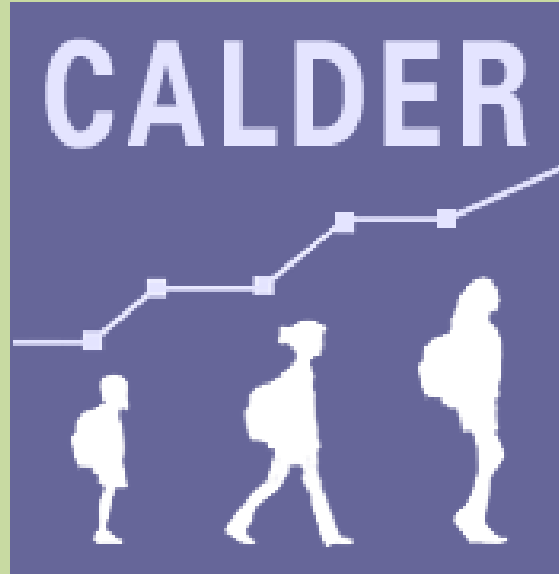


National Center for Analysis of Longitudinal Data in Education Research



Principal Effectiveness and Leadership in an Era of
Accountability: What Research Says

3rd Annual CALDER Conference

December 11, 2009

School Principals and School Performance



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CALDER, 9 December 2009



Overview of our project



Interested in impact of school principals on school performance:

School principals:

Pre-principal characteristics (e.g., education)

Principal characteristics (e.g., experience)

Principal training and PD programs

School performance:

Student achievement, absences, suspensions

Teacher absences and turnover

Two strands to our project



(1) Non-experimental:

Control for student characteristics and school fixed effects

-> Impact of different principals in same school

(2) Quasi-experimental:

Analyze 1991 “retirement incentive program”

Caused retirement of 25% of NYC principals

-> Impact of principal retirement and transition to new principal?



Three non-experimental specifications:

(1) Basic: include student controls (e.g., poverty), zip code “fixed effects”

-> compare principals in similar schools in same neighborhood

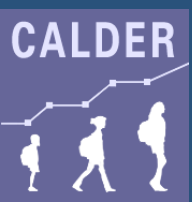
(2) Preferred: also include school fixed effects

-> compare principals in same schools

(3) Extended: includes school-by-principal fixed effects

-> compare same principals in same school over time

(use to examine principal experience, Cahn Fellows program)





Data used in our project



(1) Principals (1982-2007)

Full employment history, college/graduate degrees/institutions

Training/PD programs (APP, Cahn Fellows)

(2) Students (grades 3-8, 1998-9 – 2006-7)

Achievement, absences, suspensions (used as outcomes)

Demographics, program participation (used as controls)

(3) Teachers (1998-9 – 2006-7)

Absences (voluntary days), retention (within school, city)

Baseline achievement results



Note: achievement is relative within NYC (z-scores); absolute achievement (scaled scores) rose steadily in NYC over this period

	Math Test Scores		English Test Scores	
Years as Assistant Principal (current school)	0.005* (0.002)	0.000 (0.001)	0.004* (0.002)	-0.001 (0.001)
Years as Teacher (current school)	0.002+ (0.001)	-0.000 (0.001)	0.002* (0.001)	-0.000 (0.001)
1 Year as Principal	0.009+ (0.005)	0.007* (0.004)	0.002 (0.004)	0.001 (0.003)
2 Years as Principal	0.027* (0.006)	0.023* (0.005)	0.012* (0.005)	0.009* (0.004)
3 Years as Principal	0.038* (0.007)	0.035* (0.006)	0.017* (0.007)	0.013* (0.005)
4 Years as Principal	0.039* (0.008)	0.037* (0.006)	0.025* (0.008)	0.020* (0.006)
5 or More Years as Principal	0.061* (0.009)	0.039* (0.006)	0.048* (0.009)	0.026* (0.005)
Cahn Fellow (Pre-selection)	0.110* (0.028)	0.003 (0.024)	0.109* (0.026)	0.016 (0.015)
Cahn Fellow (Post-selection)	0.189* (0.034)	0.038 (0.029)	0.174* (0.035)	0.039+ (0.020)
Zip Code Fixed Effects	Y		Y	
School Fixed Effects		Y		Y



Other student outcomes



	Absences		Suspensions/100	
Years as Assistant Principal (current school)	-0.018 (0.020)	-0.003 (0.018)	-0.001* (0.000)	-0.001+ (0.000)
Years as Teacher (current school)	-0.009 (0.011)	-0.003 (0.009)	-0.000* (0.000)	-0.001+ (0.000)
1 Year as Principal	-0.093 (0.061)	-0.107* (0.052)	0.000 (0.002)	-0.001 (0.002)
2 Years as Principal	-0.185* (0.072)	-0.183* (0.062)	-0.000 (0.002)	-0.002 (0.002)
3 Years as Principal	-0.143 (0.090)	-0.166* (0.073)	-0.005* (0.002)	-0.007* (0.002)
4 Years as Principal	-0.291* (0.094)	-0.264* (0.078)	-0.004 (0.002)	-0.005+ (0.003)
5 or More Years as Principal	-0.411* (0.098)	-0.240* (0.069)	-0.005* (0.002)	-0.004* (0.002)
Cahn Fellow (Pre-selection)	-0.744* (0.210)	-0.058 (0.151)	-0.005 (0.004)	-0.007 (0.008)
Cahn Fellow (Post-selection)	-0.966* (0.290)	-0.287 (0.200)	-0.002 (0.008)	-0.003 (0.011)
Zip Code Fixed Effects	Y		Y	
School Fixed Effects		Y		Y

Robustness to principal-school fixed effects



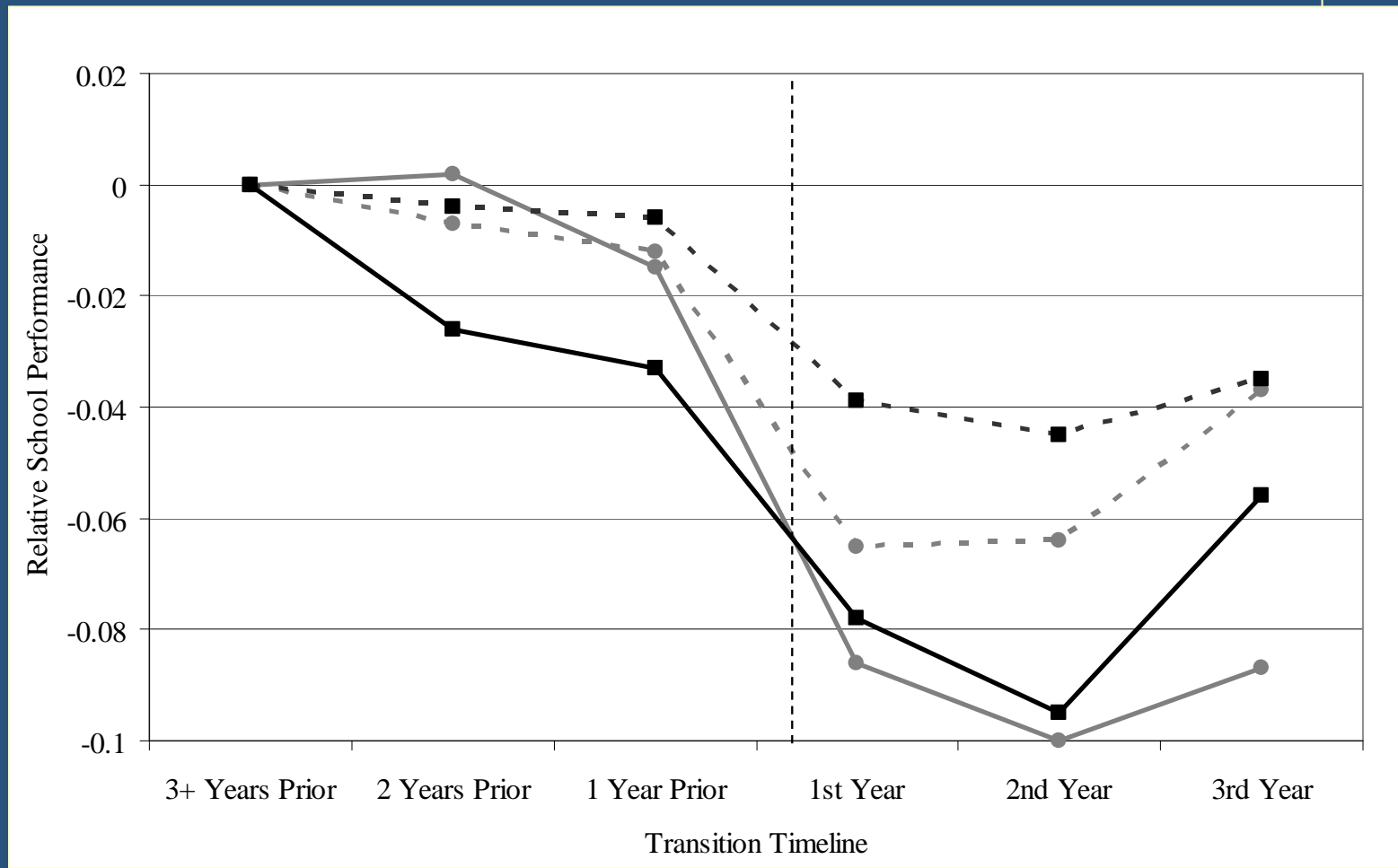
	Math		English Test Scores		Absences	
	Test Scores					
1 Year as Principal	0.007* (0.004)	0.002 (0.004)	0.001 (0.003)	-0.001 (0.004)	-0.107* (0.052)	-0.070 (0.050)
2 Years as Principal	0.023* (0.005)	0.014* (0.007)	0.009* (0.004)	0.003 (0.006)	-0.183* (0.062)	-0.116 (0.072)
3 Years as Principal	0.035* (0.006)	0.022* (0.009)	0.013* (0.005)	0.001 (0.008)	-0.166* (0.073)	-0.130 (0.096)
4 Years as Principal	0.037* (0.006)	0.029* (0.012)	0.020* (0.006)	0.011 (0.011)	-0.264* (0.078)	-0.257* (0.118)
5 or More Years as Principal	0.039* (0.006)	0.030+ (0.016)	0.026* (0.005)	0.014 (0.014)	-0.240* (0.069)	-0.244 (0.149)
Cahn Fellow (Post-selection)	0.038 (0.029)	0.028 (0.017)	0.039+ (0.020)	0.024 (0.018)	-0.287 (0.200)	-0.325+ (0.170)
School Fixed Effects	Y		Y		Y	
Principal-School Fixed Effects		Y		Y		Y

Focusing on prior experience for new principals

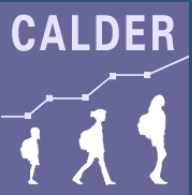


	Math Test Scores		English Test Scores		Student Absences		Suspensions Per 100 Students	
<i>First 2 Years as Principal:</i>								
Ever Assistant Principal in Current School	0.024* (0.010)		0.026* (0.008)		-0.149 (0.101)		-0.007* (0.003)	
Years as Assistant Principal in Current School	0.003* (0.001)		0.001 (0.001)		-0.012 (0.018)		-0.001 (0.001)	
Ever Teacher in Current School	-0.012 (0.013)		-0.017+ (0.010)		-0.109 (0.132)		-0.009* (0.005)	
Years as Teacher in Current School	-0.000 (0.001)		-0.001 (0.001)		-0.008 (0.010)		-0.001* (0.000)	
Observations	3,690,658	3,690,658	3,367,302	3,367,302	3,851,268	3,851,268	3,851,268	3,851,268
Adjusted R2	0.34	0.34	0.34	0.34	0.15	0.15	0.04	0.04

Principal transitions and the Aspiring Principals Program



● Math Scores -- APP Principal Transitions ■ English Scores -- APP Principal Transitions
 -●- Math Scores -- Non-APP Transitions -■- English Scores -- Non-APP Transitions

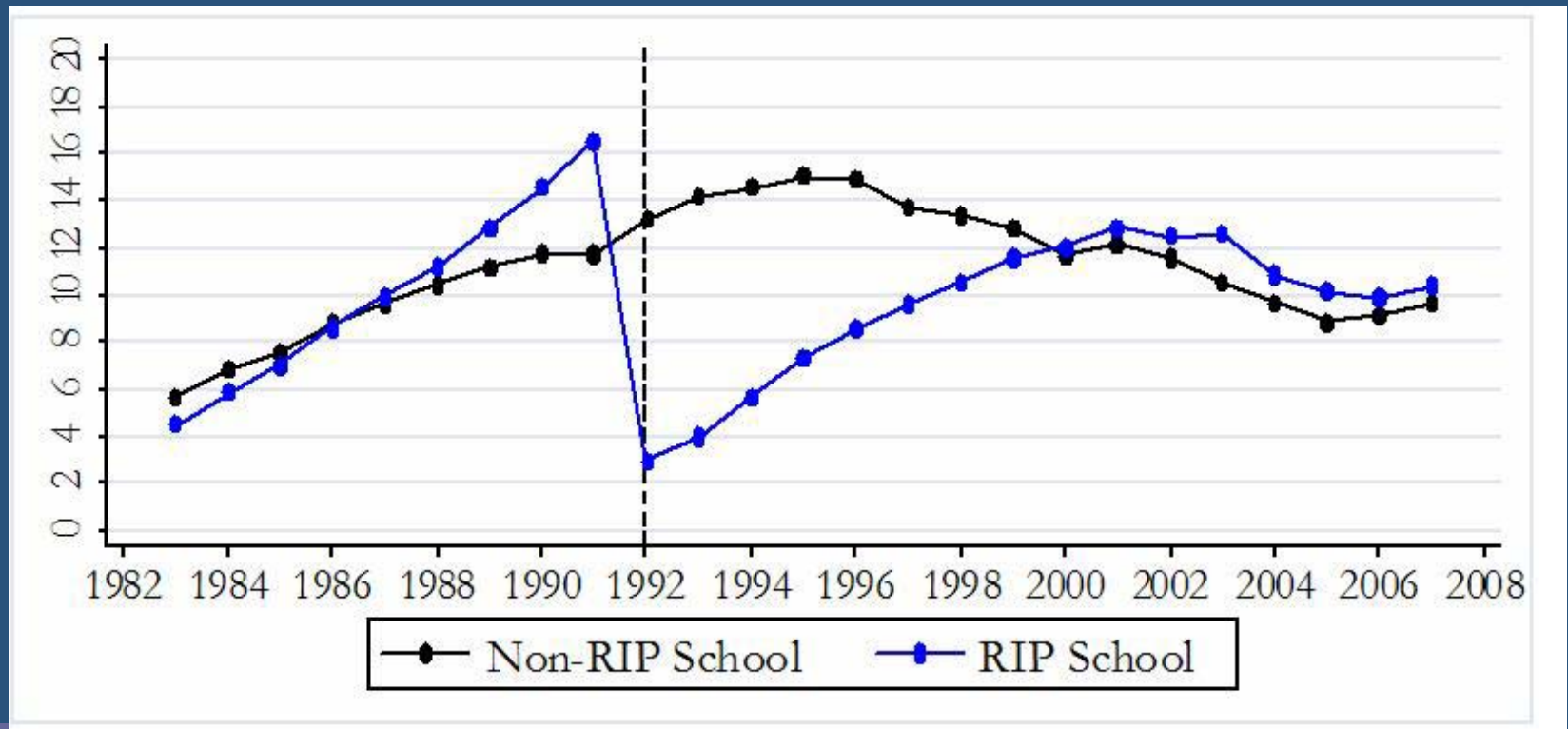


Quasi-experimental analysis (ongoing)



Examine the importance of experience using a natural experiment
1991 NYC Retirement Incentive Program (“RIP”)

Compare experience at RIP schools (25%) and non-RIP schools (75%)



Did the drop in experience hurt RIP school performance?



Summary

(1) School performance weakly related to “pre-principal” characteristics

(2) School performance strongly related to principal experience

-> Using retirement incentive program to check experience findings

(3) Mixed evidence on training/development programs

Cahn Fellows chosen from high performing schools

APP graduates placed in schools with low (declining) performance

-> Hard to separate causal effects from selection bias

We plan to add data to 2008-9 to examine longer run trends



Policy implications



(1) School performance weakly related to “pre-principal” characteristics

-> Leadership skills may be hard to predict from a resume

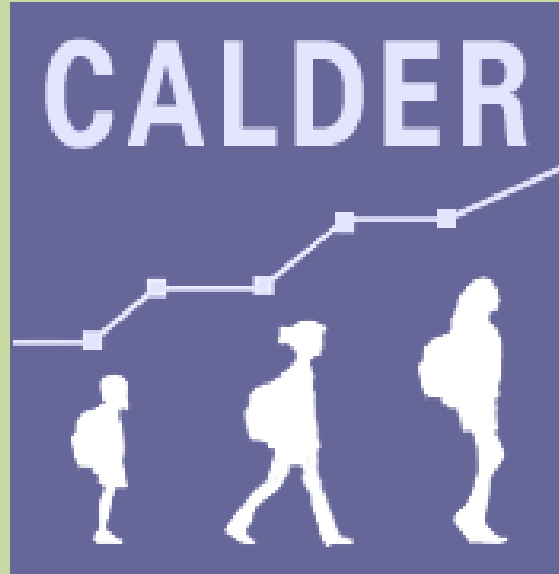
(2) School performance strongly related to principal experience

-> Principal retirement costly, new principal assignment important

(3) Mixed evidence on training/development programs

-> More research-friendly assignment procedures?

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