POLICY RESEARCH BRIEF

Unintended and Inequitable Impacts of a 2017 Policy Change for License-Exempt Home Child Care

David Alexander, Julia Henly, and Marcia Stoll, March 2022

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Executive Summary

This research brief addresses the question of whether an Illinois policy change that aimed to improve the quality of child care had the unintentional effect of sharply reducing the number of children in subsidized child care. In February 2017, the Illinois child care subsidy program (CCAP), spurred by a change in federal policy, the 2014 reauthorization of the Child Care and Development Block Grant, announced that license-exempt home child care (or FFN – family, friend and neighbor) providers would need to complete up to 21 hours of preservice health and safety training in order to receive child care payments from the state. This would bring them more in line with training required of licensed home and center child care providers. Anecdotal evidence, including reports from staff of the Illinois Child Care Resource and Referral Agencies which administer CCAP, indicates that some FFN child care providers were unwilling or unable to undertake this training. Over the next year through February 2018, the number of subsidized FFN providers in Illinois fell 23 percent, and subsidized children in that care fell 21 percent.

Our statistical analysis indicates that the drop in enrollment was due to the unintended impact of the policy change and measures this impact as follows:

- **Impact on children:** By October 2017, seven months after the new requirements were announced, 8,356 fewer children were in license-exempt home care in CCAP than would have been if the policy were not announced. Six months later in April 2018, the cumulative impact was a loss of 10,088 children. Data suggest that the vast majority of these children left CCAP as opposed to switching to another type of care.

- **Impact on license-exempt providers:** By October 2017, 2,988 fewer FFN providers participated in CCAP than would have if the policy were not announced. Six months later, the cumulative impact was a loss of 4,020 FFN providers.

License-exempt home child care in CCAP is used by families of all races and incomes, but particularly by parents with children that identify as African American.[2] From an equity standpoint, it matters whether policy regarding FFN child care is neutral, favorable or unfavorable to their participation in CCAP.

- **Children by race:** Black or African American children using FFN care were impacted in larger numbers and at a higher rate than other children – 5,016 Black children as of October 2017. The other two large racial groups, Latinx and White children, had smaller but significant declines.

FFN care is also used disproportionately by parents who work non-standard work schedules.[3] This study found, however, that a 1.8 percent decline in the share of CCAP parents who work nonstandard schedules following the policy change (evidence of a disproportionate impact on parents who work nonstandard schedules) is not statistically significant.[4]

Background

License-exempt home-based child care, also known as family, friend and neighbor child care (FFN care), is legal care in Illinois in the unlicensed home of the provider or the child's home. Illinois limits the number of children allowed in a FFN care setting to no more than three if the children are not related. In CCAP, where the plurality of subsidized children were in FFN care as recently as 2010, FFN providers were paid far less than licensed providers: during the period 2016 – 2017, just $16.22 per child for a full day (or about $2 per hour) compared to a rate as high as $35.30 for a licensed home provider caring for a toddler.[5]

The new training requirements announced in February 2017 required that FFN providers complete a series of health and safety trainings by October 2017 in order to receive future CCAP payments and that any FFN provider new to CCAP had to complete the requirements before they could receive CCAP reimbursement. While the policy was never enforced in its original specification and CCAP eventually exempted all relative providers, the announced policy required all FFN providers to take several hours of training, and in this form it was widely promulgated, including in official letters to CCAP providers.[6] Crucially, many FFN providers may have lacked the skills, equipment or internet access to take online trainings.

Initial Illinois Health and Safety Training Requirements, February 2017

As originally announced, the new preservice health and safety training policy required 16 to 21 training hours, depending on whether the training was taken in person or online. Trainings included:

- Illinois' ECE Credential Level 1, Tier 1 (8-12 hours)
- CPR/First Aid Training (5 hours, in person only)
- Child Abuse and Neglect / Mandated Reporter Training (1-2 hours)
- "What is CCAP?" (2 hours)

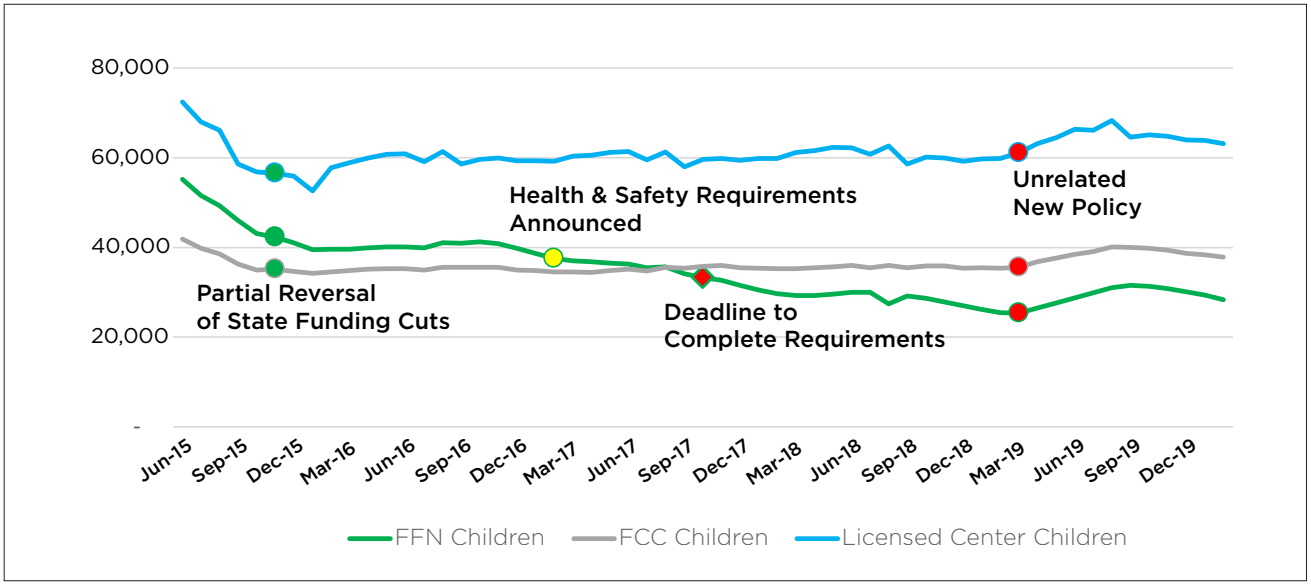
Providers who completed these requirements received a 10 percent CCAP reimbursement add-on. They could voluntarily complete the second and third tiers of the ECE credential to receive 15% or 20% rate add-ons, respectively. In Illinois the training requirements were more rigorous than required in the 2014 federal reauthorization of the Child Care Development Block Grant.

Beginning in April 2017, the requirements and deadlines changed several times, potentially confusing providers. Also, in order to register and complete some of the tasks, providers had to log on to the state's Gateways provider registry, a process which presented technical challenges to some. In September 2018, a shorter 11- to 13-hour set of requirements was introduced (without an add-on) which allowed providers to complete a "Health and Safety Basics" training in place of the ECE Level 1 Tier 1.

Figures 1 and 2 show how the policy change appears to be correlated with a sharp decline in the number of subsidized children using FFN care and the number of subsidized FFN providers.

Trends in subsidy children using FFN care: **Figure 1** shows trends since June 2015 in the three major types of child care in CCAP as measured by the number of children in care: licensed center-based care, FFN care, and licensed family child care (FCC) homes.

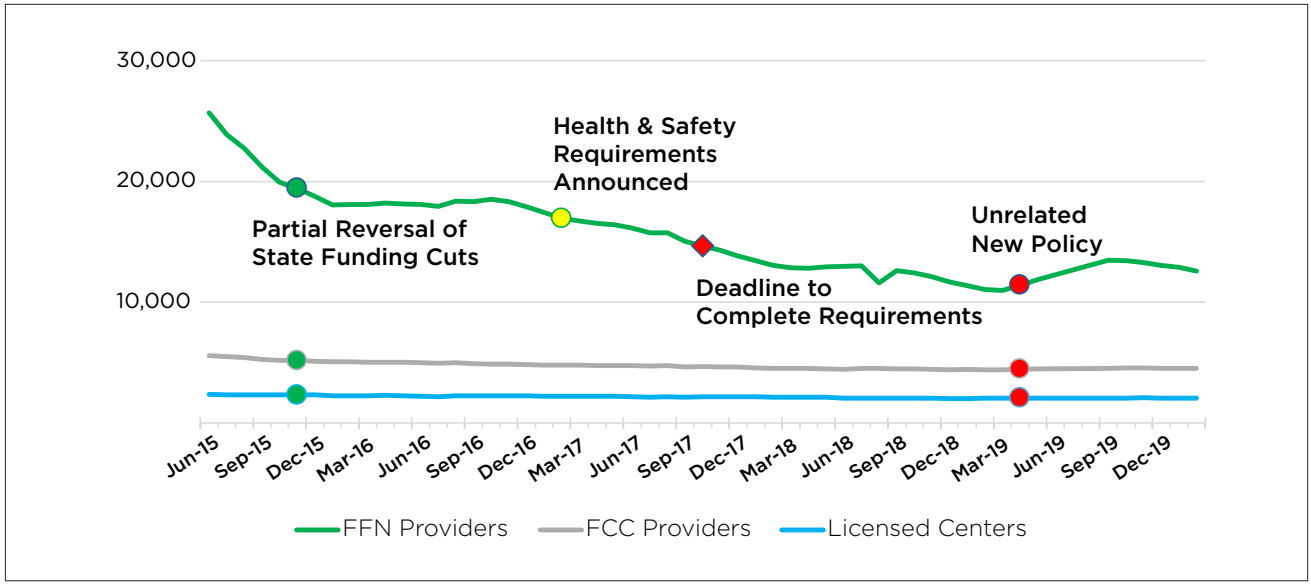
Figure 1. Children with Child Care Assistance by Type of Care, with policy changes, June 2015 – Feb. 2020



As Figure 1 illustrates, emergency state child care funding cuts in July 2015 (far left of trends) sharply lowered the number of children in all three types of child care in CCAP. A partial reversal of the state cuts stabilized this trend (flattened the trend lines) at a lower number of children beginning about November 2015 (the green dots on the left). For licensed center and licensed home care, the trends remained flat or rose slightly until about March 2019 (red dots). At that point the impact of an unrelated policy temporarily boosted the number of children in subsidized care.[7] While the number of children in licensed care was stable for about 3.5 years after November 2015, children in FFN care resumed falling as early as November 2016 and continued until this care also received the boost from the new policy after March 2019. This study examines the new health and safety training requirements for FFN providers as they were announced in February 2017 (yellow dot).[8] The red diamond shows the announced deadline of October 1, 2017 for FFN providers to comply with the new regulations. To summarize, in Figure 1 the green dots and the red dots indicate the beginning and end of our study period, a period of relative stability for licensed center and home care, but for FFN care a period of brief stability followed by a decline of more than 10,000 children.

Trends in subsidized FFN providers: **Figure 2** shows that trends for Illinois providers of the three major types of child care in CCAP were similar to the trends for children over the period of study. Instead of holding steady or rising, however, the number of licensed homes and centers fell slightly until March 2019 (red dots), a decline that is hardly visible at the scale shown. The number of FFN providers in CCAP fell by about 5,900 (35 percent) before the aforementioned unrelated policy temporarily boosted their number in March 2019 (the red dot). As in Figure 1, the study period covers the months from the green dots to the red dots. The new health and safety training requirement announcement occurred in February 2017 (yellow dot), eight months before the effective date of October 1, 2017 (red diamond).

Figure 2. Providers in Child Care Assistance Program by Type of Care, June 2015 – Feb. 2020



The trends shown above suggest that the announced health and safety training requirements in the Child Care Assistance Program contributed to the decline in FFN providers and the children in their care, but more rigorous methods of analysis are needed to demonstrate causation. A causal explanation requires using an experimental or quasi-experimental method that adjusts for all influences on FFN care in CCAP other than the health and safety training policy change. In this study, we employed the quasi-experimental method of interrupted time series with a control group. This method accounts for other observable factors that affected children's use of FFN care and predicts what child and provider participation in FFN care would have been had the health and safety training policy not been implemented. Using this prediction, we can more accurately estimate the impact of the policy on the numbers of children and providers in FFN care in CCAP.

Research Questions

Child Study: Did the announced CCAP policy requiring subsidized FFN providers to complete health and safety training reduce the number of CCAP children in FFN care? If so, how large was the size of the impact, and what can administrative data tell us about where the children went?

Provider Study: Did the announced policy requiring subsidized FFN providers to complete health and safety training reduce the number of FFN providers in CCAP? If so, how large was the impact?

Data and Method

Interrupted time series analysis with a control group is a quasi-experimental method that allows us to explore the causality of a policy intervention and to measure its impact on a sample or population over time.[9] The child study includes the monthly number of children in FFN care as the intervention group and the monthly number in licensed family child care (FCC) as a control group. The provider study treats FFN providers as the intervention group and FCC providers as a comparison group.

For the models reported here, the policy intervention was phased in over the seven months between the February 2017 letter announcing the new health and a safety regulations and the effective policy date of October 1, 2017. We analyzed monthly CCAP administrative data on the number of subsidized children in FFN child care homes and licensed homes between January 2016 and April 2019, and administrative data on FFN and licensed home providers over that period. Fitting these data with segmented regression in the statistical program R, we estimated interrupted time series models of the number of children in FFN care and the number of FFN providers over time. The regression models controlled for other independent variables, including monthly employment numbers in Illinois and an unrelated policy change during the study period. Models were subjected to appropriate tests for bias.[10] Details on our data and methods appear in our technical report.[11]

Results

Impact on Children. **Figure 3** shows the actual levels of children in FFN care (black dots along solid red line) and FCC care (black dots along solid blue line) during the study period, January 2016 through April 2019. The vertical dashed black line represents the 7-month policy intervention – from the February 2017 announcement of required health and safety training to October 1, 2017 when untrained providers would lose their payments. The trend in FCC children is our comparison group: it tells us how a group that is not affected by the policy intervention trended. Since it is a similar group of children in a similar type of care, it indicates how FFN children would have trended without the intervention. The red and blue lines themselves are the fitted linear regression model. The green dotted lines are 95 percent prediction intervals around all of the estimates. These indicate the range of values each month that are likely to contain the true number of CCAP children in FFN care 95 percent of the time, given the values of predictors that month.[12]

Finally, and most tellingly, the horizontal dashed red line from October 2017 to April 2019 is a prediction of what the number of FFN children would have been without the policy intervention. This prediction is based on two sets of information: the pre-intervention trend in FFN children and the post intervention changes in the unaffected comparison group of FCC children. The vertical difference between this dashed red line and the solid red line each month measures the impact of the announcement of the health and safety training mandate. **Table 1** shows the cumulative impact in the first through the seventh month following the 7-month policy phase-in. **The impact in the first month (October 2017) was a loss of 8,356 children in subsidized FFN care, or 20 percent of the predicted October 2017 level. Six months later in April 2018, the cumulative impact was a loss of 10,088 children, or 25 percent of the predicted April 2018 level.**

Figure 3. Children with Child Care Assistance in FFN & FCC homes, before and after Health and Safety policy phase-in (Feb. – Oct. 1, 2017).

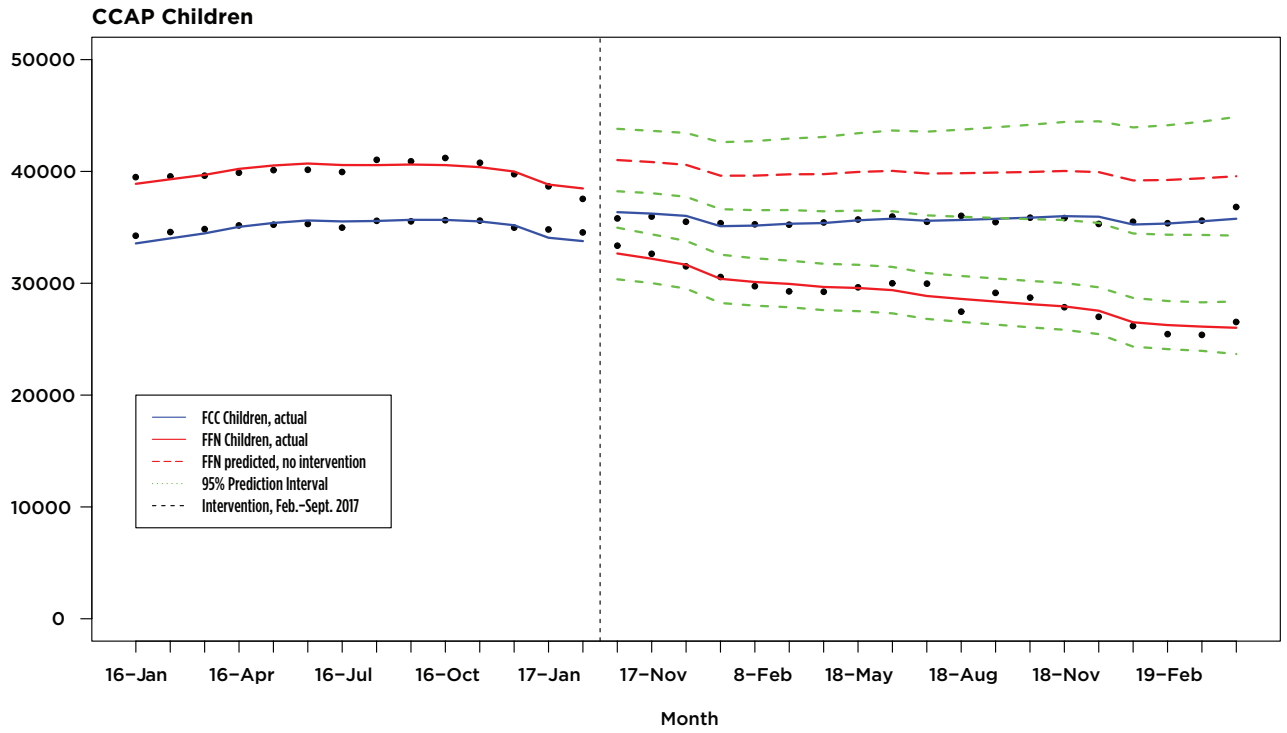


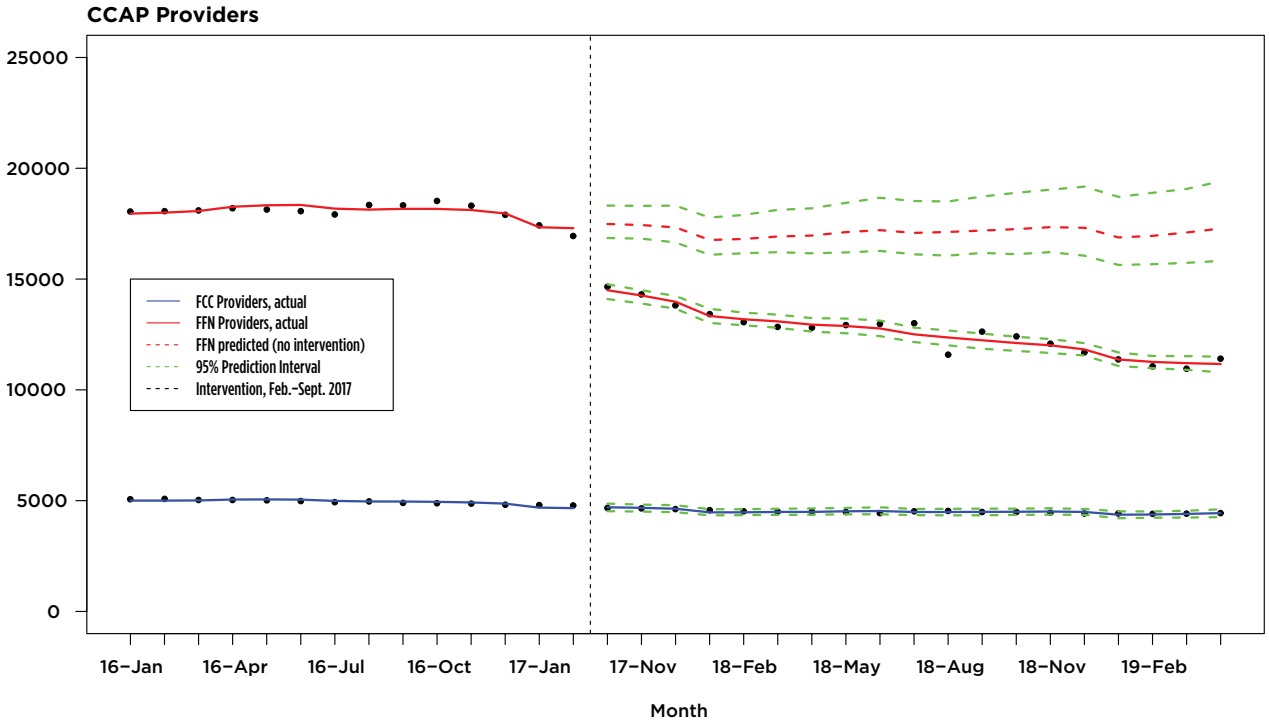
Table 1.

Estimated Impact of New Health & Safety Training Requirements on Children in FFN Care in CCAP (using policy phase-in period of February – October 1, 2017). Impact is relative to the predicted number of children in FFN care. This estimate controls for confounding factors. Reported impacts are cumulative to that month.

	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18
Children in FFN, Change	-8,356	-8,645	-8,933	-9,222	-9,510	-9,799	-10,088
% Change in FFN Children	-20%	-21%	-22%	-23%	-24%	-25%	-25%

Impact on Providers. **Figure 4** shows the actual levels of FFN providers (black dots along solid red line) and FFC providers (black dots along solid blue line) in CCAP during the study period, January 2016 through April 2019. The trend in FCC providers is our comparison group: it tells us how a group that is *not* affected by the policy intervention trended. Since FCC providers are a similar group of providers, albeit licensed and thought to be more business-oriented, the FCC provider trend indicates how FFN providers would have trended without the intervention. The red and blue lines themselves are the fitted linear regression model. The vertical black line represents the policy intervention over 7 months from February to October 1, 2017 when untrained providers would have lost their payments. The green dashes are 95 percent confident intervals around fitted lines.

Figure 4. FFN and FCC Providers in Child Care Assistance Program, before and after Health and Safety policy phase-in (Feb. – Oct. 1, 2017).



The dashed red line in Figure 4 is a prediction of what the number of FFN providers would have been without the policy intervention. This prediction is based on the pre-intervention trend in FFN providers and the post-intervention changes in the comparison group of FCC providers. The vertical distance between the dashed red line and solid red line each month measures the negative impact of the announcement of the health and safety training mandate. **Table 2** shows the estimated impact in October through April following the 7-month policy phase-in. **The impact just after the intervention was a loss of 2,988 FFN providers in CCAP, or 17 percent of the predicted October 2017 level. Six months later, the cumulative impact was a loss of 4,020 FFN providers, or 24 percent of the predicted April 2018 level.**

Table 2.

Estimated Impact of New Health & Safety Training Requirements Announcement on FFN Providers in CCAP (using policy phase-in period of February 2017 to October 1, 2017.). Estimated impact is relative to the predicted number of FFN providers. Reported impacts are cumulative to that month.

	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18
Change in Subsidized FFN Providers	-2,988	-3,179	-3,354	-3,430	-3,624	-3,830	-4,020
Percent Change	-17%	-18%	-19%	-20%	-22%	-23%	-24%

Where Did the Exiting Children Go?

We find that 24 percent of children who would have been in subsidized FFN care left that care by April 2018 as a result of the new health and safety training mandates. How serious is this loss, especially if the children moved to licensed care where they might have received better quality care even if the care was not the parents' first choice? Perhaps the children remained in the parents' choice of FFN care, but the parent paid the full cost of this care without CCAP. And what of children entering CCAP: did children with FFN care enter in substantial numbers, or did children in licensed care make up for the falling FFN share of new children? We explored some of these possibilities within CCAP, but could not follow children who left CCAP altogether and disappeared from our records. For these analyses, we gathered CCAP data of two types. We followed the cohort of children who had FFN care in CCAP before the policy change in February 2017, and we compared the types of care used by children entering CCAP before and after that policy change.

Table 3.

CCAP Children with FFN Providers in Feb. 2017: In What Type of Care Were They in Feb. 2018?						
	Total CCAP Children in FFN Care, February 2017	Their CCAP Care in February 2018				
		FFN	Licensed Center	FCC	Exempt Center	No CCAP
Children	37,362	17,509	1,096	1,041	122	17,594
Percent	100%	47%	3%	3%	0%	47%
Source: Payment data for the Illinois Child Care Assistance Program, February 2017 and February 2018.						

Table 4.

Children Newly Entering CCAP in Years before and after Health & Safety Training Policy Change								
New Entrants in	Center Care		FCC Care		FFN Care		Total	
	Number	Change	Number	Change	Number	Change	Number	Change
Mar. 2015 - Feb. 2016	15,803	-	6,067	-	6,520	-	28,204	-
Mar. 2016 - Feb. 2017	21,370	35%	7,852	29%	8,914	37%	37,890	34%
Mar. 2017 - Feb. 2018	21,033	-2%	7,833	0%	6,774	-24%	35,437	-6%
Mar. 2018 - Feb. 2019	20,926	-1%	7,696	-2%	5,891	-13%	34,380	-3%
Source: CCAP administrative data. A *"new" entrant* was defined as a child who had not had child care assistance for at least 6 months.								

Table 3 shows the child care used in February 2018 by the cohort of children who were in subsidized FFN care in February 2017 when the health and safety training requirements were announced. In February 2018, only 5.8 percent of the February 2017 cohort had moved to subsidized licensed center or home care. A large group – 47 percent of the cohort – was no longer in the CCAP program at all, and we cannot tell whether the child remained with the parent's original choice of provider outside of CCAP. A second large group, 17,509 children,

remained in CCAP in FFN care, though these data do not indicate whether they were with their original FFN provider or a new FFN provider. We also cannot tell whether their 2018 FFN provider actually complied with the new regulation since the policy was not enforced.

While Table 3 presents data on children already in CCAP as of February 2017, **Table 4** presents data on children newly *entering CCAP*, from March 2015 to February 2019. It allows us to compare annual CCAP entrants two years before and after the health and safety training requirement announcement. While the number of children entering CCAP with FFN care fell during each of the two years after the policy change in February 2017 (shaded rows), there was no comparable increase in children entering with center care or FCC care. This is consistent with the interpretation we gave data in Table 3: **we do not have evidence that substantial numbers of CCAP children used licensed care in place of FFN care following the policy change. Instead many did not participate in CCAP.**

Differences by Race and Ethnicity

Since we are interested in the equity impacts of the announcement of the new policy of health and safety training requirements, we also examined impacts by race and Latinx ethnicity with an interrupted time series analysis for the three largest racial or ethnic groups (for which we could anticipate statistically significant results). **Table 5** shows estimates derived from interrupted times series models for Black, Latinx and White children respectively. Among these groups, the losses for Black children make up 83 percent of the total. The rate of loss for black children – 20 percent by October 2017 and 24 percent by April 2018 – was also higher than for Latinx and white children.[13]

Table 5.

Impacts by Race of the Announcement of Health & Safety Training Requirements on CCAP Children in FFN Care, as of Policy Effective Date (Oct. 2017) and 6 Months Later (April 2018)

	October 2017		April 2018	
Group	Change in FFN Children	% Change in FFN Children	Change in FFN Children	% Change in FFN Children
Black Children	-5,016	-20%	-5,549	-24%
Latinx Children	-511	-11%	-874	-19%
White Children	-514	-15%	*	*

Estimates of all impacts are from individual interrupted time series models for the three racial groups and are significant at a 95% confidence level. The child's race is ascribed by the parent. Models were not estimated for smaller groups of children: Asian and Pacific Islander Americans, Native Americans and Alaskans, multiracial, and of another or unknown race.

* White children had a statistically significant, though declining, cumulative impact through March 2018, when the loss was 389 children, or 13 percent of White children expected to be in FFN child care in CCAP. In April 2018 and thereafter, the estimated impact for this group was not significant at a 95% level.

Policy Implications

In our understanding, the 2017 Illinois training mandate that intended to lift quality in FFN care had an unintentional negative impact, a decline of about 25 percent of children and providers in that type of care.[14] All things being equal, having large numbers of providers and the children they serve leave CCAP is an outcome to be avoided in Illinois. There are several reasons for this.

These exits represent a loss of choice for a significant number of parents who preferred or needed FFN care. Yet parental choice of provider is one of the foundational principles of federal and state child care subsidy policy. Such exits can also deprive lower-income parents and providers (who also tend to have lower-incomes) of income if the impacted children remain in FFN care but outside of CCAP.

Second, researchers and policy makers are increasingly concerned with promoting racial equity in the child care system and policy.[15] By disaggregating children by race we show one dimension of the impact of the announcement of health and safety training requirements on children's access to subsidized child care in Illinois in 2017. While the policy affected the participation of all children, Black children made up 83 percent of those children impacted, mainly because large numbers were already concentrated in FFN care. Despite being unintended, this racial impact runs counter to equity principles of the child care subsidy.

Third, the exit of FFN providers from the Child Care Assistance Program (CCAP) broke the contact between the Child Care Resource and Referral agencies that administer CCAP and thousands of providers whom they might otherwise have engaged in other public sector support programs. Having relationships with the Child Care Resource and Referral agencies keeps providers informed about opportunities within the system and focuses the attention of both state program officials and front-line staff on providers' needs and interests.[16] Policies that discourage participation in CCAP break these links and reduce opportunities for providers. Here, too, we have equity concerns. [For example, the USDA's Child and Adult Care Food Program (CACFP) helps child care providers pay for children's healthy meals. Licensed home providers can access CACFP whether or not they participate in CCAP, but FFN providers who leave CCAP lose their eligibility for CACFP.] Some FFN providers and the children they care for – largely Black children – may thus be doubly harmed by policies that discourage their participation in CCAP.

Illinois could explore alternative *non-regulatory* approaches to improve the quality of FFN care in CCAP and potentially avoid losses such as those documented here. Experience in Cook County and elsewhere suggests that a lighter touch approach is a highly appreciated and effective strategy for engaging and teaching FFN providers.[17] Key elements of this strategy might include additional investments in FFN coaches who are tasked with building trusting relations with FFN providers, addressing their strengths and adult-learning styles, and teaching them practical activities alongside child development and health and safety concepts.[18] Staffing such engagement efforts would be a substantial investment,[19] but it would support parents' options in CCAP and keep providers engaged with learning and professional development activities.

Appendix

Table A shows that following the new health and safety training requirement announcement, Black children in FFN care exited CCAP at the *average rate* of all children over that year (47 percent exiting). In *numbers*, however, they made up 62 percent of the February 2017 FFN cohort who received no CCAP payment in February 2018. It is in this sense that the announcement of new health and safety training requirements brought larger losses to Black children: the policy targeted a type of care that Black children heavily use.

Table A.

CCAP Children with FFN Providers in Feb. 2017: In What Type of Care Were They in Feb. 2018?						
	Total CCAP Children in FFN Care, February 2017	Their CCAP Care in February 2018				
		FFN	Licensed Center	Licensed Home	Exempt Center	No CCAP
Total Children	37,362	17,509	1,096	1,041	122	17,594
Percent	*100%*	*47%*	*3%*	*3%*	*0%*	*47%*
NonHispanic Black	23,077	10,882	585	692	71	10,847
Percent	*100%*	*47%*	*3%*	*3%*	*0%*	*47%*
Any Latinx/ Hispanic	4,504	2,347	113	90	20	1,934
Percent	*100%*	*52%*	*3%*	*2%*	*0%*	*43%*
Unreported Race	3,736	1,638	221	113	5	1,759
Percent	*100%*	*44%*	*6%*	*3%*	*0%*	*47%*
NonHispanic White	3,511	1,425	111	91	15	1,869
Percent	*100%*	*41%*	*3%*	*3%*	*0%*	*53%*
NonHispanic 2 or More Races	1,638	759	51	41	7	780
Percent	*100%*	*46%*	*3%*	*3%*	*0%*	*48%*
NonHispanic Other Race	768	386	11	14	2	355
Percent	*100%*	*50%*	*1%*	*2%*	*0%*	*46%*
NonHispanic Asian	114	63	2	0	2	47
Percent	*100%*	*55%*	*2%*	*0%*	*2%*	*41%*
NonHispanic American Indian	14	9	2	0	0	3
Percent	*100%*	*64%*	*14%*	*0%*	*0%*	*21%*
Source: Payment data for the Illinois Child Care Assistance Program, February 2017 and February 2018.						
The child's race is ascribed by the parent.						

Footnotes

1 Research presented in this brief was conducted as part of a larger research project, "Policy Reform to Advance Equity in Illinois Child Care Subsidy Program," funded by the Robert Wood Johnson Foundation, Julia R. Henly, PI (Professor University of Chicago) and David Alexander, co-PI (Director of Research, Illinois Action for Children). Marcia Stoll is Assistant Director of Research, Illinois Action for Children.

2 Forthcoming, Illinois Action for Children. FFN care is also more likely to be used by families with more than one child in subsidized care and by families with school-age children.

3 In Illinois we have documentation only for Cook County, where we have access to subsidy case files which contain parent work schedules. Illinois Action for Children, "Cook County Parents, Nonstandard Work and Child Care" (2016), available: https://higherlogicdownload.s3.amazonaws.com/ACTFORCHILDREN/f8e9848a-47b2-4792-9e90-a35961561f37/UploadedImages/Documents/CCAP-Work-Schedules-Policy-Brief-FINAL-9-14-16.pdf.

4 A member of the study team also compared the impacts of the policy announcement on rural and urban FFN providers. She found that only FFN child care providers in urban regions were affected, though the findings were not statistically significant. Aparna V. Jayashankar, "Unintended Consequences: How New Subsidy Regulations Reduced Child Care Supply in Rural and Urban Communities," BA thesis (University of Chicago, 2022).

5 Illinois Department of Human Services CCAP rate schedule: https://www.dhs.state.il.us/page.aspx?item=75772

6 We cannot be sure when FFN providers first heard of the new policy announcement. An official letter announcing the policy was mailed in February 2017 to all CCAP providers and a revised policy was sent in April 2017. At one time the state's Illinois Child Care Plan dated the policy effective November 2016, three months prior to the February letter. Child Care Resource and Referral agencies' staff may have begun to notify providers prior to the February mailing. Because it is unclear when most providers learned of the new policy, our study explored two policy phase-in periods, seven months (beginning February 2017) and 11 months (beginning November 2016 and matching a turning point in the trend of children in FFN care). The estimates of the policy impact are similar, and only the shorter-period estimates are reported in this brief.

7 The policy, effective October 2018, extended 6-month CCAP eligibility periods to 12 months. The policy began to increase CCAP cases 6 months after taking effect, and since parents renew eligibility in different months, this increase lasted for one year.

8 See footnote 6.

9 Hategeka C., Ruton H., Karamouzian M., *et al.* "Use of Interrupted Time Series Methods in the Evaluation of Health System Quality Improvement Interventions: A Methodological Systematic Review" (2020). *BMJ Global Health*; and Zhang, F., Wagner, A., Soumerai, S., Ross-Degnan, D. "Methods for Estimating Confidence Intervals in Interrupted Time Series Analyses of Health Interventions" (2009). *Journal of Clinical Epidemiology* 62 (2009) 143-148.

10 Most notably, the child model corrected for an autoregressive and moving average structure in the data over time. The provider model corrected for over-dispersion in the data.

11 See "FFN Policy Changes and Children in FFN Care: Technical Report," forthcoming, Illinois Action for Children.

12 Unlike confidence intervals that contain a mean value of repeated estimates with 95 percent certainty, the prediction interval contains the true value each month with that certainty and is wider than a confidence interval.

13 Separate interrupted time series analyses of Black and Latinx children in FFN care in CCAP look very much like Figure 3, but with the numerical impacts of Table 5. Unlike Figure 3, the visual trend for White children shows the actual and the predicted number of children eventually crossing instead of continuing to diverge. Table A in the Appendix disaggregates the data in Table 3 by race.

14 Substantial declines in FFN child care in CCAP might have been anticipated in 2017. Similar declines had occurred after FFN providers were required to register with CCAP in 2006, and after FFN providers were required to submit to a criminal background check beginning in 2010.

15 For example, a recent report from the Office of Policy Research and Evaluation of the U.S. Department of Health and Human Services elevated the importance of equity, including racial equity, in its multidimensional concept of *access to child care*: Thomson, D., Cantrell, E., Guerra, G., Gooze, R., & Tout, K. (2020). *Conceptualizing and Measuring Access to Early Care and Education.* OPRE Report #2020-106. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services, p. 4.

16 Opportunities for FFN providers include access to the USDA's Child and Adult Care Food Program (CACFP), communication about resources such as grants, consultation services, training opportunities and peer support groups, as well as support as they follow more professional pathways. The interactions between participation in CCAP and participation in other programs have not been adequately studied but appear to be positive. For example, a portion of FFN providers traditionally earn credentials or become licensed. Data for these providers are not generally available, but one internal study found that 17 percent of the FFN providers in the CACFP food assistance program administered by Illinois Action for Children had become licensed while in that program.

17 Unpublished Illinois Action for Children evaluations in the 2000s of smaller training programs in Cook County that were never funded to scale found that large majorities of participating FFN providers improved their practices and would continue to engage in learning if they were given the opportunity. These providers partially self-selected into the programs, however, and we cannot infer that a large-scale program would be as successful.

18 Illinois Action for Children, "New Research on Subsidized Family, Friend and Neighbor Providers: Implications for Investing in Quality" (2019), available: https://higherlogicdownload.s3.amazonaws.com/ACTFORCHILDREN/f8e9848a-47b2-4792-9e90-a35961561f37/UploadedImages/Documents/IAFC_FFN-Research-Report_Dec2019_web.pdf .

19 Illinois already supports FFN providers with Health and Safety Coaches housed in Illinois Child Care Resource and Referral Agencies. We envision that they would need additional time and resources to serve FFN providers in this manner and that more staff might be needed.