

EXHIBIT TWO

Voting Machine Provision and Allocation in the Virginia
2008 General Election: Relations to Precinct Racial
Composition and Implications for Voter Turnout in
Norfolk, Richmond and Virginia Beach Counties

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Table 1: Distributions of Voting Resources to Registered Voters

County	Characteristic	Year					
		2008			2004		
		mean	sdev	IQR	mean	sdev	IQR
Norfolk	Reg Voters per Machine	358.9	63.9	62.4	359.0	86.8	126.4
Richmond	Reg Voters per Machine	266.2	56.5	77.4	481.7	107.9	128.1
Virginia Beach	Reg Voters per Machine	321.8	62.1	58.5	346.3	75.3	107.9
Norfolk	Reg Voters per Poll Worker	188.2	49.1	74.0	—	—	—
Richmond	Reg Voters per Poll Worker	156.1	26.2	32.8	193.8	36.6	45.4
Virginia Beach	Reg Voters per Poll Worker	187.6	47.0	59.1	385.6	88.4	117.9

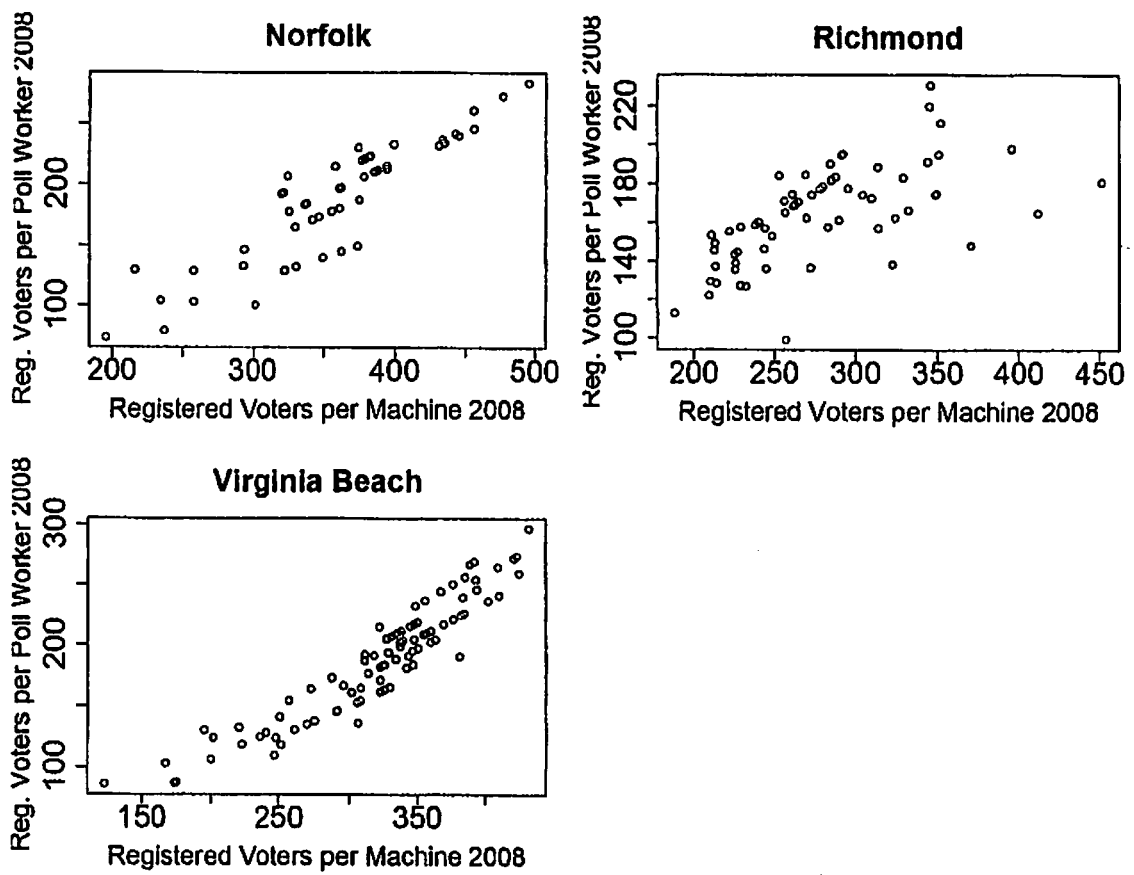


Figure 1: 2008 Registered Voters per Poll Worker by 2008 Registered Voters per Machine

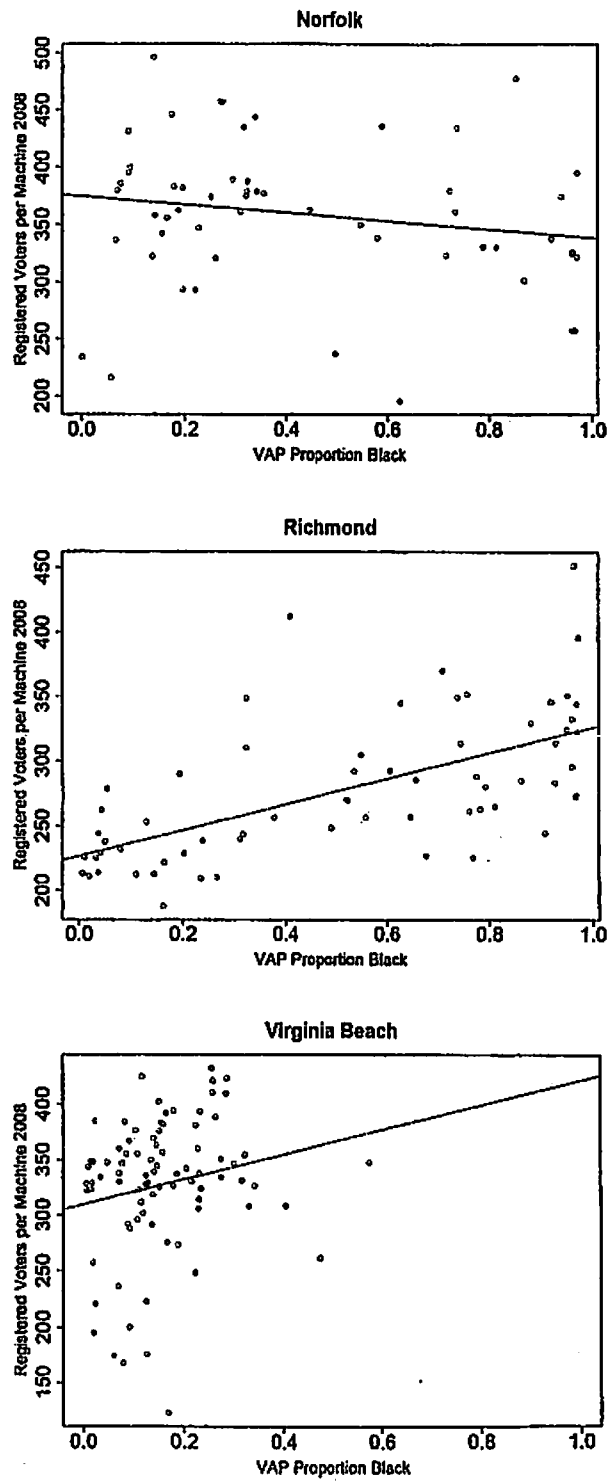


Figure 2: 2008 Registered Voters per Machine by VAP Black Proportions

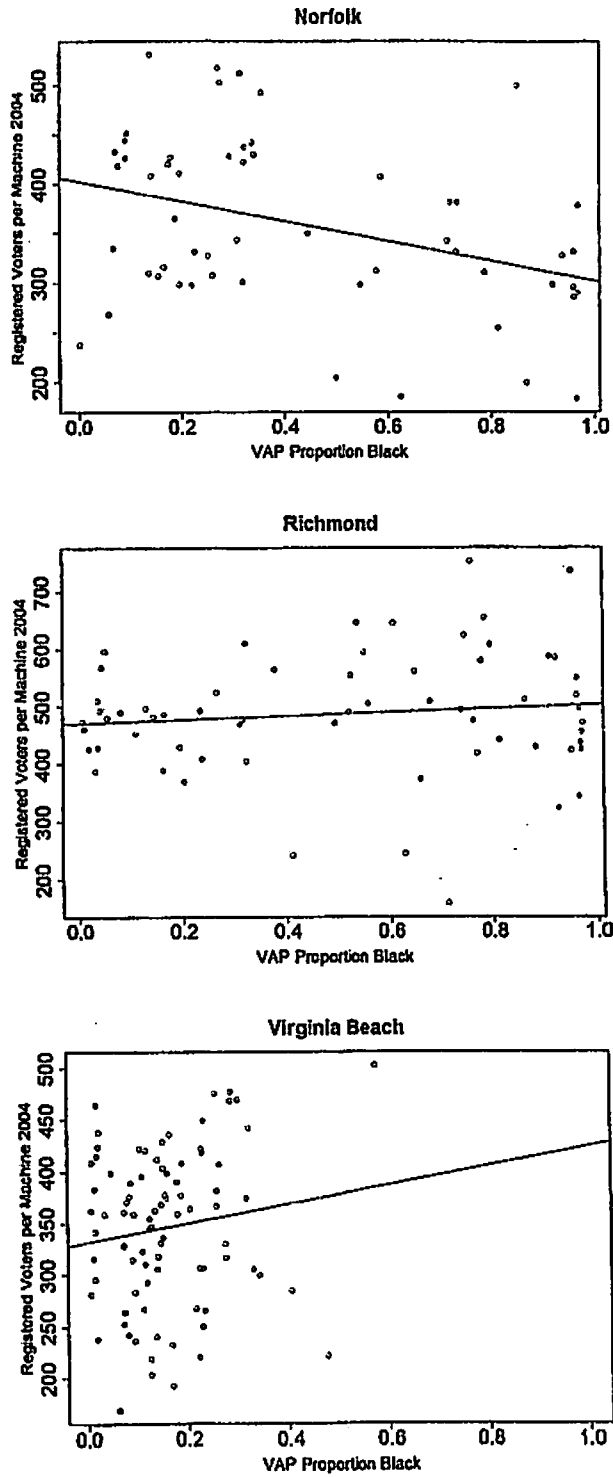


Figure 3: 2004 Registered Voters per Machine by VAP Black Proportions

Table 2: Linear Models for 2004 Turnout among Registered Voters

County	Variable	Model 1		Model 2	
		coef.	<i>t</i> -stat.	coef.	<i>t</i> -stat.
Norfolk	Intercept	0.674	3.62	1.10	5.84
	RV per Machine	-0.000483	-1.02	-0.00111	-2.46
	VAP Prop. Black	—	—	-0.449	-4.80
Richmond	Intercept	1.26	5.44	1.33	7.90
	RV per Machine	-0.000832	-1.97	-0.000351	-1.08
	VAP Prop. Black	—	—	-0.659	-6.52
Virginia Beach	Intercept	1.16	7.49	1.21	11.60
	RV per Machine	-0.00172	-3.96	-0.00116	-3.95
	VAP Prop. Black	—	—	-1.54	-8.01

Notes: Robust (tanh) overdispersed binomial regression estimates (Mebane and Sekhon, 2004a). For each precinct, the dependent variable counts the number of registered voters voting versus the number of registered voters not voting. Norfolk: $n = 55$; model 1, $\sigma = 5.7$; model 2, $\sigma = 4.8$. Richmond: $n = 63$; model 1, $\sigma = 6.0$; model 2, $\sigma = 4.6$. Virginia Beach: $n = 85$; model 1, $\sigma = 7.6$; model 2, $\sigma = 5.6$.

Table 3: Inverse Linear Models for 2004 Turnout among Registered Voters

County	Variable	Model 3		Model 4	
		coef.	t-stat.	coef.	t-stat.
Norfolk	Intercept	0.474	2.78	0.459	2.94
	1/(RV per Machine)	5.18	0.08	74.8	1.30
	VAP Prop. Black	—	—	-0.408	-4.56
Richmond	Intercept	0.775	4.02	1.18	7.50
	1/(RV per Machine)	27.6	0.29	-12.7	-0.19
	VAP Prop. Black	—	—	-0.678	-6.65
Virginia Beach	Intercept	0.0646	0.49	0.429	4.36
	1/(RV per Machine)	164.0	3.88	129.0	4.52
	VAP Prop. Black	—	—	-1.61	-8.63

Notes: Robust (tanh) overdispersed binomial regression estimates (Mebane and Sekhon, 2004a). For each precinct, the dependent variable counts the number of registered voters voting versus the number of registered voters not voting. Norfolk: $n = 55$; model 3, $\sigma = 5.7$; model 4, $\sigma = 4.9$. Richmond: $n = 63$; model 3, $\sigma = 6.1$; model 4, $\sigma = 4.6$. Virginia Beach: $n = 85$; model 3, $\sigma = 7.6$; model 4, $\sigma = 5.6$.

Table 4: Quadratic Models for 2004 Turnout among Registered Voters

County	Variable	Model 5		Model 6	
		coef.	t-stat.	coef.	t-stat.
Norfolk	Intercept	-1.26	-2.31	-0.676	-1.25
	RV per Machine	0.0102	3.49	8.49e-3	3.08
	(RV per Machine) ²	-0.000014	-3.69	-1.25e-5	-3.51
	VAP Prop. Black	—	—	-0.415	-3.93
Richmond	Intercept	-0.881	-1.72	0.104	0.21
	RV per Machine	7.75e-3	3.64	4.49e-3	2.34
	(RV per Machine) ²	-8.32e-6	-3.81	-4.73e-6	-2.46
	VAP Prop. Black	—	—	-0.610	-5.98
Virginia Beach	Intercept	0.402	0.74	1.93	4.80
	RV per Machine	2.74e-3	0.83	-5.32e-3	-2.22
	(RV per Machine) ²	-6.31e-6	-1.31	5.95e-6	1.69
	VAP Prop. Black	—	—	-1.68	-8.10

Notes: Robust (tanh) overdispersed binomial regression estimates (Mebane and Sekhon, 2004a). For each precinct, the dependent variable counts the number of registered voters voting versus the number of registered voters not voting. Norfolk: $n = 55$; model 5, $\sigma = 5.4$; model 6, $\sigma = 4.7$. Richmond: $n = 63$; model 5, $\sigma = 5.6$; model 6, $\sigma = 4.5$. Virginia Beach: $n = 85$; model 5, $\sigma = 7.5$; model 6, $\sigma = 5.7$.

Table 5: Inverse Quadratic Models for 2004 Turnout among Registered Voters

County	Variable	Model 7		Model 8	
		coef.	t-stat.	coef.	t-stat.
Norfolk	Intercept	-0.718	-1.80	-0.819	-2.12
	1/(RV per Machine)	793.0	3.20	925.0	3.84
	1/(RV per Machine) ²	-1.21e+5	-3.35	-1.31e+5	-3.69
	VAP Prop. Black	—	—	-0.430	-4.38
Richmond	Intercept	-0.183	-0.55	0.570	2.04
	1/(RV per Machine)	774.0	3.08	448.0	2.39
	1/(RV per Machine) ²	-1.28e+5	-3.05	-7.88e+4	-2.65
	VAP Prop. Black	—	—	-0.641	-6.45
Virginia Beach	Intercept	-0.56	-1.15	0.44	1.21
	1/(RV per Machine)	558.0	1.95	122.0	0.58
	1/(RV per Machine) ²	-5.86e+4	-1.47	1.12e+3	0.038
	VAP Prop. Black	—	—	-1.61	-8.23

Notes: Robust (tanh) overdispersed binomial regression estimates (Mebane and Sekhon, 2004a). For each precinct, the dependent variable counts the number of registered voters voting versus the number of registered voters not voting. Norfolk: $n = 55$; model 7, $\sigma = 5.5$; model 8, $\sigma = 4.7$. Richmond: $n = 63$; model 7, $\sigma = 5.8$; model 8, $\sigma = 4.5$. Virginia Beach: $n = 85$; model 7, $\sigma = 7.6$; model 8, $\sigma = 5.8$.

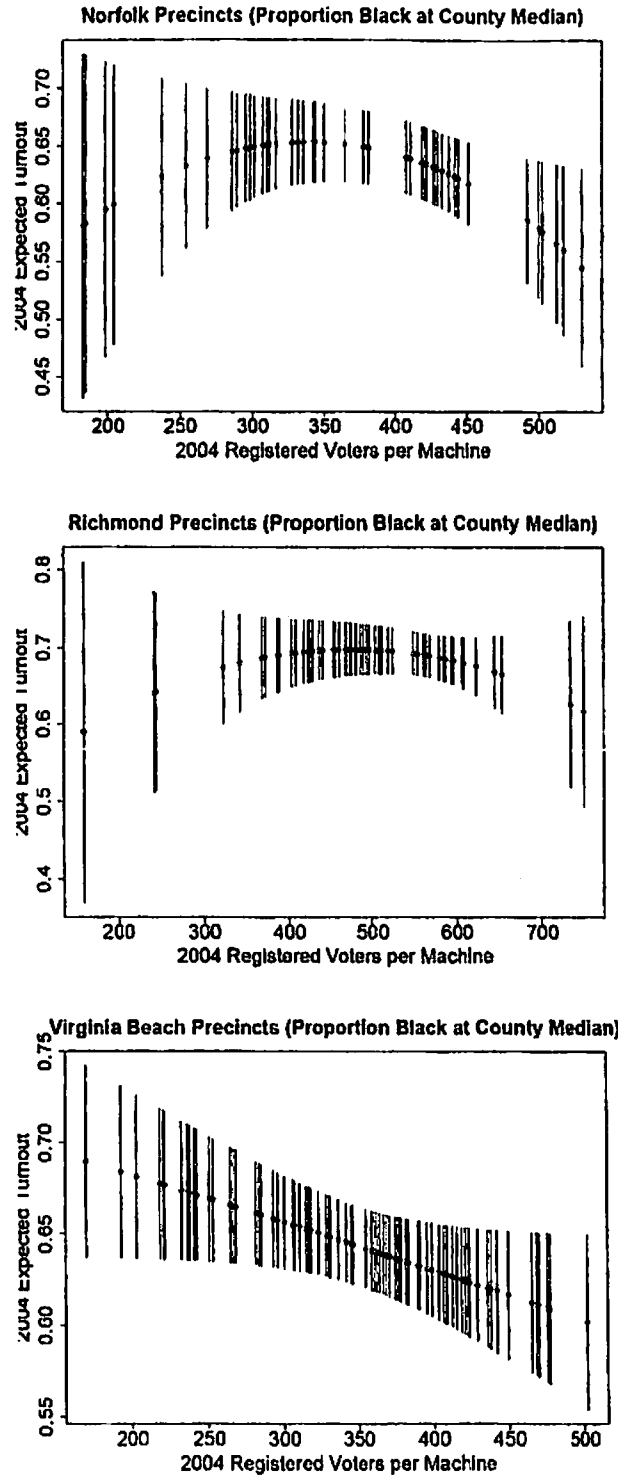


Figure 4: Expected 2004 Voter Turnout, Quadratic and Linear Models, Fixing 2000 VAP Black Proportions at Median

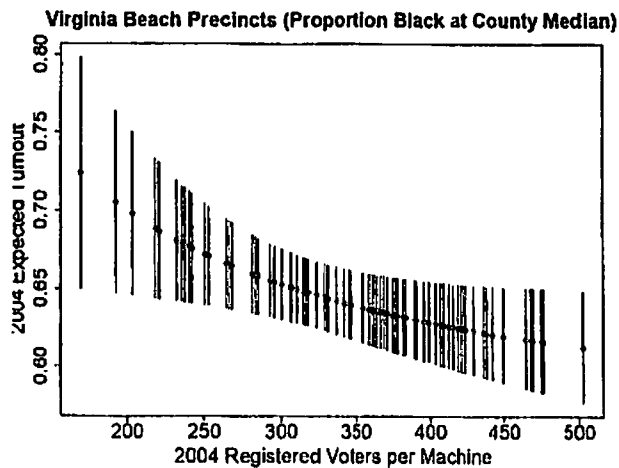
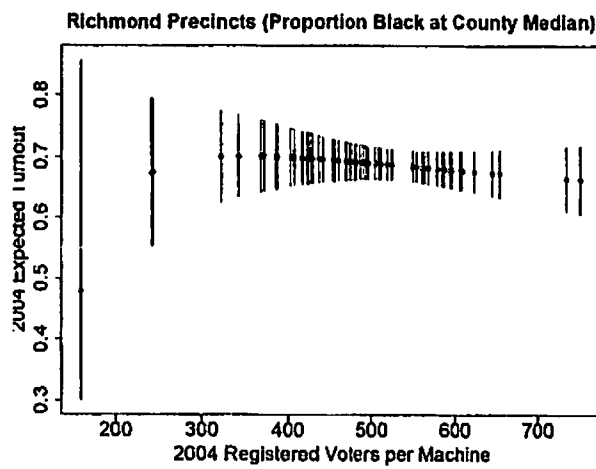
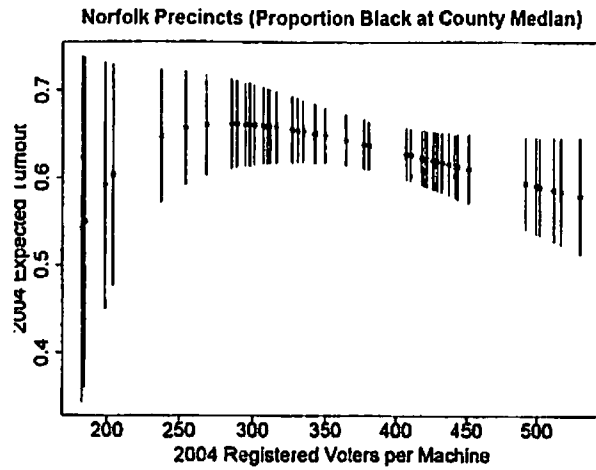


Figure 5: Expected 2004 Voter Turnout, Inverse Quadratic and Inverse Linear Models, Fixing 2000 VAP Black Proportions at Median

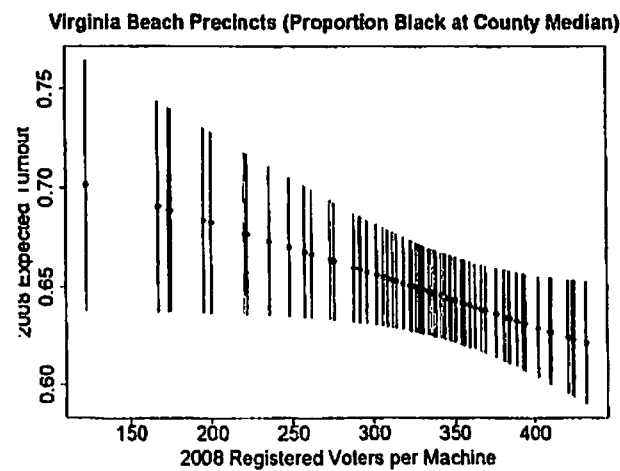
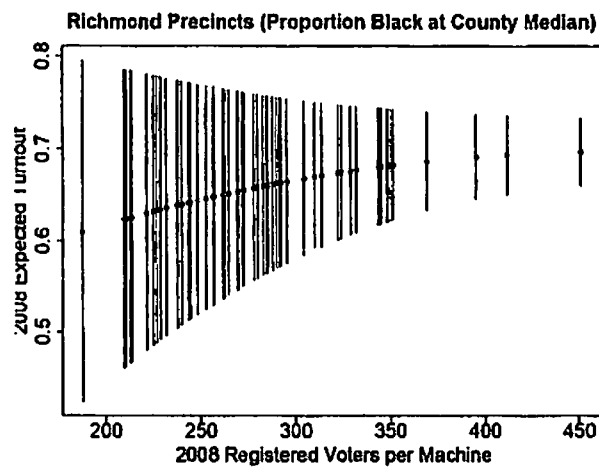
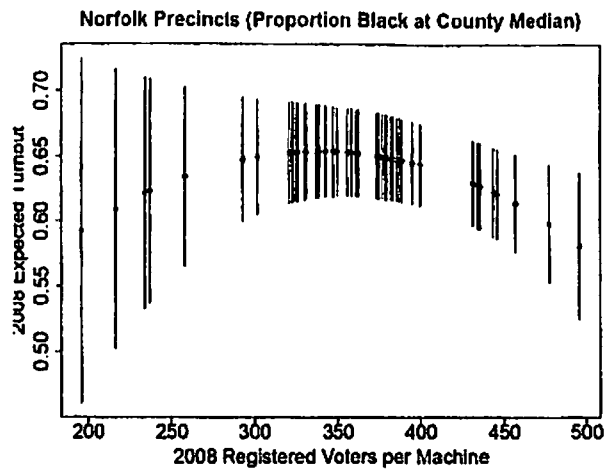


Figure 6: Predicted 2008 Voter Turnout, Quadratic and Linear Models, Fixing 2000 VAP Black Proportions at Median

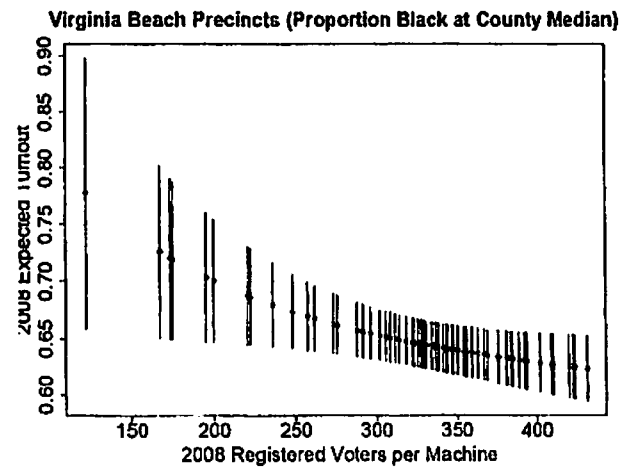
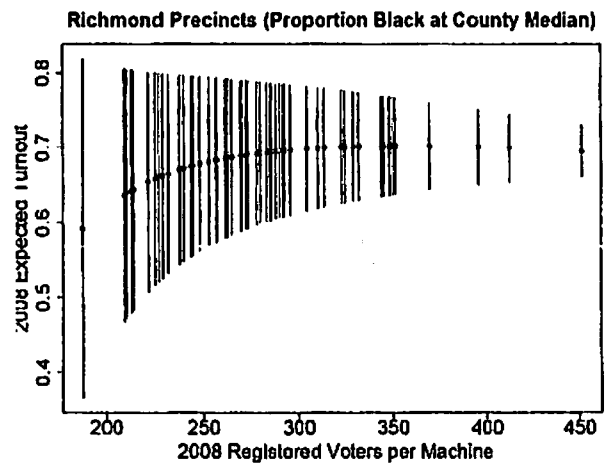
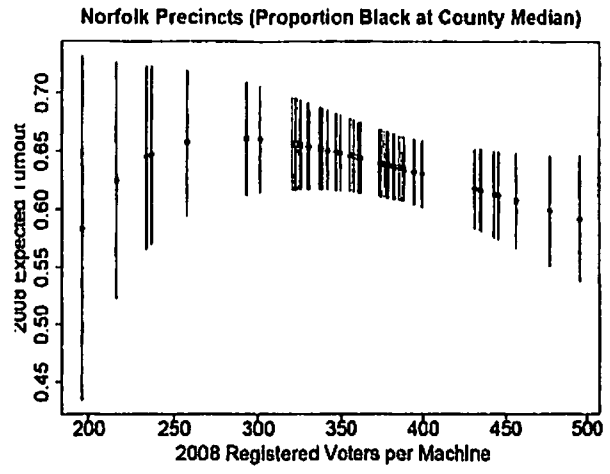


Figure 7: Predicted 2008 Voter Turnout, Inverse Quadratic and Inverse Linear Models, Fixing 2000 VAP Black Proportions at Median

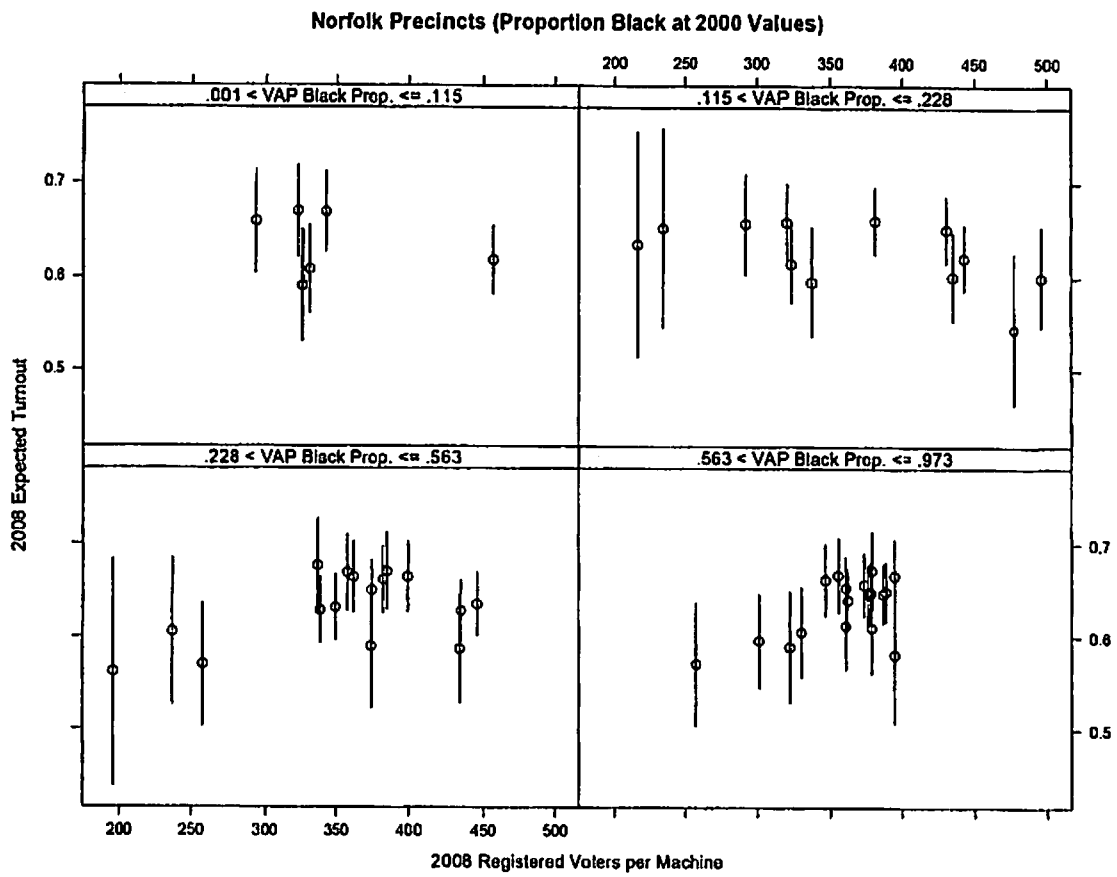


Figure 8: Predicted 2008 Voter Turnout in Norfolk Precincts, Quadratic Model, Using 2000 VAP Black Proportions

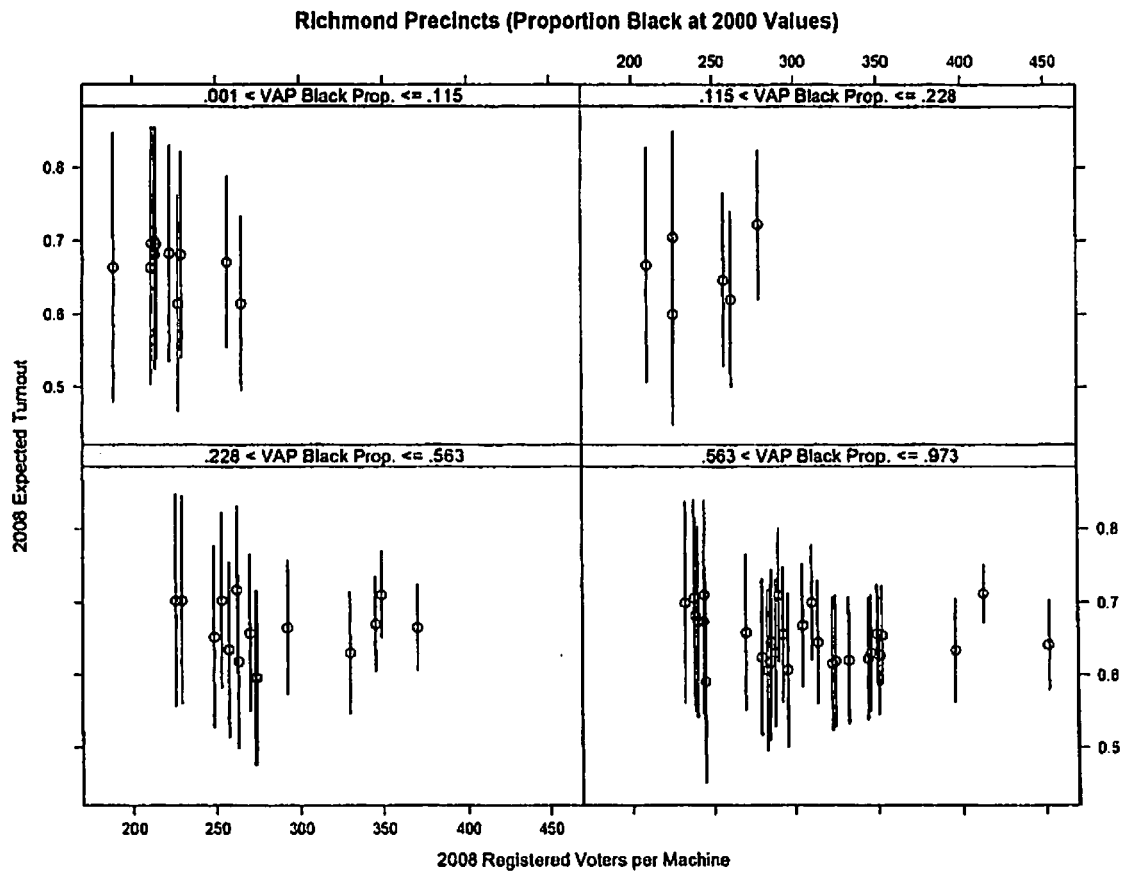


Figure 9: Predicted 2008 Voter Turnout in Richmond Precincts, Quadratic Model, Using 2000 VAP Black Proportions

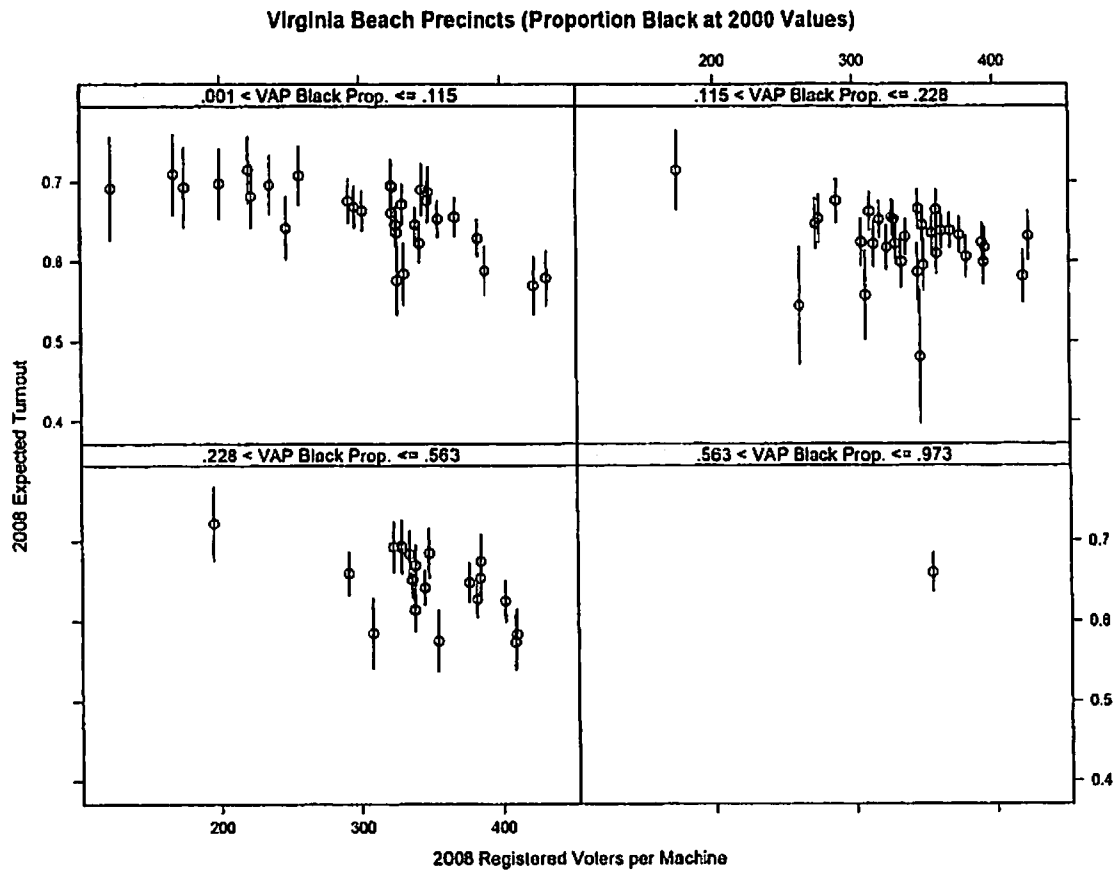


Figure 10: Predicted 2008 Voter Turnout in Virginia Beach Precincts, Linear Model, Using 2000 VAP Black Proportions

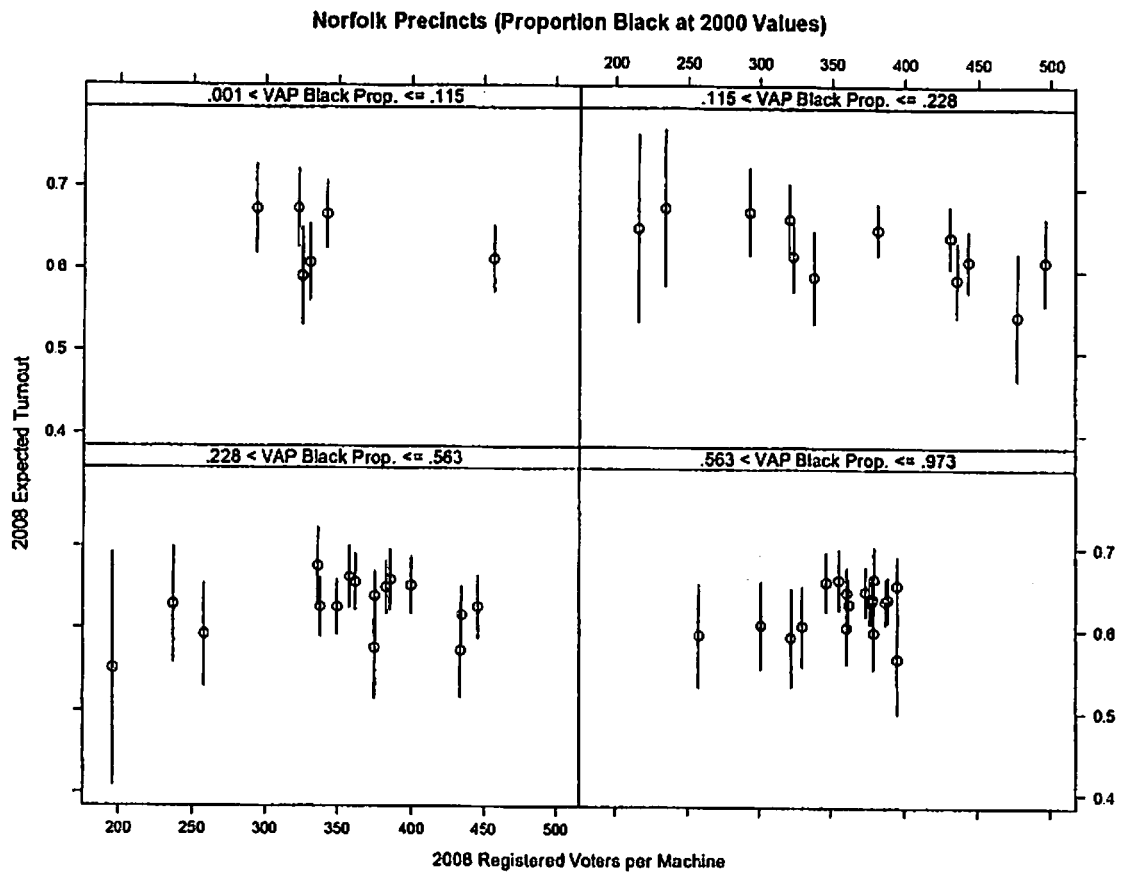


Figure 11: Predicted 2008 Voter Turnout in Norfolk Precincts, Inverse Quadratic Model, Using 2000 VAP Black Proportions

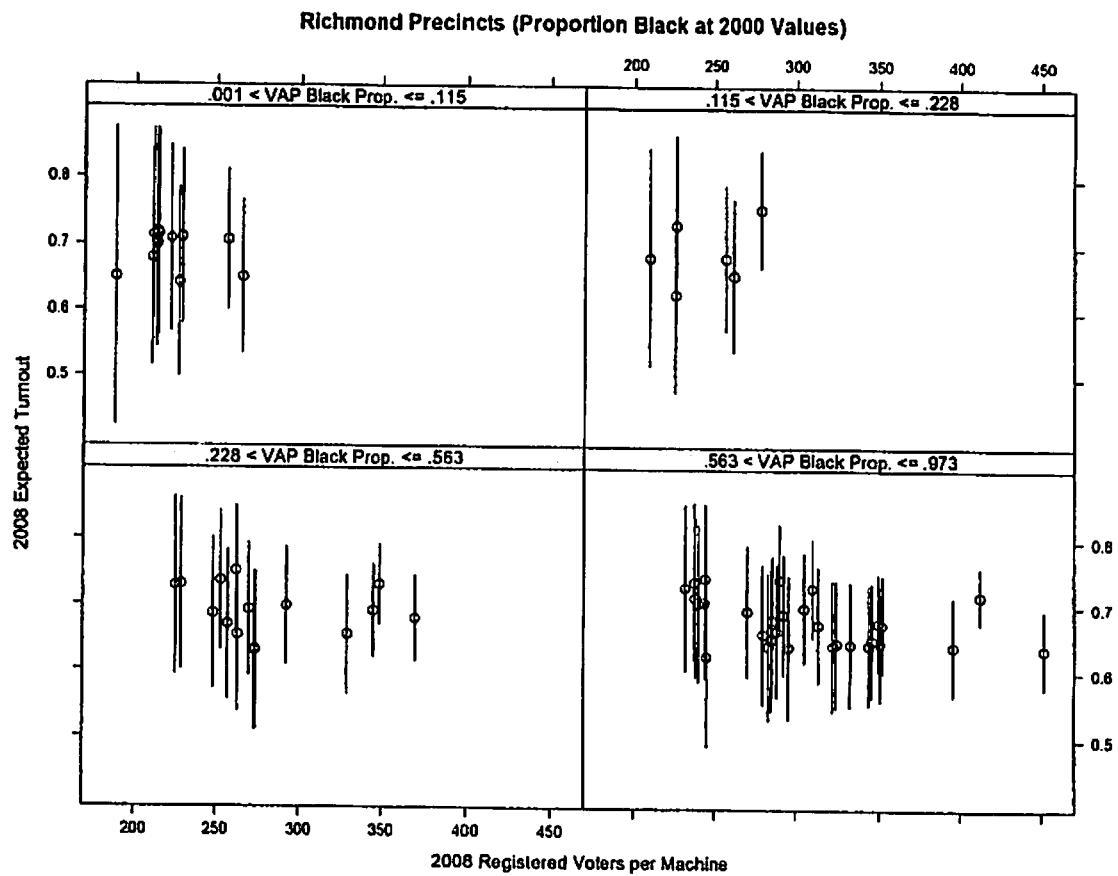


Figure 12: Predicted 2008 Voter Turnout in Richmond Precincts, Inverse Quadratic Model, Using 2000 VAP Black Proportions

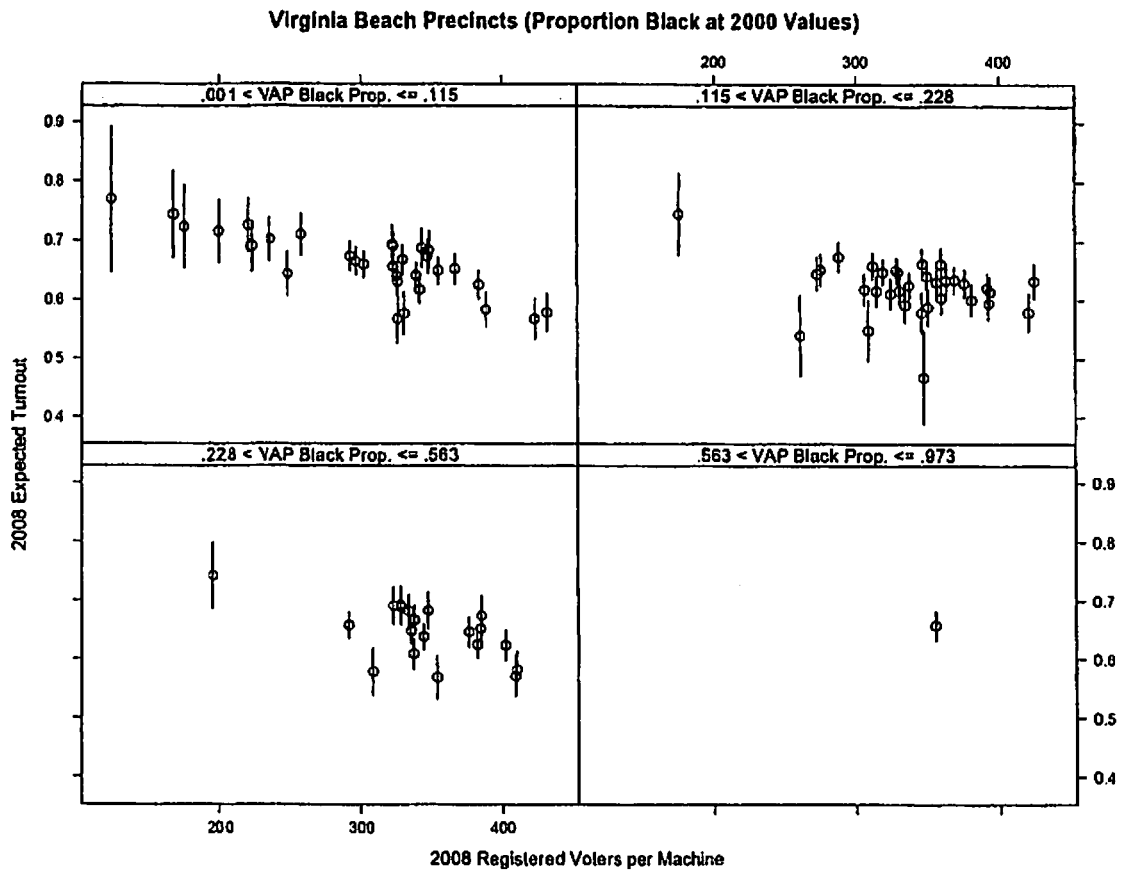


Figure 13: Predicted 2008 Voter Turnout in Virginia Beach Precincts, Inverse Linear Model, Using 2000 VAP Black Proportions

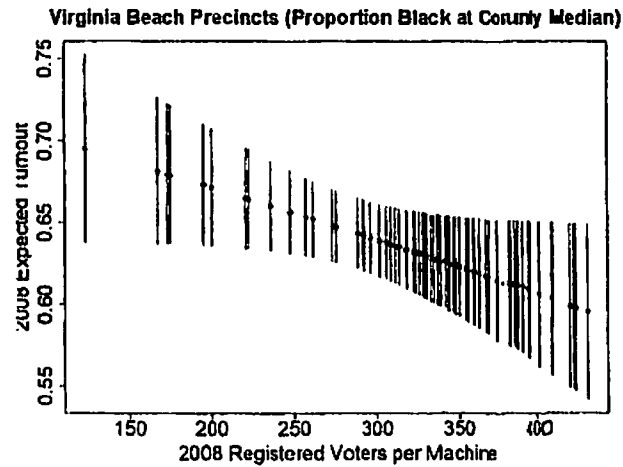
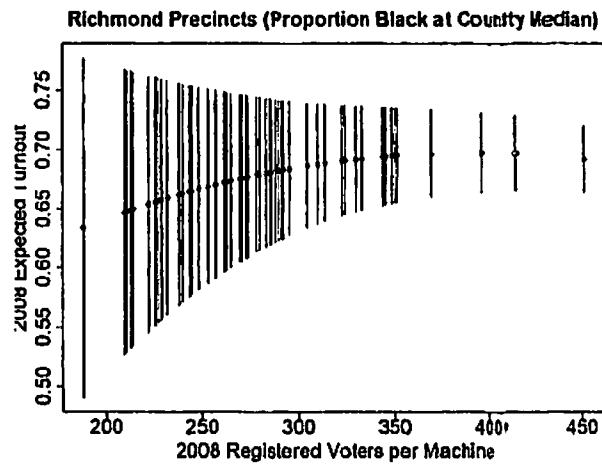
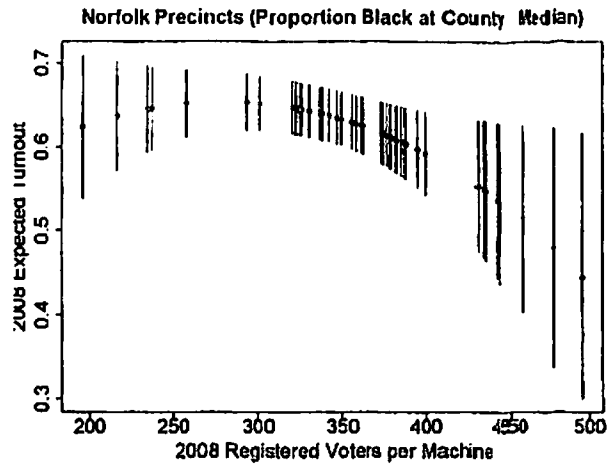


Figure 14: Predicted 2008 Voter Turnout, Inverse Quadratic and Inverse Linear Models, Fixing 2000 VAP Black Proportions at Median, Surging Arrivals from .7 to .85