098	283	25.8	3033	562	18.5
W. Bloomfield Township	1978	338	69	20.4	1248	187	15.0
	1979	343	73	21.3	1171	186	15.9
White Lake Township	1978	222	76	34.2	639	157	24.6
	1979	176	61	34.7	487	110	22.6
Bingham Farms	1978	62	13	21.0	141	17	12.1
	1979	51	10	19.6	119	18	15.1
Lake Angelus	1978	1	1	100.0	2	2	100.0
	1979	1	0	0	1	0	0

TABLE 1.2 (Continued)

Civil Division	Year	Fatal & Injury Accidents			All Accidents		
		All	Alcohol Related	Alcohol Related Percent	All	Alcohol Related	Alcohol Related Percent
Leonard	1978	1	0	0	6	2	33.3
	1979	1	1	100.	3	2	66.7
Ortonville	1978	10	2	20.0	44	9	20.5
	1979	16	6	37.5	48	10	20.8
Clarkston	1978	14	2	14.3	60	3	5.0
	1979	9	2	22.2	46	5	10.9
Orchard Lake	1978	57	21	36.8	178	44	24.7
	1979	56	27	48.2	163	44	27.0
Sylvan Lake	1978	11	2	18.2	40	8	20.0
	1979	23	5	21.7	65	7	10.8
Wixom	1978	92	20	21.7	284	36	12.7
	1979	89	22	24.7	252	41	16.3
Bloomfield Hills	1978	81	16	19.8	319	43	13.5
	1979	76	17	22.4	268	38	14.2
Franklin	1978	34	0	0	84	6	7.1
	1979	24	2	8.3	81	9	11.1
Holly Village	1978	52	8	15.4	145	32	22.1
	1979	33	7	21.2	119	22	18.5
Keego Harbor	1978	46	18	39.1	166	47	28.3
	1979	40	18	45.0	135	33	24.4
Lake Orion	1978	63	17	27.0	222	41	18.5
	1979	51	14	27.5	168	35	20.8
Lathrup Village	1978	79	9	11.4	224	18	8.0
	1979	106	7	6.6	257	15	5.8
Milford Village	1978	48	17	35.4	174	30	17.2
	1979	44	12	27.3	183	25	13.7
Oxford Village	1978	46	7	15.2	155	16	10.3
	1979	30	4	13.3	106	10	9.4
Pleasant Ridge	1978	44	6	13.6	169	21	12.4
	1979	43	10	23.3	159	25	15.7

TABLE 1.2 (Continued)

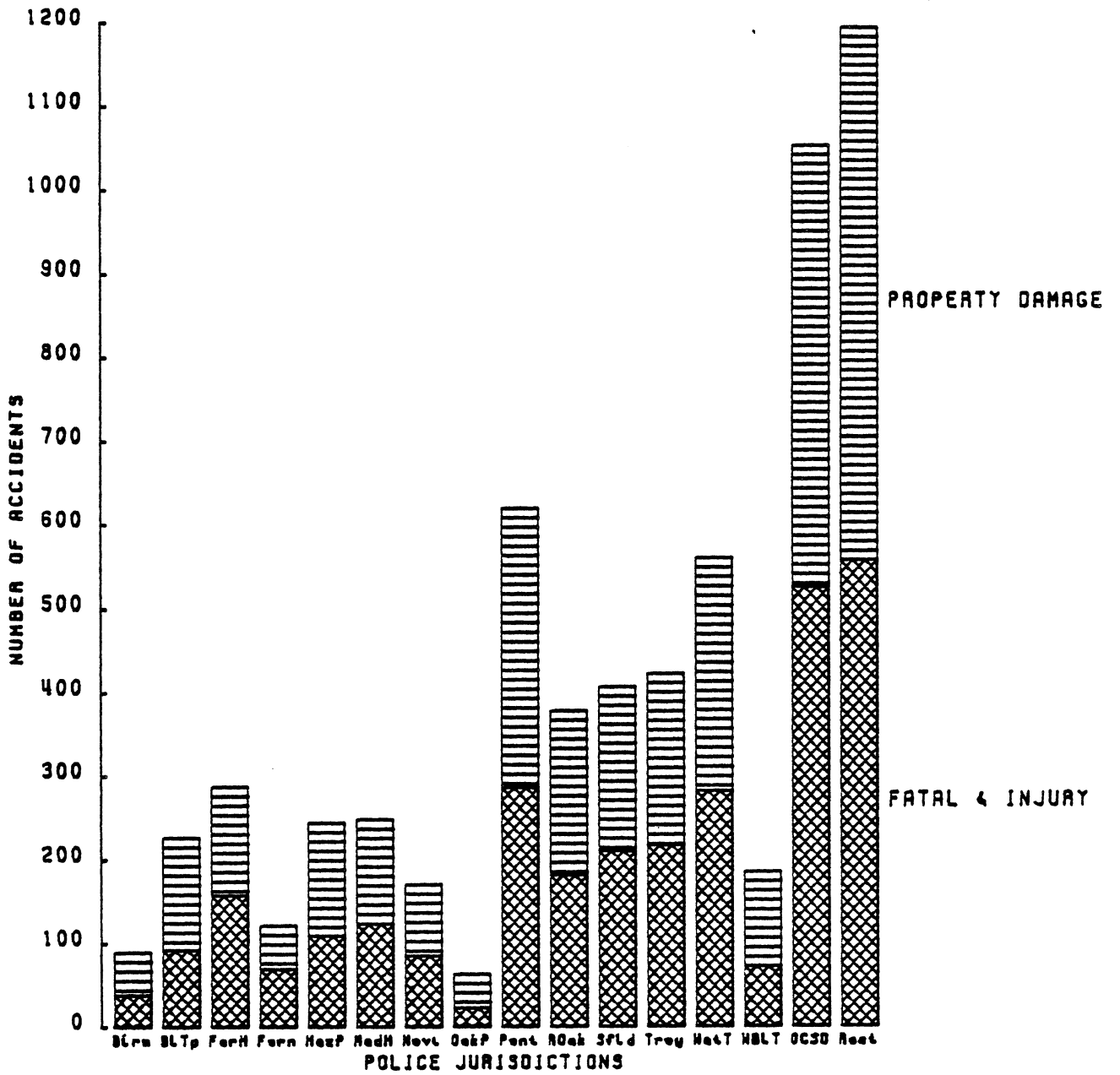
Civil Division	Year	Fatal & Injury Accident			All Accidents		
		All	Alcohol Related	Alcohol Related Percent	All	Alcohol Related	Alcohol Related Percent
South Lyon	1978	36	6	16.7	124	15	12.1
	1979	22	3	13.6	127	17	13.4
Walled Lake	1978	78	21	26.9	293	56	19.1
	1979	66	17	25.8	216	41	19.0
Wolverine Lake	1978	22	4	18.2	66	8	12.1
	1979	14	6	42.9	67	15	22.4
Huntington Woods	1978	52	7	13.5	171	12	7.0
	1979	62	15	24.2	185	27	14.6
Northville City (O.C.Part)	1978	32	7	21.9	88	13	14.8
	1979	26	3	11.5	66	12	18.2
Novi City	1978	329	85	25.8	943	169	17.9
	1979	350	86	24.6	917	171	18.6
Rochester	1978	51	14	27.5	297	42	14.1
	1979	51	14	27.5	317	43	13.6
Berkley	1978	154	24	15.6	573	64	11.2
	1979	214	47	22.0	664	93	14.0
Beverly Hills	1978	89	17	19.1	267	43	16.1
	1979	105	17	16.2	297	46	15.5
Clawson	1978	143	25	17.5	575	72	12.5
	1979	148	18	12.2	511	52	10.2
Farmington	1978	125	17	13.6	489	48	9.8
	1979	150	30	20.0	491	62	12.6
Hazel Park	1978	395	94	23.8	1171	208	17.8
	1979	472	110	23.3	1376	245	17.8
Birmingham	1978	250	42	16.8	1054	105	10.0
	1979	254	39	15.4	1076	90	8.4
Ferndale	1978	241	59	24.5	439	104	23.7
	1979	281	70	24.9	519	122	23.5
Madison Heights	1978	502	97	19.3	1630	250	15.3
	1979	551	124	22.5	1634	249	15.2



TABLE 1.2 (Continued)

Civil Division	Year	Fatal & Injury Accidents			All Accidents		
		All	Alcohol Related	Alcohol Related Percent	All	Alcohol Related	Alcohol Related Percent
Oak Park	1978	240	33	13.8	1149	82	7.1
	1979	254	23	9.1	1133	64	5.6
Troy	1978	882	203	23.0	2763	383	13.9
	1979	895	218	24.4	2703	424	15.7
Farmington Hills	1978	669	124	18.5	1762	251	14.2
	1979	745	158	21.2	1941	288	14.8
Pontiac	1978	1280	284	19.4	4392	535	12.2
	1979	1287	287	22.3	4243	621	14.6
Royal Oak	1978	851	166	19.5	2716	390	14.4
	1979	871	182	20.9	2657	379	14.3
Southfield	1978	1285	208	16.2	3915	423	10.8
	1979	1271	211	16.6	2688	408	11.1
All Sheriff's Patrol Areas	1978	1887	532	28.2	5597	1102	19.7
	1979	1855	527	28.4	5179	1054	20.4
All Oakland County	1978	13,167	2894	22.0	41,397	6226	15.0
	1979	13,349	3043	22.7	40,338	6285	15.6

FIGURE 1.5 ALCOHOL-RELATED ACCIDENTS IN 1979  
FOR LARGE OAKLAND COUNTY POLICE JURISDICTIONS



fatal and injury accidents and 54 percent of the property-damage-only accidents are judged to be alcohol-related. For the whole period from 10 p.m. to 5 a.m. almost half of all accidents are alcohol-related, and substantial proportions of early evening accidents are also alcohol-related. After 3 a.m. the alcohol-related proportion remains high till 6 a.m., but the numbers of accidents drop off sharply so the actual number of alcohol-related accidents in the 3-4 a.m. period is about the same as in the 7-8 p.m. period.

Table 1.4 and Figures 1.8 - 1.10 present similar data by day of the week in four-hour time periods. Friday stands out as clearly the most dangerous day of the week for all accidents with a late afternoon peak much higher than on the other weekdays, while Sunday has fewer accidents than any other day. However, for alcohol-related accidents, Saturday is clearly first with Friday and Sunday about tied for second. Almost three-fifths of the alcohol-related accidents take place on these three days, and one-quarter of all alcohol-related accidents take place from 12-4 a.m. on these three days. The early Saturday morning and early Sunday morning peaks in alcohol-related accidents show very clearly in Figures 1.8 and 1.9, and Thursday and Friday early mornings also have more alcohol-related accidents than Monday, Tuesday, and Wednesday mornings. All told, just about half of the alcohol-related accidents take place between 8 p.m. and 4 a.m. on Wednesday, Thursday, Friday, and Saturday nights.

## 1.2 Road Type and Accident Type

Table 1.5 and Figure 1.11 demonstrate that the vast majority of accidents of all types take place on local roads rather than on freeways and other trunklines. However, accidents on freeways are slightly more likely to be alcohol-related than accidents on other roads. About one-quarter of all Oakland County accidents take place on non-freeway trunklines, and these accidents are slightly less likely to be alcohol related than accidents on other roads.

TABLE 1.3  
Oakland County Alcohol-Related Accidents by Time of Day,  
1977-1979 Combined Data

	Fatal and Injury Accidents			All Accidents		
	All	Alcohol-Related	Alcohol Related Percent	All	Alcohol-Related	Alcohol Related Percent
5-6am.	373	114	30.6	1020	246	24.1
6-7am.	633	65	10.3	1892	124	6.6
7-8am.	1334	65	4.9	4653	130	2.8
8-9am.	1475	36	2.4	5263	93	1.8
9-10am.	1152	33	2.9	4078	79	1.9
10-11am.	1229	29	2.4	4227	83	2.0
11-12am.	1574	64	4.1	5400	126	2.3
12-1pm.	2027	91	4.5	6598	215	2.7
1-2pm.	1926	98	5.1	6298	215	3.4
2-3pm.	2311	155	6.7	7167	338	4.7
3-4pm.	3018	184	6.1	9866	461	4.7
4-5pm.	3002	227	7.6	9904	582	5.9
5-6pm.	3183	357	11.2	10,221	818	8.0
6-7pm.	2242	390	17.4	7009	905	12.9
7-8pm.	1925	473	24.6	5548	1013	18.3
8-9pm.	1604	494	30.8	4523	1072	23.7
9-10pm.	1521	551	36.2	4312	1199	27.8
10-11pm.	1459	653	44.8	4006	1465	36.6
11-12pm.	1555	803	51.6	4336	1723	39.7
12-1am.	1471	838	57.0	3810	1737	45.6
1-2am.	1394	960	68.9	3383	1844	54.5
2-3am.	1592	1147	72.0	3712	2296	61.9
3-4am.	752	498	66.2	1846	1016	55.0
4-5am.	346	201	58.1	901	413	45.8
Total	37,098	8528	21.8	120,033	18,156	15.1

FIGURE 1.6 ALCOHOL-RELATED ACCIDENTS BY HOUR OF DAY FOR ALL OAKLAND COUNTY ACCIDENTS, 1977-1979

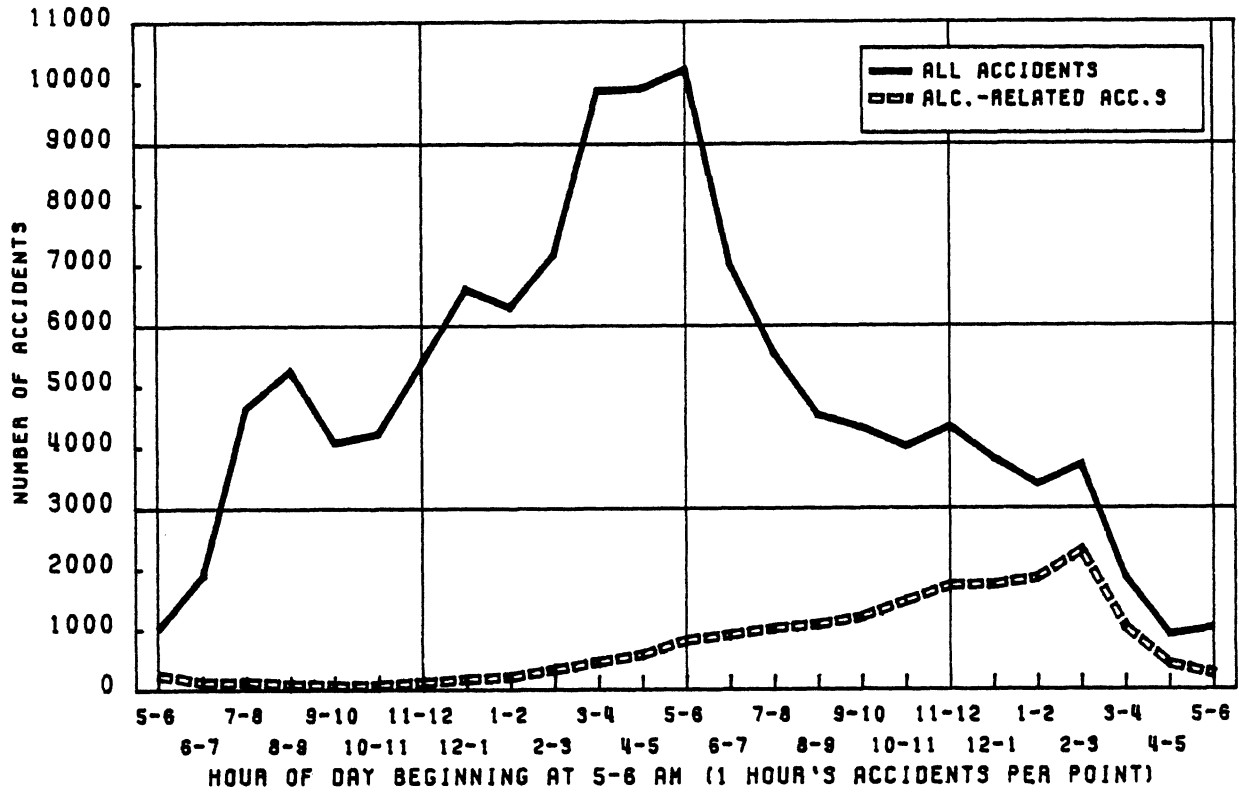


FIGURE 1.7 ALCOHOL-RELATED ACCIDENTS BY HOUR OF DAY FOR OAKLAND COUNTY FATAL AND INJURY ACCIDENTS, 1977-1979

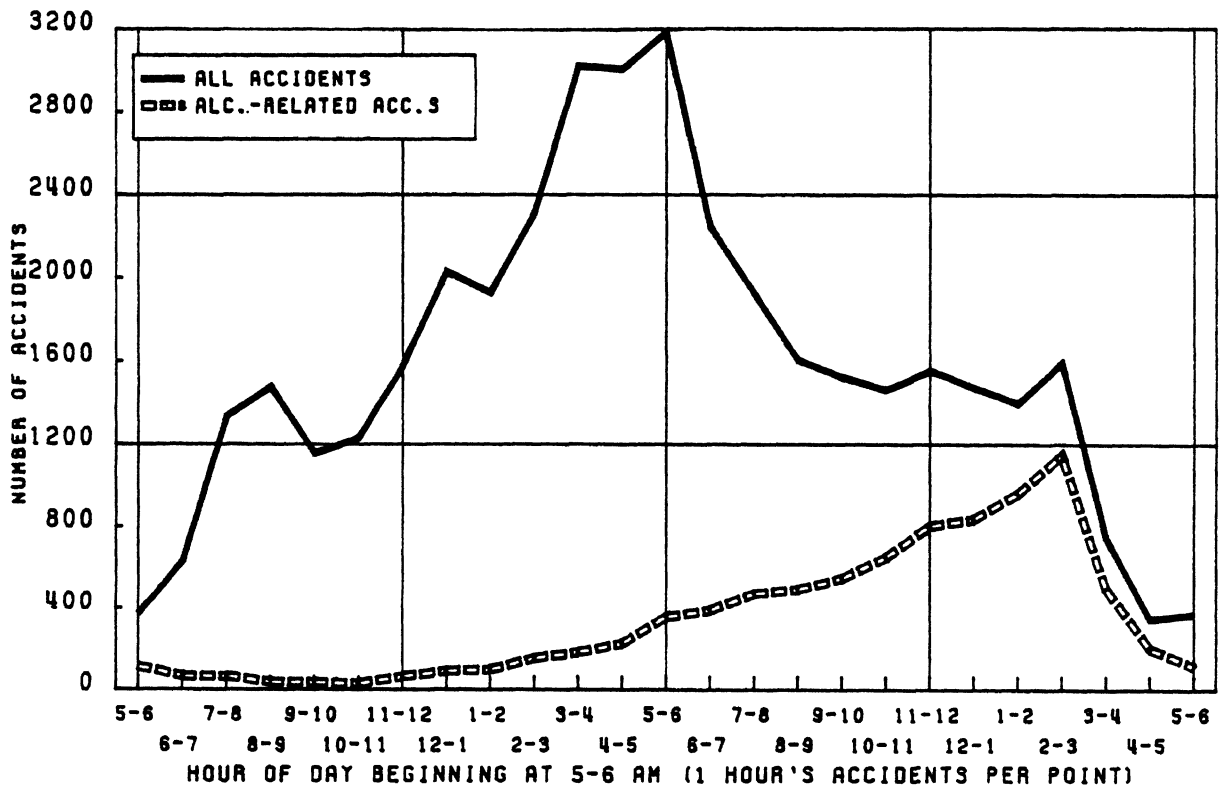


TABLE 1.4  
Oakland County Alcohol-Related Accidents by Day of Week and  
Six Time-of-Day Periods, 1977-1979 Combined Data

	Fatal and Injury Accidents			All Accidents		
	All	Alcohol-Related	Alcohol Related Percent	All	Alcohol-Related	Alcohol Related Percent
<b>Monday</b>						
12-4am.	383	247	64.5	1016	529	52.1
4-8am.	427	40	9.4	1373	75	5.5
8-12am.	911	15	1.6	3126	39	1.2
12-4pm.	1383	63	4.6	4566	132	2.9
4-8pm.	1495	168	11.2	4694	379	8.1
8-12pm.	679	267	39.3	1958	574	29.3
Total	5283	800	15.1	16,782	1733	10.3
<b>Tuesday</b>						
12-4am.	395	246	62.3	926	466	50.3
4-8am.	378	34	9.0	1287	69	5.4
8-12am.	889	21	2.4	3089	49	1.6
12-4pm.	1321	68	5.1	4318	148	3.4
4-8pm.	1465	161	11.0	4784	348	7.3
8-12pm.	738	277	37.5	2095	625	29.8
Total	5192	809	15.6	16,528	1709	10.3
<b>Wednesday</b>						
12-4am.	457	274	60.0	1128	573	50.8
4-8am.	449	36	8.0	1399	66	4.7
8-12am.	817	16	2.0	2886	43	1.5
12-4pm.	1326	60	4.5	4246	152	3.6
4-8pm.	1550	164	10.6	4781	394	8.2
8-12pm.	800	323	40.4	2256	713	31.6
Total	5413	876	16.2	16,757	1946	11.6
<b>Thursday</b>						
12-4am.	518	335	64.8	1345	712	52.9
4-8am.	417	25	6.0	1412	69	4.9
8-12am.	781	26	3.3	2873	60	2.1
12-4pm.	1323	63	4.8	4351	134	3.1
4-8pm.	1597	198	12.4	4944	448	9.1
8-12pm.	908	373	41.1	2426	796	32.8
Total	5554	1020	18.4	17,398	2223	12.8
<b>Friday</b>						
12-4am.	643	422	65.6	1519	830	54.6
4-8am.	422	46	10.9	1394	99	7.1
8-12am.	953	36	3.8	3341	70	2.1
12-4pm.	1643	108	6.6	5384	258	4.8
4-8pm.	2076	330	15.9	6723	746	11.1
8-12pm.	1301	569	43.7	3720	1258	33.8
Total	7050	1514	21.5	22,151	3269	14.8

Table 1.4 (Continued)

	Fatal and Injury Accidents			All Accidents		
	All	Alcohol-Related	Alcohol Related Percent	All	Alcohol-Related	Alcohol Related Percent
<b>Saturday</b>						
12-4am.	1551	1043	67.2	3648	2012	55.2
4-8am.	345	127	36.8	952	266	27.9
8-12am.	718	27	3.8	2508	69	2.8
12-4pm.	1303	102	7.8	4094	232	5.7
4-8pm.	1181	242	20.5	3792	589	15.5
8-12pm.	1023	419	41.0	2929	903	30.8
Total	6129	1961	32.0	18,002	4077	22.6
<b>Sunday</b>						
12-4am.	1262	876	69.4	3169	1771	55.9
4-8am.	248	137	55.2	649	269	41.5
8-12am.	361	21	5.8	1145	48	4.2
12-4pm.	983	66	6.7	2970	138	4.6
4-8pm.	988	184	18.6	2964	414	14.0
8-12pm.	690	273	39.6	1853	590	31.8
Total	4538	1559	34.4	12,798	3235	25.3
<b>Grand Total</b>	<b>39,189</b>	<b>8539</b>	<b>21.8</b>	<b>120,956</b>	<b>18,192</b>	<b>15.0</b>

FIGURE 1.8 ALCOHOL-RELATED ACCIDENTS BY 4-HOUR PERIODS FOR ALL OAKLAND COUNTY ACCIDENTS, 1977-1979

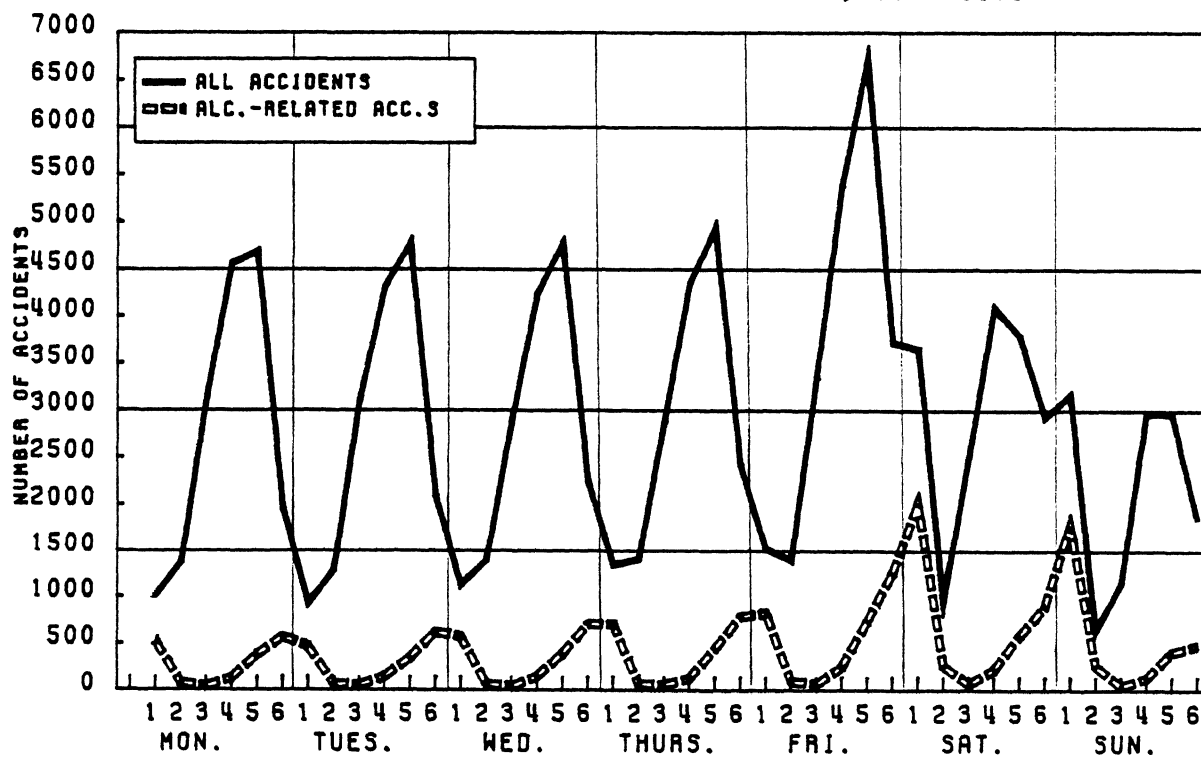


FIGURE 1.9 ALCOHOL-RELATED ACCIDENTS BY 4-HOUR PERIODS FOR OAKLAND COUNTY FATAL AND INJURY ACCIDENTS, 1977-1979

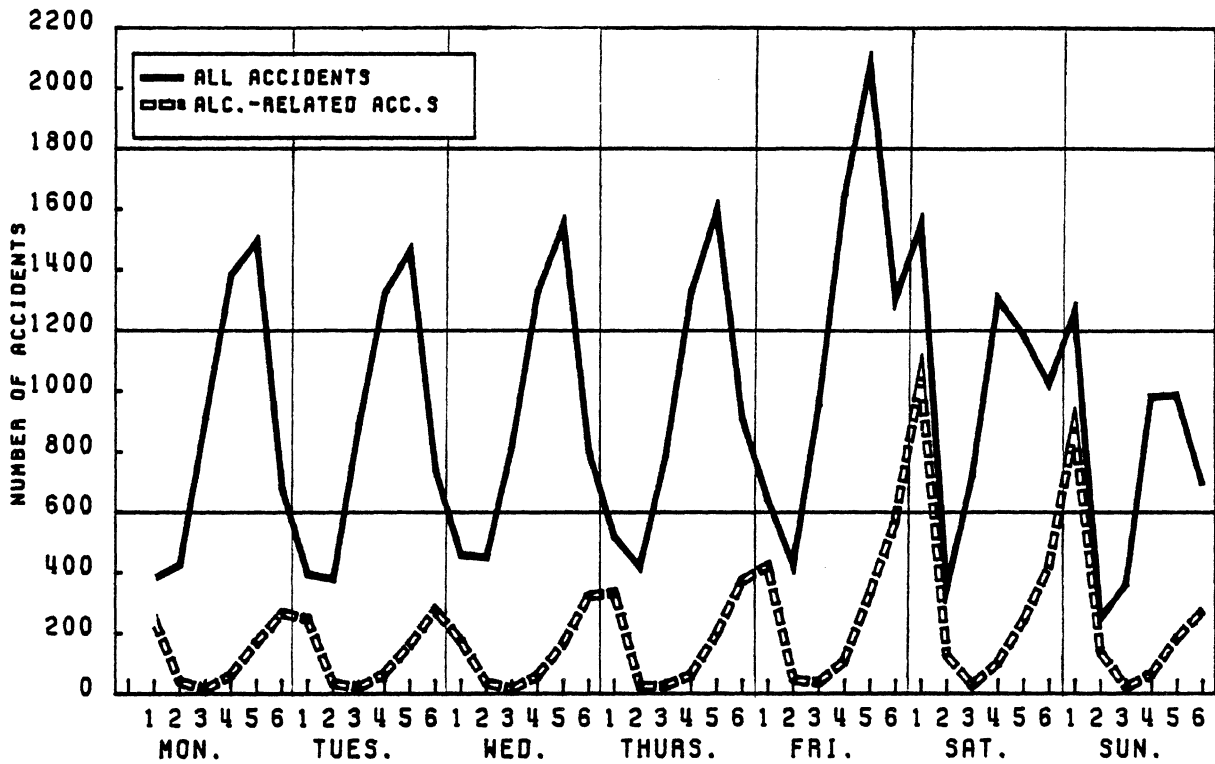


FIG. 1.10 ALCOHOL-RELATED ACCIDENTS: ALL; FATAL & INJURY; BY DAY OF THE WEEK, OAKLAND COUNTY, 1977-1979

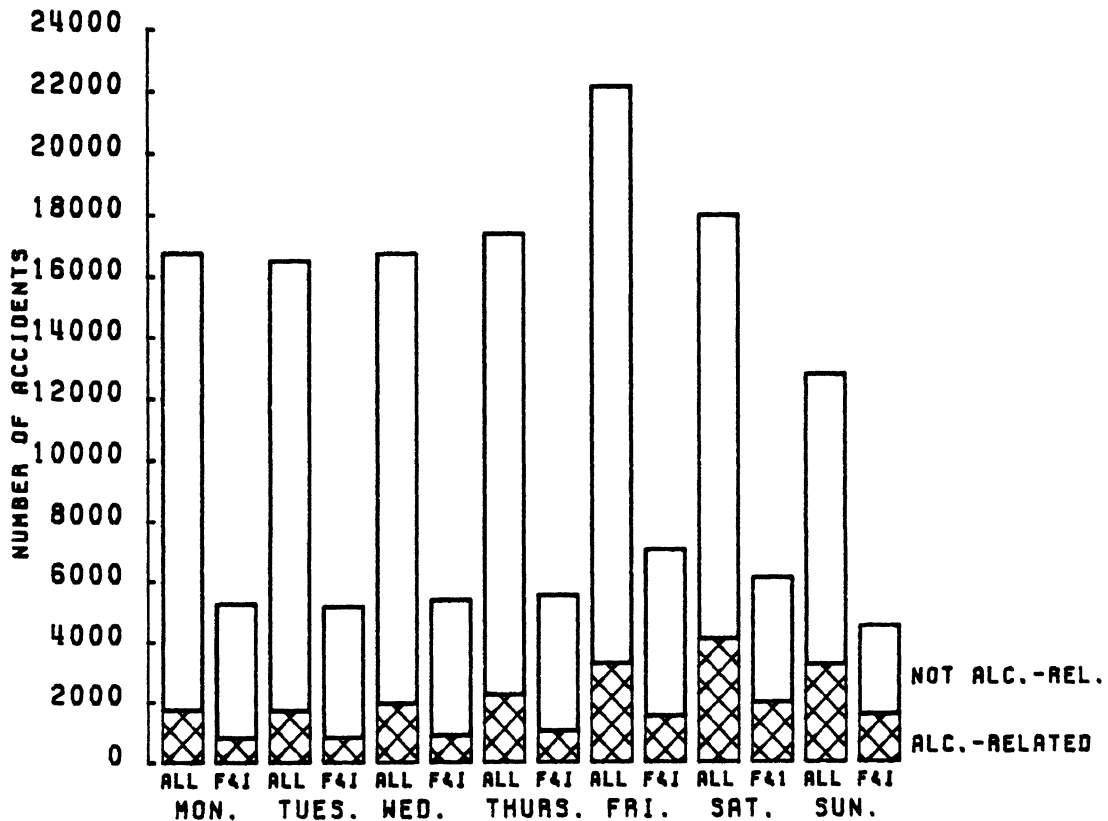
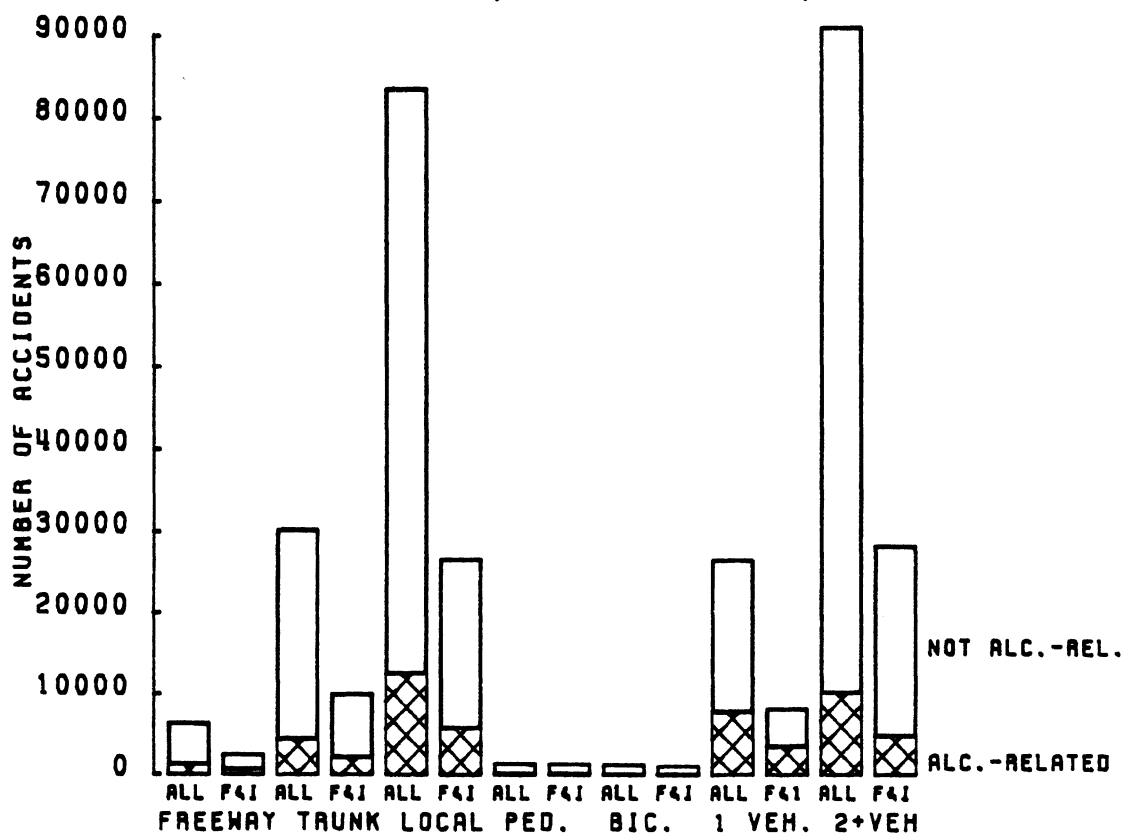




TABLE 1.5  
Oakland County Alcohol-Related Accidents by Road Type and  
by General Accident Type, 1977-1979 Combined Data

Road Type	Fatal and Injury Accidents			All Accidents		
	All	Alcohol-Related	Alcohol Related Percent	All	Alcohol-Related	Alcohol Related Percent
Freeway	2356	680	28.9	6441	1270	19.7
Other Trunk-line	10,066	2114	21.0	30,318	4378	14.4
Local Road	26,737	5745	21.5	83,657	12,544	15.0
Total	39,159	8539	21.8	120,956	18,192	15.0
Accident Type						
Pedestrian	1367	172	12.6	1407	174	12.4
Bicyclist	1099	42	3.8	1284	48	3.7
Other Single Moving Motor Veh.	8244	3499	42.4	26,672	7761	29.1
Multi-Veh.	28,449	4826	17.0	91,053	10,209	11.2
Total	39,159	8539	21.8	120,956	18,192	15.0

FIG. 1.11 ALCOHOL-RELATED ACCIDENTS: ALL; FATAL & INJURY; BY ROAD/ACCIDENT TYPES, OAKLAND COUNTY, 1977-1979



Looking at accident type, more than three-quarters of all Oakland County accidents involve two or more motor vehicles, while 1.2 percent are pedestrian accidents, 1.1 percent are bicyclist accidents, and 22.1 percent are other single-vehicle accidents. However, these other single-vehicle accidents are much more likely to be alcohol-related than the other accident types, and they include about three-sevenths of all alcohol-related accidents. A relatively small percentage of pedestrian accidents are alcohol-related, but bicyclist accidents are even much less likely to be alcohol-related.

## 2. OAKLAND COUNTY DUI ARREST DATA

A major intermediate goal of the Alcohol Enforcement/Education Project is to increase drunk driving arrests by 30 percent in the Sheriff's Department and by 15 percent in the local police departments of Oakland County. This section will look at county-wide long-term trends in DUI arrests, recent changes in DUI arrest rates with the start-up of the Alcohol Enforcement Team, and characteristics of the Alcohol Enforcement Team arrests and arrestees.

### 2.1 Long-term Trends, 1971-1979

Tables 2.1 and 2.2 and Figures 2.1 and 2.2 compare changes in drunk driving arrests for Oakland County and for all of Michigan from 1971 to 1980 using three sources. The first is the annual Michigan Uniform Crime Report for which all police departments are supposed to provide statistics on their arrest activities by offense category. The second is the compilation of the carbon copies of the breath test report form which each police agency conducting a breath test is supposed to submit to the Traffic Services Division of the Michigan State Police. The third is the Officer's Sworn Statement of Refusal to Submit to a Chemical Test, which is submitted to the Michigan Department of State when a DUI arrestee refuses to provide a breath sample. Theoretically, the UCR should agree with the sum of the breath test report form totals and the refusal form totals, but obviously there is considerable room for under-reporting, mis-reporting, mis-counting, etc. in tallying these state-wide and county-wide totals, and it is not too surprising that they do not match exactly. While almost all police departments have complied with the requirement of submitting an annual UCR report, there is no way to know the accuracy of these arrest data for each offense

category for each police department.<sup>2</sup> Compliance with the requirement of submitting the carbon copy of the breath test report form to the MSP Traffic Services Division is known not to be complete, but of course it is difficult to estimate the degree of completeness except by comparing with the UCR. For 1972 through 1978, the UCR totals for Michigan were greater than the sum of the breath test report form and refusal report form totals, but in 1979 the latter figure was greater than the UCR figure. Assuming that the Traffic Services Division and the Department of State are able to count their received forms fairly accurately, one would expect their sum to represent a minimum estimate of the true number of DUI arrests. So it appears that the 1979 UCR significantly underreported DUI arrests.

However, both trend lines agree in showing substantial increases state-wide in drunk driving arrests since 1977. In 1980 a new procedure was instituted for gathering the breath test data by having a copy of a revised breathalyzer test log submitted to the Traffic Services Division. Based on the first eight months of tallies, one can project a 20 percent further increase in reported 1980 DUI arrests from 1979. Table 2.1 and Figure 2.1 show a gradual increase through the 1970s in the percentage of DUI arrestees who refused to take a breath test. Whether that percentage has really declined in 1980 or the decline is an

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<sup>2</sup>For example, in reviewing the UCR microfilm records for 1978, it was discovered that Huntington Woods showed 80 DUI arrests, 51 of which were for persons under 17 years old. Obviously an error had occurred somewhere in the reporting or transcribing process. Also, many police departments showed quite different numbers for DUI offenses on two different report forms, Return A and Return B, and also on Return C, which lists the number of persons charged with DUI. A typical example is the Sheriff's Department which in 1977 showed 278 DUI arrests on Return A, 296 on Return B, and 283 on Return C. For most police agencies the Return B figures were the largest of the three numbers, and they were the ones used for this report.

TABLE 2.1  
Trends in Drunk Driving Arrests for Michigan, 1971-1980

Michigan	Reported UCR Arrests <sup>a</sup>	Sum of Reported Breath Tests & Refusals	Difference From UCR	Reported Breath Tests <sup>b</sup>	Reported Refusals <sup>c</sup>	Refusal Percent of Total
1971	27,366	27,384	+18	21,596	5,788	21.1
1972	36,246	35,771	-475	28,829	6,942	19.4
1973	38,301	35,825	-2476	28,556	7,269	20.3
1974	38,328	36,753	-1575	28,961	7,792	21.2
1975	38,717	37,161	-1556	29,168	7,993	21.5
1976	38,488	35,272	-3216	27,420	7,852	22.3
1977	37,532	34,839	-2693	27,332	7,507	21.5
1978	39,628	37,718	-1910	28,950	8,768	23.2
1979	41,937	43,668	+1731	32,451	11,215	25.7
1980(8) <sup>d</sup>	-	34,864	-	26,927	7,937	22.8
1980-Tot <sup>e</sup>	-	52,296	-	40,391	11,905	22.8

<sup>a</sup>These data are from Return B of the Michigan Uniform Crime Report which each police agency is required to submit to the Michigan State Police annually. Return B classifies total police activity by type of offense. The data shown here are for the DUI offenses, Driving Under the Influence of Liquor and Driving Under the Influence of Narcotics. They were copied from the annual Michigan Uniform Crime Report for the years 1971 to 1979.

<sup>b</sup>Each police agency conducting a breath test on a DUI arrestee is supposed to submit a carbon copy of the breath test report form to the Traffic Services Division of the Michigan State Police. These forms are hand tallied, and the resulting data are distributed monthly for most reporting police agencies by county. Statewide and county totals are also cumulated month-by-month through December of each year, and those are the numbers shown here.

<sup>c</sup>When a DUI arrestee refuses to submit to a breath test, the police officer completes the Officer's Sworn Report of Refusal to Submit to Chemical Test. This form is submitted to the Department of State so that action can be taken to suspend the arrestee's driver's license. The Department of State hand tallies these forms monthly and the statewide totals are distributed along with the breath test totals by the Michigan State Police, Traffic Services Division. The Department of State does not make any tallies by police agency or county.

<sup>d</sup>The figures on this line are for eight months of 1980.

<sup>e</sup>The figures on this line represent a straight-line projection of the eight months of available data to cover all of 1980.

TABLE 2.2  
Trends in Drunk Driving Arrests for Oakland County, 1971-1980

	Reported UCR Arrests <sup>a</sup>	Reported Breath Tests <sup>a</sup>	Estimated Refusals <sup>b</sup>	Sum of Reported Breath Tests & Estimated Refusals	Difference From UCR	Oakland Percent of Michigan Population	Oakland Percent of Michigan UCR Arrests
1971	2755	2480	665	3145	+390	10.3	10.1
1972	4449	3507	844	4351	-98	10.4	12.3
1973	4284	3436	875	4311	+27	10.4	11.2
1974	4137	3284	884	4168	+31	10.5	10.8
1975	4402	3505	960	4465	+63	10.6	11.4
1976	4253	3047	873	3920	-333	10.7	11.1
1977	4057	3064	762	3826	-231	10.7	10.8
1978	4757	3178	963	4141	-616	10.8	12.0
1979	5406	3332	1152	4484	-922	10.9	12.9
1980(8) <sup>c</sup>	-	3000	884	3884	-	10.9	-
1980-Tot <sup>d</sup>	-	4500	1326	5826	-	11.0	-

<sup>a</sup>The source of these data are explained in footnotes a and b of Table 2.1.

<sup>b</sup>Actual counts of refusals per county are not available. The above refusal estimates are based on applying the annual statewide refusal percentages shown in Table 2.1 to the Oakland County breath test totals shown here, but how closely the Oakland County refusal rates actually correspond to the statewide refusal rate is not known.

<sup>c</sup>The figures on this line are for eight months in 1980.

<sup>d</sup>The figures on this line represent a straight-line projection of the eight months of available data to cover all of 1980.

FIGURE 2.1 TRENDS IN DUI ARRESTS AND BREATH TEST REFUSALS, MICHIGAN, 1971-1980

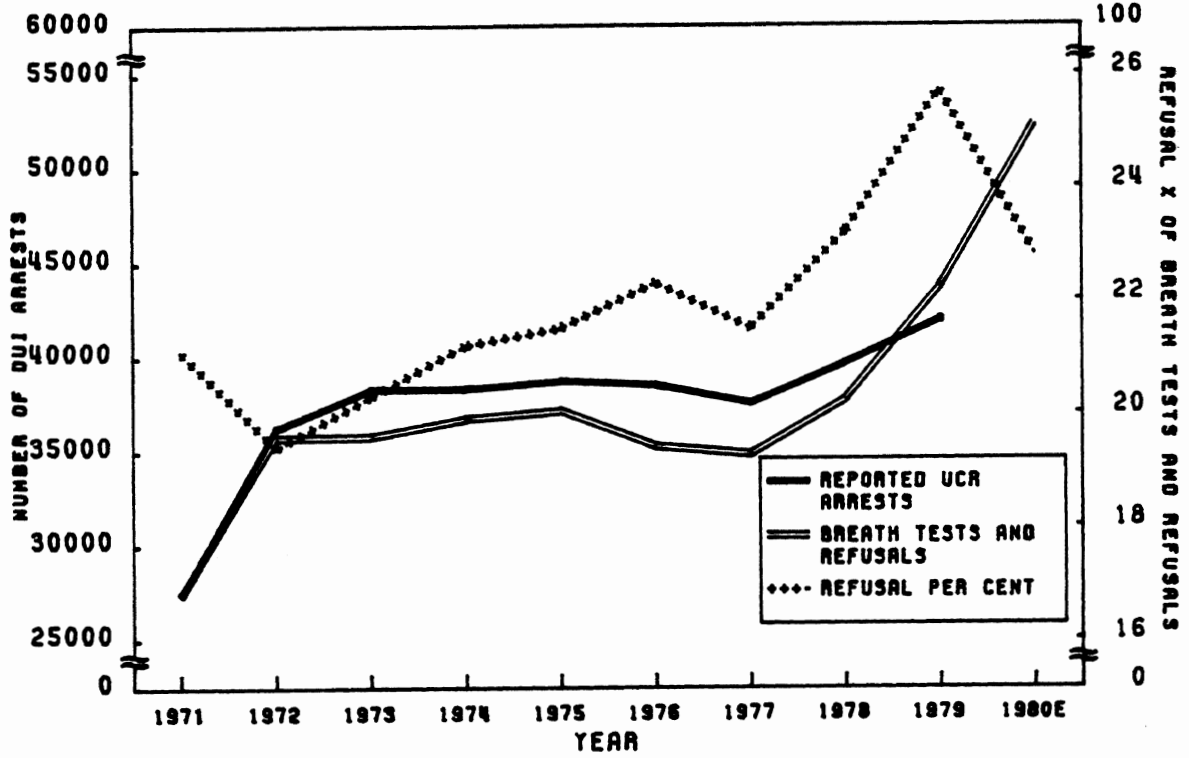
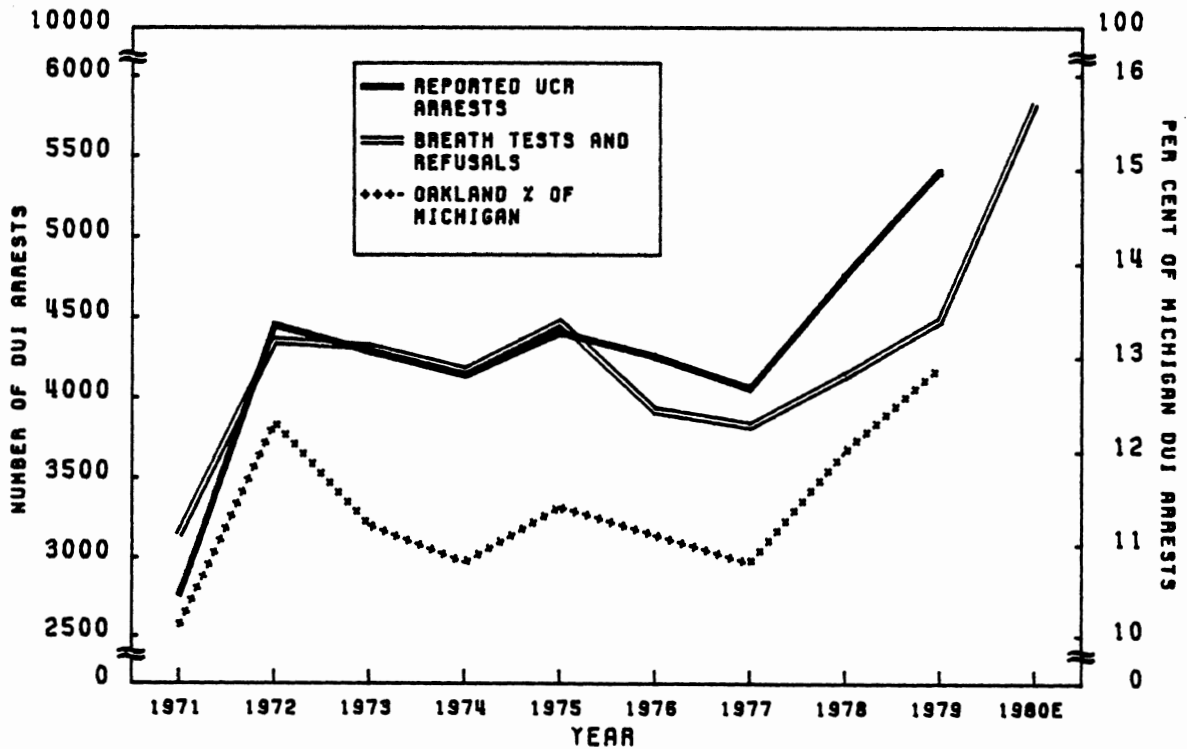


FIGURE 2.2 TRENDS IN DRUNK DRIVING ARRESTS, OAKLAND COUNTY, 1971-1980



artifact of a more accurate counting of arrestees who provided a breath sample can not be ascertained at this time.

Table 2.2 and Figure 2.2 show that Oakland County DUI arrest trends in the 1970s were roughly similar to the state-wide trends. Unfortunately, the monthly Department of State refusal counts are not available by police department or by county, so the refusals for Oakland County each year have been estimated using the state-wide refusal percentage for that year. The two sets of DUI arrest figures show quite a close correspondence for 1972-1975, but since then the UCR figures have been somewhat higher and were much higher in 1979--in contrast to the state-wide figures.

Both sets of data agree in showing some decline in Oakland County DUI arrests in 1976 and 1977 and then even sharper-than-state-wide increases since then. Based on the first eight months of 1980, it appears that the number of DUI arrests will be over 6000 for all of 1980. Since 1972 the Oakland County percentage of all Michigan DUI arrests has been larger than the Oakland County percentage of the Michigan population, and this difference became even greater in 1978 and 1979.

Table 2.3 and Figures 2.3 and 2.4 go on to show 1971-1979 UCR trends in drunk driving arrests in Oakland County for the Michigan State Police, the Sheriff's Department, and 17 of the larger local police departments. The data show very substantial variations from year to year in the reported numbers of DUI arrests among some of the different police agencies. Many of the large police agencies such as Southfield, Pontiac, and Farmington Hills had much larger numbers of DUI arrests in the early and mid-1970s than in more recent years, while others such as Troy and Waterford show a more gradual increasing trend throughout the decade. The sharpest increases in recent years are found for the Michigan State Police and the Sheriff's Department, and they account for a large share of the 13.6 percent increase in Oakland County DUI arrests from 1978 to 1979. The only other agencies whose largest



number of arrests for the decade were in 1979 are Royal Oak and Waterford. If all 19 agencies had made their largest number of DUI arrests in the same year, that year's total for the 19 agencies would be 5574, compared to the actual 1979 total of 4544.

Table 2.3 also demonstrates some very large differences among police departments in the extent of drunk driving arrests each year. Perhaps most striking is the contrast between the average of 340 DUI arrests per year by the small city of Hazel Park and the 75 DUI arrests per year by the larger city of Royal Oak.

## 2.2 1978-1980 Trends

In Table 2.4 UCR and breath test reports data for 1978 and 1979 are presented for 46 Oakland County police agencies along with data for 1979 and nine months of 1980 from a new source. CLEMIS, the County-wide Law Enforcement Management Information System operated by the Oakland County government, obtains monthly activities reports for most of the police agencies in the County, and all but one of these police agencies were willing to have these data released to the Traffic Improvement Association and to HSRI. Non-participating agencies were contacted directly by HSRI staff to obtain comparable monthly data.

In general, the UCR and CLEMIS figures are quite similar for 1979, and the CLEMIS county total comes out just 151 larger than the UCR county total. Much of the discrepancy is in the MSP data, perhaps because it was necessary to estimate the portions of the Northville and Brighton posts' DUI arrests which took place in Oakland County. Unfortunately, the UCR data are not available by individual post within Oakland County, so a direct comparison for each post is not possible. Other agencies with particularly large differences between the two reported DUI arrest figures are Clawson, Franklin, Holly, Milford, and Novi. Most of the large departments are quite close, but only nine agencies have identical figures in the two sources.

TABLE 2.3  
Trends in Drunk Driving Arrests Reported to the MSP Uniform Crime  
Reporting Section for 19 Oakland County Police Agencies, 1971-1979<sup>a</sup>

County	1971	1972	1973	1974	1975	1976	1977	1978	1979
Birmingham	29	60	69	57	78	-	55	63	52
Bloomfield Twp.	183	264	248	250	284	269	206	167	132
Clawson	154	158	142	0*	107	-	80	105	57
Farmington	126	136	166	112	100	-	74	48	44
Farmington Hills	5	25	23	191	38	41	84	76	120
Ferndale	26	37	73	35	78	-	108	97	96
Hazel Park	218	405	389	378	351	-	309	304	370
Madison Heights	88	123	124	116	156	129	84	104	121
Novi	20*	124	125	156	171	-	84	128	85
Oak Park	146	224	175	188	211	169	160	162	213
Pontiac	261	558	568	483	689	525	434	408	505
Royal Oak	64	65	72	86	69	48	71	98	102
Southfield	331	666	476	339	379	283	282	338	364
Troy	156	218	193	159	186	252	322	311	299
Waterford Twp.	108	124	89	84	90	243	242	258	283
W.Bloomfield Twp.	15*	168	159	298	235	-	134	281	221
Wixom	-	34	105	121	77	-	33	30	30
Sheriff's Dept.	228*	303	287	249	299	320	296	374	523
All MSP	-	-	345	289	281	382	322	564	927

\*Data may not be complete.

<sup>a</sup>The data for 1971-1976 are taken from the annual Michigan Uniform Crime Report published by the Department of State Police. In 1976, data were published for only the nine largest Oakland County police departments. The 1977-1979 data were copied from the micro-film records in the Uniform Crime Reporting Section office in Lansing.

FIGURE 2.3 TRENDS IN DRUNK DRIVING ARRESTS,  
SEVEN LARGE OAKLAND COUNTY POLICE AGENCIES, 1971-1979

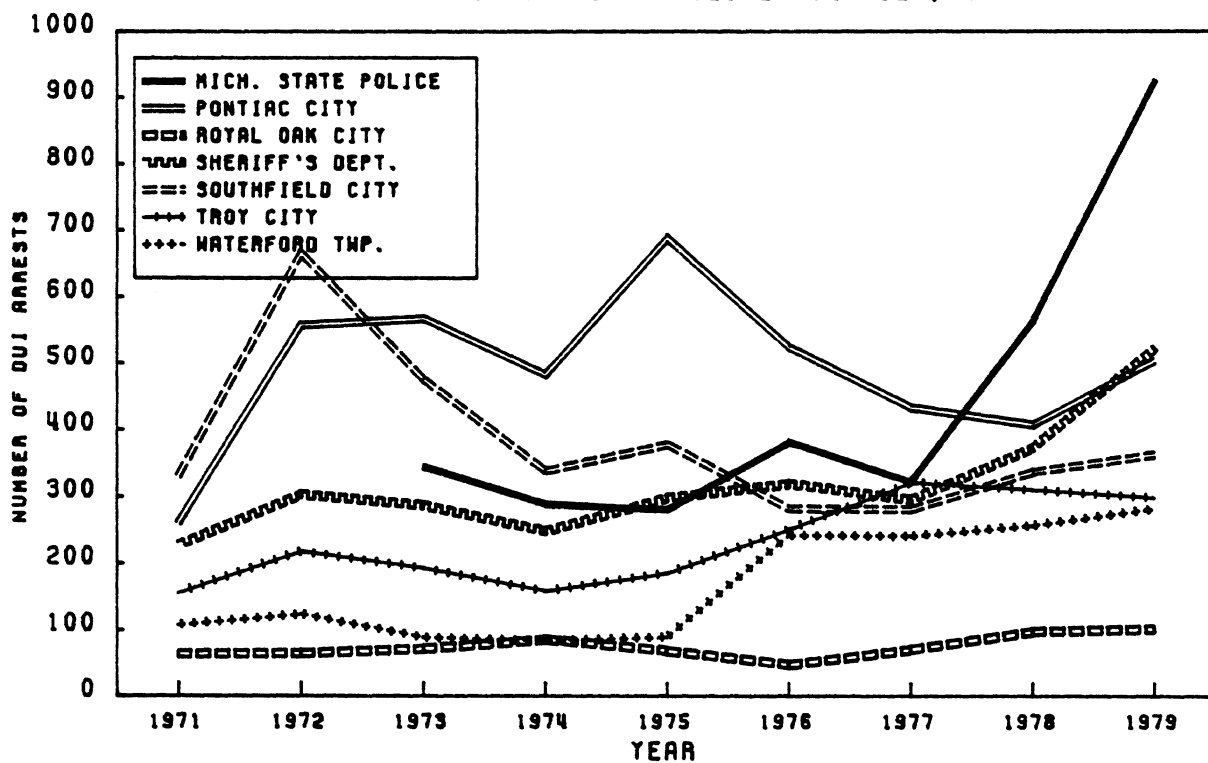


FIGURE 2.4 TRENDS IN DRUNK DRIVING ARRESTS,  
SEVEN MORE OAKLAND COUNTY POLICE AGENCIES, 1971-1979

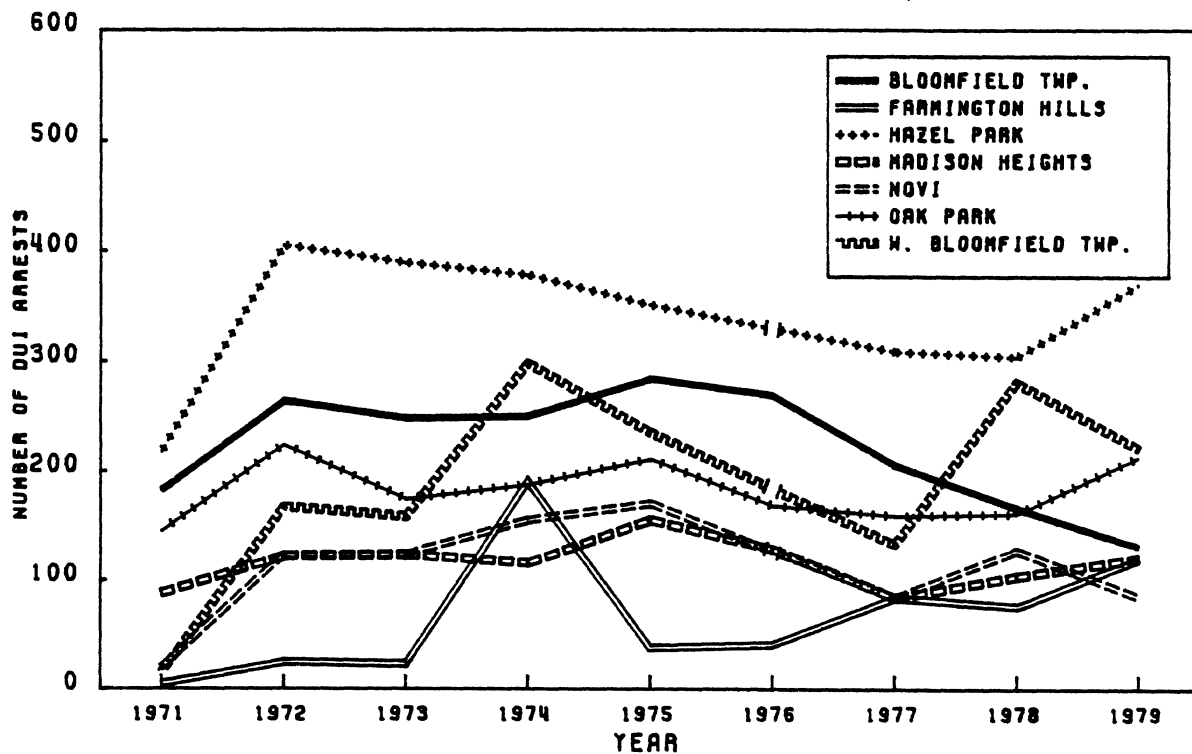


TABLE 2.4  
Oakland County Drunk Driving Arrests by Police Agency,  
Comparing Three Sources, 1978-1980

Police Agency	Uniform Crime Report <sup>a</sup>		Breath Test Reports <sup>b</sup>		CLEMIS Reports <sup>c</sup>	
	1978	1979	1978	1979	1979	1980 (9 mos.)
Berkley	21	19	21	13	20	64
Beverly Hills	31	57	9	9	56	61
Birmingham	63	52	32	34	52	45
Bloomfield Hills	3	12	14	10	19	12
Bloomfield Twp.	167	132	103	87	132	123
Clawson	105	57	76	71	86	56
Farmington	48	44	31	34	43	53
Farmington Hills	76	120	42	74	*	*
Ferndale	97	96	69	55	96	105
Franklin	1	26	1	28	37	46
Hazel Park	304	370	193	252	365	264
Holly Village	85	46	33	59	99	87
Huntington Woods	29	45	24	28	45	24
Independence Twp.	7	11	1	2	*	-
Keego Harbor	44	58	23	22	56	43
Kensington Park	6	3	1	1	*	*
Lake Orion	14	19	11	20	18	19
Lathrup Village	2	2	2	1	0	0
Madison Heights	104	121	71	77	119	94
Milford	4	4	8	11	18	15
Novi	128	85	101	61	98	105
Oak Park	162	213	106	187	205	208
Orchard Lake	35	18	30	11	23	20
Oxford	134	80	61	50	79	52
Pleasant Ridge	0	0	0	0	*	*
Pontiac City	408	505	267	136	499	301
Pontiac Twp.	88	98	51	39	98	55
Rochester	32	35	16	18	42	25
Royal Oak City	98	102	52	61	100	105
Southfield	338	364	214	270	357	388
South Lyon	88	130	57	94	130	64
Sylvan Lake	23	11	23	6	15	15
Troy	311	299	182	232	298	340
Walled Lake	69	111	36	74	111	44
Waterford Twp.	258	283	178	155	284	192
W.Bloomfield Twp.	281	221	215	161	216	240
White Lake Twp.	110	45	59	19	45	98
Wixom	30	30	19	23	30	36
Wolverine Lake	8	9	12	8	11	20
Oakland Univ.	4	6	2	2	*	*

See Footnotes at end of Table.

TABLE 2.4 (Continued)

Police Agency	Uniform Crime Report <sup>a</sup>		Breath Test Reports <sup>b</sup>		CLEMIS Reports <sup>c</sup>	
	1978	1979	1978	1979	1979	1980 (9 mos.)
O.C. Sheriff	374	523	247	371	518	733
MSP Brighton	*	*	2	11	22	6
MSP Northville	*	*	65	237	514	250
MSP Pontiac	*	*	157	314	493	404
MSP Romeo	*	*	29	20	86	23
(All MSP)	564	927	(253)	(564)	(1115)	(683)
Other Police <sup>d</sup>	3	16	4	4	21	24
Total County	4757	5406	3455	3519	5557	4864
(Missing Police Agency)			500	86		

#### FOOTNOTES TO TABLE 2.4

\*Missing Data.

<sup>a</sup>As in Tables 2.1-2.3, these data are from Return B of the Michigan Uniform Crime Report which each police agency is required to submit to the Michigan State Police annually.

<sup>b</sup>As noted in Footnote b to Table 2.1, each police agency conducting a breath test on a DUI arrestee is supposed to submit a carbon copy of the breath test report form to the Traffic Services Division of the Michigan State Police. In contrast to the hand-tallied data reported in Tables 2.1 and 2.2, these 1978 and 1979 data were keypunched by the Highway Safety Research Institute under a separate contract with the Michigan Office of Highway Safety Planning. The data reported here were based on all DUI cases coded 63 on the County variable, the code for Oakland County. In the statewide data, the county was not identified in 5.6 percent of the 1978 cases and in 6.1 percent of the 1979 cases, but there is no way to know what portions of these cases really belonged in the Oakland County analysis. Also it should be noted that an unknown number of forms were lost before keypunching, and some of these may have belonged to Oakland County. However, in spite of this loss, the Oakland County totals shown here are substantially larger than both the 1978 and 1979 totals taken from the monthly hand tallies of the Traffic Services Section (3178 in 1978 and 3332 in 1979). It should be noted that police agency is missing for 500 Oakland County cases in 1978 and 86 cases in 1979, and these missing cases seem to be especially from the MSP posts.

<sup>c</sup>For 32 local police departments and the Sheriff's Department, the data reported here were obtained from the County-wide Law Enforcement Management Information System (CLEMIS). For the ten local police agencies which do not participate in CLEMIS, arrest data were obtained directly from 5 agencies and data are still missing from 5 agencies: Farm.Hills, Pleas.Ridge, Kensington Park, Oakland U., & Ind. Twp. Of these five, only Farmington Hills is expected to have a significant number of DUI arrests. Data were also obtained directly from the four state police posts serving Oakland County. Unfortunately, the Brighton and Northville posts could not provide exact data for Oakland County. The data shown are rough estimates based on the total number of DUI arrests for the post each month multiplied by an estimate of the percentage of patrol activity in Oakland County that month. These estimates varied from 1 percent to 11 percent (with a mean of 4.4 percent) for Brighton, while the Northville estimate was 50 percent for 1979 and January/February 1980 and 30 percent since then.

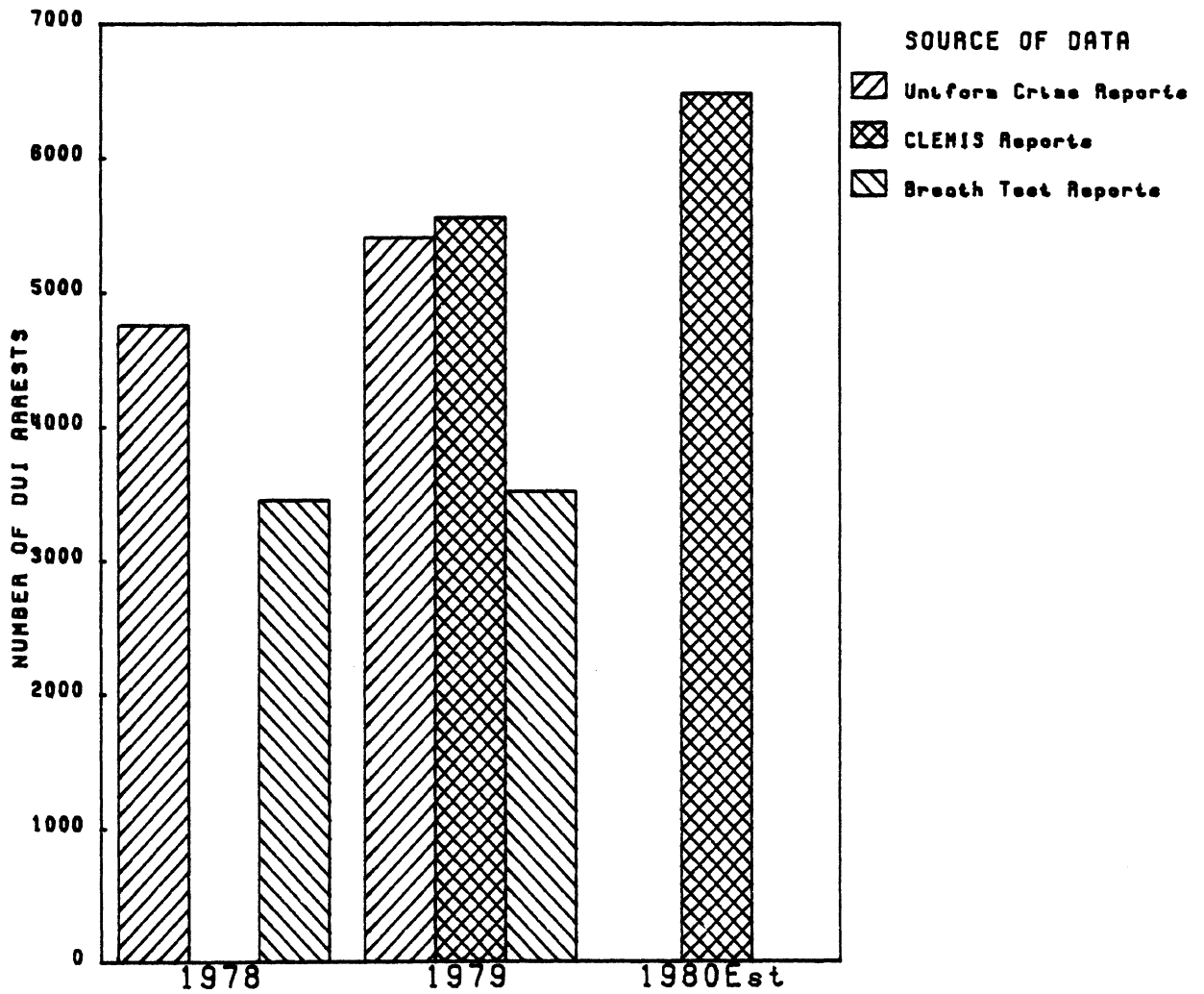
<sup>d</sup>Other police agencies include Camp Dearborn in 1977 and 1978 and the Oakland County Safety Division in 1979.

As would be expected, in every agency the breath test report counts for 1979 are substantially smaller than the CLEMIS arrest figures. And in many agencies the differences are so large that one could not reasonably assume that the difference represented the persons who refused the breath test. Among the agencies which appear to have been most incomplete in their submission of the breath test report forms are the Michigan State Police, Beverly Hills, Ferndale, Keego Harbor, Pontiac City, Pontiac Township, Rochester, and Waterford Township--although there is also a problem of unidentified police agency and even unidentified county on some of the breath test report forms received by the Traffic Services Division.

Figure 2.5 demonstrates graphically that the breath test report totals increased only slightly from 1978 to 1979 while the UCR totals increased substantially. The 1980 CLEMIS estimate based on nine months of data is for almost 6500 DUI arrests in Oakland County in 1980. It will be interesting to see how closely the 1980 UCR, breath test logs, and refusal report counts agree with 1980 CLEMIS figures.

In addition to data on arrests and other police activities, most Oakland County police agencies report police man-hours data to CLEMIS. Table 2.5 and Figures 2.6 and 2.7 show CLEMIS data in DUI arrests by quarter for 1979 and nine months of 1980, along with DUI arrest rates per 1000 hours of total police duty time. These rates are not as meaningful as rates based directly on police patrol hours would be, but, unfortunately, patrol hours as such are not available in the CLEMIS data. Nevertheless, it is felt that these rates are suggestive of the different levels of effort devoted to drunk driving enforcement in the larger police departments of Oakland County. Given the differences in arrest totals seen earlier in Table 2.3, it is not surprising to find the highest arrest rates in Hazel Park and the lowest arrest rates in Royal Oak City. The MSP posts and the Sheriff's Department also

FIGURE 2.5 COMPARISON OF 3 SOURCES OF DUI ARREST DATA,  
OAKLAND COUNTY, 1978-1980





show quite high DUI arrest rates. The Sheriff's Department arrest rate jumps markedly in the fourth quarter of 1979 and then does not increase much in the second and third quarters of 1980 when the Alcohol Enforcement Team began operations, but this is probably an artifact of an under-reporting of man-hours in the fourth quarter of 1979 and the first quarter of 1980. Waterford Township and Pontiac City, the local police departments most involved in the Alcohol Enforcement Team, show a drop in DUI arrest rates for the second and third quarters of 1980.

Table 2.6 and Figure 2.8 go on to look at DUI arrests and arrest rates for the 15 months prior to the Alcohol Enforcement Team start-up, for the first six months of Alcohol Enforcement Team operation (April to September 1980), and for the comparable six months of 1979. Of most interest is a direct comparison of the two six-month periods. For the Sheriff's Department, this shows a 102 percent increase in DUI arrests and an 83 percent increase in arrest rate, well above the Project goal of a 30 percent increase. For the Pontiac MSP post, there is a 5 percent increase in arrests and a 16 percent increase in arrest rate, but for the Brighton and Northville posts there is a 54 percent decrease in arrests. Nevertheless, this still represents a 9 percent increase in arrest rate due to the large MSP personnel cutbacks. For all the local police departments together, there was an increase of 7 percent in DUI arrests, and there was a slightly higher increase in arrest rate among those departments providing man-hours data.

Thus the goal of increasing DUI arrests by 15 percent among the local departments of the County was not achieved during the first six months of Alcohol Enforcement Team operation. Of course the majority of local police departments have no direct involvement in the Alcohol Enforcement/Education Project, so any Project effect on DUI arrests in these departments is likely to be by exhortation and example and education of police officers and of

TABLE 2.5  
 DUI Arrests and Arrest Rate Per 1000 Total Police Duty Hours for Large Oakland and County Police Agencies  
 by Quarter, January 1979 Through September 1980

County	First Quarter		Second Quarter		Third Quarter		Fourth Quarter		Fifth Quarter		Sixth Quarter		Seventh Quarter	
	Arrest	Rate	Arrest	Rate	Arrest	Rate	Arrest	Rate	Arrest	Rate	Arrest	Rate	Arrest	Rate
Birmingham	8	0.5	18	1.2	9	0.6	17	1.2	12	0.8	14	0.9	17	1.1
Bloomfield Twp.	37	1.6	34	1.6	27	1.3	34	1.5	42	1.9	31	1.4	33	1.5
Farmington Hills	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ferndale	34	1.8	14	0.8	17	0.9	31	1.6	27	1.4	34	1.7	38	1.9
Hazel Park	87	7.8	100	-	79	7.6	99	8.6	91	8.3	77	6.9	70	7.0
Madison Heights	36	2.2	34	2.3	34	2.3	24	1.7	36	2.3	29	1.9	21	1.6
Oak Park	40	-	39	0	47	-	79	-	88	-	65	-	43	-
Pontiac	82	1.7	111	2.4	151	3.3	155	3.1	105	2.2	85	1.7	77	1.7
Royal Oak	26	1.0	26	1.1	16	0.5	32	1.0	20	0.8	32	1.0	31	-
Southfield	87	3.4	91	-	62	-	117	-	121	-	127	-	99	-
Troy	111	4.1	69	2.5	56	2.1	62	2.1	101	3.0	108	3.4	91	3.2
Waterford Twp.	82	3.8	64	3.1	62	3.2	76	3.8	74	3.7	53	2.7	43	2.3
W.Bloomfield Twp.	61	-	63	-	44	-	48	-	83	-	80	-	50	-
24 Other Local Pds	320	2.6	320	2.4	288	2.3	344	2.4	314	2.1	356	2.6	288	2.0
Sheriff's Dept.	130	2.6	126	3.1	118	3.0	144	5.2	138	5.3	246	5.7	248	5.4
Pontiac MSP	115	4.4	123	4.7	120	5.5	135	5.2	113	4.7	142	6.1	113	5.6
Other MSP Posts	140	6.2	163	7.2	155	6.6	164	8.1	116	7.6	82	8.8	63	6.6
County Total	1396	2.9	1395	2.7	1275	2.6	1562	3.1	1482	2.8	1561	3.1	1325	2.8

<sup>a</sup>These data are from departmental reports to CLEMIS for 32 local police departments and the Sheriff's Department. Five other local departments and the four MSP posts provided data directly to HSRI. Data on the total number of police activity hours each month were used as the base for the DUI arrest rates because data on patrol hours only were not available from CLEMIS. Man-hours data were not available for Lathrup Village, Oak Park, West Bloomfield Township throughout the period, and Southfield stopped reporting these data completely in April 1979 as did Royal Oak in May 1980. Also, Hazel Park data were incomplete for four months in 1979, and Wixom data were incomplete for six months in 1980. In addition, the completeness of the man-hours data for other departments is not known. Most departments show fairly stable totals from month to month, but the Sheriff's Department varies from a high of 16,727 hours in January 1979 to lows of 6,873 hours in December 1979 and 7,431 hours in March 1980. Man hours of data were not available from any of the five local departments providing data directly to HSRI. For the Brighton and Northville MSP posts, the figures for the total man-hours were multiplied by the same percentage estimates as the DUI arrest figures (see Footnote c to Table 2.4). Total man-hours data have not yet been received from the Romeo MSP post.

FIGURE 2.6 TRENDS IN DUI ARREST RATES PER 1000 TOTAL MANHOURS, FIVE LARGE OAKLAND COUNTY POLICE AGENCIES, 1979-80 BY QUARTER

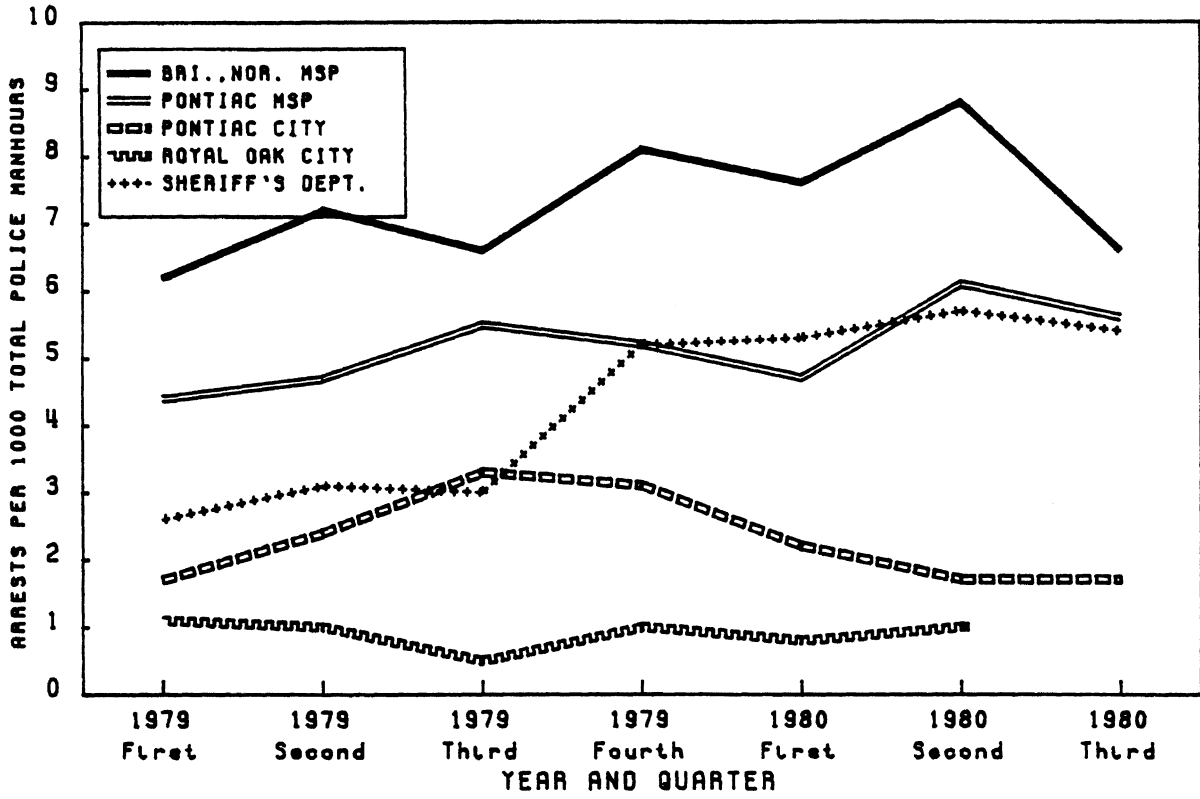


FIGURE 2.7 TRENDS IN DUI ARREST RATES PER 1000 TOTAL MANHOURS, FIVE MORE OAKLAND COUNTY POLICE AGENCIES, 1979-80 BY QUARTER

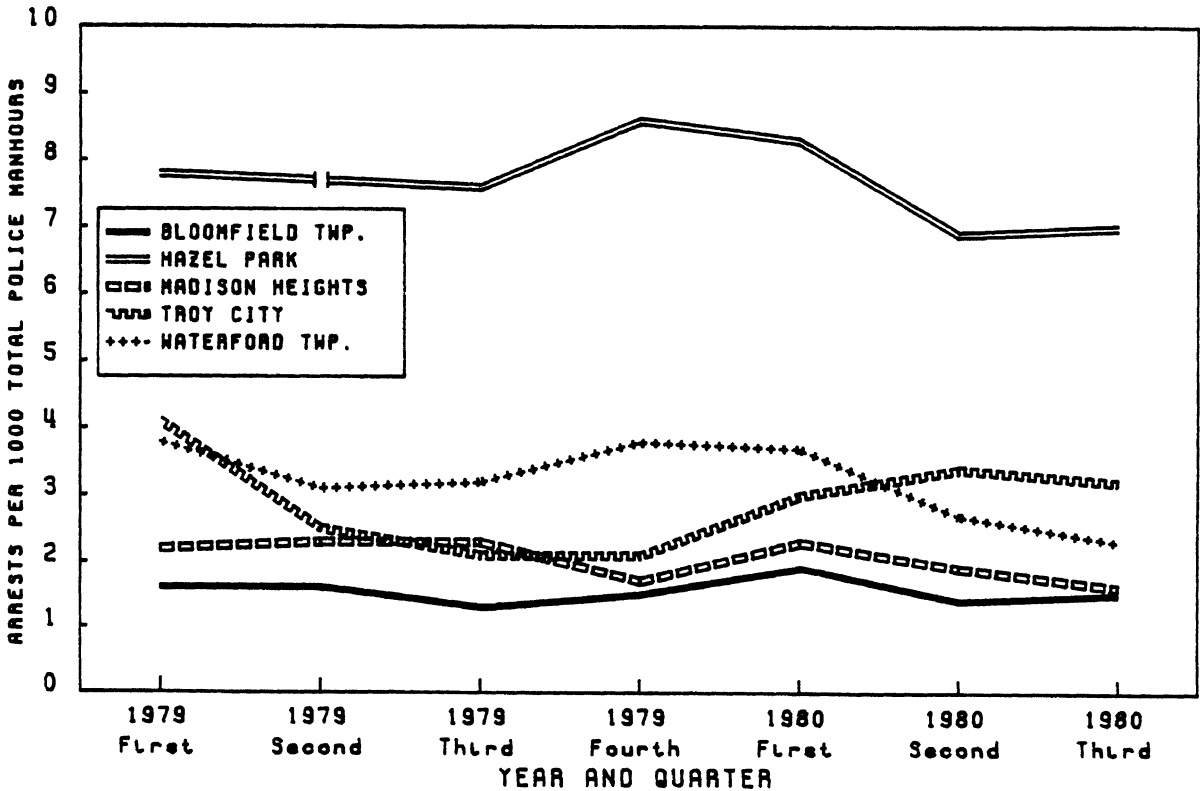


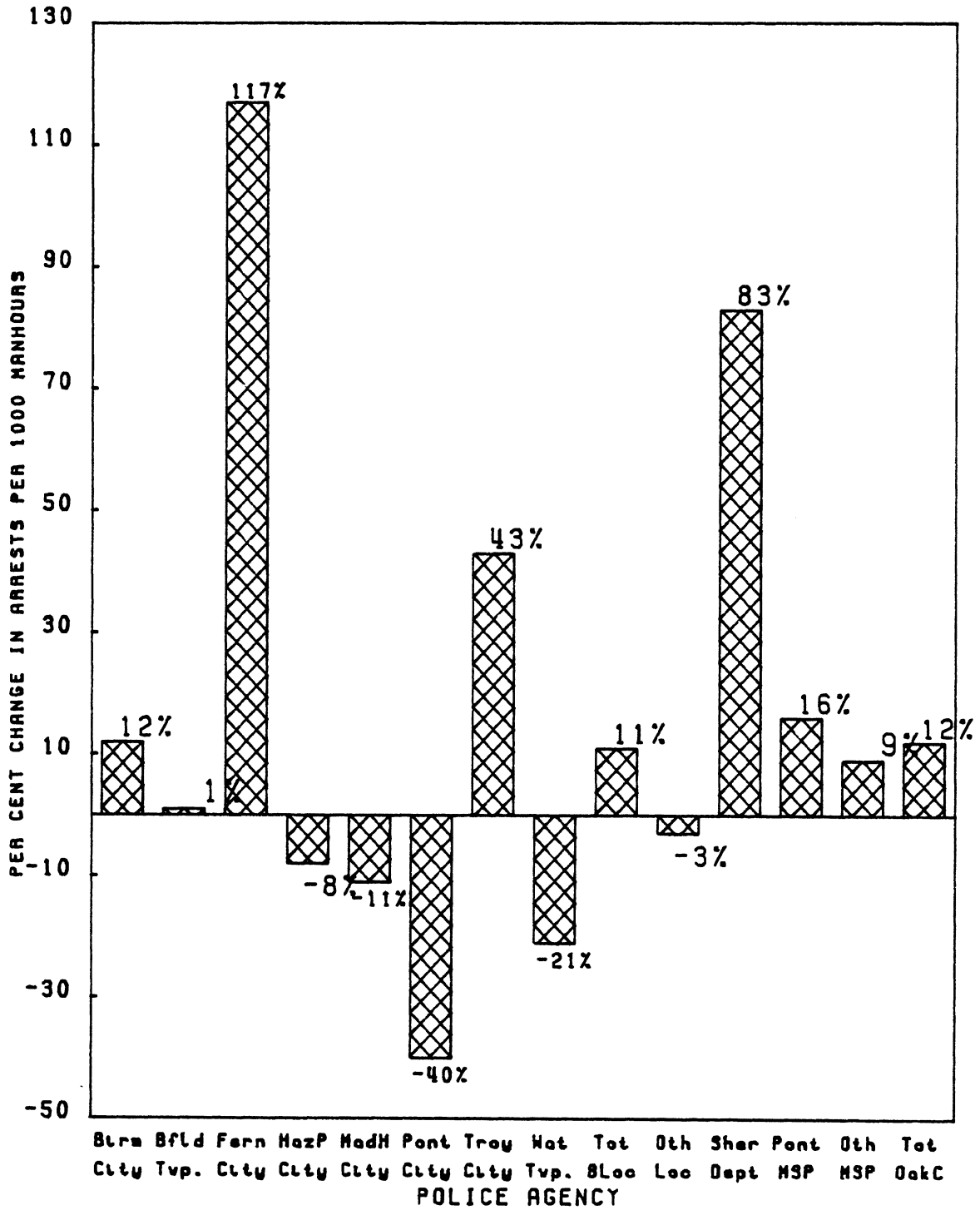
TABLE 2.6  
Average DUI Arrests Per Month and Arrest Rate Per 1000 Total Police Duty Hours for Large  
Oakland County Police Agencies for Three Time Periods<sup>a</sup> in Relation to the Oakland  
County Special Alcohol Enforcement Program<sup>b</sup>

	Special Program Not in Effect				Program in Effect		Change From 4-9/79 - 4-9/80	
	15 Months Jan. '79-March '80		6 Months April-Sept. 1979		6 Months April-Sept. 1980			
	Average Arrests	Rate/ 1000 Hrs.	Average Arrests	Rate/ 1000 Hrs.	Average Arrests	Rate/ 1000 Hrs.	Average Arrests	Rate/ 1000 Hrs.
Birmingham	4	0.9	4	0.9	5	1.0	+15%	+12%
Bloomfield Twp.	12	1.6	10	1.4	11	1.4	+5%	0
Farmington Hills	-	-	-	-	-	-	-	-
Ferndale	8	1.3	5	0.8	12	1.8	+132%	+117%
Hazel Park	30	8.1	30	7.6	25	6.9	-18%	-8%
Madison Heights	10	2.0	10	2.0	8	1.8	-14%	-11%
Oak Park	20	-	14	-	18	-	+26%	-
Pontiac	40	2.5	44	2.9	27	1.7	-38%	-40%
Royal Oak	8	0.9	7	0.7	10	-	+50%	-
Southfield	32	-	26	-	38	-	+48%	-
Troy	27	2.8	21	2.3	33	3.3	+59%	+43%
Waterford Twp.	24	3.5	21	3.1	16	2.5	-24%	-21%
W.Bloomfield Twp.	20	-	18	-	22	-	+22%	-
13 Large PD Total	235	2.3	210	1.7	225	1.9	+7%	+11%
Other Local PDs	106	2.4	101	2.4	107	2.3	+6%	-3%
Sheriff's Dept.	44	3.6	41	3.0	82	5.6	+102%	+83%
Pontiac MSP	40	4.9	41	5.1	43	5.9	+5%	+16%
Other MSP	49	7.1	53	6.9	24	7.5	-54%	+9%
County Total	474	2.8	445	2.7	481	3.0	+8%	+12%

<sup>a</sup>This table shows DUI arrest statistics for Oakland County during the first six months (April-Sept. 1980) of the special alcohol enforcement program, compared with the previous 15 months (Jan. 1979-March 1980) and with the same six months of 1979 (April-Sept.)

<sup>b</sup>The data sources are identical with those in Table 2.5.

FIGURE 2.8 CHANGES IN ARREST RATES FOR 12 POLICE AGENCIES,  
APRIL-SEPTEMBER 1979 TO APRIL-SEPTEMBER 1980



the public to create a climate of opinion supportive of more alcohol enforcement. After these data were analyzed the 1978 CLEMIS data were also made available to HSRI, and future reports will use the full 24 months of 1978 and 1979 as the baseline period for measuring progress on this goal.

Tables 2.7 and 2.8 use the 1978 and 1979 breath test report form data keypunched by HSRI to present DUI breath test data by month. Both years show considerable variation in the number of breath tests in different months, but the patterns are not the same for the two years. In 1978 the highest months were October and December, and the lowest months were January and July. In 1979 the highest months were March and September, and the lowest months were August and July. Thus in both years fewer breath tests were carried out in the mid-summer period.

Tables 2.9 and 2.10 and Figure 2.9 show the Blood Alcohol Concentration (BAC) distributions for these two years. The overall distributions were quite similar in both years, although the mean was slightly higher in 1978 (0.172 percent) than in 1979 (0.169 percent). In both years more than 70 percent of the BACs were above 0.14 percent, and more than 30 percent were above 0.19 percent. In both years the mean BAC of Pontiac City arrestees was well above the County average, while the mean BAC of Oak Park arrestees was well below the County average.

### 2.3 Circumstances of Alcohol Enforcement Team DUI Arrests

The Alcohol Enforcement Team began operations on Thursday night, April 10, and continued on every Wednesday, Thursday, Friday, and Saturday night thereafter. For the first eight nights the Team worked from 10 p.m. to 3 a.m., but on April 24 the target hours were changed to 11 p.m. - 4 a.m. The number of patrol cars working with the Team during the first six months varied from 6 to 11 with an average of 8.3 cars per night. Most of the cars carried a single police officer, but the car assigned by the Pontiac MSP post carried two officers, and sometimes other cars

TABLE 2.7  
1978 Oakland County Reported Drunk Driving Breath Tests  
by Month by Police Agency

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.	Total
Bloomfield Twp.	5	5	8	5	9	15	7	7	10	12	13	7	0	103
Pontiac Twp.	2	6	6	12	2	4	2	2	4	3	5	7	0	55
Waterford Twp.	6	16	14	14	14	11	19	16	24	17	15	17	0	183
W.Bloomfield Twp.	8	14	16	23	17	16	17	20	15	20	25	27	0	218
White Lake Twp.	5	5	5	7	3	5	6	3	6	2	5	8	0	60
Orchard Lake	0	1	4	5	3	2	1	4	5	2	1	3	0	31
Sylvan Lake	0	1	6	3	2	3	1	1	2	4	0	1	0	24
Wixom	2	0	2	1	2	3	0	5	0	0	0	4	0	19
Bloomfield Hills	0	1	1	1	1	3	0	1	0	2	4	0	0	14
Franklin	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Holly	4	3	1	3	1	1	4	8	2	1	0	6	0	34
Keego Harbor	1	0	4	2	3	0	0	2	2	3	3	3	0	23
Lake Orion	0	0	0	2	1	2	0	1	1	1	2	1	0	11
Lathrup Village	0	1	0	0	0	0	1	0	0	0	0	0	0	2
Milford	1	1	0	0	0	1	0	0	0	3	1	1	0	8
Oxford	1	13	7	6	5	3	3	5	5	6	3	4	0	61
South Lyon	5	2	6	4	3	8	7	1	7	7	3	4	0	57
Walled Lake	1	0	3	0	3	4	3	4	0	2	10	6	0	36
Wolverine Lake	1	3	0	2	2	0	0	0	2	1	0	1	0	12
Huntington Woods	2	5	2	0	0	3	2	1	1	3	3	1	1	24
Northville	0	0	0	1	1	0	0	0	1	1	0	1	0	5
Novi	7	4	12	8	12	8	5	8	7	13	5	12	0	101
Rochester	1	0	2	0	1	0	3	1	3	3	1	1	0	16
Berkeley	0	1	2	2	0	4	1	0	1	3	5	2	0	21
Beverly Hills	1	2	0	2	0	0	0	0	1	2	1	0	0	9
Clawson	4	4	15	2	3	0	7	5	2	10	13	11	0	76
Farmington	3	3	6	5	1	2	0	0	3	2	1	5	0	31
Hazel Park	17	5	13	16	12	7	12	16	26	35	12	22	0	193
Birmingham	3	1	6	6	2	2	3	2	1	1	1	4	0	32
Ferndale	6	8	5	4	2	6	6	8	4	8	5	6	1	69
Madison Heights	0	2	9	4	3	3	7	6	3	9	10	15	0	71
Oak Park	4	11	11	8	6	12	3	7	15	13	8	9	0	107
Troy	10	16	11	16	12	8	14	16	16	14	24	24	1	182
Farmington Hills	1	3	1	4	4	4	1	5	6	3	3	9	0	44
Pontiac	23	24	32	31	29	18	15	17	25	25	19	8	1	267
Royal Oak	7	3	5	5	3	2	1	2	2	7	4	11	0	52
Southfield	7	20	30	18	15	14	15	13	18	26	18	20	1	215
Kensington Park	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Oakland U.	1	0	0	0	1	0	0	0	0	0	0	0	0	2
O.C. Sheriff	8	10	19	26	26	18	17	19	22	32	29	27	1	254
Brighton MSP	2	1	1	2	0	0	0	0	0	0	0	0	0	6
Northville MSP	0	0	1	4	0	8	5	5	5	20	14	9	0	71
Pontiac MSP	14	23	19	24	5	5	7	8	16	12	23	21	0	177
Romeo MSP	2	4	7	8	2	1	2	1	1	0	2	0	0	30
Other Police	0	0	1	0	1	0	0	1	0	0	0	0	1	4
Missing	32	34	47	34	41	29	34	52	53	56	34	55	23	524
TOTAL	197	256	340	320	254	235	231	273	317	384	325	374	30	3536
Total Percent	5.6	7.3	9.7	9.1	7.2	6.7	6.6	7.8	9.0	11.1	9.3	10.7		

TABLE 2.8  
1979 Oakland County Reported Drunk Driving Breath Tests  
by Month by Police Agency

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.	Total
Bloomfield Twp.	4	10	10	9	4	7	8	3	8	9	4	11	0	87
Pontiac Twp.	1	4	6	6	3	4	5	1	3	2	5	1	0	41
Waterford Twp.	14	26	22	23	9	14	13	18	15	5	1	0	0	160
W. Bloomfield Twp.	20	23	11	17	29	11	11	7	18	9	7	1	0	164
White Lake Twp.	0	5	3	3	1	0	0	3	1	0	0	3	0	19
Orchard Lake	1	2	1	1	0	1	2	0	1	0	0	1	1	11
Sylvan Lake	1	0	1	1	0	0	1	0	1	0	2	0	0	7
Wixom	2	1	5	5	3	1	1	1	0	1	3	0	0	23
Bloomfield Hills	0	0	5	2	0	1	1	1	0	0	0	0	0	10
Franklin	0	0	1	0	3	1	1	4	2	3	9	4	0	28
Holly	5	2	6	6	3	2	3	9	12	6	4	1	0	59
Keego Harbor	3	1	5	3	2	1	2	1	1	0	2	1	0	22
Lake Orion	1	0	3	2	2	5	3	1	2	1	0	0	0	20
Lathrup Village	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Milford	0	2	0	0	1	2	1	2	1	0	0	2	0	11
Oxford	1	5	6	6	6	7	8	3	4	4	0	0	0	50
South Lyon	3	12	13	11	8	7	9	7	13	4	5	4	0	96
Walled Lake	2	7	19	7	10	5	4	8	6	2	1	3	0	74
Wolverine Lake	2	1	1	0	1	0	1	1	0	0	0	1	0	8
Huntington Woods	2	3	4	1	4	2	2	1	4	3	1	1	0	28
Novi	4	6	13	6	5	3	4	5	7	3	5	3	0	64
Rochester	2	5	0	2	5	0	0	0	1	1	2	0	0	18
Berkley	1	0	0	0	1	0	1	0	4	3	3	0	0	13
Beverly Hills	0	0	0	0	0	0	0	0	0	2	3	4	0	9
Clawson	4	1	2	6	11	4	4	2	9	10	7	11	0	71
Farmington	3	5	1	2	3	1	1	1	3	4	2	8	0	34
Hazel Park	28	18	21	19	22	23	11	16	24	23	20	27	0	252
Birmingham	2	3	2	4	2	6	1	3	0	7	4	0	0	34
Ferndale	5	1	10	1	4	4	2	3	7	7	4	8	0	56
Madison Heights	7	8	9	8	7	4	1	6	7	10	5	7	0	79
Oak Park	12	12	12	11	10	11	12	10	21	21	21	35	1	189
Troy	22	30	36	23	22	12	11	9	17	14	10	29	0	235
Farmington Hills	5	3	8	5	3	7	5	6	11	12	3	6	0	74
Pontiac	19	11	16	15	19	12	12	6	7	8	8	3	1	137
Royal Oak	1	4	8	9	2	8	4	1	2	2	9	13	0	63
Southfield	19	13	30	24	27	27	6	14	30	28	21	33	0	272
Kensington Park	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Oakland U.	0	0	1	0	0	1	0	0	0	0	0	0	0	2
O.C. Sheriff	22	38	48	34	29	38	29	38	23	44	37	3	6	389
Brighton MSP	1	1	3	0	0	0	1	1	0	3	0	1	0	11
Northville MSP	16	4	11	10	8	8	6	18	37	46	33	46	0	243
Pontiac MSP	25	23	27	37	21	32	31	18	35	23	19	31	1	323
Romeo MSP	1	0	0	0	0	0	0	1	1	0	0	0	0	3
Other Police	1	0	1	0	0	0	0	1	1	0	0	0	0	4
Missing	8	3	8	10	12	10	7	8	5	7	5	2	4	89
TOTAL	270	293	390	329	302	282	225	238	345	327	265	304	14	3584
Total Percent	7.6	8.2	10.9	9.2	8.5	7.9	6.3	6.7	9.7	9.2	7.4	8.5		



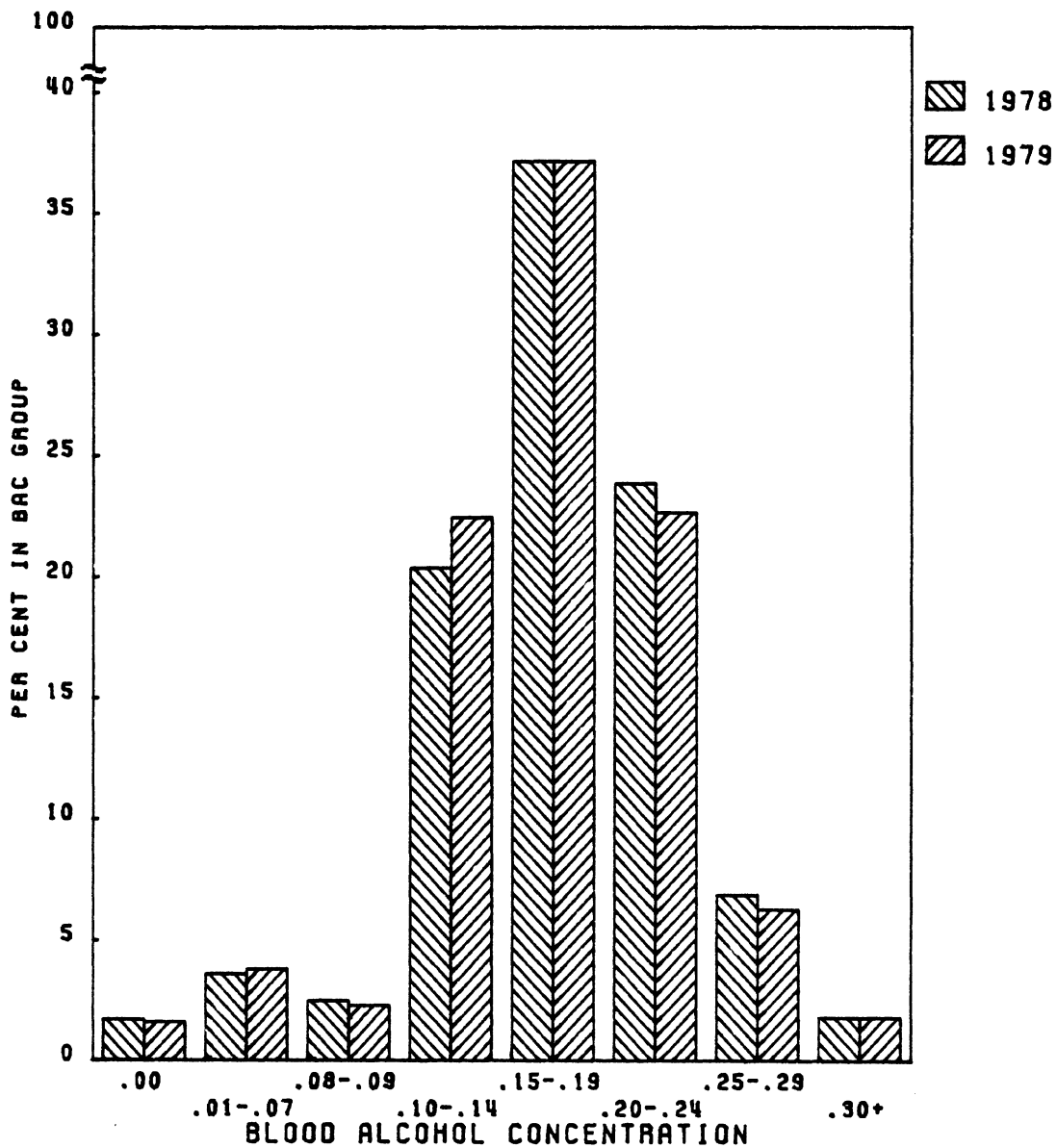
TABLE 2.9  
1978 Oakland County Reported Drunk Driving Test Results  
by BAC Group by Police Agency

	Blood Alcohol Concentration								Refused	Missing	Total	Mean BAC
	.00	.01-.07	.08-.09	.10-.14	.15-.19	.20-.24	.25-.29	.30+				
Bloomfield Twp.	0	3	3	30	50	15	2	0	0	0	103	0.157
Pontiac Twp.	0	3	1	12	20	10	5	0	4	0	55	0.167
Waterford Twp.	1	4	9	39	72	40	9	4	5	0	183	0.170
W.Bloomfield Twp.	2	7	7	45	81	58	11	4	3	0	218	0.170
White Lake Twp.	0	1	3	10	26	15	3	1	0	1	60	0.174
Orchard Lake	0	1	0	8	13	6	1	1	1	0	31	0.174
Sylvan Lake	0	2	0	4	8	8	1	0	1	0	24	0.170
Wixom	0	0	0	7	9	1	1	1	0	0	19	0.165
Bloomfield Hills	0	0	0	3	6	4	1	0	0	0	14	0.181
Franklin	0	0	0	0	0	1	0	0	0	0	1	0.240
Holly	0	3	1	9	12	5	2	1	1	0	34	0.160
Keego Harbor	0	2	0	4	9	5	3	0	0	0	23	0.172
Lake Orion	0	0	1	4	4	2	0	0	0	0	11	0.156
Lathrup Village	1	0	0	0	1	0	0	0	0	0	2	0.080
Milford	0	0	1	2	3	2	0	0	0	0	8	0.156
Oxford	0	7	1	14	22	14	2	1	0	0	61	0.161
South Lyon	0	5	0	15	28	7	0	2	0	0	57	0.157
Walled Lake	0	0	0	9	16	10	1	0	0	0	36	0.174
Wolverine Lake	0	1	0	2	6	1	2	0	0	0	12	0.171
Huntington Woods	0	1	0	5	7	10	1	0	0	0	24	0.175
Northville	0	1	0	1	3	0	0	0	0	0	5	0.132
Novi	1	1	2	21	46	20	9	1	0	0	101	0.175
Rochester	1	1	0	4	8	2	0	0	0	0	16	0.140
Berkley	1	0	1	9	2	5	2	1	0	0	21	0.170
Beverly Hills	0	0	0	4	4	1	0	0	0	0	9	0.152
Clawson	2	3	1	13	27	22	7	1	0	0	76	0.176
Farmington	1	1	1	2	13	7	6	0	0	0	31	0.182
Hazel Park	2	13	5	38	72	47	15	1	0	0	193	0.168
Birmingham	0	2	0	6	12	8	3	1	0	0	32	0.178
Ferndale	1	0	2	13	17	19	13	4	0	0	69	0.195
Madison Heights	1	1	1	17	17	26	7	1	0	0	71	0.184
Oak Park	13	5	3	18	37	25	4	1	1	0	107	0.146
Troy	2	4	5	32	78	41	16	4	0	0	182	0.175
Farmington Hills	1	1	1	7	22	9	1	0	2	0	44	0.164
Pontiac	0	3	4	37	92	85	31	15	0	0	267	0.198
Royal Oak	2	0	0	7	18	19	4	2	0	0	52	0.191
Southfield	4	8	6	41	74	59	15	7	1	0	215	0.176
Kensington Park	0	0	0	0	1	0	0	0	0	0	1	0.190
Oakland U.	0	0	0	0	1	1	0	0	0	0	2	0.200
O.C. Sheriff	0	5	5	59	105	54	16	4	6	0	254	0.173
Brighton MSP	0	0	0	1	1	0	0	0	3	1	6	0.135
Northville MSP	0	0	4	10	30	18	3	0	6	0	71	0.177
Pontiac MSP	4	10	5	33	60	35	9	1	20	0	177	0.164
Romeo MSP	0	0	0	13	9	6	1	0	0	1	30	0.167
Other Police	0	0	0	0	2	1	1	0	0	0	4	0.168
Missing	19	27	15	109	171	119	37	3	21	3	524	0.164
TOTAL	59	126	88	719	1314	843	244	62	75	6	3536	0.172
Total Percent	1.7	3.6	2.5	20.4	37.2	23.9	6.9	1.8	2.1			

TABLE 2.10  
1979 Oakland County Reported Drunk Driving Test Results  
by BAC Group by Police Agency

	Blood Alcohol Concentration								Refused	Missing	Total	Mean B
	.00	.01-.07	.08-.09	.10-.14	.15-.19	.20-.24	.25-.29	.30+				
Bloomfield Twp.	0	3	1	25	35	20	3	0	0	0	87	0.164
Pontiac Twp.	0	1	1	6	11	10	9	1	2	0	41	0.199
Waterford Twp.	2	2	4	44	64	29	7	3	5	0	160	0.165
W.Bloomfield Twp.	3	14	7	44	60	28	4	1	3	0	164	0.150
White Lake Twp.	0	1	2	3	6	6	0	1	0	0	19	0.168
Orchard Lake	0	0	1	0	7	3	0	0	0	0	11	0.178
Sylvan Lake	0	0	0	3	2	1	0	0	0	1	7	0.147
Wixom	0	0	1	8	9	4	1	0	0	0	23	0.160
Bloomfield Hills	0	0	0	1	4	4	1	0	0	0	10	0.189
Franklin	1	0	1	3	11	7	4	0	1	0	28	0.176
Holly	0	3	5	16	20	12	3	0	0	0	59	0.157
Keego Harbor	0	1	0	1	9	6	2	3	0	0	22	0.200
Lake Orion	2	0	0	3	12	3	0	0	0	0	20	0.153
Lathrup Village	0	0	0	0	0	1	0	0	0	0	1	0.200
Milford	0	0	0	4	6	1	0	0	0	0	11	0.150
Oxford	0	0	0	8	23	15	4	0	0	0	50	0.181
South Lyon	1	2	5	35	24	24	2	1	2	0	96	0.157
Walled Lake	0	2	1	16	26	26	3	0	0	0	74	0.176
Wolverine Lake	0	0	0	0	4	3	1	0	0	0	8	0.195
Huntington Woods	0	2	3	2	13	6	0	2	0	0	28	0.171
Novi	1	1	1	15	25	16	2	0	3	0	64	0.166
Rochester	0	0	0	9	2	5	1	1	0	0	18	0.174
Berkley	0	0	0	5	5	2	0	1	0	0	13	0.168
Beverly Hills	0	1	0	3	4	0	1	0	0	0	9	0.150
Clawson	1	2	0	12	29	18	6	3	0	0	71	0.183
Farmington	0	1	1	6	13	9	3	1	0	0	34	0.182
Hazel Park	4	5	9	55	69	74	32	4	0	0	252	0.181
Birmingham	0	3	1	9	10	7	3	1	0	0	34	0.167
Ferndale	2	1	0	12	19	14	6	1	1	0	56	0.175
Madison Heights	0	3	1	12	30	20	9	2	2	0	79	0.186
Oak Park	12	16	5	53	61	28	7	5	2	0	189	0.149
Troy	3	5	7	49	104	47	13	4	3	0	235	0.168
Farmington Hills	2	5	0	16	28	16	6	1	0	0	74	0.167
Pontiac	0	1	0	19	50	43	17	6	1	0	137	0.198
Royal Oak	0	3	1	17	25	13	2	0	0	2	63	0.165
Southfield	11	20	1	49	114	56	15	4	2	0	272	0.161
Kensington Park	0	0	0	1	0	0	0	0	0	0	1	0.130
Oakland U.	0	0	0	0	1	1	0	0	0	0	2	0.180
O.C. Sheriff	7	17	3	75	136	98	29	8	16	0	389	0.175
Brighton MSP	0	1	1	2	3	3	1	0	0	0	11	0.165
Northville MSP	4	9	11	81	89	34	7	2	5	1	243	0.152
Pontiac MSP	1	7	4	65	133	79	18	7	9	0	323	0.176
Romeo MSP	0	0	0	1	1	0	0	0	1	0	3	0.155
Other Police	0	0	0	1	2	1	0	0	0	0	4	0.165
Missing	2	3	4	17	34	19	4	3	3	0	89	0.168
TOTAL	59	135	82	806	1333	812	226	66	61	4	3584	0.169
Total Percent	1.6	3.8	2.3	22.5	37.2	22.7	6.3	1.8	1.7	0.1	100.	

FIGURE 2.9 PERCENTAGES OF DUI ARRESTEES AT DIFFERENT BACs,  
OAKLAND COUNTY, 1978-1979



carried two officers also. The number of officers working in the Team varied from 7 to 13 with an average of 9.6 per night. In addition to the usual six officers and cars from the Sheriff's Department and the usual two officers and one car from Pontiac MSP post, one or more officers and cars from the local police departments having jurisdiction in the assigned target area usually participated on the Alcohol Enforcement Team. The Team always operated four consecutive nights in the same target area and usually stayed in the same area for two weeks at a time.

Table 2.11 and Figure 2.10 provide data on the Team's DUI arrests during and before the target hours for the first six months of operation. These data are compiled from the special form filled out by the arresting officer for each team arrestee.<sup>3</sup> A total of 347 arrests were made during the target hours. This was 73 arrests per 1000 patrol man hours and 85 arrests per 1000 patrol car hours. During target hours, 244 arrests were made by the Sheriff's Department, 74 were made by the Pontiac MSP, and 29 were made by cooperating local departments. Prior to the target hours, 38 arrests by Sheriff's Department officers were attributed to the Alcohol Enforcement Team, as were two MSP arrests. Figure 2.10 shows graphically that May was the month with the highest arrest rates per 1000 hours.

Table 2.12 provides a description of the five selected target areas where the Team was deployed and gives partial information on the number of DUI arrests on these specific roads in 1979. Unfortunately, TIA does not have complete data available on arrests in these areas, so it will be difficult to precisely quantify the extent of increases in arrests in the target areas. However, Table 2.13 shows the Team arrests by target area, and it

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<sup>3</sup> Five of these forms received by HSRI were not included in the analysis, four because the arrests occurred on other than the target nights and one because the arrestee was released after testing 0.05 percent BAC on the breathalyzer.

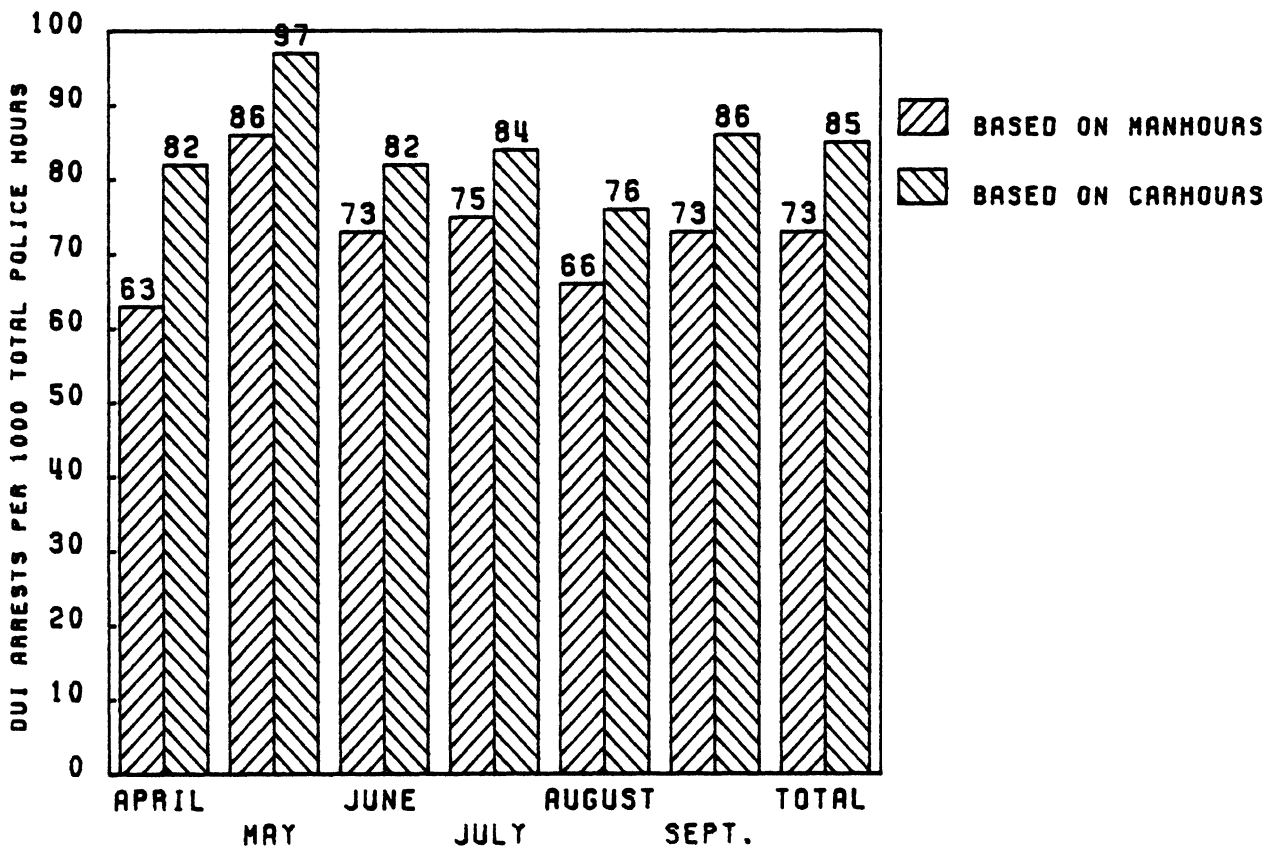
TABLE 2.11  
 DUI Arrests and Arrest Rates per Month by the Oakland County Special Alcohol Enforcement Team  
 During Special Patrol Hours,<sup>a</sup> April 10 - September 27, 1980

	Number of Nights	Sheriff's Dept.	Pontiac MSP	Local Depts.	Total Arrests	Total Man <sup>b</sup> Hours	Arrests Per 1000 Man Hours	Total Car <sup>b</sup> Hours	Arrests Per 1000 Car Hours
April 10-30	12	28 (5)	9 (1)	2	39 (6)	618	63	475	82
May	19	54 (6)	14 (0)	5	73 (6)	845	86	750	97
June	16	40 (7)	11 (1)	3	54 (8)	740	73	655	82
July	18	41 (7)	16 (0)	12	69 (7)	925	75	820	84
August	18	39 (6)	14 (0)	3	56 (6)	845	66	740	76
September	16	42 (7)	10 (0)	4	56 (7)	765	73	650	86
Total	99	244(38)	74 (2)	29	347 (40)	4738	73	4090	85

<sup>a</sup>Arrest data are based on a special report form completed by the special Alcohol Enforcement teams for each drunk driving arrest. Arrests reported by the special patrol teams but prior to the regular special patrol hours are shown in parentheses. These arrests are not included in the arrest rate calculations because the patrol hours data are only for the regular hours of A/E team patrol. Three reports received for days other than the regular special patrol days are not included, and one report is not included because the charge was dropped (BAC was 0.05%).

<sup>b</sup>The man-hours and car-hours are provided monthly by the Sheriff's Department for each day on which the Alcohol Enforcement team is operating. These reports do not distinguish the hours worked by the Sheriff's Department, the MSP, and the cooperating local police departments.

FIGURE 2.10 DUI ARREST RATES BY MONTH FOR THE OAKLAND COUNTY ALCOHOL ENFORCEMENT TEAM



is apparent that, if anywhere near the normal numbers of arrests are made by non-Team police in these areas, there should be little difficulty in reaching the goal of a 50 percent increase in arrests in the selected target areas. Table 2.13 also breaks down the Team arrests according to whether they were made in the assigned target area, in another target area, or outside the target areas. Thirty-one of the 347 DUI arrests during target hours were made outside the target area, and 13 of the 40 DUI arrests prior to the target hours on the same nights were made outside the target areas. Figure 2.11 displays this distribution of arrests by target area in a histogram. As noted in Table 2.12, Target Areas #1 and #2 were combined soon after the start of Team operations. With about two-fifths of the Team time spent in this combined area it had by far the highest number of arrests.

TABLE 2.12  
 Known DUI Arrests in the Oakland County Alcohol Enforcement  
 Team Target Areas During 1979<sup>a</sup>

	Sheriff's Dept.	Local Depts.	Total
T/A #1	11	105	116
T/A #3	2	151	153
T/A #4	0	21	21
T/A #5	0	95	95
T/A #6	4	46	50

<sup>a</sup>These data were tallied from the arrest data provided to the Oakland County Traffic Improvement Association by cooperating police departments. These data include street location of the arrest. Unfortunately, the Sheriff's Department data are only for the second half of 1979.

	<u>Definition</u>	<u>Local Depts. Providing Data</u>
T/A #1	Highland Road (M-59) Dixie Highway Walton Blvd.	Waterford Twp. White Lake Twp.
T/A #3	13 major roads in the Pontiac area	Pontiac City Pontiac Twp.
T/A #4	Woodward Ave. from Square Lake Rd. to Eight Mile Rd. (M-1)	Birmingham Bloomfield Twp.
T/A #5	Telegraph Road from Dixie Highway to Eight Mile Road	Bloomfield Twp. Southfield
T/A #6	Lapeer Road from Opdyke to Ray (M-24)	Lake Orion Oxford

For the first month, T/A #1 was considered two separate target areas, but since then they have been consolidated.

TABLE 2.13  
 DUI Arrests by the Oakland County Alcohol Enforcement Team During and Prior to the  
 Target Patrol Hours, <sup>a</sup> April 10 - September 27, 1980

Assigned Target Area (T.A.)	Number of Nights	Target Patrol Hours			Other Patrol Hours				
		Inside T.A.	Other T.A.s	Outside T.A.s	Total	Inside T.A.	Other T.A.s	Outside T.A.s	Total
#1	39	140	0	9	149	11	0	5	16
#3	24	58	0	10	68	3	2	4	9
#4	16	55	0	2	57	8	0	2	10
#5	8	28	0	0	28	0	1	1	2
#6	12	35	0	10	45	0	2	1	3
Total	99	316	0	31	347	22	5	13	40

<sup>a</sup>The target patrol hours were 10pm. to 3am., April 10-23 and 11pm. to 4am. thereafter. These data are taken from the special form completed by the Alcohol Enforcement Team for each DUI arrestee.



FIGURE 2.11 DUI ARRESTS BY TARGET AREAS AND HOURS FOR THE OAKLAND COUNTY ALCOHOL ENFORCEMENT TEAM

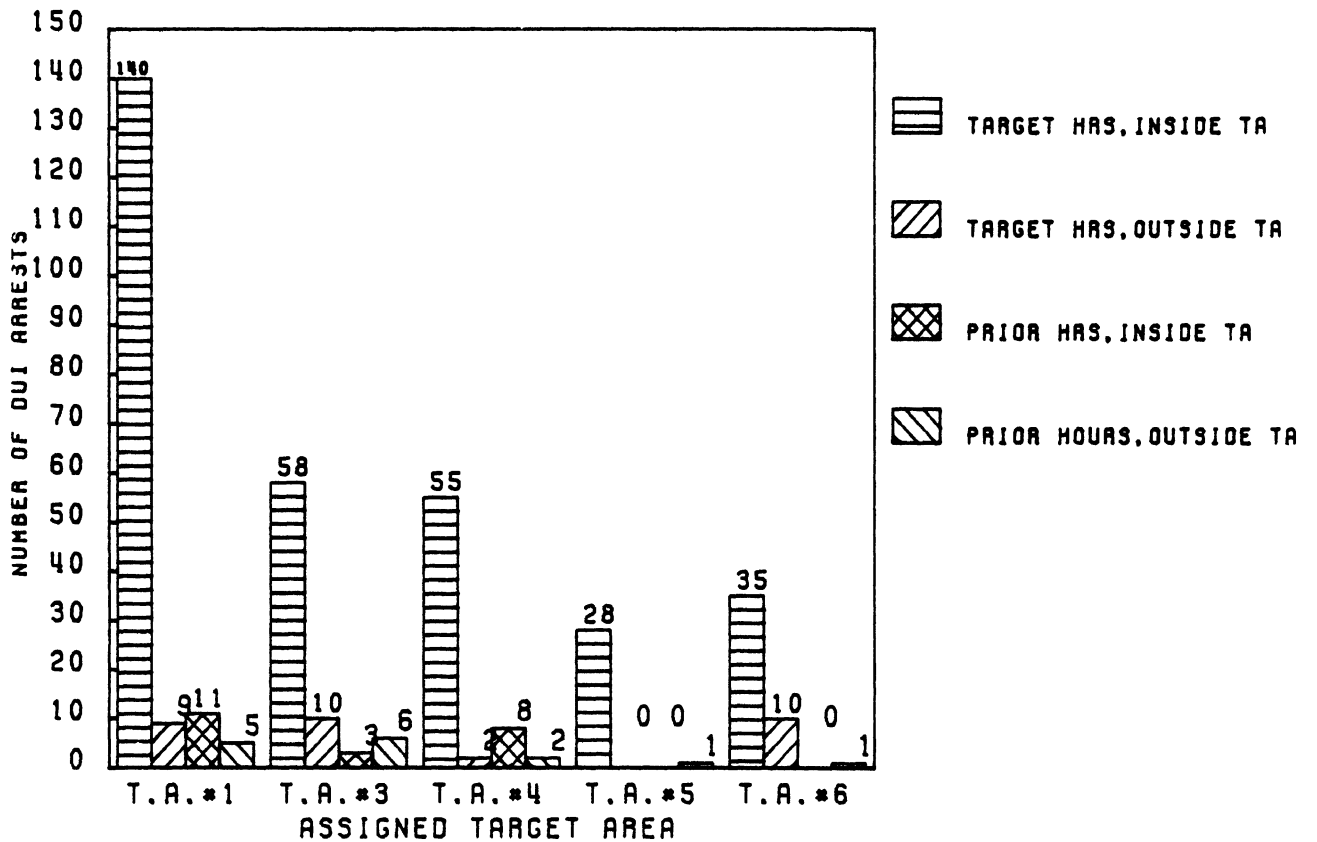


Table 2.14 and Figures 2.12 and 2.13 go on to show the arrest rates per 1000 man-hours and per 1000 car-hours in the five target areas by night of the week. Overall, Target Area #6 (Lapeer Road) had the highest arrest rates for the three weeks in which the Team was assigned there, but this high rate is partly due to the fact the Team made ten arrests outside the Target Area along with the 35 arrests inside the Target Area. If one looks only at arrests made within the target area, Target Area #1 would have the highest arrest rates. The lowest rates were in Target Area #5 (Telegraph Road), but fairly high rates were achieved in each target area. The very highest rates by night of the week were obtained when the Team was assigned to Target Area #6 on Friday and Saturday nights. In each of the other target areas the highest rates were obtained on Thursday night.

TABLE 2.14  
 DUI Arrests and Arrest Rates by Target Area and Night of Week by the Oakland County Alcohol  
 Enforcement Team During Special Patrol Hours,<sup>a</sup> April 10 - September 27, 1980

Assigned Target Area	Number of Nights	Sheriff's Dept.		Pontiac MSP		Local Depts.	Total Arrests		Total Man Hours	Arrests Per 1000 Man Hours	Total Car Hours	Arrests Per 1000 Car Hours
		TA	Other	TA	Other		TA	Other				
#1 Wednesday	9	21	3	9	0	0	30	3	490	67	395	84
Thursday	10	27	2	8	0	5	40	2	513	82	445	94
Friday	10	29	0	7	2	3	39	2	525	78	450	91
Saturday	10	19	2	6	0	6	31	2	500	66	420	79
Total	39	96	7	30	2	14	140	9	2018	74	1710	87
#3 Wednesday	6	9	2	2	0	0	11	2	240	54	205	63
Thursday	6	9	3	7	0	0	16	3	240	79	210	90
Friday	6	15	1	2	0	0	17	1	245	73	215	84
Saturday	6	12	2	2	2	0	14	4	230	78	200	90
Total	24	45	8	13	2	0	58	10	955	71	830	82
#4 Wednesday	4	10	0	2	0	1	13	0	210	62	185	70
Thursday	4	11	0	2	1	2	15	1	200	80	180	89
Friday	4	10	0	3	0	0	13	0	190	68	165	79
Saturday	4	8	1	4	0	2	14	1	210	71	190	79
Total	16	39	1	11	1	5	55	2	810	70	720	79
#5 Wednesday	2	4	0	0	0	3	7	0	115	61	95	74
Thursday	2	3	0	2	0	3	8	0	110	73	95	84
Friday	2	3	0	3	0	1	7	0	110	64	95	74
Saturday	2	3	0	0	0	3	6	0	100	60	90	67
Total	8	13	0	5	0	10	28	0	435	64	375	75
#6 Wednesday	3	5	1	1	1	0	6	2	135	59	115	70
Thursday	3	6	5	1	0	0	7	5	140	86	125	96
Friday	3	7	3	3	0	0	10	3	125	104	110	119
Saturday	3	8	0	4	0	0	12	0	120	100	105	114
Total	12	26	9	9	1	0	35	10	520	87	455	99
Grand Total	99	219	25	68	6	29	316	31	4738	73	4090	85

<sup>a</sup>Data sources are explained in Table 2.11. The arrest data show both arrests inside the assigned target area and arrests made elsewhere by the A/E team during the special target hours. Both types of arrests are used in determining the arrest rates.

FIGURE 2.12 DUI ARREST RATES BY TARGET AREA FOR THE OAKLAND COUNTY ALCOHOL ENFORCEMENT TEAM

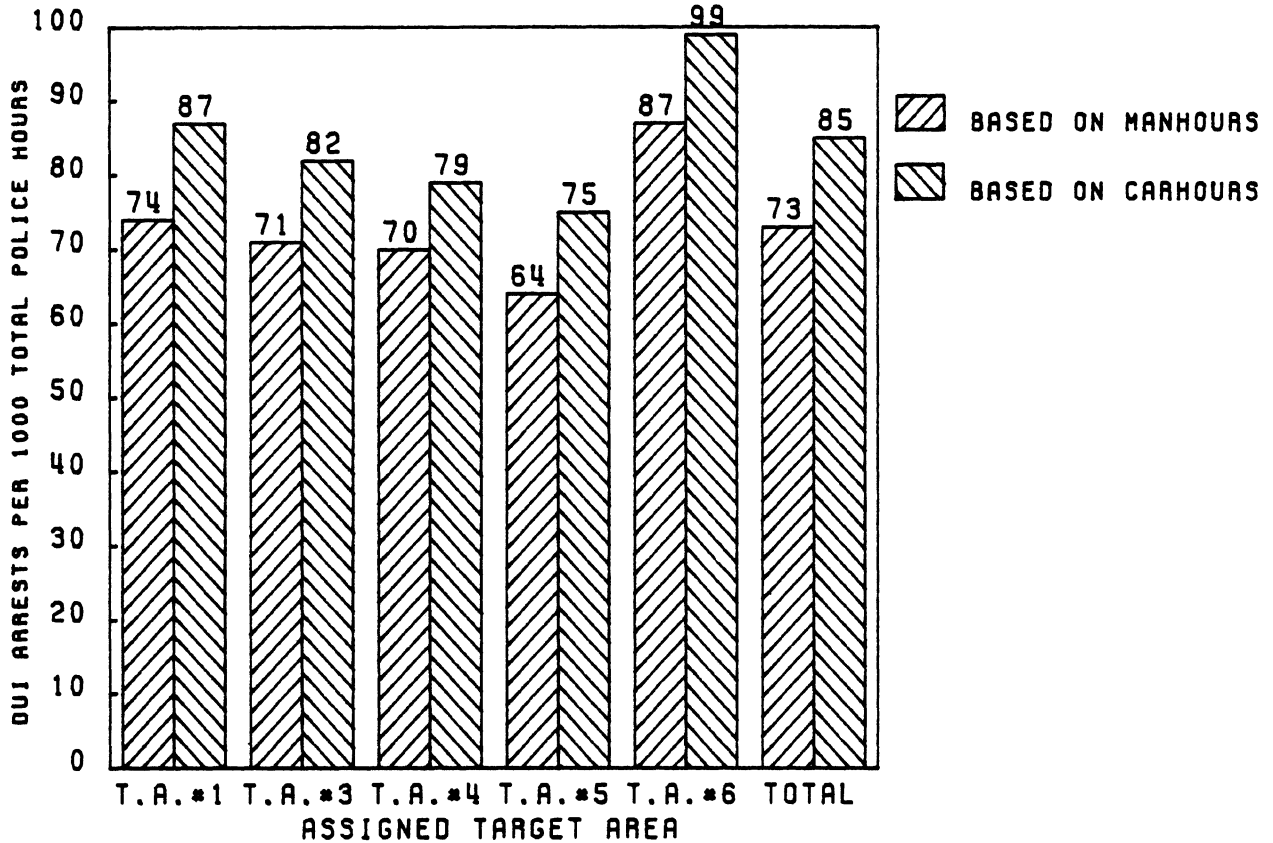


FIGURE 2.13 MANHOURLY ARREST RATES BY NIGHT BY TARGET AREA FOR THE OAKLAND COUNTY ALCOHOL ENFORCEMENT TEAM

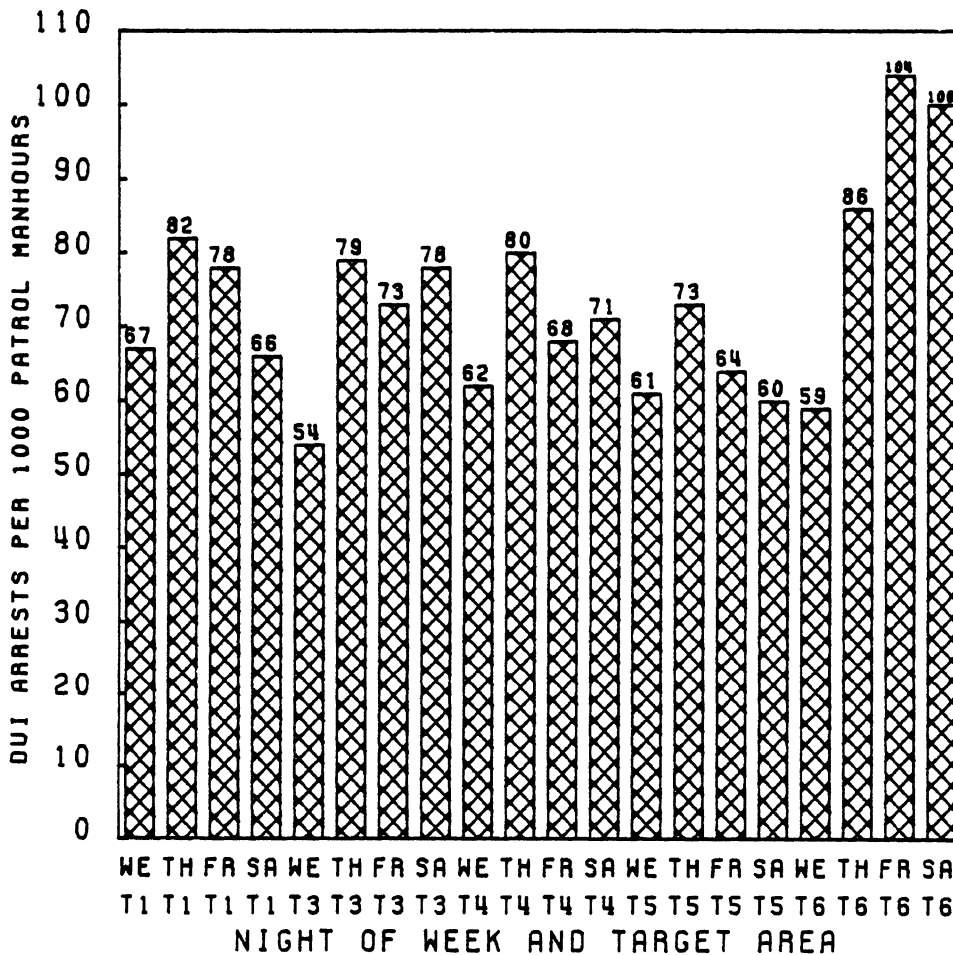


Table 2.15 and Figures 2.14 and 2.15 display the arrest data by hour of night and night of the week for all Team arrests during target hours. Thursday was slightly ahead of Friday as the most productive night, while Wednesday had the lowest DUI arrest rates. By hour, 2-3 a.m. was by far the most productive with over one-third of all arrests. The lowest hour was 3-4 a.m., even lower than the 10-11 p.m. arrest rates obtained during the first eight nights. However, this may be partly a result of a "winding down" of operations in the last hour of patrol, and perhaps some reduction in activity would be expected in any final hour of a patrol period--especially given the fact that the average time for clearing a drunk driving arrest case was one hour and 24 minutes for the 90 percent of the arresting police officers who reported the time cleared. The longest clearance time shown was 4 hours, while the shortest was 10 minutes. There were 15 arrests with reported clearance times of 150 minutes or more.

Table 2.16 shows the distribution of 382 Alcohol Enforcement Team arrests by location of arrest and by arresting police agency. A total of five local departments made DUI arrests while participating in the Team operations--Bloomfield Township, Royal Oak City, Southfield City, Waterford Township, and White Lake Township.

Of the 387 arrests, only 7 were made in connection with an accident: 3 injury accidents and 4 property-damage-only accidents. Speed data were not reported for 16 percent of the arrests, but for the remainder almost half were reported as being over the speed limit. About one-quarter were near the speed limit, and a little over one-quarter were under the speed limit. Radar was reported used in 37 percent of the arrests.

#### 2.4 Characteristics of Alcohol Enforcement Team Arrestees

Table 2.17 and Figure 2.16 present data on the age and sex of the 387 Alcohol Enforcement Team DUI arrestees compared to all Oakland County DUI arrestees in 1978 and 1979 for whom breath test reports were submitted to the MSP Traffic Services Division. All

TABLE 2.15  
 DUI Arrests and Arrest Rates by Night of Week and Hour of Night<sup>a</sup> by  
 the Oakland County Alcohol Enforcement Team, April 10-Sept. 27, 1980

	Number of Nights	Sheriff's Dept.	Pontiac MSP	Local Depts.	Total Arrests	Total Man Hours	Arrests Per 1000 Man Hours	Total Car Hours	Arrests Per 1000 Car Hours
<b>Wednesday</b>									
10-11pm.	2	0	1	0	1	22	45	15	67
11-12pm.	24	7	1	0	8	236	34	199	40
12-1am.	24	14	0	2	16	236	68	199	80
1-2am.	24	9	3	0	12	236	51	199	60
2-3am.	24	22	8	1	31	236	131	199	156
3-4am.	22	3	2	1	6	214	28	184	33
<b>Total</b>	<b>24</b>	<b>55</b>	<b>15</b>	<b>4</b>	<b>74</b>	<b>1180</b>	<b>63</b>	<b>995</b>	<b>74</b>
<b>Thursday</b>									
10-11pm.	1	1	1	0	2	11	182	8	250
11-12pm.	25	13	3	1	17	243	70	213	80
12-1am.	25	13	5	2	20	243	82	213	94
1-2am.	25	13	4	4	21	243	86	213	99
2-3am.	25	21	5	3	29	243	119	213	136
3-4am.	23	5	3	0	8	220	36	195	41
<b>Total</b>	<b>25</b>	<b>66</b>	<b>21</b>	<b>10</b>	<b>97</b>	<b>1203</b>	<b>81</b>	<b>1055</b>	<b>92</b>
<b>Friday</b>									
10-11pm.	2	1	0	0	1	25	40	19	53
11-12pm.	25	13	2	0	15	239	63	207	72
12-1am.	25	7	1	2	10	239	42	207	48
1-2am.	25	18	7	1	26	239	109	207	126
2-3am.	25	22	7	1	30	239	126	207	145
3-4am.	23	7	3	0	10	214	47	188	53
<b>Total</b>	<b>25</b>	<b>68</b>	<b>20</b>	<b>4</b>	<b>92</b>	<b>1195</b>	<b>77</b>	<b>1035</b>	<b>89</b>
<b>Saturday</b>									
10-11pm.	2	0	0	0	0	22	0	16	0
11-12pm.	25	7	1	2	10	232	43	201	50
12-1am.	25	16	3	1	20	232	86	201	100
2-3am.	25	18	10	5	33	232	142	201	164
3-4am.	23	7	2	3	12	210	57	185	65
<b>Total</b>	<b>25</b>	<b>55</b>	<b>18</b>	<b>11</b>	<b>84</b>	<b>1160</b>	<b>72</b>	<b>1005</b>	<b>84</b>
<b>Total</b>									
10-11pm.	7	2	2	0	4	80	50	58	69
11-12pm.	99	40	7	3	50	950	53	820	61
12-1am.	99	41	8	6	55	950	58	820	67
1-2am.	99	56	17	6	79	950	83	820	96
2-3am.	99	83	30	10	123	950	129	820	150
3-4am.	91	22	9	4	35	858	41	752	47
<b>Grand Total</b>	<b>99</b>	<b>244</b>	<b>74</b>	<b>29</b>	<b>347</b>	<b>4738</b>	<b>73</b>	<b>4090</b>	<b>85</b>

<sup>a</sup>Data sources are explained in Table 2.11. Only arrests during the target A/E team hours are included here.

FIGURE 2.14 DUI ARREST RATES BY NIGHT OF WEEK FOR THE OAKLAND COUNTY ALCOHOL ENFORCEMENT TEAM

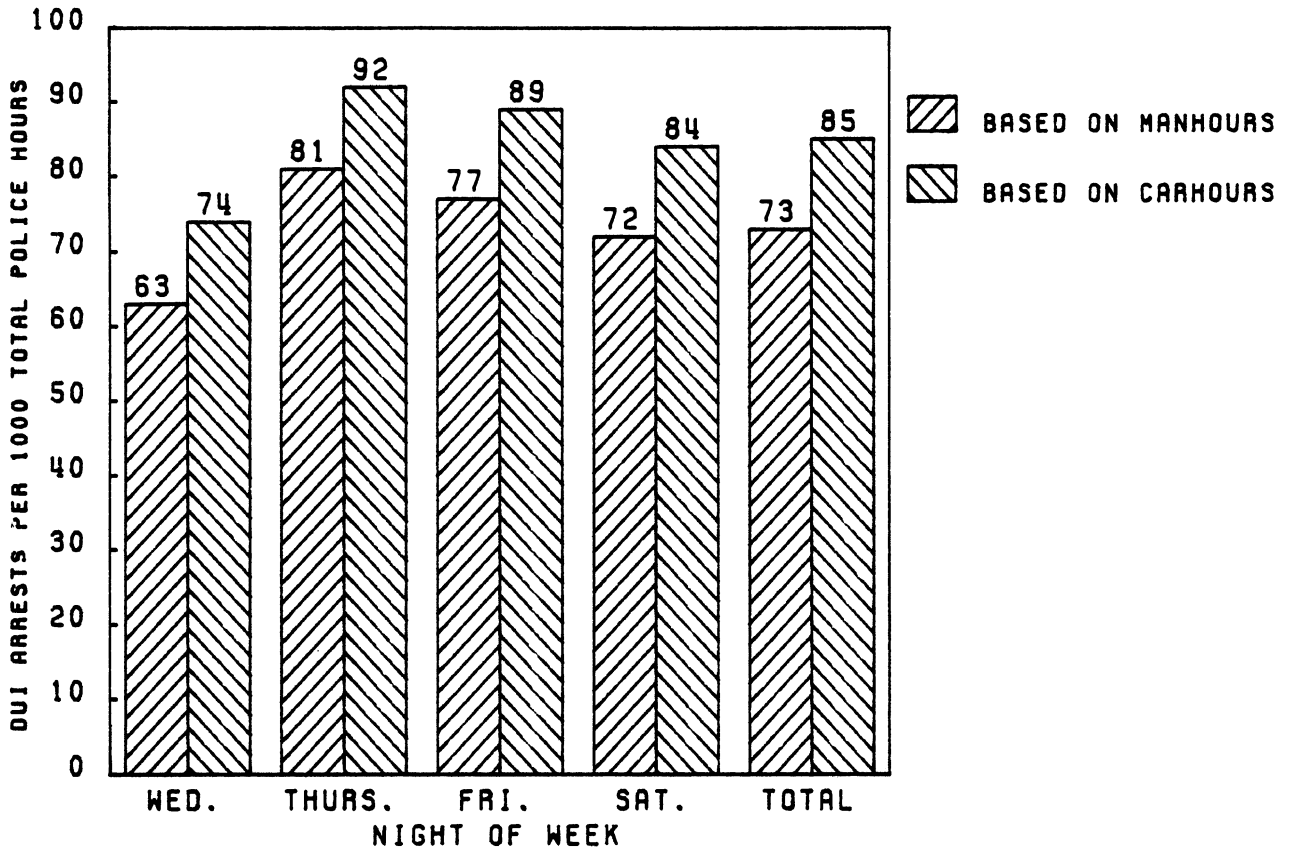


FIGURE 2.15 DUI ARREST RATES BY HOUR OF NIGHT FOR THE OAKLAND COUNTY ALCOHOL ENFORCEMENT TEAM

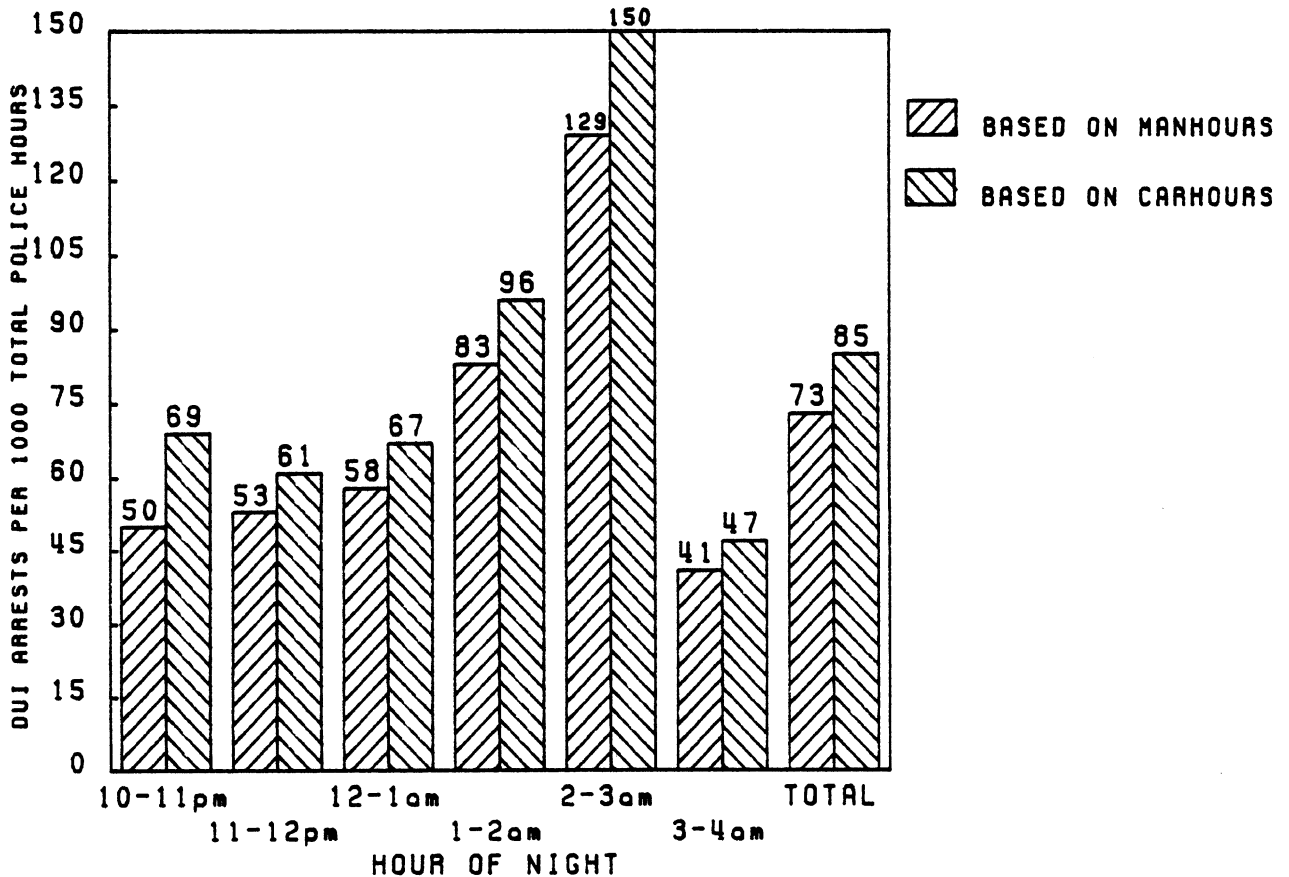


TABLE 2.16  
 DUI Arrests by Police Agency and Civil Division of Arrests<sup>a</sup> for the Oakland County  
 Alcohol Enforcement Team, April 10 - Sept. 27, 1980

Civil Division of Arrest	Police Agency							Total
	Sheriff	Pontiac MSP	Bloomfield	Royal Oak	Southfield	Waterford	White Lake	
Ayon Twp.	3							3
Bloomfield Twp.	9	4	1					14
Brandon Twp.	1							1
Commerce Twp.	5							5
Groveland Twp.	2							2
Independence Twp.	17	3						20
Orion Twp.	17	2						19
Oxford Twp.	2	4						6
Pontiac Twp.	14							14
Springfield Twp.	4							4
Waterford Twp.	98	29				9		136
White Lake Twp.	5	4					5	14
Berkley	1							1
Birmingham	4	1						5
Bloomfield Hills	6	1						7
Ferndale	9	2						11
Lake Orion	2	1						3
Pleasant Ridge	1							1
Pontiac	51	15						66
Royal Oak	21	6		5				32
Southfield	9				9			18
Total	281	72	1	5	9	9	5	382

<sup>a</sup>The data source is the special form completed by the Alcohol Enforcement Team on each DUI arrestee. The location of arrest is missing for five cases.

TABLE 2.17  
Age and Sex Distribution of 1980 Alcohol Enforcement Team DUI Arrestees and of 1978 and 1979  
Oakland County DUI Arrestees Reported to the MSP<sup>a</sup>

Age	Special Patrol DUI Arrestees				1978 Breath Test Reports				1979 Breath Test Reports			
	N	% Male	% Female	Total Percent	N	% Male	% Female	Total Percent	N	% Male	% Female	Total Percent
15-17	2	100.	0.0	0.5	96	95.8	4.2	2.8	77	92.2	7.8	2.2
18-20	40	87.5	12.5	10.3	481	91.7	8.3	14.0	392	89.5	10.5	11.1
21-24	82	89.0	11.0	21.2	606	93.6	6.4	17.7	691	91.5	8.5	19.5
25-34	129	89.5	10.1	33.3	984	92.8	7.2	28.7	1080	92.6	7.4	30.5
35-44	76	89.5	10.5	19.6	577	91.2	8.8	17.0	619	91.1	8.9	17.5
45-54	44	93.2	6.8	11.4	438	93.4	6.6	12.8	427	93.4	6.6	12.1
55-64	14	95.7	14.3	3.6	208	94.7	5.3	6.1	202	91.6	8.4	5.8
65+	-	-	-	0.0	35	88.6	11.4	1.0	51	98.0	2.0	1.4
Total	387	89.7	10.3	100.0	3479	92.8	7.2	100.0	3577	91.9	8.1	100.0

<sup>a</sup>The data on special patrol arrestees were obtained from a special form filled out on each arrestee and keypunched by HSRI. The 1978 and 1979 data were obtained from the breath test report forms which were submitted to the Michigan State Police and which were identifiable as from Oakland County. These data were keypunched by HSRI under a separate contract with the Office of Highway Safety Planning.



three sets of arrestees are fairly similar in their age and sex patterns. Females are only a small minority of the arrestees, and the 25-34 age group has the largest proportion of DUI arrestees. However, on a per age-year basis, 21-24 year-olds were most frequently arrested in 1979 and by the Team in 1980, while in 1978, 18-20 year-olds were slightly more likely to be arrested than 21-24 year olds. The Alcohol Enforcement Team arrestees included a slightly larger proportion of females and smaller proportions of young and old drivers than the 1978 and 1979 arrestees.

FIGURE 2.16 AGE GROUP AND SEX OF DUI ARRESTEES BY THE OAKLAND COUNTY ALCOHOL ENFORCEMENT TEAM

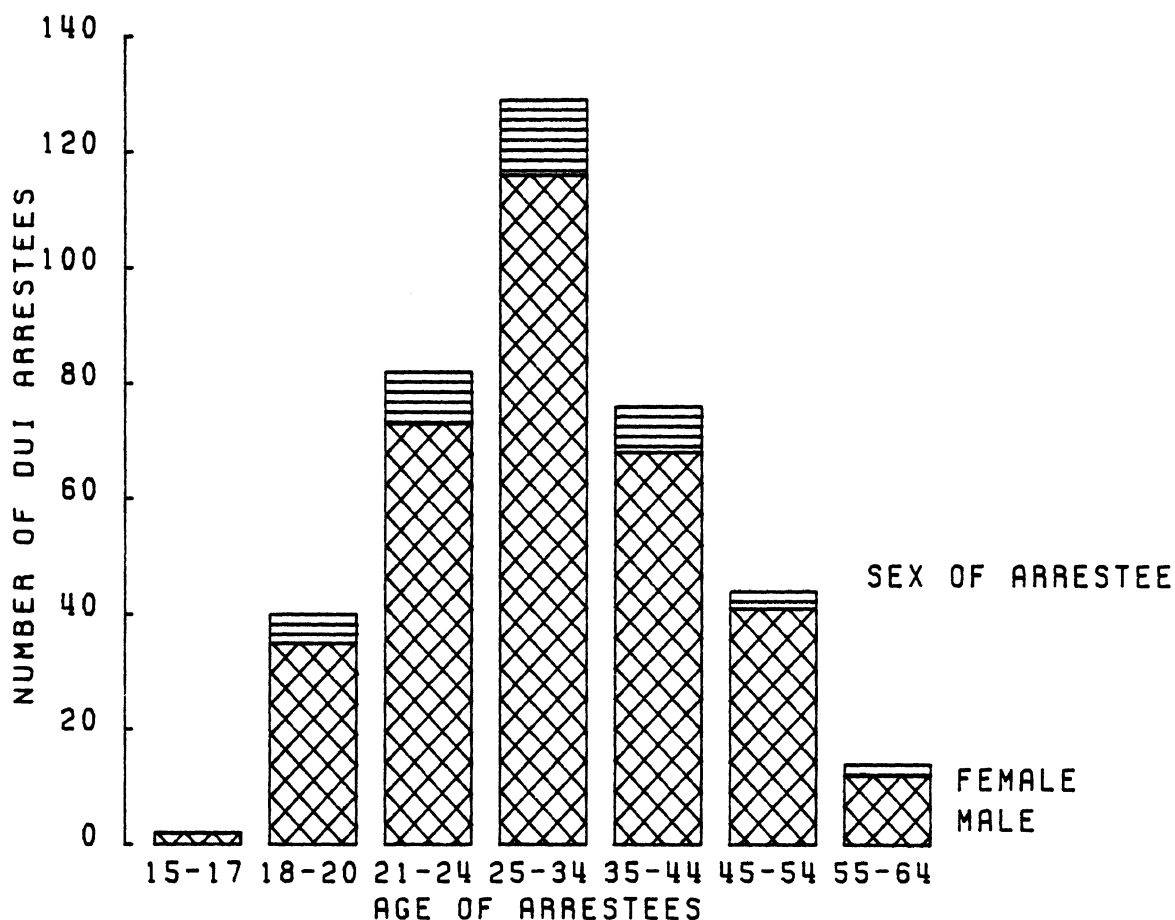


Table 2.18 and Figure 2.17 present similar comparative data on average Blood Alcohol Concentration (BAC) by age group. Overall, the mean BAC of the Team arrestees is 0.163 percent, slightly lower than the 0.171 percent in 1978 and 0.169 percent in 1979 for all Oakland County reported breath tests. This suggests that the Team's saturation efforts in the selected target areas have resulted in the arrests of a slightly less drunk group of arrestees than would normally have been arrested. All three sets of breath tests agree that the older the arrestee (up to age 55), the higher his/her BAC is likely to be. The average among 35-54 year-olds is consistently much higher than the average among 15-20 year-olds.

The highest BAC among the Team arrestees was 0.33 percent, and ten of the arrestees (3.1 percent) were above 0.24 percent BAC while another 67 arrestees (20.9 percent) were in the 0.20-0.24 percent BAC range. At the other end of the scale there were 9 arrestees with BACs under 0.08 percent who were charged with Driving Under the Influence of Liquor (DUIL), while one with a BAC of 0.02 percent was charged with Careless Driving. Two arrestees who did not take breath tests were charged with Driving Under the Influence of Drugs. There were also 14 arrestees in the 0.08-0.09 percent BAC range, two of whom were charged with Driving While Impaired (DWI) rather than DUIL, and there was one arrestee with a BAC of 0.11 who was charged with DWI according to the special arrest report.

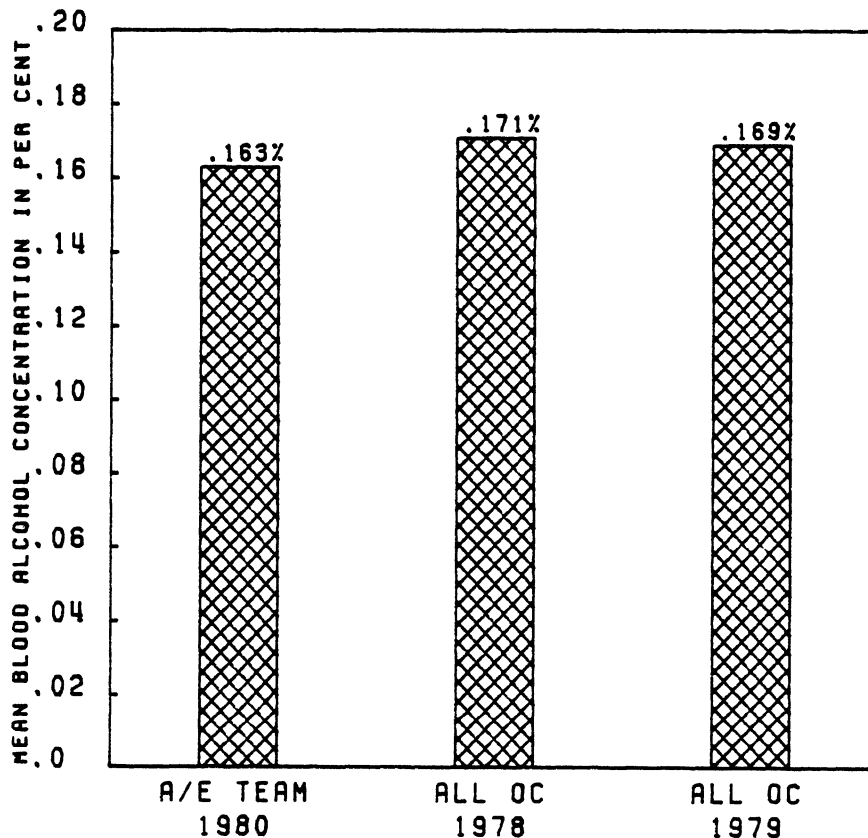
Table 2.18 and Figure 2.18 also present data on breath test refusals by age group for the Alcohol Enforcement Team. As mentioned previously, comparative refusal data are not available by county, but the 16 percent breath test refusal rate among Alcohol Enforcement Team arrestees seems surprisingly low compared to the state-wide refusal rate of 22.8 percent for the first eight months of 1980. The data do show a strong relationship with age with older arrestees much more likely to refuse the breath test

TABLE 2.18  
 Mean BAC and Refusal Percent By Age Group for 1980 Alcohol  
 Enforcement Team DUI Arrestees and Mean BAC by Age Group for 1978  
 and 1979 Oakland County DUI Arrestees Reported to the MSP<sup>a</sup>

Age	Special Patrol DUI Arrestees			1978 Breath Test Reports		1979 Breath Test Reports	
	Total N	Mean BAC	Refusal %	N	Mean BAC	N	Mean BAC
15-17	2	.150	0.0	94	.141	76	.137
18-20	37	.142	2.7	481	.149	387	.143
21-24	81	.156	13.6	601	.157	681	.153
25-34	129	.167	17.8	977	.172	1064	.172
35-44	75	.174	24.0	570	.188	609	.187
45-54	44	.176	18.2	437	.195	422	.186
55-64	14	.148	0.0	210	.188	202	.181
65+	-	-	-	34	.165	46	.183
Total	382	.163	16.0	3455	.171	3519	.169

<sup>a</sup>Data sources are as in Table 2.17.

FIGURE 2.17 MEAN BAC OF A/E TEAM DUI ARRESTEES  
 AND OF ALL OAKLAND COUNTY DUI ARRESTEES IN 1978 AND 1979



than younger ones. Number of previous drunk driving convictions is missing for 8 percent of the cases, but among the remainder 23.6 percent had one or more previous convictions (7.3 percent had two, three, or four previous convictions). Arrestees with previous convictions were much more likely to refuse the breath test than those without previous convictions. Again, there is a strong relationship with age with older arrestees more likely to have a previous conviction (42.5 percent of the 45-54 year olds).

FIGURE 2.18 MEAN BAC AND REFUSAL PERCENT BY AGE GROUP FOR THE ALCOHOL ENFORCEMENT TEAM DUI ARRESTEES

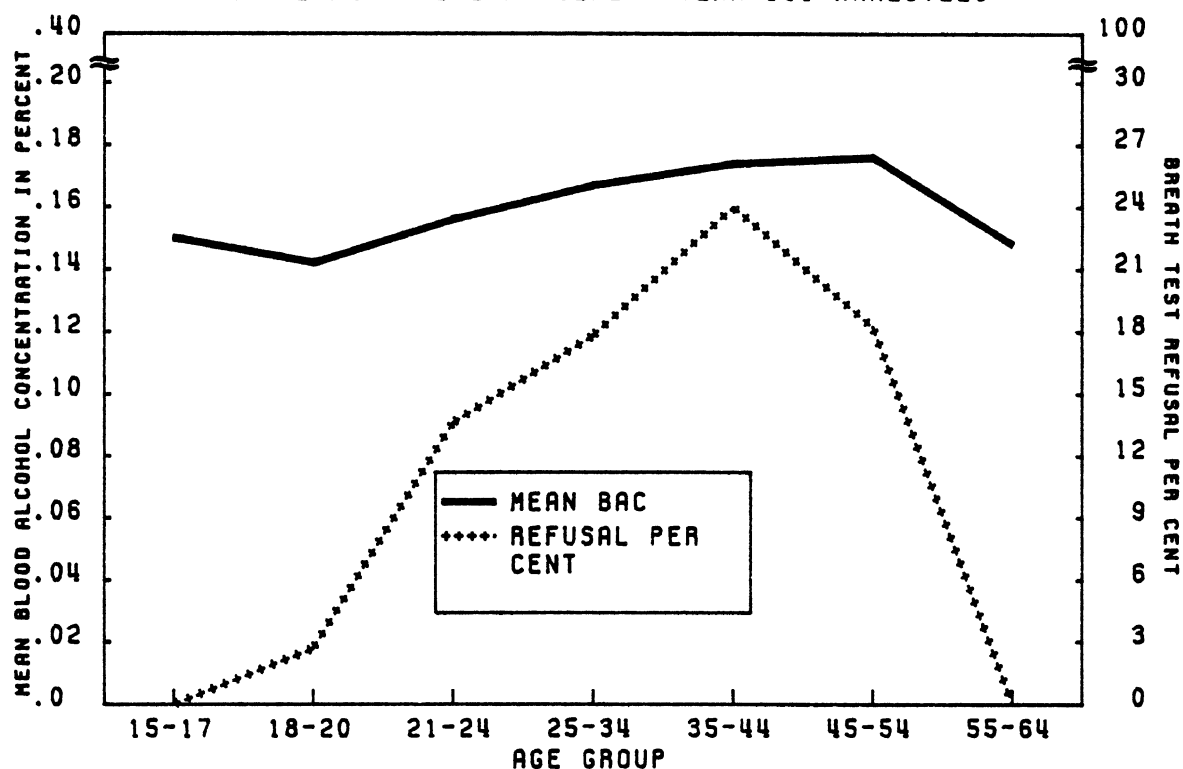


Table 2.19 and Figure 2.19 go on to show the residential distribution of Alcohol Enforcement Team arrestees compared to all

1978 and 1979 reported breath test givers. The percentage of out-of-state drivers is very small in all three groups, but the Team arrestees are also much less likely to be from other Michigan counties than the 1978 and 1979 arrestees. This probably is related to the concentration of the selected target areas on roads in the middle of Oakland County.

Table 2.20 and Figure 2.20 show the occupational distribution of Alcohol Enforcement Team arrestees by age group. A very large percentage of the arrestees said they were unemployed, especially in the younger and older age groups. Blue-collar workers were also more prevalent than white-collar workers, but clearly all types of occupational groups were represented among the arrestees. Only 13 percent of the vehicles stopped were more than ten years old, and 20 percent were 1979 or 1980 models. As might be expected, white-collar workers were more likely to be driving newer model cars than blue-collar workers and unemployed arrestees. The white-collar groups were also more likely to be driving passenger cars, while the blue-collar workers and unemployed arrestees were more likely to be driving pick-ups, vans, and motorcycles. Overall, 80 percent of the vehicles stopped were passenger cars, 11 percent were pick-ups, 4 percent were vans, 1 percent was utility vehicles, and 4 percent were motorcycles. Half of the 16 arrested motorcycle drivers were in the 25-34 age group, and two were older than that. In general, older drivers were somewhat more likely to be driving newer vehicles than younger drivers.

Almost half of the arrestees reported coming from a bar, while almost one-quarter had been at a friend's or relative's home, and 10 percent had been at a sport or recreational facility or event. Ten of the 41 arrestees under the legal drinking age (21) said they had been at a bar. The older the arrested driver the more likely he was to be coming from a bar.

TABLE 2.19  
Residential Distribution by Age Group of 1980 Alcohol Enforcement Team DUI Arrestees  
and of 1978 and 1979 Oakland County DUI Arrestees Reported to the MSP<sup>a</sup>

Age	Special Patrol DUI Arrestees			1978 Breath Test Reports			1979 Breath Test Reports					
	N	% Oakland County	% Other Michigan	% Other States	N	% Oakland County	% Other Michigan	% Other States	N	% Oakland County	% Other Michigan	% Other States
15-17	2	100.0	0.0	0.0	96	71.9	27.1	1.0	77	90.9	9.1	0.0
18-20	38	76.3	23.7	0.0	481	78.2	21.6	0.2	391	77.5	22.5	0.0
21-24	76	86.8	13.2	0.0	612	70.3	28.6	1.1	691	72.2	26.2	1.6
25-34	117	87.2	9.4	3.4	993	72.2	26.7	1.1	1081	68.4	30.7	0.9
35-44	71	91.5	5.6	2.8	585	72.3	26.7	1.1	620	66.0	32.4	1.6
45-54	40	77.5	20.0	2.5	441	64.9	33.6	1.6	426	62.0	35.4	2.6
55-64	13	92.3	7.7	0.0	210	67.6	31.0	1.4	204	66.2	32.8	1.0
65+	-	-	-	-	35	77.1	22.9	0.0	51	68.6	31.4	0.0
Total	357	86.0	12.0	2.0	3507	71.5	27.4	1.0	3577	69.4	29.4	1.3

<sup>a</sup>Data sources are as in Table 2.17.

TABLE 2.20  
Occupational Distribution by Age Group for Oakland County Alcohol Enforcement Team  
DUI Arrestees,<sup>a</sup> in Percent

	N	Prof./ Admin.	Clerical/ Sales	Craftsmen/ Operatives	Service Workers	Laborers	Employed, NA How	Unemployed
16-17	1	5.4	5.4	16.2	13.5	10.8	10.8	100.0
18-20	37	5.4	5.4	16.2	13.5	10.8	10.8	37.8
21-24	74	8.1	9.5	29.7	9.5	14.9	5.4	23.0
25-34	120	11.7	9.2	28.3	1.7	14.2	7.5	27.5
35-44	70	28.6	7.1	30.0	5.7	10.0	4.3	14.3
45-54	41	34.1	4.9	22.0	12.2	12.2	4.9	9.8
55-64	14	21.4	14.3	21.4	0	7.1	0	35.7
Total	357	16.5	8.1	26.6	6.4	12.6	6.2	23.5

<sup>a</sup>The data source is the special form completed by the Alcohol Enforcement Team for each DUI arrestee.

FIGURE 2.19 RESIDENCE OF A/E TEAM DUI ARRESTEES AND OF ALL OAKLAND COUNTY DUI ARRESTEES IN 1978 AND 1979

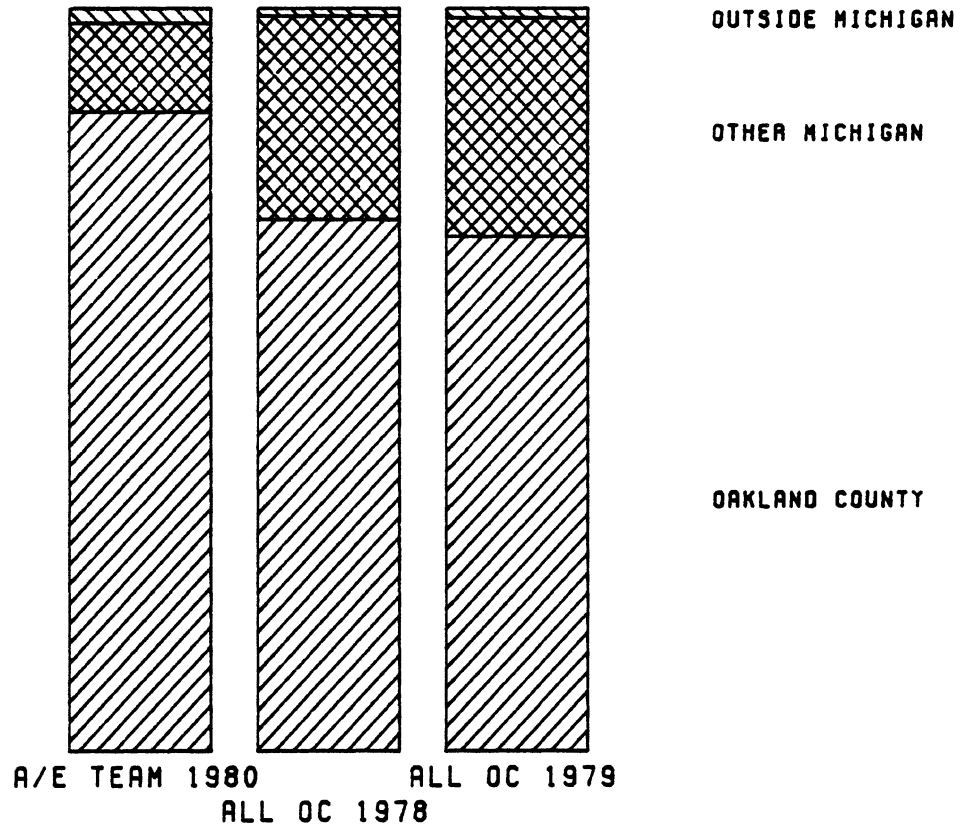
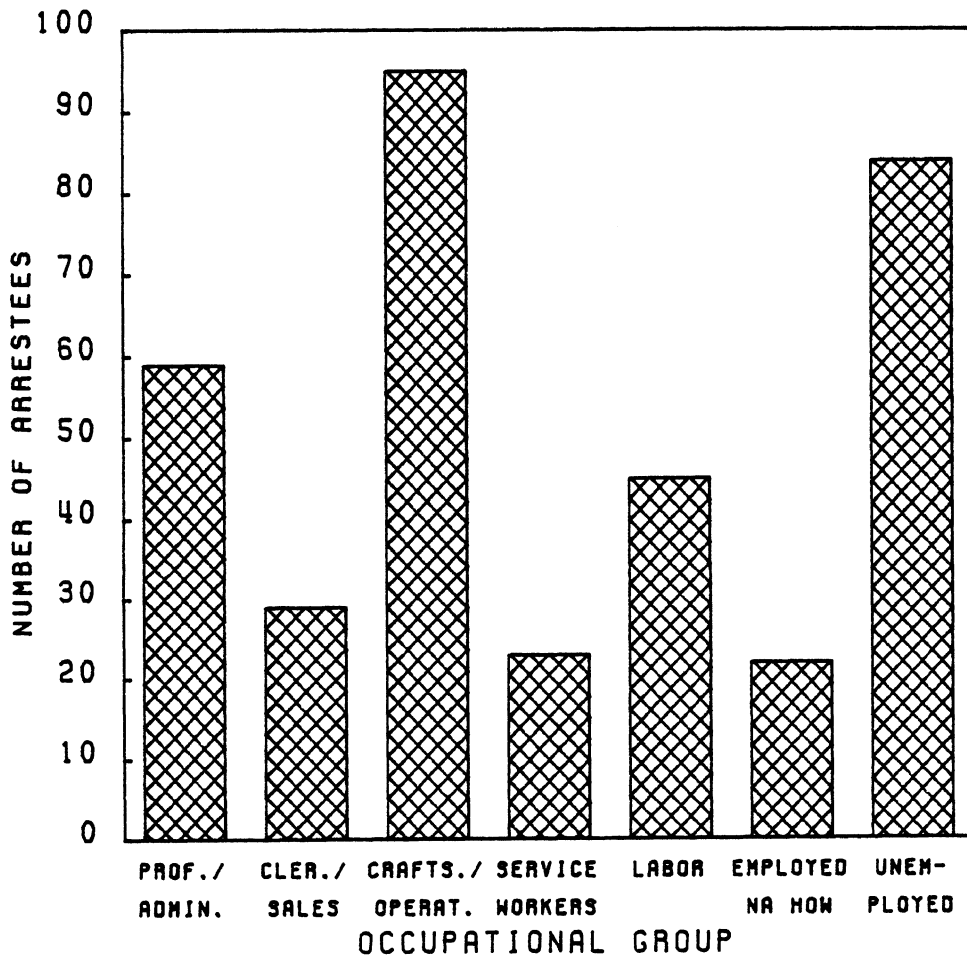


FIGURE 2.20 OCCUPATIONAL GROUP OF DUI ARRESTEES BY THE OAKLAND COUNTY ALCOHOL ENFORCEMENT TEAM





Most of the arrestees also answered questions on when they had started and stopped drinking and on how many drinks of different kinds they had had. The average length of time from reported start of drinking to arrest was about five and one-half hours. However, the average number of reported drinks was only six which demonstrates, not surprisingly, that drunk drivers tend to greatly under-report their alcohol consumption. When the number of drinks was subtracted from the number of hours of drinking to obtain a rough estimate of the effective number of drinks, 113 of the 249 arrestees who gave drinking information and who had given a breath sample, had a negative number of effective drinks. Even among those with a positive number of effective drinks Table 2.21 shows that there is only a weak relationship between this number and the BAC obtained in the breath test. Beer was by far the most common beverage consumed. It was reported by 270 arrestees, while only 6 arrestees reported drinking wine, 23 reported drinking whiskey or other spirits, and 56 reported drinking mixed drinks.

TABLE 2.21  
 Mean BAC in Relation to Number of Reported Drinks Among Oakland  
 County Alcohol Enforcement Team DUI Arrestees<sup>a</sup>

Effective <sup>b</sup> Number of Drinks	N	Mean BAC
1	34	15.7
2	35	16.9
3	31	17.5
4	11	17.0
5	10	16.2
6	2	18.5
7	3	17.7
8	5	17.2
9	2	15.0
10+	3	18.7
Total	249	16.4

<sup>a</sup>The data source is the special form completed by the Alcohol Enforcement Team for each DUI arrestee.

<sup>b</sup>To obtain a rough estimate of the number of "effective" drinks the number of hours between the arrest and the reported onset of drinking was subtracted from the reported number of drinks. In 84 cases this resulted in a negative number, and in 29 cases the result was 0. There were 105 arrestees who did not say how many drinks they had or when they began drinking or neither.

### 3. COURT HANDLING OF OAKLAND COUNTY DRUNK DRIVING CASES

Another area of concern in the Alcohol Enforcement/Education Project is what happens to drunk driving cases when they reach the appropriate court, in most cases one of the the 16 district courts of Oakland County. An arrest for drunk driving with its usual incarceration for six hours is in itself an unpleasant experience, but it is generally presumed that enforcement by the police of the drunk driving laws needs back-up support by the courts in the form of real punishment for drunk driving offenses if enforcement is to serve as an effective deterrent. This punishment usually takes the form of withdrawal or restriction of the driving privilege as well as of monetary fines. In addition, there are often the indirect penalties of paying a lawyer's fees and paying increased automobile insurance premiums following a conviction.

It is also generally recognized that most of the drivers arrested for drunk driving are persons with some degree of alcohol problems, and that the courts are in a unique position to encourage these drivers to make use of community medical, social welfare, and educational resources which can help them with these problems. While the immediate goal of such encouragement is to reduce the likelihood of these individuals repeating their drunk driving behavior, the larger goal is to enhance the quality of life for such individuals generally by helping them to overcome their dependence on and abuse of alcoholic beverages.

HSRI has organized a program to code the results of drunk driving cases from all the district courts of Oakland County except the 35th (which mostly serves Wayne County, but also includes the Oakland County part of Northville City). Data of particular interest include the charge, the disposition, the sentence (including referrals for help), and the length of time from arrest to disposition--all in relation to the BAC, number of previous convictions, etc. Unfortunately, this has proven to be quite a massive task, and data for 1979 are not complete for any

of the district courts at this time. It is planned to obtain court data for 1979 as the baseline year and for 1980 through 1982.

Fortunately, the Uniform Crime Report does contain some relevant disposition data on DUI cases which can be included in this report. Up through 1979, police departments were requested to report annually on the court disposition of all their arrest cases, and the UCR disposition tallies for Oakland County DUI arrest cases by district court are shown in Table 3.1 and Figure 3.1. These tallies include only arrests made and reported by local police departments, since each local department is served by only one district court. Dispositions reported by the MSP and the Sheriff's Department are not included in these data because there is no way to know which district courts handled them. It should be noted that dispositions are available for only about half of the total DUI arrests during this three-year period.

**FIGURE 3.1 1977-79 DISTRICT COURT DISPOSITIONS OF DUI ARREST CASES, IN PER CENT**

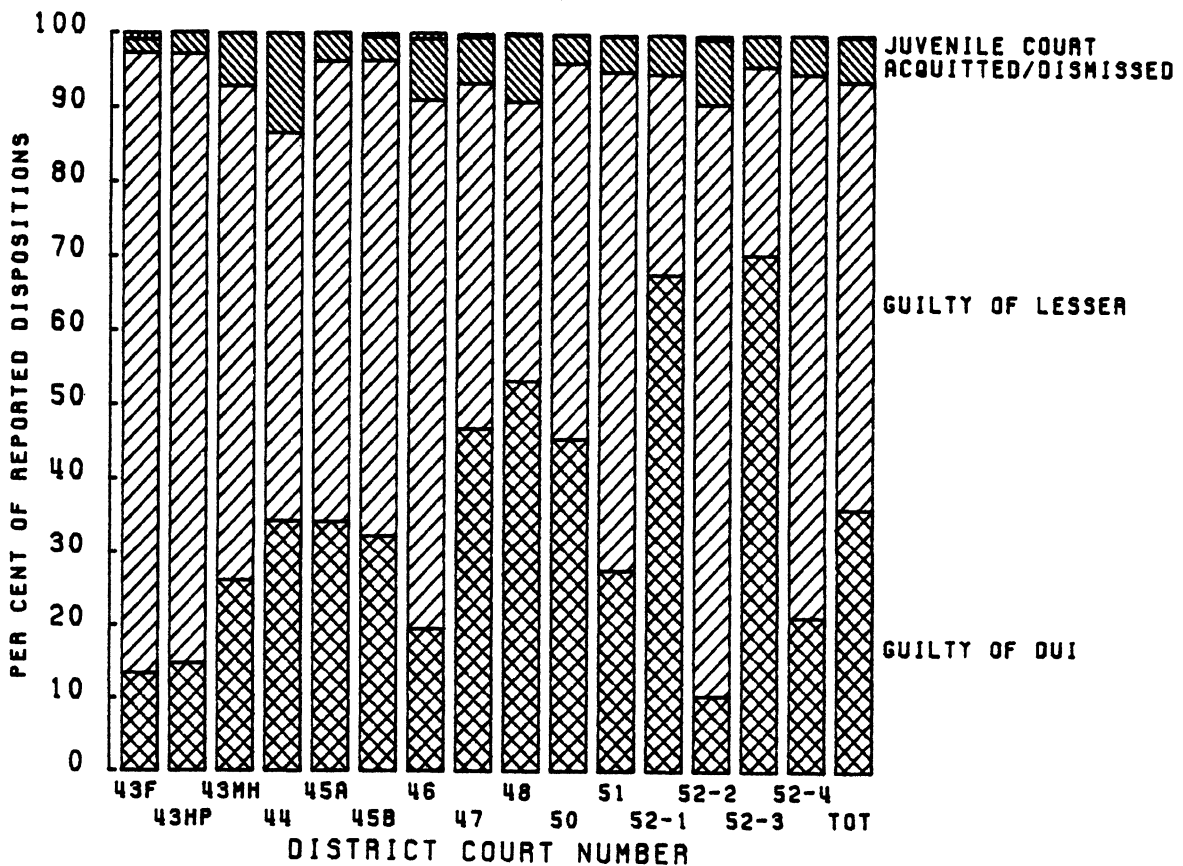


TABLE 3.1  
Dispositions of Oakland County DUI Arrest Cases by District Court, as Reported to the MSP  
Uniform Crime Reporting Section, 1977-1979<sup>a</sup>

District Court	Cases Disposed	% Guilty as Charged	% Guilty Lesser Charge <sup>b</sup>	% Acquitted/Dismissed	% Referral to Juvenile Court
43 Ferndale	112	13.4	83.9	1.8	0.9
43 Hazel Park	244	14.8	82.4	2.9	0
43 Madison Heights	309	26.2	66.7	7.1	0
44 Royal Oak	186	34.4	52.2	13.4	0
45A Berkley	79	34.2	62.0	3.8	0
45B Oak Park etc.	475	32.4	64.0	3.2	0.4
46 Southfield etc.	796	19.6	71.5	8.2	0.8
47 Farmington etc.	258	46.9	46.5	6.2	0.4
48 Bloomfield Twp. etc.	1091	53.3	37.6	9.0	0.2
50 Pontiac	1110	45.5	50.6	3.8	0.1
51 Waterford Twp.	691	27.6	67.4	4.8	0.1
52-1 Novi etc.	474	67.7	27.0	5.3	0
52-2 Clarkston etc.	183	10.4	80.3	8.7	0.5
52-3 Rochester etc.	71	70.4	25.4	4.2	0
52-4 Troy, Clawson	853	21.2	73.6	5.2	0
Total	6932	36.1	57.7	6.0	0.2

<sup>a</sup>These data are based on reports from Oakland County police agencies to the MSP Uniform Crime Reporting Section. These disposition data are not mandatory, and the number of dispositions shown here is just under half of the total number of reported DUI arrests for 1977, 1978, 1979. Dispositions are unavailable for most Sheriff's Department and MSP arrests, and even those which are available have been ignored in this table because there is no way to know to which district court they have been assigned. This problem affects Courts 52-1, 52-2, and 52-3 particularly. The disposition data have been dropped entirely from the Uniform Crime Reporting System in 1980.

<sup>b</sup>The actual lesser charge is not indicated, but usually this would be DWI, Driving While Impaired.

Overall, Table 3.1 shows that 36.1 percent were convicted of the original charge (DUI), 57.7 percent were convicted of a lesser charge (generally DWI it is presumed), 6.0 percent were acquitted or dismissed, and 0.2 percent were referred to a juvenile court. Figure 3.1 shows graphically the great variations among the 15 district courts in the extent of reductions and of acquittals. Reductions in charges were most common in District Courts 43F, 43HP, 52-2, and 46, and were least common in Courts 52-1, 52-3, and 48. Acquittals/dismissals were most common in Courts 44, 48, 52-2, and 46. It is expected that if MSP and Sheriff's Department arrests were included the extent of reductions in charges would be even greater, because these arrests take place under state law rather than local ordinance. Thus they are handled by the County Prosecutor who has a well-known program for reducing the charge to DWI if the arrestee surrenders his license for 30 days and attends the classes run by the Alcohol Highway Safety Education Program (AHSEP).

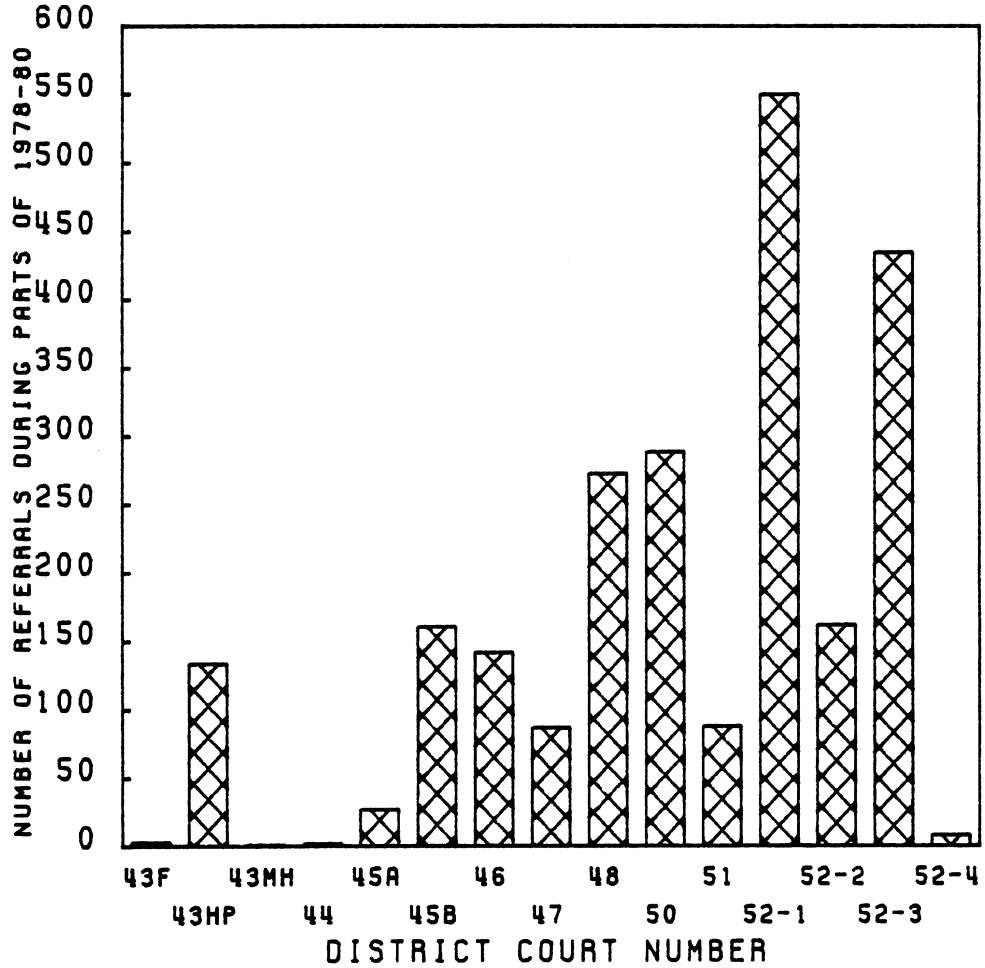
The latter program is run by the Oakland County Department of Human Services and consists basically of four two-hour sessions of instruction. As can be seen in Table 3.2, more than half of the referrals to this Program come through the District Courts (other major sources are the Oakland County Prosecutor and the Department of State). Figure 3.2 shows clearly the vast differences among the District Courts in their referrals to this Program--with Courts 52-1 and 52-3 providing the largest number of referrals, while Courts 43F, 43MH, 44, and 52-4 provide almost no AHSEP referrals.

TABLE 3.2  
 District Court Referrals to the Oakland County Alcohol Highway  
 Safety Education Program, parts of 1978, 1979, and 1980<sup>a</sup>

District Court	No. of Judges	Referrals 1-3/78	Referrals 4-12/79	Referrals 1-7/80	Total Referrals
43 Ferndale	1	2	1	0	3
43 Hazel Park	1	33	59	42	134
43 Madison Heights	1	0	1	0	1
44 Royal Oak	2	0	0	2	2
45A Berkley	1	5	10	12	27
45B Oak Park etc.	2	18	77	66	161
46 Southfield etc.	3	5	56	81	142
47 Farmington etc.	2	15	60	12	87
48 Bloomfield Twp. etc.	3	91	157	25	273
50 Pontiac	4	54	126	109	289
51 Waterford Twp.	2	24	20	44	88
52-1 Novi etc.	2	98	238	214	550
52-2 Clarkston etc.	1	19	69	74	162
52-3 Rochester etc.	2	68	185	182	435
52-4 Troy, Clawson	3	7	1	0	8
District Courts Total	30	439	1060	863	2362
Total, All Sources		684	1993	1655	4332

<sup>a</sup>These data were furnished by Paul Talagrand, Director of the Oakland County Alcohol Highway Safety Education Program. The data for April 1978 through March 1979 are not currently available.

FIGURE 3.2 REFERRALS BY THE DISTRICT COURTS TO THE ALCOHOL HIGHWAY SAFETY EDUCATION PROGRAM, 1978-80





#### 4. OAKLAND COUNTY PUBLIC OPINION ON ALCOHOL AND HIGHWAY SAFETY

If the Alcohol Enforcement/Education Project is to have a significant effect on alcohol-related accidents in Oakland County, then increasing the number of drunk driving arrests is clearly not enough by itself. Increased arrests should have some direct impact by removing from the driver's wheel for a period, persons who have a high risk of being involved in an alcohol-related accident, but obviously the effect of this increased enforcement can be magnified if knowledge about it serves as a deterrent to other potential drunk drivers. Some of this deterrent effect can come about just by "word of mouth" dissemination in the bars, among friends and relatives, etc., but hopefully the deterrence can be greatly enhanced by a well-organized public information and education campaign to inform the public on the dangers of drinking and driving, on the need for an increased enforcement program, on the increased chances of arrest and the unpleasant consequences therefrom if they do drive after drinking too much, and on appropriate alternatives if one has drunk too much for safe driving.

This public education program is the second major part of the Alcohol Enforcement/Education Project. From the beginning of the Project, TIA provided a number of press releases on Project plans which received fairly widespread publicity in the County. However, with the beginning of the Alcohol Enforcement Team operations in April, publicity efforts were greatly intensified through a kick-off luncheon, television news coverage, etc., and plans were made to mount a large-scale public information campaign in late 1980 and early 1981.

In order to measure the impact of the TIA information and education program on the driving public, a mail survey was carried out with a 1/1000 random sample of 790 Oakland County drivers taken from the Department of State license files. The initial

mailing of the four-page questionnaire with 24 questions was made on February 29, 1980, and a reminder postcard was sent to all respondents on March 10. A first follow-up mailing to non-respondents was made on April 4, and the final follow-up mailing to remaining non-respondents was made by certified mail on May 9. Out of the 790 initial respondents 92 letters were returned as undeliverable, information was received that 5 respondents were deceased and 44 had moved out of the county, and 8 should not have been in the sample because they were out-of-county addresses. From the remaining 641 eligible respondents, 544 usable questionnaires were received, an 84.9 percent response rate. However, eight of these dribbled in too late to include in the question-by-question tables shown in the Appendix.

The survey had been intended as a baseline survey to obtain a measurement of public opinion before any TIA publicity activities. However, this was not possible because HSRI's evaluation contract was not signed until February 1980. This meant that the survey period extended through the period of the kick-off publicity for the Alcohol Enforcement Team. Thus the baseline survey was somewhat "contaminated," but this actually provided the opportunity to do some evaluation of the initial outreach of the TIA publicity efforts.

The kick-off luncheon and its attendant publicity occurred on April 8, so the questionnaires were divided into those received before and after April 9, and the results were compared for the two groups. Of most interest is Question 15 which asked if the respondent had happened to see or hear anything about a special program in Oakland County to reduce accidents caused by drunk drivers. There was a significant increase from 10.5 percent to 28.3 percent between the two groups in the proportion who said "yes." Of course, this isn't as high an awareness level as TIA was hoping for, but it should be remembered that the second group were persons who had not responded to the initial questionnaire

mailing and who were probably a less informed and civic-conscious group of drivers. Answers to Questions 17, 20, and 21 show that the second group of respondents contained disproportionate numbers of younger, single, and less educated drivers compared to the first group. The persons in the second group who were aware of the program reported many more sources for their information than aware persons in the first group (Question 15C), and they were much more likely to mention enforcement activities as the content of the program (Questions 15a and 15b). Enforcement was scarcely mentioned at all by aware persons in the first group.

In September 1979, Market Opinion Research (MOR) carried out a random digit dialing telephone survey of 500 Oakland County residents for the Oakland County Road Commission. This survey contained two open questions relevant to public awareness of the drunk driving problem, and they were repeated in HSRI's survey. Question 3 asked the respondent's opinion as to the single greatest cause of traffic deaths and injuries in Oakland County. Drinking or drunk drivers was spontaneously mentioned by 43.4 percent of the HSRI respondents (34.2 percent of all mentions), somewhat below the 49.0 percent mentioning this in the MOR survey. Question 7 asked "If police agencies were to more strictly enforce traffic laws, on what type of violation should they concentrate their efforts?" Drunk driving was spontaneously mentioned by 33.8 percent of the HSRI respondents (26.2 percent of all mentions), considerably more than the 19.7 percent mentions by MOR respondents. On both questions post April 8 HSRI respondents were somewhat more likely to mention drunk driving than pre April 8 respondents. There was not much difference between the two groups on another awareness question which sought an estimate of the percentage of fatal accidents which involve a drunk driver (Question 12).

Another question of great interest to the potential effectiveness of the Alcohol Project has to do with driver

perceptions of the chances of drunk drivers being arrested in Oakland County (Questions 13 and 14). The median estimated chance of arrest for the average drunk driver was about 1 in 500, and most respondents estimated a slightly smaller chance of arrest for themselves if they drove while drunk than for the average driver. There was not much difference between the pre and post April 8 groups on these questions.

Hopefully future surveys will find that the combination of increased enforcement activity and TIA publicity about this activity has led to perceptions of increased risk of arrest for drunk drivers in Oakland County, and hopefully this change in perception will lead to fewer drivers taking this risk. On Question 23 one-quarter of the respondents were willing to admit that at least once in the previous year they had driven after drinking enough to be illegal, and one-eighth admitted having done so three or more times. That suggests that there are at least 153,000 Oakland County drivers whose drinking and driving behavior is in need of modification, and it is hoped that future surveys will find both increased perceptions of risk of arrest and reduced reports of drunk driving behavior as a result of Project activities. One can also hope for an increase in the 43 percent of the respondents who said that they had taken some action in the previous year to prevent someone who had been drinking a lot from driving (Question 16).

## 5. SUMMARY

In September 1979 a three and one-half year Alcohol Enforcement Education Project was initiated by the Traffic Improvement Association and the Sheriff's Department of Oakland County. Its goal is to reduce alcohol-related accidents in Oakland County by a saturation program of selective enforcement at the times and places of the greatest number of drunk driving accidents combined with a large-scale public education effort. Operation of the special Alcohol Enforcement Team commenced on April 10, 1980, and continued on Wednesday, Thursday, Friday, and Saturday nights thereafter. For the first two weeks it operated from 10 p.m. to 3 a.m., but then it changed to an 11 p.m. - 4 a.m. operation. It operated in five different specified target areas, usually for two weeks at a stretch in one area. The Team usually consisted of six Sheriff's Department cars, one Michigan State Police car, and one or more local police department cars.

The Project is sponsored by the Michigan Office of Highway Safety Planning, and this agency also awarded a contract to the Highway Safety Research Institute to evaluate the effectiveness of the Project in meeting its goals. This first-year evaluation report has presented available evaluation data in four areas: accidents, DUI arrests, court handling of DUI cases, and public opinion.

The primary Project goal is to reduce alcohol-related fatal and injury accidents in Oakland County by at least 15 percent. Trend data for 1974 to 1979 show that both non-alcohol-related and alcohol-related accidents have been increasing rapidly in Oakland County. In particular alcohol-related fatal and injury accidents increased 43 percent from 1974 to 1979. Using 1978 and 1979 combined accident data as the baseline period, 22.32 percent of the fatal and injury accidents were alcohol-related, so a 15 percent decrease would involve reducing this percentage to 18.97 or less. Accident data for 1980 are not yet available, so nothing

can be said about the degree of success in meeting this goal at this time.

A major secondary goal is to increase drunk driving arrests by 30 percent in the Sheriff's Department and by 15 percent in the 41 local police departments of the County. Trend analysis of Oakland County DUI arrests reported for the annual Michigan Uniform Crime Report show that DUI arrests have almost doubled from 1971 to 1979. There were 5406 arrests in 1979, and initial 1980 data suggest that there will be over 6000 in 1980, close to 1 percent of the drivers in Oakland County. A total of 387 DUI arrests were made by the Alcohol Enforcement Team in its first five and two-thirds months of operation, an average of almost four per night or 73 arrests per 1000 patrol man-hours. The 2-3 a.m. period was the hour in which the greatest number of arrests occurred.

Comparison of DUI arrest data for April-September 1979 with DUI arrest data for April-September 1980 showed a 102 percent increase for the Sheriff's Department, well above the 30 percent goal, but only a 7 percent increase for all local departments. Trend data show that many local departments have varied greatly in their number of DUI arrests through the 1970s, and also there are great variations among local departments in their DUI arrest rates per 1000 total police duty man-hours.

In regard to the court handling of drunk driving cases, HSRI has no data to report yet from its effort to code 1979 and later dispositions of DUI cases in 15 district courts. However, for 1977 to 1979 about half of the dispositions were reported by the local police departments to the Michigan Uniform Crime Report, and an analysis of these data by district court shows great variations among the courts in the extent to which DUI cases were reduced to a lesser charge or were acquitted/dismissed. Data on referrals to the Oakland County Alcohol Highway Safety Education Program also show great variations among the different district courts.

A mail public opinion survey was carried out from February to May 1980 in a 1/1000 random sample of Oakland County drivers, and after two follow-ups an 85 percent response rate was achieved. Questionnaires were received both before and after the April 10 start-up of the Alcohol Enforcement Team and its attendant publicity, and comparison of the two sets of responses showed a significantly greater awareness of the special alcohol enforcement project in the later group. Other questions of particular interest have to do with opinions as to the likelihood of drunk drivers being apprehended, the greatest cause of traffic deaths and injuries, the most important traffic violations police should enforce more, and the percentage of fatal accidents which are alcohol-related. Also of special interest are respondents' reports of their own drunk driving behavior and of behavior to stop others from driving when they have had too much to drink. Repeated annual surveys will attempt to ascertain changes among Oakland County drivers on these important questions.





APPENDIX

QUESTION BY QUESTION RESULTS  
FROM THE 1980 OAKLAND COUNTY  
HIGHWAY SAFETY SURVEY

QUESTION 1: About how many miles would you estimate that you yourself drove a motor vehicle in the past 12 months?

Miles	Returned Before April 9	Returned After April 8	Total
3500 or Less	17.9%	21.4%	18.7%
3500 - 7500	17.6%	21.4%	18.5%
7500 - 11,500	22.3%	21.4%	22.1%
11,500 - 15,500	19.4%	19.8%	19.5%
15,500 - 19,500	4.2%	3.2%	4.0%
19,500 or More	18.6%	12.7%	17.2%
Total N	403	126	529

QUESTION 2: About what percent of those miles would you guess were driven in Oakland County?

Miles	Returned Before April 9	Returned After April 8	Total
Under 10%	2.0%	1.6%	1.9%
10-19%	2.5%	4.0%	2.8%
20-34%	5.2%	9.6%	6.2%
35-49%	4.9%	4.8%	4.9%
50-64%	17.5%	12.8%	16.4%
65-79%	22.2%	17.6%	21.1%
80-89%	16.5%	15.2%	16.2%
90% Up	29.1%	34.4%	30.4%
Total N	405	125	530

QUESTIONS 1 and 2 Combined: Annual Miles in Oakland County

Miles	Returned Before April 9	Returned After April 8	Total
3500 or Less	25.0%	29.4%	26.0%
3500 - 7500	33.4%	32.1%	33.1%
7500 - 11,500	24.2%	21.1%	23.5%
11,500 - 15,500	9.2%	8.3%	9.0%
15,500 - 19,500	4.1%	5.5%	4.4%
19,500 or More	4.1%	3.7%	4.0%
Total N	368	109	477

QUESTION 3: In your opinion, what is the single greatest cause of traffic deaths and injuries in Oakland County?\*

	Before April 9	After April 9	Total
Drinking or drunk drivers	41.6%	49.2%	43.4%
Drug-impaired drivers	5.4%	4.9%	5.3%
Poor driver attitude/ability	39.0%	33.6%	37.7%
Specific bad driving subgroups	3.1%	4.9%	3.3%
Speeding, being in a hurry	26.6%	21.3%	25.3%
Other specific driver actions	3.4%	5.7%	3.9%
Bad roads, inadequate construction/ maintenance	5.9%	5.7%	5.9%
Inadequate traffic control devices	1.0%	0.8%	1.0%
Other	1.3%	-	1.0%
Total N	387	122	509

\*Multiple response question--percentages add to more than 100%.

QUESTION 4: How likely do you think it is that the average Oakland County driver will be involved in a major or minor traffic accident sometime during the next 12 months?

	Before April 9	After April 9	Total
About 1 in 2	2.0%	0.8%	1.7%
About 1 in 5	6.0%	7.3%	6.3%
About 1 in 10	12.9%	19.4%	14.4%
About 1 in 50	10.0%	6.5%	9.1%
About 1 in 100	23.1%	27.4%	24.1%
About 1 in 500	7.7%	8.9%	8.0%
About 1 in 1000	22.4%	21.0%	22.1%
About 1 in 10,000	13.9%	5.6%	12.0%
About 1 in 100,000	1.5%	3.2%	1.9%
About 1 in 1,000,000	0.5%	0	0.4%
Total N	402	124	526

QUESTION 5: How likely to you think it is that you yourself will be involved in a major or minor traffic accident sometime during the next 12 months?

	Before April 9	After April 9	Total
About 1 in 2	2.5%	3.4%	2.7%
About 1 in 5	3.0%	2.6%	2.9%
About 1 in 10	7.1%	10.3%	7.8%
About 1 in 50	6.9%	7.7%	7.0%
About 1 in 100	13.2%	14.5%	13.5%
About 1 in 500	8.1%	8.5%	8.2%
About 1 in 1000	21.3%	26.5%	22.5%
About 1 in 10,000	22.8%	13.7%	20.7%
About 1 in 100,000	6.9%	4.3%	6.3%
About 1 in 1,000,000	8.1%	8.5%	8.2%
Total N	394	117	511

QUESTION 6: How frequently do you think the average Oakland County driver is likely to be involved in a major or minor traffic accident?

	Before April 9	After April 9	Total
About 1 in 2 years	23.2%	29.0%	24.6%
About 1 in 5 years	35.7%	26.6%	33.5%
About 1 in 10 years	29.9%	26.6%	29.1%
About 1 in 50 years	8.2%	12.1%	9.1%
About 1 in 100 years	0.2%	1.6%	0.6%
About 1 in 1000 years	0.7%	2.4%	1.1%
About 1 in 10,000 years	0.2%	0.8%	0.4%
About 1 in 100,000 years	1.2%	0	1.0%
About 1 in 1,000,000 years	0	0	0
Total N	401	124	525

QUESTION 7: If police agencies were to more strictly enforce traffic laws, on what type of violation should they concentrate their efforts?\*

	Before April 9	After April 9	Total
Drunk driving	32.1%	38.8%	33.8%
Excessive speeds	49.7%	52.6%	50.4%
Under minimum speed	3.6%	4.3%	3.8%
Careless/reckless/ erratic driving	22.0%	21.6%	21.9%
Running red lights, stop signs	10.4%	6.0%	9.4%
Improper turns	3.3%	1.7%	2.9%
Defective vehicle equipment	2.7%	1.7%	2.5%
High beam headlights	0.5%	-	0.4%
Other	4.4%	1.7%	3.8%
Total N	364	116	480

\*Multiple response question--percentages add to more than 100%.

QUESTION 8: About how often would you say you wear your safety belt when you are driving?

	Before April 9	After April 9	Total
Always or almost always	21.2%	15.1%	19.7%
More than half the time	7.4%	7.1%	7.3%
Less than half the time	18.5%	12.7%	17.1%
Never or almost never	53.0%	65.1%	55.8%
Total N	406	126	532

QUESTION 9: How do you feel about having a state law that requires all children under 5 to ride in a special car safety seat?

	Before April 9	After April 9	Total
Strongly in favor	42.3%	43.5%	42.6%
Somewhat in favor	34.8%	33.9%	34.6%
Somewhat opposed	13.7%	11.3%	13.1%
Strongly opposed	9.2%	11.3%	9.7%
Total N	402	124	526

QUESTION 10: How do you feel about having a state law which requires everybody to wear a safety belt?

	Before April 9	After April 9	Total
Strongly in favor	22.8%	21.4%	22.5%
Somewhat in favor	29.2%	31.0%	29.6%
Somewhat opposed	22.8%	19.0%	21.9%
Strongly opposed	25.2%	28.6%	26.0%
Total N	404	126	530

QUESTION 11: How do you feel about keeping the present 55 MPH speed limit on the nation's highways?

	Before April 9	After April 9	Total
Strongly in favor	62.2%	55.5%	60.6%
Somewhat in favor	19.0%	22.7%	19.9%
Somewhat opposed	9.6%	13.3%	10.5%
Strongly opposed	9.1%	8.6%	9.0%
Total N	405	128	533

QUESTION 12: Out of every 100 traffic accidents in which someone is killed, how many would you guess involve a driver who has drunk too much alcohol for safe driving?

	Before April 9	After April 9	Total
Under 20%	12.4%	17.5%	13.6%
20-39%	17.9%	17.5%	17.8%
40-59%	30.1%	24.6%	28.8%
60-79%	28.1%	26.2%	27.7%
80% up	11.4%	14.3%	12.1%
Total N	402	126	528

QUESTION 13: In Oakland County how likely do you think it is that the average drunk driver would be arrested on a trip about 10 miles long?

	Before April 9	After April 9	Total
About 1 in 2	0.5%	0.8%	0.6%
About 1 in 5	1.5%	2.4%	1.7%
About 1 in 10	10.3%	11.3%	10.5%
About 1 in 50	7.5%	11.3%	8.4%
About 1 in 100	22.1%	23.4%	22.4%
About 1 in 500	10.1%	5.6%	9.0%
About 1 in 1000	24.4%	28.2%	25.3%
About 1 in 10,000	15.8%	12.9%	15.1%
About 1 in 100,000	4.3%	4.0%	4.2%
About 1 in 1,000,000	3.5%	0	2.7%
Total N	398	124	522

QUESTION 14: If you yourself drank enough alcohol to be considered legally under the influence and then drove somewhere, how likely do you think it is that you would be arrested on a trip about 10 miles long?

	Before April 9	After April 9	Total
About 1 in 2	3.9%	7.0%	4.6%
About 1 in 5	1.3%	3.5%	1.8%
About 1 in 10	10.5%	10.5%	10.5%
About 1 in 50	8.5%	7.0%	8.2%
About 1 in 100	18.3%	19.3%	18.5%
About 1 in 500	6.7%	3.5%	6.0%
About 1 in 1000	22.1%	28.9%	23.7%
About 1 in 10,000	15.2%	14.0%	14.9%
About 1 in 100,000	4.6%	2.6%	4.2%
About 1 in 1,000,000	9.0%	3.5%	7.8%
Total N	389	114	503

QUESTION 15: Have you happened to see or hear anything about a special program in Oakland County to reduce accidents caused by drunk drivers?

	Before April 9	After April 9	Total
Yes	10.5%	28.3%	14.9%
No	89.5%	71.7%	85.1%
Total N	371	120	491

QUESTION 15c: Where did you get this information?\* (Asked only if respondents answered "Yes" on Question 15.)

	Before April 9	After April 9	Total
Newspaper	30.7%	73.5%	50.7%
Radio	33.3%	29.4%	31.5%
Television	43.6%	52.9%	47.9%
Billboard	17.9%	2.9%	10.9%
Bumper Sticker	10.3%	5.9%	8.2%
Pamphlet	15.4%	0	8.2%
Meetings	5.1%	2.9%	4.1%
Talking	41.0%	35.3%	38.4%
Other	15.4%	2.9%	9.6%
Total N	39	34	73

\*Multiple response variable--percentages add to more than 100%.



QUESTION 15a: Please describe any of the activities of this program which you remember (asked only of respondents answering "Yes" to Question 15).

	Before April 9	After April 9	Total
Special/additional police	-	41.2%	19.2%
Concentration on high accident roads	-	23.5%	10.9%
Sheriff patrols specifically	-	2.9%	1.4%
Coordination of county-wide enforcement	7.7%	8.8%	8.2%
Special alcohol school for drunk drivers	30.8%	-	16.4%
Public education by mass media	20.5%	2.9%	12.3%
Public education by speeches and movies	2.6%	5.9%	4.1%
Medical Treatment/assistance	12.8%	-	6.8%
Other	7.7%	-	4.1%
Total N	39	34	73

QUESTION 15b: Please describe any themes of this program which you remember (asked only of respondents answering "Yes" to Question 15).

	Before April 9	After April 9	Total
Extra police enforcement activities	2.6%	14.7%	8.2%
Drunk drivers lose their license	10.3%	-	5.5%
Drunk drivers go to jail	10.3%	2.9%	6.8%
Never drive after drinking	2.6%	-	1.4%
Know your limits	10.3%	5.9%	8.2%
Keep friends from driving drunk; be a caring host; etc.	5.1%	5.9%	5.5%
Other	17.9%	-	9.6%
Total N	39	34	73

QUESTION 16: During the past year have you taken any action to prevent someone from driving in a situation where he or she had been drinking a lot?

[If YES]

QUESTION 16a: What actions did you take?\*

	Before April 9	After April 9	Total
Respondent drove instead of drinking person	25.1%	33.1%	27.0%
Respondent had friend drive drinking person	3.4%	2.5%	3.1%
Respondent let someone else drive him/her	2.6%	-	2.0%
Respondent prevented drinking person from leaving	8.0%	3.3%	6.9%
Respondent had drinking person stay to sleep	5.2%	2.5%	4.5%
Respondent tried to persuade not to drive	3.6%	1.7%	3.1%
Respondent told driver to drive carefully/drink less	0.8%	0.8%	0.8%
None	56.3%	60.3%	57.3%
Total N	387	121	508

\*Multiple response variable--percentages add to more than 100%.

QUESTION 17: In what year were you born? (Recoded to age as of December 31, 1979.)

	Before April 9	After April 9	Total
15-17	2.5%	4.7%	3.0%
18-20	5.7%	10.9%	6.9%
21-24	9.9%	11.7%	10.3%
25-34	22.0%	26.6%	23.1%
35-44	20.2%	15.6%	19.1%
45-54	16.8%	14.8%	16.3%
55-64	13.6%	11.7%	13.1%
65 Up	9.4%	3.9%	8.1%
Total N	405	128	533

QUESTION 19: What is your sex?

	Before April 9	After April 9	Total
Male	46.6%	43.0%	45.7%
Female	53.4	57.0%	54.3%
Total N	406	128	534

QUESTION 20: What is your marital status?

	Before April 9	After April 9	Total
Never married	17.5%	27.3%	19.9%
Married	73.6%	54.7%	69.1%
Divorced or separated	3.7%	14.8%	6.4%
Widowed	5.2%	3.1%	4.7%
Total N	406	128	534

QUESTION 21: What is the highest level of education you have completed?

	Before April 9	After April 9	Total
Didn't finish high school	8.9%	13.4%	9.9%
Finished high school	30.5%	33.9%	31.3%
Some college	33.5%	35.4%	34.0%
Finished 4-year college	16.5%	11.8%	15.4%
Received graduate degree	10.6%	5.5%	9.4%
Total N	406	127	533

QUESTION 22: How would you describe your current consumption of alcoholic beverages?

	Before April 9	After April 9	Total
Total abstainer	17.0%	16.5%	16.9%
Very light drinker	45.8%	40.9%	44.7%
Fairly light drinker	17.5%	19.7%	18.0%
Moderate drinker	18.0%	19.7%	18.4%
Fairly heavy drinker	1.5%	3.1%	1.9%
Very heavy drinker	0.2%	0.0%	0.2%
Total N	406	127	533

QUESTION 23: During the past year have you ever driven a motor vehicle after drinking enough that you might be considered legally under the influence?

	Before April 9	After April 9	Total
Once	6.4%	3.9%	5.8%
Twice	6.9%	4.7%	6.4%
3-5 times	5.0%	4.7%	4.9%
6-10 times	3.7%	5.5%	4.1%
11-25 times	1.0%	2.4%	1.3%
26-250 times	2.2%	2.4%	2.3%
None	74.8%	76.4%	75.1%
Total N	404	127	531

QUESTION 24: Have you ever been arrested for drunk driving?

	Before April 9	After April 9	Total
Yes, once	2.0%	0.8%	1.7%
Yes, twice	0.5%	-	0.4%
Yes, three times	0.2%	-	0.2%
No	97.3%	99.2%	97.8%
Total N	407	128	535