



## Case Study Profile Series: Vermont

### STUDY BACKGROUND AND PURPOSE

Growing up on a farm has many benefits for children, but farms can also be dangerous. Every day in the United States (U.S.), about 33 children are seriously injured in agricultural-related incidents, and every three days a child dies [1]. Young children are particularly at risk because they require constant supervision [2, 3]. According to farm safety experts, a key strategy to prevent these incidents is through the supervision of younger children by an adult off the worksite [4-6]. Yet despite this recommendation, little is known about what farm parents do with their children while they work, their preferred childcare arrangements, and the extent to which they are satisfied with their current arrangements [7, 8]. This knowledge gap is noticeable considering the documented challenges of parents with childcare across the U.S. [8-10]. Furthermore, two recent surveys of farm parents found that they are not immune from childcare challenges. Pre-COVID-19, two-thirds reported problems largely due to childcare cost and accessibility; looking after the children became harder in the early months of COVID-19 [11, 12]. While farm safety educators commonly focus on improving farm parents' safety knowledge and changing their practices, childcare challenges might actually play an underappreciated role in shaping whether or not parents bring their children along to the worksite.

Researchers at the National Farm Medicine Center and The Ohio State University have partnered on the "Linking Childcare to Farm Children Safety" project to **understand farm families' lived realities with childcare, the range of factors that shape farm families' childcare arrangements, as well as how childcare arrangements and infrastructures influences the safety of farm children.**

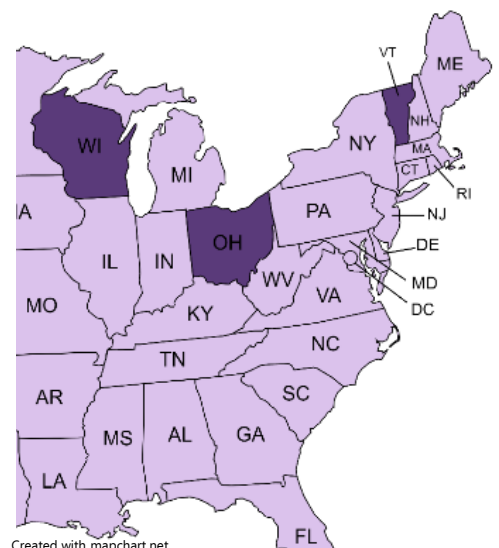
### CORE PROJECT OBJECTIVES

- Examine the connections between childcare arrangements and farm children safety in three case study states (Ohio, Vermont, and Wisconsin) by:
  - ✓ Identifying how farm business and farm safety programs and resources address the presence of farm children on the worksite and integrate childcare in their programming;
  - ✓ Assessing farm families' strategies to look after their children while they work and their lived experiences with childcare;
  - ✓ Comparing and contrasting childcare arrangements and farm safety strategies across a diversity of farm families;
- Develop recommendations based on research findings aimed at easing childcare accessibility, affordability, and acceptability;
- Conduct targeted outreach to disseminate research findings and recommendations.

### STUDY AREAS

This 5-year research project funded by the CDC National Institute for Occupational Safety and Health is conducted in Ohio, Vermont, and Wisconsin. These three states were chosen using the following selection criteria:

- Majority of farms in the Midwest and Northeast are family farms where the home and work sites overlap;
- Majority of farm children injuries occur in the Midwest;
- Compared to the Midwest, Vermont stands out due to extensive investments in childcare infrastructures in recent years;
- States receptivity to participating in the study and existing networks.



## ‘Linking Childcare to farm children safety’ Case Study State Profile Series

This case study state profiles series uses publically available data to develop a broad understanding of the farm population and childcare landscape in the three study states. Unless otherwise noted, farm population data are from the 2017 Census of Agriculture [13]. While the childcare landscape has shifted rapidly in the last two years due to the COVID-19 pandemic, most of the publically available data pre-date these recent changes. Table 1 provides an overview of key information related to the three study states and the U.S., while the rest of the profile is focused on the state of Vermont.

Table 1. Key information related to farm population and childcare landscape

	Farm population <sup>1</sup>				Childcare landscape <sup>2</sup>			
	Number of farms	Farmers living on farm	Farmers aged 18 to 44	Women farmers	Share of population living in childcare dessert <sup>3</sup>	Center-care cost for infant per year <sup>4</sup>	Family-based care cost for infant per year <sup>4</sup>	Children aged 3 to 4 in school <sup>5</sup>
Ohio	77,805	79%	24%	34%	39%	\$9,919	\$7,649	46%
Vermont	6,808	83%	23%	42%	35%	\$13,915	\$9,428	64%
Wisconsin	64,793	80%	21%	35%	54%	\$10,500	\$8,376	43%
United States	2,042,220	74%	20%	36%	51%	N.A.	N.A.	49%

Sources. <sup>1</sup> U.S. Department of Agriculture [13], <sup>2</sup> State population data irrespective of occupation, <sup>3</sup> Center for American Progress [14], <sup>4</sup> ChildCare Aware of America [15], <sup>5</sup> National Kids Count Data Center [16]

### THE VERMONT FARM POPULATION

There were 6,808 farms in Vermont in 2017 and based on tax classification, 81% were operated by families [13]. Farm families often prize the benefits of raising their children on the farm [17, 18]. However, because of the dangerousness of agriculture, the overlap between the home and work sites can place children at risk of injury. Nationally, about 60% of agricultural-related injuries are sustained by non-working children who live on the farm [1]. In Vermont, 83% of farmers live on their farm (compared to 74% at the national level).

While the U.S. Department of Agriculture does not collect data about children, its data on farmers’ age provide insights into the proportion of farmers into their prime child bearing and rearing years. Almost a quarter (23 %) of farmers were between ages of 18 and 44 (compared to 20% at the national level). Previous research has found that the overlap between the years of family formation and the early years of operating a farm business can be difficult for young farmers as they balance the heavy demands for time and financial resources between their farm business and their family [11, 19, 20]. Almost two-thirds (64%) of Vermont farmers aged 18 to 44 were beginning farmers (i.e. had operated a farm for less than 10 years).

Farm women have always played an important role in agriculture through their participation in farm labor, taking care of the home and children and working an off-farm work for income and health insurance benefits [21, 22]. They are also increasingly taking on managerial roles. More than one third (38%) of those who claim the farmer status in Vermont are women (compared to 29% of women operators at the national level).

# The Vermont Childcare Landscape

## CHILDCARE AVAILABILITY

The COVID-19 pandemic highlighted the challenges parents have long faced accessing childcare in the U.S. For example, a 2018 national study found that 3 in 5 rural communities across the country lacked adequate childcare supply [10, 23]. In Vermont, 35% of the population (irrespective of occupation) lives in a childcare desert which is defined as more than three children for every licensed childcare slot (including center and family childcare homes) (compared to 51% at the national level) [23]. There are great variations across states as to when children start school which is in part explained by the financial support provided by states to pre-K programs. Between 2017 and 2019, 64% of Vermont children aged 3 to 4 were enrolled in school (compared to 49% at the national level) [16].

## CHILDCARE COST

Besides availability, cost is another major challenge parents face with the cost varying based on a range of factors including type of childcare, age of children, quality ratings, and operating costs. In Vermont, childcare for an infant ranged from \$9,428 per year for licensed family based care to \$13,915 per year for center-care in 2019 [24]. What constitutes affordable childcare is a debated topic but the U.S. Department of Health and Human Services uses the threshold of 7% or less of total household income [25]. In Vermont, childcare costs estimates range from 10% of a family's median income for a married couple using licensed family-care to 48% for a single parent using childcare center-care [24]. Yet, despite the high cost to parents, early childhood educators earn low wages which contributes to challenges attracting and retaining childcare workers. Vermont childcare workers earned a median wage of \$13.72/hour in 2020 [26] and an estimated 53% receives public benefits [27].

## CHILDCARE FINANCIAL SUPPORT

Financial support for childcare is available through governments programs. On average 14% of eligible Vermont children received childcare assistance. Most of the funding for these programs come from the Child Care and Development Fund (CCDF) followed by the Temporary Assistance for Needy Families (TANF) and the Social Services Block Grant [27]. Of the eligible Vermont children receiving childcare assistance, 25% were in family childcare setting, a setting that is generally preferred by the farm population [27]. All Vermont school districts must offer at least 10 hours per week of pre-K programs with no income requirement for parents. Families can also receive financial support through the tax code. There are three tax credits at the federal level: the Earned Income Tax Credit (EITC) (up to \$6,557 for working families with three or more qualifying children), the child tax credit (CTC) (up to \$1,400), and the child and dependent care tax credit (CDCTC) (up to \$2,100) [28]. Families who receive a family credit automatically qualify for the Vermont EITC tax credits (36% of the federal credit). Furthermore, Vermont offers two versions of the state CDCTC. One benefit is available to all Vermont taxpayers who qualify for the federal credit (24% of the federal CDCTC). The second benefit is available to those earning up to \$39,999 (income threshold is based on filing status) (50% of the federal CDCTC) [29]. In response to COVID-19, the Federal government has provided funding to states to support both the childcare sector and families. For example, Vermont has used pandemic support funding to expand opening hours to accommodate non-traditional work schedules and to provide additional funding to childcare providers who serve low-income families [30, 31].

### Authors

Florence Becot – Pennsylvania State University;  
Shoshannah Inwood – The Ohio State University

### Additional information.

For more information about this study and project findings contact Florence Becot at [florence.becot@psu.edu](mailto:florence.becot@psu.edu) or (814) 865-1783.

### Project website

<https://marshfieldresearch.org/nccrahs/FarmChildrenChildcare>

### Acknowledgments

Project support from the National Institute for Occupational Safety and Health: U54 OH009568-10.

# LINKING CHILCARE TO FARM CHILDREN SAFETY



National Children's Center  
for Rural and Agricultural Health and Safety



## References

1. National Children's Center for Rural and Agricultural Health and Safety. *Childhood agricultural injuries (U.S.) - 2020 Fact sheet*. 2020. <https://marshfieldresearch.org/Media/Default/NFMC/PDFs/ChildAgInjuryFactsheet2020.pdf>.
2. Brison, R., et al., *Fatal agricultural injuries in preschool children: risks, injury patterns and strategies for prevention*. CMAJ, 2006. **174**(12): p. 1723-1726. <https://doi.org/10.1503/cmaj.050857>.
3. Morrongiello, B., et al., *Adult supervision and pediatric injuries in the agricultural worksite*. Accident Analysis & Prevention, 2008. **40**(3): p. 1149-1156. <https://doi.org/10.1016/j.aap.2007.12.007>.
4. Graham, L. and C. Schwab, *Safe Farm: Keep young children safe on farms*. 1999, Ames, IA: Iowa State University Extension.
5. Pickett, W., et al., *Pediatric farm injuries involving non-working children injured by a farm work hazard: five priorities for primary prevention*. Injury Prevention, 2005. **11**(1): p. 6-11. <https://doi.org/10.1136/ip.2004.005769>.
6. Morrongiello, B., D. Zdzieborski, and J. Stewart, *Supervision of children in agricultural settings: implications for injury risk and prevention*. Journal of Agromedicine, 2012. **17**(2): p. 149-162. <https://doi.org/10.1080/1059924X.2012.655127>.
7. Lee, B., et al., *Blueprint for Protecting Children in Agriculture: The 2012 National Action Plan*. 2012, Marshfield, WI: Marshfield Clinic.
8. Reschke, K., *Child care needs of farm families*. Journal of Agromedicine, 2012. **17**(2): p. 208-213. <https://doi.org/10.1080/1059924X.2012.658292>.
9. Sandstrom, H. and A. Chaudry. *You have to choose your childcare to fit your work': Childcare decision-making among low-income working families*. Journal of Children and Poverty, 2012. **18**(2): p. 89-119. <https://doi.org/10.1080/10796126.2012.710480>
10. Malik, R., et al., *The coronavirus will make child care deserts worse and exacerbate inequality*. 2020, Washington, DC: Center for American Progress.
11. Inwood, S. and E. Stengel, *Working Households: Challenges in Balancing Young Children and the Farm Enterprise*. Community Development, 2020. **51**(5): p. 499-517. <https://doi.org/10.1080/15575330.2020.1800772>.
12. Becot, F., *Children, work, and safety on the farm during COVID-19: A harder juggling act*. Journal of Agromedicine, 2022. **27**(3): p. 315-238. <https://doi.org/10.1080/1059924X.2022.2068716>.
13. U.S. Department of Agriculture, *Census of agriculture*. 2017, Washington, DC.
14. Center for American Progress, *Early learning state factsheets*. 2019, Washington, DC.
15. ChildCare Aware of America. *2020 State Fact Sheets*. 2020. <https://info.childcareaware.org/hubfs/2020%20State%20Fact%20Sheets/Vermont-2020StateFactSheet.pdf>.
16. National Kids Count Data Center. *Young children not in school - 2008-2019*. 2020. <https://datacenter.kidscount.org/data/tables/9010-young-children-not-in-school?loc=1&loct=2#detailed/2/2-53/false/1757,1687,1652,1564,1491,1443,1218,1049,995,932/any/17975,17976>.
17. Rissing, A., S. Inwood, and E. Stengel, *The invisible labor and multidimensional impacts of negotiating childcare on farms*. Agriculture and Human Values, 2021. **38**: p. 431-447. <https://doi.org/10.1007/s10460-020-10162-1>.
18. Zepeda, L. and J. Kim, *Farm parents' views on their children's labor on family farms: A focus group study of Wisconsin dairy farmers*. Agriculture and Human Values, 2006. **23**(1): p. 109-121. <https://doi.org/10.1007/s10460-004-5873-8>.
19. Bennett, J. and S. Kohl, *Of time and the enterprise: North American family farm management in a context of resource marginality*. 1982, Minneapolis, MN: University of Minnesota Press.
20. Gale, H.F., *Longitudinal analysis of farm size over the farmer's life cycle*. Review of Agricultural Economics, 1994. **16**(1): p. 113-123. <https://doi.org/10.2307/1349526>.
21. Rosenfeld, R.A., *Farm women: Work, farm, and family in the United States*. 1985, Chapel Hill, NC: University of North Carolina Press.
22. Ball, J., *Women farmers in developed countries: a literature review*. Agriculture and Human Values, 2020. **37**(1): p. 147-160. <https://doi.org/10.1007/s10460-019-09978-3>.
23. Malik, R., et al., *America's Child Care Deserts in 2018*. 2018, Washington, DC: Center for American Progress.
24. ChildCare Aware of America. *2020 State Fact Sheet: VT*. 2020. <https://info.childcareaware.org/hubfs/2020%20State%20Fact%20Sheets/Vermont-2020StateFactSheet.pdf>.
25. U.S. Department of Health & Human Services, *States' payment rates under the child care and development fund program could limit access to child care providers*. OEI-03-15-00170. 2019, Washington, DC.
26. University of California Center for the Study of Child Care Employment, *Early childhood workforce index: Vermont*. 2020, Berkeley, CA.
27. National Association for the Education of Young Children, *Vermont State Fact Sheet*. 2020, Washington, DC.
28. Internal Revenue Service. *Publication 503 - Credit for child and dependent care expenses*. 2019. <https://www.irs.gov/publications/p503/ar02.html>.
29. Tax Credits for Workers and Their Families. *State tax credits: VT*. n.d. <https://www.taxcreditsforworkersandfamilies.org/>.
30. The Hunt Institute. *COVID-19: State Child Care Actions*. 2022. <https://hunt-institute.org/covid-19-resources/state-child-care-actions-covid-19/>.
31. ChildCare Aware of America. *State Tracker ARP Act Implementation*. Available from: <https://infogram.com/1pw0r2v9enjpj6uvljv6j9jynjb97k936e6>.