



# Evaluation Brief

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## Montgomery County Public Schools 21<sup>st</sup> Century Community Learning Centers Program: Outcomes for Summers 2003 and 2004

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### Background

The 21<sup>st</sup> Century Community Learning Centers (21<sup>st</sup> CCLC) program in Montgomery County Public Schools (MCPS) provides cultural arts and recreational activities to students during out-of-school times at ten Title I elementary schools (Appendix Table A1). The participating schools were identified by the Maryland State Department of Education (MSDE) as “in need of improvement” on the 2002 measure of Adequate Yearly Progress (AYP). In each of the ten schools, English language learning needs and poverty are significant concerns, so many students are at increased risk for summer learning loss (Cooper, 2001).

The goal of 21<sup>st</sup> CCLC is to help schools achieve AYP, by offering activities that complement the academic program and support family literacy. The 21<sup>st</sup> CCLC is a federally funded program administered by MSDE. Project partners are the Arts and Humanities Council of Montgomery County; Linkages to Learning; Montgomery County Collaboration Council for Children, Youth, and Families; and Montgomery County Recreation Department.

Beginning in summer 2003, 21<sup>st</sup> CCLC provided a four-week program to students about to enter Kindergarten through Grade 4; students entering Grade 5 were added in summer 2004. Each morning students received academic instruction in the Extended Learning Opportunities-Summer Adventures in Learning (ELO-SAIL) program (described in Sunmonu, Curry-Corcoran, and Mordica, 2004). In the afternoon, 21<sup>st</sup> CCLC provided arts and recreation activities, designed to complement the morning program. The 21<sup>st</sup> CCLC was provided free, or at a minimal fee (for recreational activities), and included snack and transportation home.

To increase family literacy, 21<sup>st</sup> CCLC provided financial support to Linkages to Learning, which offered classes for adults in English-speaking skills and skills to support students’ academic achievement. Classes were offered at four of the ten participating schools during the school year (Appendix Table A1.)

A comprehensive evaluation of the MCPS 21<sup>st</sup> CCLC program is underway to examine implementation, participation, and effectiveness. This brief focuses on the outcomes of the 21<sup>st</sup> CCLC program offered during the first two summers, 2003 and 2004. Attendance and academic achievement outcomes for students, as well as program satisfaction and family literacy outcomes for parents, are examined. An upcoming brief on the summer 2005 program will include additional data on implementation.

### Methods

Program records from MCPS, 21<sup>st</sup> CCLC, and Linkages to Learning were used to document participation, implementation, and attendance. To measure academic performance, assessments from the school year following participation were used. Results from the MCPS Assessment Program—Primary Reading (MCPSAP) were used for reading in kindergarten and Grades 1 and 2, and Maryland School Assessments (MSA) were used for reading and mathematics in Grades 3–5. To examine the added value of the 21<sup>st</sup> CCLC, we compared outcomes for students participating in both 21<sup>st</sup> CCLC and ELO-SAIL with outcomes for students participating in ELO-SAIL only. Details of the analysis are described in the Analytic Appendix.

For parent outcomes, a satisfaction survey was sent home with students during the first month of school following each summer. A family literacy survey was sent home to parents during the last week of the program.

### Results

#### *Participation and Implementation*

All students who registered for the morning ELO-SAIL program at the ten schools were invited to attend the 21<sup>st</sup> CCLC program in the afternoon. A total of 698 students were enrolled in the 21<sup>st</sup> CCLC in summer 2003 and 682 students in summer 2004. Although the number of

openings was limited by the funds available, every student that wanted to attend was able to do so.

Race/ethnicity identification, gender, and the percentages of students receiving Free and Reduced-price Meals System (FARMS), and special education services in 21<sup>st</sup> CCLC were similar to those of all students in the ten schools, in each summer (Appendix Table A2). However, the percentage of students receiving English for Speakers of Other Languages (ESOL) services was significantly smaller for 21<sup>st</sup> CCLC than for all students in the ten schools for both summers. With this exception, the students enrolled in 21<sup>st</sup> CCLC were representative of all students in the ten participating schools.

21<sup>st</sup> CCLC offered a wide range of arts and cultural experiences (Table 1). Class enrollment was limited to 15 or fewer, so that students could work closely with the professional artists who served as teachers. These artists were recruited and selected in cooperation with the Arts and Humanities Council of Montgomery County. The Montgomery County Recreation Department provided the recreational activities.

Table 1  
Number of Art Classes Offered by Type in  
21<sup>st</sup> CCLC for Summers 2003 and 2004

Type of Class	Number of Classes	
	Summer 2003	Summer 2004
Visual arts	8	10
Music, world music, songwriting	5	7
Dance, creative movement	3	5
Theater, story theater	3	8
Creative writing	0	1

Linkages to Learning offered classes for parents to build English language skills (i.e., ESOL/Acculturation classes), as well as to develop skills to support student academic achievement (e.g., Parent Homework Club and Linkages to the Library). Linkages to Learning offered 14 classes during the 2003–2004 school year and 15 classes during the 2004–2005 school year at four of the 21<sup>st</sup> CCLC schools (Appendix Table A1). Classes were held one or two times per week for 90 minutes per session and ranged from six sessions (e.g., Linkages to Literacy) to 60 sessions (e.g., ESOL/Acculturation).

#### Student Outcomes

*Attendance at academic program.* The 21<sup>st</sup> CCLC students had better attendance at the morning academic

program than students enrolled in ELO-SAIL only (Figure 1). Average differences in attendance were 0.7 days in 2003 and 1.3 days in 2004; these differences were statistically significant for 2003 ( $t=2.99$ ,  $p<.01$ ) and for 2004 ( $t=6.56$ ,  $p<.01$ ). Note that ELO-SAIL ran for 20 days in summer 2003 and for 19 days in summer 2004. Additional analysis with statistical control for demographic differences between the two groups confirmed the significant differences in attendance.

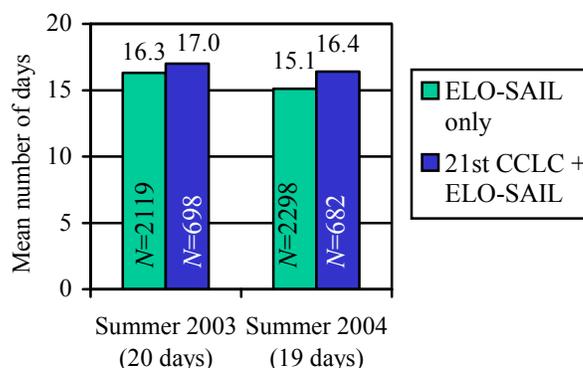


Figure 1. Attendance rates at ELO-SAIL by program group.

*Reading and mathematics assessments.* The percentage of students who were proficient in reading or mathematics on the MSA or met the MCPSAP benchmark in reading during the school year following participation in ELO-SAIL only or 21<sup>st</sup> CCLC plus ELO-SAIL is shown in Table 2 for summer 2003 and in Table 3 for summer 2004. The total number of students in each program group for each grade is shown. For both programs, only high attendance students—those who attended at least 75% of their program sessions—are included in Tables 2 and 3.

For each grade tested during the 2003–2004 school year, nearly two thirds or more of summer 2003 21<sup>st</sup> CCLC students met benchmark or were proficient in reading or mathematics (Table 2); these percentages were higher than those of ELO-SAIL only students. Statistical analysis controlling for potential differences in the demographic makeup of the two groups showed that more kindergarten students who attended 21<sup>st</sup> CCLC met the grade-level benchmark in reading than students who attended ELO-SAIL alone. Detailed results of the analysis are shown in the Analytic Appendix, Table A3. Differences between the groups in other grades were not statistically significant when controlling for demographic characteristics and prior achievement.

Table 2  
Summer 2003: Percentage of High Attendance Students Meeting Benchmark or Proficient in Reading or Mathematics by Program Group

Grade level in 2003–2004	ELO-SAIL		21 <sup>st</sup> CCLC + ELO-SAIL	
	Group N	% Proficient	Group N	% Proficient
<b>Reading</b>				
Kindergarten <sup>a</sup>	305	72.4	55	85.5
Grade 1	301	70.4	60	81.7
Grade 2	327	51.4	68	64.7
Grade 3	306	59.5	62	72.6
Grade 4	262	63.7	52	69.2
<b>Mathematics</b>				
Grade 3	307	64.5	62	66.1
Grade 4	262	63.4	52	67.3

<sup>a</sup> Significant difference between program groups, controlling for demographic differences.

Based on tests given in the school year 2004–2005, two thirds or more of the summer 2004 21<sup>st</sup> CCLC students were proficient or met benchmark in only two of six grades (Table 3). In four of the grades, higher percentages of 21<sup>st</sup> CCLC students were proficient or met benchmark in reading compared to students in ELO-SAIL only, but these differences were not statistically significant. Note that the 2004–2005 reading data for kindergarten through Grade 2 excluded four schools because they were participating in another reading program that required different assessments.

Table 3  
Summer 2004: Percentage of High Attendance Students Meeting Benchmark or Proficient in Reading or Mathematics by Program Group

Grade level in 2004–2005	ELO-SAIL only		21 <sup>st</sup> CCLC + ELO-SAIL	
	Group N	% Proficient	Group N	% Proficient
<b>Reading</b>				
Kindergarten*	130	81.5	27	81.5
Grade 1*	148	62.2	56	62.5
Grade 2*	143	38.5	65	50.8
Grade 3	211	64.9	86	62.8
Grade 4	215	75.8	45	80.0
Grade 5	206	53.4	44	61.4
<b>Mathematics</b>				
Grade 3	210	68.6	86	79.1
Grade 4	215	77.2	45	86.7
Grade 5	206	58.7	44	72.7

\*Results available for five schools only.

Results for mathematics for students who participated in the summer 2004 program were similar across grades (Table 3). Based on tests given in the school year 2004–

2005, at least two thirds of the 21<sup>st</sup> CCLC students were proficient in mathematics for all three grades, and these percentages were higher than those of students who attended ELO-SAIL only. When we controlled for demographic differences and prior achievement, however, differences between the groups were not statistically significant.

The overall goal for the 21<sup>st</sup> CCLC was met. For the 2004–2005 school year, all ten participating schools achieved AYP. Nine of the schools achieved AYP for the second consecutive year in 2004–2005, as required by MSDE to exit the school improvement process. One school achieved its first year of AYP in 2004–2005, and remained in the school improvement process until it achieved one more year of AYP.

### Parent Outcomes

*Parent satisfaction with the program.* Survey results show a high level of parent satisfaction with the 21<sup>st</sup> CCLC for both summers. Parents reported that their child enjoyed the 21<sup>st</sup> CCLC, and that it increased their child’s interest in going to the morning ELO-SAIL program (Table 4). More than three quarters of parents needed the 21<sup>st</sup> CCLC in the afternoon so that their child could attend the ELO-SAIL morning program. Thus the 21<sup>st</sup> CCLC seems to be providing an opportunity for more children to participate in the morning academic program. Given the low response rates of parents during the summers of 2003 and 2004, however (29% and 39%, respectively), these findings cannot be generalized to all parents in the ten schools.

Table 4  
Percent of Positive Responses on Parent Satisfaction Survey, Summers 2003 and 2004

Survey Item	Strongly Agree or Agree	
	Summer 2003 Group N	Summer 2004 Group N
I was pleased with the activities that were offered.	88.0% N=200	97.7% N=269
The afternoon activities increased my child’s interest in going to the morning program.	87.1% N=201	96.9% N=262
I feel my child enjoyed the afternoon activities of ELO.	85.9% N=199	97.3% N=253
I feel the afternoon activities enhanced the lessons given in the morning.	77.1% N=192	93.3% N=238
I needed to have my child in a full-day program for him/her to participate in ELO-SAIL.	85.9% N=184	86.9% N=237

*Family literacy.* Parent surveys relating to family literacy were distributed for the 2004 program. The survey addressed three family literacy skills: confidence as advocates for their children’s successes in academic achievement, ability to support and assist their children at home with literacy, and English language speaking and comprehension as it relates to supporting their children’s school achievement.

The survey had a relatively high response rate of 63%. A large majority of the respondents who had attended at least one Linkages to Learning class for family literacy felt that their class(es) helped improve their family literacy skills (Table 5).

Table 5  
Percent of Positive Parent Responses about Family Literacy Skills Gained through Linkages to Learning Classes

Survey Item	Strongly Agree or Agree
	Parents of Summer 2004 Attendees Group N
Because of my class, I am better at helping my child with reading.	97.0% N=230
My class helped me work with teachers and others at my child’s school.	97.4% N=235
My class helped me improve my English.	95.8% N=214

**Conclusions and Next Steps**

In the first two summers, there was some evidence of success for 21<sup>st</sup> CCLC. Attendance records indicated that students enrolled in 21<sup>st</sup> CCLC had better attendance at the ELO-SAIL academic program. Parents reported high levels of satisfaction with 21<sup>st</sup> CCLC and indicated their need for this afternoon program to send their child to the morning academic program. Parents also reported that participating in a Linkages to Learning class helped them support their child’s school achievement.

In most grades, 21<sup>st</sup> CCLC students had higher percentages of meeting benchmark or proficiency in reading and mathematics than students who attended ELO-SAIL only, although statistical analysis indicated that these differences were related to demographic characteristics and prior achievement. Additional study of student achievement, with larger numbers of students, is needed.

The goal of the MCPS 21<sup>st</sup> CCLC is for all participating schools to achieve AYP. This goal is being met; all ten of the participating schools attained AYP in the 2004–

2005 school year. The impact of the 21<sup>st</sup> CCLC, however, cannot be determined in isolation, because all participating schools experienced multiple interventions.

The 21<sup>st</sup> CCLC enrolled many students who are economically disadvantaged and have significant English language learning needs and thus are at the greatest risk of losing ground during the time out of school during the summer (Cooper, 2001). The achievement shown by the students attending this program, as well as the feedback collected from their parents, suggests that the MCPS 21<sup>st</sup> CCLC is meeting important needs of these students and their families.

**References**

Cooper, H. (2001). Summer school: Research-based recommendations for policymakers. *SERVE Policy Brief*. School of Education, University of North Carolina at Greensboro.

Sunmonu, K. K., Curry-Corcoran, D., & Mordica, J. (2004). *2003 Summer Evaluation of the Extended Learning Opportunities (ELO) Program Evaluation Report*, Rockville, MD: Montgomery County Public Schools, Office of Shared Accountability.

**Montgomery County Public Schools 21<sup>st</sup> Century Community Learning  
Centers Program: Outcomes for Summers 2003 and 2004**

**Appendix**

Table A1  
21<sup>st</sup> Century Community Learning Centers Program Enrollment for  
Summer 2003 and Summer 2004, and Linkages to Learning Sites

School	N 2003	N 2004	Linkages to Learning Site
Broad Acres	132	118	Yes
Burnt Mills	96	**	No
Gaithersburg	105	48	No
Harmony Hills	102	126	Yes
Highland	74	70	Yes
Kemp Mill	65	89	No
Rosemont	*	46	No
Summit Hall	29	45	Yes
Weller Road	95	93	No
Wheaton Woods	**	47	No
<b>Total</b>	<b>698</b>	<b>682</b>	

\*Rosemont students attended 21<sup>st</sup> CCLC at Gaithersburg.

\*\* Program not offered at this site.

Table A2  
Characteristics of 21<sup>st</sup> Century Community Learning Center Participants in  
Summer 2003 and Summer 2004

	Program Year	21 <sup>st</sup> CCLC Participants	21 <sup>st</sup> CCLC Schools
Number of Students	2003	698	5,284
	2004	682	5,024
Race			
African American	2003	32.4%	26.1%
	2004	31.0%	26.1%
American Indian	2003	0.4%	0.4%
	2004	0.3%	0.3%
Asian American	2003	7.4%	10.0%
	2004	9.2%	9.3%
Hispanic	2003	49.1%	52.9%
	2004	49.0%	54.4%
White	2003	10.6%	10.7%
	2004	10.5%	10.7%
Gender			
Female	2003	45.7%	48.3%
	2004	48.6%	48.7%
Male	2003	54.3%	51.7%
	2004	51.4%	51.3%
FARMS	2003	62.2%	65.6%
	2004	62.9%	65.8%
Special Education	2003	11.2%	9.8%
	2004	10.5%	8.9%
ESOL	2003	22.8%	26.6%
	2004	25.1%	30.5%

## Analytic Appendix

To address potential differences in the demographic makeup between 21<sup>st</sup> CCLC and ELO-SAIL students and ELO-SAIL only students, we used a multivariate technique (logistic regression) to statistically control for differences in race/ethnicity group membership, gender, and FARMS, special education, and ESOL status. For grades with previous year's assessments (i.e., Grades 1 through 4 in reading and Grades 3 and 4 in mathematics), we controlled for prior achievement.

Analysis of summer 2003 data (using logistic regression to control for demographic differences) showed that more kindergarten students who attended 21<sup>st</sup> CCLC met the grade-level benchmark than did students who attended ELO-SAIL alone (B coefficient=.86, SE=.43,  $p < .05$ ), with an Odds Ratio (Exp(B)) of 2.36, suggesting 21<sup>st</sup> CCLC students were more than twice as likely to achieve the reading benchmark. In view of the small sample sizes for 21<sup>st</sup> CCLC, diagnostic measures for influential observations were performed; no influential observations were detected. Detailed results of the logistic regression are presented in Table A3.

Analysis of summer 2004 data revealed no significant differences between the program groups in proficiency or meeting benchmark, when demographic characteristics and prior achievement were statistically controlled.

It should be noted that numbers of students in the multivariate analyses for both summers were smaller than those shown in Tables 2 and 3 because students without prior achievement data were excluded.

Table A3  
Results of Logistic Regression Analysis with Significant Effect for  
21<sup>st</sup> Century Community Learning Center Attendance  
after Controlling for Demographic Differences

Kindergarten Reading, Summer 2003 <sup>1</sup>					
			95% Confidence Interval for Exp(B)		
	B	Standard Error of B (SE)	Lower	Exp(B)	Upper
Constant	0.85	0.58		2.34	
African American	-0.14	0.58	0.28	0.87	2.70
Asian	0.61	0.64	0.53	1.83	6.36
Hispanic	-0.47	0.54	0.22	0.62	1.80
Female	0.62*	0.26	1.11	1.86	3.12
FARMS	-0.04	0.29	0.54	0.96	1.71
Special Education	-0.70	0.48	0.19	0.50	1.27
ESOL	-0.88**	0.29	0.23	0.41	0.73
21 <sup>st</sup> CCLC	0.86*	0.43	1.02	2.36	5.45

\* $p < 0.05$ ; \*\* $p < 0.01$

<sup>1</sup> Note  $R^2 = 0.10$  (Cox & Snell), 0.14 (Nagelkerke). Model  $\chi^2(8) = 36.88$ ,  $p < 0.001$ .