Giving children the best odds of being ready for kindergarten: Parental mental health, efficacy, and CCDF support for access to quality early childhood education*

Policy Brief for Indiana, Minnesota, Missouri, and Wisconsin

Ryan Belew, Ph.D.

Scope of the Problem

The research reported here asked whether there is evidence that any particular CCDF policies, parental, or child level factors improved the odds that children aged 3-5 would be ready for kindergarten. The research was limited to four midwestern states with similar population sizes: Indiana, Minnesota, Missouri, and Wisconsin. Rather than rely on assessment data that does not include children who were not enrolled in child care, a database of parental responses to the federal National Survey of Children's Health (NSCH) was used to evaluate whether children in these states, aged 3-5 years, were on track for kindergarten readiness.[1]

National Survey of Children's Health (NSCH) and Kindergarten Readiness

Children who start Kindergarten Healthy and Ready to Learn are more likely to succeed in elementary school. Many working families cannot afford high-quality early childhood education (ECE). The National Survey of Children's Health (NSCH) includes questions designed to identify whether children aged 3 to 5 are on track to begin school. These questions are 0embedded in the lengthy questionnaire about the child's family, community, and items such as access to health care.[2] NSCH researchers identified four areas that are important to kindergarten readiness, Early Learning Skills, Social Emotional Development, Self-Regulation, and Physical and Motor Development. One of their findings was that children who were attending Early Childhood Education (ECE) programs were much more likely to have the requisite skills needed for kindergarten success.[3] However, many families do not have equal access to ECE which can be prohibitively expensive.

---

* This project was supported by Grant Number: 90YE0330 from the Administration for Children and Families (ACF), U.S. Department of Health and Human Services (DHHS), awarded to the Curators of Missouri. The points of view or opinions do not necessarily represent official positions of ACF, DHHS or the University of Missouri at Kansas City.

Child Care and Development Fund (CCDF)

To address the need for child care for families with low incomes, the federal government provides grants to states in the form of the Child Care and Development Fund (CCDF).[4] States then use these funds to subsidize child care and to improve ECE programs in their states. States use the funds to provide working families with limited incomes, subsidies to partially or fully pay for quality child care. The federal government requires states to make policy decisions about which families will qualify, the level of support each family qualifies for, etc. In practice, states are stretching limited funds in two directions: helping families afford child care and paying providers enough to keep their doors open, even when profit margins are thin.

Early childhood education promotes kindergarten readiness

Providing access to quality child care not only permits parents with children five and under to work while their children are being cared for, access to high quality early childhood and education (ECE) is associated with a greater likelihood that the children will be on track to start school.[5,6] School readiness is a strong predictor of later success in elementary school.[7] Research also shows that children who are at risk for poor academic achievement can particularly benefit from high-quality ECE.[8]

Kindergarten readiness includes several key areas of development. Children are more likely to be kindergarten ready when they have acquired early learning skills, (such as learning to count and recognizing basic shapes), social-emotional skills (such as whether the child is concerned when others are hurt or sad and whether they play well with others), and self-regulation (whether the child is easily distracted and whether they can follow instructions to complete a simple task).[9,10] Attending a high-quality preschool has been demonstrated to positively influence these attributes that are linked with improved academic outcomes in elementary school.[11,12]

Early childhood education is expensive for families, particularly the low-income working parents

In 2023, the last year of this study, there were an estimated 4.2 million children who lacked access to child care. Affordability was one of the major issues, with the median annual cost of center-based preschool for one child ranging from $6,239 to11,050.[13] For families with a female householder, the median annual income in the U.S. in 2023 was $59,470.[14] Cost of child care for these families represents between 11 to 19% of a family's income for each child. The cost per child is even higher for children younger than 3 years of age.

Federally funded CCDF provides grants to states to subsidize ECE for low-income families and improve ECE program quality

UNIVERSITY OF MISSOURI-KANSAS CITY
Institute for Human Development
5306 Holmes • Kansas City, MO 64110
www.ihd.umkc.edu

CCDF was created by the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 as part of the push for welfare reform in the U.S.[15] CCDF was designed to help parents by making child care more affordable. This change was largely motivated by pressure to increase the workforce and reduce welfare expenditure. The added work requirement for adults receiving public assistance meant that about 2 million additional mothers with children aged 5 and younger would be required to do paid work to receive assistance.[16] Finding and paying for child care became a potential impediment to this new work requirement. CCDF block grants were created as part of this law to provide low-income families with young children (in particular single mothers) access to subsidies designed to fully or partially pay for child care. States receiving CCDF block grants are required to develop and implement policies regarding family eligibility, size of stipend per child, child care center eligibility, and whether families must pay any remaining costs not covered by subsidies. States must also allocate at least 12% of CCDF funds to support ECE program quality improvement.[17]

States have flexibility regarding the distribution of funds

The flexibility afforded to states to determine policies for the distribution of funds to families creates a need to balance the aim of providing child care funds for as many low-income families as possible with the reality that grant funds are limited. Lowering the qualifying criteria to open the subsidies to more families would mean smaller subsidies for each. States must also decide which income sources to include in assessing a family's income, whether families with foster children or children with disabilities will get priority, and how much subsidy to provide to different kinds of providers, for instance. While states can choose different approaches, they must provide the federal government with a detailed accounting of each of these policy measures. A book of tables is published annually detailing the policies created by each state.[18]

There is no universal assessment for kindergarten readiness for US children

Many state and federal programs (such as Head Start) require or promote the use of assessments or screenings that evaluate kindergarten readiness for children enrolled in these programs. However, only these children are assessed and the assessments used vary between programs and states. This makes comparisons between states and programs difficult to evaluate.

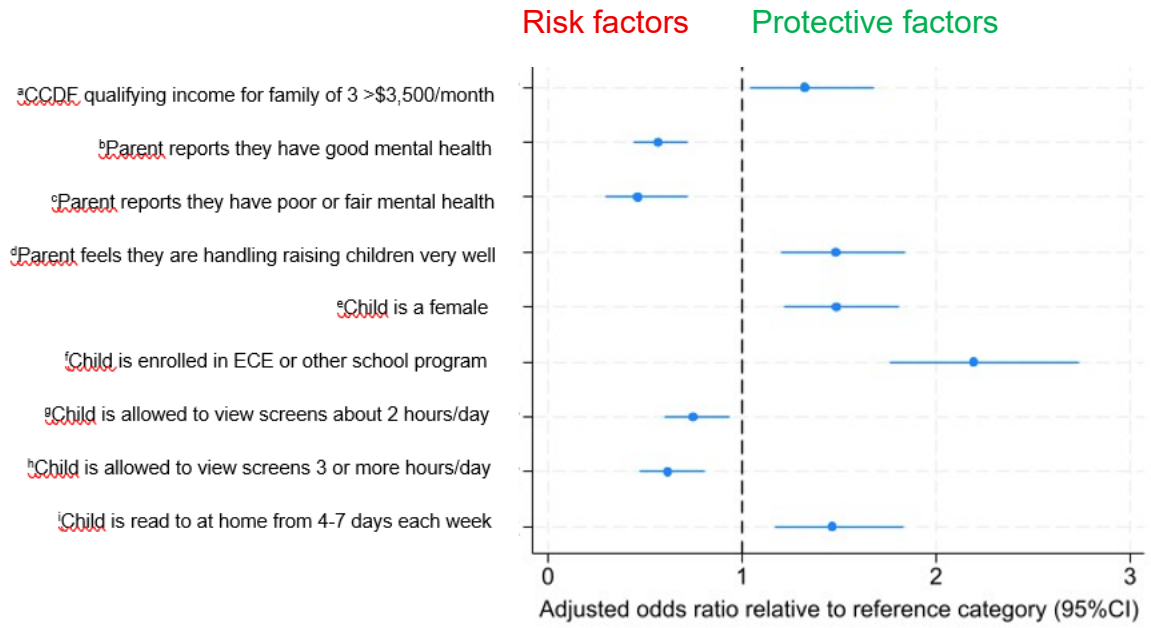
UNIVERSITY OF MISSOURI-KANSAS CITY
Institute for Human Development
5306 Holmes • Kansas City, MO 64110
www.ihd.umkc.edu

Results of the research

A higher CCDF qualifying income is associated with improved odds of overall kindergarten readiness

One policy choice had a statistically significant difference for school readiness for children aged 3 to 5 both with and without control variables from the NSCH dataset: maximum monthly income threshold for a family to qualify for a CCDF child care subsidy. For simplicity's sake, only the results for the maximum monthly income threshold for a family of three are reported here. The statistical analysis examined three monthly levels of threshold income to qualify for a child care subsidy: less than $3000, between $3000-3500,[19] and more than $3500 (see figure 1).[20,21] Children are predicted to have a 32% higher odds of being ready for kindergarten when the threshold is set at the highest level ($3,500/month or 170% of the federal poverty level in 2023). In other words, these data suggest that the more liberal qualifying income is protective factor (a factor that enhances the odds that a child will be ready for school).

Figure 1. Risk factors found to lower odds of school readiness and protective factors that improved the odds that children aged 3-5 in the four midwestern states would be on track for overall kindergarten readiness from 2018-2023.



Child and Family characteristics that emerged as factors in overall school readiness

The NSCH survey asks questions related to a child, their family, their parents, and their community. Other than the gender of the child, demographic categories such as parental academic achievement, age, race/ethnicity did not achieve statistical

UNIVERSITY OF MISSOURI-KANSAS CITY
Institute for Human Development
5306 Holmes • Kansas City, MO 64110
www.ihd.umkc.edu

significance as an influence on a child's overall on track readiness for school in this study.

Two factors emerged as risk factors for overall kindergarten readiness: 1) parents reporting less than "excellent" mental health, and 2) parents reporting that their child, aged 3-5, was allowed to view screens more than one hour on an average weekday (see Figure 1).[22] Four factors emerged as protective for school readiness; 1) parents who felt they were handing raising their children very well, 2) female children, 3) children enrolled in ECE or other schooling, and 4) children who are read to at least four days per week.

Parental mental health influence on overall school readiness

This study suggests that preschool aged children whose parents reported that they have "good" mental health have a 43.3% lower odds of being on track for school readiness, relative to parents reporting "excellent" mental health.[23] For parents reporting fair to poor in mental health, children had about 54% lower odds of being on track overall (see Figure 1).

Other research suggests that poorer parental mental health and parenting stress can interfere with favorable behavioral outcomes for children, including negative influence on the development of self-regulation,[24] while every additional week of attendance in a quality ECE program such as Head Start is predicted to increase children's self-regulation development.[25]

Increasing the time children view screens at home is a risk factor that is predicted to reduce the odds of overall school readiness

In 2020 a representative survey of parents found that 40% found it "difficult to get their children [aged 2-4 years] to stop using media".[26] This difficulty has been correlated with the number of hours of media use by children aged 3-5 years and the increase in poor child self-regulation.[27] On average, U.S. children aged 2-4 had 2.5 hours of screen time per day in 2020,[28] while the American Academy of Pediatrics recommends that for children "older than 2 years, limit media to 1 hour or less per day of high-quality programming".[29] Our study finds that increasing the hours per day that children aged 3-5 view screens reduces the odds that they will be on track for kindergarten readiness.

Children whose parents feel that they are handling raising children well have improved odds of overall school readiness

The results of this study suggest that having parents who felt that they were handling raising children very well is a protective factor for school readiness. These children were predicted to have 48% higher odds of on track school readiness as compared to parents

UNIVERSITY OF MISSOURI-KANSAS CITY
Institute for Human Development
5306 Holmes • Kansas City, MO 64110
www.ihd.umkc.edu

who reported that they felt they were doing somewhat well or not at all well raising their children (see Figure 1). Research suggests that how parents engage with children can have an impact on a child's Social-Emotional and Self-Regulation, which in turn impacts their on-track readiness for school. This research also suggests that effective engagement strategies for parents can be learned when parents are supported in this effort through targeted programing and appropriate resources.[30]

Enrolling children in Early Childhood Education and reading to children at home are both protective factors that improve children's odds of being kindergarten ready

Attending an ECE or other learning program had the greatest positive influence on the odds that a child would be on track overall to begin school of the variables tested in this study. Children enrolled in ECE have an estimated 119% higher odds of being kindergarten ready when compared to those children who do not attend ECE.

Reading to children at home for four or more days per week also improved the odds that children would be ready for school. When family members read to children at least every other day their odds of school readiness are improved by about 46% relative to children who are read to less often.

Conclusions

Although this study focuses on four midwestern U.S. states, the conclusions are in line with other research that suggest that the early opportunities or harms that children aged 3-5 are exposed to influence their readiness to start and be successful in elementary school. [31]

The engagement of parents in a child's learning is one of the critical factors that researchers have identified as providing enhanced early and on-going learning opportunities for children.[32] Studies suggest that across the economic and social classes, parents value education even if the parents themselves have had negative schooling experiences. However, regardless of the value parents place on education not all parents are equally able or necessarily believe that it is their job to provide the experiences or resources needed to more fully equip their children with the skills and attitudes preferred by schools and teachers.[33,34] School readiness has a flip side to it, schools and states need to be ready to support children transitioning into kindergarten, regardless of the children's preparedness. Quality preschool programs, such as Head Start and many state regulated programs, provide curricula that develop the essential social emotional and self-regulation practice and skills that are important in kindergarten and elementary school success. They also provide opportunities to practice early learning skills.

Recommendations

UNIVERSITY OF MISSOURI-KANSAS CITY
Institute for Human Development
5306 Holmes • Kansas City, MO 64110
www.ihd.umkc.edu

- States working with the federal government should provide access to quality ECE to all children. ECE promotes academic success, allows more parents the ability to engage in paid work, expands the workforce and provides economic benefits to the family, community, and state.
- Parents with mental illnesses and those insecure in their ability to raise their children need help.
    - Expanding access to mental health resources for struggling parents would benefit not only the parent, but the academic progress of their children.
    - Embedding mental health providers, home visitors, parent educators, and other resources in Head Start and large childhood care centers has shown promise for fostering improvements in parent-child interactions and potentially in improving child readiness for kindergarten.
- States, communities, schools, and pediatricians should give parents clear recommendations about the risks of excessive screen use by young children and the advantages of reading to them often.

UNIVERSITY OF MISSOURI-KANSAS CITY
Institute for Human Development
5306 Holmes • Kansas City, MO 64110
www.ihd.umkc.edu

Endnotes

1. “National Survey of Children’s Health (NSCH)”, United States Census Bureau, page last revised November 17,2025, https://www.census.gov/programs-surveys/nsch.html.
2. Reem M. Ghandour, Kristin Anderson Moore, Kelly Murphy, Christina Bethell, Jessica R. Jones, Robin Harwood, Jessica Buerlein, Michael Kogan, and Michael Lu. "School readiness among US children: Development of a pilot measure." *Child Indicators Research* 12, no. 4 (2019). https://doi.org/10.1007/s12187-018-9586-8
3. Reem M. Ghandour, Ashley H. Hirai, Kristin A. Moore, Lara R. Robinson, Jennifer W. Kaminski, Kelly Murphy, Michael C. Lu, and Michael D. Kogan. "Healthy and ready to learn: prevalence and correlates of school readiness among United States preschoolers." *Academic Pediatrics* 21, no. 5 (2021). https://www.sciencedirect.com/science/article/abs/pii/S1876285924000688
4. Congress.gov. "The Child Care and Development Block Grant: In Brief." CRS Report R47312 (US Congress, 2024): 7, accessed October 13, 2025, https://www.congress.gov/crs-product/R47312.
5. Reem, M. Ghandour, Ashley H. Hirai, Kristin A. Moore, Katherine Paschall, Doré R. LaForett, Elizabeth Reddington, and Michael D. Kogan. "School readiness among United States children: results from the 2022 National Survey of Children’s Health." *Academic Pediatrics* 24, no. 7 (2024). https://www.sciencedirect.com/science/article/abs/pii/S1876285921000759
6. Ghandour, "Healthy and ready to learn”
7. Courtney Ricciardi, Louis Manfra, Suzanne Hartman, Charles Bleiker, Laura Dineheart, and Adam Winsler. "School readiness skills at age four predict academic achievement through 5th grade." *Early Childhood Research Quarterly* 57 (2021): p.
8. Marilia Mariano, Erika Felix, Marcos VV Ribeiro, Jacy Perissinoto, Clara Brandão de Ávila, Maria Conceição do Rosário, Thiago M. Fidalgo et al. "School readiness profiles: Does the quality of preschool education matter?." *School Psychology* 40, no.5 (2025). https://doi.org/10.1037/spq0000652.
9. Ghandour, “School readiness,”
10. Ghandour, “Healthy and ready to learn”
11. Ricciardi, "School readiness skills”
12. Christina Weiland and Yoshikawa, Hirokazu. “Impacts of a prekindergarten program on children’s mathematics, literacy, executive function and emotional skills”, *Child Development, 84* (2013).
13. For reference purposes it is noted that, an income of $3,000 income per month was 145% of the federal poverty level (fpl) for 2023 for a family of three. $3,500 was 170% of fpl for 2023. The poverty guideline for a family of three was $24,860 in 2023. “Poverty Guidelines: 48 Contiguous states and the District of Columbia” excel file (48 Contiguous states tab), accessed on February 26,2026 from the HHS Poverty Guidelines webpage, https://aspe.hhs.gov/topics/poverty-economic-mobility/poverty-guidelines.
14. Gloria Guzman and Melissa Kollar, *Income in the United States: 2023,* Report Number P60-282 (U.S. Census Bureau, 2024), Table A-1. Income Summary Measures by Selected Characteristics: 2022 and 2023. https://www.census.gov/library/publications/2024/demo/p60-282.html
15. H.R.3734 - 104th Congress (1995-1996): Personal Responsibility and Work Opportunity Reconciliation Act of 1996. August 22, 1996. https://www.congress.gov/*bill*/104th-congress/house-bill/3734.
16. American Psychological Association, *Making ‘welfare to work’ really work*, (APA, 1998): 32/64, accessed July 14, 2024, https://www.apa.org/pi/women/programs/poverty/welfare-to-work
17. Congress.gov. "The Child Care and Development Block Grant: In Brief." CRS Report R47312 (US Congress, 2024): 7, https://www.congress.gov/crs-product/R47312
18. The annual publications are titled: *Key Cross-State Variations in CCDF Policies: The CCDF Policies Database Book of Tables* and are published by the Office of Planning, Research and Evaluation (OPRE), an Office of the Administration for Children and Families in the U.S. Department of Health & Human Services. The book of tables is typically released in the fall and cover the policies as of October 1 of the previous year. However, the report for policies as of October 1, 2023, were not released until May 2025. OPRE Report 2025-054. https://acf.gov/sites/default/files/documents/opre/opre-CCDF-policies-database-2023-may25.pdf
19. For reference purposes it is noted that, an income of $3,000 income per month was 145% of the federal poverty level (fpl) for 2023 for a family of three. $3,500 was 170% of fpl for 2023. 2023 Poverty Guidelines: 48 Contiguous states per year by household size. https://aspe.hhs.gov/sites/default/files/documents/1c92a9207f3ed5915ca020d58fe77696/detailed-guidelines-2023.pdf
20. An odds ratio of 1 indicates that the odds of a child being on track is the same for the variable being tested as the base variable to which it is being compared. In this case, for example, the odds that a child would be on track for Early Learning skills is not statistically different when the qualifying income for a family of three is below $3,000 than when it was above $3,500, so the

UNIVERSITY OF MISSOURI-KANSAS CITY
Institute for Human Development
5306 Holmes • Kansas City, MO 64110
www.ihd.umkc.edu

odds ratio is 1. Odds ratios above 1 indicate a higher odds for the child to be on track, while odds ratios below one indicate a lower odds of being on track.

21. The odds ratio that a child will be on track for kindergarten readiness in these analyses, is a ratio of the odds for school readiness when the CCDF policy is set at the higher qualifying level, relative to the odds when it is set at the lowest level. An odds ratio of 1 would indicate that the odds of readiness are the same for both qualifying income categories. However, in this analysis the odds ratio of school readiness is 1.32 when comparing the odds of readiness when the state uses the highest qualifying income category relative to the lowest qualifying income category. This suggests a 32% higher odds of school readiness for children when the state uses the higher qualifying income category over that of the lowest qualifying income (p=.023). The dots in the figures represent the predicted odds, while the spurs indicate the 95% confidence intervals.

22. Risk factors are defined here as factors that had a statistically significant reduction in the odds that a child would be on track for school readiness. Protective factors, on the other hand, are defined here as factors with a statistically significant increase in the odds that a child would be on track for school readiness.

23. The odds are significantly reduced that a child will be on track for school readiness when their parent has “good” mental health rather than “excellent” mental health. Specifically, these data suggest that the change in odds %= (the odds ratio for “good mental health” -1) *100% = (0.567 – 1)* 100% = 43.3%. This suggests that children whose parents report that they have “good” rather than “excellent” mental health have about 43% lower odds of being on track for school readiness.

24. Qingyang Lui, Ying Zhang, and Rachel A. Razza. "Reciprocal Relationships Among Household Chaos, Parenting Stress, and Children's Behavioral Self-Regulation From Early to Middle Childhood." *Family Process* 64, no. 2 (2025): 1-3 of 15.

25. Caroline Melo, Robert C. Pianta, Jennifer LoCasale-Crouch, Francisca Romo, and M. Constanza Ayala. "The role of preschool dosage and quality in children’s self-regulation development." *Early Childhood Education Journal* 52, no. 1 (2024): 64,66.

26. Victoria Rideout and Michael B. Robb, *The Common Sense Census: Media use by kids zero to eight* (Common Sense Media, 2020): 7.

27. Jennifer A. Emond, Delaina Carlson, Grace Ballarino, and Sarah E. Domoff, “Validating the Problematic Media Use Measure in Preschool-Aged Children: Associations With Children’s Screen Media Use, Bothersome Pestering to Use Screen Media, and Emotional Self-Regulation”, *Technology, Mind, and Behavior*, *5* no.3 (Fall 2024): 5.

28. Rideout and Robb, *The Common Sense,* 3.

29. American Academy of Pediatrics Council on Communications and Media, “Media and Young Minds” (This policy statement was reaffirmed July 2022)*, Pediatrics* 138, no.5 (American Academy of Pediatrics, 2018): 3.

30. Karen L. Bierman, Elizabeth A. Stormshak, Morgan D. Mannweiler, and Katherine A. Hails. "Preschool programs that help families promote child social-emotional school readiness: promising new strategies." Clinical Child and Family Psychology Review 26, no. 4 (2023): 867-869.

31. Robert A. Hahn and W. Steven Barnett. "Early childhood education: Health, equity, and economics." *Annual review of public health* 44, no. 1 (2023): 76.

32. Turhan Sengonul. "A Review of the Relationship between Parental Involvement and Children's Academic Achievement and the Role of Family Socioeconomic Status in This Relationship." *Pegem Journal of Education and Instruction* 12, no. 2 (2022): 37. This study reviews evidence from18 different papers published in the US studies, but also including one each published in Slovenia, Germany, and Greece.

33. Pierre Bourdieu and Passeron, Jean-Claude. (1990*). Reproduction in Education, Society and Culture, 2nd edition*. Sage (1990), passim.

34. Annette Lareau. *Unequal childhoods: Class, race, and family life*. Berkeley: University of California Press (2003), passim.

Notes for Figure 1

Note: The dots in the figure represent the odds for the variable relative to the reference variable that a child will be kindergarten ready (this is an odds ratio). The line through each dot represents the 95% confidence interval for this odds ratio. Odds ratios of 1 indicate that there is no significant difference in the odds that child will be kindergarten ready for that variable as compared to the reference variable. Odds

ratios above one are an indication that a child has a higher odds of school readiness, while an odds ratio below one indicate a lower odds of school readiness.

[a]The reference category for the CCDF qualifying income for a family of 3 is $3,000/month.

[b,c] Parents reporting “excellent” mental health is the reference category for parental mental health.

[d] Parents reporting that they were somewhat to not at all handing raising children well is the reference category.

[e] Male is the reference category.

[f] The reference category includes children not attending early childhood care or any educational program

[g,h] Children who are allowed to view screens for one hour or less per day is the reference category.

[l] Children who are read to at home for less than four days per week is the reference category.

UNIVERSITY OF MISSOURI-KANSAS CITY
Institute for Human Development
5306 Holmes • Kansas City, MO 64110
www.ihd.umkc.edu