

# New York's Property Tax Cap and the Achievement Gap Between Low-Wealth and High-Wealth Districts

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# NYS Property Tax Cap of 2011

Mounting pressure to alleviate tax burden of NYS residents

Motivation

Data and  
Methods

Findings

Discussion

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Methods

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Methods

Findings

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Methods

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## Policy details:

- State enacted tax cap on all local governments, special districts, and school districts
- Limits tax levy increases to either 2% or the inflation rate, whichever is less
- Exempt: Buffalo, Rochester, Syracuse, Yonkers, New York City, who cannot independently levy taxes
- Cap can be overruled through 60% supermajority vote
  - Each year, approximately 20-50 districts attempt a tax cap override, and around 60% succeed
- Taxpayers have saved \$25.6 billion under the cap (Rockefeller Institute, 2019)

## Tax and Expenditure Limits (TEs)



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- TEs effective for reducing local revenue growth and reliance on property taxes (Shadbegian, 1998)
- TEs may adversely impact quality of public education system (Downes & Figlio, 1999)
- Contradictory evidence on whether TEs increase or decrease educational **equity** (Beal, Borg, & Stranahan, 2018)

# Current Study

Motivation

Data and  
Methods

Findings

Discussion

## Research Questions:

- 1 How did the property tax cap affect the **level** of public education quality?
- 2 How did the property tax cap affect the **distribution** of education quality across the state?

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## Distributional Concerns in NYS:

- Local revenue gap: \$8,786 per-pupil in low-wealth districts, \$26,951 in high-wealth districts
- Achievement gap: 2 standard deviation difference in math scores between low- and high-wealth districts

## Defining District Needs and Resources

Motivation

Data and  
Methods

Findings

Discussion

- Needs/resource capacity index measures a district's ability to meet needs of its students with local resources
- Equals ratio of estimated poverty percentage (standardized) to the combined wealth ratio (standardized)
- All districts categorized based on this need to resource capacity (N/RC) index:
  - Low N/RC: Below 20th percentile
  - Average N/RC: Between 20th and 70th percentile
  - High N/RC: Above 70th percentile

- Sample: 663 school districts serving elementary and middle school students
- Time period: 2006 to 2016
- Data sources:
  - Fiscal measures: Office of the NYS Comptroller's Local Government Financial Data; NYSED's Fiscal Profile Reporting System Data
  - Academic and demographic measures: NYSED District Report Cards
  - Allowed property tax levies: FOIL request to Office of the NYS Comptroller
  - County-level economic indicators: US Bureau of Economic Analysis; US Bureau of Labor Statistics

# Measuring Tax Cap Pressure

Motivation

Data and  
Methods

Findings

Discussion

Define the extent to which a school district  $d$  is constrained by the cap in year  $t$ :

- $PredictedLevies_{dt}$  linear forecasted from 2004-2012 period
- $AllowedLevies_{dt} =$   
 $[(Levies_{dt-1} \times TGF_{dt}) - Adjust_{dt-1}] \times AGF_t + Adjust_{dt}$ 
  - TGF = Tax base growth factor
  - AGF = Allowed growth factor
- **Tax cap pressure = percent of predicted levies above allowed levies**



# Estimating Effects of Tax Cap Pressure

Motivation

Data and  
Methods

Findings

Discussion

Dependent variables:

- Revenues: Total, local, state aid, other (federal)
- Academic outcomes: Math and reading performance indices of elementary/middle school students

Model:

- Run OLS regression of dependent variables on district tax cap pressure
- Include district and year fixed effects and district time trends to account for unobservable differences
- Control for student characteristics and local economic indicators

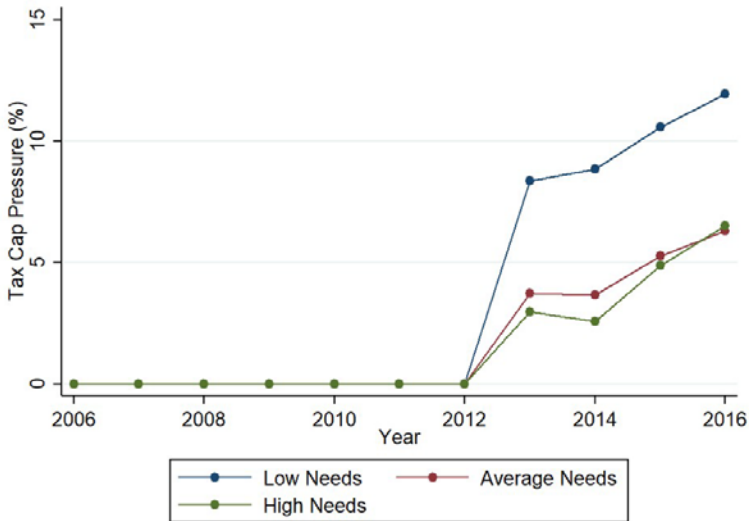
# Summary of Tax Cap Pressure (2006-2016)

Motivation

Data and  
Methods

Findings

Discussion



# Summary of Tax Cap Pressure (2016)

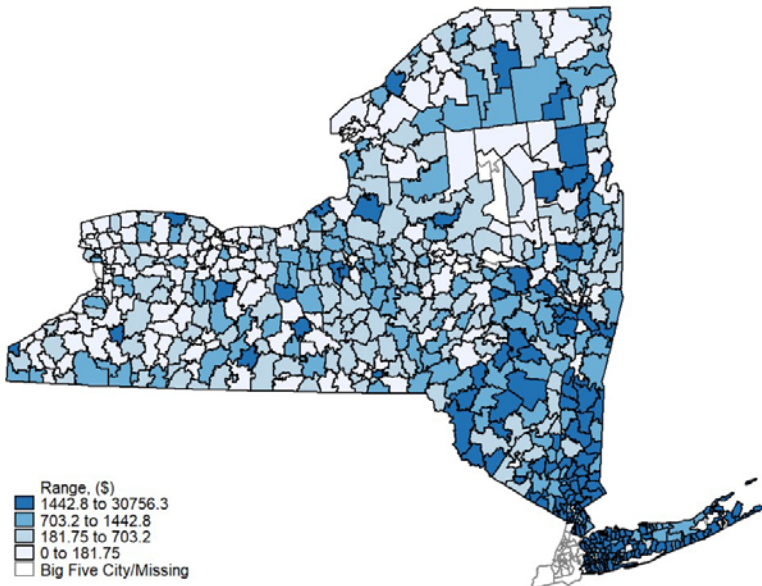
Per-pupil predicted levies above allowed amount

Motivation

Data and  
Methods

Findings

Discussion



# Effects of Tax Cap Pressure on Revenues

Motivation

Data and  
Methods

Findings

Discussion

Measured as thousands of dollars per-pupil

	(1) Local Revenues	(2) State Aid	(3) Other Revenues
Tax Cap Pressure (%)	-0.0236*** (0.007)	0.007*** (0.002)	0.004*** (0.001)
Observations	6,617	6,617	6,617
R-Squared	0.997	0.997	0.980
Control Variables	YES	YES	YES
District Fixed Effects	YES	YES	YES
Year Fixed Effects	YES	YES	YES
District Time Trends	YES	YES	YES

Robust standard errors in parentheses, clustered by school district

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

# Effects of Tax Cap Pressure on Revenues

10% increase in tax cap pressure

→ \$236 loss in per-pupil local revenues

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# Effects of Tax Cap Pressure on Revenues

10% increase in tax cap pressure

→ per-pupil gain \$71 in state aid, \$45 in other revenue

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# Effects of Tax Cap Pressure on Revenues

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→ aggregate \$120 loss in total per-pupil revenues

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# Effects of Tax Cap on Academic Performance

Measured in standard deviation units

	(1)	(2)
	Math Performance	Reading Performance
Tax Cap Pressure (%)	-0.0039**** (0.0015)	-0.0032*** (0.0016)
Observations	6,617	6,617
R-Squared	0.902	0.938
Control Variables	YES	YES
District Fixed Effects	YES	YES
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# Effects of Tax Cap on Academic Performance

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→ loss of 0.03 standard deviations in math and reading scores

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	Math Performance	Reading Performance
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# Effects of Tax Cap on Academic Performance

10% increase in tax cap pressure

→ loss of  $\approx \frac{1}{10}$  of average grade level gain in math and reading

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Tax Cap Pressure (%)	-0.0039**** (0.0015)	-0.0032*** (0.0016)
Observations	6,617	6,617
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# Effects of Tax Cap on Academic Performance

\$1,000 per-pupil loss in revenues from tax cap

→ reduction of  $> \frac{1}{2}$  of grade level gain in math and reading

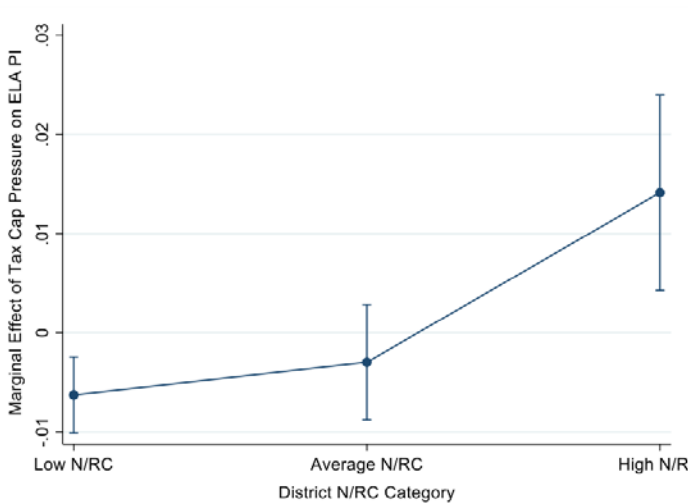
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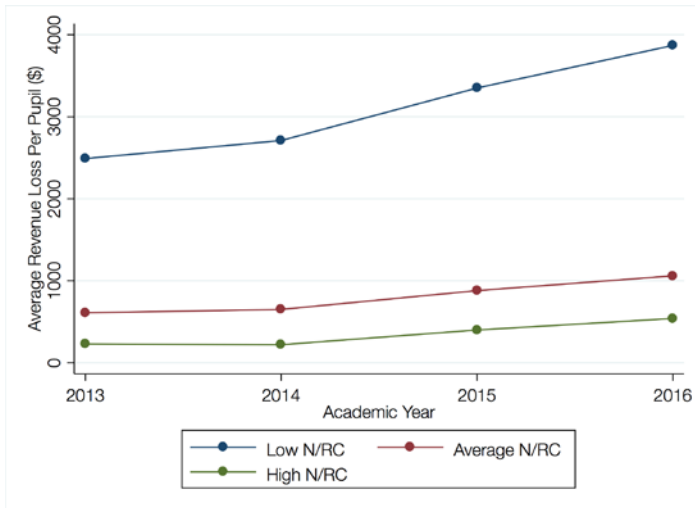
# Differential Effects by District N/RC Category

Effects of tax cap pressure on reading performance



# Average Revenue Loss by District N/RC Category

Average (predicted - allowed levies), by district type and year



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Data and  
Methods

Findings

Discussion

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- The 2011 cap benefitted NY residents through substantial property tax reductions

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Methods

Findings

Discussion

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Motivation

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Methods

Findings

Discussion

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- However, significant consequences for education funding and for student learning

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Motivation

Data and  
Methods

Findings

Discussion

- The 2011 cap benefitted NY residents through substantial property tax reductions
- However, significant consequences for education funding and for student learning
- High-wealth districts most adversely affected
- Low-wealth districts buffered from adverse effects:
  - Low reliance on property revenues
  - Compensatory increases in state aid



# Policy Discussion

- TELs under school finance equalization systems appear to be progressive

Motivation

Data and  
Methods

Findings

Discussion

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Methods

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- TELs under school finance equalization systems appear to be progressive
- It is more challenging to equalize local revenues than to compensate state revenues, but this is a viable option

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Motivation

Data and  
Methods

Findings

Discussion

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- An ideal policy would reduce socioeconomic achievement gaps through raising the lower end of the distribution, not lowering the higher end of the distribution

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Data and  
Methods

Findings

Discussion

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- It is more challenging to equalize local revenues than to compensate state revenues, but this is a viable option
- An ideal policy would reduce socioeconomic achievement gaps through raising the lower end of the distribution, not lowering the higher end of the distribution
- Important to weigh the benefits of a tax cap to taxpayers with the costs to public service delivery

# Thank you!

Motivation

Data and  
Methods

Findings

Discussion

We welcome and appreciate questions and feedback.

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