Online Appendix

Table 1: Falsification Test using Math Score Improvements in 2009 as Dependent Variable

	No Fail		Mid-Fail		High-Fail	
	Coef.	Std. Err	Coef.	Std. Err.	Coef.	Std. Err.
Math Score Improvement in Subsequent Year						
At optimal bandwidth	-0.0225	(0.0440)	0.0286	(0.0191)	0.0373	(0.0425)
Half optimal bandwidth	-0.0607	(0.0647)	0.0394	(0.0270)	0.0197	(0.0602)
Twice optimal bandwidth	-0.0249	(0.0391)	0.0184	(0.0163)	0.0047	(0.0316)

*Note: Standard errors in parentheses. Bandwidth determination is by the Imbens-Kalyanaraman algorithm. *** denotes an estimate significant at the 1% level; ** the 5% level; * the 10% level*

Table 2: Parametric RD Regression with Linear, Quadratic, and Cubic Functions of the Assignment Variable

	All Schools			No Fail			Mid Fail			High Fail		
	Coef.		Std. Err.	Coef.		Std. Err.	Coef.		Std. Err.	Coef.		Std. Err.
Math Score Improvement												
Linear	-0.0317	**	(0.0134)	-0.0189		(0.0389)	-0.0406	**	(0.0170)	-0.0008		(0.0372)
Quadratic	-0.0101		(0.0182)	0.0962		(0.0667)	-0.0584	**	(0.0236)	-0.0586		(0.0562)
Cubic	-0.0518	**	(0.0240)	0.1153		(0.1092)	-0.0445		(0.0323)	-0.1108		(0.0774)
My school is a safe environment												
Linear	0.0018		(0.0127)	0.0606	*	(0.0356)	-0.0149		(0.0169)	0.0210		(0.0335)
Quadratic	-0.0157		(0.0174)	0.1452	**	(0.0648)	-0.0733	***	(0.0233)	0.0258		(0.0509)

Cubic	-0.0445	*	(	0.0231	)	0.1169		(	0.1069	)	-0.1132	***	(	0.0318	)	0.0472		(	0.0698	)
I plan to leave this school within the next two years																			
Linear	0.0002		(	0.0078	)	0.0118		(	0.0217	)	0.0000		(	0.0109	)	-0.0068		(	0.0187	)
Quadratic	0.0005		(	0.0108	)	-0.0014		(	0.0395	)	0.0008		(	0.0152	)	-0.0229		(	0.0282	)
Cubic	-0.0108		(	0.0143	)	-0.0553		(	0.0653	)	-0.0009		(	0.0208	)	-0.0562		(	0.0387	)
There is an atmosphere of trust and mutual respect																			
Linear	0.0106		(	0.0204	)	0.0968	*	(	0.0587	)	-0.0156		(	0.0275	)	0.0439		(	0.0490	)
Quadratic	-0.0321		(	0.0280	)	-0.0064		(	0.1070	)	-0.0911	**	(	0.0379	)	0.0368		(	0.0744	)
Cubic	-0.0899	**	(	0.0371	)	-0.0685		(	0.1768	)	-0.1642	***	(	0.0514	)	0.0430		(	0.1027	)
The school leadership consistently supports teachers																			
Linear	0.0021		(	0.0189	)	0.0965	*	(	0.0540	)	-0.0237		(	0.0252	)	0.0287		(	0.0491	)
Quadratic	-0.0325		(	0.0260	)	0.0380		(	0.0985	)	-0.0761	**	(	0.0349	)	-0.0198		(	0.0744	)
Cubic	-0.0773	**	(	0.0346	)	0.0256		(	0.1627	)	-0.1389	***	(	0.0476	)	-0.0321		(	0.1028	)
Teachers are involved in decision making about ed. issues																			
Linear	0.0030		(	0.0184	)	0.1175	**	(	0.0524	)	-0.0302		(	0.0248	)	-0.0042		(	0.0443	)
Quadratic	-0.0498	**	(	0.0252	)	0.0899		(	0.0955	)	-0.0797	**	(	0.0344	)	-0.0910		(	0.0664	)
Cubic	-0.0843	**	(	0.0335	)	0.0093		(	0.1578	)	-0.1208	**	(	0.0470	)	-0.1761	*	(	0.0910	)
Teachers trusted to make decisions about instruction																			
Linear	-0.0217		(	0.0174	)	0.0322		(	0.0485	)	-0.0440	*	(	0.0235	)	-0.0260		(	0.0439	)
Quadratic	-0.0509	**	(	0.0239	)	-0.0624		(	0.0884	)	-0.0868	***	(	0.0327	)	-0.0901		(	0.0662	)
Cubic	-0.1019	***	(	0.0317	)	-0.1203		(	0.1460	)	-0.1226	***	(	0.0446	)	-0.1538	*	(	0.0911	)
Teachers have a role in devising teaching techniques																			
Linear	-0.0269		(	0.0176	)	0.0315		(	0.0525	)	-0.0431	*	(	0.0233	)	-0.0300		(	0.0400	)
Quadratic	-0.0483	**	(	0.0242	)	0.0245		(	0.0957	)	-0.0764	**	(	0.0324	)	-0.0626		(	0.0606	)
Cubic	-0.0772	**	(	0.0322	)	-0.0009		(	0.1583	)	-0.0964	**	(	0.0443	)	-0.1063		(	0.0835	)
Teachers have a role in setting student assessment practices																			
Linear	-0.0227		(	0.0152	)	-0.0037		(	0.0438	)	-0.0217		(	0.0209	)	-0.0626	*	(	0.0349	)
Quadratic	-0.0228		(	0.0209	)	0.0963		(	0.0797	)	-0.0383		(	0.0291	)	-0.0715		(	0.0530	)

Cubic	-0.0505	*	(	0.0278	)	0.0375		(	0.1317	)	-0.0821	**	(	0.0397	)	-0.1467	**	(	0.0726	)
Teachers have a role in hiring new teachers																			
Linear	-0.0015		(	0.0121	)	-0.0278		(	0.0407	)	0.0036		(	0.0147	)	-0.0533	*	(	0.0275	)
Quadratic	-0.0086		(	0.0167	)	-0.0372		(	0.0743	)	0.0134		(	0.0205	)	-0.0978	**	(	0.0415	)
Cubic	-0.0219		(	0.0223	)	0.0165		(	0.1229	)	-0.0076		(	0.0280	)	-0.1436	**	(	0.0569	)
Teachers have appropriate instructional materials and resources																			
Linear	0.0104		(	0.0140	)	0.0380		(	0.0364	)	-0.0059		(	0.0195	)	0.0282		(	0.0374	)
Quadratic	-0.0085		(	0.0192	)	0.0624		(	0.0664	)	-0.0340		(	0.0272	)	0.0086		(	0.0568	)
Cubic	-0.0086		(	0.0255	)	0.0594		(	0.1097	)	-0.0639	*	(	0.0371	)	0.0315		(	0.0782	)
Funds/resources available for prof. development activities																			
Linear	-0.0183		(	0.0194	)	0.0128		(	0.0560	)	-0.0160		(	0.0265	)	-0.0261		(	0.0467	)
Quadratic	-0.0533	**	(	0.0266	)	-0.1011		(	0.1018	)	-0.0592		(	0.0368	)	-0.0769		(	0.0693	)
Cubic	-0.0737	**	(	0.0354	)	-0.2235		(	0.1680	)	-0.0780		(	0.0503	)	-0.1149		(	0.0956	)
Mentor provided support on instructional strategies																			
Linear	-0.0046		(	0.0043		-0.0144		(	0.0104		-0.0020		(	0.0059		-0.0117		(	0.0135	
Quadratic	-0.0150	**	(	0.0059		-0.0283		(	0.0190		-0.0126		(	0.0081		-0.0292		(	0.0204	
Cubic	-0.0255	***	(	0.0078		-0.0736	**	(	0.0313		-0.0108		(	0.0111		-0.0579	**	(	0.0278	
Mentor provided support on curriculum																			
Linear	-0.0051		(	0.0050	)	-0.0209	*	(	0.0125	)	-0.0037		(	0.0069	)	-0.0024		(	0.0152	)
Quadratic	-0.0167	**	(	0.0069	)	-0.0557	**	(	0.0227	)	-0.0171	*	(	0.0095	)	-0.0124		(	0.0230	)
Cubic	-0.0347	***	(	0.0091	)	-0.1124	***	(	0.0374	)	-0.0234	*	(	0.0130	)	-0.0498		(	0.0310	)
Mentor provided support on classroom management																			
Linear	-0.0018		(	0.0043	)	-0.0119		(	0.0107	)	-0.0017		(	0.0060	)	-0.0033		(	0.0124	)
Quadratic	-0.0092		(	0.0059	)	-0.0168		(	0.0195	)	-0.0111		(	0.0082	)	-0.0150		(	0.0187	)
Cubic	-0.0246	***	(	0.0078	)	-0.0442		(	0.0322	)	-0.0161		(	0.0113	)	-0.0530	**	(	0.0250	)
Mentor provided support on school/district policies																			
Linear	-0.0044		(	0.0045	)	-0.0233	**	(	0.0107	)	0.0036		(	0.0062	)	-0.0200		(	0.0132	)
Quadratic	-0.0106	*	(	0.0061	)	-0.0494	**	(	0.0195	)	-0.0055		(	0.0086	)	-0.0154		(	0.0199	)

Cubic	-0.0243	***	(	0.0081	)	-0.0749	**	(	0.0323	)	-0.0079		(	0.0118	)	-0.0414	(	0.0268	)
Mentor has been important in my career																		
Linear	0.0022		(	0.0072	)	-0.0024		(	0.0182	)	0.0071		(	0.0098	)	-0.0203	(	0.0214	)
Quadratic	-0.0107		(	0.0098	)	-0.0329		(	0.0331	)	-0.0099		(	0.0136	)	-0.0281	(	0.0326	)
Cubic	-0.0285	**	(	0.0131	)	-0.0788		(	0.0546	)	0.0052		(	0.0185	)	-0.0278	(	0.0440	)
Non-instructional hours have increased																		
Linear	-0.0677		(	0.0680	)	-0.0164		(	0.1876	)	-0.1038		(	0.0901	)	-0.2021	(	0.1929	)
Quadratic	-0.1330		(	0.0936	)	0.3044		(	0.3419	)	-0.2552	**	(	0.1252	)	-0.1990	(	0.2929	)
Cubic	-0.1938		(	0.1245	)	0.6202		(	0.5643	)	-0.3467	**	(	0.1713	)	-0.5656	(	0.4018	)
Individual planning hours have increased																		
Linear	-0.0591		(	0.0487	)	-0.0315		(	0.1396	)	-0.1172	*	(	0.0639	)	-0.1128	(	0.1313	)
Quadratic	-0.0763		(	0.0671	)	0.0932		(	0.2538	)	-0.2077	**	(	0.0889	)	-0.1832	(	0.1982	)
Cubic	-0.1451		(	0.0893	)	0.3490		(	0.4180	)	-0.3307	***	(	0.1214	)	-0.3602	(	0.2727	)
Collaborative preparation hours have increased																		
Linear	0.0110		(	0.0401	)	0.1245		(	0.1147	)	-0.0241		(	0.0536	)	0.1105	(	0.1053	)
Quadratic	-0.0067		(	0.0553	)	0.2976		(	0.2092	)	-0.1093		(	0.0745	)	0.0904	(	0.1593	)
Cubic	0.0554		(	0.0734	)	0.3763		(	0.3436	)	-0.0661		(	0.1018	)	0.0702	(	0.2171	)

Table 3: Falsification Test using Non-Critical Assignment Cut-off Points

	No Fail			Mid-Fail			High-Fail		
	Coef.	Std. Err		Coef.	Std. Err.		Coef.	Std. Err.	
At Critical Point									
At optimal bandwidth	0.0450	(0.0466)		-0.0495	**	(0.0204)	-0.0676	(0.0521)	
Half optimal bandwidth	0.0831	(0.0657)		-0.0433	*	(0.0255)	-0.1306	**	(0.0658)
Twice optimal bandwidth	0.0305	(0.0442)		-0.0438	**	(0.0182)	-0.0119	(0.0432)	

At Critical Point + 0.1											
At optimal bandwidth	-0.0185		(	0.0252	)	0.0213	(	0.0210	)	-0.0259	(0.0625)
Half optimal bandwidth	-0.0313		(	0.0330	)	-0.0069	(	0.0280	)	-0.0853	(0.0848)
Twice optimal bandwidth	-0.0230		(	0.0212	)	0.0240	(	0.0181	)	0.0092	(0.0564)
At Critical Point – 0.1											
At optimal bandwidth	0.1742		(	0.1620	)	0.0419	(	0.0320	)	-0.0249	(0.0431)
Half optimal bandwidth	0.7345	***	(	0.0619	)	0.0114	(	0.0398	)	-0.0447	(0.0480)
Twice optimal bandwidth	0.1224		(	0.1160	)	0.0346	(	0.0307	)	-0.0339	(0.0396)

*Note: Standard errors in parentheses. Bandwidth determination is by the Imbens-Kalyanaraman algorithm. *** denotes an estimate significant at the 1% level; ** the 5% level; * the 10% level*

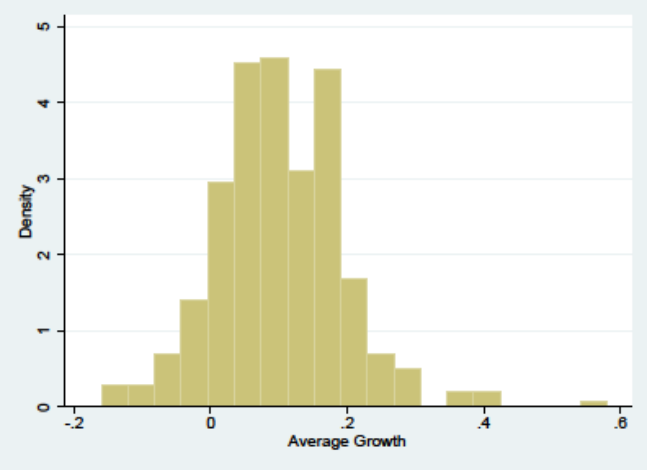
Table 4: Difference between 2008 and 2006 WCS as Dependent Variable

Growth of % Agree	Coef.	Std. Err.
There is an atmosphere of trust and mutual respect		
At optimal bandwidth	0.1391	(0.2221)
Half optimal bandwidth	0.3566	(0.3065)
Twice optimal bandwidth	0.0908	(0.1688)
The school leadership consistently supports teachers		
At optimal bandwidth	0.0715	(0.1793)
Half optimal bandwidth	0.1940	(0.2521)
Twice optimal bandwidth	0.0310	(0.1499)
Teachers are involved in decision making about ed. issues		
At optimal bandwidth	0.3496*	(0.1913)
Half optimal bandwidth	0.3632	(0.2421)
Twice optimal bandwidth	0.2778	(0.1774)
Teachers trusted to make decisions about instruction		
At optimal bandwidth	0.2036	(0.1720)
Half optimal bandwidth	0.3066	(0.2223)

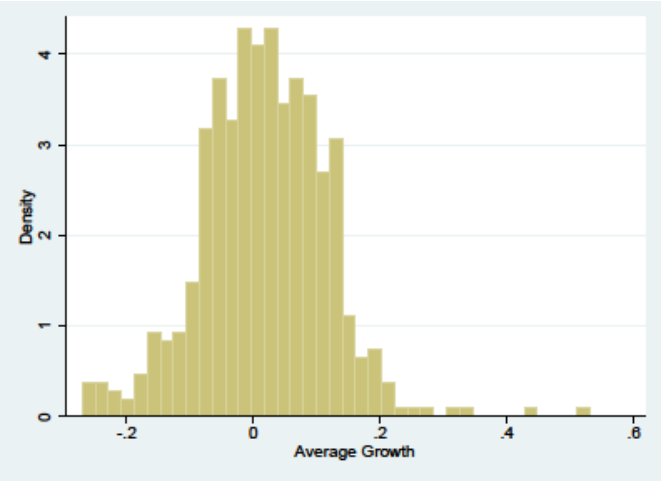
Twice optimal bandwidth	0.1748	(0.1466)

Figure 1: Density of the Running Variable at No, Mid-, High-Fail Schools.

No Fail:



Mid Fail:


Density
0
1
2
3
4
-.2
0
.2
.4
.6
Average Growth

High Fail:

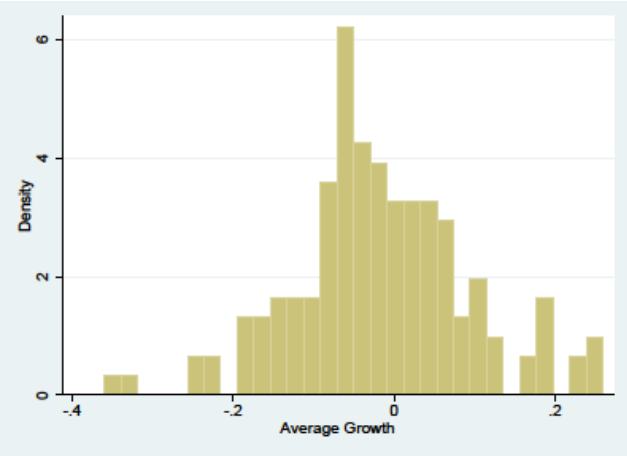
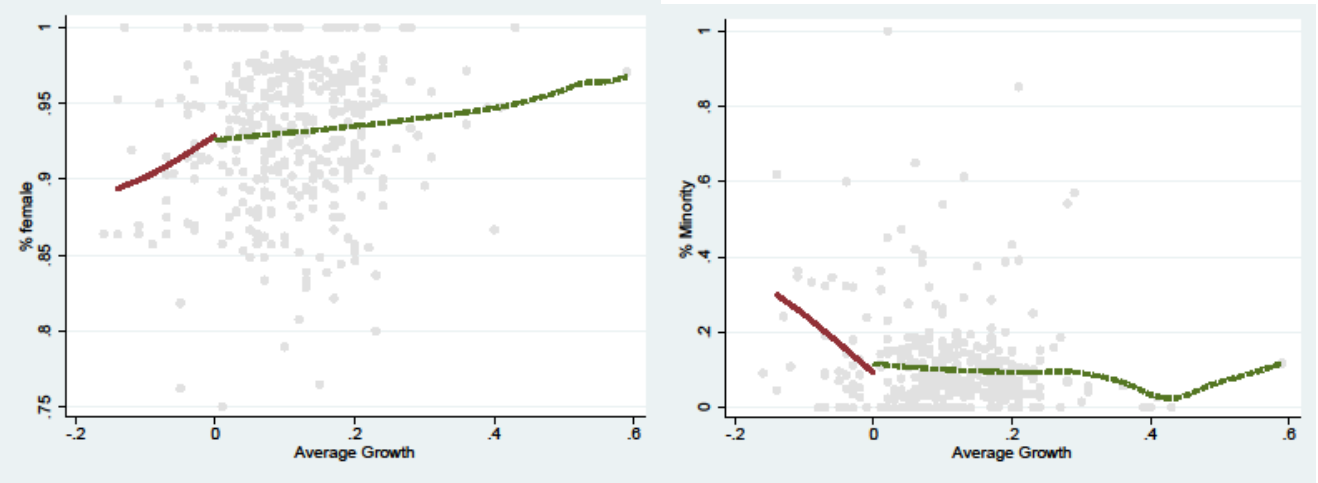
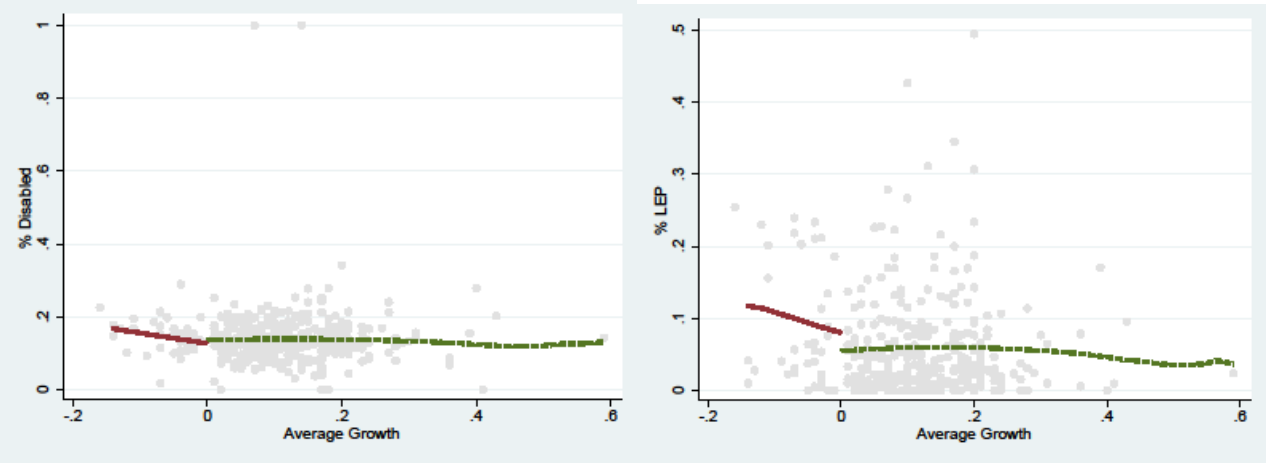

Density
0
2
4
6
-.4
-.2
0
.2
Average Growth

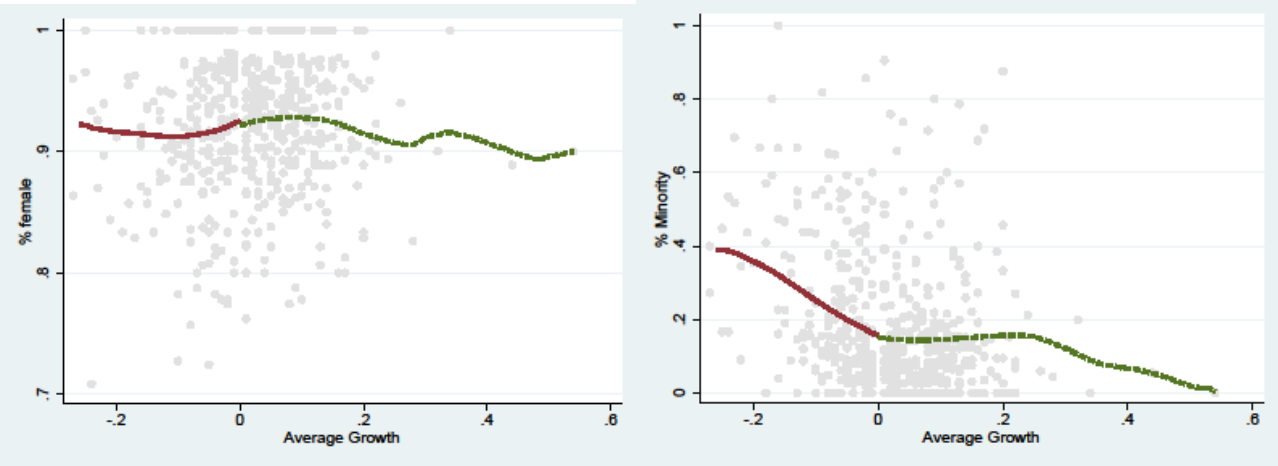
Figure 2: Placebo Regressions at No, Mid-, High-Fails Schools.

No Fails:

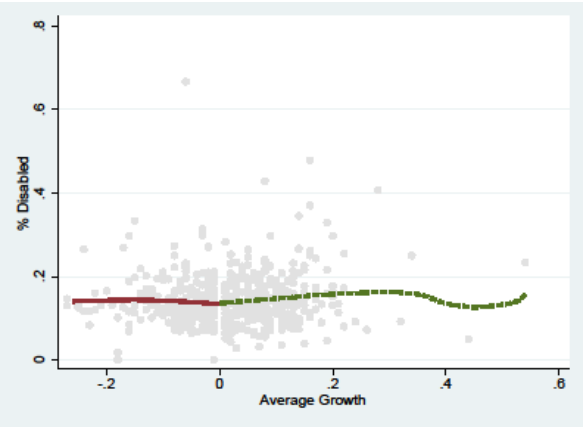


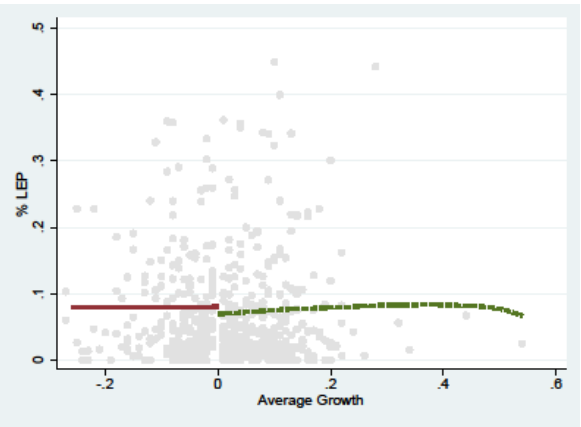


Mid-Fails


% female
.7
.8
.9
1
-.2
0
.2
.4
.6
Average Growth

% Minority
0
.2
.4
.6
.8
1
-.2
0
.2
.4
.6
Average Growth


% Disabled
0
.2
.4
.6
.8
-.2
0
.2
.4
.6
Average Growth


% LEP
0
.1
.2
.3
.4
.5
-.2
0
.2
.4
.6
Average Growth

High-Fails

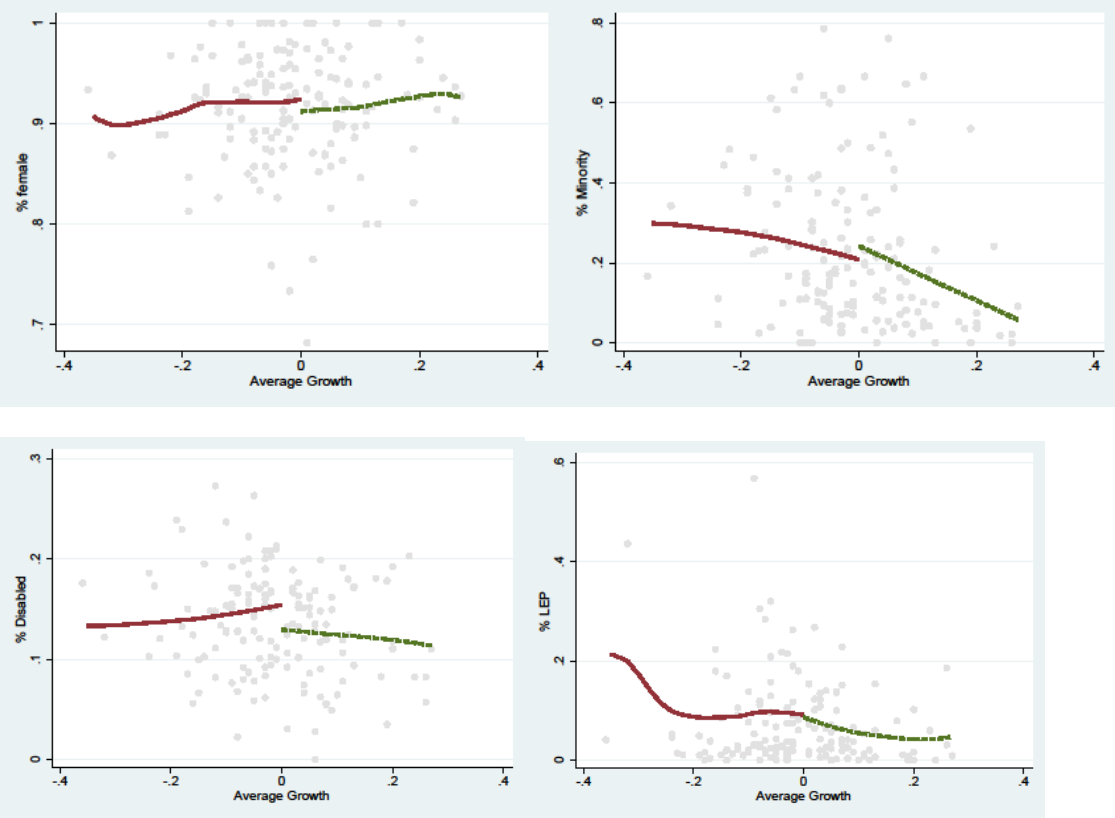
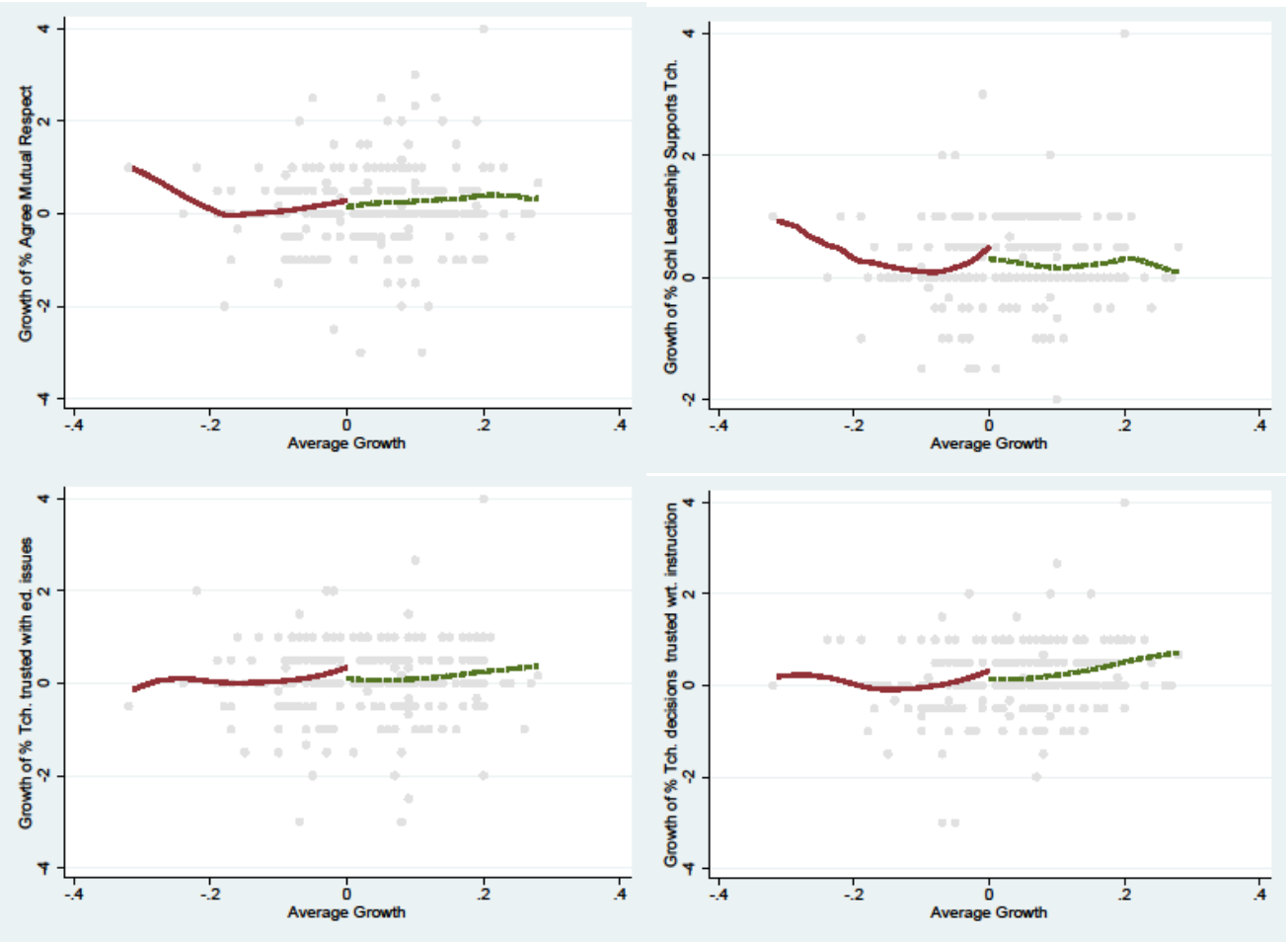


Figure 3: Difference between 2008 and 2006 WCS as Dependent Variable


Growth of % Agree Mutual Respect
Growth of % Schl Leadership Supports Tch.
Growth of % Tch. trusted with ed. issues
Growth of % Tch. decisions trusted wrt. instruction
Average Growth
-.4
-.2
0
.2
.4
-4
-2
0
2
4