

Farm to Early Care and Education Continues to Foster Bright Futures for Children and Communities

FARM TO ECE REACH | AUGUST 2022

By National Farm to School Network and
Michigan State University Center for Regional Food Systems

Farm to early care and education (ECE) promotes child health and increases access to healthy foods through a collection of strategies that are centered in experiential learning and family and community engagement. Farm to ECE brings three core elements—gardening, food and agriculture education, and local food purchasing—into every type of ECE setting. These include family child care homes, child care centers, Head Start, and preschools in K-12 districts.

In its fourth iteration, intended to add to the knowledge of the previous three surveys, National

Farm to School Network (NFSN) partnered with Michigan State University Center for Regional Food Systems (CRFS) to implement the 2021 version of the National Farm to Early Care and Education Survey. The survey series completed by NFSN and CRFS in 2012¹, 2015², 2018³, and now 2021, is the only national farm to ECE-specific assessment of activity reach and participation. Information on the background and methodology of the 2021 National Farm to Early Care and Education Survey can be found in the “Background and Methods” 2021 survey brief⁴. This brief aims to explore who is and is not participating in farm to ECE.

Key Findings

- Of the 2,914 survey respondents, 82% indicated that they participate in farm to ECE and 14% plan to start in the future.
 - The percentage of Black/African American enrollees was statistically significantly higher in sites not participating in farm to ECE than in those participating in farm to ECE. Additionally, the percentage of white enrollees was statistically significantly higher in participating sites than in non-participating sites.
 - At sites where children were not eligible for free and reduced-priced meals, 87% participated in farm to ECE, while 86% of sites where 25 to 49% of enrolled children eligible for free and reduced-priced meals participated in farm to ECE. Sites where 75 to 99% of enrolled children were eligible for free and reduced-priced meals had the lowest number of farm to ECE participating respondents at 79%.
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Practice and Policy Recommendations

- Integrate farm to ECE opportunities into the Child and Adult Care Food Program that reach high proportions of children eligible for free/reduced price meals. Promote CACFP participation and address CACFP barriers to ensure equitable reach.
 - Ensure funding is specifically available for and accessible to ECE sites serving Black children and families.
 - Partner with and uplift organizations working to support Black families.
 - Create pathways for leadership in ECE and food systems for Black providers.
 - Ensure educational resources and food choices/activity honor food culture and preferences.
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Farm to ECE Reach

A total of 95,149 emails were distributed across 25 states with a response rate of 3.1%⁴. There were 2,914 total survey respondents with 2,397 (82%) indicating they participated in farm to ECE and 14% planning to start in the future.

Using a Chi-square test, researchers found statistically significant associations between farm to ECE participation and region⁵, geography (e.g. urban, rural, etc), state configuration, model type (e.g. child care center, family child care, etc.), and percentage of enrollees eligible for free and reduced meals.

State and Region

The highest amount of farm to ECE participation was found in the midwest (20%), followed by the

Southeast (19%), the Northeast (18%), the Mid Atlantic (16%), and the Mountain Plains region (13%). The lowest amount of participation was found in the Western (10%) and Southwestern (5%) regions. It should be noted that three states were surveyed in the Western and Midwestern region while four states were surveyed in the other regions. The states with the highest number of Farm to ECE participating respondents were both in the Midwest region, as shown in Table 1.

The states with the highest internal farm to ECE participation rates among respondents were South Dakota (100%) Vermont (97%), Utah and Indiana (94%), and Hawaii (90%). It should be noted that the number of participants from some states were relatively small, resulting in higher percentages.



Table 1. Farm to ECE Participating Respondents by State^{a,b,c,d}

Region	State	Frequency of Total Respondents	Percentage of Total Respondents ^d	Frequency of Farm to ECE Respondents	Percentage of Total Farm to ECE Respondents ^d	Percentage Reporting Farm to ECE Within State
Northeast	New York	292	10%	226	9%	77%
	Connecticut	107	4%	91	4%	85%
	Maine	74	3%	68	3%	92%
	Vermont	39	1%	38	2%	97%
Total		512	18%	423	18%	
Southwest	Arizona	47	2%	39	2%	83%
	Arkansas	43	1%	26	1%	60%
	New Mexico	38	1%	30	1%	79%
	Utah	16	1%	15	1%	94%
Total		144	5%	110	5%	
Southeast	South Carolina	168	6%	124	5%	74%
	North Carolina	142	5%	113	5%	80%
	Georgia	141	5%	115	5%	82%
	Florida	130	4%	96	4%	74%
Total		581	20%	449	19%	
Mid-Atlantic	Pennsylvania	207	7%	173	7%	84%
	Maryland	205	1%	173	7%	84%
	West Virginia	34	1%	26	1%	76%
	Washington D.C.	22	1%	18	1%	82%
Total		468	16%	390	16%	
Midwest	Michigan	288	10%	233	10%	81%
	Wisconsin	271	9%	233	10%	86%
	Indiana	16	1%	15	1%	94%
Total		575	20%	481	20%	
Mountain Plains	Colorado	222	8%	189	8%	85%
	Missouri	113	4%	97	4%	86%
	Kansas	25	1%	20	1%	80%
	South Dakota	5	0%	5	0%	100%
Total		365	13%	311	13%	
Western	California	190	7%	161	7%	85%
	Washington	50	2%	46	2%	92%
	Hawaii	29	1%	26	1%	90%
Total		269	9%	233	10%	

^a Regions are delineated using the USDA Food and Nutrition Services Regional Office Map available at <https://www.fns.usda.gov/fns-regional-office>

^b N=2914 total respondents

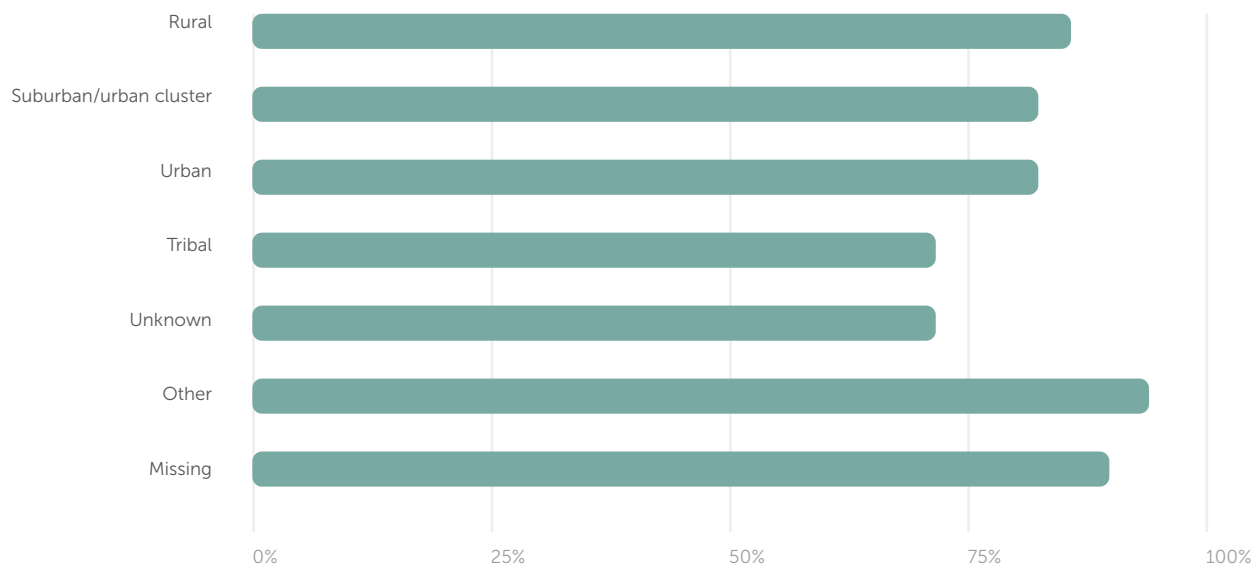
^c N=2397 farm to ECE participants

^d Due to rounding, percentages do not add up to 100%

Geographic Area

Rural areas had the highest percentage of farm to ECE participating sites (86%), followed by urban areas (82%), suburban/urban cluster areas (82%), and Tribal areas (71%).

Figure 1. Percentage of Farm to ECE Respondents Within Each Geographic Region (Self Reported)^a



^a N=2397



Program Characteristics

Multi-sites had the highest percentage of farm to ECE respondents (88%) as well as licensed sites (82%). The program model with the most respondents participating in farm to ECE were Tribal sites (100%), followed by private preschools (86%), Head Starts and/or Early Head Starts (85%),

family child care (83%), child care centers (80%), preschools (77%), and state preschools (73%), as shown in Table 2. Farm to ECE participating sites served an average of 79 children full-time and 14 children part-time. The number of children enrolled ranged from 0-100,000.

Table 2. Farm to ECE Respondents by Operation Type, Program Type, and Program Model^a

	Frequency of Total Respondents	Frequency of Farm to ECE Respondents	Percentage of Farm to ECE Respondents Within Each Type or Model
Operation Type			
Individual site	2582	2117	82%
Multi-site	306	259	85%
Missing	26	21	81%
Program Type			
Licensed	2821	2327	82%
Licensed-exempt	75	56	75%
Missing	18	14	78%
Program Model			
Family child care	1121	939	83%
Child care center	1091	869	80%
Private preschool	353	305	86%
Head start and/or early head start	85	72	85%
Preschool or childcare through K–12 school district	64	49	77%
State preschool	37	27	73%
Tribal	2	2	100%
Other	158	131	83%
Missing	3	3	100%

^a N=2397

Child Data

Of respondents participating in farm to ECE, 1538 (64%) serve infants, 1988 (83%) serve children aged 13 to 36 months, and 2284 (95%) of participants serve preschool-aged children (3 to 5 years old). At sites where children were not eligible for free and reduced-priced meals 87% participated in farm to

ECE, while 86% of sites where 25 to 49% of enrolled children eligible for free and reduced-priced meals participated in farm to ECE. Sites where 75 to 99% of enrolled children were eligible for free and reduced-priced meals had the lowest number of farm to ECE participating respondents at 79%.

Table 3. Farm to ECE Respondents by Enrolled Children Eligible For Free and Reduced-Priced Meals^a

Percent of Enrolled Children Eligible	Frequency of Total Respondents	Frequency of Farm to ECE Respondents	Percentage of Farm to ECE Respondents Within Each Percentage Category
0%	534	463	87%
1-9%	416	343	82%
10-24%	300	252	84%
25-49%	283	242	86%
50-74%	279	232	83%
75-99%	351	277	79%
100%	334	274	82%
Don't Know	412	309	75%
Missing	5	5	100%

^a N=2397

Farm to ECE respondents also provided data regarding the race/ethnicity of the children for whom they were providing care, indicating that the majority of children in their care were White (62%). Other races/ethnicities indicated were Black/African American (20%), Hispanic (14%), multiple races (10%), other (3.0%), Asian (3.0%), American Indian/Alaska Native (1.0%), and Native Hawaiian/Other Pacific Islander (1.0%).

Using a Mann-Whitney U Test, researchers found that the percentage of Black/African American enrollees was statistically significantly higher in sites not participating in farm to ECE than in those participating in farm to ECE. Additionally, the percentage of white enrollees was statistically significantly higher in participating sites than in non-participating sites. Differences between enrollment in participating and non-participating sites for children of other races was not statistically significant.

Table 4. Race/Ethnicity of Children in Care of Respondents^{a,b}

	Average Percentage of Total Respondents	Average Percentage of Farm to ECE Respondents
Ethnicity		
Hispanic	14%	14%
Not Hispanic	86%	86%
Race		
White	60%	62%
Black/African American	21%	20%
Asian	3%	3%
American Indian/Alaska Native	1%	1%
NativeHawaiian/Other Pacific Islander	1%	1%
Multiple races	10%	10%
Other	3%	3%
Missing	3%	3%

^a N=2914 total respondents

^b N=2397 farm to ECE participating respondents

Practice and Policy Recommendations

With a promising 82% of respondents already participating in farm to ECE and 14% planning to start in the future, farm to ECE has steadily gained favor in the ECE community. Farm to ECE is reaching a wide range of ECE settings and children of diverse racial/ethnic and socioeconomic backgrounds. However, racial and social inequity in farm to ECE accessibility still exists and must be addressed. The percentage of Black/African American enrollees was statistically significantly higher in sites not participating in farm to ECE than in those participating in farm to ECE and the percentage of white enrollees was statistically significantly higher in participating sites than in non-participating sites. Additionally, farm to ECE participation rates were lowest at sites with the highest amount of free and reduced-price meal participation. These findings reflect historic inequities due to structural and systemic racism and provide potential directions and focus for the future of farm to ECE.

Farm to ECE is a valuable tool to address concerns stemming from inequity and can be an avenue to support food access for staff, families, and the community while improving ECE quality. To ensure every community has access to the potential benefits of farm to ECE and high quality ECE settings in general, addressing financial barriers is a critical step. One strategy to reach sites with high proportions of children eligible for free and reduced-price meals is to integrate farm to ECE opportunities into the Child and Adult Care Food Program (CACFP). CACFP and farm to ECE have many opportunities for alignment, including farm to ECE related grant opportunities offered to CACFP participating programs, using CACFP funds to reimburse garden grown foods and gardening supplies, using farm to ECE activities to meet CACFP meal patterns and best practices, and

creating farm to ECE positions at Departments of Education or integrating farm to ECE into the job descriptions of existing CACFP-related positions. To ensure reach to programs that do not participate in CACFP but still serve high proportions of children eligible for free and reduced-price meals, efforts should be made to promote CACFP while reducing barriers to participation and extending accessible farm to ECE funding opportunities to sites not participating in CACFP.

Black, Indigenous, and People of Color (BIPOC) communities face inequities in childcare affordability, access, and availability, with childcare being least affordable for Black and Latinx families with low incomes⁶. Communities of color are disproportionately impacted by the pre-existing quality and staff compensation concerns in ECE systems, creating a need for investments in BIPOC ECEs, providers, and communities. In order to address barriers due to historic inequities, funding should be available and accessible specifically for ECE sites serving black children and families⁷. To meet the needs of families and ECE programs, investments that prioritize equitable access and enhance job quality and compensation must be made in the Black community. Partnerships with organizations working to support Black families such as the National Black Child Development Institute (NBCDI) should be prioritized in these efforts. Supporting black-run and operated organizations can help ensure efforts better reflect community voice while uplifting the black community as a whole.

The path towards equity in farm to ECE includes pathways for leadership and employment opportunities for BIPOC providers. Supporting professional development opportunities, creation of career pathways that allow professional certifications to contribute to degrees, and providing scholarships to help ECE workers advance their education or qualifications are all

important strategies to support an equitable ECE workforce. This strategy is especially imperative as the ECE workforce is predominantly composed of people of color, primarily females, who are not adequately paid and are often understaffed^{8,9}. They are also more than twice as likely to participate in public support programs than K-12 staff⁸. Additionally, Black providers are paid on average \$0.78 less per hour than their White peers and are more likely to hold lower-level positions within child care programs^{8,9,10}. Supporting leadership opportunities can also help recruit and retain Black educators, which can help Black children thrive, as research shows that Black students perform better academically, socially, and emotionally with Black teachers⁷. Leadership opportunities will not only help children perform and ECE staff, namely black women, move towards economic viability, but will support the BIPOC community at large. Additionally, educator knowledge and training are directly linked to ECE program quality. Strengthening the workforce is an important step in creating viable careers in ECE and making quality ECE programming, such as farm to ECE, more accessible in BIPOC communities.

Finally, to make farm to ECE more accessible to diverse communities and encourage participation, farm to ECE activities and resources should honor childrens' home culture, language, traditions, and lived experiences. Culturally relevant programming can serve as a platform for cultural education, bring pride and validation to students' backgrounds, increase excitement and participation around meals, and encourage community and family participation. When farm to ECE reflects the community, it can be a powerful learning tool and help build a welcoming space for children impacted by racial trauma. States and farm to ECE supportive organizations can ensure access to culturally adapted activities and culturally informed resources in the language spoken by families, children and staff.

Explore more farm to ECE resources, learn how to get involved, and connect with partners in your state by exploring the National Farm to School Network site at www.farmentoschool.org/ECE. Visit www.foodsystems.msu.edu to find resources and research on regional food systems from Michigan State University Center for Regional Food Systems.

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