

# 2025 Early Childhood Dashboard

## Background, process, and methodology

Prepared by the Health Policy Institute of Ohio for Groundwork Ohio  
Updated Oct. 1, 2024

### Background

#### About Groundwork Ohio

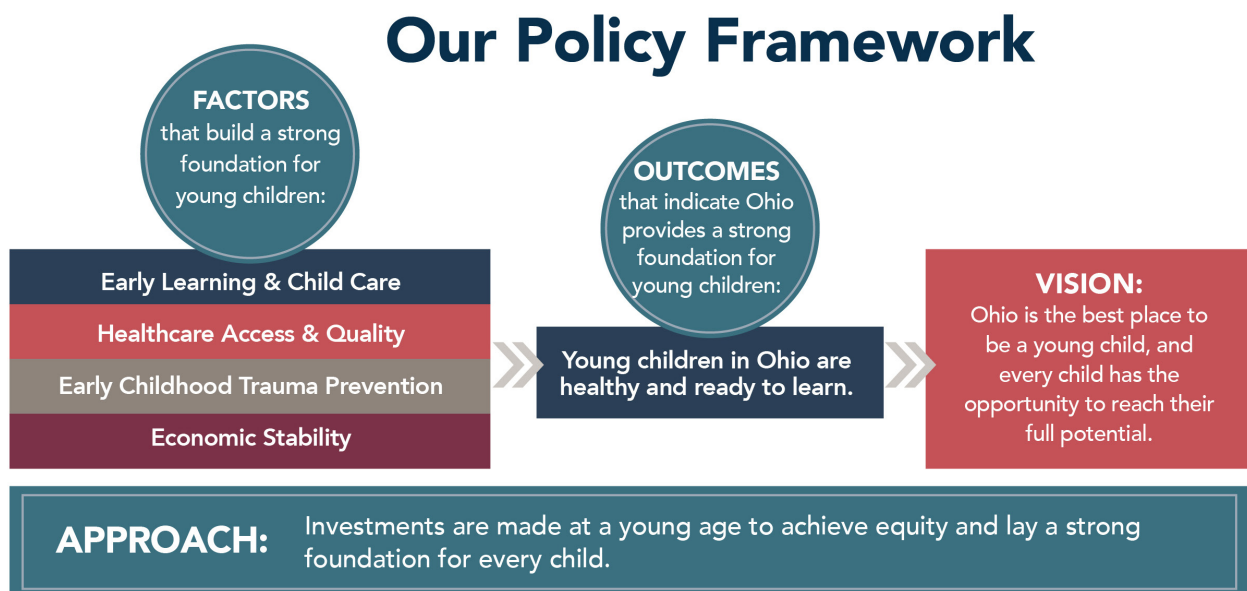
**Groundwork Ohio** focuses on the time when children’s experiences and environments most influence their health, development, and life trajectory: from birth to age 5. Groundwork works to ensure that every baby, toddler, and young child in Ohio has the resources and opportunities for a strong start.

#### What is the *Early Childhood Dashboard*?

The *2025 Early Childhood Dashboard* is a tool to advance equity and inspire advocacy and action needed to lay a strong foundation for Ohio kids (prenatal to age 5), families, and communities. It is a first-of-its-kind, comprehensive snapshot of Ohio’s performance on 63 key metrics that examines the systems, community conditions, and outcomes required to ensure that young children in Ohio are healthy and ready to learn (see figure 1). It also includes 8 measures of demographics for children ages 0-5 in Ohio. The *Dashboard* puts data in context by analyzing trends across years and highlighting disparities and inequities.

The *2025 Dashboard* was developed in partnership with early childhood experts, families, community organizations, providers, and other early childhood stakeholders at the local, state, and national levels. It builds upon the first *2023 Early Childhood Dashboard* released by Groundwork Ohio in January 2023.

Figure 1. Early Childhood Dashboard conceptual framework



## Process

Groundwork Ohio contracted with the Health Policy Institute of Ohio (HPIO) to develop the *Early Childhood Dashboard*.

### How were metrics selected?

To identify potential metrics for the *2023 Early Childhood Dashboard*, HPIO reviewed a wide range of public and private data sources, including national- and state-based population health surveys, child-focused dashboards, scorecards, and reports, vital statistics, and administrative data from state and federal agencies. Using these sources, HPIO compiled a list of 381 early childhood metrics for consideration to include in the *Dashboard*.

From this inventory of metrics, Groundwork Ohio and HPIO selected a total of 60 metrics using the following criteria:

- **Relevance:** Metrics address important issues that affect the health and well-being of young children and their families
- **Source integrity:** Metrics are nationally recognized as valid and reliable, and data is gathered from reputable sources
- **Face value:** Metrics are easily understood by the public
- **Alignment:** Metrics align with state plans and other state-level dashboards
- **Data quality and recency:** Data for the metric is complete, accurate and the most recent data is from the past three years
- **Data availability:** Data is available at the state level, can be assessed for long-term trend (change over time) and can be disaggregated (separated out) to look at disparities and inequities (e.g., for race, ethnicity, household income, and program eligibility criteria)

For the *2025 Dashboard*, Groundwork Ohio and HPIO aimed to maintain as much consistency as possible with the metrics included in 2023. Of the 63 metrics included in the *2025 Dashboard*, 67% were also included in 2023. The variation in metrics from the previous edition largely occurred because:

- Several metrics were not updated since the previous release
- New data sources were available that were prioritized for inclusion based on the above criteria

The 63 metrics included in the *2025 Dashboard* are organized into the six conceptual framework domains and analyzed as follows:

Domain	Total metrics	Metrics with trend analysis	Disaggregated metrics (i.e., broken out by race/ethnicity, income, disability status, geography, etc.)	Metrics with county breakouts
Early learning access and quality	8	7	2	1
Early childhood adversity and trauma	9	7	4	1
Health care access and quality	15	5	4	2
Economic stability	11	6	7	2
Healthy	15	10	5	0
Ready to Learn	5	5	3	2

The *Dashboard* also includes demographic data on young children in Ohio from the U.S. Census Bureau and Ohio Medicaid Assessment Survey (OMAS).

## What are the data sources and years for the Early Childhood Dashboard metrics?

This *Dashboard* contains data from 23 different sources. Data included are primarily from publicly available sources, while data for nine metrics were obtained through administrative data requests to the Ohio Department of Education and Workforce, the Ohio Department of Job and Family Services, the Ohio Department of Children and Youth, and the Ohio Department of Health.

*Early Childhood Dashboard* data years vary by metric based on the data source. HPIO compiled the most recent year of data available and a baseline year from the data source. Except for a few metrics (see metric limitations on page 5), the baseline year was two years prior to the most recent data year for each metric. Most recent data points included in the *Dashboard* ranged from 2017-2024. For complete information on the metric data sources and years in the *Dashboard*, see the **Data Appendix**.

## Methodology

### What types of analyses are included in the 2025 Early Childhood Dashboard?

The Early Childhood Dashboard presents three types of analyses to put data into context:

- **Trend:** Percent change in Ohio's performance from a baseline year to most recent year.
- **Disparity ratios:** Identifies the magnitude of disparities and inequities across demographic groups, such as by race and ethnicity, as they compare to the rest of Ohio.
- **County breakouts:** Examines the metric at the county level to identify geographic differences.

Not every type of analysis was performed on each metric due to data availability or changes in metric methodology between years. See methodology limitations on page 5 for more detail.

### Ascending vs. descending metrics

A metric is considered **ascending** if a lower value is identified as better. For example, the percent of Ohio children who live below 100% of the federal poverty level is an ascending metric. A metric is considered **descending** if a higher value is considered to be better. For example, the percent of Ohio children with six or more well-child visits in the first 15 months of life is a descending metric.

### Methodology for assessing trend

HPIO assessed a metric's trend by examining the percent change between a baseline year and the most recent year. Researchers selected baseline years that were two years from the most recent year of available data. If data was not available two years from the most recent year of availability, then the next nearest available year was selected instead. See the **Data Appendix** for metric baseline and most recent years. Trends were only used after verifying with metric documentation that years could be reasonably compared and that no major methodological changes occurred in how the metric was calculated between years.

To calculate trend for each metric with a baseline year value available, the following steps were taken:

1. Calculate percent change by subtracting the metric value for the baseline year from the metric value for the most recent year, dividing this difference by the baseline year and multiplying by 100.

$$\text{Percent change} = ((\text{Recent year} - \text{baseline year}) / \text{baseline year}) \times 100$$

2. To assess whether trend was improving or worsening, researchers used the following 5-point classification schemes:
  - For ascending metrics:
    - Greatly Improved: The change is less than -20%
    - Improved: The change is between -19.9% and -10%
    - No change: The change is between -9.9% and 9.9%
    - Worsened: The change is between 10% and 19.9%
    - Greatly Worsened: The change is greater than 20%
  - For descending metrics:
    - Greatly Improved: The change is greater than 20%
    - Improved: The change is between 10% and 19.9%
    - No change: The change is between -9.9% and 9.9%
    - Worsened: The change is between -10% and -19.9%
    - Greatly Worsened: The change is less than -20%

## Methodology for calculating disparity ratios

The magnitude of disparities across population characteristics such as race and ethnicity, economic disadvantage, county type, and Medicaid status were assessed for 16 metrics using disparity ratios. Disparity ratios were calculated by dividing the outcome of each comparison group by the outcome of the rest of the state (i.e., the Ohio population of children ages 0-5 except those who belong to the comparison group). The prevalence estimates for the rest of the state were calculated for each comparison group.

For example, the percent of Ohio children in Appalachian counties, ages 0-5, who are living in poverty is 25.2%. The percent of children in all other (i.e., non-Appalachian) counties, ages 0-5, who are living in poverty is 19.6%.

**The Appalachian County/non-Appalachian County disparity ratio in this instance is  $25.2/19.6 = 1.3$ .**

This is interpreted to mean that children in Appalachian Ohio are 1.3 times more likely to live below the federal poverty line than children in the rest of the state.

The prevalence for the rest of Ohio is then re-calculated for each additional breakout group. For this poverty metric, the disparity ratio for Suburban is therefore calculated by dividing the percent of Ohio children in Suburban counties, ages 0-5, who are living in poverty, by the percent of children in all other (i.e., non-Suburban) counties, ages 0-5, who are living in poverty. The process is then repeated for Rural, non-Appalachian and Metropolitan County types.

- To assess the degree of disparity, researchers used the following 3-point classification schemes:
- Little or no disparity: Disparity ratio less than 1.1
  - Moderate disparity: Disparity ratio between 1.1 and 1.9
  - Large disparity: Disparity ratio greater than 2

When possible, HPIO disaggregated, or separated, race and ethnicity into the following groups: white (non-Hispanic), Black (non-Hispanic), Asian and/or Pacific Islander (non-Hispanic), Native American (non-Hispanic), Multiracial (non-Hispanic), Other (non-Hispanic), and Hispanic. When data was not available to classify based on these groups, different racial and ethnic classifications were used based on the data source and data availability. Metrics were also disaggregated by Ohio county type, where available. The four county groupings, which were categorized by the Ohio Medicaid Assessment Survey (OMAS), are Metropolitan; Suburban; Rural, non-Appalachian; and Rural Appalachian. For a select set of metrics, data values were available across all 88 Ohio counties.

## Methodology limitations

The *Early Childhood Dashboard* includes data from a variety of publicly available sources, as well as data collected from requests to state agencies. It includes survey results, birth records, and administrative data. While care was taken to compile data from credible sources, each source has its own set of limitations, such as self-reported conditions, and potential changes in methodology from year to year.

The main limitation to the selected measures was that all three types of analysis (trend, disparity ratios, and county breakouts) could not be performed for every metric. The issues that contributed to this limitation are discussed below:

- **Trend:** Some metrics had data without an eligible baseline year. This means that trend could not be calculated for every metric.
- **Disparity ratios:** Very few data sources allowed for disaggregation of data by ages 0-5 years and other demographic categories, such as income or race and ethnicity. In addition, not all sources use mutually exclusive racial and ethnic categories (e.g., Black, non-Hispanic and Hispanic, all races) for the disaggregation of data by race and ethnicity. When metrics could be disaggregated by age and another demographic characteristic, the sample sizes of the population groups often became too small, creating data reliability and suppression issues. In these scenarios, data values could not be reported.
- **Limitations due to the COVID-19 pandemic:** The COVID-19 pandemic significantly impacted and delayed collection, analysis, and public release of data over the last five years, particularly during collection years 2020, 2021 and 2022. Data represented in this document is the most recent which was available, and of the highest quality to assess the health and well-being of children in Ohio, ages 0-5.
- **Age ranges:** For some measures, the preferred 0-5 age range was either not available or not appropriate (e.g., differing programmatic eligibility or developmental needs by age). All age ranges are noted in the metric long names and descriptions.

## Metric limitations

There are several notable limitations encountered across metrics in the *2025 Dashboard*:

- **Early learning access** is a composite measure comprised of early learning program utilization data from four different sources with varying years and program eligibility requirements. The intent of this metric is to provide a proxy for the level of unmet need for early childhood services for families below 200% of the federal poverty level:
  - Number of families below 200% of the federal poverty level (2022)
  - Number of children in public preschool (October 2023)
  - Number of children served under IDEA Part B (2022-2023)
  - Number of children in Head Start (2022)
  - Number of Children in publicly funded childcare (July 2023)

- For metrics from surveys where small sample size for the 0-5 population hindered the reliability of estimates and/or population breakouts for disparity ratios, researchers pooled years together. Pooling of years only occurred after verifying with metric documentation that years could be reasonably combined. At least two years were pooled for the following metrics:
  - **Childcare cost burden:** Most recent year combined 2022-23; baseline year combined 2020-21
  - **Job change due to childcare, family members:** Most recent year combined 2021-22
  - **Employment insecurity, parents:** Most recent year combined 2020-22
  - **Family structure:** Most recent year combined 2019-22
  - **Preventative dental care:** Most recent year combined 2021-22
  - **Unmet mental health care need:** Most recent year combined 2021-22
  - **Maternal morbidity:** Most recent year combined 2017-21; baseline year combined 2011-15
  - **Maternal health care need:** Most recent year combined 2021-22
  - **Oral health problems:** Most recent year combined 2021-22
  - **Asthma:** Most recent year combined 2021-22
- Due to lack of data availability, the following metrics had a baseline year that was NOT two years from the most recent year:
  - **Early Head Start access, income eligible children** (3-year range)
  - **Publicly funded child care quality** (1-year range)
  - **Housing cost burden** (3-year range)
  - **Household broadband access** (3-year range)
  - **Fourth grade reading proficiency** (3-year range)
  - **Eighth grade math proficiency** (3-year range)
  - **All demographic metrics, except county type** (3-year range)

## HPIO original analysis

For metrics which were not publicly available for the desired age group or demographic disaggregation, HPIO used public use raw data files to construct the following metrics using R statistical software:

Metric	Source	Most Recent Year(s)	Baseline Year(s)
<b>Childhood adversity and trauma</b>			
Mental illness or substance use in the household.	Ohio Medicaid Assessment Survey	2021	2019
Adverse childhood experiences.	Ohio Medicaid Assessment Survey	2021	2019

Metric	Source	Most Recent Year(s)	Baseline Year(s)
<b>Health care</b>			
Experiences of racism.	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System	2022	N/A
<b>Economic stability</b>			
Food insecurity.	Health Resources and Services Administration, National Survey of Children's Health	2019-2022	N/A
Employment insecurity, parents.	Health Resources and Services Administration, National Survey of Children's Health	2020-2022	N/A
Family structure.	Health Resources and Services Administration, National Survey of Children's Health	2019-2022	N/A
<b>Healthy</b>			
Asthma.	Health Resources and Services Administration, National Survey of Children's Health	2021-2022	N/A
<b>Demographics</b>			
Population of young children, by county type.	Ohio Medicaid Assessment Survey	2021	2019