

Intra-District Resource Allocation

Table A1. Multivariate ordinary least squares (OLS) regression results, by district

District A	(1)	(2)	(3)	(4)	(5)
	Average salary	Percent of teachers certified	Percent of teachers temporarily certified	Pupil-teacher ratio	Average teacher experience
Percent free or reduced price lunch	-12,146.24 (5,253.43)**	0.05 (0.21)	0.20 (0.16)	-0.86 (3.38)	-8.11 (3.79)**
Percent limited English proficiency	-10.96 (51.49)	0.00 (0.00)	-0.00 (0.00)	-0.05 (0.03)	0.01 (0.04)
Percent individual education plan	9,692.88 (12,830.46)	1.38 (0.52)**	-0.18 (0.39)	-17.73 (8.26)**	7.14 (9.26)
Mean English language arts score (4th grade)	-39.83 (54.54)	0.00 (0.00)	0.00 (0.00)	-0.00 (0.04)	-0.05 (0.04)
Constant	81,459.11 (37,533.11)**	-0.52 (1.51)	-0.78 (1.13)	19.73 (24.17)	46.31 (27.10)*
Observations	37	37	37	37	37
R-squared	0.18	0.20	0.05	0.20	0.14
Standard errors in parentheses					
* significant at 10%; ** significant at 5%; *** significant at 1%					
District B	(1)	(2)	(3)	(4)	(5)
	Average salary	Percent of teachers certified	Percent of teachers temporarily certified	Pupil-teacher ratio	Average teacher experience
Percent free or reduced price lunch	-2,489.58 (2,627.76)	-0.05 (0.05)	0.06 (0.13)	5.03 (3.60)	-3.75 (2.90)
Percent limited English proficiency	-5.13 (32.88)	-0.001 (0.00)***	-0.00 (0.00)	-0.11 (0.05)**	-0.02 (0.04)
Percent individual education plan	-13,816.80 (6,663.37)*	-0.02 (0.13)	0.20 (0.34)	-17.18 (9.12)*	-13.56 (7.35)*
Mean English language arts score (4th grade)	120.08 (41.72)**	0.00 (0.00)	-0.00 (0.00)	0.16 (0.06)**	0.13 (0.05)**
Constant	-22,156.25 (27,301.98)	0.67 (0.52)	1.64 (1.38)	-83.17 (37.38)**	-64.29 (30.10)*
Observations	19	19	19	19	19
R-squared	0.56	0.55	0.17	0.55	0.57
Standard errors in parentheses					
* significant at 10%; ** significant at 5%; *** significant at 1%					

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Table A2. Ordinary least squares regression results (observations weighted by enrollment), by district

District A	(1)	(2)	(3)	(4)	(5)
	Average salary	Percent of teachers certified	Percent of teachers temporarily certified	Pupil-teacher ratio	Average teacher experience
Percent free or reduced price lunch	-11021.66 (5,325.33)**	0.03 -0.14	0.19 -0.16	-0.56 -3.4	-7.42 (3.86)*
Percent limited English proficiency	10.12 -51.23	0 0	0 0	-0.05 -0.03	0.02 -0.04
Percent individual education plan	10,804.75 (12,910.39)	0.67 (0.35)*	-0.45 (0.38)	-17.15 (8.25)**	7.65 -9.37
Mean English language arts score (4th grade)	-14.77 -52.18	0 0	0 0	0 -0.03	-0.02 -0.04
Constant	63974.75 (35,827.45)*	-0.03 -0.97	0.14 -1.06	17.97 -22.89	28.81 -25.99
Observations	37	37	37	37	37
R-squared	0.16	0.12	0.1	0.17	0.13

Standard errors in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

District B	(1)	(2)	(3)	(4)	(5)
	Average salary	Percent of teachers certified	Percent of teachers temporarily certified	Pupil-teacher ratio	Average teacher experience
Percent free or reduced price lunch	-4066.16 -2340.28	-0.04 -0.06	0.1 -0.12	4.89 -2.9	-5.97 (2.98)*
Percent limited English proficiency	15.21 -27.96	0 (0.00)**	0 0	-0.09 (0.03)**	-0.01 -0.04
Percent individual education plan	-15166.03 (7,731.53)*	-0.07 -0.18	0.27 -0.39	-18.29 (9.60)*	-16.79 -9.85
Mean English language arts score (4th grade)	72.46 (38.63)*	0 0	0 0	0.11 (0.05)**	0.1 (0.05)*
Constant	8977.82 -25347.84	0.7 -0.6	0.35 -1.27	-56.22 (31.46)*	-41.19 -32.28
Observations	19	19	19	19	19
R-squared	0.48	0.47	0.15	0.51	0.52

Standard errors in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

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Table A3. District B summary statistics for wages, by fund

Position	Teacher and paraprofessional counts	Total wages	As a percentage of combined funds
<i><u>By teacher, general fund</u></i>			
Paraprofessionals	370	\$7,480,808	89%
Teachers	496	\$24,421,492	53%
Subtotal	866	\$31,902,300	59%
<i><u>By teacher, special revenue fund</u></i>			
Paraprofessionals	43	\$886,106	11%
Teachers	435	\$21,647,062	47%
Subtotal	478	\$22,533,167	41%
<i><u>By teacher, combined funds</u></i>			
Paraprofessionals	413	\$8,366,914	
Teachers	931	\$46,068,554	
Total teacher and paraprofessional	1344	\$54,435,468	

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Table A4. District B summary statistics for dependent and independent variables, by fund

Variable	Observations	Mean	Std. Dev.	Min	Max	C.V.
<i>District B</i>						
<i>Dependent Variables, general fund</i>						
Average paraprofessional salary	16	\$20,218	\$661	\$19,461	\$22,010	0.03
Average teacher salary	19	\$49,237	\$2,913	\$43,456	\$56,059	0.06
Pupil-paraprofessional ratio	19	32	10	14	48	0.32
Pupil-teacher ratio	19	24	10	14	45	0.42
<i>Dependent Variables, special revenue fund</i>						
Average paraprofessional salary	16	\$20,607	\$1,145	\$18,998	\$22,502	0.06
Average teacher salary	19	\$49,763	\$2,564	\$46,729	\$58,312	0.05
Pupil-paraprofessional ratio	16	270	190	91	677	0.70
Pupil-teacher ratio	19	27	11	14	56	0.41
<i>Independent Variables</i>						
Percent free or reduced price lunch	19	64%	19%	23%	95%	0.30
Percent limited English proficiency	19	10%	15%	0%	45%	1.53
Percent individual education plan	19	22%	7%	15%	47%	0.30
Mean English language arts score (4th grade)	19	636	11	619	655	0.02

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Table A5. District B bivariate correlation matrices of dependent and independent variables, by fund

	Average para professional salary	Average teacher salary	Pupil-para professional ratio	Pupil-teacher ratio	Percent free or reduced price lunch	Percent limited English proficiency	Percent individual education plan	Mean English language arts score (4th grade)
<i>Special Revenue Fund</i>								
Average paraprofessional salary	1.00							
Average teacher salary	-0.08	1.00						
Pupil-paraprofessional ratio	0.56**	0.05	1.00					
Pupil-teacher ratio	0.00	0.31	0.44*	1.00				
Percent free or reduced price lunch	0.06	-0.17	-0.19	-0.47**	1.00			
Percent limited English proficiency	-0.26	-0.06	0.09	-0.14	0.53**	1.00		
Percent individual education plan	-0.22	-0.36	-0.15	-0.23	-0.12	-0.09	1.00	
Mean English language arts score (4th grade)	-0.23	0.48*	0.22	0.72**	-0.16	0.10	-0.16	1.00

* significant at 10%; ** significant at 5%

	Average para professional salary	Average teacher salary	Pupil-para professional ratio	Pupil-teacher ratio	Percent free or reduced price lunch	Percent limited English proficiency	Percent individual education plan	Mean English language arts score (4th grade)
<i>General Revenue Fund</i>								
Average paraprofessional salary	1.00							
Average teacher salary	0.47**	1.00						
Pupil-paraprofessional ratio	0.25	0.34	1.00					
Pupil-teacher ratio	0.23	-0.38	0.30	1.00				
Percent free or reduced price lunch	0.08	-0.43*	-0.22	0.37	1.00			
Percent limited English proficiency	-0.20	-0.11	-0.28	-0.23	0.46**	1.00		
Percent individual education plan	-0.38	-0.29	-0.28	-0.31	-0.14	-0.05	1.00	
Mean English language arts score (4th grade)	0.18	0.73**	0.22	-0.39*	-0.17	0.10	-0.15	1.00

* significant at 10%; ** significant at 5%

Appendix B: Interview questionnaire for district administrators

Semi-structured Interview Questionnaire

Examining Intra-District Resource Allocation Policies in Four New York State School Districts

Principal Investigators:

Ross Rubenstein

Larry Miller

Center for Policy Research

The Maxwell School at Syracuse University

The purpose of the interviews is to gather information about the methods and procedures that New York State school districts use to allocate resources across schools within the districts. The following questions will be used to structure the interview. Interview subjects will have substantial latitude to describe important aspects of the resource allocation process not specifically addressed by these questions. We expect each interview to last approximately thirty to forty-five minutes.

1. Describe the general process of allocating resources to schools in your district.
 - Follow-up: (if not covered in earlier answers)
 - Is a formula used?
 - How does the formula work? Do you allocate dollars or positions or a combination of both?
 - What portion of each school's allocation is consistent across schools? What portion varies with school characteristics?
 - What specific factors do you consider when determining the amount and type of resources a school will receive?
 - Enrollment
 - Student characteristics (poverty, achievement, ESL, special education, mobility)
 - Grade level
 - School type (magnet, charter, traditional, others)
 - Other factors not mentioned
2. Who are the key stakeholders involved in the process and what role do they play?
 - Follow-up: can stakeholders (e.g., parents, community groups) influence the distribution of resources?
3. In several other districts we've studied, some resources are allocated by separate central office departments, for example Title I or special education. Do other central office departments allocate resources to schools in your district? If so, which ones? Do these allocations influence your decision making process for other resources and, if so, how?
4. What federal, state, and/or local mandates or constraints influence the allocation process (e.g., minimum class size, special education student/teacher ratio, etc)?
 - (Follow-up for dependent districts) How does your dependent status affect the resource allocation process?
5. Do any of the district's labor agreements influence the way resources are distributed across schools (i.e., does the district offer seniority transfer privileges to teachers)?

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6. How are students assigned to schools and does the assignment process vary by grade level?
7. Your district is receiving additional funding through the state's Contracts for Excellence. Which policy options did you choose to use the additional money for? How did you decide how much each school would receive?
8. If you could change the way your district allocates resources (including changing the constraints and mandates you face), what changes would you make?

Appendix C: Interview questionnaire for state policy makers

Semi-structured Interview Questionnaire

Examining Intra-District Resource Allocation Policies in Four New York State School Districts

Principal Investigators:

Ross Rubenstein

Larry Miller

Center for Policy Research

The Maxwell School at Syracuse University

The purpose of the interviews is to gather information about the methods and procedures that New York State school districts use to allocate resources across schools within the districts. We had hoped to interview you because of your unique experience as both a district leader and a state official. At this point, we are finalizing a draft of our report and would like to get your perspective on some of our findings and recommendations,

- 1) In each of our sample districts we've found that, to one degree or another, the budgeting process tends to be fragmented, with different departments controlling the allocation of general fund vs. special revenue fund resources. To what extent have you found this in your own experience?
 - a. Follow ups: what problems does this cause? How would you address this, both as a district leader and a state policymaker?
- 2) In our own research attempting to analyze spending at the school-level we've found that it is extremely difficult, if not impossible, to track resources to the school-level. We've heard from officials in many districts that their information technology infrastructure is simply not up to the task. Would you support state grants to help districts improve their financial reporting software and hardware? Would you support state efforts to collect and report school-level financial data?
- 3) A recurring theme in much of the research regarding school-level spending disparities is that much of it is driven by teacher sorting. What do you see as the primary factors leading to sorting of teachers (by experience, training, quality) across schools within districts? What do you think districts and the state can do to promote a more equitable distribution of teachers within districts?
- 4) The typical measures of teacher quality such as years of experience and certification are as reliable indicators of teacher quality as value-added measures of student achievement gains. Does the state have the ability to connect teachers with individual student performance and how can the state use that information to ensure a more equitable distribution of teacher quality?
- 5) States such as California and Colorado have mandated that school report cards publish the average teacher salary for each school in comparison to the district and state average. School report cards in these states also enable school comparisons across a range of indicators from violence to academic performance to school-level budgets. Will these measures aimed at increasing transparency generate more demand from parents for greater equality across schools?
- 6) Categorical grants often fail to supplement expenditures as intended. What role can the state play in correcting this failure?

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- 7) While conducting research for this study, we found that administrators approached their jobs from a compliance-based perspective. With little to comply with in terms of district-to-school resource allocation, the distribution of resources appeared to be an afterthought for many of the officials we interviewed. In terms of professional development and possibly regulation and oversight, what role can the state play in addressing the limited attention that resource allocation policy receives?
- 8) What else do you think NYS can and should do to promote greater within-district equity? What do you think district administrators can do?