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A Message from Our Leadership

DEAR FRIENDS,

Groundwork Ohio has been working diligently for the last two years to bring you the release of the *2025 Early Childhood Dashboard*, our second edition building upon the foundational work established in our inaugural *Dashboard* published in 2023. This updated resource reflects our ongoing commitment to sharing a more complete story of experiences of Ohio's youngest children and their families, enabling us to track progress, identify ongoing challenges, and learn from improvements over the past two years.

The *Dashboard* serves as a tool for understanding the strengths and challenges facing the systems serving children and families. By comparing data from the first edition with our latest findings, we can evaluate areas where conditions for children have improved, where progress has stalled, and where significant disparities still exist.

In collaboration with the Health Policy Institute of Ohio, we have expanded our metrics to provide an even more nuanced view of the early childhood experience. Our analysis includes a deeper dive into the factors affecting children's outcomes across various domains, allowing us to identify trends and disparities that demand our attention. The *2025 Early Childhood Dashboard* also continues to integrate the voices of families, ensuring that the data is enriched by their experiences. Our ongoing family storytelling collection and new Family Voices Project, a collaboration with the RAPID Survey Project, has provided invaluable insights that paint a comprehensive picture of the

realities facing Ohio families.

As we reflect on the data and stories shared in this edition, we are reminded of the role that early childhood systems play in shaping the future of our state. The first years of life are foundational, influencing a child's lifelong trajectory and the well-being of families and communities. Investing in early childhood is not merely an expenditure; it is an investment in our shared future—a future where every child can achieve their full potential.

As we unveil this resource, we urge policymakers, advocates, and community leaders to utilize the data to inform their decisions and drive meaningful change. The insights gleaned from the *2025 Early Childhood Dashboard* are not just numbers; they represent real lives and the urgent need for collective action.

We believe that the findings in this second edition can propel us forward, creating a better landscape for early childhood in Ohio.

WARM PERSONAL REGARDS,



Lynanne Gutierrez

Lynanne Gutierrez
President & CEO,
Groundwork Ohio

The *Dashboard* serves as a tool for understanding the strengths and challenges facing the systems serving children and families.

About Groundwork Ohio

Groundwork Ohio is a nonprofit, nonpartisan advocacy organization committed to advancing quality early learning and healthy development strategies from the prenatal period to age five, that lay a strong foundation for Ohio kids, families, and communities.

Groundwork Ohio focuses on the time when children's experiences and environments most influence their health, development, and life trajectory. We work to ensure that every baby, toddler, and young child in Ohio has the resources and opportunities for a strong start. Groundwork Ohio advances quality early childhood systems in Ohio by engaging, educating, and mobilizing diverse stakeholders and strategic partners to promote data-driven and

evidence-based early childhood policies. We elevate the voices of families and professionals who are impacted by our child-serving systems and seek to advance system-level changes that improve outcomes for Ohio's youngest children and their families. The Groundwork Ohio vision, shared by a breadth of diverse partners across the state, is to make Ohio the best place to be a young child so that every child can reach their full potential.

Groundwork Ohio contracted with the [Health Policy Institute of Ohio](#) and the [RAPID Survey Project](#) to facilitate development of the 2025 Early Childhood Dashboard.

The *Dashboard* is built on a foundation of quantitative data to assess the health, development, and well-being of Ohio's youngest children. Groundwork Ohio partnered with the Health Policy Institute of Ohio (HPIO) to collect and analyze data metrics derived from state and national data sources for the *Dashboard*. HPIO is a nonpartisan, nonprofit organization that works to advance evidence-informed health policies through data analysis, education, and stakeholder engagement. The collaboration with HPIO ensures that data is collected from high-quality, reliable sources, offering a clear and accurate picture of the conditions influencing early childhood outcomes in the state. The *Dashboard* aggregates data from sources such as public health databases, state administrative records, and national surveys, with data points covering more than 70 metrics including demographic metrics. These metrics,

chosen through rigorous review, allow us to track progress across areas crucial to a strong start for all of Ohio's young children, from healthcare and education to family economic stability.

The 2025 edition of the *Dashboard* builds upon our data storytelling efforts through the Family Voices Project, a partnership with the RAPID Survey project. The RAPID Survey Project gathers the voices of parents and caregivers of young children across Ohio, offering firsthand perspectives on the challenges and successes they encounter. Launched in collaboration with the Stanford Center on Early Childhood, the RAPID Survey Project is a national project designed to gather timely, actionable data directly from families with young children.

Why should we prioritize our youngest Ohioans?

Investing in early childhood strengthens families, boosts the well-being of children, and delivers long-term economic benefits for Ohio.

Our youngest children represent our future workforce, caregivers, and leaders. By prioritizing their needs and supporting the families who care for them, we can secure a brighter future for our state.

While Ohio has made strides in supporting young children and families, significant challenges remain. The COVID-19

pandemic profoundly impacted the health and well-being of our youngest residents, making it more urgent than ever to build a strong foundation for babies, toddlers, and preschoolers. Ensuring that young children are healthy and ready to learn is not just a priority—it's essential to Ohio's success.

What is so important about the first few years of life?

The first five years of life are a critical period of rapid brain development and foundational growth that profoundly shape a child's future. During these years, more than one million new neural connections form every second, creating the architecture of the brain that supports cognitive, social, and emotional skills.¹

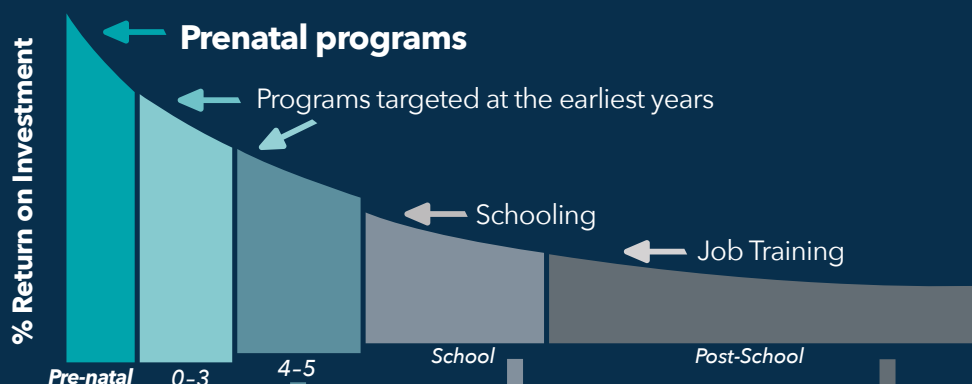
Research from neuroscience and developmental psychology demonstrates that early experiences—both positive and negative—significantly influence this development. Stable relationships with caregivers, enriching learning environments, and responsive interactions lay the groundwork for language acquisition, emotional regulation, and problem-solving abilities.² Conversely, adverse experiences such as neglect, trauma, or chronic stress can disrupt brain development, potentially leading to long-term difficulties in health, behavior, and learning.³

Investing in early childhood has been shown to yield substantial returns for individuals and society. Studies,

such as those conducted by Nobel laureate economist James Heckman, highlight that high-quality early childhood programs improve outcomes in education, health, and economic productivity while reducing crime and reliance on social services.⁴ By focusing on the earliest years, we can help close opportunity gaps before they widen, breaking cycles of poverty and fostering equitable development.⁵ These first five years represent not only a time of unparalleled potential but also a vital window for intervention, making early childhood a cornerstone of strategies to build a healthier, more prosperous Ohio.⁶

Where should Ohio invest?

We must invest early in Ohio's children to achieve equity and lay a strong foundation for every child. When our systems, policies, and communities are structured to support Ohio's youngest children, families can thrive. These investments put Ohio on a path to becoming a healthier, more productive, and economically vibrant state.



Source: heckmanequation.org/resource/the-heckman-curve/



As children transition to kindergarten, they further develop complex thought processes and resilience, solidifying cognitive and social skills essential for academic success.²⁴

School readiness maximizes early childhood investments, fostering adaptability and laying a strong foundation for continued academic success.²⁵

Readiness skills lead to better academic outcomes and decreased costs in special education.²⁶



Neural development begins early in pregnancy, with neurons forming at 250,000 per minute by the first trimester's end and essential connections for cognition, emotion, and sensory integration developing by the third trimester.^{7, 8}

Maternal health interventions, like prenatal care, enhance fetal brain development and lower developmental delays.⁹

Every dollar invested in prenatal care yields a \$3.38 return, reducing healthcare costs and improving long-term health and education outcomes.¹⁰



By the end of the first year, an infant's brain has doubled in size, with developing neural networks governing vision, language, and sensory processing.

Continued rapid synaptic growth strengthens language and social abilities, especially in stimulating environments. These interactions build a foundation for future language proficiency.¹¹

During the first three years, children learn and grow through serve and return interactions, which are essential for brain development. When a child babbles, gestures, or cries, and an adult responds with eye contact, words, or touch, it strengthens neural connections that support communication and social skills. This back-and-forth builds a strong foundation for lifelong learning and health, while the absence of such interactions can disrupt development and well-being.¹²

Attachment with caregivers at this stage supports social-emotional health.^{13, 14}

Children's brains are creating neural connections at a rate of 1 million neural connections per second¹⁵.

Home visiting programs and parental education bolster secure attachments, which in turn improve long-term emotional regulation and social skills.^{16, 17}

High-quality early learning environments have substantial effects on cognitive and social development.^{18, 19}



During school-age years, interactions with peers and formal educational environments further develop children's social and cognitive skills, which are essential for lifelong learning and resilience.²⁷

Programs that provide enrichment, mentorship, and family engagement during school years significantly reduce costs associated with dropout rates, health challenges, and juvenile justice involvement.²⁸

Longitudinal studies indicate that these interventions lead to increased graduation rates, higher earning potential, and a decreased likelihood of chronic health conditions, underscoring the importance of continued support throughout childhood and adolescence.²⁹

Every dollar invested in early development delivers substantial benefits, reducing costs in areas such as remedial education and health care, while also enhancing economic productivity.³⁰



By age five, a child's brain reaches about 90% of its adult size, making this a crucial period for problem-solving, language, and motor skills. Executive function development at this stage is key for academic and life success.²⁰

Quality preschool has been shown to significantly enhance academic performance and social adaptability.^{21, 22}

Research estimates a return on investment of up to 13%, largely through enhanced educational attainment and reduced criminal justice costs.²³

OVERVIEW:

What is the *Early Childhood Data Dashboard*?

Groundwork Ohio developed its Early Childhood Dashboard as a tool to track progress, advance equity, and catalyze advocacy and action needed to lay a strong foundation for Ohio’s young children (prenatal to age five). The Dashboard is a snapshot of Ohio’s performance on key early childhood metrics to achieve our overarching goals of ensuring that young children in Ohio are healthy and ready to learn.

The *Dashboard* also puts data in context by analyzing trends, providing comparisons, and highlighting disparities and inequities among population groups. Groundwork Ohio released its first *Early Childhood Dashboard* in 2023. The 2025 *Dashboard* builds on the 2023 *Dashboard* with updated data and insights on the state of young children in Ohio.

Groundwork Ohio is laying a strong foundation for Ohio’s youngest children. Groundwork Ohio measures

impact on long-range outcomes as we Lay the Groundwork Ohio for Impact by monitoring public policy changes and data in the *Dashboard*. Our Policy Framework is a guide for what policies are within the scope of our mission, based on data and evidence. We seek investment in policies that change system and community conditions that will result in outcomes that support young children in Ohio who are healthy and ready to learn. This ensures progress towards our vision.

Our Policy Framework

FACTORS
that build a strong foundation for young children:

- Early Learning & Child Care
- Healthcare Access & Quality
- Early Childhood Trauma Prevention
- Economic Stability

OUTCOMES
that indicate Ohio provides a strong foundation for young children:

Young children in Ohio are healthy and ready to learn.

VISION:

Ohio is the best place to be a young child, and every child has the opportunity to reach their full potential.

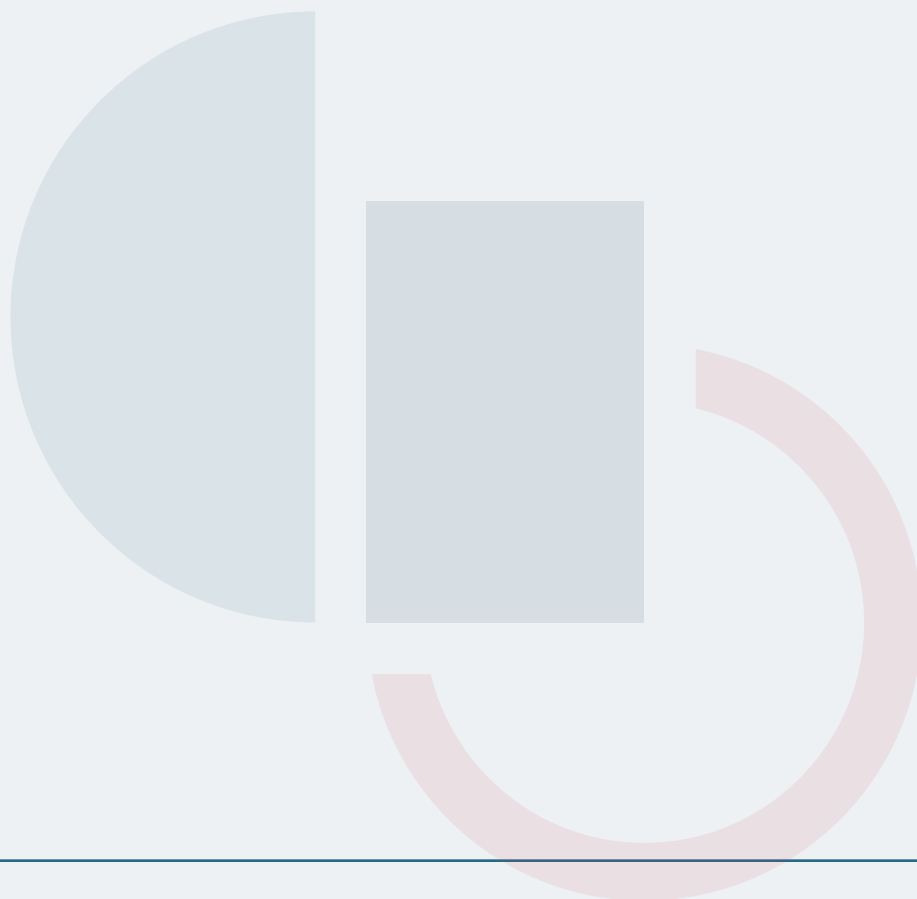
APPROACH:

Investments are made at a young age to achieve equity and lay a strong foundation for every child.

Achieving equity and laying a strong foundation for Ohio's children to be healthy and ready to learn requires investment in:

	Early Learning & Child Care: <i>Availability, affordability, and quality of child care options</i>	Page 20
	Health Care Access & Quality: <i>Accessibility and quality of health care services for young children</i>	Page 30
	Early Childhood Trauma Prevention <i>Factors contributing to childhood trauma and prevention strategies</i>	Page 42
	Economic Stability: <i>Financial challenges faced by families & the impact on children's well-being</i>	Page 54

This Data Dashboard seeks to answer how we are investing, or failing to invest, in each of these areas and the impact they have on whether our youngest Ohioans are healthy and ready to learn.



Which young Ohioans are most at risk of experiencing poor outcomes?

Some young children, particularly children of color, with special needs, from low-income families, or living in underserved communities, face systemic barriers such as racism and generational poverty. These challenges limit access to vital resources and supportive relationships, putting these children at a disadvantage in achieving their full potential.

As a result, children in families experiencing systemic inequities often face poorer health and educational outcomes compared to their peers. Advancing equity—ensuring every child has an opportunity to thrive—requires targeted investments and policies to address the specific needs of these families. Measuring and addressing disparities in outcomes is essential, necessitating robust public and private data systems to collect and disaggregate data by social, economic, and demographic factors.

Disaggregated data is crucial for monitoring the effectiveness of systems, policies, and programs, identifying areas for improvement, and driving progress for children at

the highest risk. Sharing this data transparently empowers stakeholders across Ohio to collaborate and improve child health and well-being outcomes statewide.

Good data is essential for informed decision-making, but measuring outcomes for young Ohioans is challenging due to the lack of regularly updated, accurate, and publicly available data. This is especially true for smaller demographic groups, including children of color, those living in rural or Appalachian regions, children with disabilities, and children who are immigrants or refugees. Currently, data availability varies widely across programs, state agencies, and national data sets.

To address these gaps, Ohio must improve its data collection and reporting systems by focusing on the following:

- 1. Measure what matters:**
Avoid relying on proxies by tracking the most meaningful indicators, especially those that name and measure root causes or determinants of child health and education outcomes.
- 2. Timely accessibility:**
Data collected, especially for public reporting, should be made available on public websites promptly.
- 3. Demographic specificity:**
Publicly report data consistently by race/ethnicity, income, geography, immigration status, and disability status.
- 4. Program outcomes:**
Track and publish data on the effectiveness of programs serving children.
- 5. Longitudinal tracking:**
Follow children's outcomes over time to understand long-term trends.
- 6. Inclusive representation:**
Oversample smaller population groups in surveys to ensure they are accurately represented.

Improving the quality and availability of disaggregated data will enable Ohio to monitor the performance of systems, policies, and programs, driving targeted improvements for children at the highest risk of poor outcomes. Transparent sharing of these insights will empower statewide collaboration to advance equity and improve outcomes for all children.

Key Takeaways

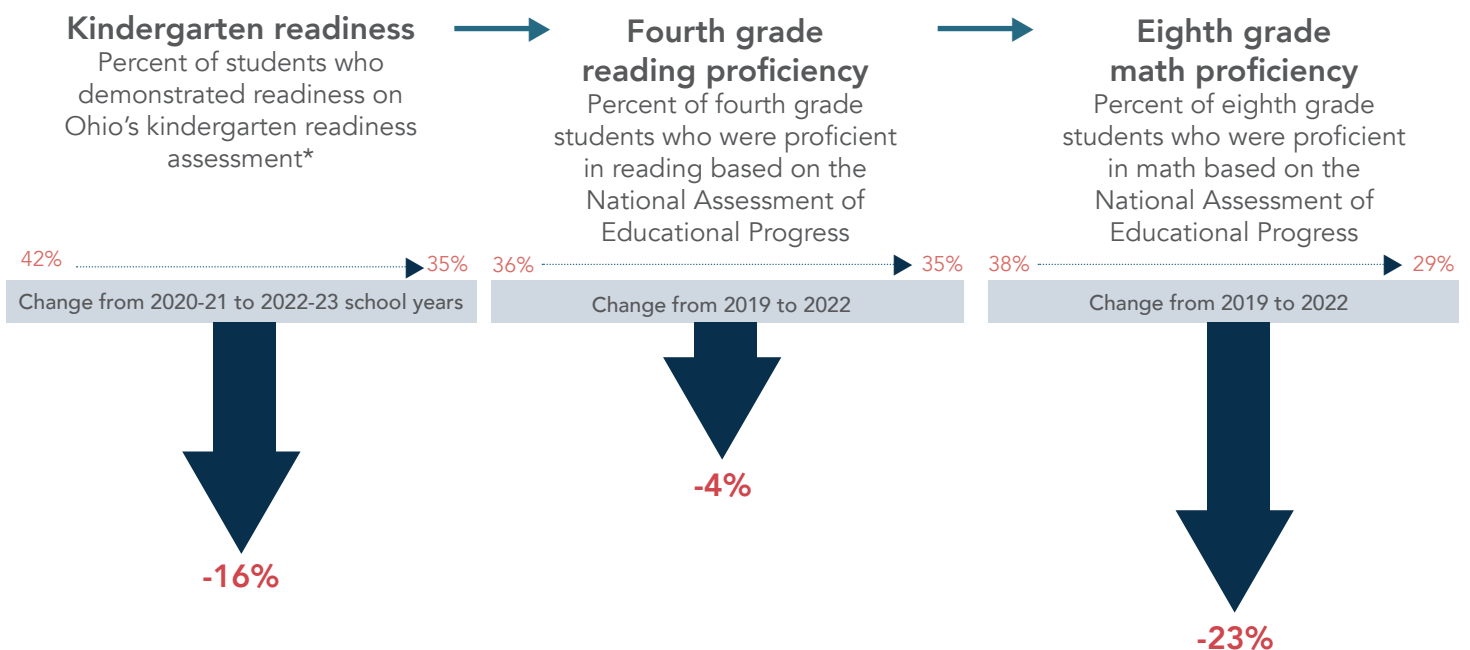
Ohio's youngest children need our support to reach their full potential.

What does the data tell us?

1 Too many Ohio kids are falling behind before they even set foot in a kindergarten classroom—and the gap only widens from there.

Kindergarten readiness offers valuable insight into a child's strengths, needs, and early experiences before entering the classroom. Research shows that kindergarten readiness strongly predicts future math and reading success. Early investment not only improves school readiness but also lays the foundation for lifelong achievement, setting Ohio kids on a path to academic and personal success.

Over the last two school years, kindergarten readiness for all Ohio children has dropped by 16%—an indication that more of our youngest aren't having the necessary enriching experiences in the first five years of life to be successful in Kindergarten and beyond. In fact, 65% of all kindergarteners in Ohio entered the classroom not ready to learn and this increases to 79% of economically disadvantaged students.



* Ohio Kindergarten Readiness Assessment Revised (KRA-R)

Source: Ohio Department of Education and Workforce, School Report Card data (2020-2021 school year, 2022-2023 school year)

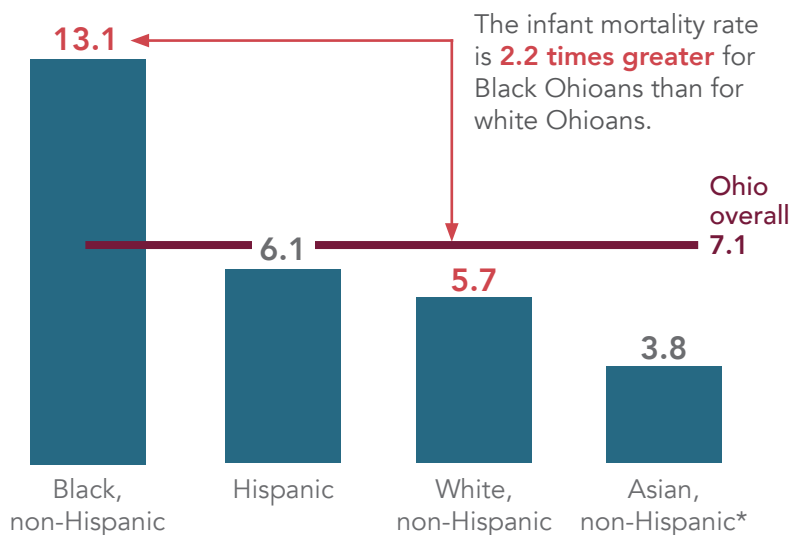
Source: U.S. Department of Education, Institute of Education Sciences, National Assessment of Educational Progress (NAEP) Data Explorer (2019, 2022)

Key Takeaways

2 Ohio's moms and babies are facing a crisis with alarmingly high mortality rates.

Ohio's infant mortality rate remains significantly higher than the national average of 5.6 deaths per 1,000 births,³¹ **with a large and appalling racial disparity**. While Ohio has seen an overall decline in infant mortality since 2012, this progress is largely due to reductions in deaths among white infants while Black infants continue to face disproportionately high mortality rates.³² At the same time, maternal mortality in Ohio increased by 17% between 2011 and 2017, with research indicating that 80% of these pregnancy-related deaths were preventable.³³

Number of infant deaths, under age 1, per 1,000 live births (2019)



*Small sample size, interpret with caution.

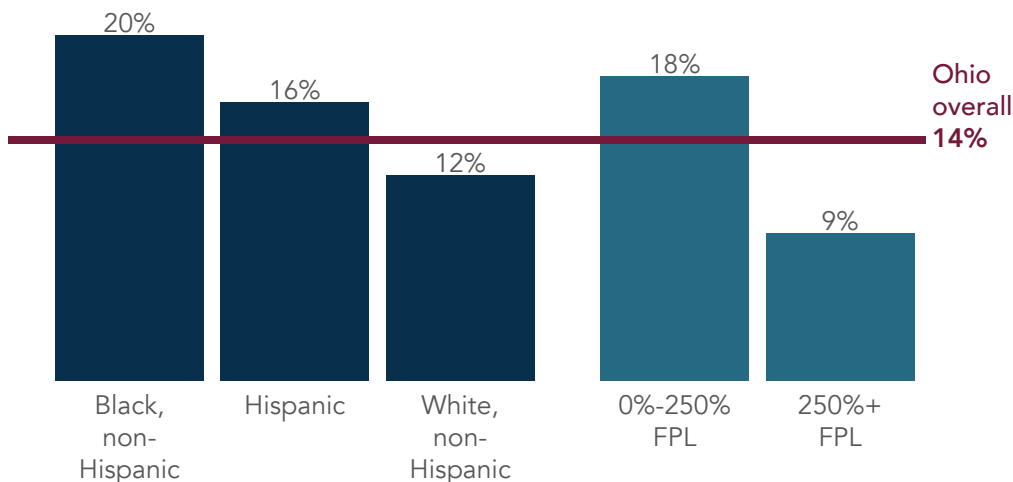
Source: Centers for Disease Control and Prevention, Wide-ranging Online Data for Epidemiologic Research (WONDER) (2022).

3 Ohio's youngest children experience profound trauma during their most critical years of brain development.

Exposure to adversity and trauma in childhood has both immediate and long-term negative impacts on health and well-being. Among Ohio's youngest children, 14% have experienced two or more Adverse Childhood Experiences (ACEs) including abuse, household challenges, and neglect.

Adverse childhood experiences (ACEs)

Percent of children, ages 0-5, who experienced two or more ACEs



Ohio is ranked 30th of 50 states and D.C. for infant maltreatment, with over 3,000 children under the age of one being victims of maltreatment in 2022.³⁴ which is abuse and neglect under the In 2024, 5,963 children ages 0-6 were in Public Children Services Agency (PCSA) custody. This accounts for 42% of the total population of children in custody.³⁵

While programs exist to support the prevention of early childhood trauma, state-funded home visiting programs only reached 12,436 young children in the past year.

Source: Ohio Medicaid Assessment Survey (2021)

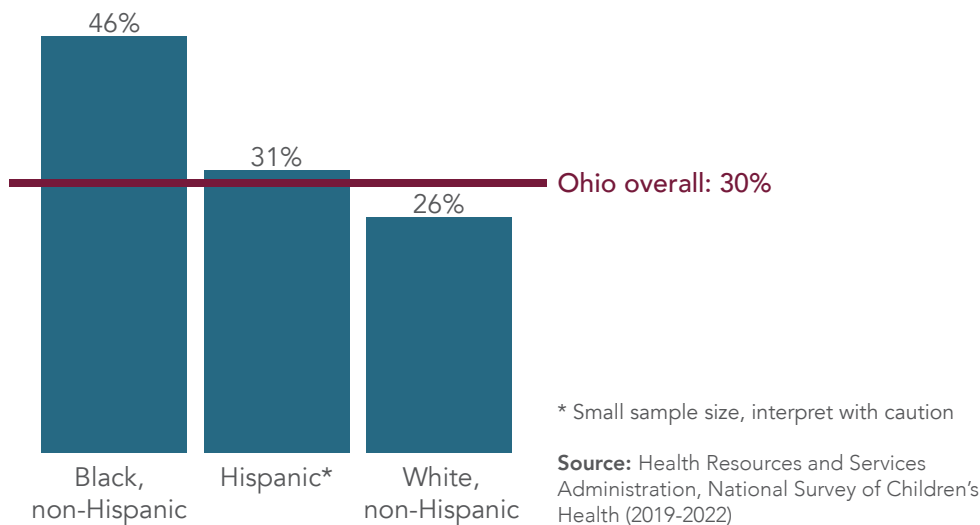
Key Takeaways

4 Ohio families with young children struggle to cover the basics.

Nearly 1 in 5 young children in Ohio live in poverty. While there has been some improvement in poverty rates since the 2023 *Dashboard* was published, which can be in part attributed to the federal Child Tax Credit expansion alongside other pandemic era relief, costs of basic needs have increased. One of those basic needs includes access to good, nutritious meals. Nearly 30% of children ages 0-5 were living in households that could not always afford to eat good, nutritious meals in the last 12 months. According to Prenatal-to-3 Policy Impact Center, Ohio ranks 44th in the U.S. for children experiencing food insecurity.³⁶

Food insecurity

Percent of children, ages 0-5, whose household could not always afford to eat good, nutritious meals in the past 12 months



5 There are family voices behind the data that are the experts of their own experiences and the solutions to their greatest challenges.

Behind every number, there is a real Ohio family with a story that deserves to be heard. Too often, their voices are missing from the narrative, leaving the numbers without the necessary context or meaning.

Ohio parents and caregivers want stronger connections with the systems they depend on and a say in shaping their children's futures. Research shows that amplifying family voices in policymaking delivers significant benefits—not just for individual children and families, but for the systems designed to support them. Listening to parents and caregivers is the key to turning stubborn trends and improving outcomes for Ohio's youngest children.



NAVIGATING THE DATA:

Are Ohio's Young Children Achieving Positive Outcomes?

The following pages will provide data from a variety of sources that measure important indicators of child health and well-being. Ohio's performance on these indicators is displayed in graphics and in summary tables like the one below.

Data from the 2023 Early Childhood Data Dashboard
 Data from the most-recent year
 Levels of trend, or the degree of change between Baseline data and the Most Recent data

Ohio's performance

Topic	Baseline	Most Recent	Trend
Maternal health			
Maternal mortality. Number of deaths from causes related to pregnancy or its management, per 100,000 live births	20.3 (2011-2015)	23.7 (2017-2021)	Worsened
Maternal morbidity. Number of severe maternal morbidity events per 10,000 delivery hospitalizations	77.8 (2018)	84.9 (2020)	No Change
Black, non-Hispanic		136	Disaggregated data
Hispanic		88.6	
White, non-Hispanic		73.3	
Asian, non-Hispanic		67.9	
Postpartum depression. Percent of women, ages 18 and older, with a live birth who experienced postpartum depression	9.6% (2020)	9.8% (2022)	No Change
Prenatal Smoking, cigarettes. Percent of women with a live birth who smoked cigarettes during the last 3 months of pregnancy	9.5% (2020)	6.1% (2022)	Greatly Improved
Prenatal Smoking, e-cigarettes. Percent of women with a live birth who used e-cigarettes during the last 3 months of pregnancy	1.6% (2020)	4.6% (2022)	Greatly Worsened

KEY: Integrating the lived experiences of families into policy development



Through the Family Voices Project, qualitative insights complement quantitative metrics, marked by this **MICROPHONE ICON**, ensuring that real family stories inform policy. Groundwork Ohio's use of family voices in the *Dashboard* is a crucial step towards integrating the lived experiences of families into policy development. The *Dashboard* uses family voices to blend lived experiences with performance data, providing a fuller picture of child and family needs.



As you navigate the *Dashboard*, keep an eye out for the **LIGHT BULB ICON**, which provides additional context and prompts for deeper engagement with the data. This icon highlights areas where thoughtful reflection can reveal nuances in long-term trends or short-term fluctuations. By exploring the context behind each data point, stakeholders can better understand access and equity issues, guiding informed advocacy and shaping policies that support Ohio's diverse early childhood communities.

Who Are Ohio's Young Children?

There are currently about 800,000 children under the age of 6 in Ohio. They represent about 7% of the state's population.

1 out of every 15 Ohioans is a child under the age of 6.

Source: US Census Bureau, 1-Year American Community Survey Public Use Microdata, 2022



Ohio's youngest children were born after 2019, living the majority or entirety of their life during or after the COVID-19 pandemic. How have their experiences been different as a result?

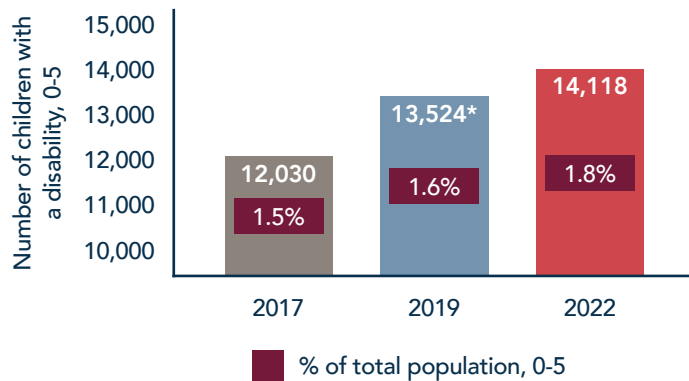
Population of young children, by race and ethnicity, from 2017 to 2022, Ohio

	2017	2019	2022
White non-Hispanic	575,726	577,236	525,771
Black non-Hispanic	121,940	114,581	111,458
Asian non-Hispanic	20,614	16,259*	19,560*
American Indian or Alaska Native non-Hispanic	696	1,351*	259*
Hispanic (any Race)	51,144	53,686	60,835*
Multiracial non-Hispanic	50,247	57,409*	68,065*
Other non-Hispanic	3,203	2,923	5,370*

*Indicates a notable decrease or increase in population.

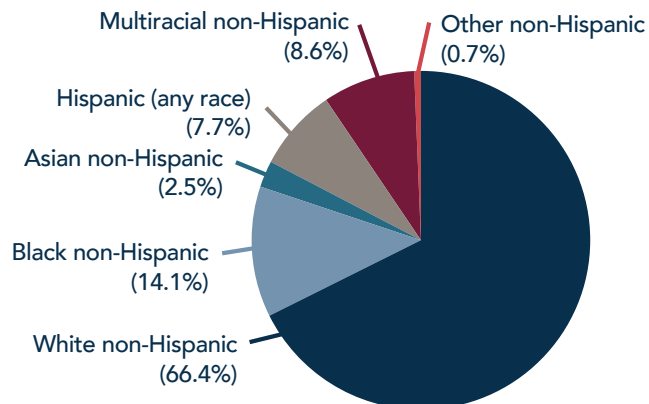
Source: US Census Bureau, 1-Year American Community Survey Public Use Microdata

The population of young children with a disability has been increasing over time



*Indicates a notable increase in population. Source: US Census Bureau, 1-Year American Community Survey Public Use Microdata

Population of young children, by race and ethnicity, Ohio, 2022



Source: US Census Bureau, 1-Year American Community Survey Public Use Microdata

Population of young children by county type, Ohio, 2019 to 2022

Compared to 2019, more young children are living in urban or rural Appalachian counties while fewer are living in suburban or rural non-Appalachian counties.

	2019	2022
Metro	54.1%	55.7%
Rural Appalachian	14.0%	15.7%*
Rural Non-Appalachian	15.7%	13.8%*
Suburban	16.3%	14.7%

*Indicates a notable increase in population. Source: Ohio Medicaid Assessment Survey

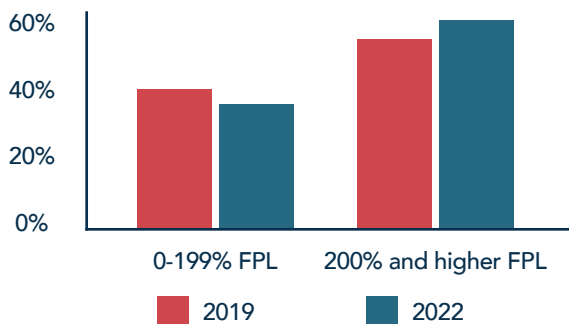
Population of young children by sex, 2022, Ohio



Source: US Census Bureau, 1-Year American Community Survey Public Use Microdata

Population of young children by household income, 2022

Fewer young children were living in families with incomes below 200% of the Federal Poverty Level (FPL) in 2022 compared to 2019.



Source: US Census Bureau, 1-Year American Community Survey Public Use Microdata

Population of young children, by family structure, 2022

Family Structure	2019
Lives with two currently married parents	65.0%
Lives with two parents not currently married	11.7%
Lives with a single parent (mother or father)	19.2%
Lives with grandparents**	2.0%
Lives in another family structure**	2.1%

**Small sample size, interpret with caution
Source: Health Resources and Services Administration, National Survey of Children's Health

Citations & Sources

1. Center on the Developing Child. (n.d.). [Brain Architecture](#). Harvard University.
2. Center on the Developing Child. (2007). [InBrief: The Science of Early Childhood Development](#). Harvard University.
3. Ibid.
4. Heckman, J. J. (n.d.). [Invest in Early Childhood Development: Reduce Deficits, Strengthen the Economy](#). The Heckman Equation.
5. Heckman, J. J. (n.d.). [Early Investment Produces the Greatest Returns](#). The Heckman Equation.
6. Ibid.
7. Ackerman, S. (1992). Discovering the brain (Chapter 6, [The development and shaping of the brain](#)). National Academies Press.
8. National Academies of Sciences, Engineering, and Medicine. (2015). Transforming the workforce for children birth through age 8: [A unifying foundation](#).
9. Naaz, A., & Muneshwar, K. N. (2023). How maternal nutritional and mental health affects child health during pregnancy: [A narrative review](#). *Cureus*, 15(11), e48763.
10. Droste, T. (1988). Prenatal care education insures healthy future. *Hospitals*, 62(February 20), 74–76.
11. ZERO TO THREE. (n.d.). [Early brain development](#).
12. Center on the Developing Child at Harvard University. (n.d.). [Serve and return](#).
13. Center on the Developing Child. (2007). InBrief: [The science of early childhood development](#) (InBrief).
14. Center on the Developing Child at Harvard University. (n.d.). [Understanding motivation: Building the brain architecture that supports learning, health, and community participation](#).
15. ZERO TO THREE. (n.d.). [Why 0-3?](#)
16. Health Resources and Services Administration. (n.d.). [Maternal, infant, and early childhood home visiting \(MIECHV\) program](#). U.S. Department of Health and Human Services.
17. The Pew Charitable Trusts. (2013). [Solving social ills through early childhood home visiting](#).
18. Davis Schoch, A., Simons Gerson, C., Halle, T., & Bredeson, M. (2023). Children’s learning and development benefits from high-quality early care and education: A summary of the evidence (OPRE Report #2023-226). Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.
19. World Health Organization. (2023). [New report calls for greater attention to children’s vital first years](#).
20. Brunton, R. (2024). [Understanding brain development in babies and toddlers](#). ZERO TO THREE.
21. Curran, F. C. (2019). [Estimating the relationship between preschool attendance and kindergarten science achievement: Implications for early science achievement gaps](#). *Education Finance and Policy*, 14(2), 210–241.
22. Melo, C., Pianta, R. C., LoCasale-Crouch, J., Romo, F., & Ayala, M. C. (2022). [The role of preschool dosage and quality in children’s self-regulation development](#). *Early Childhood Education Journal*, 1-17.
23. Heckman, J. J. (2012). [Invest in early childhood development: Reduce deficits, strengthen the economy](#). Heckman Equation.
24. Jones, D. E., Greenberg, M., & Crowley, M. (2015). [Early social-emotional functioning and public health: The relationship between kindergarten social competence and future wellness](#). *American Journal of Public Health*, 105(11), 2283-2290.
25. American Academy of Pediatrics. (2008). [School readiness](#). *Pediatrics*, 121(4), e1008–e1015.

Citations & Sources

26. Nair, M. K. C., Radhakrishnan, R., & Olusanya, B. O. (2023). [Promoting school readiness in children with developmental disabilities in LMICs](#). *Frontiers in Public Health*.
27. Burke, N., Brezack, N., & Woodward, A. (2022). [Children’s social networks in developmental psychology: A network approach to capture and describe early social environments](#). *Frontiers in Psychology*, 13, 1009422.
28. Office of Juvenile Justice and Delinquency Prevention. (n.d.). [Section 4: Implementation and evaluation of programs](#). U.S. Department of Justice.
29. Bustamante, A. S., Dearing, E., Zachrisson, H. D., & Vandell, D. L. (2022). [Adult outcomes of sustained high-quality early child care and education: Do they vary by family income?](#) *Child Development*, 93(2), 502–523.
30. Campbell, F., Conti, G., Heckman, J. J., Moon, S. H., Pinto, R., Pungello, E., & Pan, Y. (2014). [Early childhood investments substantially boost adult health](#). *Science*, 343(6178), 1478–1485.
31. Centers for Disease Control and Prevention. (2024) [Infant mortality](#). *Maternal Infant Health*.
32. Centers for Disease Control and Prevention. (2022). [Wide-ranging Online Data for Epidemiologic Research \(WONDER\)](#). Retrieved from [Linked Birth / Infant Death Records, 2017-2022 Expanded Request Form](#)
33. Trost SL, Beauregard J, Njie F, et al. [Pregnancy-Related Deaths: Data from Maternal Mortality Review Committees in 36 US States, 2017–2019](#). Atlanta, GA: Centers for Disease Control and Prevention, US Department of Health and Human Services; 2022. Retrieved from: [Pregnancy-Related Deaths: Data from Maternal Mortality Review Committees in 36 US States, 2017-2019](#)
34. U.S. Department of Health & Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children’s Bureau. (2024). [Child Maltreatment 2022](#).
35. Ohio Department of Job and Family Services. (2024, October). [Point in time count of children in care](#). [Job and Family Services Data Portal](#).
36. Prenatal-to-3 Policy Impact Center. (2024). [PN-3 state policy roadmap 2024: Outcomes](#).