

**2004
Impaired Driving
Evaluation Report
Covering the Period of Performance:
October 1, 2003, through September 30, 2004**

Submitted to:
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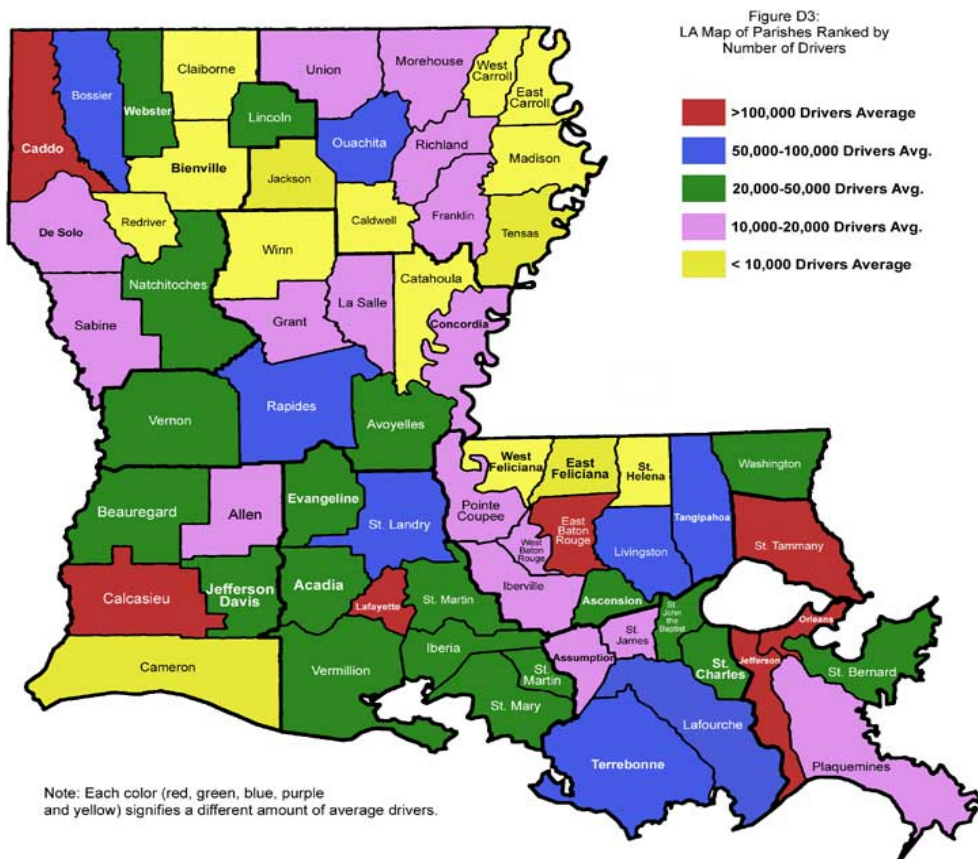
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1. Introduction

Louisiana's estimated population for 2003 was 4.496 million, and the state covers an area of 43,566 square miles. The urban/rural breakdown is 68% and 32%, respectively. The racial breakdown is 67% white, 31% African-American and 2% other races. The state is divided into 64 parishes. These parishes are grouped into eight planning regions, which delineate the state's media markets. Each parish has an elected sheriff who serves as the chief law enforcement official. Cities and towns are served by local law enforcement agencies. There are approximately 250 local police departments in addition to the 64 local sheriffs' offices. Figure 1, which is a reproduction of the Figure D3 of the 2003 Traffic Records Data Report (<http://lhsc.lsu.edu>), shows the parishes of Louisiana with the colors indicating the number of licensed drivers.

Figure 1: Louisiana Parishes and Licensed Drivers



2. Enforcement

In order to obtain the largest possible effect with the limited resources which the grant provides, the Louisiana Highway Safety Commission selected 77 agencies in 22 parishes for overtime enforcement. The selection was based on the number of total fatalities and the alcohol-related fatalities in each parish. However, only 65 agencies in 21 parishes actually contracted with the Louisiana Highway Safety Commission. Figure 2 shows the fatalities and alcohol-related fatalities of all 64 parishes, while Table 1 depicts these statistics for the 21 participating parishes.

Figure 2: Louisiana Parishes and Alcohol Related Fatalities

(Size of pie proportionally to number of fatalities, yellow part proportion of alcohol-related fatalities. Numbers Identify Parish Codes, refer to Table 2)

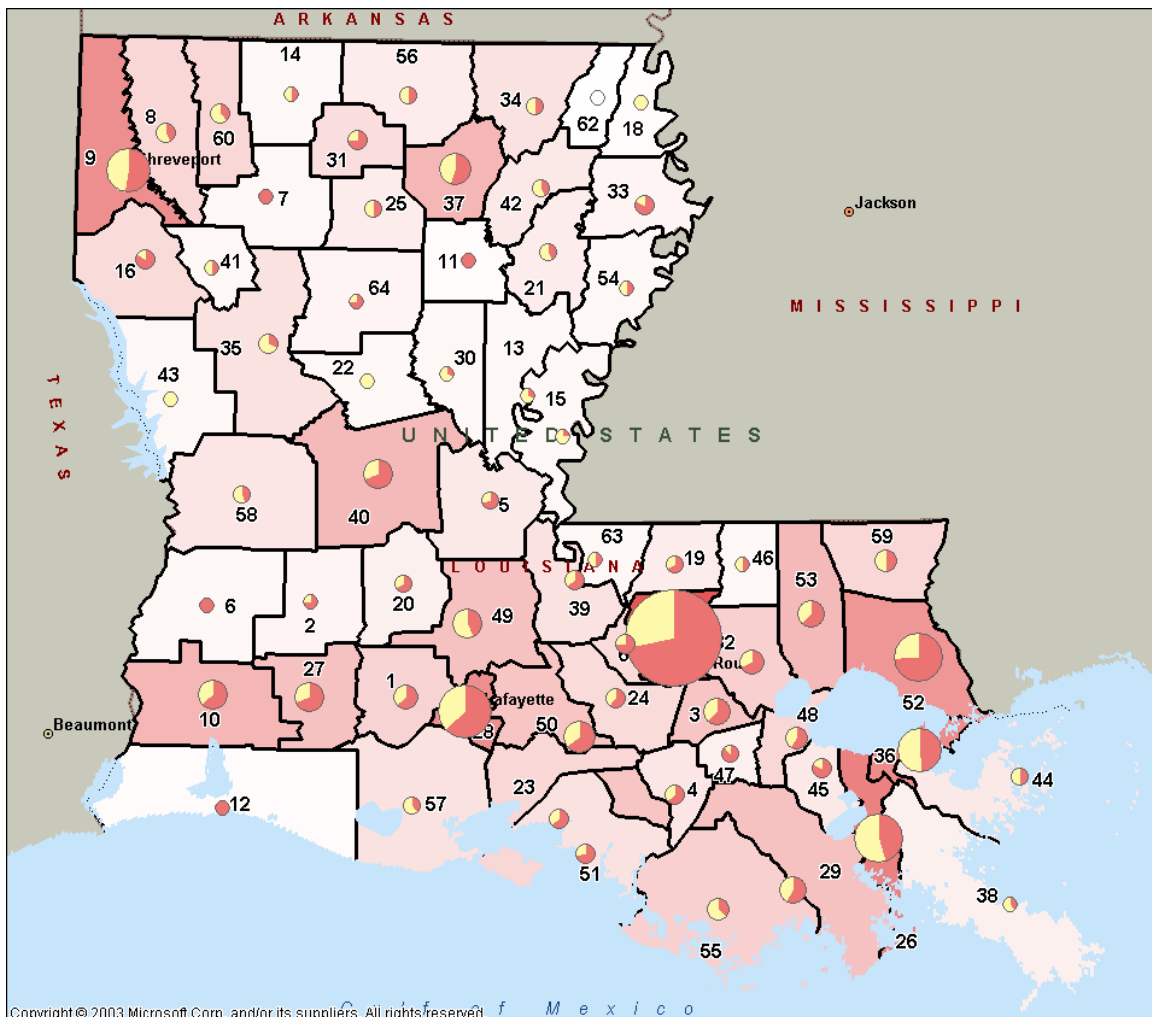


Figure 2 indicates that EBR Parish with 67 fatalities, 20 of which are alcohol-related, presents by far the most serious area of concern in Louisiana, followed by Jefferson (44/25), Lafayette (46/22) and Orleans (39/20). The data in Table 1 shows that the 21 selected parishes represent 67% of the alcohol-related fatalities and 78% of the alcohol-related injuries in crashes in Louisiana. In addition, the 21 parishes comprise 75% of the licensed drivers in Louisiana. This coverage seems to be sufficient given the limited resources.

Table 1: 2003 Crash Statistics for 21 Contracted Parishes

Parish Code	Parish	Fatal Crashes		Injury Crashes		Fatalities		Injuries		Property Damage Only
		All	Alcohol	All	Alcohol	All	Alcohol	All	Alcohol	All
1	ACADIA	15	7	563	77	19	7	1029	158	1112
3	ASCENSION	20	9	844	89	24	10	1535	146	2014
8	BOSSIER	14	8	1123	96	14	8	1838	156	2372
9	CADDO	38	19	2908	334	40	21	4467	531	6687
10	CALCASIEU	24	9	2443	298	25	10	4472	538	5057
17	EBR	58	19	5776	328	67	20	9528	617	15269
23	IBERIA	13	5	623	76	14	6	1129	130	1383
24	IBERVILLE	12	5	285	34	13	5	517	59	478
26	JEFFERSON	43	24	4519	271	44	25	6985	426	13563
28	LAFAYETTE	38	17	2703	277	46	22	4414	461	7310
29	LAFOURCHE	21	10	868	124	24	12	1477	201	1943
32	LIVINGSTON	16	6	966	98	19	7	1666	173	1453
35	NATCHITOCHE	10	8	465	53	12	9	814	81	746
36	ORLEANS	39	20	7267	660	39	20	12526	1090	17535
37	OUACHITA	25	13	1788	153	29	14	3062	276	3927
38	PLAQUEMINES	5	3	131	19	5	3	225	26	305
40	RAPIDES	23	8	1764	155	26	9	3122	260	3202
45	ST. CHARLES	7	2	460	55	11	3	794	96	1230
49	ST. LANDRY	21	14	855	113	25	16	1620	192	1650
52	ST. TAMMANY	36	11	1845	229	43	11	2995	359	4714
53	TANGIPAHOA	23	9	1388	93	24	10	2523	187	2664
55	TERREBONNE	16	10	1063	139	16	10	1800	222	2528
57	VERMILION	10	6	484	62	10	6	764	102	901
	Louisiana	791	362	48,749	4,881	902	403	82,757	8,293	114,898
	% of LA	67%	67%	84%	79%	65%	66%	84%	78%	85%

Figure 3 depicts the 21 parishes on the map. The map shows that southeast Louisiana has a higher representation due to the high number of alcohol-related fatalities and injuries.

Figure 3: Selected Louisiana Parishes and Alcohol Related Fatalities

(Size of pie proportionally to number of fatalities, yellow part proportion of alcohol-related fatalities. Numbers Identify Parish Codes, refer to Table 2)

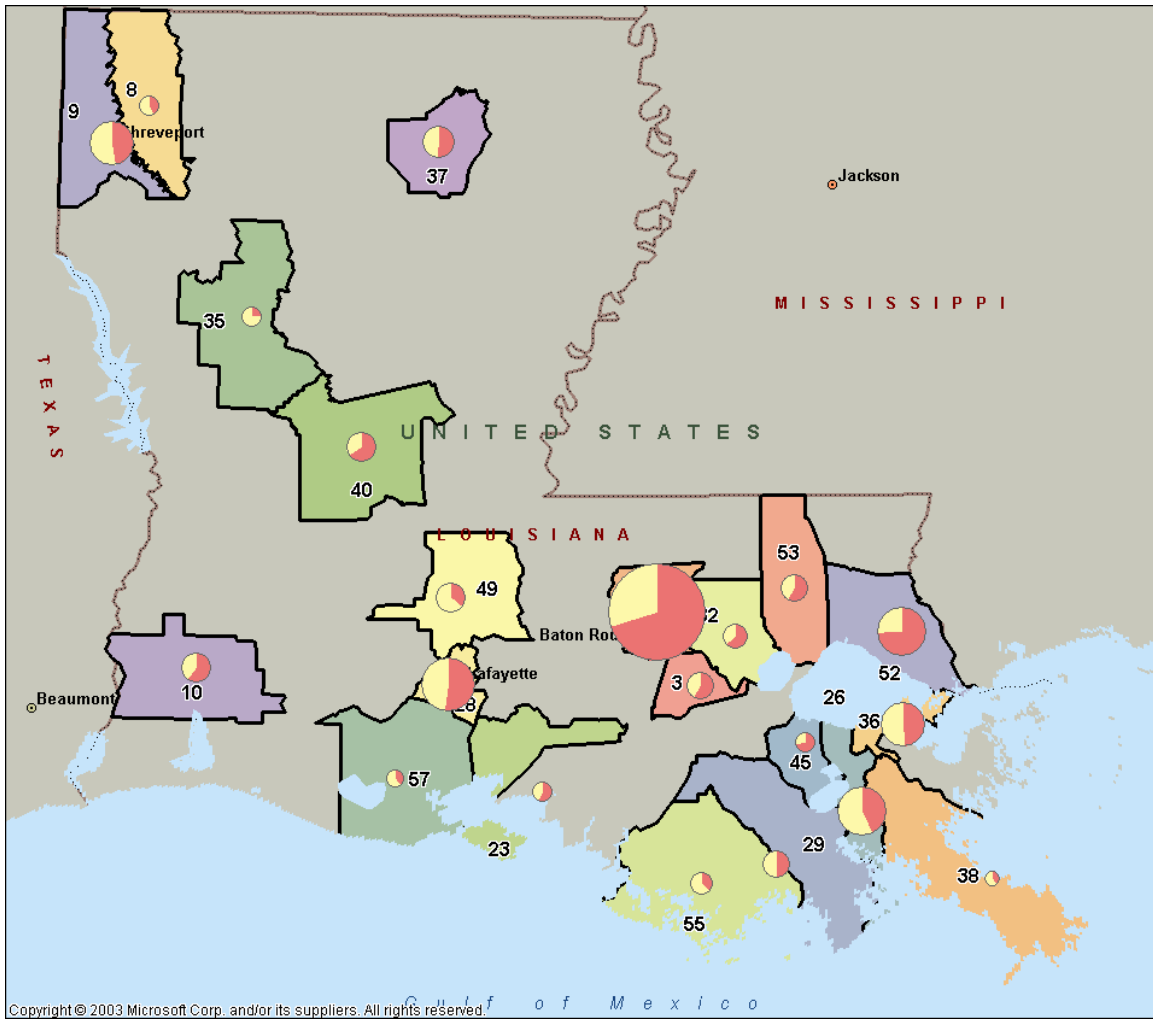
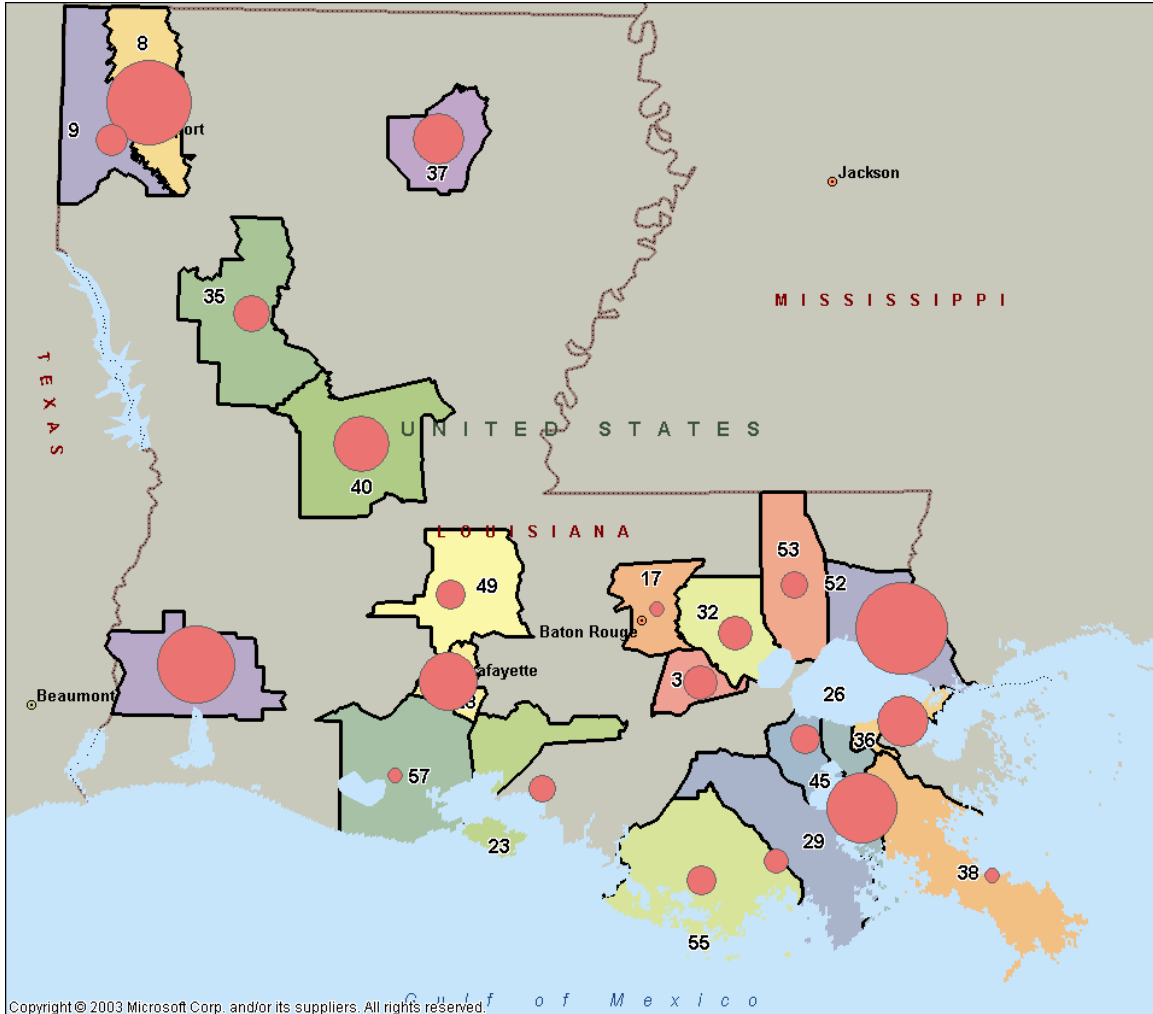


Figure 4 shows the overtime funding for agencies by parish, excluding the funding received by State Police. The size of the pie is proportional to the amount of funding received for overtime by the agencies in the parish.

Figure 4: Funding for selected Parishes

(Size of pie proportionally to dollar amount funded.
Numbers Identify Parish Codes, refer to Table 2)



The data are presented in Table 2. However, the percentage of funding does not include money awarded to the Louisiana State Police, because it overlaps several parishes. It should also be noted that the funding includes the year-long programs as well as the special campaigns. The funding is not separated into impaired driving and seat-belt programs. Also, the table only includes agencies which have filed reports with the LHSC. For instance, the Baton Rouge Police Department was allocated \$30,000 for the year-long program. However, there is no evidence of the EBR Police Department or the EBR Sheriff's Office participating in the program, i.e., no reports were filed with the LHSC as of the time of the evaluation.

Table 2: Alcohol-Related Fatalities and Funding

Parish Code	Parish	Alcohol-Related Fatal Crashes	% of selected Parishes	Funding	% of Total Funding
3	ASCENSION	9	4%	\$ 43,754	4%
8	BOSSIER	8	3%	\$ 89,296	9%
9	CADDO	19	8%	\$ 41,400	4%
10	CALCASIEU	9	4%	\$ 85,400	8%
17	EBR	19	8%	\$ 4,700	0.5%
23	IBERIA	5	2%	\$ 32,100	3%
26	JEFFERSON	24	10%	\$ 80,274	8%
28	LAFAYETTE	17	7%	\$ 69,750	7%
29	LAFOURCHE	10	4%	\$ 30,000	3%
32	LIVINGSTON	6	3%	\$ 45,912	5%
35	NATCHITOCHE	8	3%	\$ 48,015	5%
36	ORLEANS	20	9%	\$ 64,500	6%
37	OUACHITA	13	6%	\$ 64,274	6%
38	PLAQUEMINES	3	1%	\$ 4,000	0.4%
40	RAPIDES	8	3%	\$ 68,000	7%
45	ST. CHARLES	2	1%	\$ 35,416	4%
49	ST. LANDRY	14	6%	\$ 36,450	4%
52	ST. TAMMANY	11	5%	\$ 93,235	9%
53	TANGIPAHOA	9	4%	\$ 31,713	3%
55	TERREBONNE	10	4%	\$ 34,800	3%
57	VERMILION	6	3%	\$ 7,120	1%

The Appendix A gives detailed statistics regarding the enforcement results. Table A1 shows the participating agencies in the year-long program, the number of overtime hours worked, the number of DWI arrests, and the average number of hours spent on a DWI arrest. Table A2 shows the same statistics for the December campaign. Data for the August 2004 campaign are not available at this time. Table A3 shows the statistics for both programs sorted by number of hours spent on a DWI arrest. The tables show that 26 agencies participated in the year-long program and 43 agencies participated in the December 2003 campaign. In total, 58 agencies participated either in the year-long campaign or in the December campaign. Overall, there were 1,962 DWI arrests within 15,719 overtime hours. On the average, it took 8 hours per arrest (Table A3). The standard deviation for the number of hours for a DWI arrest was 35, indicating that there is a large variation between agencies. Of the 1,962 DWI arrests, 1,763 were in the year long program and 199 were in the December campaign.

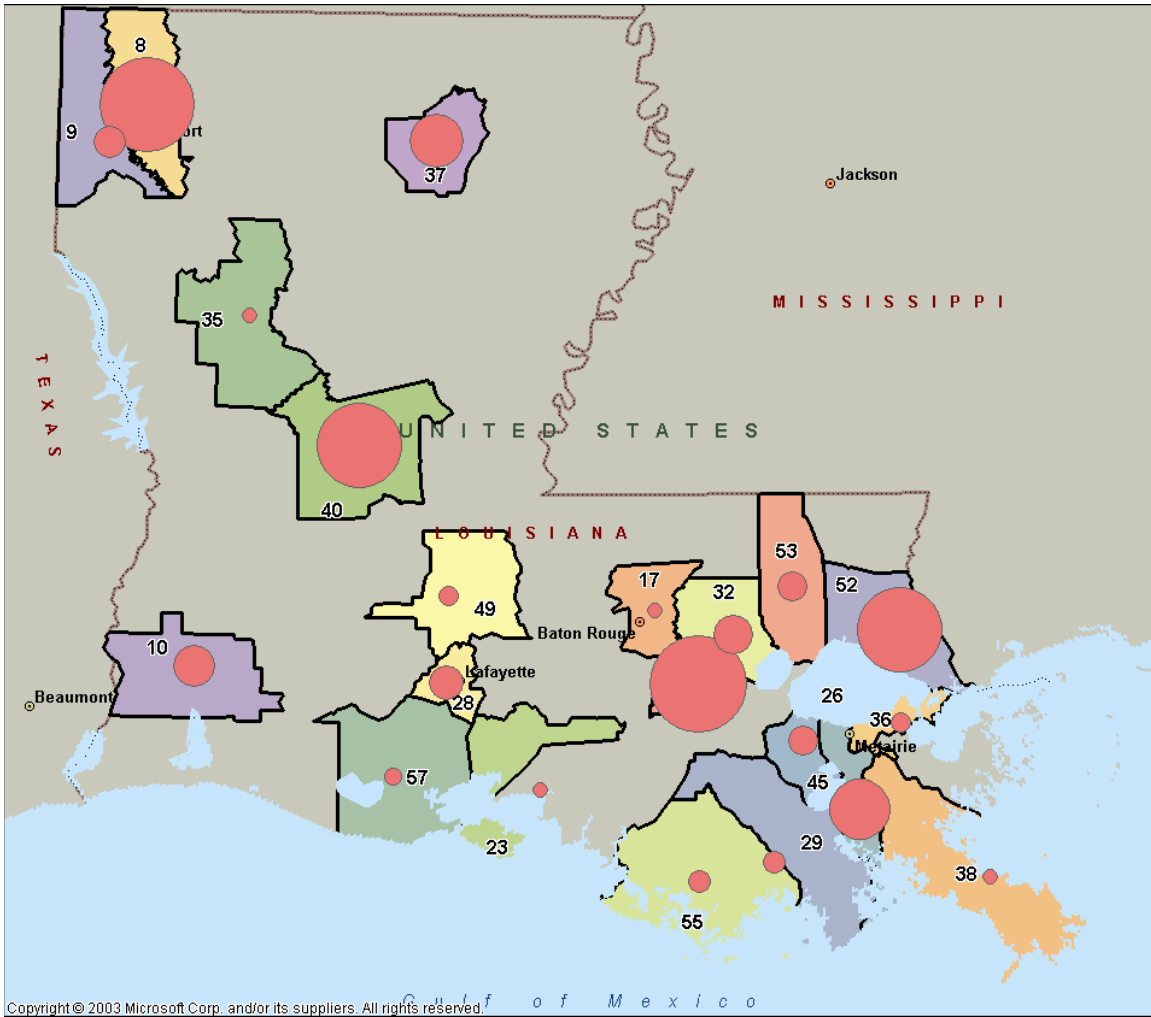
Table 3 summarizes the enforcement statistics by parish, excluding the state police efforts. Nineteen parishes participated in the December campaign and 18 parishes participated in the year-long program.

Table 3: Enforcement Efforts in 21 Parishes

Code	Parish	Campaign		Year-long		Total		
		Hours	DWI Arrests	Hours	DWI Arrests	Hours	DWI Arrests	Hour/DWI
3	Ascension	147	23	792	131	939	154	6.1
8	Bossier	150	18	658	134	808	152	5.3
9	Caddo	114	12	397	51	511	63	8.1
10	Calcasieu	142	16	658	70	800	86	9.3
17	East Baton Rouge	94	8			94	8	11.8
23	Iberia	30	6	253	0	283	6	47.1
26	Jefferson	95	16	855	99	950	115	8.3
28	Lafayette	59	5	799	68	858	73	11.7
29	Lafourche			224	33	224	33	6.8
32	Livingston	214	5	626	76	840	81	10.4
35	Natchitoches			510	6	510	6	85.0
36	Orleans	45	2	130	24	175	26	6.7
37	Ouachita	52	3	785	102	837	105	8.0
38	Plaquemines	50	11			50	11	4.5
40	Rapides	50	9	749	134	799	143	5.6
45	St. Charles	48	6	434	50	482	56	8.6
49	St. Landry	90	6	579	21	669	27	24.8
52	St. Tammany	159	21	669	121	828	142	5.8
53	Tangipahoa	105	12	285	50	390	62	6.3
55	Terrebonne	45	5	221	31	266	36	7.4
57	Vermillion	100	15			100	15	6.7
	State Police	0	0	4310	562	4310	562	7.7
Grand Total	Louisiana	1789	199	13930	1763	15719	1962	8.0
Count	Parishes	19	19	18	18	21	21	21

Figure 5 depicts the number of DWI arrests made on LHSC-funded overtime campaigns within each of the participating 21 parishes.

Figure 5: Number of DWI Arrests for 21 Parishes
 (Size of pie proportionally to the number)



3. Media/Public Relations Campaign Implementation

Two media campaigns were conducted, one in December of 2003 and one in August/September of 2004. For both Impaired Driving Campaigns, the LHSC contracted with Cranch and Associates to coordinate the paid media buy throughout the state. Individual contracts were awarded to Wrenwood, Media Wise, Media Administration, Capstan, and WG_MB for coverage in particular media markets. Details are depicted in Tables 4 and 5. During the December campaign of 2003, there were 1,336 TV spots and 1,360 radio spots aired for a total of \$149,969. During the August-September media buy period, \$150,785 of TV and radio spots were purchased.

Table 4: Media Buy for December 2003

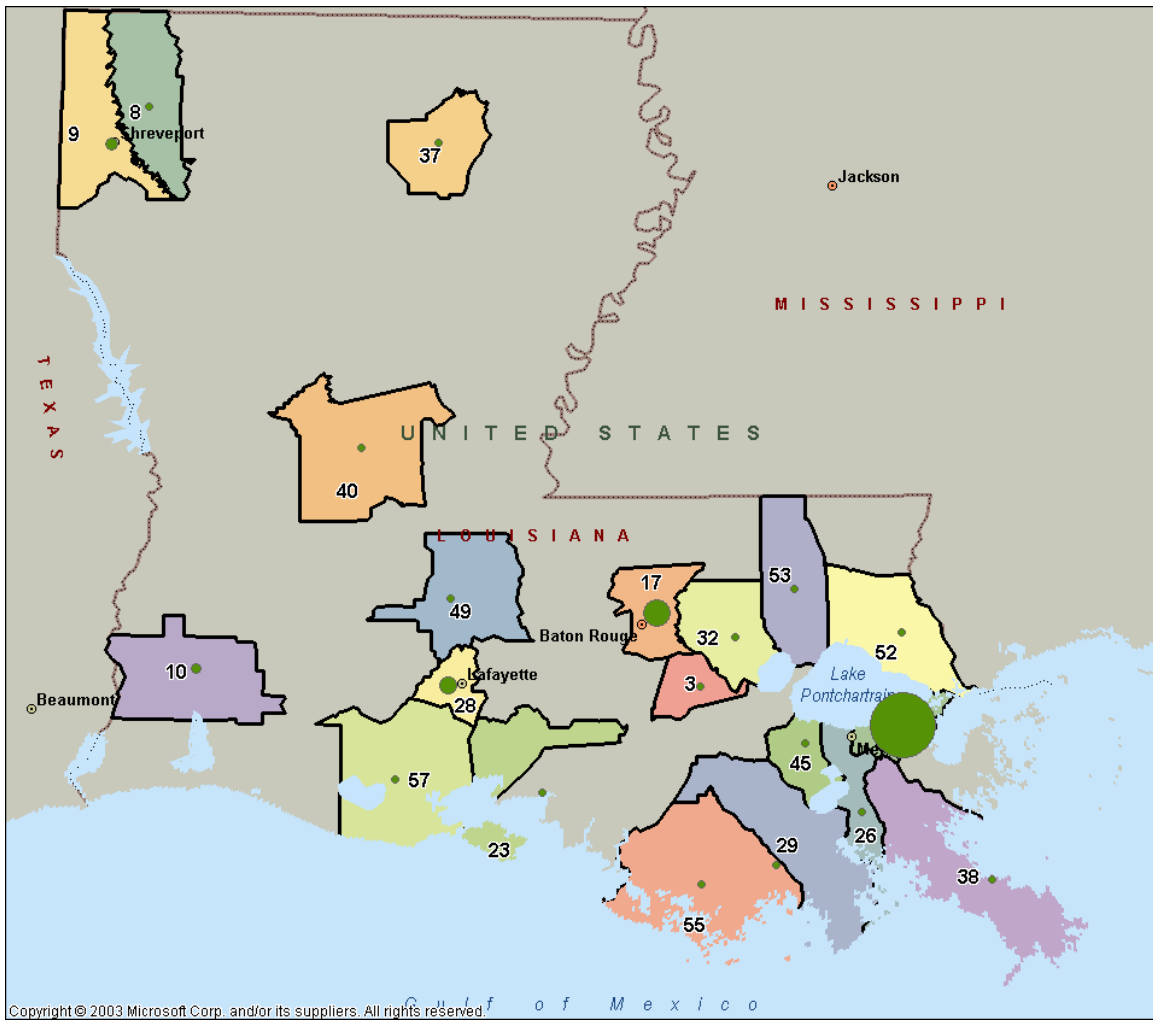
Station	TV \$	TV Spots	Radio \$	Radio Spots
CC BR			\$ 4,050	45
CC NO			\$ 4,500	45
			\$ 17,500	70
CCShr			\$ 3,285	67
			\$ 990	22
CC Alex			\$ 1,550	62
Alex-MA			\$ 1,656	72
BR-MA	\$ 6,612	248	\$ 11,410	310
WGMB	\$ 11,120	74		
Mon-MA			\$ 5,969	153
Shr-MA	\$ 8,220	156	\$ 3,245	59
NO-WR	\$ 29,275	398	\$ 4,950	45
Laf-MW	\$ 15,996	460	\$ 11,606	189
LC-MW			\$ 8,035	221
TOTAL	\$ 71,223	1336	\$ 78,746	1360

Table 5: Media Buy for August 2004

Market	Radio \$	TV \$	
Alex			
WR - KZMZ	\$ 960		
WR - KRRV	\$ 750		
WR - KEDG	\$ 690		
WR - KQID	\$ 1,265		
Baton Rouge			
CC - WFMF	\$ 4,500	MA - WGMB	\$ 11,210
MA - KOOJ	\$ 3,680	MA - WAFB	\$ 3,700
MA - WEMX	\$ 4,200	MA - WBXH	\$ 1,000
MA - WDGL	\$ 2,200	MA - Cabl	\$ 3,528
Lafayette			
MW - KFTE	\$ 3,000	MW - KADN	\$ 7,220
MW - KRRQ	\$ 3,300	MW - KLAF	\$ 2,245
MW - KSMB	\$ 3,900	MW - Cabl	\$ 4,984
Lake Charles			
MW - KKGB	\$ 2,386		
MW - KYKZ	\$ 3,750		
MW - KZWA	\$ 1,902		
Monroe			
WR - KJLO	\$ 1,950		
WR - KRVV	\$ 4,019		
New Orleans			
CC - WQUE	\$ 17,500	WR - WNOL	\$ 7,555
CC - WRNO	\$ 4,500	WR - WVUE	\$ 7,850
WR - KKND	\$ 4,950	WR - Cabl-CH	\$ 6,132
		WR - Cabl-CX	\$ 7,854
Shreveport			
MA - Shr - KTUX	\$ 1,125	MA - KMSS	\$ 6,050
MA - Shr - KXKS	\$ 3,085	MA - Cabl	\$ 2,100
MA - KMJJ	\$ 3,245		
Louisiana Network			
MA - La Net.	\$ 2,500		
TOTAL	\$ 79,357		\$ 71,428

Figure 6 depicts the media buy plan for August-September of 2004. The size of the pie indicates the dollar amount spent in each region. The media buy in New Orleans was by far the largest when compared to the other regions.

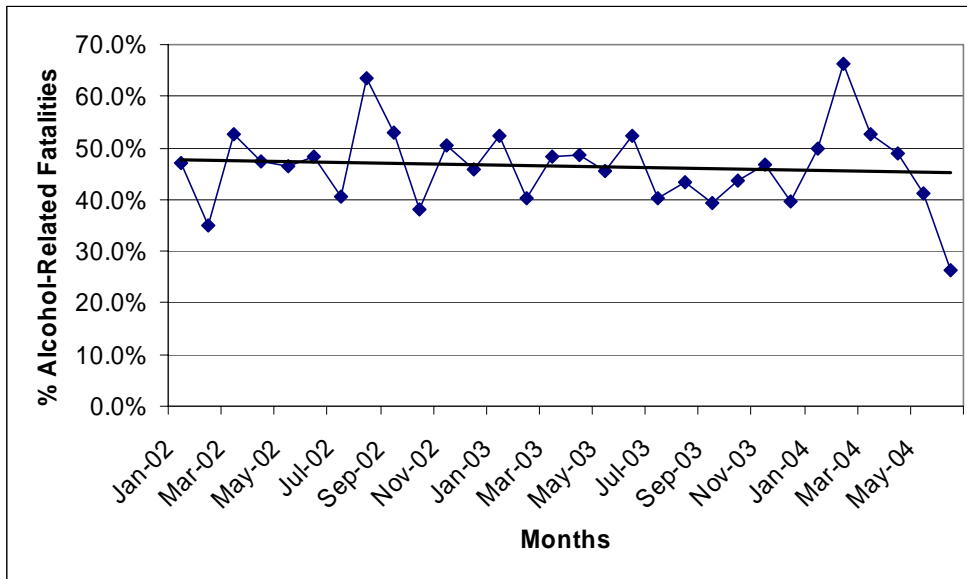
Figure 6: Media Buy Plan for Selected Parishes
 (Size of pie proportionally to the amount)



4. Survey and Crash Analysis

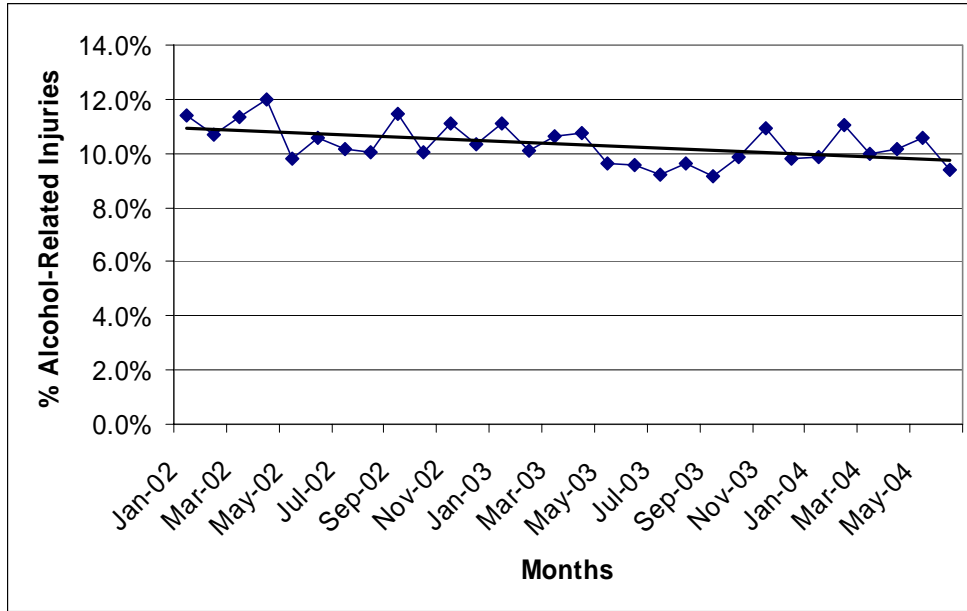
The 2003 and 2004 crash data were analyzed for trends in alcohol-related fatalities, percentage of alcohol-related fatalities, number of alcohol-related injuries, and percentage of alcohol-related injuries. However, data entry for 2004 is not complete at this time. At the present time, data through July 2004 are being entered. Thus, the analysis and trend data are preliminary in nature. These statistics will be updated when all crash reports have been entered. Figures 7 and 8 depict trends in the respective measurements. From 2002 to 2003, the percentage of alcohol-related fatalities declined from 47% to 45%. The percentage of alcohol-related fatalities, shown in Figure 7, indicates a continued, although slight, downward trend. Thus, there is an indication that the decline in alcohol-related fatalities continues to decline in 2004.

Figure 7: Percentage of Alcohol-Related Fatalities



The injuries show a significant trend towards a lower percentage of alcohol-related injuries. (See Figure 8).

Figure 8: Percentage of Alcohol-Related Injuries



Alcohol-involvement is estimated using a data mining algorithm developed at LSU. The algorithm has been tested and compared to the model used by NHTSA. The test results show that the algorithm has a slightly better predicting capability when compared to the model developed by NHTSA.

5. Conclusion

As demonstrated in earlier projects, enhanced enforcement with appropriate media coverage leads to a reduction in alcohol-related fatalities and injuries. This report shows that alcohol-related injuries and fatalities continued to decline between October 2003 and September 2004. It is too early to ascertain whether alcohol-related fatalities have declined significantly in 2004. The enhanced enforcement and media campaigns seem to have had an affect on drinking and driving. The following recommendations are based on the effectiveness of various agencies regarding DWI enforcements and the occurrence of alcohol-related crashes in Louisiana parishes. These recommendations may serve as guidelines for future projects. In order to obtain an optimal effect from

limited funds available, the funding for media campaigns and overtime awarded to agencies in parishes should take into account

- the number of alcohol-related fatalities and injuries in the parishes; specifically, increased efforts should be made to encourage the Baton Rouge and New Orleans police departments to participate significantly in enhanced enforcement efforts;
- the effectiveness of the agencies in using the funds; specifically, average times for DWI above 10 hours indicates that funds are not being deployed effectively;
- timely filing of reports; reports for August-September are not available yet.

Also, it is recommended that the deployment of funds for year-long programs is monitored continuously. Some examples highlight this point: the Iberia Sheriff's Office participated for three months charging 253 hours without a single DWI arrest; the Natchitoches Police Department charged 510 hours and had only 6 DWI arrests and stopped reporting in April; the St. Landry Parish Sheriff's Office participated in November, March, April, and May with a total of 579 hours and 21 DWI arrests. In order to be able to monitor the effectiveness of the deployment of funds, the agencies should be required to file a report at the end of each month. To facilitate timely reporting a web application could be written to allow agencies to enter data over the internet. This would not only cut down on the time-consuming paperwork which may be lost or misplaced but also allow easy tabulation of data.

****Note:** The results for the attitudinal survey were not available at the time this report was created.