

Selected Tips for Collecting, Reporting, and Using Data in Early Childhood Care and Education



Tip Sheet | December 2020

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Stakeholders from states, territories, and localities have a variety of reasons for developing an Early Childhood Integrated Data System (ECIDS), such as ensuring that program funds are reaching the intended population and identifying problems with program implementation. The rationale for developing or refining the ECIDS varies by the end user—program administrators, for example, may want to inform improvements to policies and practices and identify compliance issues. Often, key stakeholders might expect the ECIDS to provide answers about whether early childhood investments result in better outcomes for children and to identify effective providers. To answer high-stakes questions about effectiveness requires a comprehensive ECIDS, a research and evaluation design that permits conclusions about cause and effect, accurate data analytics, a thorough data review process, and well-informed end users.

Many resources developed over the last decade assist program administrators and other stakeholders in designing, implementing, and using data from ECIDS. This tip sheet is not intended to summarize those resources; rather, we compile and highlight specific suggestions and best practices in data collection, data reporting, and data utilization in early childhood care and education.

Improve the accuracy and usefulness of the data you collect

Administrators in state agencies must collect and report data for specific purposes (e.g. licensing, compliance monitoring) and specific programs (e.g. child care subsidy, state-funded preK). As they manage various federal, state, and local data requirements across programs, administrators typically grapple with incompatible and disconnected data collection and reporting systems. Here are some tips to reduce data collection burdens, expand opportunities for data integration, increase the meaningfulness of findings, and improve data accuracy and relevance.

- Collaborate with administrators across state agencies to agree on and consolidate data elements across funding streams as much as possible, selecting the highest-priority elements to integrate and report in an ECIDS, such as reducing overlap in licensing, state preK, and quality rating and improvement system (QRIS) data.

- If possible, establish or construct common identifiers across data systems to link data across programs and participants, such as by using or combining program participants' names, birthdates, places of residence, and program identification numbers.
- At least annually, review all data elements and remove those that are no longer relevant, required, or useful. When new initiatives begin, modify existing data systems to incorporate new data collections.
- Provide staff with regular trainings on data quality, including how the data they collect and enter can be used locally to inform policy decisions that matter. Employ automated quality control and data validation checks in your data entry systems to prevent potential errors.
- Explore the use of online data entry and reporting with programs to reduce burden and costs, but be sure to attend to broadband access issues and support alternate data entry methods or fund necessary equipment and access.

Improve your data reporting

As providers of services, data collectors, and purveyors of information in early childhood care and education, we have an important responsibility to protect the integrity and use of data reports. Here are some tips for balancing information access and needs with concerns about proper data interpretation and respect for the privacy of children and families.

- Make reports more meaningful to audiences by combining those examining similar data at the program, contractor, and state levels. For example, bundle programs' annual operation plans and/or QRIS visit reports.
- To protect the privacy and identity of program participants and abide by the [Family Educational Rights and Privacy Act](#) (FERPA) regulations, only report data in aggregate that will not disclose personal information. This may mean, for example, that data reports must include information on more than 10 participants or 3 classrooms.
- To make data accessible and more useful, develop data dashboards to summarize and illustrate your data reports. If information is relevant to only certain audiences, you can create varying permission levels, so that audiences access tailored information at the public, practitioner, agency, local, and state levels. For a good example, see Minnesota's interactive [dashboard on child welfare](#), which provides state and agency level data for the public.
- Consider the best format and content of data reports to fit your audiences' needs and interests. For example, detailed technical reports may best inform those most engaged in data analysis, interpretation, and request users; data briefs summarizing the most relevant findings can help stakeholders who need background information but fewer technicalities to make decisions; and fact

sheets that are concise and specific can provide data snapshots to audiences that have an interest in monitoring and reviewing findings.

- Work with communications professionals to regularly and broadly disseminate information about early childhood care and education programs via different social media platforms. For example, Twitter, Facebook, YouTube.
- Seek out ways to use data visualization to illustrate your findings, such as interactive maps (e.g., [this example](#) uses geocoding to link information about child care centers and the populations they serve in Philadelphia) and easy-to-understand charts and infographics (e.g., [this report](#) from the workforce registry in New York walks audiences through a data story with limited text and varying graphics).

Establish a data culture to use your data for decision-making

ECIDS that include information from many layers of the early childhood system—for example, at the child, family, classroom, program, locality, and state levels—can be useful in informing practices and policies at each of those levels. But you need more than just administrative data to answer questions about the effectiveness of programs—you need a supportive “data culture” to review, interpret, and plan for improvements based on these data. Here are some tips to establish a data culture that supports continuous quality improvement.

- To provide credible conclusions about program effectiveness, you must employ a well-designed program evaluation that accounts for differences in contexts and characteristics of programs and participants. Invest in high-quality consultation from evaluators and researchers to design ways to investigate questions of effectiveness validly and reliably.
- Develop a data culture by routinely conducting data review meetings where stakeholders discuss progress toward short-term objectives and long-term goals, examine the relevancy and utility of data reports, and consider solutions and decisions based on ECIDS data.
- Create a system of self-assessment where stakeholders, at each level, are engaged in setting objectives, analyzing results, and determining improvements with input from the entire community of end users.

Conclusion

Creating, refining, and using a robust ECIDS is a complex and time-consuming process. State and program administrators should regularly focus on how to collect, communicate, and use data in ECIDS in accurate, valid, and meaningful ways. Establishing and nurturing a data culture, inclusive of diverse stakeholders across the early childhood systems, can inform and sustain this process for short- and long-term program and policy decision-making.

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Suggested APA Citation:

Frede, E., Li, Z., & Woodbridge, M. (2020) *Selected Tips for Collecting, Reporting, and Using Data in Early Childhood Care and Education*. SRI International.

This Center is funded by the U.S. Department of Health and Human Services, Administration for Children and Families, Office of Child Care. Contract Number: HHSP2332015000411



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