

School Choice and School  
Accountability: Evidence from a  
Private Voucher Program in  
Milwaukee, Wisconsin  
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# Background

- Fair amount of evidence for positive accountability impacts in U.S. public schools
  - (e.g. Dee and Jacob 2011; Jacob 2005; Hanushek and Raymond 2005; Carnoy and Loeb 2002; Krieg 2008; Ladd and Lauren 2010; Neal and Schanzenbach 2010; Figlio and Rouse 2005; Chakrabarti 2007; West and Peterson 2006; Rouse et al. 2007; Rockoff and Turner 2010; Winters and Cowen 2012)

# Background

- Voucher programs also well-studied (e.g. Barnard et al. 2003; Green, Peterson and Du 1999; Howell et al. 2006; Wolf et al. 2011; Belfield 2005; Witte 2000; Metcalf 2003; Lara, Mizala and Repetto 2011; Rouse 1998; Figlio, Hart and Metzger 2008)
- These choice programs seem increasingly prevalent nationwide, as is accountability push, a natural question is:
  - *Whether and to what extent public-style accountability programs impact these choice providers*

# Milwaukee, WI (USA)

- MILWAUKEE PARENTAL CHOICE PROGRAM (MPCP)
- Oldest and largest urban voucher program in United States
  - Approx. 20,000 students in 2011-12 (25 percent the size of Milwaukee Public Schools)
- Focus of much early evidence on voucher outcomes, some conflicting (e.g. Witte, Rouse, Peterson studies)
  - But these were based on data from early 1990s

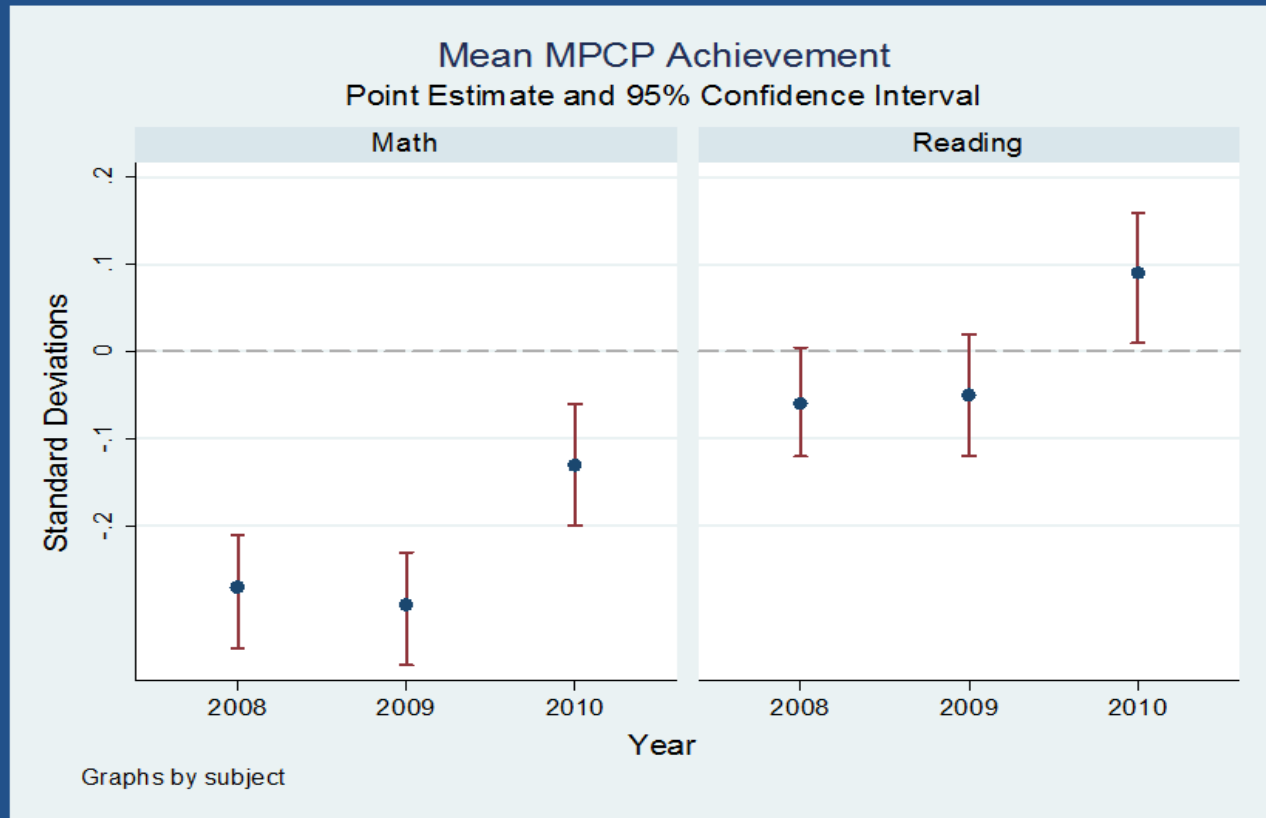
# Milwaukee, WI (USA)

- 2005: program reauthorized and cap raised to 22,500 (still undersubscribed)
  - New 5-year evaluation required
  - Track MPCP and “comparable” panel of MPS students from 2006-07 to 2010-11.
  - Until 2010, no evidence of differences in achievement growth
    - Based on observational, matched designs (Witte, et al. 2012)

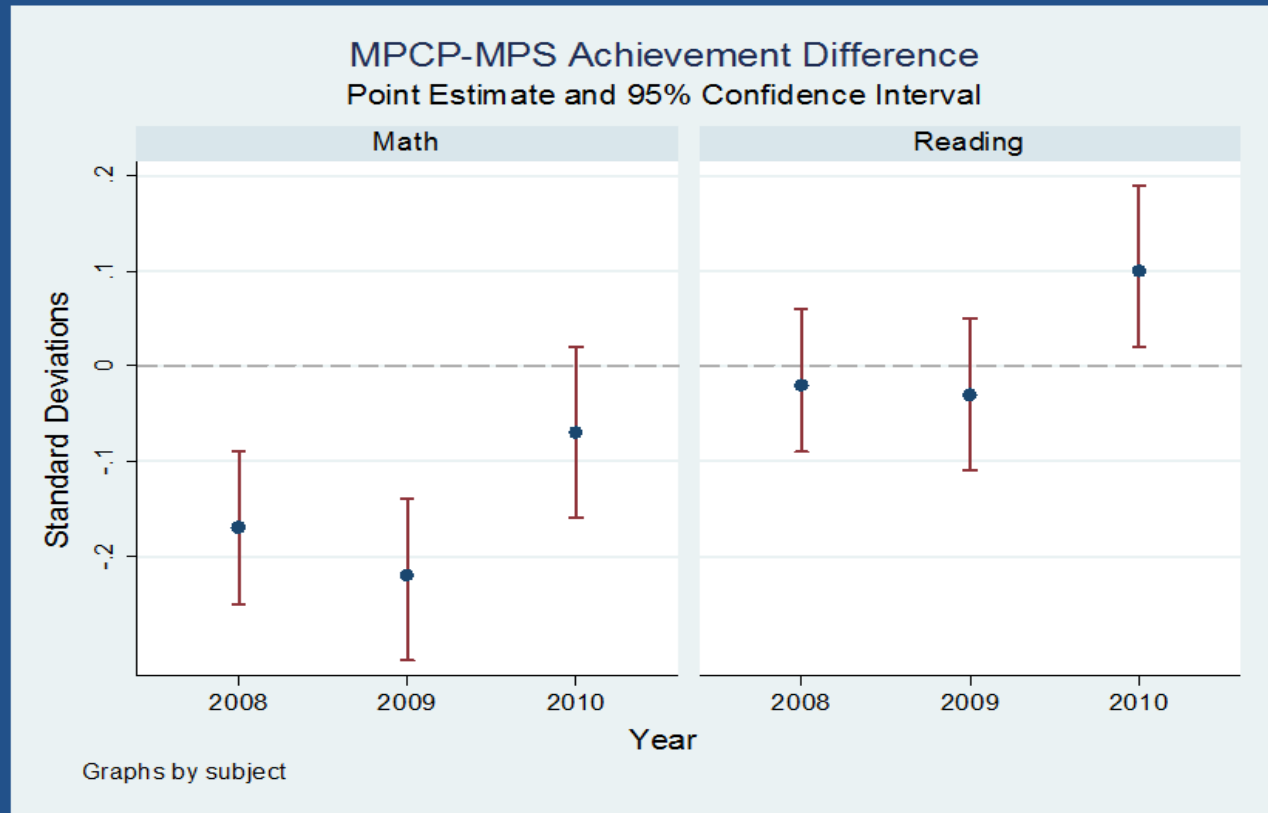
# New Accountability Law

- 2009 reauthorization takes evaluation component far further
- Similar in spirit to NCLB (annual testing, teacher certification, reporting);
  - Results reported for all 100+ schools by name (this was prohibited before);
  - Local attention intense
  - Took effect with 2010-2011 academic year.
  - Dependence of private schools on voucher money implies “ultra-high stakes” for low performers

# Descriptive Impact



# Descriptive Impact





# Models

- Two different comparisons:
  1. Relative to MPCP student achievement before accountability policy
  2. Relative to MPS students who had something all along

# Models

- To consider question 1, we estimate interrupted time-series models:

- Student FE:

$$A_{it} = 2010_i\pi_1 + 2009_i\pi_2 + \varphi_i + \varepsilon_{it}$$

- And Growth:

$$A_{it} = 2010_i\pi_1 + 2009_i\pi_2 + A_{is,t-1}\beta_1 + X_{it}\beta_2 + \varepsilon_{it}$$

# Models

- To answer question 2, a diff-in-diff

$$A_{it} = (2010_i * MPCP)\delta_1 + 2010_i\delta_2 + MPCP\delta_3 + X_{it}\beta_1 + \varepsilon_{it}$$

- We also re-specify all of the above to check against 2008-9 differences.

# Primary Results

VARIABLES	Reading		Math	
	Student FE	Student VA	Student FE	Student VA
<b>2010 dummy</b>	<b>0.171***</b> (0.030)	<b>0.187***</b> (0.036)	<b>0.178***</b> (0.026)	<b>0.218***</b> (0.036)
<b>2009 dummy</b>	-0.002 (0.026)	-0.023 (0.036)	-0.026 (0.023)	0.008 (0.037)
<b>Reading t-1</b>	—	0.566*** (0.035)	—	0.187*** (0.026)
<b>Math t-1</b>	—	0.227*** (0.029)	—	0.646*** (0.026)
<b>Constant</b>	-0.062*** (0.015)	0.364* (0.187)	-0.281*** (0.013)	0.497*** (0.159)
<b>N (Student-Year)</b>	2,005	1,478	2,002	1,475
<b>R<sup>2</sup></b>	0.038	0.590	0.059	0.637

# Primary Results

VARIABLES	Reading		Math	
	2009-10	2010-11	2009-10	2010-11
<b>MPCP*Year</b>	<b>0.010</b> (0.036)	<b>0.105***</b> (0.039)	<b>-0.063*</b> (0.035)	<b>0.173***</b> (0.039)
<b>Year</b>	<b>0.025</b> (0.019)	<b>0.041**</b> (0.019)	<b>0.046**</b> (0.019)	<b>-0.023</b> (0.019)
<b>MPCP</b>	<b>-0.202***</b> (0.038)	<b>-0.196***</b> (0.041)	<b>-0.354***</b> (0.040)	<b>-0.424***</b> (0.039)
<b>Constant</b>	<b>0.621***</b> (0.061)	<b>0.797***</b> (0.098)	<b>0.538***</b> (0.065)	<b>0.831***</b> (0.123)
<b>N (Student-Year)</b>	6,501	5,551	6,506	5,543
<b>R<sup>2</sup></b>	0.259	0.286	0.227	0.247

# Other Specifications

- Achievement and demographic sub-groups
- Comparisons to sub-samples with MPS per above (random panelists and former MPCP students)
- One major concern may be policy-induced student transfers
  - We've shown elsewhere high rates of transfer out of MPCP (Cowen, et al. 2012) and possible student gain as a result (Carlson, Cowen and Fleming, *in press*)

# Other Specifications

- If accountability heightens that, differences could be overstated
- One way to consider is re-estimate diff-in-diff in more of an ITT framework, where “MPCP” includes all students using vouchers pre-accountability

# Other Specifications

VARIABLES	Reading	Math
<b>MPCP*2010</b>	<b>0.103***</b> (0.036)	<b>0.166***</b> (0.037)
<b>2010 dummy</b>	0.019 (0.018)	-0.042** (0.019)
<b>In MPCP</b>	-0.220*** (0.032)	-0.407*** (0.033)
<b>Constant</b>	0.267 (0.253)	0.465*** (0.153)
<b>N (Student-Year)</b>	6,981	6,969
<b>R<sup>2</sup></b>	0.268	0.221



# Conclusions

- Big high-stakes impact on private schools
- This would seem to support a “market plus...” accountability system best for choice schools taking public funds
  - Information without accountability may not be perfect
  - Without that, schools may not need to compete to survive
- Limitations
  - This is technically a different accountability program than public schools face, but is it substantively? (we think so, others may not)
  - Will it last?

# Comments/Questions

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