



DaSy Data Inquiry Cycle

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Introduction

This guide supports Part C and Part B 619 program staff in addressing equity considerations at each stage of the data inquiry cycle. The guide incorporates key components of the [DaSy Data Systems Framework](#) and the [DaSy Equity Statement](#) that can help states, territories, and tribal governments (the term “state” will be used throughout the report to mean all of these entities) move toward more equitable practices related to program access, supports and services, and outcomes. The guide also complements other DaSy resources, such as the [Data Leadership Competencies for Part C and Part B 619](#) and the [Data Culture Toolkit](#), to support equity in the everyday data practices of state programs.

Applying an equity-centered approach includes reexamining and assessing power dynamics, policies, practices, mental models, and beliefs that perpetuate systemic barriers and inequalities when working with data. A commitment to embedding equity into everyday data use practices will support a shift toward an inclusive system that produces improved access and outcomes for all young children with disabilities and their families.

What is equity?

The National Association for the Education of Young Children defines equity as the “state that would be achieved if individuals fared the same way in society regardless of race, gender, class, language, disability, or any other social or cultural characteristic” (p. 17).¹ The Center for IDEA Early Childhood Data Systems (DaSy) is committed to advancing equity and supports the vision that states use data to improve programs and ultimately provide equitable outcomes for young children with disabilities and their families. For this work to be effective, we must intentionally strive to interrupt and dismantle inequitable practices and policies.

How can data support state programs’ efforts toward equitable systems?

Data are essential to identifying disparities, tracking progress, and evaluating the effectiveness of Part C and Part B 619 programs. Data can also highlight the systemic barriers and root causes that prevent equitable access to programs and services. Data may not provide all the answers but can often illuminate important questions. By using intentional, equity-oriented data processes and practices, Part C and Part B 619 program staff can impact policy change and system reform, as well as improve program delivery.

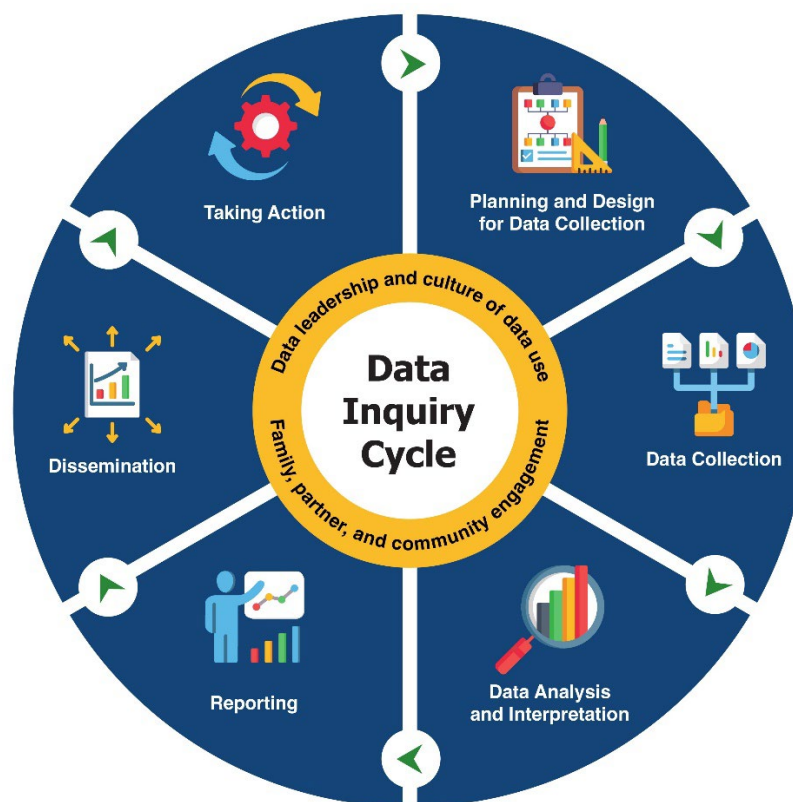
Eliminating differences in opportunities, outcomes, and inclusion of children and families served in Part C and Part B 619 programs takes time. For each child and family to have their individual needs met, anyone who works with data must carefully consider context and thoughtfully approach the collection, analysis, reporting, and use of individual and collective data.²

What is the data inquiry cycle?

The data inquiry cycle is an iterative sequence of six stages: planning and design for data collection, data collection, data analysis and interpretation, reporting, dissemination, and taking action. You can also think of the data inquiry cycle as various stages of a data project that offer opportunities to practice greater consciousness of, and commitment to, equity, fairness, and access (Figure 1).³ The data inquiry cycle is not a linear process, but an iterative process that states can enter into at any point and choose only one or multiple stages.

Additionally, there are three essential conditions for embedding equity in the data inquiry cycle: data leadership; a culture of data use; and family, partner, and community engagement. These essential conditions are discussed in a section below.

Figure 1. The DaSy Data Inquiry Cycle and Essential Conditions for Embedding Equity



Why embed equity throughout the data inquiry cycle?

Embedding equity throughout the data inquiry cycle is critical to addressing disparities in early intervention and early childhood special education systems and promoting more equitable practices and outcomes. Embedding equity is not an “add on” or one more step in the data inquiry cycle. Rather, it is an iterative process across all six stages in the cycle. By embedding equity throughout the data inquiry cycle, you allow for the intentional assessment of any institutional and systemic inequities while underscoring a commitment to preventing future disparities.

How can we embed equity in each stage of the data inquiry cycle?



Planning and Design for Data Collection

Planning is the first stage of the data inquiry cycle, where you prioritize the critical questions you want to answer and plan for obtaining and using data to answer those questions. Consider questions at multiple levels of the system: state, regional, local program, practitioner, and child and family. The [DaSy Critical Questions for Addressing Racial Equity in Early Intervention and Early Childhood Special Education](#) provide example questions at the child and family, practitioner, and early intervention services and local education agency levels for data users such as program directors, advocates, and policymakers.

Allocate sufficient time and resources to bring together a diverse data team and partners. Include people with lived experiences who help develop a shared understanding of the local, racial, social, and historical contexts where programs and services take place.⁴ Embedding equity in this stage means engaging with families, service providers, administrators, and other community and early learning program partners within the state.

Consider data beyond the required Part C or Part B 619 data that could be compiled and used to identify gaps and disparities in access, experiences, and outcomes for any groups of children and families in communities your program serves. Key considerations during the planning and design stage include the following:^{5,6}

The [DaSy Data System Framework](#) is an excellent resource to use when considering a new data system or enhancement.

- Define the purpose of the data collection (e.g., evaluating progress; evaluating a program; identifying program disparities in access, outcomes, and inclusion).
- Engage those who are impacted by the data to help define the questions that get asked.
- Define key questions about how the system or program addresses the needs of children and families.
- Determine what type of data collection will help you best answer your questions.
- Review existing data collections to ensure the data you'd like to collect isn't already being collected. Consult your agencies data governance policies, guidelines, and team (if applicable) for support. A key resource is the [Data Governance Toolkit](#).
- Confirm the demographic data (e.g., race, ethnicity, income, etc.) needed to evaluate whether progress is made for all children.
- Assess what data are needed to answer the questions about how the system or program addresses the needs of young children with disabilities and their families.



Data collection

Data collection is the process of gathering information from multiple sources and includes approaches such as conducting surveys, observations, and interviews. Data are collected to operate a program, report results to the federal government and the public, and examine critical questions about the program.

Consider the types of data that will best answer your critical questions. For example, when collected with equity in mind, demographic data can be used to recognize problems that would otherwise be undetected, exacerbated, or ignored. To better understand the perspectives of families you serve, consider collecting qualitative data through open-ended survey questions, interviews, or focus groups. Qualitative data can help you understand more about participants' experiences to contextualize the

quantitative data. Use qualitative data to increase your efforts and to identify stories you have been missing and gaps in your knowledge and networks.⁷

These are general recommended practices for data collection:⁸

- Determine the type of data and the methods and procedures you will use to collect, process, and store the data.
- Create and document procedures for how to collect high quality, valid, and reliable data by engaging families, partners, and community members in the process.
- Publish data standards that include all data elements, code tables, business rules, and data validations needed.
- Identify, document, and publish the time period of the collection.
- Provide ongoing support and training to data stewards, data managers, and individuals tasked with collecting or managing data. Regularly review and revise data collection methods to meet changing circumstances and ensure collection of needed data.

The following are additional, detailed recommended practices for equitable data collection:

- Include information about consent and confidentiality to increase transparency about the use of the data.
- Explain why you are asking for demographic information.
- Provide multi-select checkboxes or open-ended questions. Allowing respondents to select multiple items gives them more freedom to express the diversity of their identity for a given trait.
- Include “Prefer not to answer,” and replace “Other” response options with “Prefer to describe” or “Prefer to self-describe.” Including these options allows you to track how often respondents select that response choice and explore why individuals may be opting out of responding.
- Assess the order of response choices. The order in which response choices appear can reinforce implicit bias.
- Be thoughtful about who collects the data. Consider using data collectors whose lived experience is similar to those providing data.
- Train data collectors on how to ask questions to minimize bias.

States must be intentional about when data are collected and shared, as well as how data are protected, so as not to exacerbate the vulnerability of members of underserved communities, many of whom face heightened risk of harm if their privacy is not protected.⁹

For further details and examples of the above recommended practices, visit [More Than Numbers: A Guide Toward Diversity, Equity, and Inclusion \(DEI\) in Data Collection](#).



Data Analysis and Interpretation

Data analysis is a process of working with data to gain useful information, which can then be used to make informed decisions. Data analysis is critical for transforming raw data available to Part C and Part B 619 programs into meaningful information used for checking data quality, identifying or answering programmatic questions, and decision-making. In this stage, data staff use algorithms or statistical tools to run reports, creating data displays such as charts, graphs, or tables.

To examine differences, it is necessary to disaggregate data and analyze the data by individual and intersectional experiences (e.g., looking at race by ability). Data on subgroups (e.g., race, ability, geography) provide an opportunity to examine systems, structures, and policies that can contribute to

inequities. For more details, [Intersectionality, Quality, and Inclusion: The Role of Race in the Early Childhood System](#) is a great resource.

When creating and using algorithms, keep in mind there is no such thing as a neutral algorithm. Algorithms reflect the biases of the people who create them and the data used in their processes. There are strategies and tools that you can and should use to ensure transparency, assess algorithmic bias, and determine the potential positive and negative consequences of applying an algorithm in practice. For a great resource with examples of positive and problematic practices, visit the [Toolkit for Centering Racial Equity Throughout Data Integration](#). Here are some key considerations during the data analysis and interpretation stage:

The [DaSy Data System Framework Data Analysis and Use](#) subcomponent of the framework is most relevant.

- Determine if there are similar outcomes of children from different subgroups (e.g., race/ethnicity, language, age, gender, ability, program).
- Determine if there are differences in subgroups regarding eligibility, enrollment, services, program satisfaction, and other areas.
- Disaggregate the data to show who is represented and who is missing
 - by race, ethnicity, gender identity, disability, language, income, county, zip code, and
 - by responders and non-responders.
- Decide what else is necessary to know (e.g., the racial/ethnic characteristics of practitioners working in early intervention or early childhood special education and how they compare to children served; the practitioner-to-child ratio; practitioners’ participation in professional development opportunities; impacts of intersectionality on key components of the program).
- Understand what assumptions (unexamined or implicit beliefs, inferences, or conclusions) the data help to confirm or refute.
- Assess whether the data have limitations.
- Determine whether additional data are needed to better interpret the results.
- Know what the contextual or data-quality factors should be considered and whether it is necessary to dig deeper to find the reason for the findings.
- Consider if the data are telling the full, authentic story.



Reporting

At the reporting stage, findings are documented in text and conveyed through data visualizations. How you write about your findings and label data visualizations has an impact on how readers interpret the findings or understand the story you want to communicate.

It is best practice to use strength-based terminology when discussing populations and use systems-level terminology when discussing inequities to avoid judging, blaming, and marginalizing individuals or communities.¹⁰ In other words, craft messages, including titles and chart labels, that focus on the system rather than the people who are the subject of your communication. Deficit narratives treat the people as the problem, blaming the victims and suggesting that people are responsible for their predicament. One example is labeling children “at risk” because they are more likely to fail than succeed demonstrates a deficit orientation. A sentence like “Black children with disabilities are more likely than other children to be suspended from preschool” also focuses on the negative. Alternatively, writing “preschools

For detailed resources and guidance on data displays, visit the [DaSy Data Visualization Toolkit](#), updated in 2022 to include equity considerations.

remain more likely to suspend Black children with disabilities than other children with disabilities” demonstrates a systems-level orientation. You could also reframe this data finding by acknowledging the educational, medical, or other institutions that are at risk of failing the children. How problems are identified and named matters.

Consider the following during data reporting:

- Define the intended audience for the report (e.g., Part C program directors/assistant directors or local Part B 619 staff, partners, or parents).
- Determine if multiple languages or cultural considerations are needed.
- Use data visualization techniques to make the data meaningful and interesting.
- Avoid deficit interpretations that blame families for shortcomings of the system.
- Use language that reflects the role of system or program impact on individuals or families.
- Present the information clearly to avoid playing into a deficit narrative.
- Define what the data can realistically tell you.
- Decide how to present data on groups with small sizes (e.g., who gets relegated to “Other”). Refer to [Stakeholder Knowledge: Data Privacy & Confidentiality](#) for additional information.
- Ensure that data reflect lived experiences of the individuals being discussed.
- Involve partners (those making meaningful decision about the data) in the development of reports.
- Provide information on how partners can use the findings to improve outcomes.

For best practices on using inclusive language when writing reports, visit the [Inclusive Language Quick Reference Guide](#), developed by the DaSy Center and SRI International.



Dissemination

Dissemination involves clearly communicating information to decision-makers, partners, and the public. This transparency allows data teams to prioritize access to equitable opportunities, services, supports, and outcomes for young children with disabilities and their families, across population-based characteristics such as race, language, gender, ability, or class. Whether you are sharing state-level data with federal agencies or local-level data with local education agencies (LEAs), other constituents, or early care and education organizations, when making these decisions, review and address the following considerations for dissemination:

- Ensure that data and results are compiled in a variety of ways for different audiences to use and understand.
- Highlight and share achievements, big and small.
- Engage partners in how to disseminate the findings.
- Ensure that those who provided the data receive the findings in an understandable format.
- Make sure visuals reflect the critical questions you focused on (e.g., what is the number of students enrolled in early childhood special education by race, ethnicity, language, gender, ability).
- Define the level of data to display (e.g., state, regional, LEA, program).
- Provide multiple formats for different groups (e.g., PDF, infographic, business intelligence tool, dashboards, websites).
- Develop and follow a communication plan. To formulate an effective communications plan, consider the components listed in the [Communications Plans](#) resource.



Taking Action

The effective use of Part C and Part B 619 data is fundamental to achieving positive outcomes for children with disabilities and their families. Using data for program improvement involves more than making decisions based on data—it involves identifying concrete actions that will lead to meaningful improvement and address the root causes of any institutional or systemic inequities. Using data for taking action is the next stage after you have examined and made sense of your data to inform decisions.

In this stage, sustained engagement and transparency with diverse staff, families, and other community partners is imperative. Their prior knowledge and lived experience, combined with what they have learned from the data, can lead to new knowledge that informs action.¹¹ Engaging teams of program staff, families, and other community partners to explore and interpret the data entails developing findings or results, drawing conclusions, and asking why you are getting the results.

For a step-by-step learning module on using data for improvement, visit [Look! Think! Act!](#)

After engaging staff, families, and partners, develop and implement a written plan of action that addresses the root causes of, and barriers to, equitable outcomes. The goal of taking action is institutional and structural change, which could require changes in culture and policies, evidenced-based practices, and funding structures. The action plan is a process and a product that leads to a clear vision for data-informed decision-making to advance equity for all children and their families. Considerations for action planning include the following:

- Determine whether the data indicate a problem or disparity between the subgroups served.
- Value the different perspectives and contributions of all partners (lived experiences and qualitative data help bring meaning to quantitative data).
- Conduct root cause analysis (examples available in [Look! Think! Act! Resources](#)) to identify why there are differences between subgroups served.
- Develop strategies that build on strengths and remove barriers or obstacles to achieving equity.
- Identify the resources (e.g., time, staff, and tools) needed to implement actions.
- With families and community partners, identify what action(s) should be taken to address the problem or disparity.
- Implement action(s) to address the differences or disparities found between groups.
- Use data to evaluate the effectiveness of the action(s) you take.
- Ensure program staff, families, and other community partners have the tools and knowledge they need to contribute to meaningful analysis discussions (visit the [DaSy Stakeholder Knowledge Toolkit](#) for additional information).
- Provide training to ensure that partners are comfortable with reading tables and graphs.
- Include partners in discussions about what the data mean to them.

What are the essential conditions for embedding equity in the data inquiry cycle?

It is important that a diverse data team of staff and other interested parties who represent a variety of lived experiences, perspectives, and backgrounds are involved in each stage of the data inquiry cycle. For this to happen, there are essential conditions that should be in place to successfully embed equity into everyday data practices: data leadership; a culture of data use; and family, partner, and community

engagement. Part C and B 619 program staff should make this an ongoing process and continue to build upon these essential conditions over time.

Data Leadership and Culture of Data Use

Part C and Part B 619 program staff are data leaders who are responsible for overseeing every stage of the data inquiry cycle. Advancing equity requires focus and commitment. Data leaders are encouraged to take a systems approach to data use. Thus, as data leaders, state and local Part C and Part B 619 program staff need to set expectations and support the conditions that will lead to effective data use at the state and local levels. To do this, though, they need the necessary training and support to create the right conditions for embedding equity in the data inquiry cycle.

Two of the essential conditions needed to successfully embed equity into everyday practices are data leadership and a culture of data use. Data leaders are committed to creating and maintaining the conditions for a culture of data use centered on collaboration and equity. A culture of data use equips individuals in an organization with the insights they need to be truly data-driven and to effectively tackle the most complex systems challenges.

For more details on how to build and sustain these two essential conditions, visit the [Data Leadership Competencies for Part C and Part B 619](#) and the [Data Culture Toolkit](#).

Family, Partner, and Community Engagement

The third essential condition for embedding equity in the data inquiry cycle involves engaging families, local providers, policymakers, and community members. Examining data from multiple and diverse perspectives leads to richer discussions and more informed decisions, and it supports shared ownership of the outcomes.

Engaging families, partners, and communities is an intentional process that embraces collaboration and decision-making. It also requires time, trust-building, and likely a different way of doing business. Deep listening and active discussions to foster understanding are necessary for organizations and programs to ensure all children and families have equitable access, experiences, and outcomes. For more information, visit [Authentic Stakeholder Engagement: Why, How and What \(Purpose, Process and Results\)](#).

What can I do next?

Data can be the point of entry to disrupt the cycle of disparities and inequities. Part C and Part B 619 program staff can advance systems change by understanding where they have influence at the individual, institutional, and structural levels and embedding equity in the data inquiry cycle and incorporating it in their daily practice. Here are a few steps for Part C and Part B 619 program staff to consider:

1. Review and understand how this “DaSy Data Inquiry Cycle” guide can be applied to your state or local context. This may be at any stage of the data inquiry cycle.
2. Share this guide and connect with relevant Part C and Part B 619 program staff, partners, data analysts, and research and evaluation teams who work with Part C and Part B 619 data, as well as staff who produce reports to publish Part C and Part B 619 data.
3. Engage a diverse group of families, partners, and community leaders in the data inquiry cycle to broaden conversations around the data. Provide specific questions you want team members to reflect on.
4. Reflect on your current data practices and how to move toward more equitable data practices.

5. Identify a stage in the data inquiry cycle you first want to focus on.
6. Contact your DaSy technical assistance liaison for support. DaSy has expertise that can help you and your state team in each stage of the data inquiry cycle. You do not need to do this alone.

Resources

Overall Data Inquiry Cycle

- [DaSy Data System Framework](#)
- [EC Data University](#)
- [Early Childhood Integrated Data Systems](#)
- [Principles for Using Public Health Data to Drive Equity](#)
- [Selected Tips for Collecting, Reporting, and Using Data in Early Childhood Care and Education Tip Sheets](#)
- [Using Data to Advance Racial Equity – Special Collection](#)
- [Data Governance Toolkit](#)

Planning and Design for Data Collection

- [DaSy Critical Questions](#)
- [Critical Questions for Addressing Racial Equity in Early Intervention and Early Childhood Special Education](#)
- [More Than Numbers: A Guide Toward Diversity, Equity, And Inclusion \(DEI\) in Data Collection](#)
- [7 Questions Your District Needs to Ask to Understand and Address Equity](#)

Data Analysis and Interpretation

- [Intersectionality, Quality, and Inclusion: The Role of Race in the Early Childhood System](#)
- [Toolkit for Centering Racial Equity Throughout Data Integration](#)
- [Planning, Conducting, and Documenting Data Analysis for Program Improvement](#)

Reporting

- [DaSy Data Visualization Toolkit](#)
- [Inclusive Language Quick Reference Guide](#)
- [Our Identities, Ourselves: A Guide to Anti-Racist Data Collection for System Leaders and Data Administrators](#)
- [Stakeholder Knowledge: Data Privacy & Confidentiality](#)

Dissemination

- [Communications Plans](#)

Taking Action

- [Racial Equity Action Plans: A How-to Manual](#)
- [Look! Think! Act! Using Data for Program Improvement](#)
- [Stakeholder Knowledge Toolkit](#)

Essential Conditions for Embedding Equity in the Data Inquiry Cycle

- [DaSy Data Culture Toolkit](#)
- [Data Leadership Competencies for Part C and Part B 619](#)
- [Stakeholder Knowledge Toolkit](#)
- [Authentic Stakeholder Engagement: Why, How and What \(Purpose, Process and Results\)](#)

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To learn more about the DaSy Center, visit the DaSy Center website at <http://www.dasycenter.org/>.



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