



“It Has a Lot to Do With the Cumbersome Paperwork”: Barriers and Facilitators of Center-Based Early Care and Education Program Participation in the Child and Adult Care Food Program

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ABSTRACT

Background The Child and Adult Care Food Program (CACFP) is a federally regulated feeding program that reimburses early care and education (ECE) programs for providing nutritious meals to low-income children. Participation in CACFP is voluntary and varies widely across states.

Objective This study assessed barriers and facilitators of center-based ECE program participation in CACFP and identified potential strategies to promote the participation of eligible programs.

Design This was a multimethod (eg, interviews, surveys, and document reviews) descriptive study.

Participants/setting Participants included stakeholders from 22 national and state agencies that work with ECE programs to promote CACFP, nutrition, and quality care; representatives of 17 sponsor organizations; and 140 center-based ECE program directors from Arizona, North Carolina, New York, and Texas.

Statistical analyses performed Barriers, facilitators, and recommended strategies to promote CACFP that emerged from interviews were summarized with relevant illustrative quotes. Survey data were analyzed descriptively using frequencies and percentages.

Results Key barriers to center-based ECE program participation in CACFP shared by participants included the cumbersome CACFP paperwork, difficulty meeting eligibility requirements, strict meal patterns, difficulties with meal counts, penalties for noncompliance, low reimbursements, inadequate ECE staff to assist with paperwork, and limited trainings. Facilitators to participation included supports provided by stakeholders and sponsors through outreach, technical assistance, and nutrition education. Potential strategies recommended to promote CACFP participation would require policy change (eg, streamlining paperwork, modifying eligibility requirements, and leniency toward noncompliance) and systems-level change (eg, more outreach and technical assistance) by stakeholders and sponsor organizations.

Conclusions Stakeholder agencies recognized the need to prioritize CACFP participation and highlighted ongoing efforts. Policy changes are needed at the national and state levels to address barriers and ensure consistent CACFP practices among stakeholders, sponsors, and ECE programs.

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APPROXIMATELY 1 IN 7 US CHILDREN EXPERIENCE poverty,¹ putting them at risk for poor nutrition and adverse health.^{2,3} Early care and education (ECE) programs are important settings to implement initiatives that address poverty-related health disparities.⁴ Nearly two-thirds (62%) of children under the age of 6 years attend center-based ECE programs for an average of 27 hours per week.⁴ However, studies report that meals served

at ECE programs do not adequately contribute to children's daily requirements for calories and critical micronutrients.⁵⁻⁷

The Child and Adult Care Food Program (CACFP) is a federally regulated and state-administered program that reimburses ECE programs for serving nutritious meals to low-income children.⁸ Approximately 4.2 million children receive meals daily through CACFP.⁸ Participation in CACFP is voluntary, and eligible ECE programs can participate

independently by working directly with the state CACFP-administering agency, or they can participate through a sponsoring organization that takes on the administrative responsibility of operating CACFP.⁹ Although all nonprofit ECE programs that are licensed or approved to provide child-care services are eligible for CACFP,⁹ for-profit centers are eligible if they receive Title XX funds for $\geq 25\%$ of enrolled children or have 25% of children enrolled who are eligible for free or reduced-price meals.⁹

The CACFP guidelines specify that ECE meals include components from the milk, vegetable, fruit, grain, and meat/meat alternate food groups, with portion-size recommendations based on children's ages.¹⁰ Monthly reimbursements are based on children's eligibility for free, reduced-price, or paid meals,⁹ and ECE programs are required to document specific information about each enrolled child (eg, name, birth date, care hours, and meals received), compile daily child attendance records, complete family income-eligibility applications, and conduct daily counts of meals served.¹¹ Although not federally mandated, some states require that ECE programs complete production records at each meal to ensure that foods purchased and served meet the minimum child nutrition requirements.¹¹ Training and technical assistance to support CACFP implementation are provided by state CACFP-administering agencies and sponsors.¹¹ For ECE programs that participate through sponsors, compliance is monitored via 3 on-site sponsor visits, of which 2 are unannounced; all ECE programs in CACFP undergo an audit from the state agency once every 3 years,¹¹ and thus, must keep all CACFP documentation pertaining to the 3-year audit cycle.¹¹ If audits reveal incorrectly classified meals or unallowable expenses, ECE programs are required to take corrective action,¹¹ including fines or pay-back of funds. Seriously deficient programs (ie, noncompliant in 1 or more aspects of CACFP) are placed on a National Disqualified List for approximately 7 years or until corrective actions are taken.¹²

Studies have reported that participation in CACFP is associated with higher-quality ECE nutrition environments, provision of healthier foods, and reduction in food insecurity among low-income children.^{13–17} Despite the benefits of CACFP, participation by eligible ECE programs varies widely among states.¹⁸ Studies assessing barriers to CACFP participation have been documented^{19–21} and identified the cumbersome paperwork, low reimbursement, difficulty getting parents to return income-eligibility forms, unannounced visits from sponsors, lack of program awareness, and program misconceptions as challenges. However, existing studies are based on reports from providers at center-based ECE programs, but do not include the perspectives of stakeholders at state agencies that oversee CACFP or sponsors that carry out the administrative responsibility of operating CACFP on behalf of ECE programs, which is a limitation of the research. Furthermore, previous studies have not applied an implementation science framework to identify factors that influence the effective implementation of CACFP across states.

Guided by the Consolidated Framework for Implementation Research²² and using reports from stakeholders at CACFP-administering agencies, sponsors, and center-based ECE program directors, the current study assessed barriers and facilitators of center-based ECE program participation in CACFP across 4 states with varying levels of CACFP

RESEARCH SNAPSHOT

Research Questions: What are barriers and facilitators of center-based early care and education (ECE) program participation in the Child and Adult Care Food Program (CACFP)? What strategies can be used to increase CACFP participation by eligible ECE programs?

Key Findings: Barriers included cumbersome CACFP paperwork, difficulty meeting eligibility requirements, strict meal patterns, difficulties with meal counts, penalties for noncompliance, low reimbursements, inadequate ECE staff to assist with paperwork, and limited trainings. Facilitators of participation included supports provided by stakeholders and sponsors through outreach, technical assistance, and nutrition education. Potential strategies recommended by participants to promote CACFP participation would require policy and systems-level change.

participation¹⁸ and identified potential strategies to promote CACFP participation by eligible ECE programs.

METHODS

Participants and Setting

This multimethod descriptive study took place across 4 states from December 2020 to November 2021. Criteria for selecting states included having varying levels of CACFP participation; child poverty levels above the national average; and convenience of data collection. To identify states to target, the study team calculated rough estimates of the proportions of center-based ECE programs in CACFP in multiple states using publicly accessible data.^{18,23,24} A threshold of 50% defined low- vs high-CACFP participation by ECE programs. Four states with varying participation levels were selected: Arizona and North Carolina, with 35% (804 of 2,237) and 49% (2,289 of 4,642) CACFP participation, respectively, were categorized as low CACFP participation states, and New York (4,079 of 5,856) and Texas (6,753 of 9,612), both with 70% CACFP participation, were categorized as having higher participation.^{18,23,24} All 4 states exceeded the national child poverty rate²⁵ and were selected because they are also states in which the study team had existing collaborations with partners at ECE agencies that would facilitate ease of data collection.

Study participants included stakeholders at CACFP-administering agencies, sponsors, and center-based ECE program directors. Stakeholders were defined as national- or state-level representatives of CACFP or other agencies that work with center-based ECE programs to promote child nutrition and quality child care (eg, ECE licensing, Child Care Resource and Referral [CCR&R], Quality Rating and Improvement Systems [QRIS]), whereas sponsors were public or private nonprofit organizations that took on the administrative responsibilities of operating CACFP for ECE programs.⁹ Potential stakeholders were identified from their agency's website and sponsors were identified from databases obtained from the National CACFP Sponsors Association²⁶ and state ECE licensing offices. Recruitment was performed via telephone and/or e-mail and word of mouth, with a

“snowball” approach to recruit additional stakeholders and sponsors.

To identify center-based ECE program directors (“directors” herein), the study team took a number of steps. Initially, a spreadsheet of ECE programs in CACFP was created in Excel (Microsoft Corporation) using databases obtained from each state’s CACFP agency. Then, using databases obtained from each state’s ECE licensing agency, the study team identified non-CACFP programs that were added to the Excel spreadsheet. Head Start, Tribal centers, school-based ECE programs, and home-based child-care programs were excluded because the CACFP supports they receive from state agencies differ from supports received by regular center-based ECE programs. To identify non-CACFP programs that might be eligible for CACFP, the study team applied a propensity scoring procedure to match each ECE program in CACFP with a non-CACFP counterpart in a ZIP code with similar rural vs urban classifications,²⁷ similar poverty levels,²⁸ and household income levels below the state’s median income.²⁸ Thereafter, a random sample of CACFP programs and potentially eligible non-CACFP ECE programs was selected to allow the study team to capture diverse experiences of both CACFP and non-CACFP programs. Separate sample pools of ECE programs were drawn for interviews and for surveys. Telephone calls and a screener were used to determine ECE program eligibility for interviews and surveys and to invite directors, with a goal to recruit a sample composed of CACFP and non-CACFP programs in a 3:2 ratio and rural and urban ECE programs in a 1:1 ratio. The study procedures were approved by the Institutional Review Boards at Indiana University Bloomington and University of North Carolina Chapel Hill. Before data collection, an informed consent document was shared with participants. Interview participants gave verbal consent, and for survey participants, consent was implied by reviewing the informed consent page on the online survey and completing the survey.

Data Collection

Data collection for this multimethod study was guided by the Consolidated Framework for Implementation Research,²² which identifies contextual factors related to program characteristics, internal influences (eg, implementation climate and structural characteristics), and external influences (eg, cross-agency efforts and external resources and incentives) that can influence program (CACFP) implementation.

Stakeholders, sponsors, and ECE directors participated in interviews by telephone or video call (Zoom). Semi-structured discussion guides were developed for interviews with each respondent type, guided by previous studies of CACFP barriers and facilitators,^{20,21} with input from partners at ECE agencies. The interviews probed into CACFP program characteristics, including how CACFP is administered, enrollment requirements, and reimbursement processes. Probes into internal influences within participants’ organizations assessed organizational size and structure, prioritization of CACFP, barriers to and facilitators of CACFP participation, and organizational resources and efforts to promote CACFP. Probes into external influences assessed cross-agency efforts to promote CACFP, and resources and incentives external to participants’ organizations that are available to promote CACFP. Participants were also asked to

suggest strategies to promote CACFP participation. Additional questions asked about the effect of the COVID-19 pandemic on ECE programming (available elsewhere²⁹). Stakeholder and sponsor interviews lasted 60 minutes, and director interviews lasted approximately 35 minutes. Participants who were able, without being in conflict with their organization’s policy, received a “thank you” gift card (\$25). Trained members of the study team (T.E., B.J.) conducted the interviews. Stakeholders from 22 CACFP-associated agencies, representatives of 17 sponsor organizations, and 40 ECE directors participated in interviews (Table 1; available at www.jandonline.org).

To supplement ECE director interviews, the study team administered an online survey via Qualtrics XM³⁰ to ECE directors only. Development of the survey was guided by preliminary results from the interviews with stakeholders, sponsors, and directors, with input from partners at ECE agencies. The survey assessed barriers, facilitators, and potential strategies to promote CACFP and demographic characteristics of participating ECE programs. The survey took approximately 10 minutes to complete. Directors who participated in interviews were excluded from the survey sample pool to avoid duplicating results. Participating directors received a “thank you” gift card (\$20). Overall, 100 directors completed surveys.

In addition to interviews and surveys, the study team reviewed public-facing documents on the website for each state’s CACFP agency to document ongoing efforts that might provide insight into reasons for state-level differences in ECE participation in CACFP.

Data Analysis

Interviews were digitally recorded and transcribed verbatim without identifiers. Each transcript was reviewed for accuracy and completeness and imported into ATLAS.ti, version 3.4.5-2021-11,³¹ to facilitate qualitative analysis. Team members trained in qualitative analysis (M.V., T.E., B.J., K.L.) reviewed the data and developed broad codes (themes) based on the discussion guide for the interviews and study objectives. Separate codebooks were developed for stakeholders, sponsors, and directors. Within codes, contents were analyzed using a grounded theory approach described by Strauss and Corbin,³² after which they were categorized into emergent themes. Each transcript was initially coded by a primary coder, followed by a review by a secondary coder. Discrepancies in the application of thematic codes were resolved by the secondary coder (T.E., B.J., K.L.). Because stakeholder, sponsor, and director interviews assessed similar topics with several areas of overlap in participants’ response, the study team pooled the interview data for the final summarization of results and selected quotes representing each theme. Survey data were analyzed in SAS, version 9.4,³³ using frequencies and percentages. Reviews of public-facing documents allowed the study team to confirm details that were shared in interviews and surveys regarding CACFP and ECE policies at the federal and state levels.

RESULTS

Demographic Characteristics of Participants

Participants included stakeholders from 22 CACFP-associated agencies (1 national, 5 to 6 per state), representatives of 17

sponsor organizations (3 to 5 per state), and 140 ECE directors, of which 92 (66%) participated in CACFP and 54 (45%) were rural. Additional characteristics of survey participants are described in [Table 2](#).

Barriers to ECE Participation in CACFP

Results From Interviews. Key barriers to CACFP participation that emerged from the interviews focused on the cumbersome paperwork, eligibility requirements, penalties for noncompliance, strict meal pattern, low reimbursement, and lack of cooking facilities on site ([Figure](#)). The application to enroll in CACFP was described as “long” (director) and “intimidating” (stakeholder), and, according to a director, “could take nearly a year to receive approval.” Filing monthly reimbursement claims and the annual re-enrollment process were equally cumbersome. Large-sized centers were perceived as having the resources and staff to manage the paperwork, whereas for short-staffed, small-sized, and rural centers with limited resources, the added responsibility of

administering CACFP could be overwhelming and discouraged participation. Pertaining to eligibility requirements, directors described parents’ unwillingness to complete family income-eligibility forms, or failing to do so in a timely manner, which would often result in children being considered as ineligible for CACFP benefits, or ECE programs opting not to participate in CACFP. Among for-profit programs, a related concern centered on the merit of going through the trouble to administer family income-eligibility forms, only for directors to find out their ECE program was not eligible for CACFP.

Concerns about penalties for noncompliance, especially for unintentional errors, were discussed. CACFP was described as “punitive” (sponsor), and the fear of incurring penalties prevented participation by some programs. In addition, for some directors, the strict meal pattern raised concerns about the flexibility to serve foods that children would like to eat, or even offer cultural foods. Also related to the strict meal pattern, some directors perceived that CACFP encouraged food waste, especially of milk, that had to be provided with meals and discarded when not consumed by children. Several directors explained that CACFP reimbursement was insufficient to cover the cost of administering CACFP and not commensurate with the burden of implementing CACFP. Lack of cooking facilities on site prevented participation by some ECE programs that were not in CACFP.

Results From Surveys. Responses to director surveys were similar to director interviews ([Tables 3](#) and [4](#)). Of 22 CACFP directors who were involved in the completion of their programs’ CACFP enrollment application, 27% said enrollment was “difficult/very difficult.” Things that made enrollment challenging included the difficulty collecting family income-eligibility forms (80%), cumbersome paperwork (30%), and limited training on how to enroll (20%). Twenty-nine percent of CACFP directors said that completing the reimbursement paperwork was “very easy/easy” and 18% said it was “difficult/very difficult.” Reimbursement concerns focused on the burdensome paperwork, paperwork errors, understanding/meeting meal patterns, reporting incorrect meal counts, and limited staff to assist with paperwork. Among non-CACFP directors, the paperwork (37%), strict meal pattern (33%), and lack of cooking facilities (23%) were barriers. Common reasons for leaving CACFP focused on the paperwork, low reimbursement, having too many nutritional guidelines to follow, and stakeholders’ and sponsors’ attitudes toward directors.

Facilitators of ECE Participation in CACFP

Results From Interviews. Key facilitators that emerged from interviews included outreach and technical assistance from stakeholders and sponsors; paperwork organizational systems established by sponsors; and training and nutrition education provided by stakeholders and sponsors ([Figure](#)). Participants described outreach and coaching supports from stakeholders as helping to demystify CACFP. Stakeholders discussed providing ECE directors with information about CACFP eligibility requirements, and answering directors’ questions, which, in turn, made it easier for ECE programs to connect with state agencies. Several sponsors reported conducting

Table 2. Demographic characteristics of ECE^a programs as reported by directors who completed surveys

Characteristic	ECE programs (n = 100), n (%)
Location of ECE program	
Urban	66 (66)
Rural	34 (34)
Participation in Child and Adult Care Food Program	
Yes	69 (69)
No	31 (31)
For-profit program	
Yes	55 (55)
No	45 (45)
Years of operation	
<1-5	17 (17)
6-10	9 (9)
>10	74 (74)
No. of children enrolled at center	
<50	28 (28)
50-100	55 (55)
>100	17 (17)
Recipient of child-care subsidies, yes	98 (98)
Sources of meals served for lunch	
Cooked on site	76 (76)
Children bring their own food	15 (15)
Other (eg, delivered by vendor or school district)	9 (9)

^aECE = early care and education.

Barriers to CACFP participation	Illustrative quotes pertaining to barriers to CACFP participation that were reported by stakeholders, sponsors, and ECE directors
Cumbersome paperwork	<p>“It is a good program, but it takes a lot of work.” (ECE director)</p> <p>The (application) process is really long and grueling . . . It took us roughly a year for our approval.” (ECE director)</p> <p>“It takes 2-3 hours a day just to stay on top of it. Then at the end of the month when it’s time to submit, I take an entire day to make sure I have all of my paperwork . . .” (ECE director)</p> <p>“The biggest problem was the amount of ridiculous paperwork that you had to do. And every year I dreaded going to the annual meeting because all that meant was more paperwork. And every year they increased it.” (ECE director)</p>
Strict eligibility requirements	<p>“. . . it’s tied to parents’ income, and that is a question we had determined we are not going to ask our families. We haven’t participated.” (ECE director)</p> <p>“They (ECE programs) sometimes don’t make the 25% ratio . . . no one wants to do all that paperwork if they’re not gonna qualify.” (sponsor)</p>
Stringent penalties for regulatory noncompliance	<p>“. . . we want to make sure we’re good stewards of federal funds. But at the same time, people are just scared to participate. And it shouldn’t be this hard or this scary. Other federal programs do not come with such a heavy hand for a complicated program.” (sponsor)</p> <p>“If you don’t do it right, you go to federal jail. There are consequences if you make a human error mistake.” (sponsor)</p> <p>“They (state agency) say “oh, you really messed this up, now pay me back some money”. . . Slap, slap, you can continue, but this is your corrective action . . . If you don’t permanently correct this seriously deficient problem you have, then you may not ever participate again.” (sponsor)</p>
Strict nature of the meal patterns	<p>“People don’t want to join the food program . . . It doesn’t matter because they’re like, ‘ugh, my kids won’t eat that, I’m not serving that’ . . . That’s the excuse that I do hear a lot.” (sponsor)</p> <p>“What I see most is a great deal of waste, especially milk. Once it’s served on the table, it can’t be reused, obviously . . . And it’s just so wasteful. You know that, for an organization that cares about the health of children to throw away that much food . . . I wish there was something that could be done about that.” (ECE director)</p>
Low reimbursement rates	<p>“The money, they don’t really allocate you any money for the administration of the program, or give you enough to actually help with the administration. (ECE director)</p> <p>“I’ve even heard in the past, people say ‘the amount of work we have to put into the program is more, and we don’t even get a good reimbursement back.’ This comes from a lot of other directors and a lot of mom and pop who are trying to keep afloat.” (ECE director)</p>
Lack of cooking facilities on site	<p>“The big thing is, we’re really small and I don’t have the extra staff. And I don’t really have a full kitchen or anything, so our families provide their own food.” (ECE director)</p> <p>“We chose not to do it because the cost of redoing our kitchen . . . The requirements that we had to redo our kitchen was too costly.” (ECE director)</p>
Facilitators of CACFP participation	Illustrative quotes pertaining to facilitators of CACFP participation that were reported by stakeholders, sponsors, and ECE directors
Outreach and technical assistance provided by stakeholders and sponsors	<p>“Then also, just demystifying the application process a little bit for folks. I think sometimes it can be a little bit intimidating for people to think about reaching out to a state agency to get started with something like this. We sort of coach them through what they can expect, and who they’ll be talking to and what might be asked of them, and what types of information they’ll have to provide.” (stakeholder)</p>

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Figure. Barriers, facilitators, and strategies recommended to promote early care and education (ECE) program participation in the Child and Adult Care Food Program (CACFP): Results from interviews with CACFP stakeholders, sponsors, and ECE directors. USDA = US Department of Agriculture.

	<p>“One center is opening up . . . We go in and we help them, you know, look at their site and how it can work, and we do talk about CACFP and how important it is to have the kids eating all of the same foods and healthy.” (sponsor)</p> <p>“It wasn’t extremely difficult because of the sponsor I had . . . I would say, on a scale of 1-10 . . . , 10 being the highest of being difficult and 1 being the lowest, I would scale it at about a 3.” (ECE director)</p>
Paperwork organizational systems established by sponsors	<p>Our organization makes it easy for folks to maintain their paperwork that they have to keep for three years plus the current year. We provide them with tools to do that, boxes and things that are labeled so it’s easy for them to just put their end of the month paperwork in it and store it.” (sponsor)</p> <p>“We wanna make sure that, as a sponsor, you’re following all the rules. We provide software to do the math for you, especially on that meal production . . . They do provide the food buying guide through USDA, but it is so crazy, tedious . . . It’s like you have to assign someone to just do that all day . . . The computer will calculate in pounds how much frozen corn you need based on the number of children you put for the different age groups.” (sponsor)</p>
Trainings and nutrition education provided by stakeholders and sponsors	<p>“There are several trainings once they’re approved to participate. We try to line them up into a new director, new sponsor training. There’s trainings on the meal pattern, there’s trainings on infant and toddler feeding, food production records. There are several different types of trainings available.” (stakeholder)</p> <p>“We have a registered dietitian on staff and she’s great about providing nutrition trainings . . . She also works with the center staff and does an evening session with parents . . . So, the children, the caregivers, and the parents, everyone around the child is getting information about making healthy choices, about being active, and reducing that time on a screen or computer.” (sponsor)</p>
Strategies to increase CACFP participation	Illustrative quotes pertaining to strategies recommended to increase CACFP participation that were reported by stakeholders, sponsors, and ECE directors
Streamline and simplify the paperwork	<p>“Some states have rolled this back, but others are still holding on to it. Do we really need production records? Are the menus with appropriate substitutions marked on the menus, and invoices to go with those menus—isn’t that enough to show proof of what we’ve served and what we’ve purchased? I think the production records, some instances, is just another avenue to another piece of paper, but we have other proof.” (sponsor)</p> <p>“Like I said before, maybe the paperwork. Limiting that, maybe compiling it in a different way. The expectations of that can be excessive.” (ECE director)</p> <p>I don’t know if we’re doing a good job as a state of collecting that information when somebody drops out of the program. Is it that you no longer qualify, is it that it’s not worth it financially, is it because you’ve had a bad experience? What is it, and are we doing anything with that information if we do have it?” (stakeholder)</p>
Modify eligibility requirements	<p>“Honestly, we’re in a fairly rural, low-income community, so our school—no one pays for lunches at school. They’re all free. I feel like daycares here should have the same thing.” (ECE director)</p> <p>“If a child qualifies for assistance programs, or a family qualifies for assistance programs—let’s say they are a foster child—that information should be directly communicated to the child-care program, so that we don’t have to get another income form from that family. It streamlines the process, so the benefit follows that family to the providers without making them collect more paperwork from the same family.” (sponsor)</p> <p>“I want to make sure that we clarify that, being in the higher income classification, as far as our</p>
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Figure. (continued) Barriers, facilitators, and strategies recommended to promote early care and education (ECE) program participation in the Child and Adult Care Food Program (CACFP): Results from interviews with CACFP stakeholders, sponsors, and ECE directors. USDA = US Department of Agriculture.

	<p>rules are concerned, does not mean these families are high-income. If they were, they probably wouldn't have children in daycare. We're just talking about those that are above the poverty guidelines. That's why it would be so important to have community eligibility, where the centers could get a payment rate maybe based on the income level of the families in the area." (stakeholder)</p>
Increase the reimbursement rates	<p>"I would really love to see a state supplement to the reimbursement rate. I think it really is for a lot of providers, a consideration of food costs and reimbursement, and the administrative burden of the program, so there needs to be some leveling out. Either the administrative burden needs to go down or the reimbursement rate needs to go up . . . Ideally, both of those things happen, and we can get some more providers interested. So, I think a state supplement could go far in that way." (stakeholder)</p> <p>"Certainly, as I mentioned, the financial aspect seems to be a big drive. So, increasing reimbursement rates federally, providing a state supplement could be helpful." (stakeholder)</p>
Show leniency toward noncompliance errors and penalties	<p>"If they had at least accepted my paperwork that I sent to them, so we could've worked out some type of payment plan and could've still kept me on the program. I would've been open to it that way." (ECE director)</p> <p>"There are a lot of people on the National Disqualified List, and many of those people are not there for doing anything particularly bad, just maybe making a mistake . . . They do need the funding, and I think if we could get some legislation through that says that the serious deficiency process is appealable, then I think we may get some of those folks back that have not chosen to be on the food program." (stakeholder)</p> <p>"I think they (state agency) should change their protocol and have new sites be visited. Not reviewed, just, instead of saying after 3 years, I'm gonna do this big review. I'm gonna look at all your records. You're gonna have to open your checkbook. Just forget that. Just go do a visit a year at every site. One visit a year." (sponsor)</p>
Conduct more outreach and provide additional opportunities for technical assistance	<p>"If you do reach somebody, sometimes, they speak in CACFP terms, and those don't make any sense to me. You know, so maybe dumbing it down a little bit for those of us who don't live and breathe it." (ECE director)</p> <p>"I sorta found out about it on my own to be honest with you . . . To me, it would be easier if child-care centers open up that these kinda things be brought forward to those people because they may not know it." (ECE director)</p> <p>"I think we found that there's a lot of quality when you're getting mentored by your peers because they usually understand." (ECE director)</p> <p>"Yeah. I think a lot of the training particularly through CACFP is focused around nutrition, and then there's some around the claiming and the business aspect of it. But, I think, if there was more attention paid, especially to daycare centers, around that business end of it, it might be beneficial to programs and encourage more to participate." (sponsor)</p>

Figure. (continued) Barriers, facilitators, and strategies recommended to promote early care and education (ECE) program participation in the Child and Adult Care Food Program (CACFP): Results from interviews with CACFP stakeholders, sponsors, and ECE directors. USDA = US Department of Agriculture.

outreach to promote CACFP awareness. Working with a sponsor who took on the administrative risk and burden and provided oversight was described as helpful by ECE directors. Some sponsors established standardized practices that helped to make CACFP participation easier and reduced the risk of regulatory noncompliance by ECE programs. Some sponsors also established organizational systems to help ECE programs keep track of and store paper documents, and others subscribed to online software (eg, Minute Menu) to assist ECE programs with creating production records and filing reimbursement claims. Training provided to ECE programs and sponsors

by stakeholders was described as beneficial. Other supports provided by stakeholders and sponsors included the provision of nutrition training to ECE staff; posting of informational resources about CACFP and child nutrition on stakeholder and sponsor websites; distribution of newsletters with CACFP updates and healthy recipes to ECE programs; and provision of nutrition education resources to parents.

Results From Surveys. Survey participants who were involved with the application for their ECE program's CACFP enrollment reported the ease of access to CACFP

Table 3. Barriers, facilitators, and strategies recommended to promote ECE^a participation in the CACFP^b: Survey results from directors of center-based ECE programs participating in CACFP

Variable	n (%)
Directors whose ECE programs participated in CACFP^c (n = 69 ECE programs)	
Length of time that ECE program has been in CACFP	
<1-5 y	10 (14)
6-10 y	13 (19)
>10 y	42 (61)
I don't know	4 (6)
Survey participant was involved with completing their ECE program's CACFP enrollment application	
Yes	22 (32)
No	47 (68)
Directors who were involved with completing their ECE program's CACFP enrollment application^d (n = 22 ECE programs)	
Ease of enrolling in CACFP	
Very easy/easy	11 (50)
Neither easy nor difficult	5 (23)
Difficult/very difficult	6 (27)
Things that made CACFP enrollment difficult ^e	
Collecting paperwork from families was a challenge	16 (80)
Too much paperwork to complete	6 (30)
Few trainings were available on how to enroll	4 (20)
Eligibility requirements were difficult to understand	3 (15)
Too many things were required to enroll	3 (15)
Poor internet access	3 (15)
Difficult to figure out how to sign-up	2 (10)
Supports that helped with CACFP enrollment ^e	
Easy access to eligibility information	10 (45)
Technical assistance and trainings provided by the state agency	9 (41)
Easy access to enrollment information	6 (27)
Easy to figure out how to sign up for CACFP	4 (18)
Technical assistance/trainings from external organization or sponsor	4 (18)
Directors whose ECE programs participated in CACFP^c (n = 69 ECE programs)	
Person responsible for completing monthly reimbursement paperwork ^f	
Respondent	32 (47)
Other center staff	29 (43)
Sponsor	11 (16)
Length of time it takes to complete monthly reimbursement paperwork	
<1-2 h	32 (47)
3-4 h	13 (19)
5 h or longer	23 (34)
Ease of completing monthly reimbursement paperwork	
Very easy/easy	20 (29)
Neither easy nor difficult	36 (53)
Difficult/very difficult	12 (18)
Things that make the reimbursement paperwork completion difficult ^e	

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Table 3. Barriers, facilitators, and strategies recommended to promote ECE^a participation in the CACFP^b: Survey results from directors of center-based ECE programs participating in CACFP (*continued*)

Variable	n (%)
Concerns about making errors on paperwork	32 (55)
Too much paperwork is required	19 (33)
Difficult to understand and meet meal patterns	13 (22)
Limited staff to help with paperwork	12 (21)
Completing meal counts can be difficult	12 (21)
Too many trainings are required	4 (7)
Poor access to reliable internet	4 (7)
Computer program for completing paperwork is difficult to use	3 (5)
Other (eg, website not compatible with certain internet browsers)	9 (16)
Things liked most about CACFP (up to 3 choices could be selected)	
Helps to cover cost of food	60 (87)
Helps to serve healthy meals	54 (78)
Helps to provide meals to at-risk children	34 (49)
Helps keep cost of tuition low	26 (38)
Helps serve a variety of foods	18 (26)
Provides ECE staff with professional development/trainings	11 (16)
Importance of CACFP to ECE program and children served	
Very important	52 (75)
Important	13 (19)
Moderately important	4 (6)
Has your ECE program ever considered leaving CACFP?	
Yes	13 (19)
No	55 (81)
Changes recommended to make CACFP participation easier ^c	
Provide tablets to be used in classrooms to complete meal counts	33 (52)
Increase reimbursement for foods provided	29 (45)
Provide computer programs to help with meal counts	23 (36)
Provide several opportunities to correct errors before giving penalties	20 (31)
Reduce or streamline CACFP application paperwork	20 (31)
Reduce the focus on catching errors on CACFP paperwork	19 (30)
Reduce or streamline the reimbursement paperwork	16 (25)
Provide more trainings about CACFP	13 (20)
Offer more help with the reimbursement paperwork	12 (19)
Provide more hands-on help with enrollment	7 (11)
Provide more trainings on child nutrition	7 (11)
Other	4 (6)
Would you recommend CACFP to other ECE directors?	
Yes	65 (94)
Maybe	4 (6)

^aECE = early care and education.

^bCACFP = Child and Adult Care Food Program.

^cThe denominator may not add up to 69 because of missing data.

^dThe denominator may not add up to 22 because of missing data.

^eParticipants were able to select more than 1 response to this survey question.

^fThree response options had percentages that were <5% and were not included here, therefore, the percentages do not add up to 100%. These response options were "someone from the stage agency" (n = 1 [1%]), "other" (n = 1 [1%]), and "I don't know" (n = 2 [3%]).

Table 4. Barriers, facilitators, and strategies recommended to promote participation in the CACFP^a by center-based ECE^b programs: Survey results from directors of center-based ECE programs not participating in CACFP

Variable	n (%)
Non-CACFP participating ECE programs^c (n = 31 ECE programs)	
Has your program ever participated in CACFP? ^d	
Yes	16 (52)
No	14 (45)
Non-CACFP ECE programs that had previously participated in CACFP^e (n = 16 ECE programs)	
How long ago did your ECE program leave CACFP?	
<1-2 y	3 (19)
3-5 y	5 (31)
6 y or longer	8 (50)
Reasons for leaving CACFP ^f	
Too many records to keep, was not worth our time	11 (69)
Paperwork took too long to complete	10 (63)
Paperwork was too difficult	5 (31)
Reimbursement/funding provided was too small	5 (31)
Did not like the way we were treated by the state agency or sponsor	4 (25)
Too many nutritional guidelines to follow	4 (25)
Was not receiving enough support from the state agency	3 (19)
Did not like the unannounced check-ins and monitoring visits	3 (19)
Was not receiving enough support from sponsor	2 (13)
Other (eg, children wasted food, wanted to streamline foodservice and reporting)	4 (25)
Non-CACFP ECE programs^c (n = 31 ECE programs)	
Barriers to participating in CACFP ^f	
Thought it would be too much paperwork	11 (37)
Too many restrictions on which foods can be served to children	10 (33)
Cannot afford up-to-date cooking and/or kitchen equipment	7 (23)
Parents provide meals for their children at our center	6 (20)
Center does not have a kitchen on site	6 (20)
Too many requirements just to sign-up	5 (17)
Cannot afford foodservice staff	4 (13)
Was told by another child-care provider that CACFP is too complicated	3 (10)
Reimbursements provided is way too small	3 (10)
Do not want government interfering with our child-care business	2 (7)
Other (eg, too much waste, not enough kids)	11 (37)
Things that could be done to motivate ECE programs to participate in CACFP ^f	
Reduce the amount of paperwork	18 (60)
Be more flexible with the meal guidelines and meal requirements	12 (40)
Reduce requirements for enrollment	6 (20)
Reduce penalties/less strict penalties	6 (20)
Provide trainings about how to enroll and use the food program	6 (20)

(continued on next page)

Table 4. Barriers, facilitators, and strategies recommended to promote participation in the CACFP^a by center-based ECE^b programs: Survey results from directors of center-based ECE programs not participating in CACFP (*continued*)

Variable	n (%)
Do not require paperwork to be completed by families	5 (17)
Provide more hands-on support during enrollment	3 (10)
Provide trainings about the benefits of the food program	2 (7)
Other (eg, provide incentive for investing in commercial kitchen, allow reimbursement for all children)	5 (17)

^aCACFP = Child and Adult Care Food Program.

^bECE = early care and education.

^cThe denominator may not add up to 31 because of missing data.

^dThe denominator does not add up to 31 because 1 non-CACFP director responded "I don't know" with regard to whether their ECE program had participated in CACFP in the past.

^eThe denominator may not add up to 16 because of missing data.

^fParticipants could select multiple responses for this survey question.

eligibility (45%) and enrollment information (27%), and technical assistance and training from state agencies as helpful supports (Table 3). Directors liked that CACFP helped cover food costs (87%), allowed programs to serve healthy meals (78%), provided meals to at-risk children (49%), kept tuition low (38%), and helped programs serve a variety of foods to children (26%). Most directors (75%) said CACFP was "very important" to their program and the children they served. When asked whether they would recommend CACFP to other ECE providers, 94% said "yes."

Recommended Strategies to Promote ECE Participation in CACFP

Results From Interviews. Recommended strategies to promote CACFP participation that emerged from interviews focused on paperwork reduction, modification of eligibility requirements, reimbursement rate increase, leniency with unintentional noncompliance errors, and outreach and provision of additional technical assistance options to ECE (Figure). Several participants recommended streamlining CACFP paperwork. One way to achieve this would involve "eliminating meal production records since the same information could be obtained from menus and food invoices" (sponsor). Notably, meal production records are not federally required, but are required by some states (eg, New York and Texas). Modifying the timeline to re-enroll in CACFP from annually to every 2 to 3 years was suggested as a way to streamline the paperwork. Providing state agency-supported software to track meals would promote consistent paperwork practices across sponsors and ECE programs. Creating surveillance systems at the state level to track reasons for ECE drop-off from CACFP was also suggested.

Modifications to CACFP eligibility requirements were recommended to make it easier for ECE programs to collect family income-eligibility information. Participants suggested connecting all federal assistance programs so that family income data could be communicated across programs automatically to avoid parents having to disclose the information to ECE programs; providing an online platform for income disclosure to which only states have access; or eliminating the need for income disclosure. Other eligibility

modifications could include lowering the 25% low-income threshold for participation to allow higher numbers of for-profit programs to qualify for CACFP. Instead of family income-based eligibility, participants recommended using community eligibility, whereby all children in a low-income community would qualify for CACFP.

Another recommendation focused on the need to increase monthly reimbursements, or for states to provide supplemental funds to help ECE programs offer healthy food options. Leniency with noncompliance penalties was discussed by participants and increasing the frequency of audits by state agencies from once every 3 years, which is the current requirement, to once per year was recommended as a way to catch errors before they became unmanageable. Outreach to promote CACFP and educate programs about eligibility requirements, CACFP benefits, and the impact of healthy foods served on children's health were also suggested. The need for collaboration among stakeholder agencies to promote CACFP awareness, educate parents about CACFP benefits, and provide peer mentoring to ECE directors was cited. When conducting training for ECE, some directors emphasized the need for stakeholders to present CACFP information using language that was easy to understand. Encouraging the use of sponsors, which some states (eg, New York) discouraged, was recommended. Having stakeholders' conduct regular check-ins and connect ECE with helpful resources; training directors on how to run successful ECE businesses; and training ECE foodservice staff on healthy recipes and how to cook for children with allergies were recommended. For non-CACFP programs, participants recommended providing alternate funding sources to help with offering healthy meals.

Results From Surveys. Survey participants in CACFP recommended streamlining the paperwork (31%), increasing reimbursement rates (45%), providing electronic tablets for use in classrooms (52%) and computer programs (36%) to assist with completing daily meal counts, minimizing emphasis on catching errors (30%), providing ample opportunities to correct errors before levying penalties (31%), and providing more CACFP training (20%) (Tables 3 and 4). Among non-CACFP

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participants ($n = 31$), recommendations to motivate participation in CACFP included reducing the paperwork (60%), providing flexible meal patterns (40%), modifying enrollment requirements (20%), imposing less stringent penalties for regulatory noncompliance (20%), and providing training to facilitate enrollment (20%).

DISCUSSION

This study identified barriers, facilitators, and potential strategies to promote CACFP participation by center-based ECE programs. Results showed several areas of overlap with regard to responses from stakeholders, sponsors, and directors, and across CACFP vs non-CACFP programs. In addition, there were similarities in director reports by data mode (eg, interviews vs surveys). The cumbersome application and reimbursement paperwork posed a burden for programs in CACFP and a barrier to participation by eligible non-CACFP programs. Meeting eligibility requirements and collecting family income-eligibility forms was described as challenging. The strict meal pattern was perceived as a barrier to serving foods that children would like to eat or cultural foods. Other barriers were related to difficulties with meal counts, insufficient reimbursement, noncompliance penalties, availability of limited staff to assist with paperwork, and availability of limited training about CACFP. Non-CACFP programs cited the lack of cooking facilities and attitudes of stakeholders and sponsors toward directors as barriers.

In addition to many of the barriers identified in this study, Andreyeva and colleagues¹⁹ found that not knowing enough about CACFP, perceptions about CACFP not being worth serving snacks only, parental preference to send lunches, children not eating foods served, lack of online training and apps to reduce paperwork burden, and difficulty finding vendors and catering companies to supply meals, were reasons for nonparticipation in CACFP. In the current study, reasons for ECE drop-out from CACFP were consistent with findings from a national study of CACFP limitations.²⁰ Although the screening process for this study excluded ECE directors unfamiliar with CACFP, other studies reported that lack of awareness hindered ECE participation in CACFP.³⁴ Although all 4 states mandate that ECE programs comply with the meal pattern regardless of participation in CACFP, existing studies found inconsistent compliance in other states with similar mandates.^{5,35}

In this study, nearly all ECE directors in CACFP agreed that CACFP was “very important/important” to their program and enrolled children. Key benefits included helping to cover food costs, allowing programs to serve healthy meals and a variety of foods, particularly to at-risk children, and keeping tuition low. Other studies report similar results, but also highlight additional benefits of CACFP, including providing training opportunities for ECE staff, a strategy to increase child enrollment in ECE,¹⁹ and access to nutrition education materials.²¹ In the current study, support from some stakeholders and sponsors that helped to facilitate CACFP participation included outreach to promote CACFP awareness and technical assistance to support CACFP implementation at ECE, online or paper-based systems established to assist ECE

with organizing and keeping track of paperwork, and training and nutrition education provided to ECE staff, directors, and parents. Consistent with this study, home-based ECE providers in Oregon highlighted the essential nature of the guidance and support provided by sponsors.²¹

Although this study team was unable to identify state-specific drivers of the disparity in ECE participation in CACFP from the data collected, some ongoing state-level efforts to promote CACFP emerged during discussions with stakeholders. In Arizona, for example, Empower³⁶ and Better Together³⁷ are 2 programs that promote healthy nutrition practices at ECEs, including building awareness and encouraging programs to sign up for CACFP. In New York, 3 organizations have contracts with the state agency to conduct targeted outreach to promote CACFP awareness and uptake by eligible ECE programs.^{36,38} In North Carolina, although not ECE-specific, the state agency partnered with No Kid Hungry to implement a streamlined application process to increase afterschool program participation in CACFP.³⁹ In Texas, targeting at-risk afterschool programs, a large “school-by-school” campaign is being implemented in Dallas to promote CACFP.

CACFP promotes healthy ECE nutrition environments, provision of healthy foods, and food security in children,^{13–17} but many eligible programs are currently missing out on the opportunity to enhance the quality of meals served to low-income children who are at higher risk for adverse health.^{3,18,19} In this study, participants suggested several strategies to increase CACFP participation. Recommendations that would require policy changes at the federal and/or state levels focused on the need to streamline the paperwork, modify eligibility requirements to make it easier for directors to collect family income-eligibility information and expand access to a larger proportion of not-for-profit centers, increase reimbursement rates, and show more leniency toward noncompliance errors and penalties. Additional recommendations that would require systems-level changes within stakeholder and sponsor organizations emphasize the need for collaboration across stakeholder agencies, more outreach to promote CACFP, and enhanced technical assistance to support CACFP implementation at ECE.

This study builds on existing studies, using interviews, surveys, and document reviews to assess CACFP barriers and facilitators across 4 states with varying CACFP participation levels. A limitation is that findings do not highlight factors contributing to disparities in CACFP participation and may not be generalizable to other states or home-based child-care programs. The sample of directors who completed surveys was relatively small. Interviews and surveys were administered in English. The survey was not tested for validity or reliability. In addition, thematic analyses of ECE program subgroups (eg, CACFP vs non-CACFP) within states was not possible because of relatively small sample sizes. Nevertheless, the inclusion of stakeholders', sponsors', and directors' perspectives is a strength. The sample included a mix of urban and rural programs. Perspectives of CACFP and non-CACFP directors were captured. Also, this study provides insight into potential strategies that can be used to promote CACFP participation by eligible ECE programs. Findings were disseminated in an interactive

webinar that occurred on January 25, 2022, with 57 stakeholders and sponsors across the 4 states.

CONCLUSIONS

CACFP provides nutritional benefits to ECE programs and children, but several barriers prevent participation by ECE programs. Stakeholders in this study recognized the need to prioritize CACFP participation and highlighted some ongoing state-level efforts in this regard. Policy and systems-level approaches to addressing some of the barriers reported in this study could be helpful. Further research is needed to track CACFP drop-out by ECE programs across states. Studies are also needed to assess factors that contribute to varying levels of home-based ECE program participation in CACFP across states.

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STATEMENT OF POTENTIAL CONFLICT OF INTEREST

No potential conflict of interest was reported by the authors.

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DATA AVAILABILITY STATEMENT

If you would like to learn more about this study's data collection instruments and methods, please reach out to the corresponding author.

AUTHOR CONTRIBUTIONS

B. Jana served in the role of project manager and contributed to the implementation of all aspects of the project. K. Lofstedt served in the role of research associate and contributed to participant recruitment, data collection, and data analysis. M. Vu contributed to the development of the interview guides, collection of data via interviews, and coding and analysis of interview data. D. Ward contributed to the conceptualization of the project idea and all aspects of project implementation. T. Erinosh conceptualized the project idea and oversaw all aspects of project implementation. All coauthors contributed to the manuscript.

Table 1. Description of stakeholders,^a sponsors,^b and center-based ECE^c program directors^d that participated in interviews or completed surveys

Variable	Arizona	North Carolina	New York	Texas	National	Total
	←-----n-----→					
Interview participants (n = 79)^e						
Stakeholders	5	5	5	6	1	22
Sponsors	3	5	4	5	NA ^f	17
ECE directors	11	8	11	10	NA	40
CACFP ^g programs	5	6	6	6	NA	23
Non-CACFP programs	6	2	5	4	NA	17
Survey participants (n = 100)^e						
ECE directors	24	23	27	26	NA	100
CACFP programs	12	21	19	17	NA	69
Non-CACFP programs	12	2	8	9	NA	31

^aStakeholders were defined as representatives of national or state agencies that administer CACFPs or work with ECE programs to promote child nutrition and quality child care.

^bSponsors were defined as public or private nonprofit organization that take on the administrative responsibility of operating CACFPs on behalf of ECE programs.

^cECE = early care and education.

^dECE directors included directors of both CACFP and non-CACFP center-based ECE programs.

^eThe study team initially completed interviews with stakeholders, sponsors, and directors of center-based ECE programs (March 2021 to September 2021). Preliminary results guided the development of the ECE director survey, which was administered after most interviews were completed (July 2021 to November 2021).

^fNA = not applicable.

^gCACFP = Child and Adult Care Food Program.