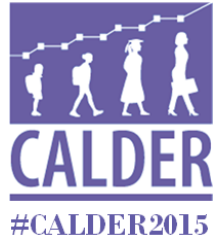


# Performance screens for school improvement: Teacher tenure reform in New York City



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# Teacher tenure

- Tenure history
  - NJ first tenure law 1909; NY 1917; CA 1921; MI, PA WI 1937
  - 48 states
  - Contentious then, contentious now
- Policy on two tracks
  - Eliminate tenure
    - GA: eliminated 2001, reinstated 2003
    - ID: passed 2011, voters repealed 2012
    - SD: passed 2012, voters upheld, will eliminate by 2016
    - FL: eliminated in 2011; NC: will eliminate by 2018
  - Make more rigorous
    - More than half the states require meaningful evaluation
    - 20 states require student test performance
    - 25 states have multiple categories for evaluation

# New York City tenure policy

Tenure decisions: approve, extend or deny  
(principal recommends, superintendent decides)

- AY 2009-10
  - Classroom obs, evals of teacher work products, annual S/D/U ratings
  - Teacher data reports (value-added measures for some teachers); in-class assessments aligned with NY standards
  - District guidance: “*tenure in doubt*”, “*tenure likely*”; rationale for cases that countered district guidance
- AY 2010-11
  - All teachers rated as highly effective, effective, developing, ineffective
  - District performance flags, but no guidance
- AY 2011-12
  - Same as before except value-added measures not available in time
- AY 2012-13
  - Same as before with State provided growth scores and growth ratings replacing local value-added measures

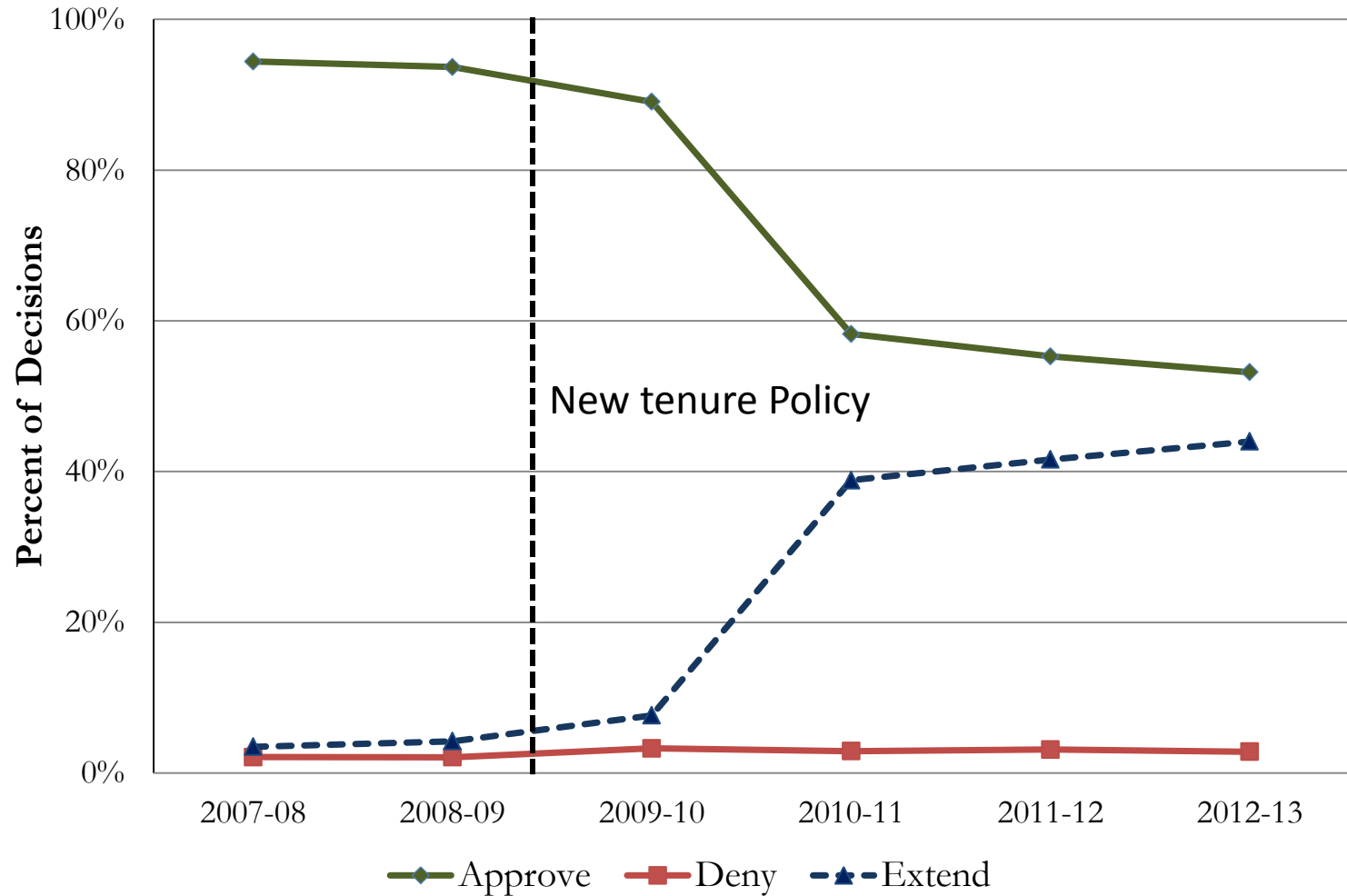
# Tenure reform research questions

- Tenure decisions
  - How did tenure rates change following reform?
  
- Workforce composition
  - Are teachers with certain attributes more likely to be affected by the policy?
  - How did the composition of those continuing to teach in NYC change following reform?
  
- School differences
  - How have schools varied in their tenure decisions and the subsequent behaviors of their teachers?

# Data

- All tenure NYC decisions 2007-08 to 2012-13
  - Outcomes of each decision
  - Principal ratings of teachers for tenure
  - Official guidance from NYCDOE for decision
  - Variety of other data related to tenure decision
  
- Administrative data
  - Teacher: race/ethnicity, value-added, SAT scores, preparation route
  - Students: achievement, race/ethnicity, poverty
  - School: AYP status, grade level, enrollment

# How did tenure rates change following reform?




# Which teachers were affected by the policy?

## Attributes of teachers by tenure decision, 2010-11 to 2012-13

Tenure Decision	VAM ELA*	VAM Math*	SAT Math	SAT Verb	LAST Exam	U Rated	D Rated	Low Attd
Approve	0.081	0.248	} 38% of a SD in teacher effectiveness	}	}	5.7	22.2	37.1
Extend	-0.138	-0.129				52.1	66.7	56.2
Deny	-0.115	-0.740	469	490	248	42.2	11.1	6.7

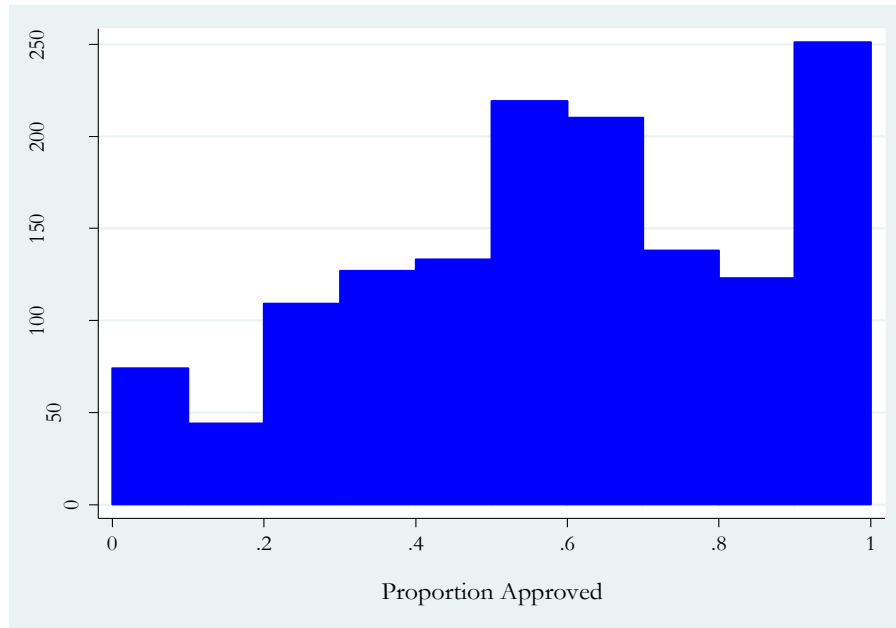
\* Value added results for only 2010-11.

 Extend v. Approve:  $p < 0.05$

 Extend v. Deny:  $p < 0.05$

# How have schools varied in tenure decisions?

Differences in schools' use of extensions,  
2009-10 to 2012-13 (N ≥ 4, 80% of schools)



... but more than 70 percent of schools approve fewer than 80 percent of teachers.

Tenure Decision	White (%)	Hispanic (%)	Black (%)	Home Lang Eng (%)	Free Lunch (%)	Reduced Lunch (%)	Math Achieve (z-score)	ELA Achieve (z-score)
Approve	13.8	44.4	27.4	56.6	72.3	4.4	0.081	0.086
Extend	8.9	44.6	35.1	60.3	77.3	4.1	-0.066	-0.042
Deny	7.1	43.5	39.6	63.3	77.8	4.2	-0.152	-0.093

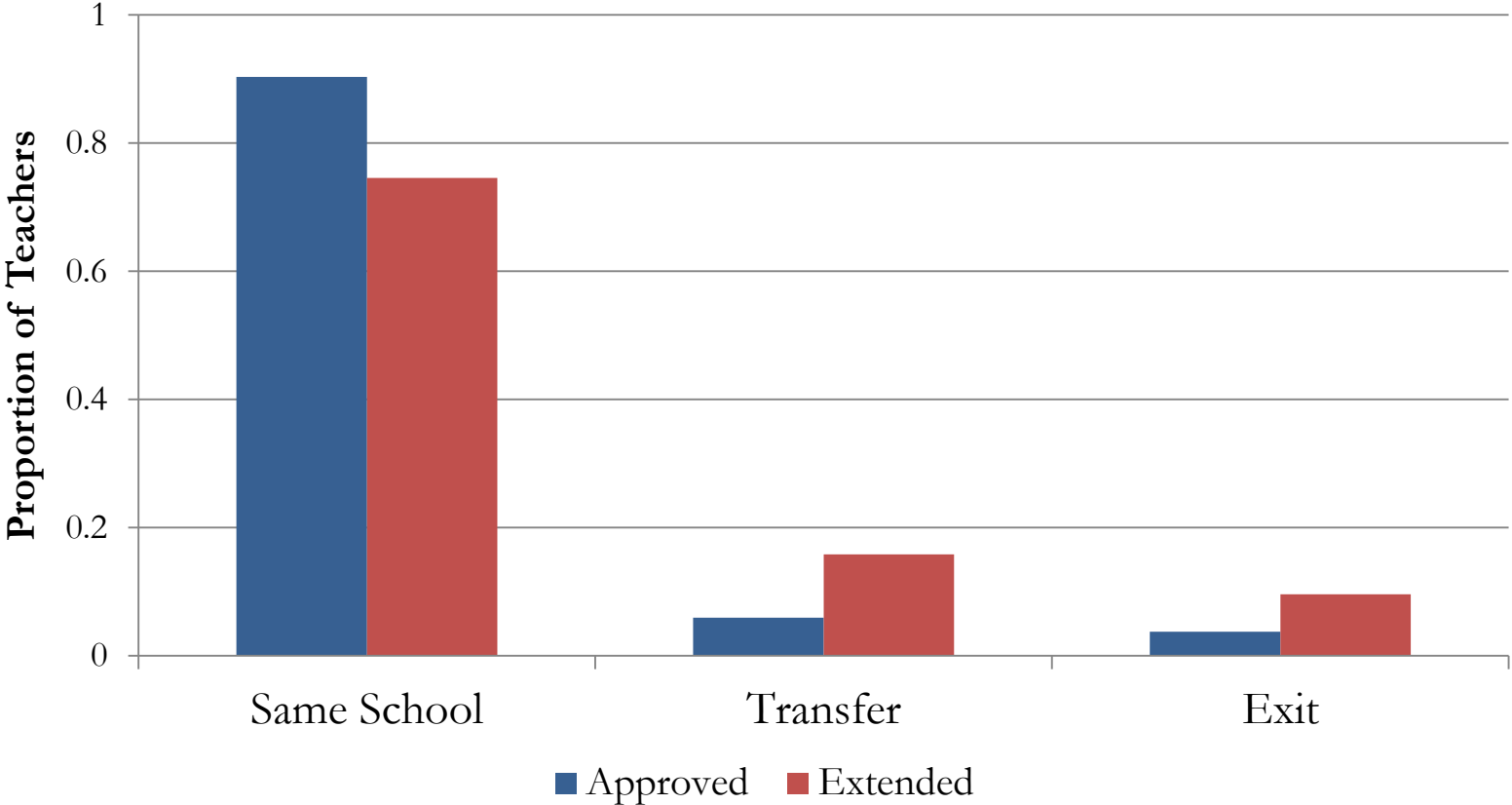
Extend v. Approve: p<0.01

Extend v. Deny: p<0.05



# How did the composition of continuing teachers change following reform?

## Attrition behavior of extended teachers the following year, 2010-11 & 2011-12



# How did the composition continuing teachers change following reform?

## Teacher attrition behavior and the relationship with extensions, 2010-11 & 2011-12

	Transfers			Exit		
	(1) <sup>a</sup>	(2)	(3)	(4) <sup>a</sup>	(5)	(6)
Extend	0.145** (15.21)	0.124** (13.04)	0.088** (5.24)	0.057** (9.38)	0.055** (9.07)	0.038** (3.50)
School Fixed Effect		More than a 50% increase in transfer and exit rates				✓
Principal Effectiveness Ratings	✓					✓
Observations	6,351	8,855	7,941	6,351	8,855	7,941

Notes: \*\* p<.01. T-statistics in parentheses. Standard errors clustered at school level. All regressions include only teachers with Extend or Accept tenure outcomes.

<sup>a</sup> Models also includes school-level student variables: math and ELA achievement, race/ethnicity, free/reduced-price lunch eligibility.

# Which teachers replaced extended leavers?

## Mean School Difference in Teacher Effectiveness between Proxy Replacement and Extended Leavers in Schools with Extended Leavers, 2010-11 and 2011-12

Extended Leaver Status	Principal Final		Value-Added	
	Effectiveness Rating (%)		ELA	Math
	<i>Highly Effective</i>	<i>Effective</i>		
All Extended leavers	14.3***	30.7***	0.197**	0.119
Extended transfers	12.0***	30.2***	0.127	0.181*
Extended exiters	16.2***	27.6***	0.298*	0.037

*Note.* Proxy replacement teachers are all teachers hired at the school in 2009 and 2010. Only schools with an extended leaving teacher in 2011 or 2012 included in all comparisons. Positive values indicate on average within schools average value for replacement pool exceeds that for the Extended leavers. Comparing extended leavers to proxy replacements: \*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$ .

# Summary

- Tenure outcomes: The percentage of teachers approved for tenure fell from 94% to 56% and the percentage having probationary period extended increased from ~4% to 41%.
- Widespread use: More than 70% of schools approve fewer than 80% of teachers with lower approval rates in schools with fewer white and more black students.
- Improving performance: Extended teachers transfer and voluntarily exit at rates that are more than 50% higher than those approved.
- Linked to performance: Proxy replacements out-perform extended leavers as judged by principals and VAM.

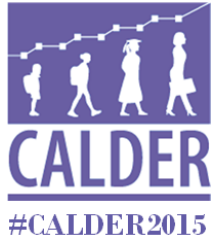
# Next Steps

Tenure reform in NYC is one of several policies available to principals to improve the quality of teaching.

- Tenure reform
- Teacher evaluations
- 80 minute professional development period
- New teacher mentoring

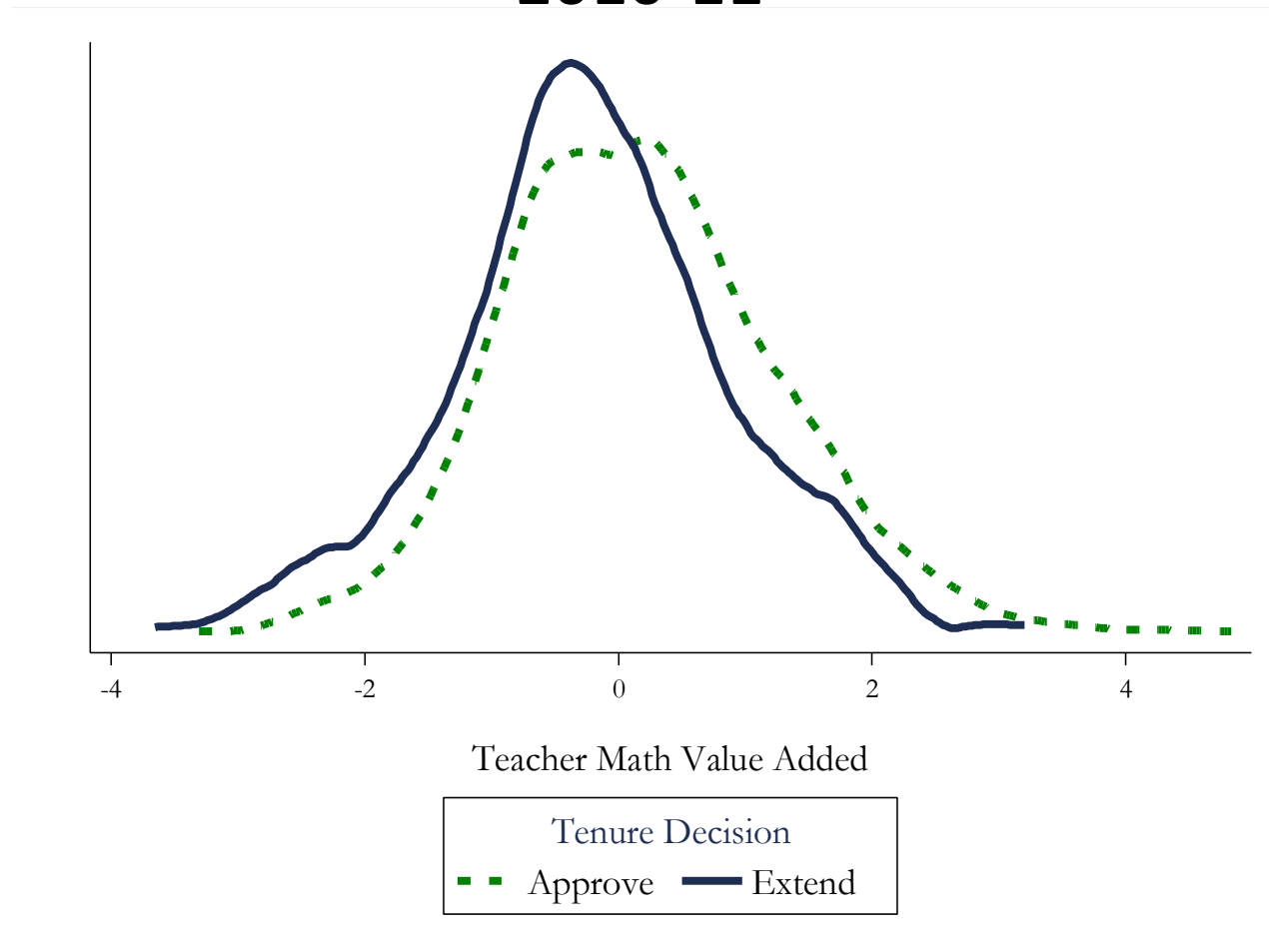
We are exploring the ways in which principals differentially employ these policies to improve early career teacher effectiveness, both through compositional change and improvements in human capital.

# Appendix Slides



# Which teachers were affected by the policy?

Math value added of approved and extended teachers,  
2010-11



# How did the composition continuing teachers change following reform?

## Attributes of extended teachers by attrition behavior, 2010-11 & 2011-12

Attrition Status	VAM	VAM	SAT	SAT	LAST
	ELA	Math	Math	Verbal	Cert Exam
Same School	-0.091~	-0.090	491	495	253**
Transfer	-0.355	-0.421	482	486	253
Exit	-0.332	-0.145	530	539	267

Attrition Status	Preparation Pathway			
	<i>College Rec</i>	<i>NYCTF</i>	<i>TFA</i>	<i>Indiv. Eval.</i>
Same School	77.5	70.9**	53.3**	78.8*
Transfer	16.3	15.6	9.0	17.7
Exit	6.2	13.6	37.7	3.5

Notes: \*\* p<0.01, \* p<0.05, ~ p<0.1 – compares same school to transfer/exit



# Which teachers were affected by the policy?

Tenure decision by final principal effectiveness rating,  
2010-11 to 2012-13

	Ineffective (%)	Developing (%)	Effective (%)	Highly Effective (%)
<b>Approve</b>	0.7	1.8	82.7	93.9
<b>Extend</b>	18.2	96.6	17.1	6.1
<b>Deny</b>	81.1	1.6	0.2	0.0
<b>% teachers</b>	2.3	29.2	42.6	15.3
<b>N</b>	302	3,820	5,568	2,006