Assignment 1: Hansen AER 2013

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Summary of Hansen's Project

Replication

Density of the Running Variable
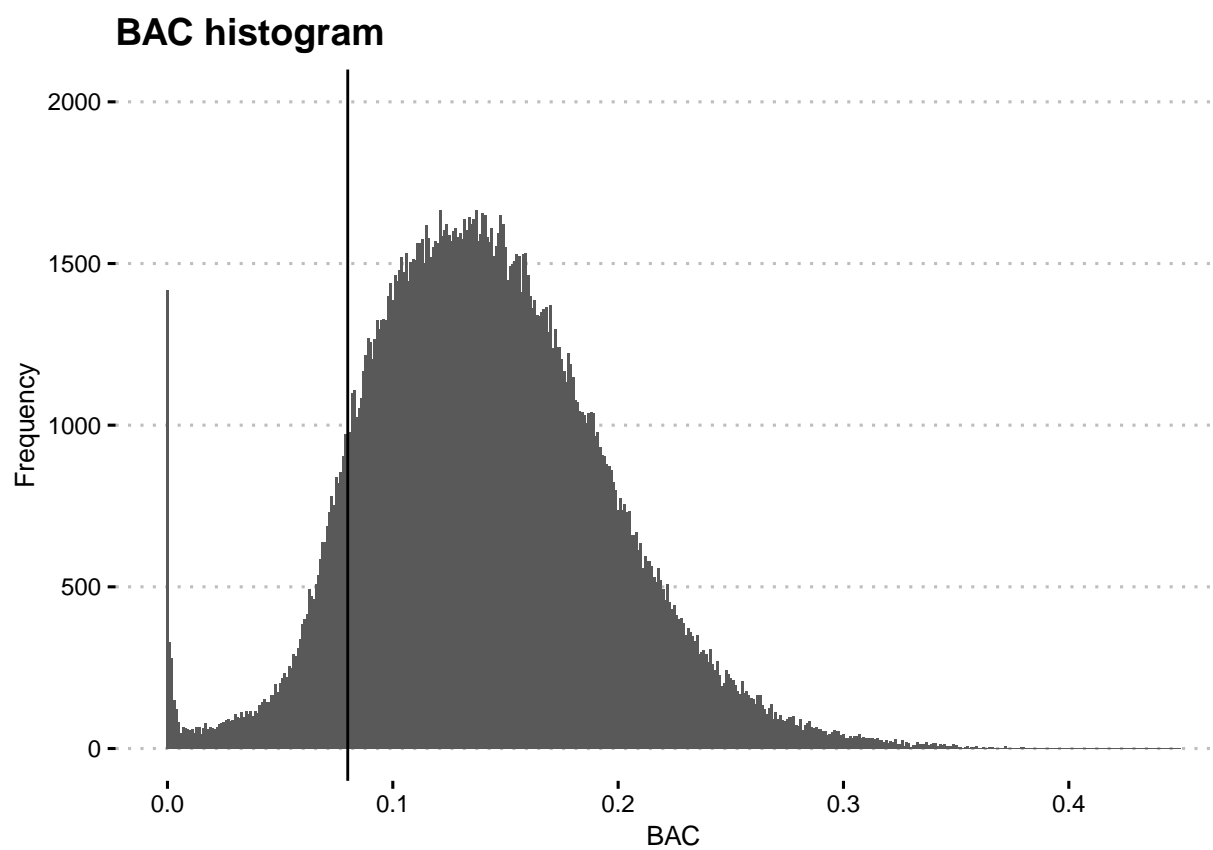
BAC histogram

Table 1: Regression Discontinuity Estimates for Covariates

	Male	White	Age	Accident
	(1)	(2)	(3)	(4)
DUI	0.031***	0.003	−7.787***	−0.219***
	(0.007)	(0.007)	(0.215)	(0.007)
Observations	214,558	214,558	214,558	214,558
R^2	0.000	0.001	0.013	0.021
Adjusted R^2	0.000	0.001	0.013	0.021
Residual Std. Error (df = 214554)	0.408	0.345	11.431	0.351
F Statistic (df = 3; 214554)	9.428***	58.401***	907.467***	1,566.761***

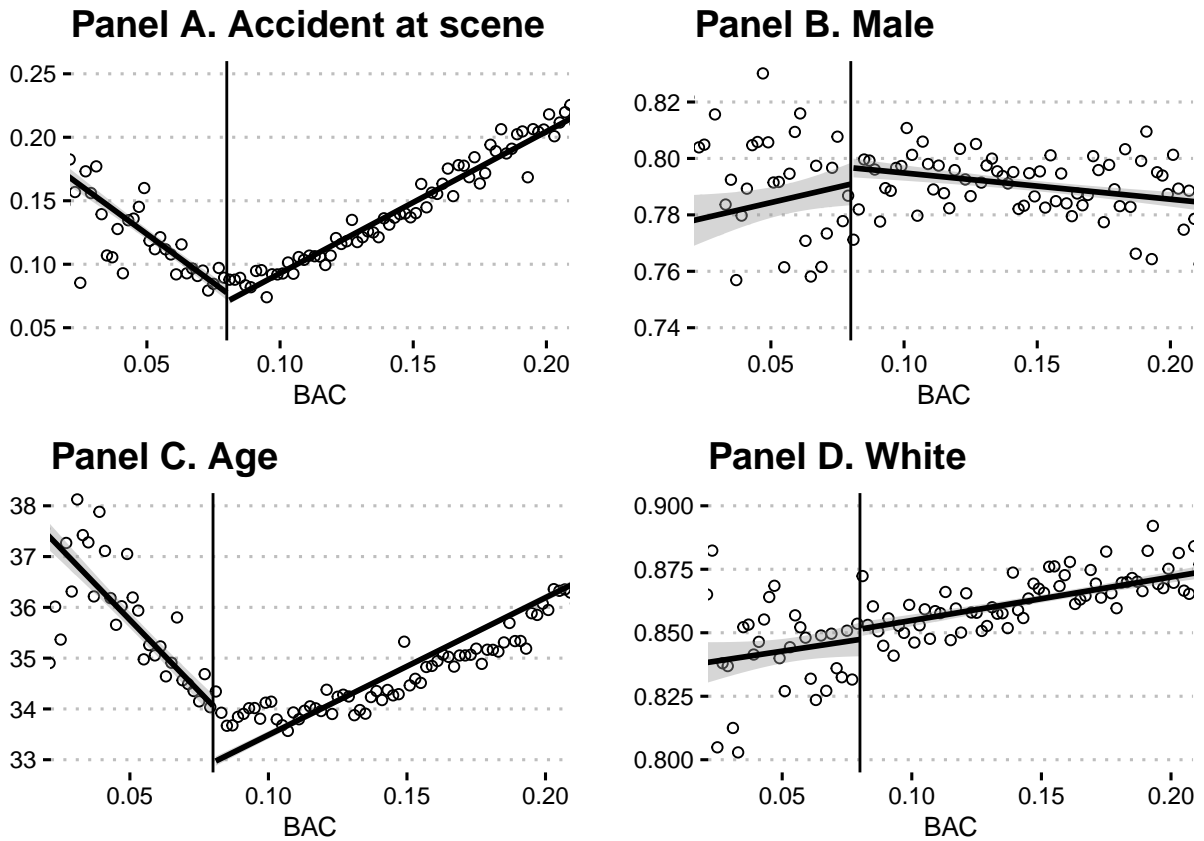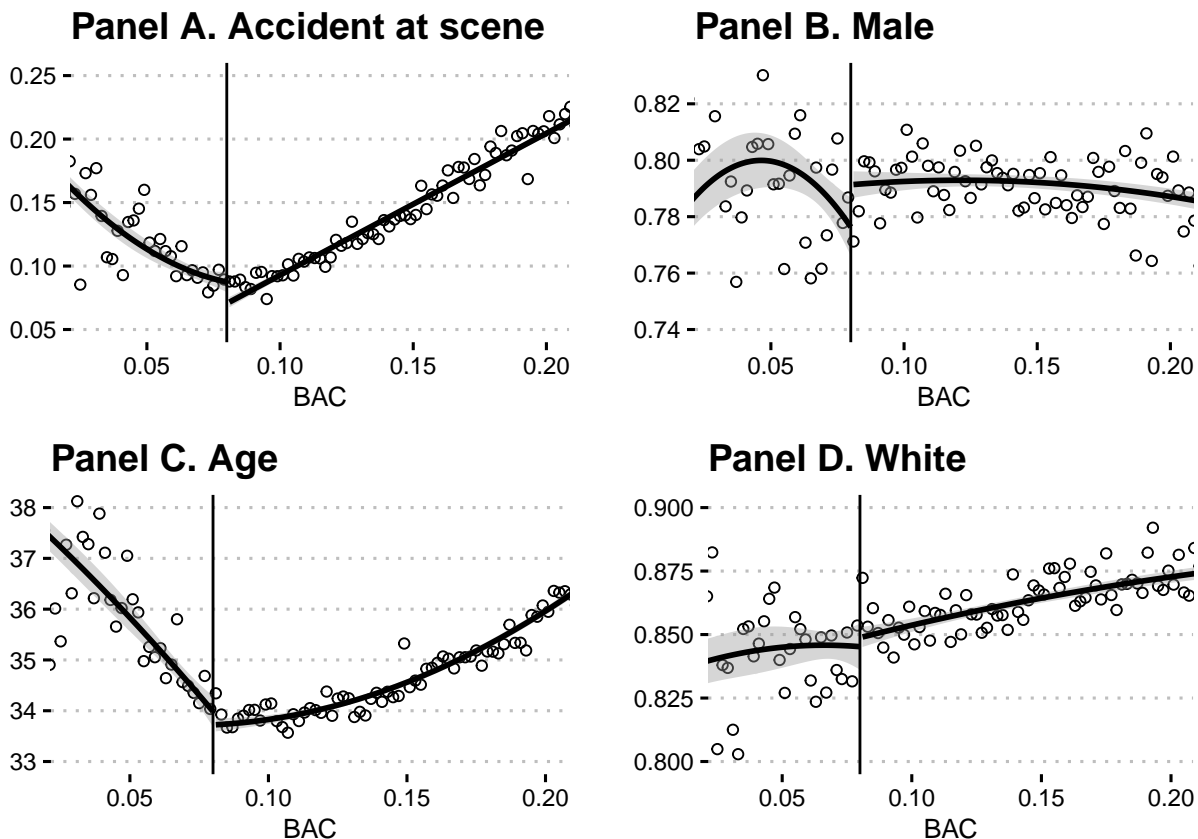*Notes:*   ***Significant at the 1 percent level.
                                 **Significant at the 5 percent level.
                                 *Significant at the 10 percent level.

Covariates by the Running Variable

Panel A. Accident at scene

Panel B. Male

Panel C. Age

Panel D. White

Panel A. Accident at scene

0.25
0.20
0.15
0.10
0.05
0.05 0.10 0.15 0.20
BAC

Panel B. Male

0.82
0.80
0.78
0.76
0.74
0.05 0.10 0.15 0.20
BAC

Panel C. Age

38
37
36
35
34
33
0.05 0.10 0.15 0.20
BAC

Panel D. White

0.900
0.875
0.850
0.825
0.800
0.05 0.10 0.15 0.20
BAC

Regression Discontinuity

Table 2: Regression Discontinuity Estimates for the Effect of DUI on Recidivism, BAC in [0.03, 0.13]

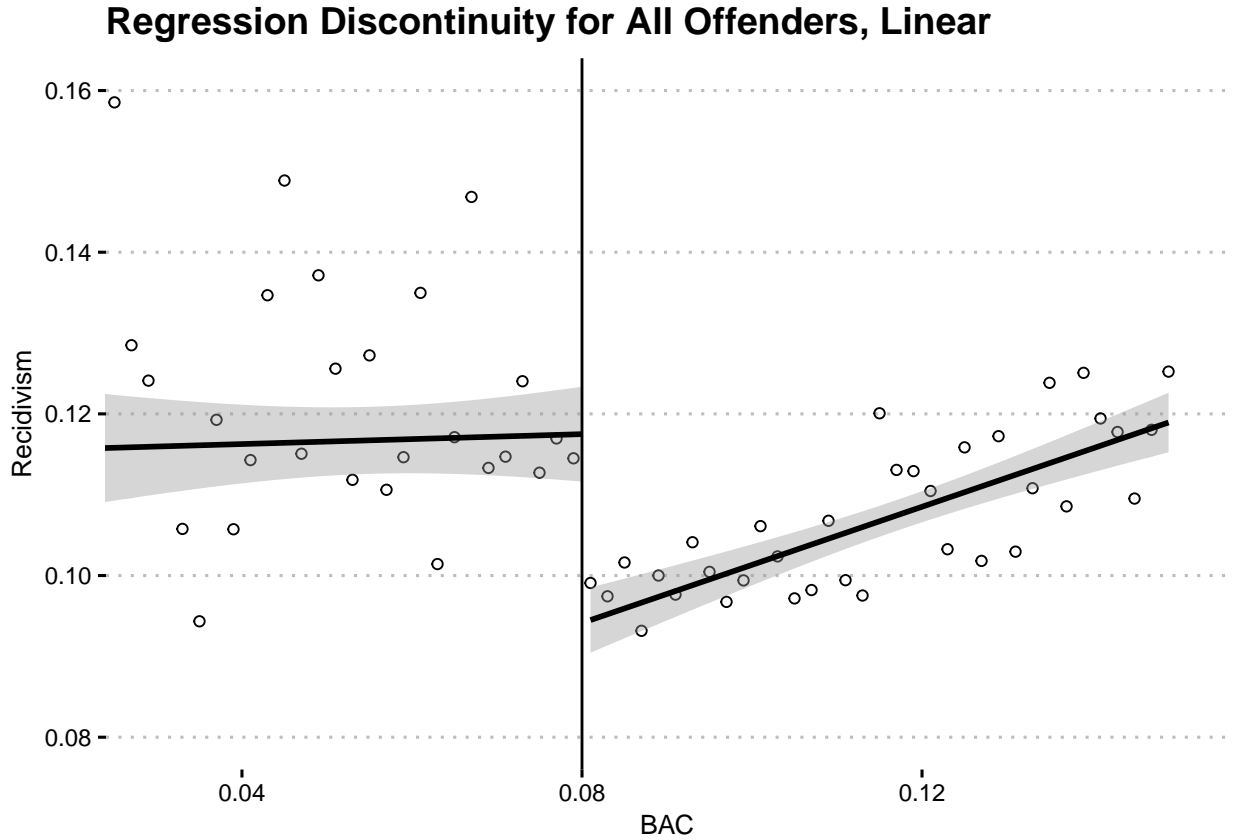|	Linear Control	With Interaction	With Quadratic Interaction
	(1)	(2)	(3)
DUI	−0.027***	−0.059***	0.113
	(0.004)	(0.015)	(0.084)
Observations	89,967	89,967	89,967
R^2	0.004	0.004	0.004
Adjusted R^2	0.004	0.004	0.004
Residual Std. Error	0.308 (df = 89960)	0.308 (df = 89959)	0.308 (df = 89957)
F Statistic	54.029*** (df = 6; 89960)	46.995*** (df = 7; 89959)	37.092*** (df = 9; 89957)

Notes: ***Significant at the 1 percent level.
**Significant at the 5 percent level.
*Significant at the 10 percent level.

Table 3: Regression Discontinuity Estimates for the Effect of DUI on Recidivism, BAC in [0.055, 0.105]

	Linear Control	With Interaction	With Quadratic Interaction
	(1)	(2)	(3)
DUI	−0.022***	−0.069**	0.270
	(0.006)	(0.034)	(0.409)
Observations	47,205	47,205	47,205
R^2	0.004	0.004	0.004
Adjusted R^2	0.004	0.004	0.004
Residual Std. Error	0.306 (df = 47198)	0.306 (df = 47197)	0.306 (df = 47195)
F Statistic	31.384*** (df = 6; 47198)	27.198*** (df = 7; 47197)	21.232*** (df = 9; 47195)

Notes: ***Significant at the 1 percent level.
**Significant at the 5 percent level.
*Significant at the 10 percent level.

Regression Discontinuity for All Offenders, Linear

Regression Discontinuity for All Offenders, Quadratic