



The Nuts and Bolts of Linking Registry Data with Other Early Childhood Data

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Our Focus Today

- ✿ Importance of data linking
- ✿ Status of data linking efforts nationally
- ✿ Activities that support data linking



What is data linking?

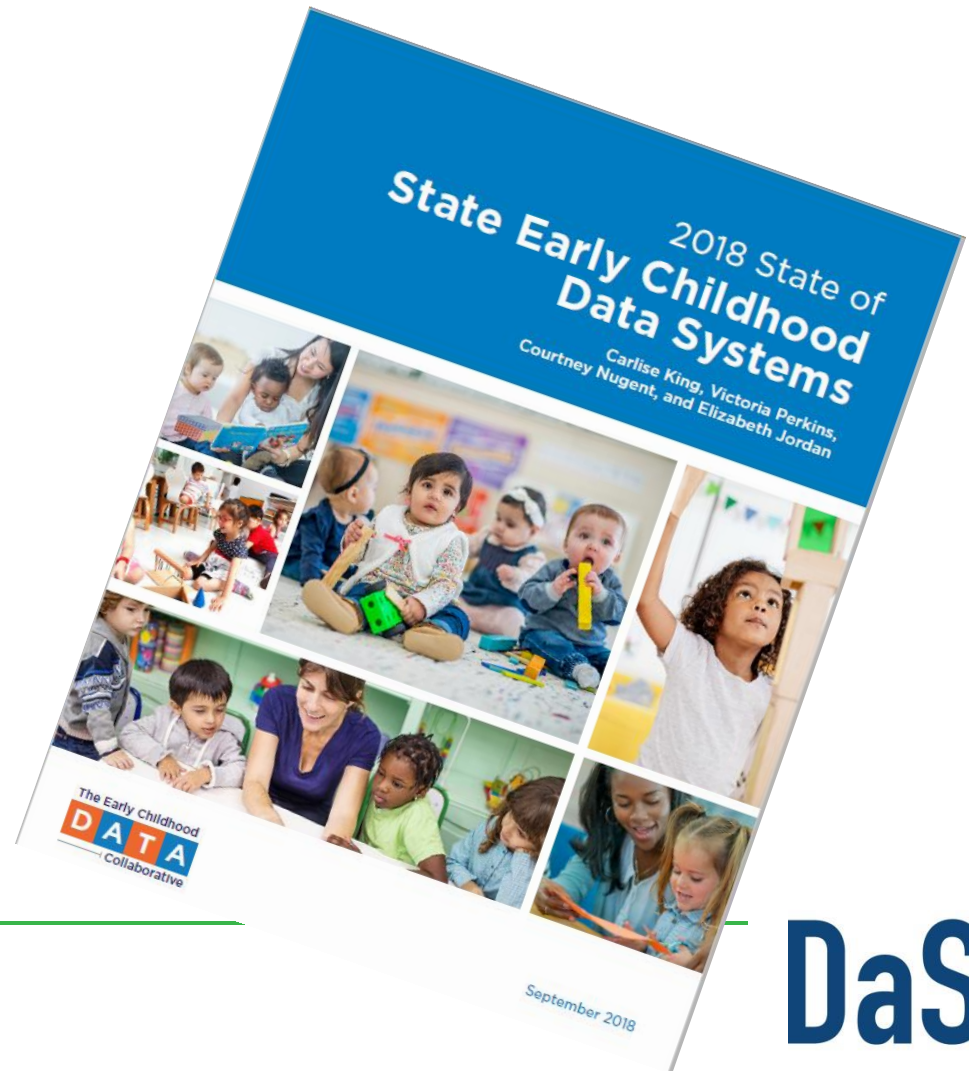
- * Data linking is the act of combining data from two or more sources to create a new and richer dataset
- * Data linking event(s) can be temporary, routinely scheduled, ongoing, or constant
 - “Constant data linking” often considered data integration

Why link data?

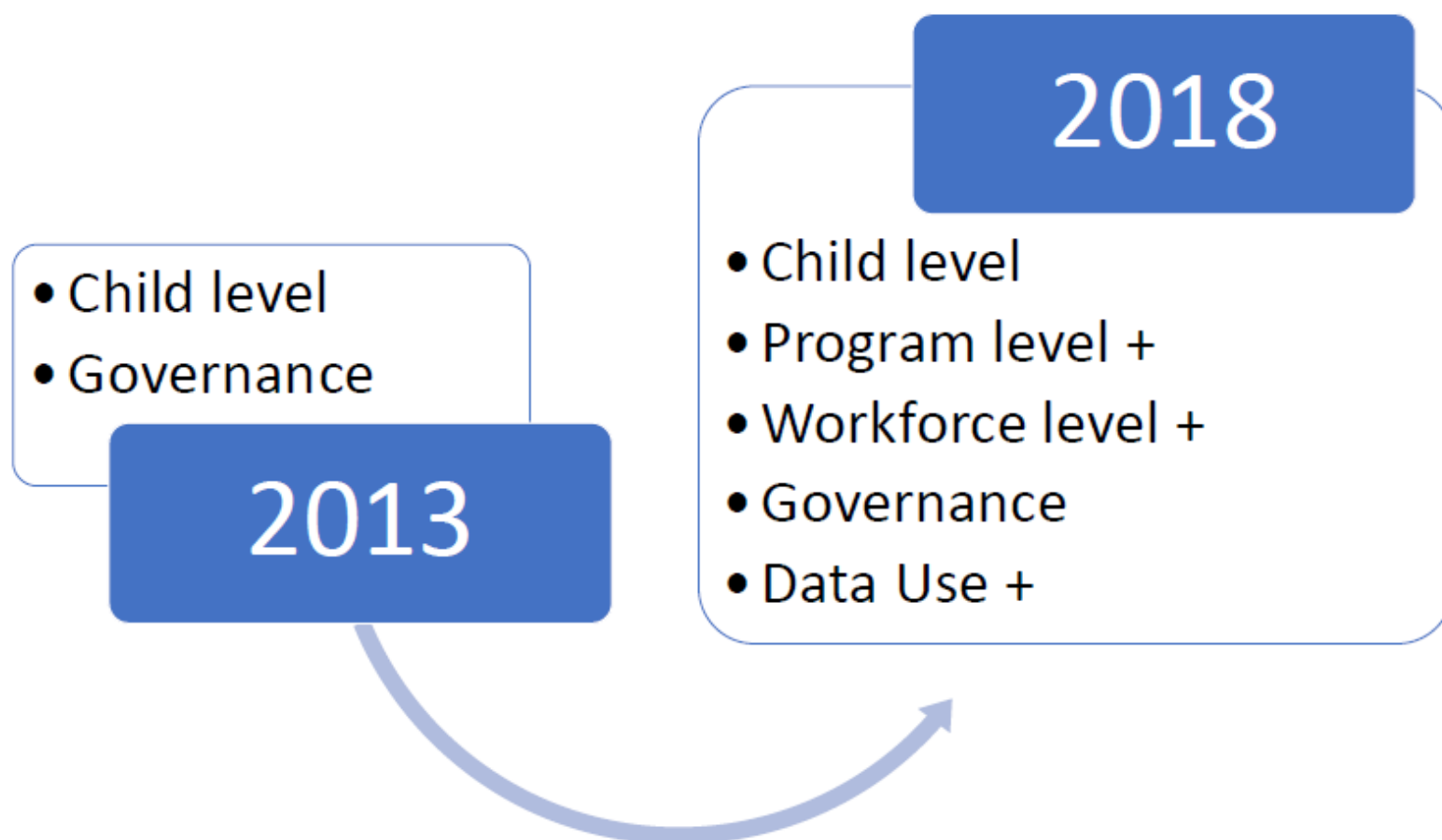
- * Increased capacity to answer questions
- * Potential for efficiency



Status of Data Linking



Changes from the 2013 Survey



Survey Methodology and Respondents

- * Administered April-June 2018
- * 50 respondents (1 per state)
 - Department of Health, Social Human, and/or Family Services (50%)
 - State Departments of Education (30%)
 - Office of Early Learning/Childhood (8%)
 - State Early Childhood Advisory Councils/Children's Cabinets (6%)
 - Other Organizations (6%)

Linking Child Data to Other ECE Programs

- ✿ Out of 50 states surveyed, fewer than half (22 states or 44 percent) reported capacity to link child-level data for at least one early childhood program
 - Of those 22 states, a majority (18 states, or 86 percent) implemented an Early Childhood Integrated Data System (ECIDS) to accomplish this goal
- ✿ 12 out of 50 states (24 percent) have plans to link child data
- ✿ 16 states (32 percent) reported no linkages or plans to link

Table 1. Types of Program Site Data Linked by ECE Program (n= 22 states)

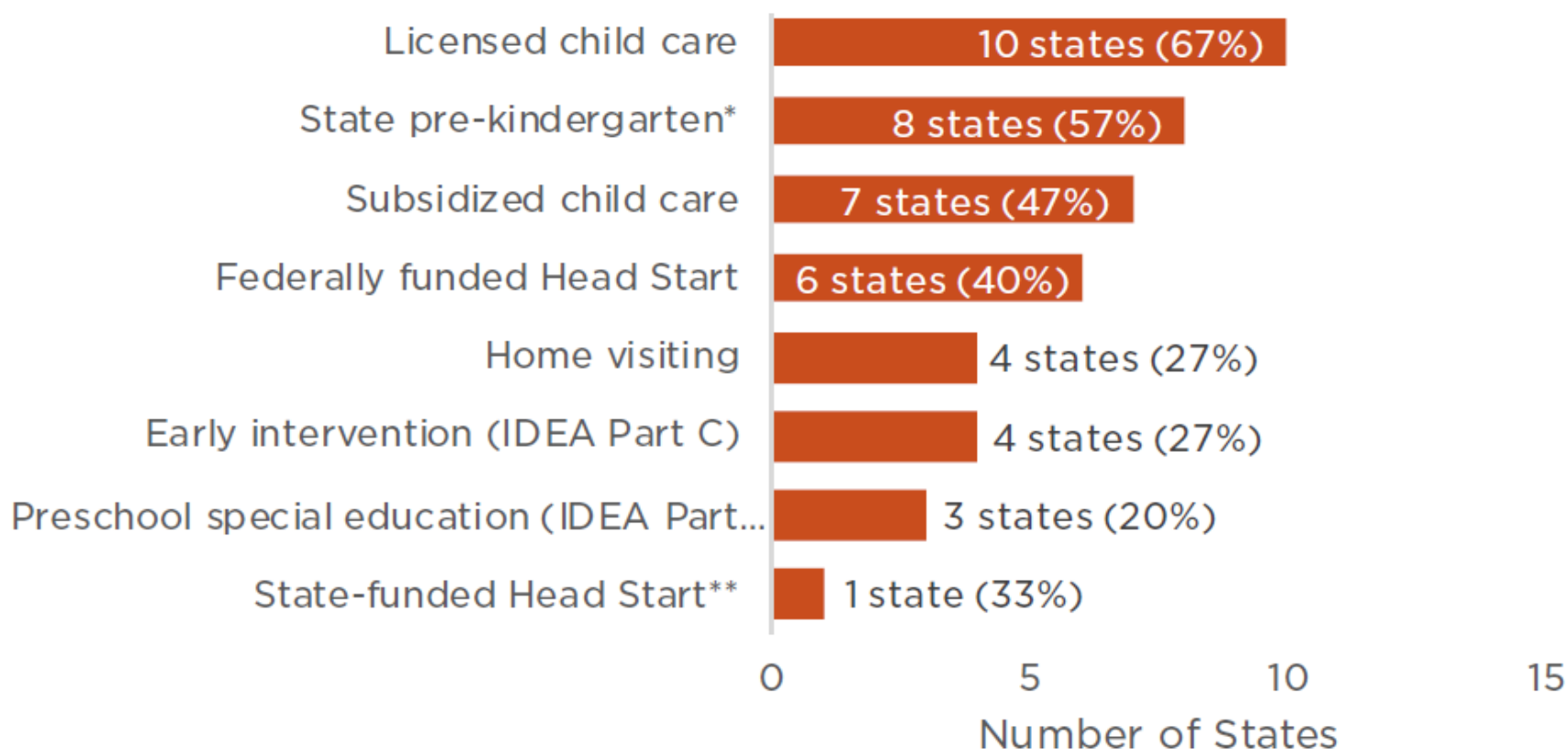
Program Name	Licensing status (e.g., license capacity, violations, complaints)	Structural standards (e.g., curriculum, class size, staff ratio)	Working conditions (e.g., professional development, wages, benefits, turnover)	Quality measures (e.g., ECERS, CLASS, QRIS rating)	Other
Early intervention (IDEA Part C)	6 states, 27%	5 states, 23%	4 states, 18%	7 states, 32%	1 state, 5%
Preschool special education (IDEA Part B, Section 619)	4 states, 18%	4 states, 18%	3 states, 14%	6 states, 27%	1 state, 5%
State pre-kindergarten*	14 states, 67%	12 states, 57%	9 states, 43%	14 states, 67%	2 states, 10%
State-funded Head Start**	3 states, 50%	2 states, 33%	3 states, 50%	3 states, 50%	2 states, 33%
Federally funded Head Start	7 states, 32%	5 states, 23%	4 states, 18%	8 states, 36%	1 state, 5%
Subsidized child care	19 states, 86%	17 states, 77%	12 states, 55%	20 states, 91%	2 states, 9%
Home visiting	3 states, 14%	3 states, 14%	3 states, 14%	3 states, 14%	1 state, 5%
Licensed child care	17 states, 77%	12 states, 56%	7 states, 32%	16 states, 68%	5 states, 23%

*Number of states included with state-prekindergarten (n= 21)

** Number of states included with state-funded Head Start (n= 6)

From the ECDC Report




Figure 18. States Linking Workforce-Level Data by ECE Program (n= 15 states)



*Number of states included with state-prekindergarten (n= 14)

** Number of states included with state-funded Head Start (n= 3)

Key Findings

- 
1. Policymakers still lack comprehensive data needed to assess early childhood policies and outcomes.
 2. Home visiting and federally funded Head Start programs are least likely to be linked compared to other ECE programs.
 3. An increased number of states link child-level data from subsidized child care programs compared to 2013.
 -  4. Data about program site quality are linked most frequently by states compared to other types of data such as workforce conditions (e.g., turnover) or structural standards (e.g., class size).
 -  5. States were least likely to link workforce-level data compared to child- and program-level data.
 6. Fewer states have a defined data governance body to support the coordination and use of ECE data compared to 2013.
 7. States lack processes to engage the public about data privacy policies.



How 22 States Use Coordinated Data...

- * Share with stakeholders or policymakers (14 states)
- * Develop standard reports (13 states)
- * Answer policy questions (13 states)
- * Respond to external data requests (12 states)
- * Evaluate EC program outcomes (12 states)
- * Conduct research (10 states)
- * Produce annual reports (10 states)
- * Accountability or compliance (8 states)
- * Share with parents (5 states)

Action Steps for Policymakers

1. Establish and strengthen state ECE data governance bodies to guide the coordination, security, and appropriate use of ECE data.
2. Strengthen states' capacity to securely link data on young children across all state and federal ECE programs, including Head Start and Home Visiting.
3. Expand efforts to collect and link data about the early childhood workforce.
4. Communicate with parents about data privacy policies and uses of early childhood data.
5. Use existing data systems planning tools and technical assistance to support early childhood data system integration.



Reactions to these data?



Like



Love



Haha



Wow



Sad



Angry

Are you linking data?



Who are the most likely data linking partners for registries? Why?



What You Need
To Know



Informal vs Formal Data Linking



Data Partnership Continuum



Handshake



Pros

1. Fast
2. Efficient
3. One and done



Cons

1. Professional risks
2. Data security risks
3. Data uses unknown and unchecked
4. Is not sustainable when staff change



Data Sharing Agreement

1. Establishes authority
2. Reduces professional risk
3. Establish acceptable use
4. Establish duration
5. Moderate to slow to execute



Data Linking Focus



1. Usually only high-level information
2. Does not create partnership
3. May not be updated
4. Does not establish work as priority
5. Does not guide work



Management Plan

1. Promotes data partnership opportunities
2. Outlines how partners will work together
3. Clarifies data governance policies
4. Joint data become "value added" data
5. Promotes data use culture

1. Takes time to create
2. Requires building relationships among cross-agency team members
3. Requires high level administrative buy-in
4. Requires regular review



Culture of Data Use

1. Work accepted as meaningful part of job
2. "Value added" data appreciated and used
3. Data used to inform program improvement and improve child outcomes

1. Requires ongoing work to establish and maintain culture
2. Requires time and other resources
3. Must be supported throughout both administrations

Data Linking is Happening

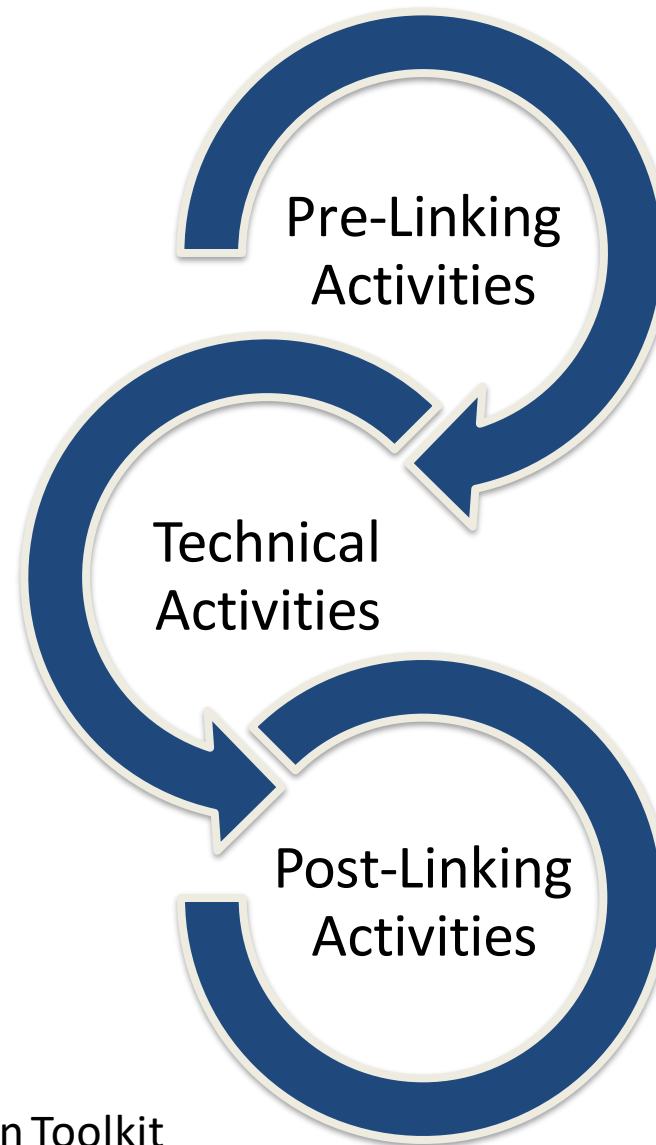


- * Many industries, including education, link data
- * GOOD data linking requires careful planning
- * Preparing for data linking . . . rather than responding to it . . . puts you in the best position

How is
playing
Candy
Land
similar to
data
linking?



Phases of Data Linking



*Adapted from the CIID Data Integration Toolkit



Pre-Linking Activities

* Assess Data Linking Readiness

- Consider value
- Jointly discuss opportunity
- Draft a data use case
- Develop your talking points

* Formalizing the Data Partnership

- Finalize your use case
- Determine specific questions to be answered or operations supported
- Develop partnership management plan
- Develop joint data sharing agreement
- Secure agency/funder approval

*Complete Data Linking Technical Work



Technical Activities

- Determine necessary preparations
- Determine and secure agency resources required
- Create data linking process and data models
- Map and align data elements
- Identify and resolve redundant data elements
- Compile final list of elements

**Technical
Activities
cont'd**

Link the Data

- Conduct data linking and perform data quality checks
- Identify processes that may improve data quality
- Partners sign off on linked data and overall process

Sustain Data Linking

- Document the linking process
- Update data partnership management plan
- Use linked data to address identified need

**Post-Linking
Activities**

Data Governance and Management Toolkit

Data Governance and Management Toolkit [PDF]

The DaSy **Data Governance** and **Management** Toolkit is a resource containing information, guidance, and templates to assist Part C and Part B 619 program staff with creating or enhancing their **data governance** policies and procedures. For each **data governance** topic, an overview, consideration questions, and a fillable Microsoft Word template are provided. The Toolkit Introduction (first tile) provides general information on how to use the toolkit.



The contents of this toolkit were developed under a grant from the U.S. Department of Education, #H373Z120002. However, those contents do not necessarily represent the policy of the U.S. Department of Education, and you should not assume endorsement by the Federal Government. Project Officers, Meredith Miceli and Richelle Davis.



Data Partnership Management Plan Considerations Worksheet

This worksheet is provided to facilitate conversation between data partners. Notes can be recorded in the columns provided. Once applicable considerations are addressed, teams may transfer their answers to the Data Management Plan Template to facilitate completion of their data partnership management plan.

Data Partnership Management Plan Considerations Worksheet		
Considerations	Notes (Partner 1)	Notes (Partner 2)
Purpose of the Data Partnership		
1. What is the purpose of the partnership that necessitates the data partnership management plan?		
a. Who is involved in developing the plan?		
b. What are the goals of the partnership?		
c. What are the short-, medium-, and long-term outcomes supported by the partnership?		
d. What are the questions (as outlined by use cases) that need to be answered by this partnership (short, medium, and long term)? (E.g., <u>DaSy</u> Critical Questions)		
e. Who are the primary and secondary stakeholders impacted by the work of the data partnership?		
2. What other early childhood data efforts relate to this partnership? Specifically:		
a. What, if any, data sharing work have the partners already completed?		
b. What other internal or external early childhood data matching, linking, and/or integration work relates to this partnership?		



Data Partnership Management Plan Template

Use your notes from the Data Partnership Management Plan Considerations Worksheet to modify the template below. The number of each corresponding consideration is referenced in parenthesis to support this activity.

Data Partnership Management Plan for: **NAME OF PART C and/or PART B 619 PROGRAM** and **NAME OF PARTNER PROGRAM**

I. Authority

The authority for this data partnership between **NAME OF PART C or PART B 619 PROGRAM** and **NAME OF PARTNER PROGRAM** (Partners) is the existing data sharing agreement signed by both Partners on **INSERT DATE**. The data sharing agreement can be found at **INSERT URL**.

II. Purpose

This data partnership management plan was developed by **INSERT PARTNER ORGANIZATIONS** (1a). The intent of this plan is to define and set forth the procedures and practices by which the Partners will govern their data partnership (1). This data partnership management plan provides both agencies a guide to manage and govern the data partnership and the joint data work conducted by each Partner to meet the following goals of the partnership (1b):

Goal
GOAL 1
GOAL 2
GOAL 3

The short-, medium-, and long-term (1c) outcomes (e.g., critical questions) supported by the partnership are noted in the outcomes below, along with the implementation role(s) of each Partner (1d).

Outcomes (short-, medium-, long-term)	Partner Role in Meeting Outcome
OUTCOME 1	
OUTCOME 2	
OUTCOME 3	
OUTCOME 4	

Primary and secondary stakeholders that are impacted by partnership work include (1e):

Stakeholders (primary, secondary)	Partnership Impact
STAKEHOLDERS 1	

Other Resources

- ✿ CIID Data Integration Toolkit
- ✿ CEDS Align and Connect Tools

Questions



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