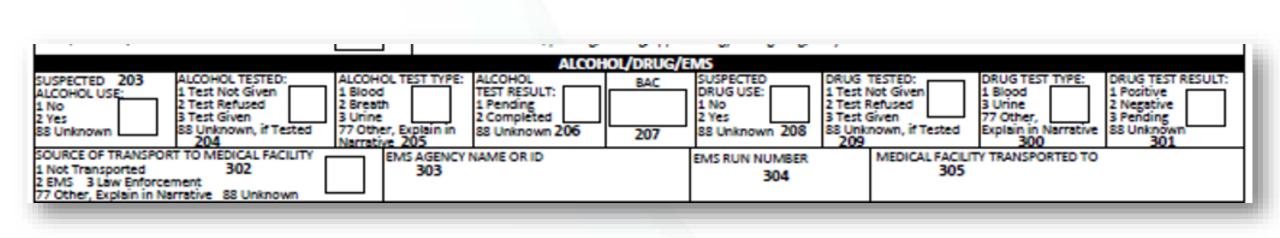
Florida DUI Crash Data

Chanyoung Lee, Ph.D., AICP Center for Urban Transportation Research University of South Florida



Florida Police Crash Report



2015 – 2017 Traffic Crashes with Driver Injury Severity = 3 (Non-Incapacitating Injury) or above

The CAR (Crash Analysis Reporting) system by the FDOT



Driver_Suspected Alcohol Use vs. Injury Severity (3-5) (2014-2017)

Alcohol Tested?	0	1 No Injury	2 Possible Injury	3 Non- Incapacitating Injury	4 Incapacitating Injury	5 Fatal Injury	6 Nontraffic fatality	Grand Total	Ν
0	9.6%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.1%	434
1 (NO)	12.0%	96.7%	96.2%	95.0%	90.9%	48.8%	74.5%	94.3%	340746
2 (YES)	0.6%	1.7%	1.9%	3.4%	5.5%	15.1%	5.6%	3.0%	10950
88 (Unknown)	77.8%	1.5%	1.9%	1.4%	3.6%	36.1%	19.9%	2.5%	9169
Grand Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	5105
Ν	1186	135121	35824	141789	41450	5341	588	372544	



Among Dr_Suspected Alcohol Use = "YES"

Alechel Tested 2	0	1	2	2	Δ	F	C	Grand	NI
Alcohol Tested?	0	1	2	3	4	5	6	Total	N
0	28.6%	1.3%	2.2%	1.2%	0.8%	0.5%	3.0%	1.2%	434
1 (Test Not Given)	28.6%	19.9%	21.6%	27.2%	27.0%	7.1%	18.2%	23.8%	340746
2 (Test Refused)	0.0%	28.1%	22.5%	24.3%	13.9%	0.5%	3.0%	21.0%	10950
3 (Test Given)	28.6%	48.4%	52.2%	45.2%	54.9%	90.6%	72.7%	51.7%	9169
88 (Unknown, if Tested)	14.3%	2.3%	1.5%	2.2%	3.3%	1.4%	3.0%	2.3%	
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	
Ν	7	2283	671	4875	2274	807	33	7	10950



Among Dr_Suspected Alcohol Use = "No or Unknown"

								Grand	
Alcohol Tested?	0	1	2	3	4	5	6	Total	N
0	90.8%	48.0%	42.1%	48.7%	31.1%	23.9%	44.0%	45.6%	159555
1 (Test Not Given)	3.7%	51.1%	57.0%	50.7%	67.3%	25.8%	33.7%	52.8%	184921
2 (Test Refused)	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.4%	0.1%	204
3 (Test Given)	0.0%	0.3%	0.4%	0.2%	0.7%	45.5%	17.5%	0.9%	3299
88 (Unknown, if Tested)	5.5%	0.5%	0.4%	0.4%	0.8%	4.7%	4.5%	0.6%	1936
Grand Total	100%	100%	100%	100%	100%	100%	100%	100%	
Ν	1065	132701	35136	136766	39160	4532	555	1065	349915



Dr_Suspected Alcohol Use in Injury Severity (3-4)

			Driver_Susp	ected Alcohol Us	se	
Alcohol Tested?	0	1 (NO)	2 (YES)	88 (Unknown)	Grand Total	N
0	40.2%	45.3%	1.1%	19.5%	40.2%	78889
1 (Test Not Given)	1.2%	54.4%	27.1%	50.5%	1.2%	97587
2 (Test Refused)	0.0%	0.0%	21.0%	0.9%	0.0%	1606
3 (Test Given)	0.0%	0.2%	48.3%	6.9%	0.0%	4073
88 (Unknown, if Tested)	58.5%	0.0%	2.5%	22.1%	58.5%	1084
Grand Total	100.0%	100.0%	100.0%	100.0%	100.0%	183239
Ν	164	172380	7149	3546	183239	



Dr_Suspected Alcohol Use in Injury Severity (5)

			Driver_Susp	ected Alcohol Us	se	
Alcohol Tested?	0	1 (NO)	2 (YES)	88 (Unknown)	Grand Total	N
0	100.0%	32.3%	0.5%	12.7%	20.4%	1091
1 (Test Not Given)	0.0%	31.3%	7.1%	18.3%	23.0%	1226
2 (Test Refused)	0.0%	0.0%	0.5%	0.1%	0.1%	7
3 (Test Given)	0.0%	36.2%	90.6%	58.0%	52.3%	2793
88 (Unknown, if Tested)	0.0%	0.2%	1.4%	10.9%	4.2%	224
Grand Total	100.0%	100.0%	100.0%	100.0%	100.0%	5341
Ν	2	2606	807	1926	5341	



Test Result Information (Dr_Suspected Alcohol Use = "YES" and Dr_injury 3 and 4)

			Alcohol T	est Result		
Alcohol Tested?	0	1 (Pending)	2 (Completed)	88 (Unknown)	Grand Total	Ν
0	85.7%	13.0%	1.3%	0.0%	100.0%	77
1 (Test Not Given)	91.5%	2.8%	1.8%	3.9%	100.0%	1939
2 (Test Refused)	76.9%	1.8%	6.4%	14.9%	100.0%	1499
3 (Test Given)	0.4%	25.6%	70.0%	4.1%	100.0%	3453
88 (Unknown, if Tested)	55.2%	13.3%	0.6%	30.9%	100.0%	181
Grand Total	43.5%	14.0%	35.6%	6.9%	100.0%	7149
Ν	3107	998	2548	496	7149	



Test Result Information (Dr_Suspected Alcohol Use = "YES" and Dr_injury = 5)

			Alcohol T	est Result		
Alcohol Tested?	0	1 (Pending)	2 (Completed)	88 (Unknown)	Grand Total	Ν
0	75.0%	25.0%	0.0%	0.0%	100.0%	4
1 (Test Not Given)	77.2%	5.3%	8.8%	8.8%	100.0%	57
2 (Test Refused)	50.0%	0.0%	50.0%	0.0%	100.0%	4
3 (Test Given)	0.0%	5.6%	93.7%	0.7%	100.0%	731
88 (Unknown, if Tested)	27.3%	27.3%	0.0%	45.5%	100.0%	11
Grand Total	6.4%	5.9%	85.7%	1.9%	100.0%	807
Ν	52	48	692	15	807	



Blood Alcohol Concentrations (BACs) in Injury Severity (3-4)

		Blood Alc	ohol Concentrat	ions (BACs)	
Alcohol Tested?	0	0.01-0.07	0.08 or above	Grand Total	N
0	100.0%	0.0%	0.0%	100.0%	78889
1 (Test Not Given)	100.0%	0.0%	0.0%	100.0%	97587
2 (Test Refused)	95.6%	0.1%	4.2%	100.0%	1606
3 (Test Given)	43.2%	5.1%	51.7%	100.0%	4073
88 (Unknown, if Tested)	99.9%	0.0%	0.1%	100.0%	1084
Grand Total	98.7%	0.1%	1.2%	100.0%	183239
Ν	180824	211	2204	183239	



Blood Alcohol Concentrations (BACs) in Injury Severity (5)

		Blood Alco	ohol Concentrat	ions (BACs)	
Alcohol Tested?	0	0.01-0.07	0.08 or above	Grand Total	Ν
0	99.8%	0.0%	0.2%	100.0%	1091
1 (Test Not Given)	99.6%	0.1%	0.3%	100.0%	1226
2 (Test Refused)	71.4%	0.0%	28.6%	100.0%	7
3 (Test Given)	56.9%	6.8%	36.3%	100.0%	2793
88 (Unknown, if Tested)	100.0%	0.0%	0.0%	100.0%	224
Grand Total	99.8%	0.0%	0.2%	100.0%	5341
Ν	4128	191	1022	5341	



Among DR_Alcohol Test ="Given" and Injury Severity (3-4)

Alcohol Test Result	0	0.01-0.07	0.08 or above	Grand Total	Ν
0	1.5%	0.0%	0.0%	0.7%	27
1 (Pending)	53.4%	1.9%	1.8%	24.1%	981
2 (Completed)	36.2%	98.1%	98.1%	71.4%	2907
88 (Unknown)	8.9%	0.0%	0.1%	3.9%	158
Grand Total	100.0%	100.0%	100.0%	100.0%	4073
N	1761	207	2105	4073	



Among DR_Alcohol Test ="Given" and Injury Severity (5)

Alcohol Test Result	0	0.01-0.07	0.08 or above	Grand Total	Ν
0	0.1%	0.0%	0.0%	0.1%	2
1 (Pending)	5.9%	0.0%	0.9%	3.7%	103
2 (Completed)	91.5%	100.0%	99.1%	94.8%	2649
88 (Unknown)	2.5%	0.0%	0.0%	1.4%	39
Grand Total	100.0%	100.0%	100.0%	100.0%	2793
Ν	1589	190	1014	2793	



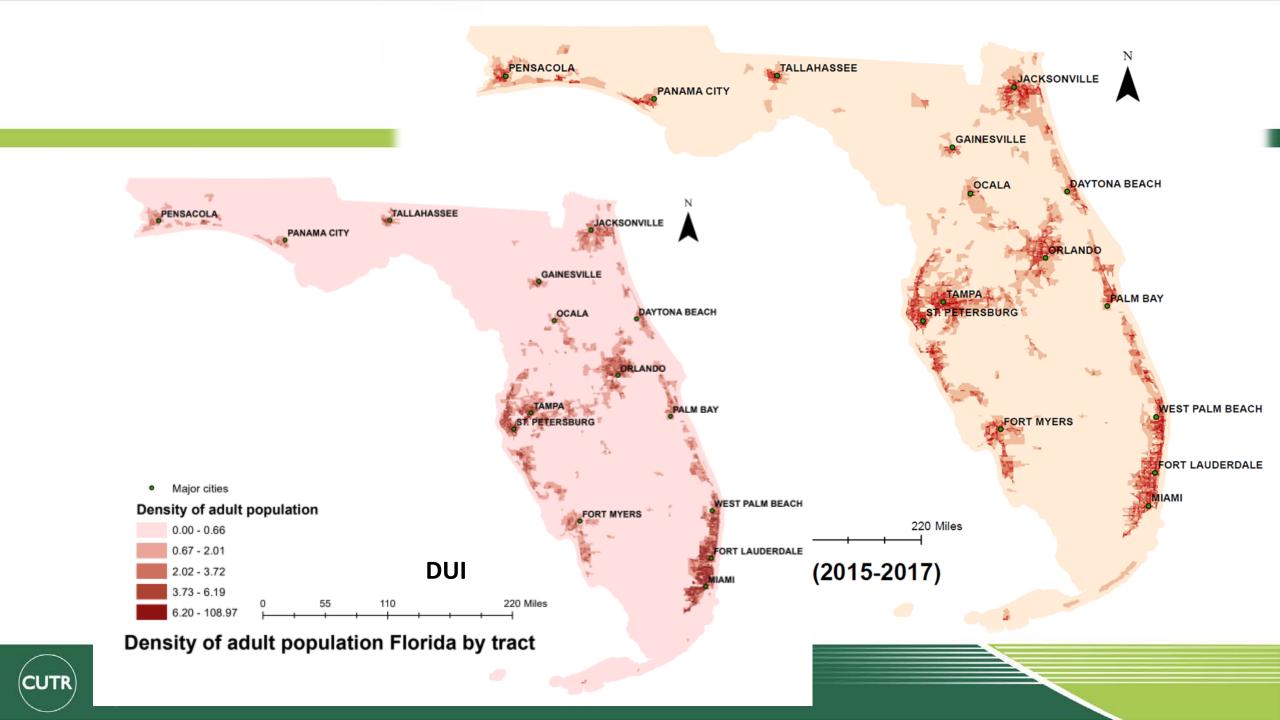
Blood Alcohol Concentrations (BACs)

							······································		
BAC	0	1	2	3	4	5	6	Grand Total	N
0	99.8%	99.3%	99.3%	6 98.9%	97.8%	77.3%	94.6%	98.7%	356467
0.01 – 0.07 g/DL	0.0%	0.1%	0.1%	0.1%	0.2%	3.6%	1.5%	0.1%	517
0.08 or above g/DL	0.2%	0.6%	0.6%	1.0%	1.9%	19.1%	3.9%	1.2%	4315
Grand Total	100%	100%	100%						Grand
Ν	1186	135121	3582	BAC	2	3	4	5	Total
				0		7.6%	8.4%	9.4%	8.2%
Dr_Suspec	ted Alco	ohol Use =	"Yes"	0.01 - 0.0	0.01 – 0.07 g/DL		9.0%	9.7%	8.1%
	Test Given = "Yes"			0.08 or abc	ove g/DL	85.5%	82.6%	80.9%	83.7%
Test Result = "Completed"			Grand Total		100.0%	100.0%	100.0%	100.0%	
				N		2575	1457	1043	5075

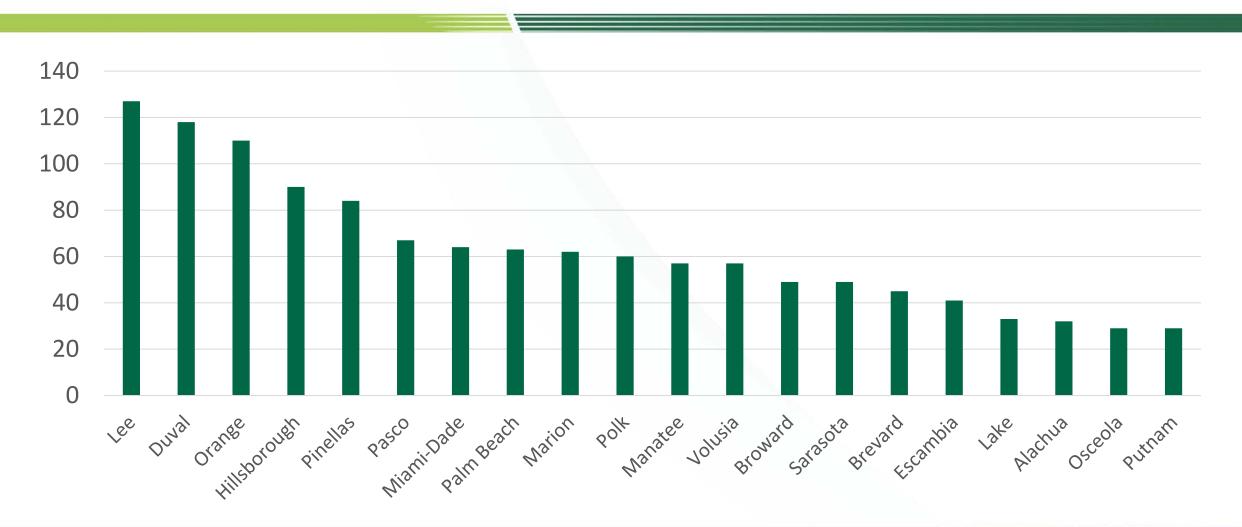
Dr_Suspected Alcohol Use (2015-2017)

Dr_Suspected Alcohol Use	0	0.01-0.07 g/dL	0.08 g/dL or above	Grand Total
0	166			166
1 (NO)	174819	48	119	174986
2 (YES)	4951	275	2730	7956
88 (Unknown)	5016	79	377	5472
Total	184952	402	3226	188580



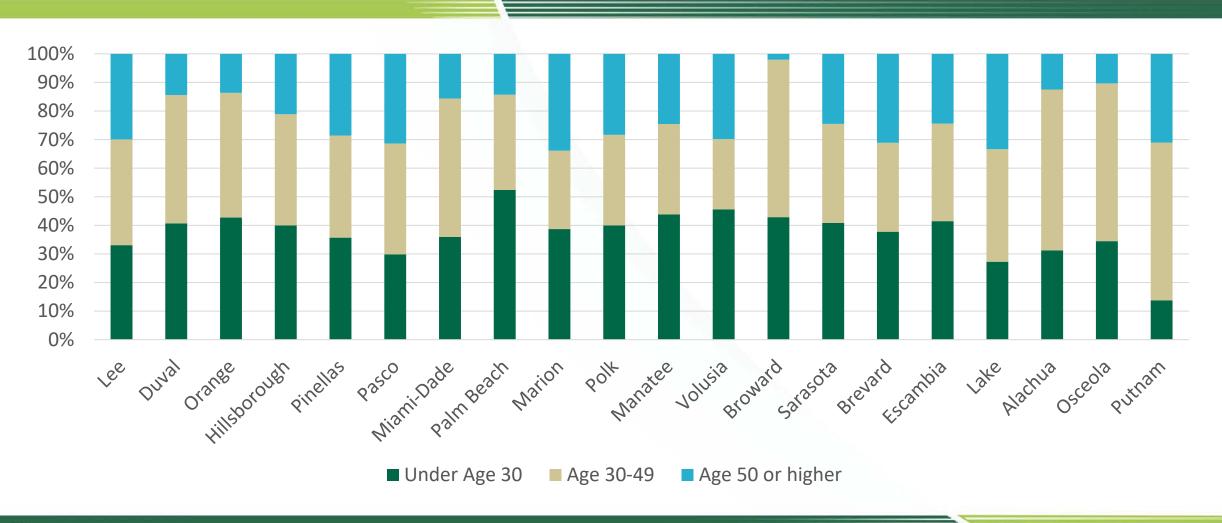


BAC > 0.08 or higher + Injury Severity 4 and 5 (2015-2017)



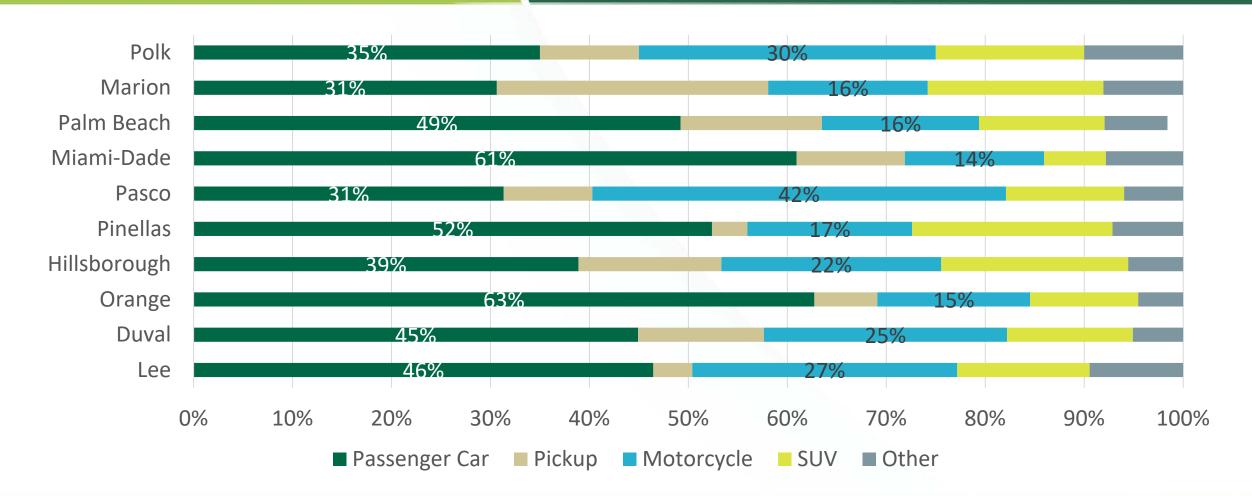


BAC > 0.08 or higher + Injury Severity 4 and 5 (2015-2017) by Age Group



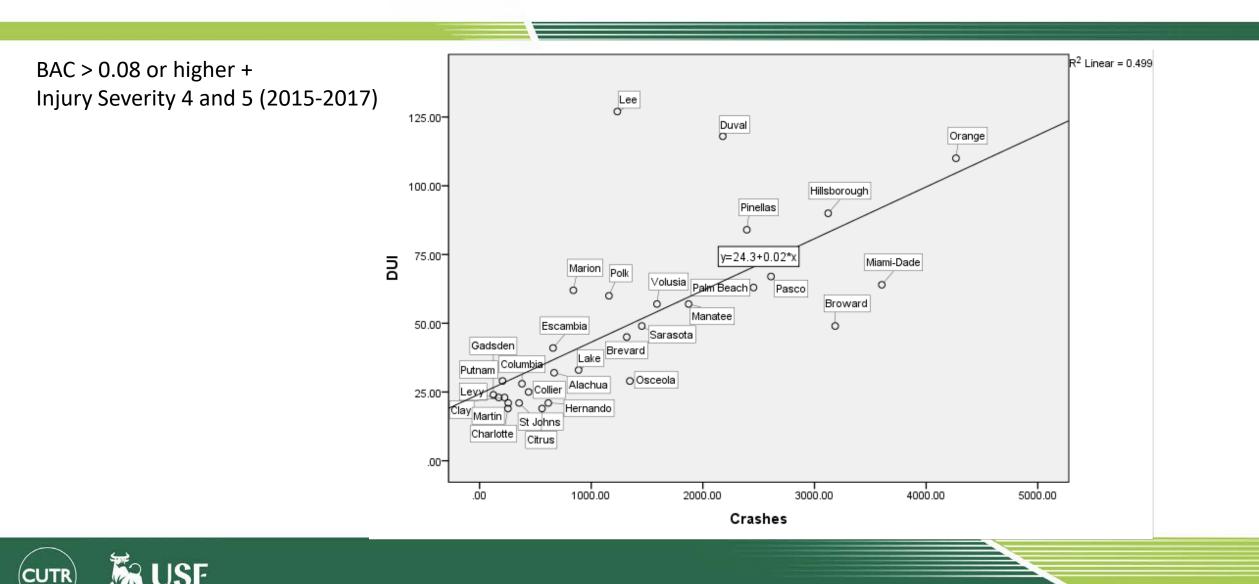


BAC > 0.08 or higher + Injury Severity 4 and 5 (2015-2017) by Vehicle Body Type

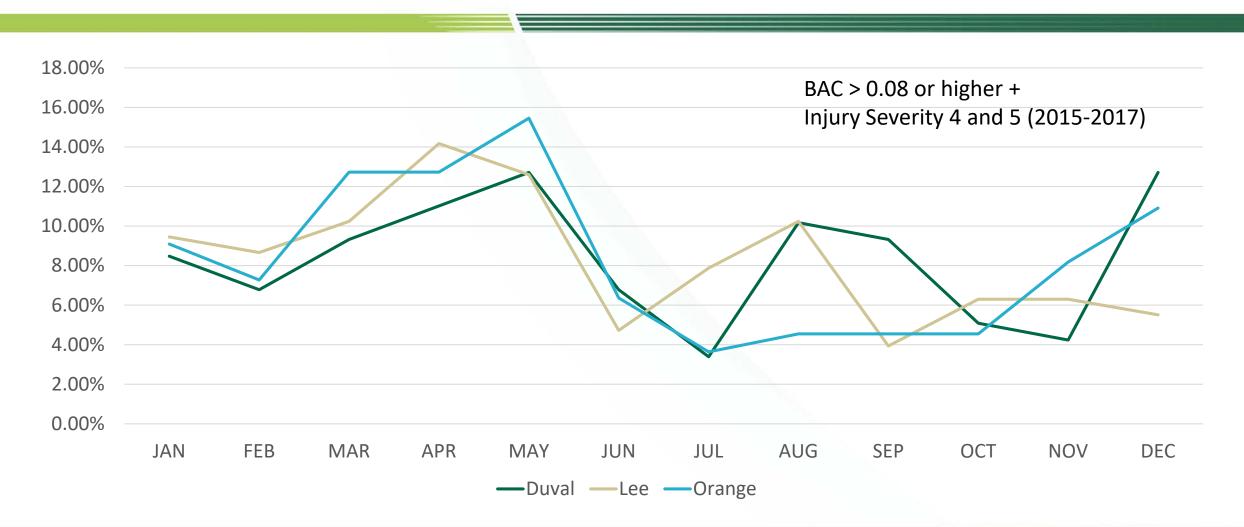




All Traffic Crashes vs. DUI Crashes (Top 30 counties)

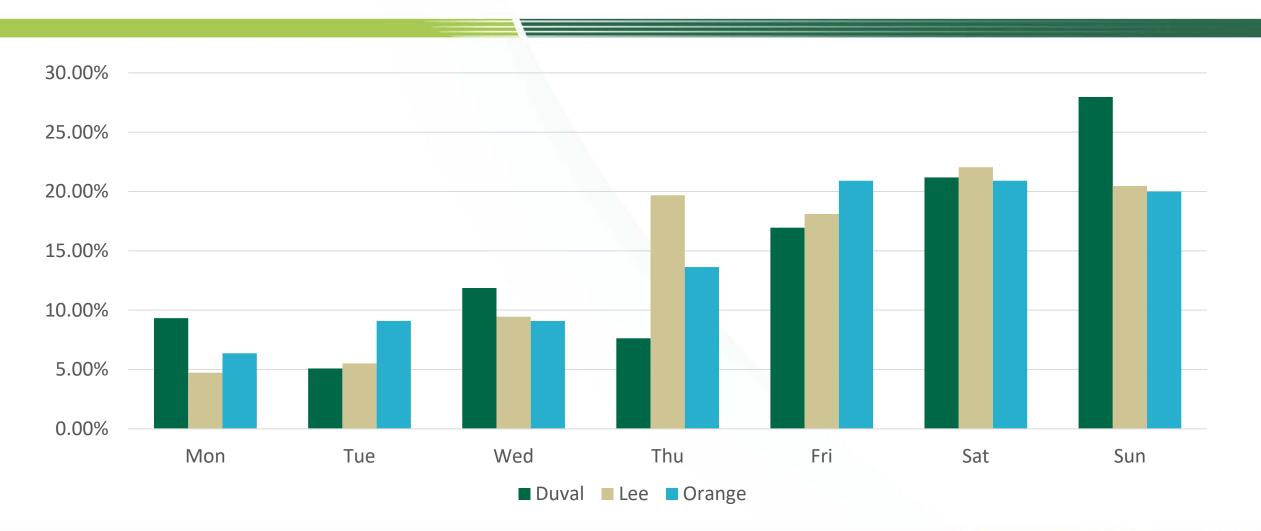


Monthly Proportion of Annual DUI Crashes in Three Counties





DUI Crashes by Day of Week in Three Counties





Proportion of Florida License in DUI Crashes

	Duval	Lee	Orange
BAC 0.08 or higher	95.76%	91.34%	94.55%
BAC 0.01-0.08	88.24%	90.91%	100.00%
BAC = 0	95.15%	95.53%	96.52%



Findings or To-do

- DUI reporting in Florida Police Crash Report
- Definition of Alcohol related crash
- Florida Specific DUI Countermeasures
- County specific DUI crash information and countermeasures

