2021 NATIONAL FARM TO EARLY CARE AND EDUCATION SURVEY

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

WHY FARM TO EARLY CARE AND EDUCATION | SEPTEMBER 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.

Although research on farm to ECE is limited, studies indicate that participation in farm to ECE contributes to an increased willingness to try and reported liking of fruits and vegetables[1,2] and increased fruit and vegetable consumption[3,4]. Family involvement also tends to be strongest during the early childhood years. Studies have shown positive reactions to farm to ECE activities from parents[1,4,5] and farm to ECE encourages family involvement through family-based and take-home activities. Children's excitement towards farm to ECE and family activities influence family food choices, as studies have shown an increase in local foods served in the homes of participating families[6]. Additionally, farm to ECE benefits the entire community: Purchasing local products creates market opportunities for farmers and supports local and regional food systems[7]. Overall, farm to ECE creates opportunities to influence the eating habits of children at a critical time in development by encouraging children to eat fresh, wholesome foods. Additionally, when approached equitably, it has the potential to reduce health and education inequities, improve household food security and food access, and support community food systems.

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 2012[8], 2015[9], 2018[10], 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 brief. This brief explores participants' motivations for farm to ECE and the community's response to programming[11].

Key Findings

- Top motivations for both starting and continuing engagement in farm to ECE included improving children's health (97% and 96%), providing children with experiential learning (97% and 96%), supporting local farmers and local economy (97% and 94%), and teaching children where food comes from and how it's grown (96%).
- Limited funding for supplies was the top barrier to both starting (71%) and continuing (59%) farm to ECE activities. Other barriers to both starting and continuing farm to ECE activities included limited staff knowledge on local foods (64% and 46%), limited access to appropriate curriculum or lesson plans (61% and 49%), and limited staff knowledge of gardening (66% and 49%).
- Respondents reported positive feedback from various stakeholders, including positive or very positive feedback from children (74%), from families (66%), and from ECE staff (54%).

Practice and Policy Recommendations

Spread awareness of farm to ECE and leverage farm to ECE's contribution to high quality ECE settings by:

- Including farm to ECE language into Quality Rating and Improvement Systems (QRIS), licensing standards, and CACFP trainings and communications.
- Including farm to ECE trainings in continuing education systems and build farm to ECE trainings for coaches to further promote implementation and reduce knowledge barriers.

Align farm to ECE promotion with top provider motivations, which include:

- Improving children's health
- Providing children with experiential learning
- Improving access to high-quality food
- Supporting local farmers and the local economy.

Build and expand systems to connect providers to existing resources and support organizations through models such as:

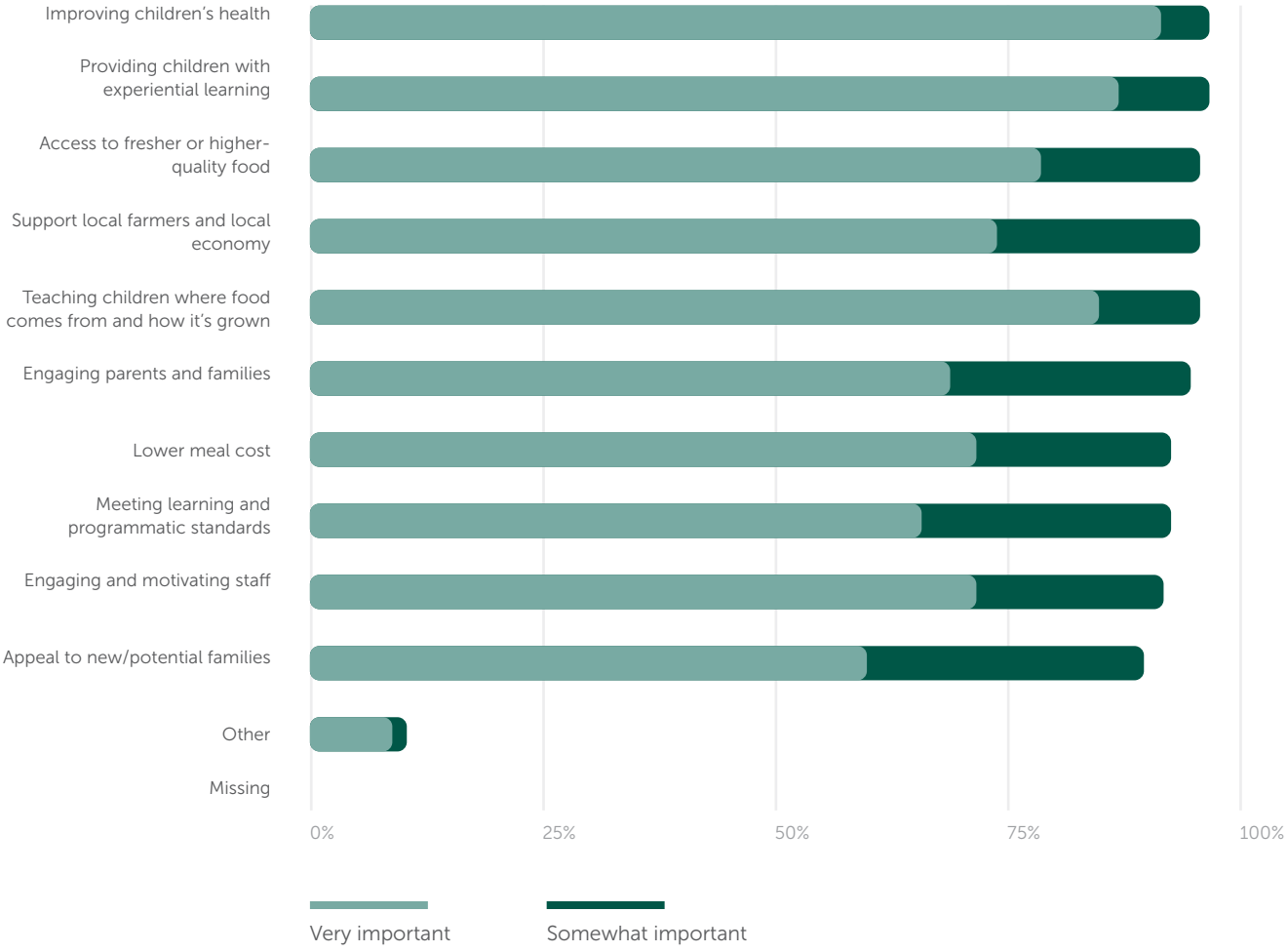
- Farm to ECE institutes
- State and regional farm to ECE networks, hubs, and communities of practice
- Dedicated funding for grant programs that include technical assistance and shared learning opportunities.

Include a focus on site administrators and decision makers in farm to ECE promotion and collaborative efforts. Equip providers with the appropriate tools to gain buy-in from key decision makers at their site and empower them as leaders in farm to ECE.

Starting Farm to ECE: Motivations and Barriers

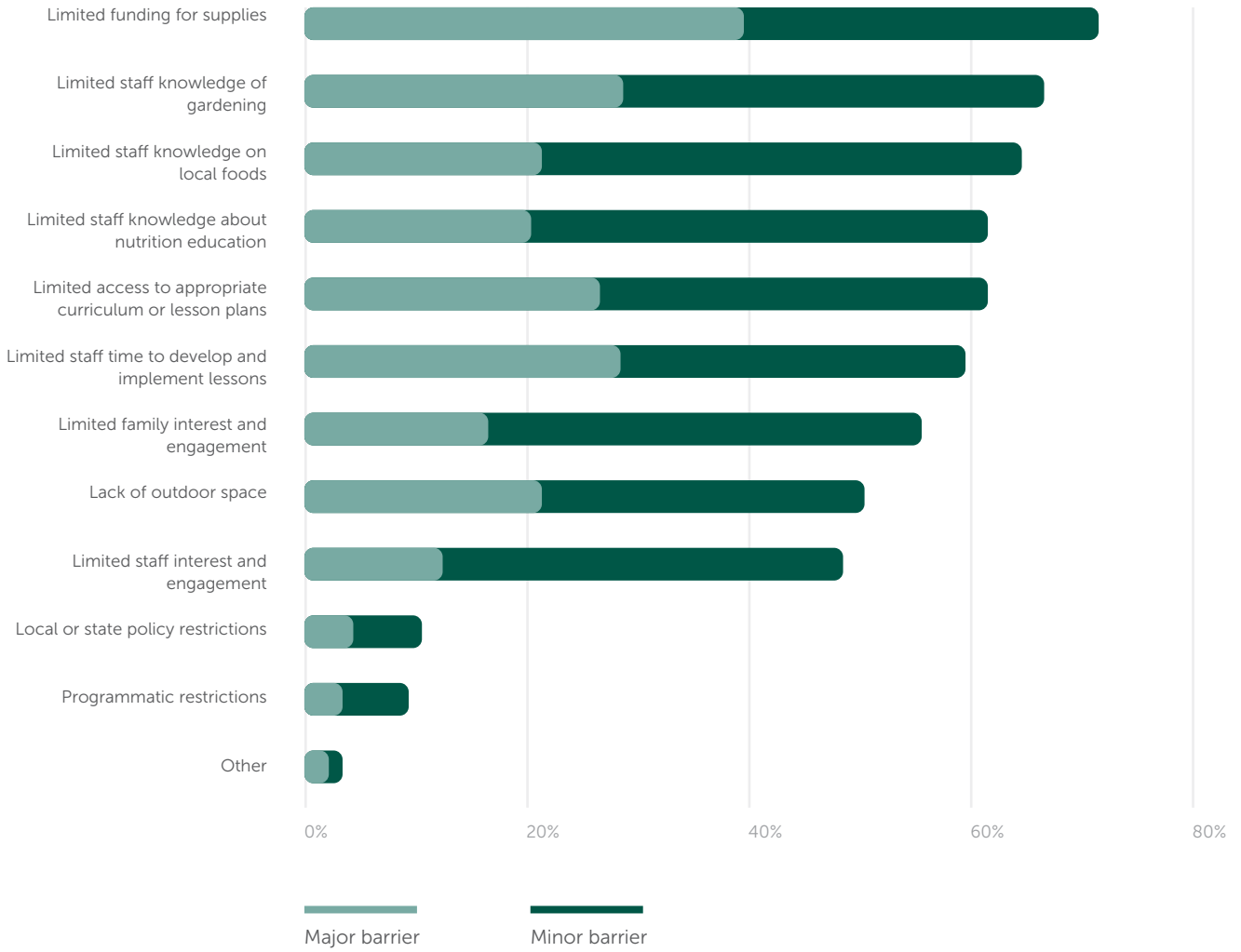
The survey asked respondents who intended to start farm to ECE activities to share factors affecting their decision to start. When combining responses for "very important" and "somewhat important," the factors "improving children's health" (97%) and "providing children with experiential learning" (97%) emerged as the most important, followed by "access to fresher or higher-quality food" (96%), "support local farmers and local economy" (97%), and "teaching children where food comes from and how it's grown" (96%) as the top factors affecting why sites wanted to start farm to ECE in their settings (Figure 1).

Figure 1. Motivations to Start Farm to ECE Activities



Participants who intended to start farm to ECE activities were also asked about potential barriers to engaging in farm to ECE. When combining responses for "very important" and "somewhat important," respondents shared limited funding for supplies (71%) as the primary reason for not implementing farm to ECE activities. Limited staff knowledge of gardening (66%), limited staff knowledge on local foods (64%), limited access to appropriate curriculum or lesson plans (61%), and limited staff knowledge about nutrition education (61%) were the next most frequently cited major and minor barriers to implementation.

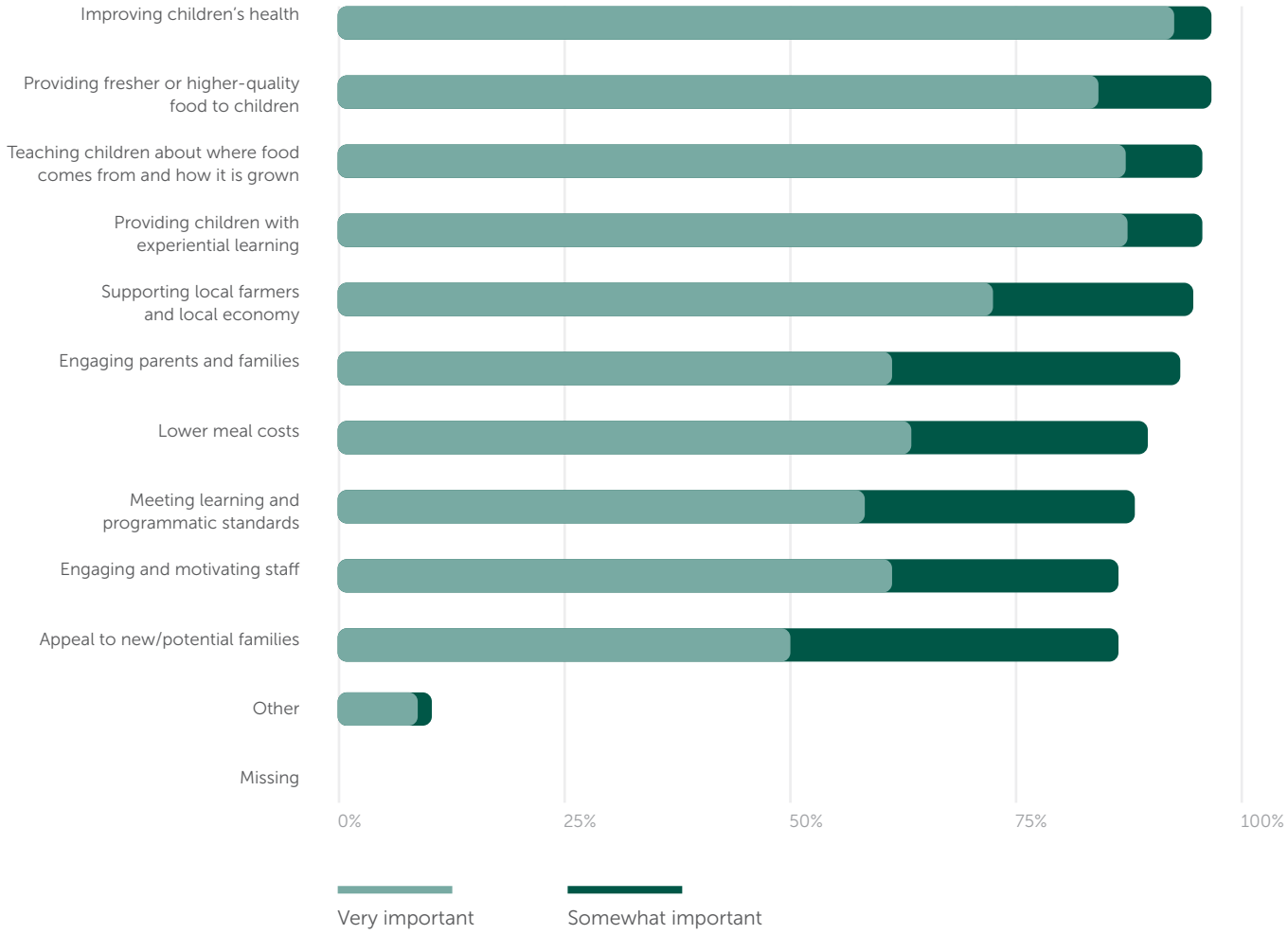
Figure 2. Barriers to Starting Farm to ECE Activities



Engaging in Farm to ECE: Motivations and Barriers

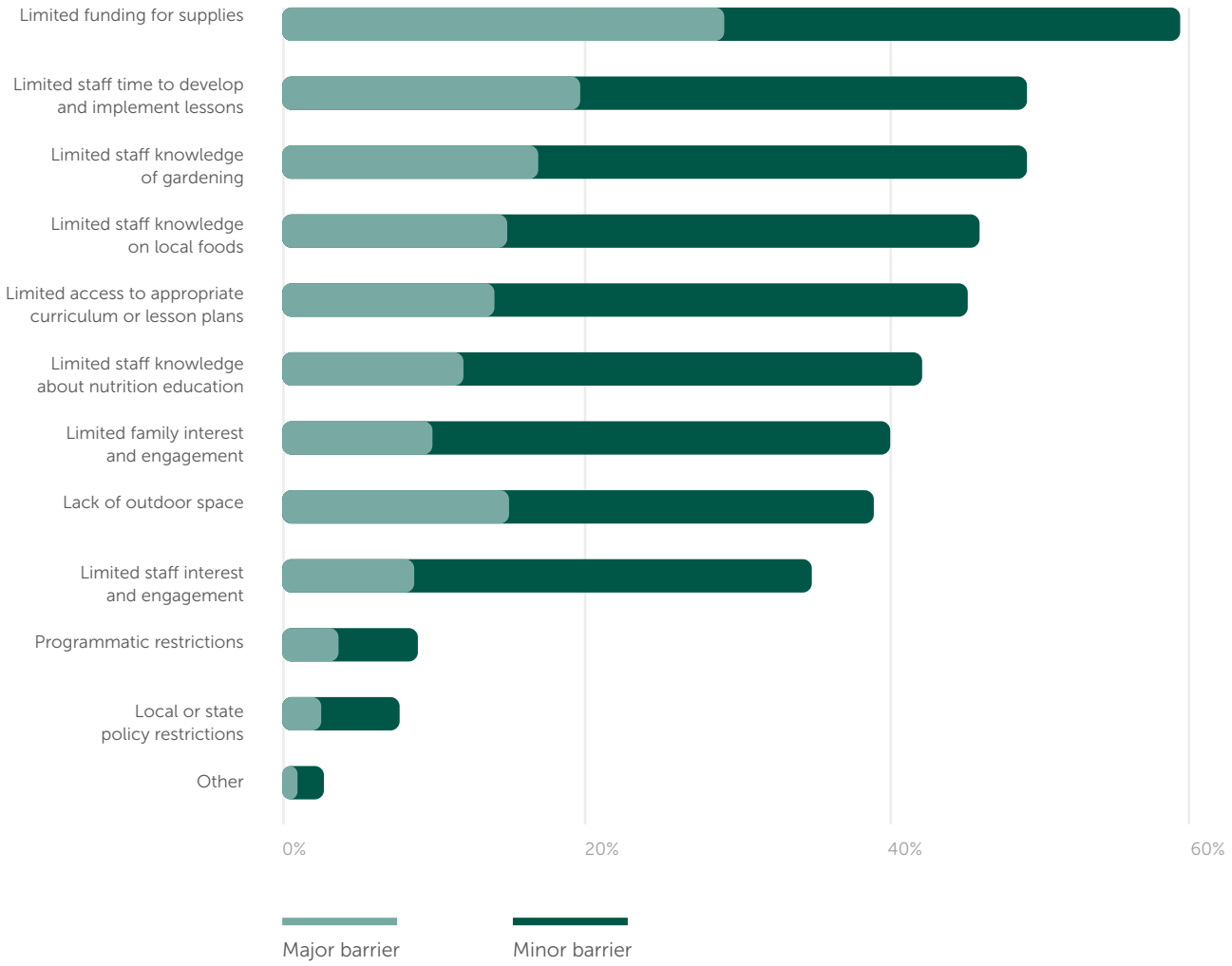
Respondents who already engaged in farm to ECE activities also shared their motivations for participating in farm to ECE activities. Improving children's health, providing fresher or higher-quality food to children, teaching children about where food comes from and how it is grown, and providing children with experiential learning were reported as "very important" or "somewhat important" motivations by 96% of respondents. Other top reasons included supporting local farmers and the local economy (94%) and engaging parents and families (93%).

Figure 3. Motivations for Engaging in Farm to ECE Activities



When asked about barriers to farm to ECE activities such as on-site gardens and local food, agriculture, and nutrition education, respondents already participating in farm to ECE most often reported limited funding for supplies (59%). Nearly half of respondents indicated limited staff time to develop and implement lessons (49%) and limited staff knowledge of gardening (49%) as barriers. Limited staff knowledge on local foods (46%) and limited access to appropriate curriculum or lesson plans (45%) were also common barriers.

Figure 4. Barriers to Engaging in Farm to ECE Activities



Community Response

Respondents engaging in farm to ECE were asked about community feedback in response to their farm to ECE activities. They reported that they received positive feedback from various stakeholders (see Table 1), including positive or very positive feedback from children (74%), from families (66%), and from ECE staff (54%). Respondents reported that ECE administration also provided positive or very positive feedback to a lesser extent (49%), with community members (31%) and farmers/producers (25%) also sharing feedback. No respondents reported negative feedback from any stakeholders.

Table 1. Reported Stakeholder Feedback on Farm to ECE Activities

	Frequency Reporting Positive or Very Positive Feedback	Percent Reporting Positive or Very Positive Feedback
Children	1771	74
Families	1591	66
ECE Staff	1305	54
ECE Administration	1188	49
Community Members	744	31
Farmers/ Producers	613	25

Additional Feedback From Respondents

Respondents were asked to share their thoughts on farm to ECE through open response. Many of the comments were positive about farm to ECE or displayed interest in learning more, sharing success stories and benefits they've seen. Many had not heard of farm to ECE before receiving the survey.

Out of the 482 responses, major themes included comments related to respondents' questions and requests for more information (181), respondents sharing experiences and gratitude (134), and barriers to implementing farm to ECE (88 responses). Of responses categorized as barriers to farm to ECE, 16 responses referenced funding.

In Their Own Words

"As a Family Child Care Center—it is often an issue of not having enough hands or time to do everything as the only adult [working] in the program. It is also a financial stretch—especially during Covid. We do the best we can with limited time and resources, and my whole family pitches in on weekends."

"I love gardening but am a terrible gardener—mostly due to lack of time but partly also due to lack of knowledge. I work 50 hours/week directly with children and another 10-15 hours cleaning, doing prep, etc. Sometimes I'm just too tired to work in the garden."

"I wish it was easier to do and was laid out for the "newbies" like myself. I think it is a wonderful concept, but without help, guidance, and support it is easy to get discouraged."

Other common themes included respondents' experiences with gardening and/or providing opportunities for children to learn where food comes from (31 responses); experiences with and/

or the importance of family engagement in farm to ECE programming (10 responses); the importance of nutrition education and/or respondents' experience providing nutrition education (9 responses); interest in, experiences with, or barriers to using a curriculum (8 responses); farm to ECE's ties to children's social and emotional health (2 responses); respondents' motivations for starting or continuing engagement in farm to ECE (1 response). 25 total responses referenced funding.

In Their Own Words

"I believe that giving children the opportunity to plant, care for, harvest and eat the food they have grown in their own garden is not only tremendously educational, but deeply satisfying and contributes to well being on so many levels—physically, mentally, and emotionally."

"I have found that the children really enjoy learning about where their food comes from and they are less inhibited about trying new foods when it is attached to the curriculum, so we love including this type of education into our curriculum."

"Children dealing with trauma (foster children, reunified children, special circumstance children) Need activities like learning to care for a garden to help them as a therapeutic tool."

Practice and Policy Recommendations

Respondents' motivations for farm to ECE engagement align with ECE priority areas and reflect the three core elements of farm to ECE: food education, gardening, and the purchasing and serving of local foods. Improving children's health, providing fresher and higher quality foods, providing meaningful experiential education opportunities, and food education are top motivations for beginning and sustaining farm to ECE as well as pathways to high quality ECE settings and the development of healthy habits.

As found in open-ended responses, many respondents had not heard of farm to ECE before this survey, but were very interested in learning more. States can spread awareness of farm to ECE and leverage farm to ECE's contribution to high quality ECE settings by including farm to ECE language into Quality Rating and Improvement Systems (QRIS), licensing standards, and CACFP trainings and communications. Farm to ECE activities can help ECEs meet QRIS standards through multiple common domains, such as professional development, family engagement and community partnerships, and learning environment. Including farm to ECE activities such as gardening and taste tests in QRIS both incentivizes and promotes farm to ECE participation. States can also choose to build farm to ECE continuing education trainings and trainings for coaches, further systematizing farm to ECE related technical assistance.

Common barriers to farm to ECE participation, further reflected in open-ended responses, centered around limited funding, staff time, staff knowledge, and access to curriculum. Improving pathways to funding is imperative, as lack of funding is not only the top barrier to participation, but acquiring funding is a facilitator for greater

levels of farm to ECE engagement, as outlined in the "2021 National Farm to Early Care and Education Survey: Participation and Practices" brief[12]. Access to curriculum was also a major barrier. Pre-made curricula can increase provider capacity and knowledge around farm to ECE topics, reducing barriers to participation. Stronger supports are needed to assist providers in identifying existing curricula and other resources to reduce capacity or knowledge-related barriers. In addition to the train-the-trainer model, popular approaches to promoting existing resources and support organizations include farm to ECE institutes; state and regional farm to ECE networks, hubs, and communities of practice; and dedicated funding for grant programs that include technical assistance and shared learning opportunities. Examples include California's Farm to School Incubator Grant Program and the Oregon Farm to School and School Garden Network's regional hubs.

Provider capacity was also reported as a major barrier in farm to ECE participation. In addition, only around half of respondents reported positive feedback from ECE staff and ECE administration. Gaining staff and administrative support is key to building sustainable and comprehensive farm to ECE programming. With support from administrators, responsibilities can be shared, funding can be delegated or acquired, and implementation can be integrated into current practices more easily. Farm to ECE promotion and collaborative efforts should help empower providers as leaders in farm to ECE and include a focus on site administrators and decision makers. Training and resources should equip providers with the appropriate tools to gain buy-in from key decision makers at their site.

In addition to funding, technical assistance, and buy-in to assist with capacity limitations, larger structural changes within ECE systems are needed. Limited provider capacity is not unique to farm to ECE, but is a larger issue within ECE systems. As discussed in "2021 National Farm to Early Care and Education Survey: Farm to ECE Reach"[13], investments that prioritize equitable compensation for providers and affordable childcare for families are needed to meet the needs of the ECE community and to ensure children receive equitable access to high quality ECE environments.

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.farmtoschool.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.

References

1. Sharma, S. V., Hedberg, A. M., Skala, K. A., Chuang, R.-J., & Lewis, T. (2015). Feasibility and acceptability of a gardening-based nutrition education program in preschoolers from low-income, minority populations. Journal of Early Childhood Research, 13(1), 93–110. https://doi.org/10.1177/1476718X14538598
2. Izumi, B. T., Eckhardt, C. L., Hallman, J. A., Herro, K., & Barberis, D. A. (2015). Harvest for healthy kids pilot study: Associations between exposure to a farm-to-preschool intervention and willingness to try and liking of target fruits and vegetables among low-income children in head start. Journal of the Academy of Nutrition and Dietetics, 115(12), 2003–2013. https://doi.org/10.1016/j.jand.2015.07.020
3. Carroll, J. D., Demment, M. M., Stiles, S. B., Devine, C. M., Dollahite, J. S., Sobal, J., & Olson, C. M. (2011). Overcoming barriers to vegetable consumption by preschool children: A child care center buying club. Journal of Hunger & Environmental Nutrition, 6(2), 153–165. https://doi.org/10.1080/19320248.2011.576207

4. Williams, P. A., Cates, S. C., Blitstein, J. L., Hersey, J., Gabor, V., Ball, M., Kosa, K., Wilson, H., Olson, S., & Singh, A. (2014). Nutrition-education program improves preschoolers' at-home diet: A group randomized trial. Journal of the Academy of Nutrition and Dietetics, 114(7), 1001–1008. https://doi.org/10.1016/j.jand.2014.01.015

5. Dannefer, R., Power, L., Berger, R., Sacks, R., Roberts, C., Bikoff, R., & Solomon, E. (2018). Process evaluation of a farm-to-preschool program in New York City. Journal of Hunger & Environmental Nutrition, 13(3), 396–414. https://doi.org/10.1080/19320248.2017.1364192

6. Nanney, M. S., Johnson, S., Elliott, M., & Haire-Joshu, D. (2007). Frequency of eating homegrown produce is associated with higher intake among parents and their preschool-aged children in rural missouri. Journal of the American Dietetic Association, 107(4), 577–584. https://doi.org/10.1016/j.jada.2007.01.009

7. Henderson, T. (2011). Health impact assessment: HB 2800: Oregon Farm to School and School Garden Policy. Upstream Public Health. https://www.issuelab.org/ resources/12943/12943.pdf

8. JHoffman, J. A., Schmidt, E. M., Wirth, C., Johnson, S., Sobell, S. A., Pelissier, K., Harris, D. M., & Izumi, B. T. (2017). Farm to preschool: The state of the research literature and a snapshot of national practice. Journal of Hunger & Environmental Nutrition, 12(4), 443–465. https://doi.org/10.1080/19320248.2016.1227747

9. Stephens, L., & Oberholtzer, L. (2016). Results from the 2015 National Survey of Early Care and Education Providers: Local Procurement, Gardening, and Food and Farm Education. National Farm to School Network.

10. Shedd, MK, Stephens, L, Matts, C, & Laney, J. (2018). Results From the 2018 National Farm to Early Care and Education Survey. National Farm to School Network. Farmtoschool.org

11. Riemer Bopp, S, Shedd, MK, Stephens, L. (2022). Farm to Early Care and Education Continues to Foster Bright Futures for Children and Communities: 2021 National Farm to Early Care and Education Survey Background and Methods. National Farm to School Network. Farmtoschool.org

12. Riemer Bopp, S, Shedd, MK, Stephens, L. (2022). Farm to Early Care and Education Continues to Foster Bright Futures for Children and Communities: 2021 National Farm to Early Care and Education Survey Participation and Practices. National Farm to School Network. Farmtoschool.org

13. Riemer Bopp, S, Shedd, MK, Stephens, L. (2022). Farm to Early Care and Education Continues to Foster Bright Futures for Children and Communities: 2021 National Farm to Early Care and Education Survey Farm to ECE Reach. National Farm to School Network. Farmtoschool.org

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