

Appendix A

Table A1
Weights models estimated to Delaware Data

Student Need Factor	Cost Model Coeff.	Weights 1 (Race Sensitive)	Weights 1 (Race Neutral)	Weights 2 (Race Sensitive)	Weights 2 (Race Neutral)
% Low Income	0.520 *	1.696 *	1.966 *	1.696 *	1.966 *
% with Disabilities	1.159 *	3.157 *	3.075 *	3.157 *	3.075 *
% Complex/Multiple Disabilities	1.396 *	4.101 *	4.288	4.101 *	4.288
% ELL	0.260 *	1.280 *	1.140 *	1.280 *	1.140 *
% Voc Tech	1.535 *	4.620 *	4.594	4.620 *	4.594
% Middle Grades	-0.011	0.987 *	0.978 *	0.987 *	0.978 *
% Secondary grades	0.038	1.036 *	1.033 *	1.036 *	1.033 *
% Black	0.149 *	1.159 *		1.159 *	
R-Squared		0.9831	0.9791	0.9851	0.9811

* $p < .05$

Table A2
Training Set Models (80% Sample)

	IV Reg Grade 3-8 Black		IV Reg Grade 3-8 Neutral		IV Reg Grade 3-8 Pov x Dens		IV Reg Grade 3-8 Black x Dens	
	coef	R.S.E	coef	R.S.E	coef	R.S.E	coef	R.S.E
Outcome Index	1.866***	0.118	1.987***	0.132	1.965***	0.135	1.808***	0.110
Education Comparable	0.478***	0.035	0.575***	0.037	0.636***	0.037	0.499***	0.034
Wage Index								
Student Needs								
Child Poverty Rate	2.304***	0.170	3.377***	0.237	2.340***	0.221	2.261***	0.161
Disability Rate (state ctr)	3.010***	0.152	2.977***	0.163	2.949***	0.163	2.936***	0.145
% ELL	1.959***	0.140	1.724***	0.137	1.643***	0.137	1.868***	0.130
% Black	1.046***	0.063					0.411***	0.071
%Poverty x Pop Density					0.224***	0.040		
%Black x Pop Density							0.115***	0.012
Grade Range Distribution								
% Enrollment in Pre-k	-0.012	0.144	0.155	0.155	0.110	0.154	-0.030	0.140
% Enrollment in Secondary Grades	0.500***	0.042	0.492***	0.045	0.490***	0.045	0.484***	0.041
Economies of Scale								
Less than 100 Students	0.547***	0.080	0.518***	0.081	0.525***	0.080	0.532***	0.078
101 to 300 Students	0.382***	0.022	0.365***	0.022	0.364***	0.022	0.368***	0.021
301 to 600 Students	0.220***	0.016	0.200***	0.016	0.200***	0.016	0.213***	0.016
601 to 1200 Students	0.142***	0.013	0.120***	0.013	0.119***	0.013	0.141***	0.012
1201 to 1500 Students	0.112***	0.014	0.094***	0.015	0.095***	0.015	0.115***	0.014
1501 to 2000 Students	0.098***	0.013	0.081***	0.014	0.084***	0.014	0.103***	0.013
Log of Population per Square Mile	-0.063***	0.007	-0.037***	0.006	-0.078***	0.011	-0.072***	0.007
Efficiency Measures								
% Pop 5 to 17 Years Old	-1.019***	0.160	-0.442***	0.122	-0.428***	0.122	-0.990***	0.154
Housing Value Ratio	-0.365***	0.031	-0.420***	0.036	-0.390***	0.035	-0.338***	0.029
Herfindahl Index	-0.353	0.480	0.355	0.518	-0.024	0.510	-0.151	0.468
Time Period	0.016***	0.001	0.016***	0.001	0.014***	0.001	0.015***	0.001
Constant	8.570***	0.066	8.237***	0.065	8.322***	0.066	8.568***	0.064
Number of observations	117,656		117,656		117,656		117,656	

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A3*Residual Bias Check (with year fixed effect)*

DV=Model Residuals	% Black		Neutral		Pov x Density		Black x Density	
	coef	Se	coef	se	coef	se	coef	se
% Black	0.055***	0.004	-0.417***	0.004	-0.394***	0.004	0.092***	0.004
% Hispanic	-0.087***	0.003	-0.037***	0.003	-0.029***	0.003	-0.083***	0.003
Census Poverty Rate 5 to 17 yr Olds	-0.820***	0.008	-0.635***	0.008	-0.627***	0.009	-0.851***	0.008
Constant	0.153***	0.003	0.188***	0.003	0.182***	0.003	0.151***	0.002
Number of observations	149,224		149,224		149,145		149,145	
R2	0.111		0.191		0.179		0.113	

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A4*Test of Alternative SES Measure*

	Black Direct Effect with Census Poverty		Black Direct Effect with SES Composite	
	coef	R.S.E	coef	se
Outcome Index	1.855***	0.124	1.814***	0.144
Labor Cost Index	0.381***	0.037	0.580***	0.034
Student Needs				
Child Poverty Rate	2.199***	0.177		
SES Composite (SEDA)			-0.310***	0.030
Disability Rate (state ctr)	2.878***	0.153	2.597***	0.142
% ELL	1.924***	0.145	1.833***	0.157
% Black	1.062***	0.067	0.906***	0.063
Grade Range Distribution				
% Pre-k	0.064	0.141	0.169	0.134
% 9 to 12	0.540***	0.042	0.546***	0.042
Economies of Scale				
Less than 100 Students	0.554***	0.079	0.737***	0.078
101 to 300 Students	0.373***	0.022	0.474***	0.024
301 to 600 Students	0.209***	0.016	0.278***	0.017
601 to 1200 Students	0.130***	0.013	0.165***	0.013
1201 to 1500 Students	0.099***	0.014	0.115***	0.014
1501 to 2000 Students	0.091***	0.013	0.096***	0.012
Population Density (ln)	-0.065***	0.008	-0.060***	0.008
Efficiency Measures				
% Pop 5 to 17 Years Old	-0.948***	0.162	-0.846***	0.150
Housing Value Ratio	-0.459***	0.036	-0.275***	0.027
Herfindahl Index	-0.672	0.495	-0.759	0.490
Time Period	0.019***	0.001	0.006***	0.001
Constant	8.838***	0.074	8.714***	0.068
Number of observations	147,183		146,771	
Instrument Diagnostics				
Partial F (excluded inst)	144.32		115.82	
Hansen J (p-value)	0.8313		0	

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$