Concurrent Session 2b

Integrating data to promote early childhood outcomes



Della Jenkins Executive Director *Moderator*





At any point, drop questions into the chat.

Agenda

- Welcome
- Heather Rouse, Iowa State University
- Bob Goerge, Chapin Hall
- Elliot Regenstein, Foresight Law & Policy
- Q&A



Heather Rouse Iowa State University





Build It, Use it, Improve it. Lessons from the Evolution of an Early Childhood Integrated Data System

Actionable Intelligence for Social Policy June 22, 2022



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earlychildhood.iowa .gov



Ready to Succeed:

Creating Healthy, Secure & Supported Children in Iowa

The first two thousand days make up the most critical stage of the human lifecycle. These first five years will impact a child's chances for success for the rest of their lives. Early Childhood Iowa (ECI) is a statewide initiative housed within the Iowa Department of Management that unites public and private agencies, organizations, and stakeholders under one common vision, "Every child, beginning at birth, will be healthy and successful."



- ECI Desired Results: empower the <u>creation of collaborations</u> to support children 0-5 by focusing on improving efficiency & effectiveness (256i.2)
- ECI Board: established to promote the ECI vision "through strategic planning, <u>funding identification</u>, <u>guidance</u>, and <u>decision-making authority</u> to assure collaboration" (265i.3)
- ECI Board duties include (256i.4):
 - Manage grant funds (2)
 - <u>Strategic planning</u>, including identifying/monitoring indicators of success (4)
 - <u>Development of MOAs</u> between state agencies to promote system development & integration (14)
 - Other measures to advance the initiative that may include "<u>advance the</u> <u>development of integrated data systems</u>" (18.a)

I2D2 Vision

Our system of early childhood policies and programs across the state will be informed by rigorous analysis of <u>timely</u>, <u>comprehensive</u>, and <u>integrated</u> data from health, human services, and education systems. Implications of policy and program analysis will be <u>considered in</u> <u>collaboration</u> to direct services and resource allocation.

1202 Iowa's Integrated Data System



State-University Partnership Model

- State maintains control of all data use with consensus approach
- University staffs the infrastructure with a flexible capacity to expand or contract to address priorities
- Capitalizes on ISU's land-grant mission and expertise in data management, analytics, security
- 3rd Party approach for data integration that meets federal and state legal requirements
- "build it once, use it multiple ways" model



Governance Board



I2D2 COMMITS TO PRIORITIES FOR THE LONG-TERM.

We work with stakeholders to assess effectiveness and identify shortcomings in reaching lowa's goals through a process that uses Data to inspire Dialogue that informs Decision-making.

1 DATA

I2D2 integrates data already collected by agencies in a safe, secure, scientifically rigorous system designed for policy analysis.

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2 DIALOGUE

I2D2 integrates people as stakeholder stewards of data to gather collective insight and translate findings into actionable intelligence.

3 DECISION-MAKING

I2D2 integrates data insights with executive leader and program manager decision-making to advance a statewide culture of evidence-based services to improve outcomes.





2019 Strategic Plan: I2D2 infused in the Statewide System



HOW THE CURRENT SYSTEM IS STRUCTURED



GOAL 1 🚍

Promote a coordinated infrastructure to advance the early childhood system.

STRATEGY 1.1: Expand collaboration and coordination among state and local programs and agencies serving young children and their families.

STRATEGY 1.2: Develop and nurture effective publicprivate partnerships at a state and local level.

STRATEGY 1.3: Infuse data-based discussions and decisionmaking processes throughout the early childhood system.

Advancing a collaborative data culture



Enhancing IDS Capacity



ECI Strategic Plan 2019-2022 "We are ECI"





Expanding Data Lake

Department of Public Health:

Vital Records (Birth/death/marriage) Infant Screening System Home Visiting (DAISEY) Lead Registry Maternal/Child Health (TavHEALTH)

*First Five

Department of Education:

Prek-12 (enroll, achieve, attend) Preschool assessment *Special Education (IDEA A, B, & C)

Department of Human Services:

Child Care Subsidies Child Welfare Child Support Recovery Income Maintenance/Eligibility SNAP TANF

Department of Human Rights

*FaDSS (2 Gen program)

Head Start

* In progress





Preschool attendance the year before k (i.e., unduplicated counts)



76.4% of Iowa children had **at least one preschool experience** the year before Kindergarten

> > 0

Note. 54,709 children were enrolled in kindergarten during 2016-2017 or 2017-2018 and were born in Iowa







In total, 27% of Iowa children had no center-based educational experience the year before starting kindergarten. Iowa Businesses lose approximately \$83 MILLION annually because of our child care crisis

Individual + Aggregate Data







Find Opportunities for Outreach

Children born to mothers without a high school education or who are receiving Medicaid/WIC at birth are SIGNIFICANTLY LESS LIKELY to have both of these valuable experiences

Low Maternal Education by County (state average 10%)



Source. 2017

Data Drive



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2022 – 2025 Priorities



Advance the ECI Strategic Plan & Align with Iowa Department and Agency priorities for generating actionable intelligence from Birth to Workforce

Co-Development is KEY:

- Study the child care workforce

 adding postsecondary, QRIS, and DHS training registry data
- Understand unique local area needs and strengths to facilitate program improvement & outreach





i2d2.iastate.edu



Iowa's Integrated Data System for Decision-Making

Bob Goerge Chapin Hall





Utilizing multiple data sources to analyze the child care workforce

Robert M. Goerge AISP Network Meeting June 22, 2022



Background

- By linking child care and employment datasets, we can develop a fuller picture of the early care and education workforce
- UI wage data provides high quality data to measure employment outcomes at the worker and provider level
- Licensing, worker registry, background check, and child care subsidy data can address the weaknesses of the UI wage data
- This can be replicated in multiple states as UI datasets are at least similar, and the other data sources are typically available in some form.



Approach

- Use quarterly wage data reported to the Illinois Department of Employment Security to understand what happened to child care workers during the first nine months (through 2020) of the COVID-19 pandemic.
- Linked information about employers from Quarterly Census of Employment and Workers
- Link UI benefit data.



Who is represented in UI wage data

Included

- Individuals working for an employer whose primary industry is day care services, including both centers and family child care homes **NAICS 624410**
- Both part-time and full-time workers
- All employees, including teachers, administrators, and support staff

Not included

- Individuals who work for an employer classified as an elementary school
- Nannies, babysitters, or other household employees
- Sole proprietors of family child care homes
- Informal employment



Chapin Hall brief

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Newsroom Contact Us

ABOUT US IMPACT AREAS OUR WORK EXPERTS CAREERS SUPPORT US

Report

Illinois Childcare Workers Experienced Employment Interruptions During Early Months of the COVID-19 Pandemic

2022

By Robert Goerge, Emily Wiegand, David McQuown



Historically, childcare workers have received low wages and experienced high levels of burnout—both nationally and in Illinois. How did the already struggling childcare workforce fare in the wake of a global pandemic that disrupted nearly all forms of employment? Chapin Hall researchers analyzed Illinois employment data through 2020 to better understand the impacts on the childcare labor market in the early days of the pandemic and establish a baseline from which to measure future recovery.

Identifying workers with stable employment

Employment

Measures	-5	-4	-3	-2	-1	t	+1	+2	+3	+4	+5
Beginning-of-Quarter											
End-of-Quarter											
Full-Quarter											
Full-Quarter, Previous Quarter											
Reference Quarter											

Source: U.S. Census Bureau, "Quarterly Workforce Indicators 101", <u>https://lehd.ces.census.gov/doc/QWI_101.pdf</u>.



Child care employment, Q4 2019

	Worker count, Q4 2019	% of workers, Q4 2019
Stable employment cohort (same job in Q3, Q4, and Q1)	30,500	78.6%
Job ends (same job in Q3 and Q4, but not Q1)	3,500	9.0%
Job starts (same job in Q4 and Q1, but not in Q3)	3,700	9.5%
Job only in Q4	1,100	2.8%
Total workers	38,800	100.0%



Cohort characteristics

- 60% of child care employers had 12 or fewer staff, but nearly two-thirds of workers worked for an employer with 25+ employees.
- Median earnings in Q4 2019 were equivalent to an \$23,600 annually.
- 14% had a second job in another industry.



Possible pandemic experiences

Continued engagement in child care industry:

2020

Jan - War 2020	Apr - June 2020	July - Sept 2020	OCI - Dec 2020
child care earnings	child care earnings	child care earnings	child care earnings
child care earnings	possible gap	possible gap	child care earnings
child care earnings	gap	child care earnings	gap

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- = continuous employment
- = early pandemic interruption
- = multiple interruptions

Leaving child care industry:

- 2020



C ---+ 2020

Dec 2020



Comparison group

- Challenge: How much industry churn was "normal" before the pandemic?
- Solution: compare to equivalent population from Q4 2018
 - Very similar in size
 - Very similar in distribution of stable employment status
 - Very similar on employer size, median wages, multiple jobs



Outcome trajectories by cohort



Other findings: pandemic experienc

- Continuously employed workers saw a decrease in wages in the second quarter of 2020, but wages ultimately rebounded by the fourth quarter
 This finding holds regardless of starting wage amount
 - This midning notes regardless of starting wage amount
- Unemployment insurance receipt was high across all trajectories: 42% of the cohort received UI compared to 2.5% of the pre-pandemic comparison cohort
 - Includes nearly one-third of continuously employed workers
 - Also includes nearly 80% of workers who experienced a Q2/Q3 interruption

https://www.chapinhall.org/research/childcare-workers-early-covid19/



Next steps for linking additional data

- Adding information about child care providers from licensing data through FEIN
 - Type of care provided (center-based, family child care homes)
 - Exact locations of providers (multi-plant problem)
- Add worker registry data to see who is in and out of the UI system. (Can do that through the employers/providers.)
- Add information about what providers served families with subsidies
- Link to UI wage data from other states to see if workers moved to other states from border cities and even other industries.



Elliot Regenstein Partner, Foresight Law + Policy





FORESIGHT LAW+POLICY

The Importance of Modernizing Technology in Developing Early Childhood Integrated Data Systems

June 22, 2022

Overview

- Why ECIDS Matters
- How the Cloud Works
- Addressing the Practical Reality

Why ECIDS Matters

Better Outcomes for Children

- In early childhood
- In the long term
- In a responsible manner



The Price of Fragmentation

- Pre-k, child care, home visiting, and Early Intervention may be in four different agencies
- How can you get a coherent understanding of what's happening with young children and families – and what long-term impacts those experiences have?
- Each funding stream has its own statewide operating data system

Data Quality in Early Childhood

- The quality of data about early childhood is often poor, for a number of interconnected reasons:
 Lack of support for the process of data entry
 - Outdated and hard to use data systems
 - A mismatch between program needs and existing processes
 - Limited information
 - The data doesn't help the people collecting it

What an ECIDS Can Do

- An ECIDS can integrate data from multiple sources, and allow for analysis of that data

 Not an operational one-stop shop
 Does not replace underlying operating data systems
- Does allow the state to attempt to provide more coherent and comprehensive data about early childhood services as a whole

Designing an ECIDS to Meet the Needs of the Field

- Design process should bring together multiple stakeholders to develop priority use cases
 - O What are the questions that, if we could answer them, would allow us to change our policies and practices in a manner that benefits children and families?
- Many policymakers and providers are eager for better information
 - Eligibility, access, service quality, and impact

How the Cloud Works

Cloud Computing, Defined

"Cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction."

-- National Institute of Standards and Technology (2011)

Key Functions of the Cloud

- Data integration which is different than data linkage
- Changing the nature of data cleaning (ELT vs. ETL)
 The impact on past data integration efforts
- Building a "data lake"
 - Data sets to meet multiple needs
 - Integration still takes work
- Processing the data for specific use cases

Key Functions of the Cloud

- Analytic tools
 - Adaptability
 - o Sharing across states
- Improved data quality?
 - Actually using data will expose flaws in new ways what happens then?

Advantages of the Cloud

- Pay-as-you go vs. fixed costs
 - Startup costs
 - o Carrying costs
 - o ECIDS as part of a broader movement?
- Speed of integration
- Advanced analytic tools

Privacy and Security

- Improved security

 Nature of technology use has shifted
 Commercial cloud providers, and state staff
- Access protocols
 - Reduced burden on state staff
 - Faster and more efficient use of employee time
 - Clear records of access and usage
 - Must be established at the outset

Addressing the Practical Reality

Leadership: Getting Started

- Senior leaders can create an action imperative
 - o Demand data
 - Establish roles
 - Provide resources
 - o Run interference
 - o Become users!
- Establishing governance structures

 Overall early childhood governance

Ongoing Management

- Implementing new processes is hard

 Impacts agency heads, deputies, division managers
- This may be a radical change for the technology staff

 Important to set the right relationship between
 program and technology personnel
 - State government IT is often a struggle including staffing, procurement, and vendor management

Using Data

- Analytic staff
 - Creating capacity
- Program staff
 - Fitting into a larger whole and going beyond compliance
- Community leaders
 - Important to build local capacity

Action Steps

What do you actually do?

- Engage the field to set priorities
- Choose a platform that supports the work
- Adopt a budgeting approach that accounts for new cost drivers
- Work with IT staff to implement new management approach, including access protocols
- Develop analytic capacity that leverages advanced tools
- Work with programmatic staff to adopt new processes
- Support community leaders

The cost of inaction

- The idea of "technical debt"
- The costs of the status quo
 - o State government
 - Communities and providers
 - o Families
- Possibilities for funding
 - Federal government
 - State government
 - Philanthropy can play a supporting role

Thank you!

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Q&A



Thank You

