

Early Childhood Intervention, School Readiness, and Parenting Behavior: Effects by Dosage and  
Subgroups in an Urban Scale Up

Executive Summary<sup>1</sup>

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<sup>1</sup> Full paper available at [http://humancapitalrc.org/dp\\_catalog/catalog.cfm](http://humancapitalrc.org/dp_catalog/catalog.cfm)

The Midwest Child-Parent Center (CPC) Education provides comprehensive education, family-support, and health services from preschool to third grade in high-poverty neighborhoods. In the first year preschool component assessed in this study, 1724 3- and 4-year-olds were enrolled in 16 Chicago centers. Approximately 400 of those students attended full-day classes. The comparison group included 906 children of the same age who participated in the usual preschool services (Head Start or state prekindergarten) in 15 matched schools.

At the end of the first year, the effectiveness of the program was examined on school readiness skills in six different domains of the Teaching Strategies Gold (literacy, language, math, cognitive, socioemotional, and physical health). The impact of the program on attendance and parent involvement was also measured. The impact of full-day CPC compared to half-day CPC is also examined. If a student was missing a spring score, data was imputed using previous test scores and demographic characteristics. Adjusted means were calculated after controlling demographic characteristics. Full tables are included at the end of the summary. The CPC program is associated with higher literacy, math, socioemotional, cognitive development, physical health and sum total score. All relationships hold for raw test scores and likelihood of meeting the national norm average on a given domain. Of the six domains, CPC did not have a significant effect on one: oral language. CPC students had lower attendance and higher chronic absence than non-CPC students. There is evidence that CPC students also had higher parent involvement than non-CPC students.

When full-day CPC students are compared to half-day students in the same schools, there are clear positive benefits to the program. Full-day students have significantly higher attendance rates and lower chronic absences. Full-day students score higher on all TSGOLD domains, except cognitive development. Adjusted for demographics, full-day CPC students score over 30 points higher on the total TSGOLD score, compared to half-day students. There is no significant difference in parent involvement, meaning parents are just as likely to participate regardless of school day length.

After one year there are clear, positive impacts of the CPC intervention program. Results are especially strong for the full-day program. The CPC program is significantly associated with improved school readiness and parent involvement. The full-day program also has strong school readiness results and greatly improves student attendance. The first year results indicate a strong influence of the intervention program and as these students are tracked, results will continue to be measured and analyzed.

Table 1: Child-Parent Center Preschool Intervention: Adjusted Marginal Effects (imputed data)

	N	Program Group	Comparison Group	Difference	p-value
<b>School Readiness Skills</b>					
Literacy (raw score)	1880	60.0	50.6	9.4	<b>.000</b>
Literacy (% proficient)	1880	78.5	54.7	23.8	<b>.000</b>
Oral Language (raw score)	1880	38.5	35.8	2.7	.093
Oral Language (% proficient)	1880	72.6	61.1	11.5	.218
Math (raw score)	1880	37.7	33.6	4.1	<b>.000</b>
Math (% proficient)	1880	72.5	56.7	15.8	<b>.002</b>
Cognitive development (raw score)	1880	60.2	53.7	6.5	<b>.020</b>
Cognitive development (% proficient)	1880	71.7	47.2	24.5	<b>.025</b>
Socio-emotional (raw score)	1880	56.8	51.5	6.3	<b>.024</b>
Socio-emotional (% proficient)	1880	69.8	43.3	26.5	<b>.033</b>
Physical health (raw score)	1880	34.9	31.8	3.1	<b>.017</b>
Physical health (% proficient)	1880	78.6	56.7	21.9	<b>.014</b>
Sum total TSGOLD score	1880	289.0	257.0	32.0	<b>.004</b>
<b>Attendance</b>					
Average daily attendance, %	1880	85.1	88.1	-3.0	<b>.020</b>
Chronic absences, % (10% level)	1880	60.1	45.5	14.6	<b>.009</b>
Chronic absences, % (20% level)	1880	25.1	15.4	10.1	<b>.008</b>
Parent involvement in school (teacher rating, school level, average)	1834	5.2	4.2	1.0	<b>.000</b>
Parent involvement in school (teacher rating, school level, dummy)	1834	63.0	24.8	38.2	<b>.000</b>
Parent involvement in school (teacher rating, class level, average)	1805	5.5	4.5	1.0	.256
Parent involvement in school (teacher rating, class level, dummy)	1805	46.0	35.0	11.0	.516

Notes: Coefficients are from OLS or probit regression analysis transformed to marginal effects, and they are adjusted for . The p-value is the probability level of the adjusted mean or percentage difference. Standard errors, and, thus, p-values, are adjusted for variation among program sites.

Table 2: Child-Parent Center Full-Day Versus Part-Day Preschool: Adjusted Marginal Effects

	N	Full-Day Group	Part-Day Group	Difference	p-value
<b>School Readiness Skills</b>					
Literacy (raw score)	808	63.7	54.6	9.1	.087
Literacy (% proficient)	808	90.4	73.5	16.9	<b>.004</b>
Oral Language (raw score)	808	40.9	35.8	5.1	<b>.013</b>
Oral Language (% proficient)	808	92.9	59.9	33.0	<b>.000</b>
Math (raw score)	808	39.8	34.2	5.6	<b>.041</b>
Math (% proficient)	808	90.6	71.3	19.3	<b>.000</b>
Cognitive development (raw score)	808	59.1	55.3	3.8	.211
Cognitive development (% proficient)	808	74.0	62.4	11.6	.463
Socio-emotional (raw score)	808	59.9	52.2	7.7	<b>.029</b>
Socio-emotional (% proficient)	808	88.2	54.1	34.1	<b>.001</b>
Physical health (raw score)	808	35.7	32.7	3.0	<b>.028</b>
Physical health (% proficient)	808	88.3	66.7	21.6	<b>.008</b>
Total TSGOLD	808	299.0	264.8	34.2	<b>.039</b>
<b>Attendance</b>					
Average daily attendance, %	808	87.8	80.8	7.0	<b>.004</b>
Chronic absences, % (10% level)	808	43.8	73.9	-30.1	<b>.000</b>
Chronic absences, % (20% level)	808	15.3	39.9	-24.6	<b>.000</b>
Parent involvement in school (teacher rating, class level, average)	805	3.7	4.7	-1.0	.249
Parent involvement in school (teacher rating, class level, dummy)	755	36.9	46.5	-9.6	.440

Notes: Coefficients are from OLS or probit regression analysis transformed to marginal effects, and they are adjusted for . The p-value is the probability level of the adjusted mean or percentage difference. Standard errors, and, thus, p-values, are adjusted for variation among program sites.