

Reaching further and learning more?

Evaluating Public Impact's *Opportunity Culture* Initiative

Ben Backes & Michael Hansen

CALDER 2018

Playing to strengths in the classroom

- Teachers make a variety of impacts on students, short and long-term
 - » Large variation in productivity
 - » Not predictable ex ante
- Pools of effective teachers within schools
- Manipulating teacher roles and responsibilities within the school
 - » Potentially immediate impact
 - » Expected to be more politically palatable



This paper's contribution

First empirical evaluation of pilot program where teacher roles are strategically manipulated to increase reach of effective teachers.

- 1) Which teachers are chosen for OC roles?
- 2) What are the impacts on student achievement?



Public Impact's Opportunity Culture

The screenshot shows the homepage of Opportunity Culture.org. At the top, there is a navigation bar with links for Home, About, Contact, Subscribe, and Blog, along with social media icons for Twitter and Facebook. Below the navigation bar is a main banner with the text "EXTENDING THE REACH OF EXCELLENT TEACHING TO ALL STUDENTS, EVERY YEAR" and a search bar. A cartoon character of a woman with glasses and a red star on her shirt is also present. Below the banner is a menu with categories like "What Is An Opportunity Culture?", "Where Is This Happening?", "Build An Opportunity Culture", "For Educators & System Leaders", "How Can Policymakers Help?", "Opportunity Culture Resources", and "Opportunity Culture Dashboard".

What Could You Do in an Opportunity Culture?

Opportunity Culture: *Extending the reach of excellent teachers and their teams to more students, for more pay, within budget. Teachers gain time to plan and collaborate, everyone gets more support, and students get personalized, high-standards instruction.*

Intro to OC | OC Educators Tell All | Help for Educators

Watch: Opportunity Culture: Teaching, Leading, Learning – fun 6:00 video for educators about how an Opportunity Culture works and why it's needed.
Read: Introduction to OC for excellent teachers and those aspiring to excellence, administrators, policymakers—an overview of how an OC can help teachers have the pay, power, and support they deserve—while helping many more students succeed.

Opportunity Culture Impact

- 110+ schools designing or implementing in 2016-17
- 1,250+ teachers with advanced roles or on-the-job development in 2016-17
- 34K+ students reached by excellent teachers extending their reach in 2016-17
- \$3.1M extra pay for OC teachers in 2016-17



Models

1. Multiclassroom leadership (MCL) model
 - Highly effective teacher takes on leadership role for team of teachers
 - Supervise instruction, evaluate and develop teachers' skills, facilitate team planning
 - Light teaching load, if any
2. Direct reach extension models
 - Different learning stations in classroom or school
 - Taught by effective teacher for part of the time
 - For remainder, computer-based learning, small-group, or independent learning facilitated by paraprofessionals



Data

Charlotte-Mecklenburg (NC)	Cabarrus County (NC)	Syracuse (NY)
<ul style="list-style-type: none">OC flag by model type	<ul style="list-style-type: none">OC flag by model type	<ul style="list-style-type: none">OC flag by model type
<ul style="list-style-type: none">Student-teacher linked data	<ul style="list-style-type: none">Student-teacher linked data	<ul style="list-style-type: none">Student-teacher linked data
<ul style="list-style-type: none">Student test scores	<ul style="list-style-type: none">Student test scores	<ul style="list-style-type: none">Student test scores
<ul style="list-style-type: none">Anonymized school identifiers		<ul style="list-style-type: none">Anonymized school identifiers
<ul style="list-style-type: none">Teacher evaluation scores		
<ul style="list-style-type: none">Student demographic info		



Sample size by model

	MCL	Team Teachers	Extended Impact	BLT
Charlotte				
Number of students	2282	9601	488	1217
Number of classrooms	90	387	46	48
Number of teacher-years	40	233	9	19
Number of school-years	19	38	3	10
Cabarrus				
Number of students	2	530	0	16
Number of classrooms	1	24	0	6
Number of teacher-years	1	22	0	5
Number of school-years	.	.	.	.
Syracuse				
Number of students	303	537	0	0
Number of classrooms	22	41	0	0
Number of teacher-years	11	24	0	0
Number of school-years	5	3	0	0



Treated and non-treated students

Student Characteristics	Charlotte			Cabarrus		Syracuse		
	OC schools			Non-OC students	OC students	OC schools		
	Non-OC schools	Not exposed	Exposed			Non-OC schools	Not exposed	Exposed
Prior Math Achievement	0.03 (0.98)	-0.28 (0.95)	-0.44 (0.91)	0.03 (0.84)	-0.21 (0.95)	0.04 (0.93)	-0.1 (0.95)	0.04 (0.95)
Prior Reading Achievement	0.07 (0.99)	-0.27 (0.91)	-0.4 (0.88)	0.03 (0.99)	-0.11 (0.92)	0.05 (0.97)	-0.08 (0.95)	0.04 (0.94)
Student-yr observations	340815	49076	10483	54997	546	14668	5210	838
Students	112938	24147	8284	31649	546	5818	2515	667
School-yr observations	867	72	36	.	.	107	13	5
Schools	162	0	18	.	.	25	0	3
Black Students (%)	40	53	65	.	.	.	.	.
Hispanic Students (%)	19	16	17	.	.	.	.	.
Female Students (%)	49	51	48	.	.	.	.	.



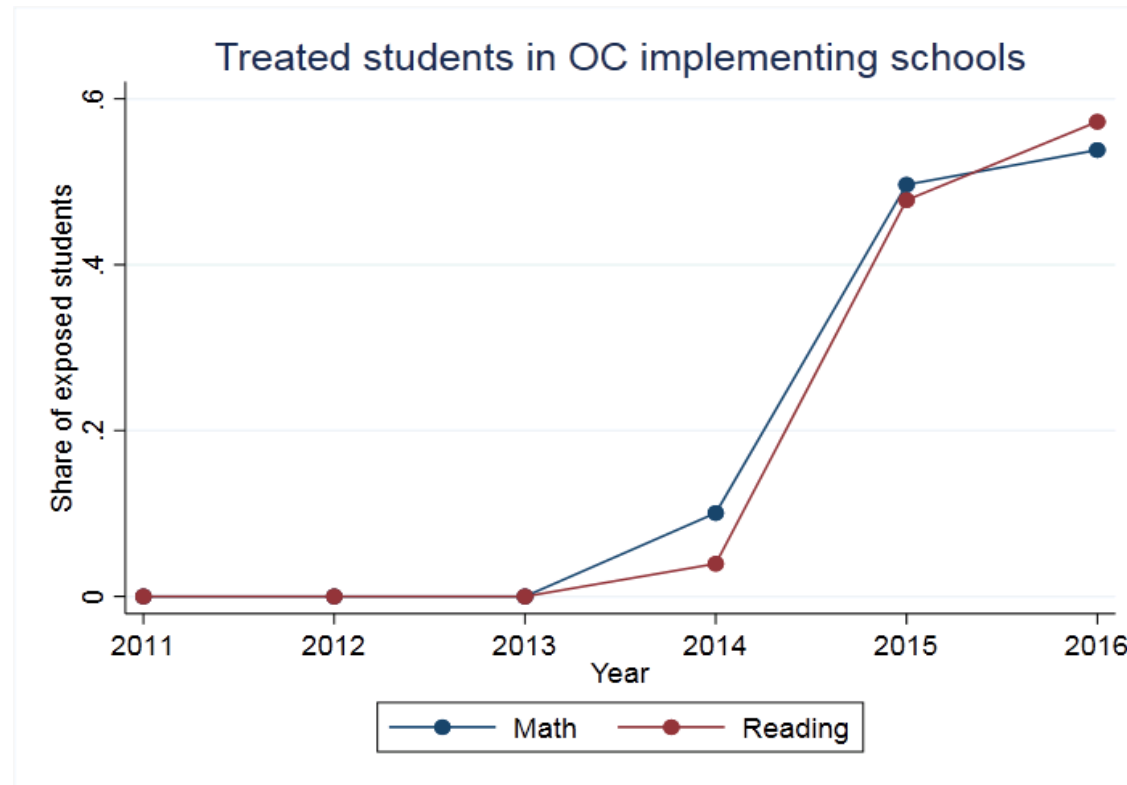
Teacher descriptive statistics

	CMS				
	Non-OC	Non-OC in OC school	MCL	BLT	TT
Leadership: top (%)	51	45	91	100	43
Diversity: top (%)	30	29	24	50	24
Content: top (%)	24	23	19	50	18
Facilitating learning: top (%)	48	41	86	73	45
Reflection: top (%)	25	27	29	63	22
Black (%)	27	37	30	26	49
Hispanic (%)	2	2	0	0	1
Total unique teachers	5511	700	26	9	193
Total teacher-year observations	13388	1506	40	19	233

Note: Top = accomplished or distinguished evaluation rating (top two categories)

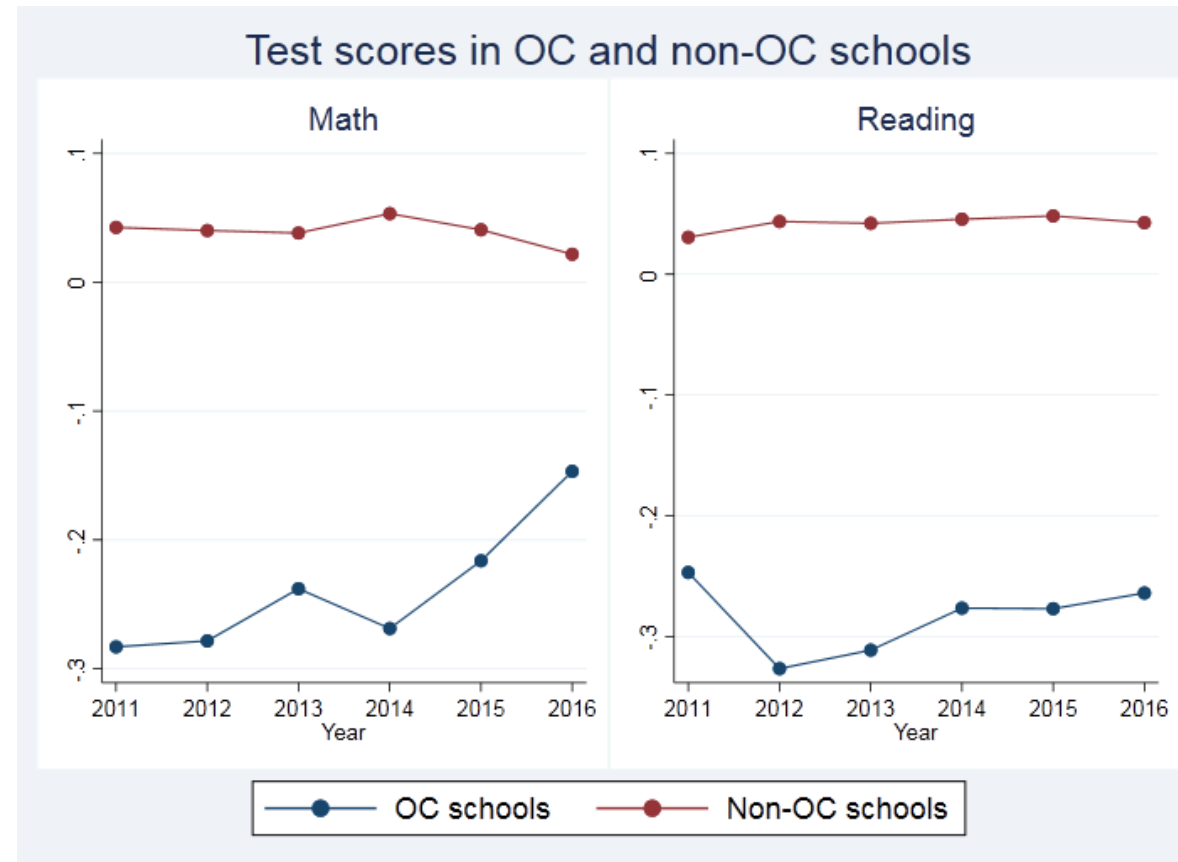


Treatment exposure over time



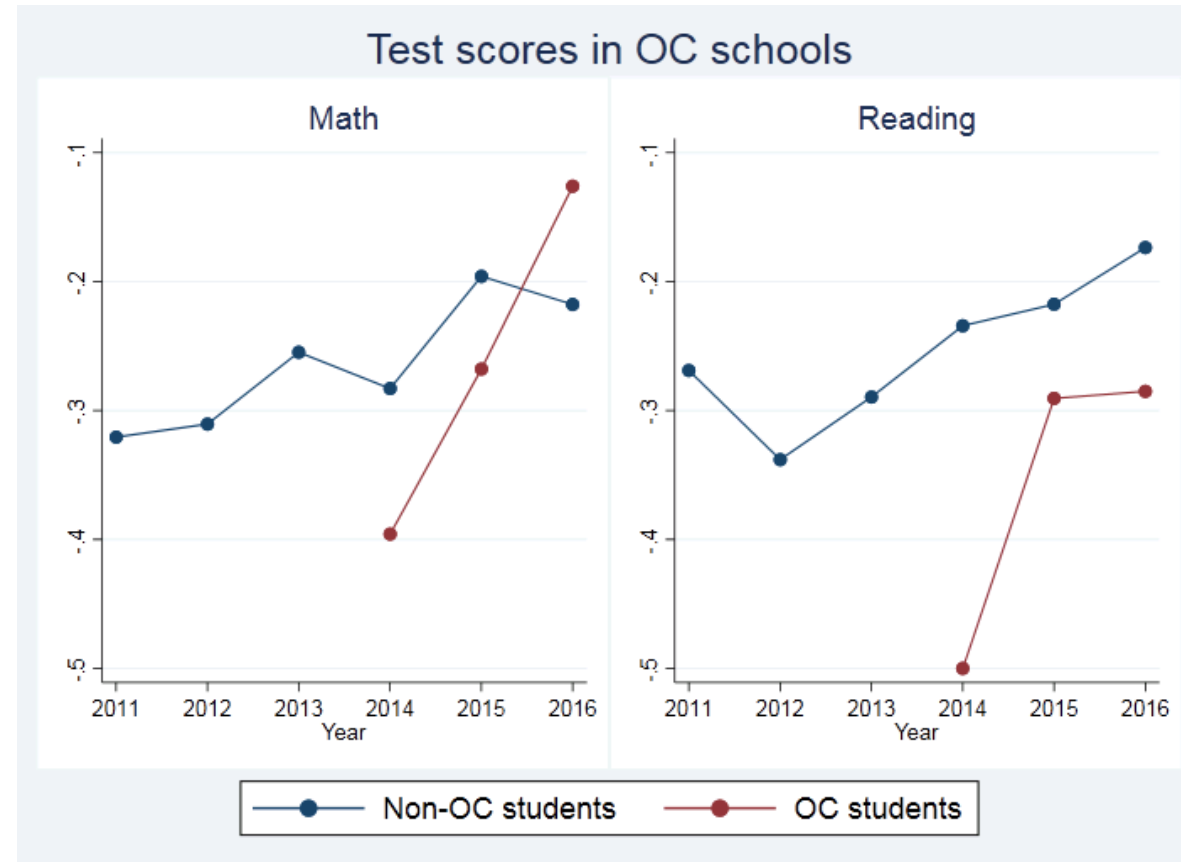


Across-school trajectories





Within-school trajectories





Main math results

All OC models	0.11***	0.12***	0.12***	0.09**
(pooled)	(0.04)	(0.04)	(0.04)	(0.04)
MCL (direct)	0.35***	0.34***	0.27***	0.28**
	(0.07)	(0.07)	(0.09)	(0.14)
Team Teacher on MCL-led team	0.11**	0.12***	0.14***	0.11**
	(0.04)	(0.04)	(0.04)	(0.05)
BLT	0.03	0.04	0.01	0.06
	(0.08)	(0.09)	(0.05)	(0.06)
Expanded Impact	0.12	0.13	0.07	0.02
	(0.09)	(0.09)	(0.05)	(0.06)
Prior test scores	x	x	x	x
Classroom prior tests	x	x	x	x
School prior tests		x		
School FE			x	
School-year FE				x



Main reading results

All OC models	0.04***	0.04***	0.05***	-0.02
(pooled)	(0.02)	(0.02)	(0.02)	(0.02)
MCL (direct)	0.17**	0.17**	0.17**	0.13*
	-0.08	(0.08)	(0.07)	(0.07)
Team Teacher on MCL-led team	0.05***	0.05**	0.05***	-0.03
	-0.02	(0.02)	(0.02)	(0.02)
BLT	-0.15**	-0.14**	-0.08	-0.05
	-0.06	(0.06)	(0.06)	(0.03)
Expanded Impact	0.03	0.04	0.05*	-0.02
	-0.03	(0.03)	(0.03)	(0.03)
Prior test scores	x	x	x	x
Classroom prior tests	x	x	x	x
School prior tests		x		
School FE			x	
School-year FE				x



Robustness check: Placebo treated teachers (math)

BLT	0.04	0.05	0.02	0.05
	(0.08)	(0.09)	(0.05)	(0.07)
Expanded Impact	0.13	0.14	0.08	0.01
	(0.09)	(0.09)	(0.06)	(0.06)
MCL (direct)	0.36***	0.34***	0.28***	0.27**
	(0.07)	(0.07)	(0.09)	(0.14)
Team Teacher on MCL-led team	0.11***	0.13***	0.14***	0.10*
	(0.04)	(0.04)	(0.04)	(0.06)
"Placebo" team teacher	0.11*	0.10*	0.09**	-0.02
	(0.05)	(0.05)	(0.04)	(0.03)
Prior test scores	x	x	x	x
Classroom prior tests	x	x	x	x
School prior tests		x		
School FE			x	
School-year FE				x



Conclusion and implications

- All districts selected relatively strong teachers (based on observational scores and value added) into OC roles, consistent with program's intent
- MCL model appears to have strongest support
 - » Primarily through productivity improvements among team teachers in math
 - » Team teachers appear to enjoy similar improvement in math regardless of initial quality
- BLT model has little support of efficacy (could even be negative in reading)
- Mentoring and instructional coaching should be given more consideration, with justifiably larger roles, compensation