The Data Capacity of State-Funded Pre-K Programs Across the United States

Sara Amadon, Carlise King, and Jing Tang
STEP Forward with Project Team

CARLISE KING  
Project Lead

DALE RICHARDS  
Project Lead

VAN-KIM LIN  
Consortium Lead

SARA AMADON  
State Survey Lead

MEG BREDESON  
Engagement Lead

SHANA E. ROCHESTER  
Consortium Support

JOY THOMPSON  
Management Lead

SILVANA HACKETT  
Consortium Support

JA’CHELLE BALL  
Consortium Support
Survey Team

SARA AMADON
Survey Lead

JING TANG
Head Start Survey Lead

KARA ULMEN
State Pre-K Survey Lead

MELANIE GRAFALS
Project Manager

GABRIELLA GUERRA
Survey Team

EMILY MAXFIELD
Survey Team

JA'CHELLE BALL
Recruitment Lead

KATIE RICHARDS
Data Visualization Lead and Analyst
Agenda

- Introduction
- State-funded Pre-K Data Survey methods and findings
- Additional resources
- Action steps
- Questions
Introduction
The Early Childhood Data Collaborative (ECDC) promotes policies and practices to support policymakers’ development and use of coordinated state early care and education (ECE) data systems.

Effective use of data systems will help policymakers improve:

- Access to high-quality programs
- Program quality
- ECE workforce quality
- Child outcomes

Equity Policy concerns:

- Equal access to high quality early childhood programs
- Preschool expulsion
- Equity for early learning professionals
Early Childhood Data Landscape

Coordinated State Early Care and Education Data Systems

- Children FUNDAMENTS 1-3
- Program Sites FUNDAMENTS 9-6
- Governance & Privacy FUNDAMENTS 9-10
- ECE Workforce FUNDAMENTS 7-8
- K-12 & Other Key Data Systems FUNDAMENTAL 4

Pre-K
State-funded Pre-K
Locally-funded Pre-K

Subsidized Child Care
Licensed Child Care
Early Intervention
Preschool Special Education
State Prekindergarten
State-Funded Head Start
Why are preschool data accessibility and infrastructures important?

Early care and education are fragmented, with multiple agencies at different levels (state and local) serving preschool-aged children in various settings (center-based, home-based, pre-K, etc.).
State-funded Pre-K Data Survey Methods
Survey Design

Understand states' data capacity, infrastructure, and ability to use data

- Data access and quality
- Data infrastructure and linking
- Data uses and users
- Data storage

Developed in tandem with the STEP Forward with Data Framework
Distribution and Sample

Survey fielded: December 2022 - March 2023

Sent to multiple pre-K contacts within the 45 states

Received 39 survey responses from 35 states

Final sample: 43 states (35 survey responses + 8 states using public data)
Key Findings

- Data access and quality
- Data uses and users
- Data infrastructure and linking
- Data storage
Data Access
Data Access and Quality

93% of states had access to child-level data
93% of states had access to program-level data
74% of states had access to workforce-level data
84% of states could report on system-level data

Data quality concerns were raised across all data collected

Source: Child Trends’ State-funded Pre-K Data Survey.
What were the most accessible child-level data elements? (n=40)

93% of states had access to child-level data.

<table>
<thead>
<tr>
<th>Data Element</th>
<th>Number of States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender of child</td>
<td>39</td>
</tr>
<tr>
<td>Age or date of birth of child</td>
<td>38</td>
</tr>
<tr>
<td>Ethnicity of child</td>
<td>38</td>
</tr>
<tr>
<td>Race of child</td>
<td>38</td>
</tr>
<tr>
<td>Disability status of child</td>
<td>37</td>
</tr>
</tbody>
</table>

Source: Child Trends’ State-funded Pre-K Data Survey.
What were the most accessible program-level data elements? (n=40)

93% of states had access to program-level data.

Source: Child Trends’ State-funded Pre-K Data Survey.
What were the most accessible workforce-level data elements? (n=32)

74% of states had access to child-level data.

- Highest level of education of workforce member: 28 states
- Workforce member position or role (for example, assistant or lead teacher): 27 states
- Credentials and/or certifications received by the workforce member: 26 states
- Site where workforce member is a staff member: 26 states
- Ethnicity of workforce members: 21 states
- Race of workforce members: 21 states

Source: Child Trends’ State-funded Pre-K Data Survey.
What were the most accessible system-level data elements? (n=36)

84% of states had access to system-level data.

Source: Child Trends’ State-funded Pre-K Data Survey.
Georgia’s Cross Agency Child Data System (CACDS)

Source: Georgia’s CACDS. https://www.gacacds.com/data-explorer/.
Data Uses and Users
Data Disaggregation

83% of states can disaggregate data by child and family characteristics.

Less than half of states can disaggregate by income, tribal affiliation, and country of birth.

47% of states can report on their community demographics; 17% can report on families’ needs.

Source: Child Trends’ State-funded Pre-K Data Survey.
Can states disaggregate data by child and family characteristics? (n=35)

Source: Child Trends’ State-funded Pre-K Data Survey.
How do respondents use pre-K data? (n=35)

- Share information with policymakers: 32 states
- For monitoring/accountability/compliance purposes: 28
- Respond to external data requests: 28
- Answer key policy questions to inform pre-K funding needs: 27
- Develop standard data reports using program data: 26
- Inform program administration and instruction: 24
- Answer key policy questions to inform pre-K policy about workforce needs: 20
- Answer key policy questions to inform pre-K policy about children’s outcomes: 19
- Evaluate early childhood program/initiative outcomes: 19
- Answer key policy questions to inform pre-K policy about supply needs: 18

Source: Child Trends’ State-funded Pre-K Data Survey.
Who uses pre-K data? (n=35)

Source: Child Trends’ State-funded Pre-K Data Survey.
North Carolina Early Childhood Integrated Data System (NC ECIDS)

Children Receiving NC Pre-K Services

28,417

Selected Filters: Fiscal Year: 2019-2020, Gender: <No item selected>, Race Ethnicity: <No item selected>, County: <No item selected>

Children Receiving NC Pre-K Services Only

12,436

Children Receiving NC Pre-K Services Only by County

Children Receiving NC Pre-K Services Only by Race Ethnicity and Gender

<table>
<thead>
<tr>
<th>Race Ethnicity</th>
<th>Number of Children</th>
<th>Percentage of Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian or Alaska Native</td>
<td>161</td>
<td>1.29%</td>
</tr>
<tr>
<td>Asian</td>
<td>456</td>
<td>3.67%</td>
</tr>
<tr>
<td>Black/African American</td>
<td>2,908</td>
<td>23.38%</td>
</tr>
<tr>
<td>Hawaiian or Pacific Islander</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>3,872</td>
<td>31.13%</td>
</tr>
<tr>
<td>White/Caucasian</td>
<td>4,476</td>
<td>35.99%</td>
</tr>
<tr>
<td>Multiple Races</td>
<td>551</td>
<td>4.43%</td>
</tr>
<tr>
<td>Unreported</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: NC ECIDS.
Alabama Data Dashboard

First Class Pre-K Wait Lists by County 2022-2023

Total Waitlist Count = 4,173
Total Capacity = 26,316

Source: Alabama Department of Early Childhood Education.
Data Infrastructure and Linking
Data Infrastructure

Over 2/3 of states can link pre-K and K-12 data

Unique identifiers were frequently identified as facilitators to access, link, and use data

Most states reported data being siloed across database systems

Source: Child Trends’ State-funded Pre-K Data Survey.
Do state agencies link state-funded pre-K program data to K-12 data? (n=42)

- Yes: 69%
- Not yet, but in progress: 14%
- No: 10%
- I don't know/Null: 7%

Source: Child Trends’ State-funded Pre-K Data Survey.
Can child, program, workforce, or system-level data be linked together?  

- Yes: 26%
- Yes, for some data elements: 31%
- Not yet, but in progress: 14%
- No: 24%
- I don't know / Null: 5%

Source: Child Trends’ State-funded Pre-K Data Survey.
Can pre-K data be linked across other pre-K programs, such as Head Start? \(n=42\)

- **Yes**: 24%  
- **Yes, for some data elements**: 16%  
- **Not yet, but in progress**: 19%  
- **No**: 24%  
- **Other**: 12%  
- **I don't know / Null**: 5%  

**Source**: Child Trends’ State-funded Pre-K Data Survey.
What facilitates the state agency's ability to coordinate or link data across programs?

- Child, family, program, or workforce unique identifier: 6 states
- Data sharing agreement: 5 states
- Early Childhood Integrated Data System, or ECIDS: 3 states
- Increased staff capacity: 2 states
- Memoranda of Understanding/Agreement: 5 states
- Shared services between agencies: 1 state
- Single central database: 2 states

Source: Child Trends’ State-funded Pre-K Data Survey.
What does or would facilitate the state agency's ability to coordinate or link data across programs?

Source: Child Trends' State-funded Pre-K Data Survey.
Minnesota Early Childhood Longitudinal Data System

Minnesota Children Participating in Public Early Care and Education

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Select Map</th>
<th>County Name</th>
<th>District Name</th>
<th>Federal Race Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>MN Public Kindergartners</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>63,646</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Count with Public ECE Participation</th>
<th>% with Public ECE Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>32,330</td>
<td>50.8%</td>
</tr>
</tbody>
</table>

Known ECE Participation by Race

- American Indian/Alaska Native: 2%
- Asian: 7%
- Black/African American: 17%
- Hispanic/Latino: 10%
- Native Hawaiian/Pacific Islander: 0%
- Two or More Races: 7%
- White: 57%

Economic and Food Assistance Participation by ECE Program

<table>
<thead>
<tr>
<th>Food Assistance Populations</th>
<th>CCAP</th>
<th>ECFE</th>
<th>ECSE</th>
<th>District Pre-K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Assistance Only (No MFRI/DWP)</td>
<td>3,895</td>
<td>1,564</td>
<td>3,639</td>
<td>6,492</td>
</tr>
<tr>
<td>MFRI/DWP</td>
<td>1,990</td>
<td>209</td>
<td>804</td>
<td>1,341</td>
</tr>
<tr>
<td>No MFRI/DWP or Food Assistance</td>
<td>1,053</td>
<td>5,456</td>
<td>5,887</td>
<td>10,636</td>
</tr>
</tbody>
</table>

Source: https://eclds.mn.gov/#/ch3
Data Storage and Usage
Supports that strengthen respondents’ ability to access, analyze, or use pre-K data (n=35)

- Unique identifiers for the children, worker, or program: 30 states
- Centralized data or reporting system: 23 states
- Team to monitor data collection and analysis activities: 23 states
- Systematic approach to data collection: 22 states
- Policies facilitating access, analysis, or use: 19 states
- Research partnerships: 19 states

Source: Child Trends’ State-funded Pre-K Data Survey.
Barriers that respondents face in their ability to access, analyze, or use pre-K data (n=35)

Data quality issues
Data management issues
Challenges with data sharing or limited access to data
Lack of data systems or infrastructure
Lack of funding for data systems development and maintenance

Source: Child Trends’ State-funded Pre-K Data Survey.
Additional Resources
Interactive Maps and State Profiles

Map 1: Accessibility Status of State Pre-K Child, Program, and Workforce Data

Access to Data About Children, Programs, Workforce, and Preschool Systems

State administrators were first asked if they had access to any child, program, workforce, or system-level data related to their state-funded pre-K program that could be used to inform decision making. Respondents with access then indicated the status of accessibility of specific data elements.

Status of child-level data elements

The following section outlines the reported accessibility of 32 child-level data elements. Child-level data describe specific characteristics of a child, such as their gender, race, or age.

Child-Level Data

- District of Columbia Office of the State Superintendent of Education was able to access 17 out of 32 child-level data elements.
- On average, state respondents reported being able to access 17 out of 32 child-level data elements.

Table A. Accessibility status of child-level data elements, by subcategory.
Key Findings

Responses from the 32 HSCOs, representing 32 states, reveal strong data-related capabilities and areas for growth.

HSCOs reported greater access to program- and system-level data than to child- and workforce-level data.

- Most HSCOs had access to program-level data beyond what is collected in the Program Information Report. The most frequently reported data element that HSCOs had access to was progress in quality initiatives (e.g., accreditation or QTEL; n = 22). Program-level data elements that HSCOs were less likely to have access to included professional development provided to staff (n = 14), classroom observations of instructional practice (n = 12), participation in cultural competency or multicultural trainings for staff at that site (n = 10), and provision of services in specific languages or languages other than English (n = 9).

- Over two thirds of respondents could report on system-level data. Among them, most respondents had the ability to report on the number of Head Start slots in each program (n = 21), sources of funding (n = 17), and the demographic characteristics of communities where Head Start programs are located (n = 15). System-level data elements that HSCOs were less likely to have the ability to report on were staff benefits (n = 2), staff health care policies, paid vacation policies, and retirement benefit policies (n = 5) and funding to support equity-focused activities (n = 5).

- Almost one third of HSCOs indicated access to child-level data elements at the state level. Among them, HSCOs most frequently accessible data elements were children’s demographics (i.e., age [n = 10], gender [n = 10], disability status [n = 10], ethnicity and race [n = 9]), and name and address of site where child is enrolled (n = 9). Data elements less likely to be accessible by respondents were attendance of child (n = 6), family migratory status (i.e., whether the family moves to follow seasonal work, [n = 6]), family reason for attending the program (n = 6), and family reason for exiting program (n = 6).

- One half of HSCOs had access to workforce-level data elements. Among them, the most frequently reported data elements they could access included information about workforce members’ roles (n = 16), work sites (n = 15), credentials received (n = 15), and the demographic characteristics of workforce members (i.e., ethnicity (n = 15), race (n = 15), language(s) spoken (n = 15), and age (n = 10)). Data elements that were less accessible to HSCOs included presence of a professional development plan for the workforce member (n = 6), whether the workforce member has health insurance (n = 6), and enrollment in financial assistance programs (n = 5).

The capacity to disaggregate data by child, family, and community characteristics varied across respondents.

- Almost half of HSCOs were able to disaggregate data by child and family characteristics. Respondents reported that data could be disaggregated by some child and family characteristics including child sex/sexuality (n = 14), child disability status (n = 9), and family languages spoken (n = 8).

- In addition, almost half of HSCOs were able to disaggregate data by community demographic characteristics. Community reported community characteristics included community race/ethnicity (n = 11), community rates of child disability status (n = 10), and median family income in the community (n = 11).
STEP Forward with Data Framework

Preschool System Steps

Supply
Availability of programs that meet families' needs

Enrollment
Processes for enrollment and patterns of attendance

Transitions
Instances during which a child or family moves to, from, or within a program

Outreach
Strategies to support families to find and enroll in programs they want

Learning Experiences
Children's experiences within their learning environments

Administration
The policies and infrastructure that support equitable experiences throughout the system
Action Steps
Action Steps

- Identify data collection gaps
- Explore support avenues for data system development
- Consider using federal, state, or foundation funding to strengthen data infrastructure and data capacity
- Use STEP Forward with Data Framework to build and enhance an equitable preschool system
Questions?
Ways to stay connected

Join our listserv to get updates to upcoming webinars, products and guides:

Access resources at www.ecedata.org
Contact us at: prekdata@childtrends.org
Thank you!
samadon@childtrends.org