



*INVEST IN CHILDREN EVALUATION
PROGRAM BRIEFING REPORT
CUYAHOGA COUNTY, OHIO*

OCTOBER 2014

FAMILY CHILD CARE HOMES: EVALUATION UPDATE

ELIZABETH R. ANTHONY, PH.D., ROB FISCHER, PH.D., NINA LALICH, M.S.P.H.

KEY FINDINGS

Based on data maintained by Starting Point, evidence suggests:

1. The environmental quality of CFK-certified FCCH providers, as measured by the Family Day Care Rating Scale (FDCRS) increased modestly from 2000 to 2008, but saw substantial increase between 2010 and 2013.
2. Family Child Care Home (FCCH) provider participation in supportive services (i.e., technical assistance and training) is relatively high. In 2012-2013, 73.2% of FCCH providers participated in at least 1 training session and 66.1% received at least 1 technical assistance visit.
3. In 2012-2013, approximately three-quarters of all FCCH providers applied to the CFK program. Nearly half of homes that applied became CFK certified and 81% of homes that were certified earned Gold Seal status.
4. In 2012-2013, FCCH providers delivering higher quality care were more likely than lower quality FCCHs to remain open.
5. Receipt of technical assistance is associated with increased FCCH quality. From 2001 to 2013, FCCH providers who received a high dose of technical assistance demonstrated a higher average FDCRS score than homes that received a low dose of technical assistance.
6. School readiness as measured by the Kindergarten Readiness Assessment Literacy (KRA-L) appears modestly associated with attending a high quality FCCH for at least 6 months before kindergarten.

Introduction

Family child care is a home-based service where a caregiver provides child care in his or her home. It is a widely used type of care for infants, toddlers, and preschoolers in the United States. Launched in 1999, Invest in Children's (IIC) Family Child Care Home (FCCH) initiative sought, in part, to improve the quality of the FCCH system in Cuyahoga County. Starting Point, the regional Child Care Resource and Referral Agency, was tasked with providing technical assistance and training to support the development of high quality FCCHs in the county. All professional development and quality enhancement activities are designed to create an early care and education system that will prepare children for school and later life.

Professional Development Opportunities for FCCH Providers

Starting Point offers training and professional development opportunities covering topics from the business of child care to child development, first aid, developmentally appropriate practices, communicable diseases, building relationships with families and more. In addition, FCCH providers can participate in Starting Point's voluntary Care for Kids (CFK) program. CFK is aimed at fostering quality in child care homes. FCCH providers must apply to the program and participate in higher levels of training and assessment. CFK certifies FCCH providers as achieving Gold Seal status if they earn a Family Day Care Rating Scale (FDCRS; described below) score of 5 or higher.

FCCH providers can also participate in the T.E.A.C.H. Early Childhood Ohio Scholarship program. T.E.A.C.H. is a compensation and retention program for child care professionals developed to advance their level of education by making the educational process affordable. T.E.A.C.H. helps FCCH providers gain a child development associate (CDA) credential or a college degree.

Evaluation Methodology

Drawing heavily on electronic data maintained by Starting Point, this evaluation examines whether the quality of child care delivered in FCCHs has improved over time as a result of professional development participation among FCCH providers.

The core questions to be examined in this report are:

1. To what extent do FCCH providers make use of professional development opportunities including training and technical assistance, CFK, and the T.E.A.C.H. Early Childhood Ohio Scholarship?
2. Has the quality of care delivered in FCCHs increased with time?
3. Does participation in the FCCH technical assistance program relate to quality in the child care setting over time?

Environmental quality is measured in CFK using the FDCRS (Harms & Clifford, 1989). The FDCRS is a widely used measure of process quality in FCCHs, assessing the characteristics of the physical environment as well as the learning experiences of the children in care. It includes 32-items covering six subscales or categories. Subscales include space and furnishings for care and learning, basic care, language and reasoning, learning activities, social development, and adult needs. Each item is scored from 1, inadequate or poor, to 7, excellent. A score of 5 or greater warrants a Gold Seal, indicating high quality care that is meeting the developmental needs of the children.

Evaluation Question 1: To what extent do FCCH providers make use of professional development opportunities including trainings and technical assistance, CFK, and the T.E.A.C.H. Early Childhood Ohio Scholarship?

FCCH Sample Description

To answer Evaluation Question 1, Starting Point's most recent available data (from 2012-2013) were analyzed. There were 832 FCCH providers in Cuyahoga County in 2012-2013. Some providers have been offering child care services since 1991; however, on average, providers have been in operation for 11.6 years ($SD=5.8$ years). In 2012-2013, approximately 17% or 138 FCCHs closed. Figure 1 below shows the location of FCCH providers by operational and Gold Seal status in 2012-2013. As illustrated by the map, FCCHs in 2012-2013 were scattered throughout the county, but predominately clustered on the city's east side. The city of Cleveland is home to 64.5% of FCCH providers.

Family Child Care Homes in Cuyahoga County, 2013

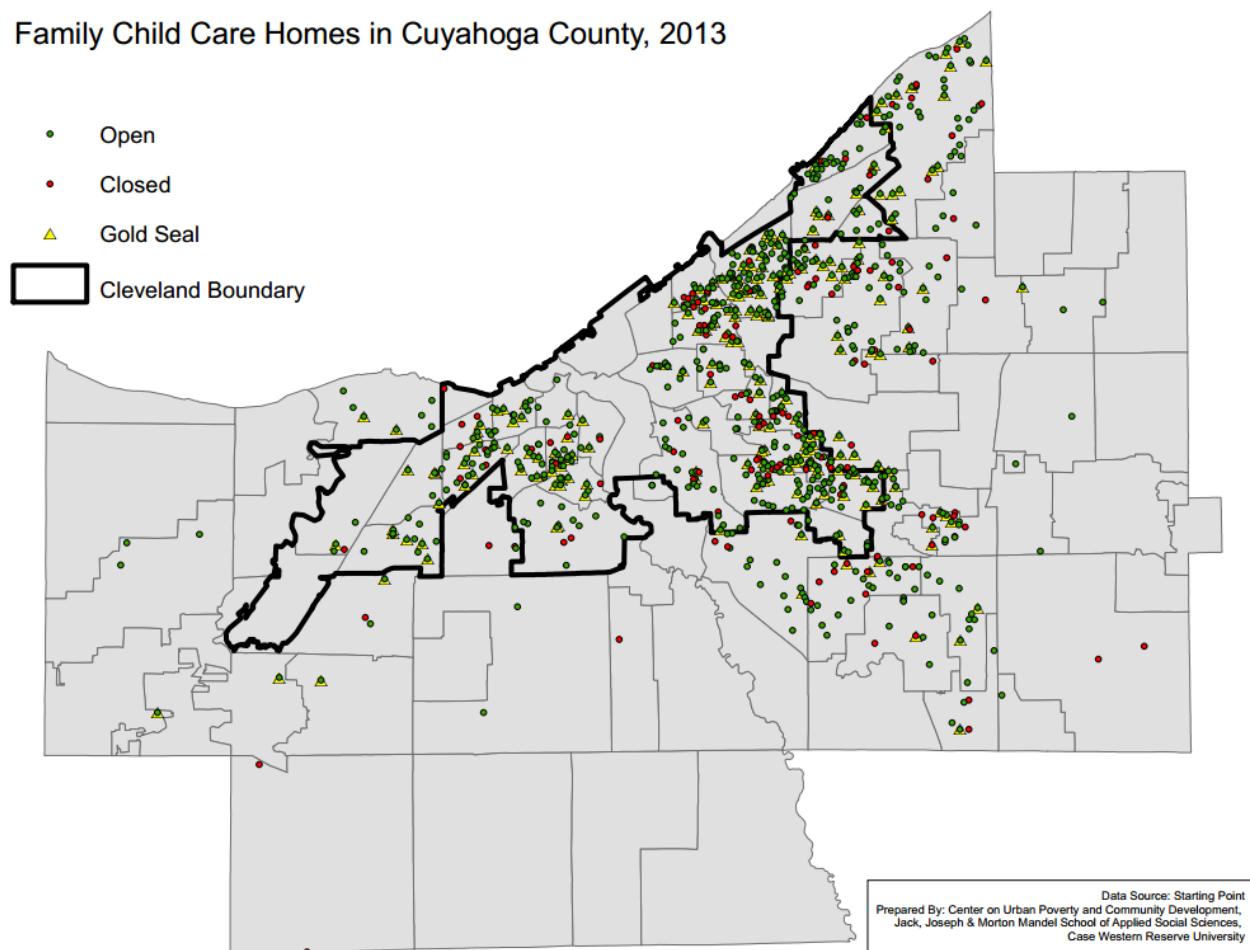


Figure 1. Map of FCCHs in Cuyahoga County, 2012-2013 (N=832).

Results

In 2012-2013, 609 or 73.2% of FCCH providers who were open for any point during the year participated in at least one training session. The average number of training sessions attended in 2012-2013 by these 609 providers was $M=6.5$ ($SD=10.1$). However, these providers have been in operation for an average of $M=11.6$ years ($SD=5.8$). Therefore, the average number of trainings attended per year in operation among the 609 providers was $M=4.8$ ($SD=24.9$).

Among the 832 providers open at any point during the 2012-2013, 550 or 66.1% received at least one technical assistance visit. The average number of technical assistance visits received by the 550 FCCHs during the 2012-2013 year was $M=6.9$ ($SD=4.7$). These providers received an average of $M=3.0$ ($SD=12.9$) technical assistance visits per year in operation.

In 2012-2013, 614 or 73.8% of the 832 FCCHs applied to the CFK program. Approximately 46% ($n=285$) of providers who applied to the CFK program in 2012-2013 completed the application process within the year and became CFK certified. Of those who became CFK certified, 81% or 231 earned a Gold Seal (i.e., received a FDCRS score > 5). Lastly, 10.2% of providers received T.E.A.C.H. Early Childhood Ohio Scholarships in 2012-2013.

Given the number of FCCH providers that closed in 2012-2013 ($n=138$), we explored differences between the homes that closed and those that remain open. Results suggest that closure status was not related to service tenure or Gold Seal status (see **Table 1** below). Proportionally equal numbers of homes that closed and that remain open were in operation for more than 10 years. Similarly, proportionally equal numbers of homes that closed and that remain open had attained gold seal status. A significantly greater proportion of homes that remain open, however, were participating in the CFK program. While 50% of FCCHs that are currently providing services are involved in the voluntary CFK program, only 8% of homes that closed were involved in the program.

Table 1. Association between closure status and tenure, CFK participation, and gold seal status among FCCHs, 2012-2013.

Status in 2012-2013	Operating for > 10 yrs ^a	Participating in CFK Program*	Awarded Gold Seal ^b
Open	$n=470, 67.7\%$	$n=347, 50.0\%$	$n=222, 64.0\%$
Closed	$n=92, 66.7\%$	$n=11, 8.0\%$	$n=7, 63.6\%$

^a $\chi^2(1, N=832) = 0.06, p = .81$.

* $\chi^2(1, N=832) = 82.9, p < .01$.

^b $\chi^2(1, N=358) = 0.00, p = .98$. This nonsignificant chi-square result should be interpreted with caution as one cell has a count of less than 10 observations.

Note. 10 years was selected as the dichotomous cut point due to a bimodal 'years in service' variable distribution. That is, no FCCH providers were in service for 10 years (either significantly more or significantly less).

Providers who closed in 2012-2013 differed from homes that remain open in three additional areas. Providers who closed attended significantly fewer trainings per year in operation ($M=0.3, SD=0.5$) than

homes that remain open ($M=5.1$, $SD=25.6$). Similarly, homes that closed received significantly fewer TA visits per year in operation ($M=0.5$, $SD=0.8$) than homes that remain open ($M=3.2$, $SD=13.4$). Lastly, homes that closed had a lower mean FDCRS score ($M=1.7$, $SD=2.7$) than homes that remain open ($M=3.4$, $SD=2.9$). These findings suggest that lower quality homes are more likely than higher quality homes to discontinue service.

Evaluation Question 2: Has the quality of care delivered in FCCHs increased with time?

FCCH Sample Description

To examine FCCH quality over time, a cross-sectional sample was created using data extracted by Starting Point in February 2014. The data extraction included all FCCHs in Cuyahoga County that had ever been certified, $N=2,758$. Only a subset of these homes remained in operation as of December 2013, $n=694$.

Results

To explore quality of care over time, all FCCHs participating in the CFK program each year, regardless of when they were certified, were included. Sample sizes are quite varied from year to year. For example, in 2000, data are available from $n=203$ providers whereas in 2001 data are available from $n=768$ providers. The percentage of providers participating in the CFK program also varied each year. For example, in 2013, 358 of the 832 providers ever open in the year (see **Table 2**) participated in CFK, however, valid FDCRS scores were only available for 315 of the 358 FCCH providers in the program. As illustrated in **Figure 2** below, with the exception of 2009, quality of care has increased from 2000 to 2013. The decrease in quality from 2008 to 2009 likely reflects Starting Point's use of the alternate form of the FDCRS, which they switched to for only that year. While quality of care has increased over time, it was only in the last two years (2012, 2013) that the average FDCRS score was greater than 5 (indicative of Gold Seal status).

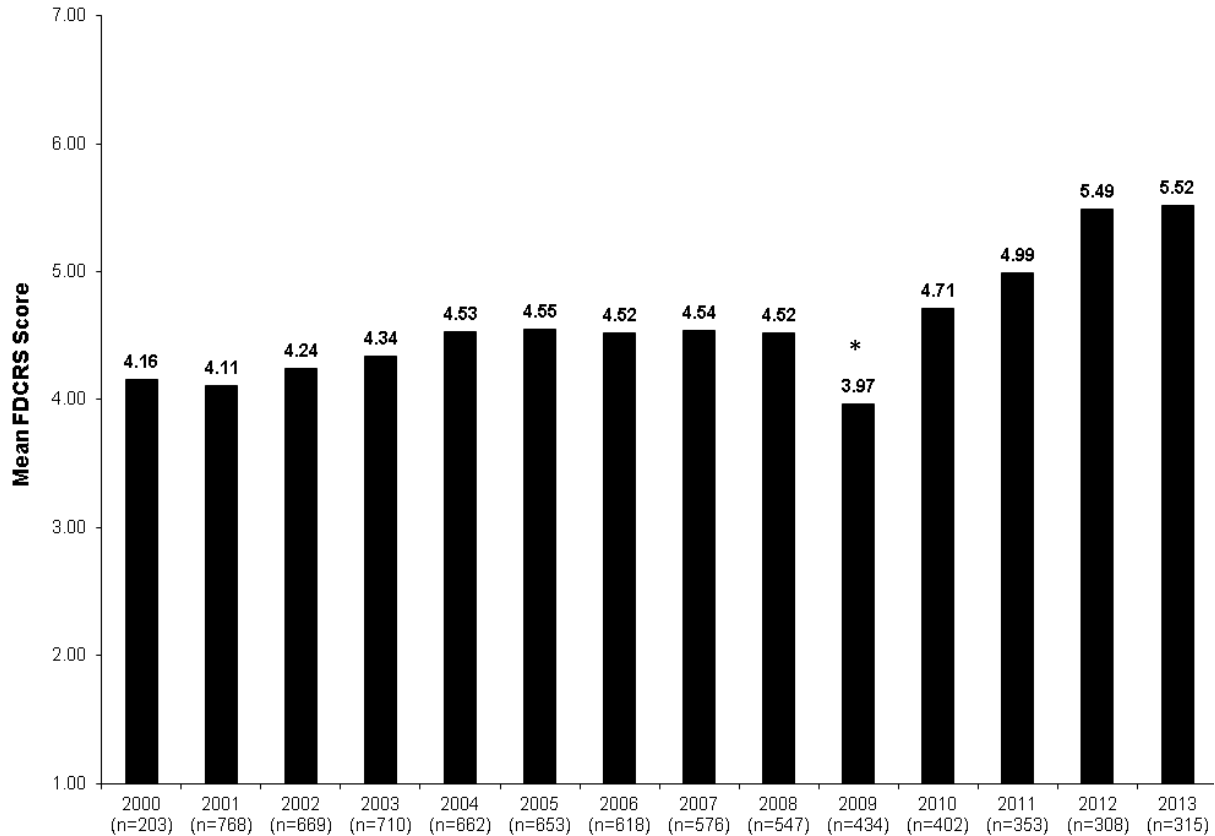


Figure 2. Mean FDCRS score among FCCHs participating in CFK, 2000-2013.

* Note. Alternate form of FDCRS used for 2009 only.

In addition to mean FDCRS scores increasing over time, the percent of FCCHs earning a score of 5 or greater, suggesting high quality care, has increased as well, particularly since 2010 (see **Figure 3** below). In 2013, 82.2% of FCCH providers earned a FDCRS score of 5 or greater compared to 29.6% of providers in 2000.

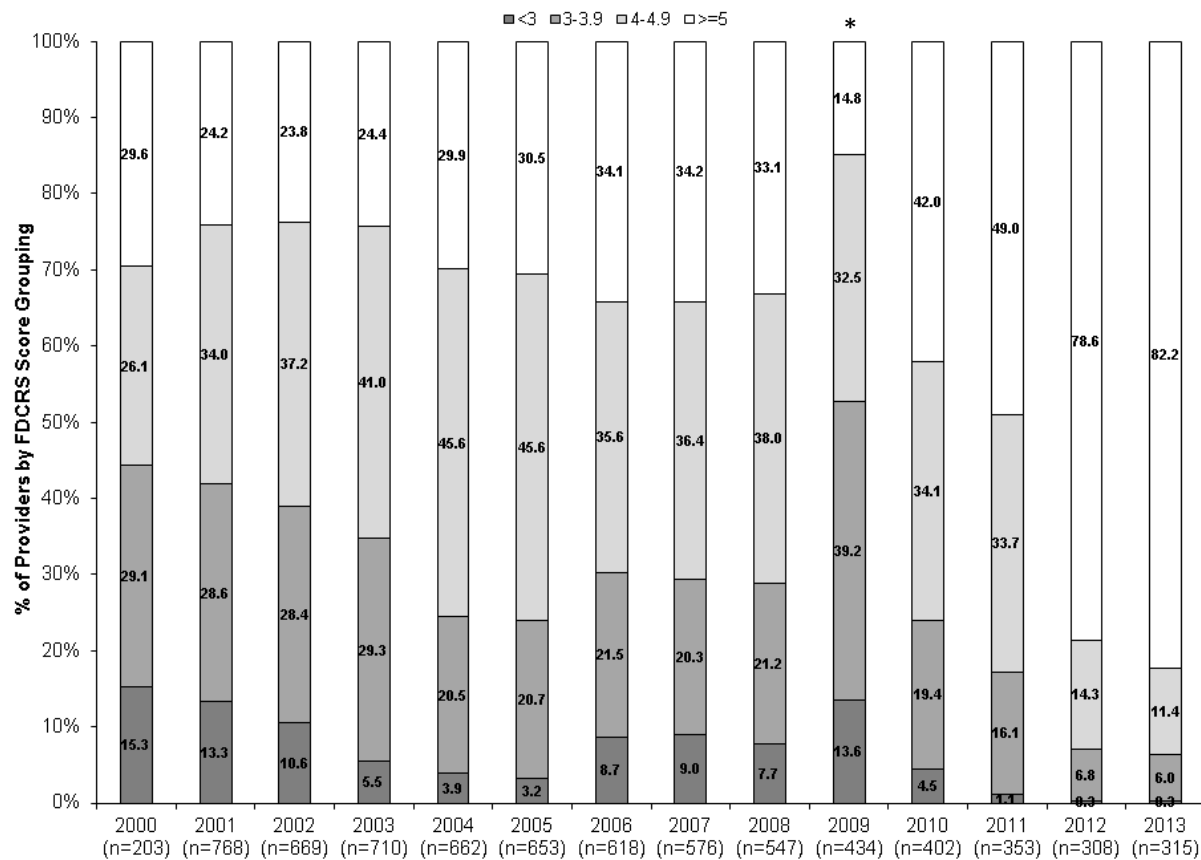


Figure 3. Percent of FCCH providers by FDCRS score groupings, 2000-2013.

* Note. Alternate form of FDCRS used for 2009 only.

Evaluation Question 3: Does participation in the FCCH technical assistance program relate to quality in the child care setting over time?

FCCH Sample Description

We explored the association between participation in professional development opportunities and quality of child care in two ways. First, we created low and high technical assistance dose groups. For each year, the frequency distribution of TA visit receipt among all FCCHs was plotted. Low dose homes comprise the lower 25% of the distribution and high dose homes comprise the upper 25% of the distribution. **Table 2** below presents the number of homes in each category from 2000 to 2011. In 2012, a new proscribed model of TA participation was implemented; FCCH providers were mandated to participate in a set number of TA visits based on their FDCRS score. As they were not freely self-selecting to receive TA, we do not include data after 2011 in this analysis.

Table 2. Number of low dose and high dose FCCH, 2000-2013.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Low	494	419	384	357	321	370	364	315	325	324	233	238
High	484	384	379	324	374	370	278	277	256	247	252	205

Results

Given the small number of homes in the low dose group with a valid FDCRS score (see **Table 3** below), comparison of the mean FDCRS scores between low and high dose groups from 2009 to 2011 should be done with caution. As illustrated in **Table 3**, high dose homes had higher average FDCRS scores than low dose homes for every year except in 2000 suggesting a positive association between TA visit receipt and quality of child care provided. However, while high dose homes outperformed low dose homes, average FDCRS scores for high dose homes only exceeded 5 four times.

Table 3. Mean (standard deviation) FDCRS score among low and high dose TA homes, 2000-2011.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Low	4.6 (1.4)	3.9 (1.1)	4.0 (1.0)	3.9 (0.8)	4.0 (0.8)	4.3 (0.7)	3.7 (1.2)	3.5 (1.1)	3.3 (1.1)	*3.7 (1.0)	*3.5 (0.9)	*4.8 (0.8)
High	4.1 (1.2)	4.2 (1.1)	4.2 (0.9)	4.6 (0.9)	4.7 (0.8)	4.7 (0.9)	4.9 (1.0)	4.9 (1.0)	5.0 (0.9)	4.2 (0.9)	4.9 (1.0)	5.2 (1.0)

*Fewer than 20 FCCHs in these groups.

Second, using a change score regression model, we explored the contribution of average number of trainings attended per year and average number of technical assistance visits received per year to FDCRS score change. Among the FCCHs included in the analysis, 68.0% of providers increased in quality from their initial to most recent FDCRS score (by an average of 1.6 points), 2.3% scored exactly the same at Time 1 (initial FDCRS) and Time 2 (most recent FDCRS), and 29.7% decreased in quality (by an average of -0.9 points). **Table 4** highlights differences between providers whose quality increased (i.e., ‘increased quality’ group) and providers whose quality decreased (i.e., ‘decreased quality’ group) on variables included in the change score regression.

Table 4. Mean score differences between FCCHs that increased and decreased in quality.

	‘Increased Quality’ Group		‘Decreased Quality’ Group	
	M	SD	M	SD
Years in service	7.8	5.2	5.7	3.9
Average trainings attended / year	3.7	2.7	3.1	3.0
Average TA received / year	7.3	4.0	6.8	3.2
Average initial FDCRS score	3.3	0.9	4.8	1.3
Average most recent FDCRS score	4.9	1.1	3.8	1.1

Interestingly, FCCHs that decreased in quality from their initial to most recent FDCRS score had higher initial FDCRS scores, on average, than homes whose quality increased from Time 1 to Time 2. Yet, FCCHs in the ‘increased quality’ group were in operation for an average of 2.1 years longer than homes in the ‘decreased quality’ group. In addition, they attended slightly more trainings per year in operation and received slightly more technical assistance than homes in the ‘decreased quality’ group. **Table 5** below, presents correlations among professional development and most recent FDCRS score.

Table 5. Correlations among professional development and most recent FDCRS score.

	1.	2.	3.	4.
1. First FDCRS score	-			
2. Average number of trainings attended per yr	-.06	-		
3. Average number of technical assistance visits per yr	.02	*.65	-	
4. Most recent FDCRS score	*.23	*.25	*.32	-

*p<.05.

As shown in **Table 5**, initial FDCRS score is neither associated with average number of trainings attended per year nor average number of technical assistance visits received per year suggesting that providers who come into the CFK program already at high quality are not self-selecting to attend more trainings or receive more TA. As would be expected, initial FDCRS score and most recent FDCRS score were positively correlated as was average number of trainings attended per year and average number of technical assistance visits received per year. Both training and technical assistance were also positively correlated with most recent FDCRS score such that increases in the number of trainings attended and the number of TA visits received were associated with increases in most recent FDCRS score.

Table 6 presents change score regression coefficients for three different models. Model 1 includes the effect of initial FDCRS score on FDCRS score change, accounting for 39.0% of the variance in change. Initial FDCRS score is significantly related to change score; the negative correlation between the two variables indicates that as a provider’s initial FDCRS score increases the amount of change possible decreases. In Model 2, we included the effect of average number of trainings attended per year in operation to initial FDCRS score. Results indicate that average number of trainings attended per year significantly predicts FDCRS score change, after controlling for the effect of initial FDCRS score. However, adding this variable to the model accounted for a small percent of the variance. Interpretation of the regression coefficient indicates that a provider would have to attend an average of approximately 10 trainings per year in operation to see a one point change (increase) in FDCRS score. Lastly, Model 3 includes the average number of TA visits received per year. This variable also significantly predicts change in FDCRS score after controlling for the effect of initial FDCRS score and mean number of trainings attended per year on change. With the inclusion of TA in the model, however, average number of trainings attended per year no longer predicts FDCRS score change. Similar to the interpretation of Model 2, a provider would have to receive about 10 TA visits per year to see a 1 point change (increase) in FDCRS score. Importantly, the final model accounts for less than half of the variance in FDCRS score change suggesting other omitted factors that significantly predict this outcome.

Table 6. Contribution of professional development to FDCRS score change.

	b	SE B	β	p	Adj R2
Model 1					.39
Initial FDCRS score	-.77	.07	-.63	<.001	
Model 2					.43
Initial FDCRS score	-.76	.07	-.62	<.001	
M # trainings attended per yr	.11	.03	.21	<.001	
Model 3					.45
Initial FDCRS score	-.77	.07	-.63	<.001	
M # trainings attended per yr	.04	.04	.07	.33	
M # TA visits received per yr	.10	.03	.21	.006	

Exploratory Analyses

Lastly, we linked information on FCCH provider quality to kindergarten readiness to explore associations between quality of early childhood education in FCCHs and subsequent school readiness. Since 2005, public schools in the State of Ohio have used the State-mandated Kindergarten Readiness Assessment-Literacy (KRA-L) to measure kindergarten readiness. KRA-L scores range from 0-29 and fall in one of three bands: Band 1 (0-13) - defined as *Assess broadly for intense instruction*; Band 2 (14-23) - defined as *Assess for targeted instruction*; and Band 3 (24-29) - defined as *Assess for enriched instruction*. For the purposes of remediation, children scoring in Band 1 may be at serious risk of being unprepared for kindergarten, and children scoring in Band 2 may reflect some level of unpreparedness. The purpose of these scores is to guide kindergarten educators in developing individually tailored, child specific instruction.

Using childcare subsidy data from Cuyahoga County Job and Family Services from 2007-2010 and Cleveland Metropolitan School District (CMSD) data from 2009 to 2011, we followed children born in Cuyahoga County between 2004 – 2006 through preschool and kindergarten. As seen in **Figure 4** below, FCCH attendance was broken into several categories based on length of time in care, whether the home had Gold Seal status, and whether the child also received another form of high quality child care. **Figure 4** only contains information from children using a subsidy to attend a FCCH. The percent of CMSD students born between 2004 and 2006 and scoring in Bands 1-3 are presented for comparison purposes.

As depicted in **Figure 4**, children who attended a non-Gold Seal (GS) home for at least one month and did not receive any other form of high quality child care had the lowest average KRA-L score, nearly 2 points below the CMSD average for children born between 2004 and 2006. Children who attended a Gold Seal home for at least 12 months and received another form of high quality child care had the highest average KRA-L score, 17.6. Attending a GS home, but not receiving another form of high quality care produced a small increase in average KRA-L score, but still did not exceed the KRA-L average for CMSD students born between 2004-2006. Receiving care in a GS home as well as from another high quality provider raised KRA-L scores between 1.2 and 2.1 points.

These results suggest that attending a GS home for at least a year is associated with a modest increase in KRA-L scores; however, these data are correlational and could be the result of self-selection. That is, GS homes could attract a different type of family than non-GS homes and those families could differ in other ways that are related to their children's kindergarten readiness. These findings could be the result of family differences and have nothing to do with FCCH attendance.

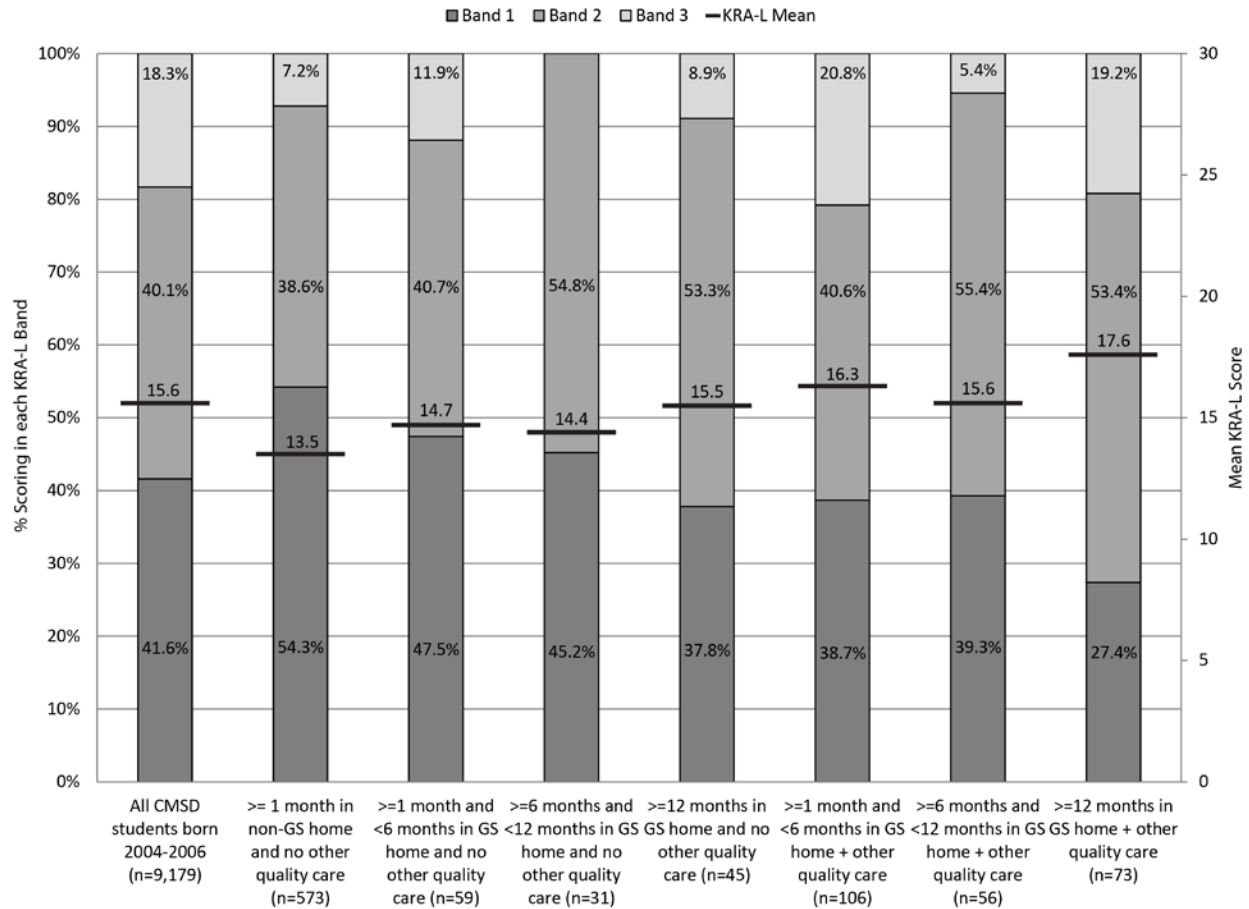


Figure 4. Percent of children by KRA-L score band and FCCH dose.

Conclusions

The research questions explored in this document produce results to inform program improvement and evaluation planning. Using data maintained by Starting Point covering different periods of time, the following conclusions are warranted:

- The landscape of care provided in FCCHs has shifted over time to a more professionalized, engaged population of home-based providers as lower quality FCCHs have closed and more providers who remain open elect to participate in CFK.
- Voluntary participation in quality enhancement via the CFK program is associated with care quality. Specifically, FCCH provider receipt of TA is modestly related to the quality of care delivered.
- Consistent high quality FCCH care exposure is moderately associated with improved school readiness. Children with longer care episodes in Gold Seal FCCHs demonstrated better kindergarten readiness upon arrival at school compared to those with short service and the general population of CMSD kindergarten students.