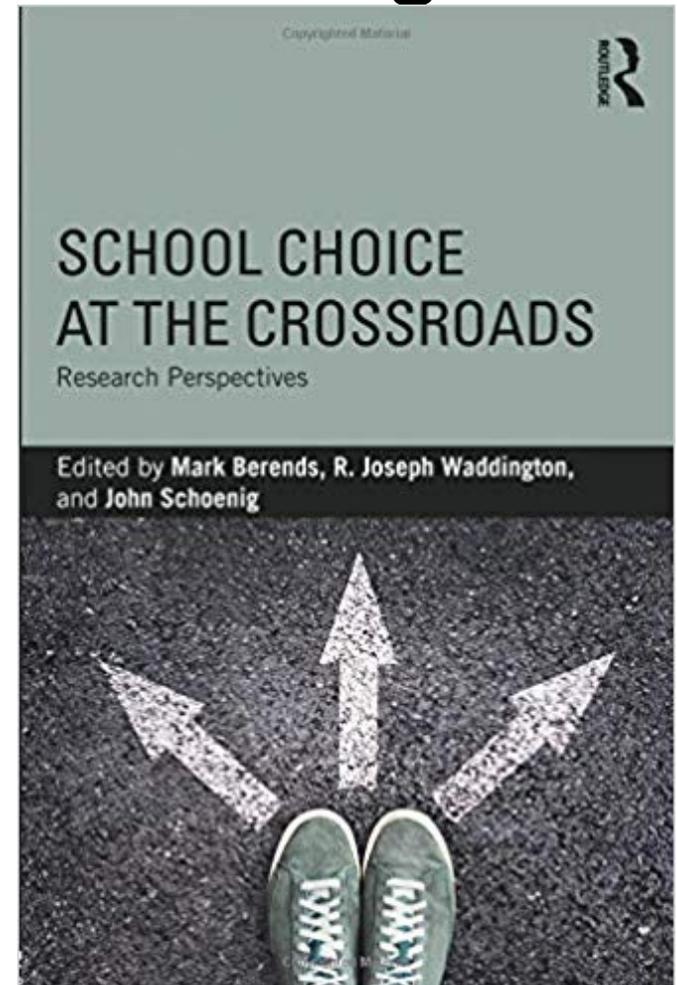


Innovation in Charter Schools: An Analysis of Teaching and Learning Practices

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Innovation in Charter Schools

- Accountability and autonomy
 - New organizational structures
 - Instructional innovations
- Most research on
 - Parent choice
 - Outcomes
 - Structural differences
 - Climate (no excuses)
 - Expectations

Within Schools: What is Happening

Is teaching and learning different?

Is the 'core technology' of charter schools and classrooms different from traditional public schools?



Methodology

- Northwest Evaluation Association (NWEA), provide computer-based, vertically equated assessments in mathematics, reading, and English/Language Arts.
- Matched sample of schools to administer teacher and principal surveys (for technical details see Berends & Donaldson, 2016; Cannata & Engel, 2012; Cannata & Peñaloza, 2012; Cravens, Goldring, Peñaloza, 2012; Goff, Mavrogordato, & Goldring, 2012).

Matching Schools

- Same state, geographic distance, grade range served, racial-ethnic composition, socioeconomic status, and size.
- Distance: the CPS and the matched TPS to reflect the choice of schools that families and students had in the same geographic area
 - Restricted to within 20 miles
 - 79% within 15 miles.

Difference Index

- The difference between the CPS and the TPS in terms of racial/ethnic composition, socioeconomic status, and school size.
- Equal weight to racial/ethnic composition and socioeconomic status differences and much lower weight to school size differences.
- An index value of zero indicated a perfect match. Then, we sorted the school pairs by distance brackets and the index, and selected the pair with the smallest index and the greatest tested grade overlap within the closest distance bracket.

Teacher and Principal Survey Sample

- 59 traditional public schools and 59 charter schools
- Teachers and principals survey about their / instructional practices, structures, programs, and curriculum.
- Response rates for teachers 80.0% for the charter schools and 72.5% for the traditional public schools. Missing data were imputed using a multiple imputation procedure.

Approach

- We examine the distribution of innovation measures individually across charter and traditional public schools, and we disaggregate the overall charter sector into independent charter and affiliated charter schools (EMO or CMOs). Findings account for teacher clustering within schools.

Measures Of Innovative Practices

- Use of instructional time (extended day, summer and weekends)
- Curriculum strategies (project based, community-linked, direct instruction),
- Organization of classroom instruction for students, the structuring of teacher teams
- Additional requirements for students and families (community service, school uniforms, homework contracts)

Results

- Many areas of difference in approach between TPS and CPS, but also between types of CPS.

Table 3. Proportion of TPS & CPS Teachers Reporting Classroom Innovations

	TPS	Charter	Independent Charter	Affiliated Charter
Values-Based Curriculum				
Morals, values, and virtues are a regular part of my curriculum	0.753 (0.431)	0.847* (0.360)	0.816* (0.388)	0.913* (0.282)
Instructional Materials				
My primary instructional materials are textbooks, workbooks, and other published materials	0.587 (0.493)	0.518* (0.500)	0.480* (0.500)	0.598 (0.491)
My primary instructional materials were developed by myself or other teachers in this school	0.475 (0.500)	0.566* (0.496)	0.577* (0.494)	0.540* (0.499)

(*) An asterisk indicates a statistically significant difference in means between charter types and traditional public schools (TPS) at 5% level. Results are shown for all charters and charters broken down into independent and affiliated. The data are binary responses (1=Yes, 0=No) to questionnaire items reported by the schools' teachers, so the means are proportions of 1 responses. N shows the number of reporting teachers who are in 59 TPS and 59 charters (48 independent and 11 affiliated). Results combine five multiple imputations per teacher when needed.

Table 3. Proportion of TPS & CPS Teachers Reporting Classroom Innovations

	TPS	Charter	Independent Charter	Affiliated Charter
Instructional Strategies				
Student work is focused around long-term investigations of compelling questions (e.g., learning expeditions)	0.445 (0.497)	0.508* (0.500)	0.529* (0.500)	0.464 (0.500)
All of my students have Individual or Personalized Education Plans	0.170 (0.376)	0.198 (0.399)	0.215* (0.411)	0.163 (0.370)
My students set the pace of my instruction	0.753 (0.431)	0.779 (0.415)	0.779 (0.416)	0.779 (0.416)
My lessons are tightly structured (e.g., direct instruction)	0.544 (0.498)	0.477* (0.500)	0.432* (0.496)	0.571 (0.496)
I use cooperative learning strategies where students earn group rewards for mastery of academic skill	0.564 (0.496)	0.620* (0.486)	0.622* (0.485)	0.615 (0.487)
My students use their communities as sites of learning and investigation	0.450 (0.498)	0.569* (0.495)	0.592* (0.492)	0.520* (0.500)
My instructional methods focus on complex/real-life projects that provide students with authentic learning experiences	0.563 (0.496)	0.646* (0.478)	0.673* (0.470)	0.590 (0.493)
My students collaborate with outside experts over the Internet	0.078 (0.269)	0.109* (0.312)	0.132* (0.339)	0.060 (0.237)
In my classroom, learning is primarily based around students asking questions and investigating solutions	0.358 (0.480)	0.417* (0.493)	0.454* (0.498)	0.340 (0.475)
My instruction is primarily focused around activity or work centers in my classroom	0.468 (0.499)	0.470 (0.499)	0.496 (0.500)	0.415 (0.493)
I use instructional methods that involve all five senses in learning	0.730 (0.444)	0.760 (0.427)	0.746 (0.436)	0.791* (0.407)

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Table 3. Proportion of TPS & CPS Teachers Reporting Classroom Innovations

	TPS	Charter	Independent Charter	Affiliated Charter
Student Evaluation				
All of my students are evaluated using portfolios	0.169 (0.375)	0.249* (0.433)	0.283* (0.451)	0.176 (0.381)
My curriculum emphasizes preparing students for standardized tests	0.438 (0.496)	0.402 (0.491)	0.357* (0.480)	0.496 (0.501)
<i>N</i>	1,300	1,015	689	326

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Table 4. Proportion of TPS & CPS Principals Reporting Classroom Innovations

	TPS	Charter	Independent Charter	Affiliated Charter
Extended Learning Time				
We provide mandatory before-school, after-school, or weekend tutorial instructional programs for students	0.129 (0.338)	0.193 (0.398)	0.204 (0.407)	0.145 (0.371)
We offer voluntary before-school, after-school, or weekend tutorial or instructional programs	0.831 (0.378)	0.898 (0.305)	0.875 (0.334)	1.000 (0.000)
Instructional Grouping				
Our class schedules are flexible: today's class periods may be longer/shorter than tomorrow's	0.458 (0.503)	0.163* (0.372)	0.129* (0.339)	0.309 (0.485)
We use block scheduling	0.159 (0.369)	0.475* (0.504)	0.438* (0.502)	0.636* (0.505)
In core subjects, our classrooms are multi-grade or mixed-age	0.176 (0.384)	0.417* (0.497)	0.488* (0.505)	0.109 (0.328)
We integrate the arts throughout the curriculum (e.g., arts are not just in separate courses)	0.386 (0.491)	0.620* (0.490)	0.663* (0.478)	0.436 (0.521)

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	TPS	Charter	Independent Charter	Affiliated Charter
Instructional Organization of Teachers				
Our teachers work in teams of two or more in the same class at the same time	0.356 (0.483)	0.295 (0.460)	0.300 (0.463)	0.273 (0.467)
We have interdisciplinary teams of teachers who share the same students	0.631 (0.487)	0.725 (0.451)	0.667 (0.477)	0.982* (0.142)
Teacher teams have common planning times	0.776 (0.421)	0.769 (0.425)	0.738 (0.445)	0.909 (0.302)
Our teachers visit other schools for observations	0.600 (0.494)	0.492 (0.504)	0.496 (0.505)	0.473 (0.524)
<i>N</i>	59	59	48	11

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Table 5. Proportion of TPS & CPS Principals Reporting Innovative School Policy Strategies

	TPS	Charter	Independent Charter	Affiliated Charter
Community service is mandatory for all students in some grade levels	0.102 (0.305)	0.369* (0.487)	0.396* (0.494)	0.255 (0.457)
We have school uniforms or a standardized dress code	0.251 (0.437)	0.556* (0.501)	0.563* (0.501)	0.527 (0.524)
We require parents to volunteer at the school	0.027 (0.164)	0.407* (0.495)	0.396* (0.494)	0.455* (0.522)
We require each parent to sign a home/school contract	0.349 (0.481)	0.644* (0.483)	0.625* (0.489)	0.727* (0.467)
<i>N</i>	59	59	48	11

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Results

- Charter schools tend to add additional requirements for students and parents (school uniforms, parent volunteering in the school, or having students participate in community service). The magnitude of differences between charter and traditional public schools for these items ranged from 28 to 38 percentage points.

Conclusions

- Research examining specific innovative practices of schools and classrooms provides a promising avenue to understanding differences among different school choice options.
 - Measurement challenges, conceptual challenges
- Schools and classrooms do differ in their educational innovative practices.
- Innovation for innovation sake is not the goal.

Conclusions

- Connections between what happens in schools, understanding difference in school contexts, types, and outcomes;
- But, choice is also about students and families needs and interests that are simply different, not necessarily innovative.

Thank-you



Table 1: Means and Standard Deviations for Charter Schools by Analytic Sample vs. CCD Subset of Schools in Sampled States

	Sample	CCD	
School Measures			
Percentage of American Indian Students	0.589 (0.627)	1.509 (8.185)	*
Percentage of Asian Students	3.592 (6.596)	3.022 (10.796)	
Percentage of Hispanic Students	7.561 (10.804)	8.639 (16.715)	
Percentage of Black Students	36.411 (35.201)	42.560 (39.817)	
Percentage of White Students	51.847 (33.140)	44.270 (37.366)	
Percent of Free / Reduced Lunch Students	52.773 (28.092)	54.215 (34.991)	
Student to Teacher Ratio	16.626 (4.187)	18.136 (13.723)	
Number of Students per Grade	57.573 (24.144)	45.440 (42.485)	*
Student Enrollment	499.720 (238.726)	311.245 (433.693)	*

Note: $N_{SAMPLE}=25$; $N_{CCD}=986$

* $p \leq 0.05$

Table 2: Means and Standard Deviations for Traditional Public Schools by Analytic Sample vs. CCD Subset of Schools in Sampled States

	Sample	CCD	
School Measures			
Percentage of American Indian Students	1.227 (1.714)	1.116 (5.309)	
Percentage of Asian Students	4.344 (6.614)	2.257 (4.301)	
Percentage of Hispanic Students	10.100 (13.882)	8.273 (14.887)	
Percentage of Black Students	28.187 (29.958)	13.011 (23.457)	*
Percentage of White Students	56.142 (35.500)	75.344 (28.078)	*
Percent of Free / Reduced Lunch Students	53.260 (24.209)	41.289 (25.336)	*
Student to Teacher Ratio	16.773 (2.376)	16.697 (8.531)	
Number of Students per Grade	100.116 (78.935)	113.665 (113.491)	
Student Enrollment	464.074 (200.792)	475.025 (370.174)	

Note: $N_{SAMPLE}=27$; $N_{CCD}=11,962$

* $p \leq 0.05$