



Department of Alcohol and Other Drug Abuse Services

Driver Risk Inventory-II Short Form

2004 Annual Summary Report

Number of DUI Offenders Tested

Figure 1: Offender Composition



Report data collected between January 1, 2004 and December 31, 2004.

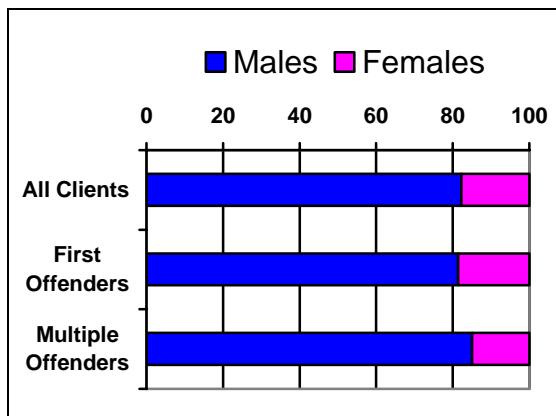
- **5,245 DUI offenders** were tested with the Driver Risk Inventory-II Short Form by South Carolina DUI providers.
- 4,311 offenders were male
- 934 offenders were female

- 4,175 or 79.6 percent were first offenders (1 or no lifetime DUI arrest), 3,400 (78.9%) were male, 775 (83.0%) were female.
- 1,070 or 20.4 percent were multiple offenders (2 or more lifetime DUI arrests), 911 (21.1%) were male, 159 (17.0%) were female.

Over three-fourths of the offenders tested (N = 4,175) reported the present DUI arrest was their first. Twenty percent of the offenders had two or more DUI arrests.

Percent of the Total Population

Figure 2: Gender Composition



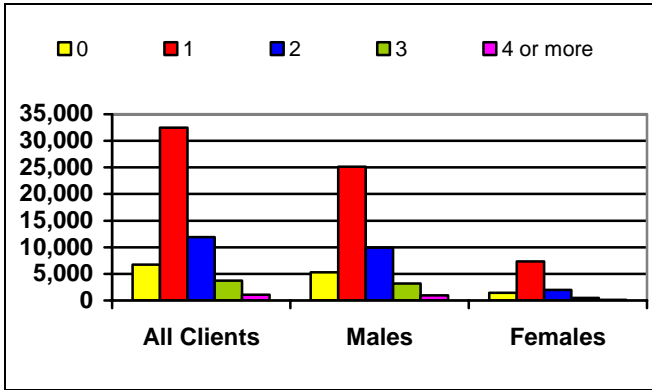
Percentage composition: Male-Female and First-Multiple Offenders

- 82.2 percent were male
- 17.8 percent were female
- 81.4 percent of first offenders were male
- 18.6 percent of first offenders were female
- 85.1 percent of multiple offenders were male
- 14.9 percent of multiple offenders were female

Over 80 percent of the first offenders were male and 18.6 percent were female. Of the multiple offenders 85.1 percent were male and 14.9 percent were female.

Number of DUI Arrests in Last 10 Years

Figure 3: Lifetime DUI Arrests by Offender Sex



5,245 DUI Offenders:

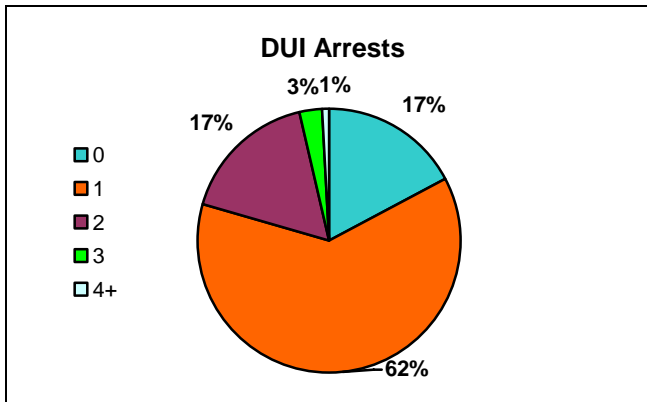
- 887 report no DUI arrest
- 3,230 reported 1 DUI arrest
- 883 reported 2 DUI arrests
- 150 reported 3 DUI arrests
- 37 reported 4 or more DUI arrests

Note: There were 58 tests with missing DUI arrest information.

The majority (82.9%) of the individuals tested were arrested for DUI. First offenders are defined as those people tested who had 1 or no DUI arrest. This chart shows that the majority (79.4%) of the offenders tested were first time offenders.

DUI Arrests as a Percentage

Figure 4: DUI Arrests



Number of DUI arrests:

- 17.1 percent reported no DUI arrest
- 62.3 percent reported 1 DUI arrest
- 17.0 percent reported 2 DUI arrests
- 2.9 percent reported 3 DUI arrests
- 0.7 percent reported 4 or more DUI arrests

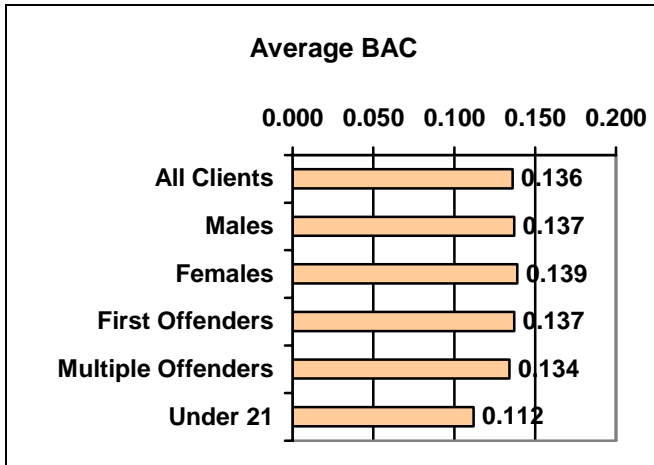
Over 62 percent of DUI offenders reported one DUI arrest. Seventeen percent of DUI offenders reported having two DUI arrests and 3.6 percent of DUI offenders reported having three or more DUI arrests.

Multiple Offender Percentages			
Yearly Comparison	Number of DUI Offenders Evaluated	Multiple Offenders	Percentage of Multiple Offenders
2004	5,245	1,070	20.4
2003	6,841	1,428	20.9
2002	9,216	1,949	21.1
2001	7,576	1,687	22.3

Of 5,245 offenders the percentage of multiple offenders in this population was 20.4 percent, which is down from the 2003 percent of 20.9. In the 2002 South Carolina report the percentage of multiple offenders was 21.1 percent, and whereas in 2001 this percentage was 22.3 percent. These results show a 0.5 percent decline from the previous year and a 1.9 percent decline since 2001 in the number of multiple offenders processed.

BAC at Time of Arrest

Figure 5: BAC Composition



Blood Alcohol Content (BAC) for offenders who reported their BAC at the time of their arrest (N = 2,416):

- Average BAC for 2,416 DUI offenders was **0.136**
- Average BAC for males was 0.137
- Average BAC for females was 0.139
- Average BAC for first offenders was 0.137
- Average BAC for multiple offenders was 0.134
- Average BAC for offenders under 21 was 0.112

The average BAC for the 2,416 offenders who reported their BAC was over 0.10 which is South Carolina's legal DUI limit. Fifty-four percent (2,829) of the DUI offenders either refused to take the BAC test or they did not remember their BAC when evaluated. Of the 5,245 DUI offenders screened 412 offenders or 7.9 percent refused the BAC test and 2,417 of DUI offenders reported a "memory loss."

Average BAC for DUI Offenders by Year

<u>Year</u>	<u>Average BAC</u>
2001	.143
2002	.139
2003	.136
2004	.136

Table 1: BAC Distribution

Percentage of Offenders BAC Levels from .07 & Below to .34 & Higher					
BAC .07 to .20	%	Cumulative Percent	BAC .21 & Higher	%	Cumulative Percent
.07	6.1	6.1	.21	1.5	93.1
.08	5.4	11.4	.22	1.8	94.8
.09	2.4	13.8	.23	1.6	96.4
.10	21.4	35.3	.24	0.6	97.1
.11	5.1	40.3	.25	0.6	97.7
.12	4.7	45.1	.26	0.2	97.9
.13	4.5	49.6	.27	0.7	98.6
.14	4.3	53.9	.28	0.3	98.9
.15	16.1	70.0	.29	0.2	99.0
.16	5.2	75.2	.30	0.2	99.2
.17	4.3	79.5	.31	0.0	99.2
.18	5.4	85.0	.32	0.1	99.4
.19	2.8	87.8	.33	0.1	99.5
.20	3.7	91.5	.34	0.5	100.0

The table above shows the distribution of BAC levels from .07 through .21 & Higher. The largest percentage of DUI offenders (21.4%) reported having a BAC of .10, which is South Carolina's legal DUI limit. 35.3 percent of DUI offenders reported having a BAC of .10 or below.

Court History and DRI-II Short Form Scale Scores

Correlation coefficients between DUI arrests, BAC and DRI-II Short Form scale scores are presented in the table below (N = 5,245). **DUI arrests are significantly correlated with DRI-II Short Form scale scores.** Correlations were calculated between DRI-II Short Form scales and DUI arrests, BAC and automobile accidents.

**Table 2:
Correlations between DRI-II Short Form Scales and DUI Arrests, BAC and Accidents**

	Truthfulness	Alcohol	Driver Risk	Drugs
DUI Arrests	-.032	.295 *	.246 *	.057 *
BAC	-.053 *	.041 *	.013 *	-.057 *
Alcohol Arrests	-.017	.112 *	.071 *	.077 *
Drug Arrests	-.005	.044 *	.034	.173 *
Accidents	-.034	.013	.216 *	.025
Traffic Violations	-.043 *	.004	.462 *	.063 *

* Significant at $p < .001$. For BAC correlations N = 2,416 otherwise N = 5,245.

DUI Arrests correlated highest with the DRI-II Short Form **Alcohol scale** and secondly with the **Driver Risk Scale**. Alcohol arrests correlated highest with the DRI-II Short Form Alcohol Scale. Accidents and traffic violations correlated highest with the Driver Risk

Scale.

In summary, 20.3 percent (1,070) of the DUI offenders tested had previous DUI arrests. The correlation between BAC and Alcohol Scale scores is lower than the correlation between DUI arrests and Alcohol Scale scores. Although widely accepted, BAC by itself is not that good of a predictor of problem drinking. Similar results were demonstrated in earlier DUI offender reports.

The following pages present test statistics for the DRI-II Short Form. The DRI-II Short Form is an alternative to the DRI-II, preferred in high volume testing programs or for testing reading impaired offenders.

The DRI-II Short Form is a reliable, valid and accurate DUI offender assessment instrument or tests.

DRI-II Short Form Accuracy, Reliability & Validity

Test accuracy is demonstrated by small differences between expected percentages and offender-obtained percentages for scale scores. Four categories of risk are: Low Risk (zero to 39th percentile), **Medium Risk** (40 to 69th percentile), **Problem Risk** (70 to 89th percentile), and **Severe Problem** (90 to 100th percentile). The total expected percentage for each of these risk ranges are provided in bold parentheses at the top of Table 3. Differences between predicted and attained scores are presented in parentheses (in bold type) for each scale.

Figure 6: DRI-II Short Form Accuracy (2004, N = 5,245)

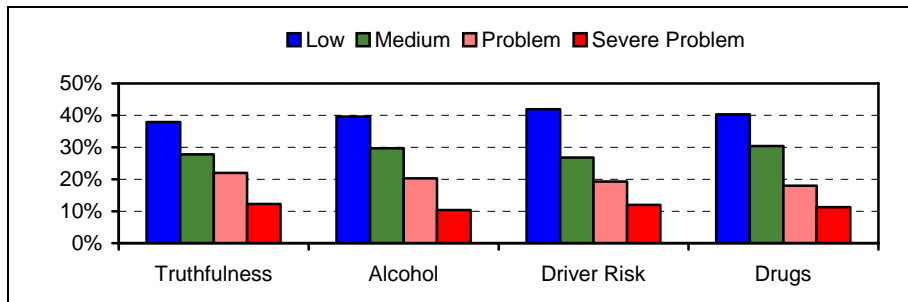


Table 3: DRI-II Short Form Accuracy (2004, N = 5,245)

Scale	Low Risk (39%)	Medium Risk (30%)	Problem Risk (20%)	Severe Problem (11%)
Truthfulness	37.9 (1.1)	27.8 (2.2)	22.0 (2.0)	12.3 (1.3)
Alcohol	39.6 (0.6)	29.7 (0.3)	20.3 (0.3)	10.4 (0.6)
Driver Risk	41.9 (2.9)	26.8 (3.2)	19.3 (0.7)	12.0 (1.0)
Drugs	40.3 (1.3)	30.4 (0.4)	18.0 (2.0)	11.3 (0.3)

The Substance Abuse/Dependency Scale was derived from the Diagnostic & Statistical Training Manual, 4th Edition (DSM-IV). This is a classification scale and not a measurement scale, consequently it is not included in this analysis.

All offender attained risk range percentages were within 3.2 percentage points of predicted percentages. Of the possible 16 risk range categories, 11 are within two percentage points of the expected percentages and can be considered to be 98% accurate. This is very accurate assessment. The DRI-II Short Form is an accurate South Carolina DUI offender assessment instrument or test.

DRI-II Short Form Reliability

Within-test reliability (inter-item reliability) coefficient alphas for the Driver Risk Inventory-II Short Form are presented in Table 4. As demonstrated in Table 4, all of the DRI-II Short Form scales are at or above .82. The professionally accepted standard for reliability is .75.

Table 4: DRI-II Short Form & DSM-IV Classification Reliability Coefficient Alphas (2004, N = 5,245)	
Reliability coefficient alphas. All alphas are significant at $p < .001$.	
<u>DRI Scale</u>	<u>DRI Short Form</u>
Truthfulness Scale	.85
Alcohol Scale	.89
Driver Risk Scale	.83
Drugs Scale	.86
Substance Abuse/Dependency Scale	.82

All DRI-II Short Form & DSM-IV Classification Scale scores are .82 or higher. Well above the professionally accepted reliability standard of .75 or higher. These reliability statistics are impressive.

DRI-II Short Form Validity

Validity refers to the ability of a test to measure what it purports to measure. Generally, test validation procedures consist of a correlation between a test and a “criterion.” The criterion is often another test that measures the same thing and has been previously validated. This type of criterion validity has been demonstrated in several DRI-II research studies. Criterion measures used in these studies included the Minnesota Multiphasic Personality Inventory (MMPI), Mortimer-Filkins test, MAST, MacAndrews Scale, SAQ-Adult Probation III, DRI-II Short Form, experienced evaluator ratings and polygraph tests. These reliability studies are presented in the research document titled “DRI-II: An Inventory of Scientific Findings”, which can be provided upon request. There are now over one million DUI/DWI offenders’ DRI-II test data in this database. The “DRI-II: An Inventory of Scientific Findings” contains over one million DUI/DWI offenders DRI-II and DRI-II Short Form test data.

Another validation procedure is to group offenders on the basis of treatment versus no treatment and then compare their DRI-II scores. Of offenders who have “had treatment” a high percentage are expected to score at or above the 70th percentile (or in the problem risk range). This validation method is referred to as Predictive validity

In this analysis Low Risk (zero to 39th percentile range) and High Risk (70th to 100th percentile) offenders are compared on the basis of “treatment” versus “no treatment” (alcohol or drugs). It was predicted that offenders who have had alcohol and/or drug treatment would score at or above the 70th percentile on the DRI-II Alcohol scale and

Drugs scale respectively.

DRI-II Short Form Scale	Correct Identification of Problem Behavior
Alcohol Scale	99.9%
Drugs Scale	100%
Driver Risk Scale	100%

DRI-II Short Form scales accurately identified **100 percent** of the DUI offenders who had drug treatment and admitted to having "driving problems," and **99.9 percent** (1,555 of 1,556) of the DUI offenders who admitted to having "drinking problems."

Substance Abuse/Dependency Scale

Table 6: DSM-IV Classification (2004, N = 5,245)

DSM-IV Classification				
Classification	Males %	Females %	Total N	%
Non Problematic	56.6	65.1	3,046	58.1
Abuse	22.8	14.0	1,114	21.2
Dependency	20.6	20.9	1,085	20.7
Diagnosed dependent in the past	11.0	13.2	599	11.4

The DRI-II Short Form Substance Abuse/Dependency Scale classifies offenders as substance dependent, substance abuse or non problematic according to their responses to DSM-IV symptom criteria. Offenders are classified substance abuse if they admit to one or more of the four abuse criteria (symptoms). Offenders are classified substance dependent if they admit to three or more of the seven dependency criteria (symptoms). These DSM-IV criteria are discussed in the DRI Orientation and Training Manual. This analysis included 5,245 offenders administered the DRI-II Short Form.

The above table shows that 1,085 offenders or 20.7 percent of the total population were classified as substance dependent (according to DSM-IV criteria.) Of the offenders classified as dependent, 599 offenders or 11.4 percent of the population were diagnosed dependent in the past. 1,114 offenders or 21.2 percent were classified substance abuse and 3,046 offenders or 58.1 percent of the population were not classified. Over forty percent of the offenders were classified as either "substance dependent" or "substance abuse" with DSM-IV criteria.

Summary

Data for this report was contained on diskettes returned to BDS between January 1, 2004 and December 31, 2004. The DRI-II Short Form was administered to **5,245 South Carolina DUI offenders** in 2004. There were 4,311 males (82.2%) and 934 females (17.8%). The offender population is broadly defined as Caucasian (70.5%), 21 through 40 years of age (55.6%), High School Graduate or better (73.6%) and single (45.6%).

DRI-II Short Form Accuracy, Reliability and Validity

- DRI-II Short Form scale risk range percentile scores are **98+ percent accurate**.
- All DRI-II Short Form scales reliability coefficients were .82 or higher. This compares favorably with the professionally accepted reliability standard of .75 or better.
- Validity analyses demonstrate that DRI-II Alcohol, Drugs and Driver Risk Scales identified nearly all offenders who are problem drinkers, drug abusers and dangerous drivers respectively.

DUI Arrests (DUI offender self-report)

- There were 4,175 (79.6%) First Offenders (1 or no DUI arrest) and 1,070 (20.4%) Multiple Offenders (2 or more DUI arrests).
- 21.1% (911) of the males and 17.0% (159) of the females were Multiple Offenders.

Over 20 percent of the offenders tested had previous DUI arrests.

Blood Alcohol Concentration Level at Time of Arrest (DUI offender self-report)

- Average BAC for the 2,416 DUI offenders who reported their BAC was **0.136**
- 24.9% (1,304) of the DUI offenders had BAC levels of 0.14 & under
- 15.6% (818) of the DUI offenders had BAC levels between 0.15 and 0.19
- 5.6% (546) of the DUI offenders had BAC levels of 0.20 & higher
- 7.9% (412) of the DUI offenders refused the BAC test at the time of their arrest

The average BAC of the offenders who reported their BAC is well over the legal limit for intoxication in South Carolina, which is .10. A BAC of .150 is considered an extreme level of intoxication. 7.9 percent of the DUI offenders refused the BAC test at the time of their arrest.

Alcohol and Drug Problems (DUI offender self-report)

- 20.7% of the DUI offenders were classified by DSM-IV criteria as substance dependent
- 21.2% of the DUI offenders were classified by DSM-IV criteria as substance abuse
- 11.4% of the DUI offenders were diagnosed dependent in the past. According to DSM-IV methodology the diagnosis of dependency applies from that point on.

The following "Appendix" (pages 11 and 12) contains DUI offender demographics, reported court history and provider (DUI evaluator) summaries (pages 13 - 42).

Appendix

DUI Offender Demographics and Self-reported Court History

South Carolina DUI offender data contained on diskettes returned to Behavior Data Systems between January 1, 2004 and December 31, 2004 are summarized.

Population				
Males		Females		Total
N	%	N	%	N
4,311	82.2	934	17.8	5,245

Race/Ethnicity						
Race	Males		Females		Total	
	N	%	N	%	N	%
Caucasian	2,916	70.5	762	17.8	3,678	70.5
Black	1,221	26.3	149	3.4	1,370	26.3
Hispanic	91	1.9	9	0.2	100	1.9
Asian	12	0.3	2	0.0	14	0.3
Native American	10	0.3	5	0.1	15	0.3
Other	35	0.7	3	0.1	38	0.7

Note: There were 30 cases with missing race information.

Age Group						
Age	Males		Females		Total	
	N	%	N	%	N	%
Under 21	218	5.1	52	1.2	270	5.1
21 - 25	569	13.8	153	3.5	722	13.8
26 - 30	591	13.0	93	2.2	684	13.0
31 - 35	605	14.1	133	3.1	738	14.1
36 - 40	618	14.7	151	3.6	769	14.7
41 - 45	619	14.4	136	3.2	755	14.4
46 - 50	483	11.4	116	2.8	599	11.4
51 - 55	313	7.1	60	1.4	373	7.1
56 - 60	165	3.7	28	0.7	193	3.7
Over 60	128	2.7	12	0.3	140	2.7

Note: There were 2 cases with missing age information.

Education						
Grade	Males		Females		Total	
	N	%	N	%	N	%
8th Grade or Less	144	3.2	21	0.5	165	3.2
Partial H.S.	1,005	23.1	197	4.7	1,202	23.1
HS Graduate/GED	1,999	45.8	381	9.2	2,380	45.8
Partial College	744	18.6	223	5.4	967	18.6
College Graduate	376	9.2	103	2.5	479	9.2

Note: There were 52 cases with missing education information.

Marital Status						
Status	Males		Females		Total	
	N	%	N	%	N	%
Single	1,985	45.6	392	9.4	2,377	45.6
Married	1,177	25.9	176	4.3	1,353	25.9
Divorced	758	18.5	208	5.1	966	18.5
Separated	297	7.7	106	2.6	403	7.7
Widowed	70	2.3	49	1.2	119	2.3

Note: There were 27 cases with missing marital status

Number of DUI Arrests in the Last 10 Years						
Number	Males		Females		Total	
	N	Percent	N	Percent	N	Percent
0	762	17.9	125	3.0	887	17.1
1	2,590	60.8	640	15.7	3,230	62.3
2	745	17.5	138	3.4	883	17.0
3	132	3.1	18	0.4	150	2.9
4	19	0.4	3	0.1	22	0.4
5 or More	15	0.4	0	0.0	15	0.3

Note: There were 58 cases with missing DUI arrests information.

Number of First Offenders and Multiple Offenders						
Offender Status	Males		Females		Total	
	N	Percent	N	Percent	N	Percent
First Offenders	3,400	78.9	775	19.1	4,175	79.6
Multiple Offenders	911	21.1	159	4.0	1,070	20.4

Note: A Multiple Offender is an offender who reported two or more DUI's in the last 10 years.

DUI Client Self-reported Court History, continued

Blood Alcohol Content at Time of Arrest				
BAC Level	Males	Females	Total	
	N	N	N	%
0 - .079	122	26	148	2.9
.08 - .149	980	176	1,156	22.0
.15 - .179	494	125	619	11.8
.18 - .199	160	39	199	3.8
.2 - .259	190	48	238	4.5
.26 or More	48	8	56	1.1
Refused	333	79	412	7.9
Not Available	1,984	433	2,417	46.1

Average Blood Alcohol Content (BAC)		
	N	BAC
All Clients	2,416	.136
Males	1,994	.137
Females	422	.139
Offenders Under 21	169	.112
First Offenders	1,991	.138
Multiple Offenders	425	.134
Refused	412	
Not Available	2,417	

Other DUI Offenses Pending?				
	Males	Females	Total N	%
Yes	127	19	146	2.8
No	4,174	912	5,086	97.2

License Suspended or Revoked?				
	Males	Females	Total N	%
Yes	3,938	858	4,796	91.8
No	360	71	431	8.2

Note: There were 13 cases with missing information.

Note: There were 18 cases with missing information.

Refused Breathalyzer Test?				
	Males	Females	Total N	%
Yes	1,119	252	1,371	26.2
No	3,182	678	3,860	73.8

Arrest Reduced to Reckless Driving?				
	Males	Females	Total N	%
Yes	373	83	456	8.8
No	3,903	842	4,745	91.2

Note: There were 14 cases with missing information.

Note: There were 44 cases with missing information.

Alcohol Arrests in the Last 10 Years				
Number	Males	Females	Total N	%
0	3,219	718	3,937	76.9
1	621	141	762	14.9
2	224	36	260	5.1
3	75	6	81	1.6
4	38	3	41	0.8
5 or More	36	3	39	0.8

Drug Arrests in the Last 10 Years				
Number	Males	Females	Total N	%
0	3,546	822	4,368	85.4
1	450	64	514	10.1
2	147	17	164	3.2
3	40	3	43	0.8
4	14	0	14	0.3
5 or More	9	1	10	0.2

Note: There were 125 cases with missing information.

Note: There were 132 cases with missing information.

At-Fault Accidents in the Last 10 Years				
Number	Males	Females	Total N	%
0	2,781	549	3,330	64.9
1	1,018	251	1,269	24.7
2	301	79	380	7.4
3	79	17	96	1.9
4	20	11	31	0.6
5 or More	19	4	23	0.4

Moving Violations in the Last 10 Years				
Number	Males	Females	Total N	%
0	1,224	294	1,518	29.7
1	739	181	920	18.0
2	656	164	820	16.0
3	495	98	593	11.6
4	321	60	381	7.5
5 or More	761	118	879	17.2

Note: There were 116 cases with missing information.

Note: There were 134 cases with missing information.

Misdemeanor Arrests (not for Alc. or Drugs)				
Number	Males	Females	Total N	%
0	3,376	770	4,146	81.3
1	471	98	569	11.2
2	195	25	220	4.3
3	74	6	80	1.6
4 or More	81	5	86	1.7

Felony Arrests (not for Alcohol or Drugs)				
Number	Males	Females	Total N	%
0	3,883	871	4,754	93.1
1	243	23	266	5.2
2	61	8	69	1.4
3	12	0	12	0.2
4 or More	8	0	8	0.2

Note: There were 144 cases with missing information.

Note: There were 136 cases with missing information.

South Carolina Driver Risk Inventory-II Short Form
EXAMPLE AGENCY PAGE
January 1, 2004 through December 31, 2004

Clients Tested: Males: 41 Females: 12 Total: 53
DRI-Standard Tests: 0 DRI-Short Form Tests: 53

Age	N	Race	N	Education	N
19 & Under	1	Caucasian	38	8th Grade or Less	1
20 - 29	13	Black	15	Some High School	13
30 - 39	18	Hispanic	0	HS Graduate	23
40 - 49	16	Asian	0	Some College	15
50 & Over	5	Native American	0	College Graduate	1
		Other	0		
Marital Status	N	Average BAC	N	BAC	N
Single	22	All Clients	.149	.01 - .07	0
Married	14	Males	.147	.08 - .14	12
Divorced	11	Females	.158	.15 - .17	10
Separated	4			.18 - .19	3
Widowed	2			.20 & Higher	3
				Refused	1
				Not Available	24
Refused Breath?	N	Arrest Reduced	N	DUI Pending	N
Yes	12	Yes	8	Yes	4
No	40	No	43	No	48
DUI Arrests	N	Classification	N	DL Suspended	N
0	4	None	27	Yes	50
1	36	Abuse	13	No	3
2	10	Dependent	13		
3	1				
4 or more	0				
Alcohol Arrests	N	Drug Arrests	N	At-fault Accidents	N
0	38	0	38	0	31
1	6	1	6	1	11
2	4	2	1	2	4
3	1	3	2	3	2
4 or more	0	4 or more	0	4 or more	0
Traffic Violations	N	Misdemeanors	N	Felonies	N
0	15	0	33	0	44
1	14	1	7	1	3
2	10	2	6	2	0
3	5	3	1	3	1
4 or more	6	4 or more	1	4 or more	1

There were a total of 53 clients tested from Jan. 1, 2004 through Dec. 31, 2004 as follows:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2	12	9	7	4	6	2	0	2	2	3	4