National Data Toolkit:

Foster Care and Education Data Guide: A Process and Tools for Collection, Analysis, and Collaboration

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LEGAL CENTER FOR
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INTRODUCTION

Children in foster care often face poorer educational outcomes compared to their peers, making collaboration between education agencies, child welfare systems, and people with lived experience essential. Effective data practices are key to identifying successes and addressing areas in need of improvement. This *Guide* supports child welfare agencies, education agencies, and third-party partners in improving educational outcomes for youth in foster care through effective data collection, sharing, and reporting. It provides actionable steps to assess data capacity, address gaps, and encourage cross-system collaboration, offering practical tools, examples, and strategies tailored to diverse contexts and goals.

Who Is This Guide For?

- **Child Welfare Agencies**: Directors, case managers, and data specialists.
- **Education Agencies**: Administrators, school counselors, data specialists, and information technology (IT) staff.
- **Third-Party Organizations**: Researchers, evaluators, and nonprofits supporting foster care and education initiatives.
- **Cross-System Teams**: Collaborative efforts between child welfare and education agencies and third-party organizations or entities to streamline data-sharing and improve outcomes.

How Do We Use This Guide?

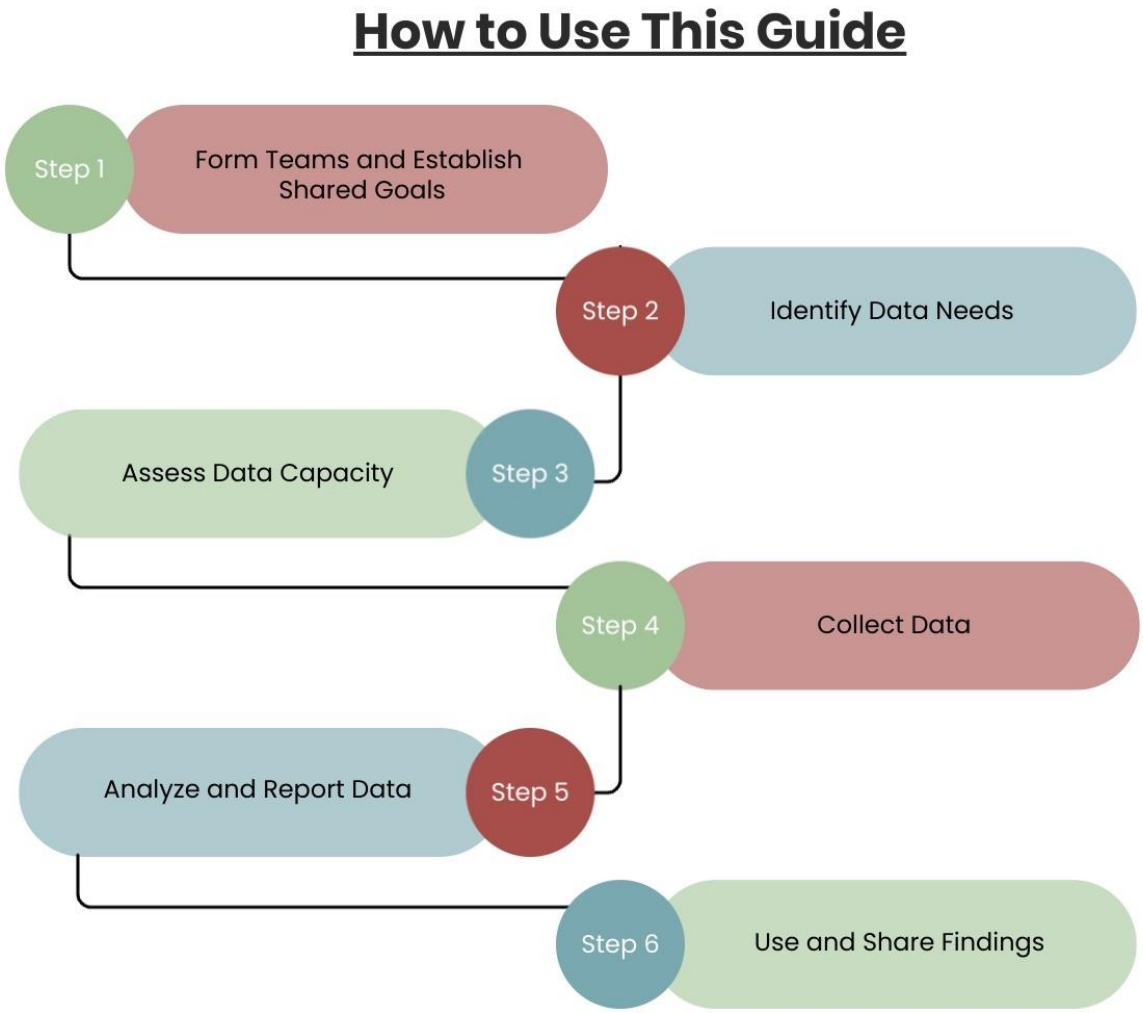
To take users through the steps of effective data practices, this *Guide* is organized around a structured process designed to ensure clarity, consistency, and collaboration. The process applies across various audiences and efforts, whether you are conducting a local assessment, statewide initiative, or cross-agency collaboration.

1. **Understand Foundational Processes**: Follow the process steps visualized below to establish a team, create a shared vision for your measurement efforts, identify your data needs, and collect and use your data findings.

2. **Apply Broader Strategies**: Use this *Guide's* chapters to apply concepts like identifying research questions, handling missing data, collecting and analyzing data, establishing data-sharing agreements, securing data handling, and ensuring continuous improvement across various efforts.
3. **Leverage Tools**: Refer to the **Self-Assessment Toolbox** for actionable tools specific to assessing data capacity and needs, including tools tailored to local, state, and cross-system efforts.

This *Guide* provides strategies applicable across various objectives. The companion *Self-Assessment Appendix Toolbox* complements the *Guide* with specialized tools and instructions for conducting detailed data capacity assessments and promoting collaboration in that effort.

The flowchart below provides a visual representation of the steps outlined in this *Guide*. Each step builds upon the previous one, creating a comprehensive framework for identifying data needs, assessing capacity, and leveraging data to improve outcomes. By following this process, agencies and their partners can ensure their efforts are both efficient and impactful.



Adapting This Guide to Your Context

This *Guide* is designed to be flexible and applicable to a variety of contexts, whether your focus is on local efforts, statewide initiatives, or collaborations across agencies. To ensure the content and tools meet your specific needs, consider the following tips for adaptation:

1. Tailor for Local Efforts

If your work focuses on a local child welfare agency or school district:

- **Start Small**: Focus on immediate, actionable goals that address the most pressing needs in your area (e.g., improving attendance rates for youth in foster care in one school district).
- **Coordinate Across Agencies and Engage Local Stakeholders**: Collaborate with local leaders, including school administrators, foster care case managers, community organizations, and people with lived experience who understand local challenges.
- **Leverage Existing Data**: Use readily available local data sources to identify trends and gaps, ensuring your analysis reflects the realities of your community.
- **Customize Tools**: Adapt templates and checklists in the appendix to this *Guide* to reflect local policies, resources, and terminology.

2. Adapt for Statewide Initiatives

For teams working on larger-scale efforts:

- **Focus on Alignment**: Ensure your goals align with statewide priorities, such as increasing high school graduation rates for youth in foster care or improving data-sharing practices.
- **Standardize Processes**: Use this *Guide* to establish consistent methods for data collection, sharing, and analysis across multiple regions or agencies.
- **Coordinate Across Agencies**: Collaborate with state-level education and child welfare departments to ensure access to comprehensive data sets and policy support.
- **Incorporate Regional Insights**: While standardizing processes, allow for some flexibility to address unique regional needs or disparities.

3. Adapt for Cross-Agency Collaboration

For projects involving multiple organizations or sectors:

- **Define Shared Goals**: Use this *Guide* to establish a common vision and measurable objectives that benefit all participating agencies.
- **Establish Data-Sharing Agreements**: Ensure legal and ethical guidelines are in place for sharing sensitive information across agencies.
- **Promote Open Communication**: Regular meetings, shared dashboards, and progress updates can help maintain trust and accountability.
- **Leverage Strengths**: Recognize and utilize the unique expertise each agency brings to the collaboration, such as child welfare's understanding of placement stability and education's knowledge of academic achievement.

By adapting the content and tools in this *Guide* to suit your unique context, you can create meaningful and sustainable improvements in data practices and educational outcomes for youth in foster care.

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Chapter One: Foundational Processes for Data Practices

Building a strong foundation for data practices begins with understanding the core principles that drive effective data collection, management, and usage. This chapter introduces key concepts to help child welfare agencies, education agencies, and their partners align their efforts and create impactful data practices for improving educational outcomes for youth in foster care.

Audience: This chapter is intended for all team members involved in data practices, including child welfare leaders, education administrators, and third-party collaborators. It provides foundational principles and best practices that are essential for aligning efforts and creating effective, ethical data systems. Whether you are a program manager, data analyst, or policymaker, understanding these concepts will help ensure your team builds a strong foundation for data-driven decision-making.

Key Foundational Principles

1. The Importance of High-Quality Data
   High-quality data is essential for informed decision-making. Inconsistent or unreliable data can lead to misguided strategies and missed opportunities to support youth in foster care. High-quality data should be:
   - Accurate: Free from errors and inconsistencies.
   - Timely: Up-to-date and relevant to current goals.
   - Complete: Capturing all necessary elements without significant gaps.
2. Ethical Data Practices
   Protecting the privacy and rights of youth in foster care is paramount. Ethical considerations include:
   - Data Privacy: Comply with laws like the Family Education Rights and Privacy Act (FERPA) and the Uninterrupted Scholars Act (USA) to safeguard student records.
   - Informed Consent: Ensure stakeholders understand how their data will be used.
   - Transparency: Clearly communicate the purpose and limitations of data collection and analysis.
3. Collaboration Across Agencies
   Effective data practices require input from child welfare agencies, education agencies , and third-party partners. Collaborative strategies include:

- Establish Shared Goals: Align objectives for data use to improve outcomes for youth in foster care.
- Formalize Data-Sharing Agreements: Ensure secure and efficient exchange of information.
- Regular Communication: Build trust and accountability through consistent updates and shared decision-making.

Step 1: Forming a Collaborative Team

Effective data practices begin with assembling a collaborative team that brings together diverse expertise to oversee planning, implementation, and improvement. A well-structured team is essential for ensuring meaningful, actionable outcomes, particularly when working across child welfare, education, and third-party partners.

Audience: This step is primarily for team leaders, program managers, and cross-agency coordinators responsible for assembling and managing collaborative groups. It provides strategies for ensuring all relevant perspectives are represented, roles are clearly defined, and collaboration is effective. However, all team members can benefit from understanding these principles to support their contributions to the team's success.

- All Users: Applicable to child welfare, education, and third-party organizations involved in data-related initiatives.
- Local and Statewide Efforts: Teams can adapt this process to meet the needs of their intended scope and scale.

Key Considerations for Team Formation

1. Diverse Expertise: Include members with varied backgrounds to address all facets of data sharing, from technical implementation to ethical considerations.
2. Clear Roles and Responsibilities: Define each member's role to ensure accountability and efficient collaboration.
3. Commitment to Shared Vision: Align all members with the goal of improving educational outcomes for youth in foster care through effective data practices.
4. Time and Scheduling: Ensure team members dedicate sufficient time to the process, including attending scheduled meetings and completing tasks. Establish a regular meeting schedule to maintain momentum and promote collaboration.

Identifying Team Members and Roles

Identifying the right team members and having clarity of everyone's role is key to successful data collaboration. Remember that team composition should be guided by the goals and objectives of your specific efforts. Listed below are some potential members to consider adding to your team.

1. Agency Leadership:
    - Child Welfare Director: Provides strategic oversight and ensures alignment with child welfare objectives.
    - Education Agency Leader: Integrates educational goals and allocates resources appropriately.
2. Program Managers and Practitioners:
    - Child Welfare Case Managers: Offer insights into practical data applications within child welfare contexts.
    - Educators or School Administrators: Provide perspectives on educational data needs and their implications.
3. Data Management, Information Technology (IT), and Research/Evaluation Specialists:
    - Data Analysts: Interpret data to inform decision-making.
    - IT Experts: Manage the technical aspects of data integration and security.
    - Research and Evaluation Experts: Collaborate with analysts to design robust data collection processes, ensure alignment with actionable outcomes, and support policy and program evaluation.
4. Legal and Compliance Officers:
    - Privacy Officers: Ensure adherence to data privacy laws, such as FERPA and the Uninterrupted Scholars Act.
    - Legal Advisors: Address legal considerations in data-sharing agreements.
5. Stakeholder Representatives:
    - Youth with Foster Care Experience and Youth Advocates: Provide firsthand experience to inform the relevance and ethics of data practices.
    - Community Partners: Represent external organizations that support youth in foster care.

Key Actions for Building a Collaborative Team

1. Use a Teaming Checklist (see tool below): Ensure representation from all relevant groups, including leadership, data specialists, and youth advocates/community partners .
2. Define Roles Clearly: Assign and communicate specific roles and responsibilities for each team member to ensure accountability.
3. Establish a Meeting Schedule: Create a consistent meeting cadence to support ongoing collaboration and maintain progress.

By following these principles and recommendations, users can create a team capable of driving effective data practices that improve educational outcomes for youth in foster care.

Building Effective Partnerships with External Consultants and Agencies

Collaborating with external consultants, such as researchers, evaluators, or other nonprofit organizations, can bring valuable expertise to data initiatives. These partnerships are most effective when roles, expectations, and communication are clearly defined.

For Agencies Working with External Consultants:

1. Communicate Organizational Goals**:** Clearly articulate your agency's goals and priorities. . Provide information to the external consultant(s) about why specific data is being collected or analyzed, your process, organizational structure, and any other background context about your agency that is important for them to understand.
2. Clarify Data Ownership and Privacy: Ensure consultants understand confidentiality requirements, including compliance with laws such as FERPA or HIPAA, and clarify who retains ownership of the data.
3. Promote Collaboration: Provide consultants with access to team members and third parties who can offer valuable insights into the data context.
4. Ensure Relevance**:** Encourage consultants to tailor their analyses and recommendations to the agency's specific operational challenges and strategic objectives.

For External Consultants Working with Agencies:

1. Understand Agency Context: Learn about the agency's mission, data systems, and operational priorities to align your work with their needs.
2. Clarify Expectations: Establish clear deliverables, timelines, and roles to ensure alignment with the agency's expectations.

3. Facilitate Accessibility: Provide data insights and reports in formats that are accessible to diverse audiences, including non-technical stakeholders.
4. Maintain Transparency: Regularly update the agency on progress and ensure your methodologies are clearly documented and justifiable.

Teaming Checklist Tool to Build an Effective Self-Assessment Team

The Teaming Checklist is a practical tool designed to help teams build a diverse and effective self-assessment team. The checklist provides clear guidance on the essential roles and considerations required to evaluate and improve data practices related to the educational outcomes of youth in foster care. By ensuring comprehensive representation and addressing key collaboration elements, this tool supports the development of a cohesive team capable of driving meaningful improvements.

Audience: This checklist is suitable for all users.

- Child Welfare Agencies: To ensure representation of leadership, include case managers, legal advisors, data specialists, people with lived experience, and others critical to child welfare data practices.
- Education Agencies: To ensure representation of leadership, including school administrators, legal advisors, data specialists, people with lived experience, and others essential to education data practices.
- Third-Party Organizations: Identify roles such as researchers, evaluators, or nonprofit representatives who provide external expertise. For third-party organizations leading efforts, ensure key leaders from child welfare and education agencies are included to promote collaboration and comprehensive planning.
- Local Efforts: For community-specific projects that require additional collaboration at the grassroots level.
- Statewide Efforts: For larger-scale initiatives needing alignment across multiple jurisdictions and agencies.

How to Use This Tool (Four Steps)

1. Review the Checklist Items: Carefully go through each item to ensure all critical roles and considerations are addressed. Use this as a planning guide when assembling your team.
2. Evaluate Your Team's Composition: Use the checklist to identify gaps in representation or expertise. This ensures your team is well-rounded and prepared to address all facets of data practices.

3. Document Progress: Record the status of each checklist item (i.e., Yes, No, In Progress) to track your team's readiness.
4. Adapt as Needed: Tailor the checklist to your specific context, whether it is for local, statewide, or cross-agency collaboration.

By following the four steps above, users can ensure their self-assessment team is both comprehensive and well-prepared to tackle the challenges of improving data practices and outcomes for youth in foster care. A teaming checklist with implementation notes for its use is provided below. A blank template checklist is provided in the appendix to this *Guide*.

Sample Teaming Checklist Tool to Build an Effective Self-Assessment Team

Teaming Checklist Items	Status (Yes, No, In Progress)
1. Have you included agency leadership (e.g., child welfare directors, education agency leader)?	*Note: Including leadership (individuals with decision-making authority) helps facilitate implementation. For local efforts, include local-level leadership for implementation. For statewide efforts, include state-level leaders for broader coordination.*
2. Have you included data management or IT specialists?	*Note: It is important for child welfare, education, and third-party organizations to ensure technical expertise. For statewide and local efforts, technical expertise ensures integration across systems at any scale.*
3. Have you included program managers and practitioners (e.g., case managers, educators)?	*Note: These individuals provide insights into real-world applications and can provide information about day-to-day data use.*
4. Have you included legal and compliance officers (e.g., privacy officers, legal advisors)?	*Note: This ensures adherence to privacy regulations. For statewide efforts, can oversee legal consistency across jurisdictions.*
5. Have you included impacted representatives (e.g., youth advocates, community partners)?	*Note: This ensures inclusivity. For local efforts, consider community-specific representation. For third-party organizations, incorporate external support perspectives.*
6. Have you included a research and evaluation expert to ensure methodological rigor and actionable insights?	*Note: It is helpful to provide this expertise for designing and reviewing data methodologies.*
7. Have team members been briefed on the shared vision and goals of the self-assessment?	*Note: This ensures alignment across all team members. For local and statewide efforts, it is essential for building consensus.*

8. Has a regular meeting schedule been established and agreed upon by all team members?	*Note: Regular meetings ensure effective communication and accountability.*
9. Have team members committed sufficient time to actively participate in the process?	*Note: This is a requirement for all team participants.*
10. Are roles and responsibilities clearly defined for each team member?	*Note: Clearly defined roles are necessary to avoid confusion and ensure accountability*
11. Is there a plan for maintaining communication and collaboration across agencies?	*Note: This is particularly important for interagency efforts, including statewide and local collaborations.*
12. Is there anyone else who should be invited based on local needs?	*Note: Consider who else should be included. For local efforts, tailored to specific local requirements. For statewide efforts, may involve additional state-level stakeholders.*

Step 2: Establish a Shared Vision and Goals

Establishing a shared vision and setting measurable goals is a crucial step in aligning the team's efforts and ensuring the self-assessment process has a clear direction. This step is foundational for collaboration and building consensus. It helps the team identify and focus on the most important outcomes. This step:

- Articulates a common purpose for the self-assessment process.
- Ensures all team members understand and agree on the objectives.
- Creates actionable and measurable goals that guide subsequent steps.

Tips for Engaging the Team in a Productive Discussion about a Shared Vision and Goals

1. Set the Stage:
    - Begin with a brief overview of the self-assessment process and its importance.
    - Highlight how having a shared vision and goals for the self-assessment process will ensure meaningful data are collected and will contribute to knowledge about the educational outcomes for youth in foster care.
    - Create a welcoming environment where all members feel comfortable sharing their perspectives.

2. Facilitate Inclusive Participation:
    - Use inclusive techniques like round-robin discussions or small group brainstorming to ensure every voice is heard. For example, ask smaller groups to identify their priorities for the self-assessment process, their measurement needs, and what they most want to achieve.
    - Consider using surveys to gather broader input on stakeholders' goals for the self-assessment.
    - Encourage participation from agency leaders, data experts, practitioners, and youth advocates to provide a range of perspectives.
3. Focus on Outcomes:
    - Anchor the discussion around the desired outcomes for youth in foster care.
    - Use guiding questions like, "What impact do we hope this process will have on educational outcomes?" or "How will we define success for this effort?"
4. Clarify Roles and Contributions:
    - Ensure all team members understand how their expertise contributes to achieving the vision.
    - Highlight the interconnectedness of individual goals with the team's overall objectives.
5. Use Visual Aids:
    - Incorporate diagrams, flowcharts, or brainstorming maps to organize and visualize ideas.
    - Write down key points during the discussion to keep the group focused and engaged.
6. Set SMARTIE Goals:
    - Goals should be Specific, Measurable, Achievable, Relevant, Time-bound, Inclusive and Equitable (SMARTIE). See Chapter Two on defining your research questions for more guidance about SMARTIE goals.
    - Encourage the team to craft goals that are clear, actionable, and directly linked to the vision.

7. Document and Revisit:
    - Capture the discussion outcomes in the Shared Vision and Goals Discussion Tool. A blank template is included in the appendix to this *Guide* and a completed example is also provided below.
    - Schedule periodic check-ins to revisit and refine the vision and goals, as needed.

Effectively engaging the team in this step establishes a strong foundation for a cohesive and goal-driven self-assessment process that leads to meaningful local change while enhancing collaboration across agencies in data collection and sharing efforts.

Sample Shared Vision and Goals Discussion Tool

This tool is designed to facilitate teams' discussions about the vision and goals for a self-assessment process. The tool provides structured prompts that help teams: define their overall vision for the self-assessment; identify specific goals they want to achieve; and develop strategies to measure progress and maintain alignment. A sample completed tool is provided below. A blank template is included in the appendix to this *Guide*.

Audience: This tool is designed to be inclusive, supporting a wide range of users to improve educational outcomes for youth in foster care. Its primary audience includes child welfare agencies, education agencies, third-party organizations, and teams working at both local and statewide levels. By creating alignment among diverse contributors, this tool ensures effective collaboration and actionable results.

How to Use this Tool:
1. Use the following sections and prompting questions to guide your team's discussion.
2. Document the responses collaboratively during the meeting.
3. Revisit these responses periodically to ensure alignment and progress.

Discussion Section 1: Defining the Vision

1. **What is the overarching purpose of this self-assessment process?**
    - *Example*: To evaluate the current data-sharing practices between child welfare agencies and school districts to identify gaps and improve collaboration.
2. **How does this process align with our mission to improve outcomes for youth in foster care?**

- *Example*: By ensuring accurate and timely data sharing, this process supports the mission to improve graduation rates and reduce absenteeism for youth in foster care.

3. **What would success look like at the end of this process?**
   - *Example*: Success is defined as implementing a data-sharing agreement, reducing duplication of records, and producing a dashboard that tracks educational outcomes for youth in foster care across all participating districts.

Section 2: Setting Measurable Goals

[See also the section of this chapter on identifying research questions below.]

1. **What specific outcomes do we aim to achieve through this self-assessment?**
   - *Example*: Create a standardized data-sharing template, train 100% of case managers and school liaisons on its use, and establish a system for reporting educational metrics quarterly.
2. **How can we ensure our goals are Specific, Measurable, Achievable, Relevant, Time-bound, Inclusive, and Equitable (SMARTIE)?**
   - *Example*:
     - **Specific**: Develop a process for data sharing between child welfare and education agencies.
     - **Measurable**: Track the number of districts adopting the new data-sharing template.
     - **Achievable**: Pilot the template with three districts initially.
     - **Relevant**: Ensure the process addresses data gaps impacting youth in foster care.
     - **Time-bound**: Complete the pilot and gather feedback within six months.
     - **Inclusive and Equitable**: Involve youth with foster care experience and advocates in the pilot evaluation process to ensure the system addresses diverse needs.
3. **What are the short-term and long-term goals for this process?**
   - *Example*:
     - **Short-term**: Identify data-sharing gaps and finalize a standardized template.

- **Long-term**: Achieve state-wide implementation of the template and measure its impact on educational outcomes.

Section 3: Aligning the Team

1. **How can we ensure all team members are aligned with the vision and goals?**
    - *Example*: Conduct a kickoff meeting to review the vision and objectives, ensuring all members understand their roles and how their contributions align with the team's goals.
2. **What strategies can we use to maintain focus on our vision throughout the process?**
    - *Example*: Use regular progress updates and visual dashboards during team meetings to show alignment with the overarching vision.
3. **How will we handle disagreements or differing perspectives during this process?**
    - *Example*: Establish a conflict resolution protocol, including facilitated discussions and consensus-building exercises, to address disagreements constructively.

Section 4: Establishing Accountability and Milestones

1. **Who will be responsible for tracking progress toward our goals?**
    - *Example*: Assign a data coordinator to monitor progress, compile updates from team members, and report milestones at monthly meetings.
2. **What are the key milestones we need to achieve, and what are their timelines?**

Example:

- **Milestone 1**: Complete the needs assessment phase by the end of the first quarter.
- **Milestone 2**: Finalize the data-sharing template by the second quarter.
- **Milestone 3**: Implement and evaluate the template in pilot districts by the fourth quarter.

3. **How will we measure and celebrate success at each milestone?**

Example:

- Success will be measured through team feedback surveys and metrics like pilot district participation.
- Celebrations may include sharing success stories with other stakeholders and hosting recognition events for team members and contributors.

In Summary … A Review of Best Practices for Foundational Data Efforts

1. Start with a Clear Vision
   Teams should define their purpose for data collection and use. Examples of vision statements include:
   - "To improve graduation rates for youth in foster care by identifying trends in academic performance."
   - "To evaluate how placement stability impacts educational outcomes."
2. Engage Diverse Stakeholders
   Include representatives from all relevant groups, such as:
   - Child welfare case managers.
   - Educators and school administrators.
   - Data analysts and IT specialists.
   - Youth with foster care experience and advocates.
3. Invest in Training
   Equip teams with the knowledge and tools they need to handle data responsibly and effectively, such as:
   - Training on data security protocols.
   - Workshops on analyzing and interpreting data.
4. Focus on Continuous Improvement
   Data practices should be iterative, adapting to new insights and challenges. Encourage teams to:
   - Periodically review data collection methods for accuracy and relevance.
   - Use feedback to refine goals and strategies.

Chapter Two: Identifying Data Needs and Capacity Practices

Before embarking on any data collection effort, you should clarify the purpose of your data collection. This will ensure your efforts align with your vision and goals.

Audience: This chapter is relevant to team leaders, data analysts, and stakeholders responsible for shaping the vision and objectives of data initiatives. It provides guidance on aligning goals with organizational priorities and engaging team members to ensure a shared understanding of the purpose behind data collection and analysis. Policymakers can also use this chapter to identify measurable objectives tied to their specific needs. The guidance is relevant for child welfare, education, third-party organizations, working at the local or state level, as well as cross-agency collaborations working at the local or state level.

Steps to Identify Your Data Capacity and Needs:

1. **Define Your Purpose**
   Begin by clarifying why you are collecting data:
   - Are you meeting specific reporting requirements (e.g., federal or state mandates)?
   - Are you tracking the progress of individual students, school programs, and/or overall district outcomes?
   - Are you evaluating the effectiveness of interventions or initiatives aimed at improving the educational outcomes of youth in foster care?
2. **Set Goals for Data Use**
   Align the purpose of your data collection with specific data goals to ensure you focus on actionable insights. Some example goals might be:
   - Improve graduation rates for youth in foster care.
   - Track best interest determinations to ensure compliance with federal education law.
   - Monitor the impact of school stability on attendance.
   - Evaluate how access to tutoring and academic support services affects academic achievement.
   - Evaluate how access to counseling services affects behavioral and educational outcomes.

Fast Facts and State Data Template can help inform this step. It is a national summary of student outcome data that allows a state to input their own data or identify places where further study or information gathering is needed on the state level.

3. **Determine the Sample or Population for Data Collection**:

   Define your target group based on your goals:

   - *Entry Cohorts*: Youth entering care or a school system within a defined period, providing insights into initial needs and circumstances (e.g., demographics, prior academic performance).
   - *Exit Cohorts*: Youth leaving care or completing a school term, offering insights into long-term outcomes (e.g., graduation rates, placement stability).
     - *Real-Time Data Needs*: If your focus is on current, real-time data about youth in foster care, this can complement cohort-based approaches by providing immediate insights into ongoing challenges and progress. For example, a district tracks daily attendance and engagement of youth in foster care in real-time (e.g., the current school year), to identify immediate interventions needed to prevent chronic absenteeism. Real-time data can highlight trends that inform both entry and exit cohort analyses, such as recurring attendance issues or resource gaps.
   - Use entry, exit, and real-time data collectively to build a dynamic and comprehensive understanding of trends, challenges, and outcomes over time.

4. **Determine Specific Data Points**
   Break your goals into measurable elements:

   - *Student-level data*: Attendance, grades, standardized test scores, placement history, access to resources.
   - *Program data*: Participation rates, resource allocation, qualitative feedback.
   - *System-wide metrics*: Graduation rates, school transfers, demographic trends.

5. **Engage Stakeholders**
   Collaborate with those impacted by the data to identify needs:

   - Educators: to identify academic and behavioral indicators.
   - Social workers: to pinpoint barriers to education for youth in foster care.
   - Students and families: to capture their lived experiences through surveys or focus groups.

6. **Prioritize Data Collection Based on Feasibility and Impact**
   Consider resource constraints and prioritize data collection efforts that offer the greatest value:
   - Focus on available, high-quality data.
   - Plan additional data collection where gaps exist.

By following these steps, teams can ensure their data collection efforts are purposeful, targeted, and aligned with their data collection goals.

From Identifying Data Needs to Crafting Evaluation Questions

If your purpose is research or evaluation, once you have identified the types of data you need to collect and the purpose they serve, the next step is to translate those needs into clear, actionable research questions. Research questions act as the blueprint for any study, guiding your data collection efforts, and ensuring alignment with your objectives.

While identifying your data needs focuses on understanding *what* data to collect, crafting research questions shifts the focus to *why* that data matters and *how* it will address the challenges or priorities identified. Strong research questions provide clarity, focus, and direction, ensuring that your data collection efforts yield meaningful insights.

For example, if your goal is to evaluate the impact of tutoring programs on academic outcomes for youth in foster care, a research question might be, "How does participation in tutoring programs affect reading proficiency levels among middle school youth in foster care?" By framing this question, you move from a broad understanding of data needs to a targeted investigation that shapes your entire data collection strategy.

This section will guide you through the process of developing effective research questions, ensuring they are relevant, specific, and actionable. A tool that can be used to help develop research questions is included. Leveraging the SMARTIE framework (Specific, Measurable, Achievable, Relevant, Time-bound, Inclusive, and Equitable), we will cover how to define clear questions that not only guide your study but also make the results useful for decision-making and policy development. Let us explore how to identify and structure these critical questions.

How to Identify Research Questions

The foundation of any meaningful study lies in well-crafted research questions that guide data collection and analysis. This process ensures that your study is focused, relevant, and actionable.

Steps to Identify Research Questions

1. **Assess Existing Literature and Data Gaps**
   Start by reviewing current research on educational outcomes of youth in foster care to identify what is already known and what gaps remain.
   - Example: If prior studies have focused on high school graduation rates, consider examining earlier indicators like middle school academic engagement or long-term goals like college readiness.

   Using resources such as the National Datasheet on Foster Care and Education and Fast Facts: Data at a Glance can help inform this step.

2. **Consult Stakeholders and Relevant Partners**

   Collaborate with educators, caseworkers, foster care agencies, and other key individuals to understand the challenges and priorities from their perspective. Involve youth and adults with lived experience in the foster care system.
   - Example: Stakeholders might identify a need to examine why youth in foster care in a specific region consistently perform below average on standardized tests.

3. **Formulate Specific, Actionable Questions**
   Translate stakeholder and partner input and identified gaps into focused research questions. These questions should be clear, feasible, and relevant to the needs of youth in foster care and your organization. Examples include:
   - What factors contribute to the academic achievement of youth in foster care?
   - How does placement stability affect high school graduation rates?
   - What is the impact of tutoring programs on the math proficiency of students in foster care?

4. **Use the SMARTIE Framework**
   Ensure your research questions meet the SMARTIE criteria:
   - *Specific*: Target a single, focused area of inquiry.
   - *Measurable*: Define how success will be quantified or qualified.
   - *Achievable*: Set realistic goals within available resources.
   - *Relevant*: Align with research goals and stakeholder needs.
   - *Time-bound*: Establish a specific timeframe to guide your study.

- *Inclusive*: Include representation from socially and economically marginalized individuals and groups.
- *Equitable*: Include an element of fairness or justice assessment to address systemic injustice, inequity, or oppression.

Creating SMARTIE Research Questions

Each component of the SMARTIE framework refines your research focus:

1. **Specific**
   Example: Instead of "How do educational experiences vary for youth in foster care?" ask, "How does school stability impact high school graduation rates of youth in foster care in our urban school districts?"
2. **Measurable**
   Example: Instead of "Do youth in foster care have adequate academic support?" ask, "What percentage of youth in care report having access to academic support, and how does this relate to their math proficiency scores?"
3. **Achievable**
   Example: Instead of "How do all youth in foster care in the state perform academically?" ask, "What are the academic performance trends among youth in foster care in the three largest school districts in the state over the past five years?"
4. **Relevant**
   Example: Instead of "What are the general educational challenges for youth?" ask, "What specific barriers to academic success are reported by youth in foster care in middle school, and how do these barriers correlate with their standardized test scores?"
5. **Time-bound**
   Example: Instead of "How does placement affect academic outcomes?" ask, "How does the length of time in a single foster placement over a two-year period influence math and reading scores for elementary school youth in foster care?"
6. **Inclusive**
   Example: Instead of "Include youth in foster care in data collection efforts," write the objective as "By December 2025, engage at least 10 youth currently in foster care as co-researchers to collaboratively design data collection tools that reflect their lived experience."

7. **Equitable**
   Example: Instead of "What disparities exist in the educational outcomes for youth in foster care?" ask, "If we disaggregate educational outcome data by race, ethnicity, and disability status, what disparities among youth in foster care are revealed?"

Tool to Develop Evaluation and Research Questions

This collaborative worksheet helps guide teams through the process of identifying and refining research questions using the SMARTIE framework.

Audience: This tool is designed for teams aiming to develop well-structured, inclusive research questions that align with the SMARTIE framework (Specific, Measurable, Achievable, Relevant, Time-bound, Inclusive, and Equitable). By fostering collaboration and incorporating diverse perspectives, the worksheet helps ensure that research questions are meaningful, actionable, and aligned with the overarching goals of improving outcomes for youth in foster care. It is particularly effective for teams engaged in cross-agency collaboration or efforts involving multiple stakeholders.

This tool fosters collaboration by ensuring input from multiple perspectives while keeping research efforts organized and aligned with the SMARTIE framework. Including a diversity of team members in the discussion also helps to ensure your research questions are inclusive. Example responses are provided in the tool below, and a blank tool is provided in the appendix to this *Guide*.

How to Use This Tool: Engage your team in a discussion of each of the questions and record their input. Use responses to develop action plans.

Tool to Develop Evaluation and Research Questions		
Step	**Questions to Discuss with Your Team**	**Team's Input**
Assess Existing Literature and Data Gaps	What do we already know about the educational outcomes of youth in foster care? What gaps in knowledge are most critical to address?	***What We Know***: *Youth in foster care often experience lower graduation rates and higher absenteeism compared to their peers. School stability is linked to better academic outcomes, but the relationship between support programs (like tutoring or mentoring) and success is less well-studied.* ***Gaps***: *There is limited information on how cultural or racial identity affects access to*

		educational support programs. We also lack data on the specific impact of frequent school changes on standardized test scores.
Consult Stakeholders	Who are the key stakeholders we need to engage? What are their top concerns regarding education for youth in foster care?	***Stakeholders***: *Caseworkers, foster parents, school counselors, education policymakers, and youth with lived experience in foster care.* ***Top Concerns***: *Stakeholders are concerned about the lack of individualized academic support, the challenges of frequent school transfers, and the barriers to accessing extracurricular activities due to transportation or funding issues.*
Define Research Focus	What is the specific topic or issue we aim to explore? (e.g., attendance rates, graduation outcomes, impacts of support programs)	***Focus***: *Investigate how the frequency of school transfers within a single academic year affects test scores and attendance among youth in foster care. Explore whether targeted academic support programs, such as tutoring or mentoring, mitigate these impacts.*
Formulate Specific Questions [Check Against SMARTIE Criteria]	What are the specific questions we want to answer? [list those and check they are SMARTIE questions] - **Specific**: Is the question clear and focused? - **Measurable**: Can we collect data to answer the question? - **Achievable**: Do we have the resources and access needed to answer the question? - **Relevant**: Does the question align with stakeholder priorities and our research goals?	***Research Questions***: *How does the number of school transfers in a single academic year affect standardized test scores in math and reading for youth in foster care?* *What are the attendance trends among youth in foster care participating in academic support programs compared to those who are not?* *Are there disparities in access to academic support programs for youth in foster care based on race, ethnicity, or placement type?* ***SMARTIE Check***:

	- **Time-bound**: Have we defined a timeframe for the research? -**Inclusive**: Have we included diverse perspectives in developing the research questions of interest? Are there research questions that are meaningful to people with lived experience as well as professional stakeholders? -**Equitable**: Have we included research questions that help to identify and address possible inequities, disparities, or fairness issues?	***Specific***: *Yes, these questions are clear and focused on measurable outcomes.* ***Measurable***: *Yes, we can use attendance logs, program participation records, and test scores to answer these questions.* ***Achievable***: *Yes, data from school districts and child welfare agencies are accessible, and we have the necessary tools and expertise.* ***Relevant***: *Yes, these align with stakeholder concerns about school stability and equity in educational opportunities.* ***Time-bound***: *Yes, research is planned over the next six months to meet reporting deadlines.* ***Inclusive***: *Yes, youth with lived experience and foster parents helped identify these questions as meaningful and relevant.* ***Equitable***: *Yes, the third question directly addresses potential inequities in access to support programs.*
Finalize Questions	Based on the discussion, what are the final research questions we will pursue?	*How does the number of school transfers within an academic year impact standardized test scores in math and reading for youth in foster care?* *What factors contribute to attendance trends among youth in foster care, particularly for those participating in support programs like tutoring?* *Are there disparities in educational support access for youth in foster care based on demographic factors or placement types?*

Determining Your Data Capacity

Data capacity refers to the resources, tools, and access needed to effectively collect, analyze, and interpret data. By understanding your current capacity and identifying areas for improvement, child organizations, agencies, and third-party entities can develop strategies that leverage shared resources and expertise to achieve their measurement and data collection goals. This understanding is critical to fostering collaboration and supporting cross-system data-sharing efforts.

The following steps outline how to assess and improve data capacity across local agencies, state agencies, and third-party entities. A tool is included to guide teams through this process. Additional tools for assessing data capacity and readiness for data sharing are available in the *Self-Assessment Appendix Toolbox*, which includes options tailored for local, state, and collaborative efforts.

Steps to Determine Data Capacity

1. Inventory Available Data

Identify the data sources accessible within your organization or agency and from external partners. Common sources include:

- Education Data: School district records, attendance logs, test scores, Individualized Education Programs (IEPs), and teacher evaluations.
- Child Welfare Data: Placement histories, case management notes, service utilization records, and child demographics.
- Other Sources: National education statistics, state-level foster care reports, and community-level datasets.

For Local Agencies: Collaborate directly with schools and child welfare offices to identify accessible data within your jurisdiction.

For State Agencies: Leverage statewide data systems to examine available data. Ensure consistency across regions when collecting and sharing data.

For Third-Party Entities: Request access to relevant datasets through formal agreements with local or state agencies, specifying the purpose of the analysis and ensuring alignment with project goals.

Example: Cross-Agency Collaborative Effort Tracking School Stability and Academic Outcomes of Youth in Foster Care. Scenario: A collaborative effort involving local, state, and third-party entities is undertaken to assess data capacity to understand how school stability impacts academic outcomes for youth in foster care.

Role of Local Agencies: Provide granular data and direct insights from school districts and child welfare offices.

- Activities: Local child welfare agencies have data on foster placements, including the number of placement changes, placement duration, and proximity to schools. Local education agencies provide school transfer records, attendance logs, and standardized test scores for youth in foster care.

Role of State Agencies: Analyze trends across districts to inform statewide policies and allocate resources effectively.

- Activities: State agencies can provide school transfer data and foster care placement records from all local districts to create a statewide dataset. Can provide data on trends, such as school stability trends across urban, suburban, and rural districts to identify regional disparities. Can provide data on how state-level policies (e.g., school transfer processes or funding for foster programs) might affect outcomes.

Role of Third-Party Entities: Data integration across systems, conduct advanced analyses, and provide cross-system insights.

- Activities: Merge data from local and state education agencies (e.g., test scores, attendance records) with child welfare data (e.g., placement histories, demographic details). Can identify inconsistencies in the data (e.g., missing or incomplete data and ways systems might define specific data elements differently). Can highlight systemic issues (e.g., delays in sharing school transfer records between districts) and propose solutions, such as adopting real-time data-sharing platforms.

2. Evaluate Data Quality and Completeness

Assess the quality and completeness of data within your system or datasets obtained from partners. Consider missing, outdated, or inconsistent data, and identify solutions to address gaps. If critical data points—such as the duration of foster placements or school enrollment histories—are incomplete, work with stakeholders to identify solutions. Options include:

- Statistical techniques like imputation to address missing data. For help with this item see Chapter 4 of this *Guide*.

- Collaborating across agencies to fill gaps through shared records or data-sharing agreements.

For Local Agencies: Convene cross-departmental meetings to review data quality and resolve issues collaboratively.

For State Agencies: Implement statewide data validation processes to ensure consistency across regions.

For Third-Party Entities: Use statistical techniques (e.g., imputation) to address missing data or collaborate with data providers to fill gaps.

Example: If studying the impact of frequent school changes on student attendance and engagement, ensure your data includes sufficient details about school transfers, attendance records, and placement histories. Collaborative discussions between education and child welfare agencies can identify gaps and enrich the dataset.

3. Assess Technical and Analytical Tools

Evaluate whether your team has the tools and expertise needed for data collection, analysis, and sharing. Common tools include:

- Basic Tools: Spreadsheets (e.g., Excel) for organizing data.
- Survey Tools: Platforms like SurveyMonkey, Google Forms, or Qualtrics for stakeholder feedback.
- Advanced Analytics Software: Tools like SPSS, SAS, or R for examining correlations and running statistical models.

For Local Agencies: Build capacity through training and secure access to tools that align with your data needs.

For State Agencies: Provide technical assistance and shared resources for local offices to ensure statewide consistency.

For Third-Party Entities: Leverage advanced tools and expertise to conduct analyses that local and state agencies may lack capacity for on their own. Consider partnerships with universities or research organizations for additional support.

4. Promote Cross-Agency Collaboration

Effective data practices depend on collaboration between education agencies, child welfare agencies, and third-party entities. Each group brings unique datasets and expertise to the table. Collaboration strategies include:

- Establishing data-sharing agreements that outline roles, responsibilities, and compliance with privacy laws (e.g., FERPA and HIPAA).
- Hosting joint training sessions to build cross-agency capacity in data collection and analysis.
- Combining resources, such as shared software or funding for joint positions (e.g., data analysts).

For Local Agencies: Focus on building relationships with schools and community partners to facilitate data sharing and analysis.

For State Agencies: Provide guidance and frameworks to support local agencies and align statewide efforts.

For Third-Party Entities: Act as a bridge between agencies, ensuring datasets are merged, analyzed, and shared effectively to inform decision-making.

Example: When linking K-12 and foster care data, local agencies can contribute granular records, state agencies can provide oversight and standardization, and third-party entities can perform the necessary analysis to identify trends and disparities.

For more information about collaborating across systems to improve data practices, see the Roadmap for Quality K-12 and Foster Care Data Linkages.

Additional Tips for Completing a Data Capacity Assessment

What to Do If You Do Not Know Who Has the Data You Need

- **Start with Key Stakeholders:**
  Contact individuals or departments within education and child welfare agencies who may have insight into data capacity, challenges and data ownership.
  Example: If you need attendance records for youth in foster care, start with the district's data services or technical team. For placement histories, reach out to the child welfare agency's case management supervisor.
- **Leverage Networks:**
  Use existing networks, coalitions, or professional organizations to find the right contact.
  Example: Reach out to any regional education and child welfare working group(s) that exist. These groups often facilitate cross-agency collaboration and can direct you to who manages specific data.

- **Explore Publicly Available Resources:**
  Review state or national reports for aggregate data or contact information.
  Example: Check your state's education dashboard for district-wide graduation rates or a foster care agency's annual report for placement and permanency outcome statistics.

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2. How to Identify Data Gaps When Records Seem Incomplete

- **Review Existing Documentation:**
  Audit the data you currently have and compare it to what you need.
  Example: If your records include attendance logs but lack placement dates, note this gap, and prioritize obtaining placement history from child welfare agencies.
- **Engage Frontline Staff:**
  Reach out to systems' data analysts or IT staff, or staff who directly interact with children and families may offer insights into why data is missing or incomplete.
  Example: Staff might explain that placement dates are missing due to recent transitions to a new data system.
- **Conduct a Pilot Assessment:**
  Select a small dataset to identify patterns of missing information.
  Example: Review 20 random cases to check for gaps in school transfer data. If 60% are incomplete, reach out to agency representatives to determine why and how to address this.

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3. What to Do If You Lack Technical or Analytical Tools

- **Identify What You Can Do with Available Tools:**
  Use basic tools effectively to start analysis while planning for upgrades.
  Example: Use Excel to calculate averages for test scores or track attendance trends over time.
- **Seek External Support:**
  Partner with universities or research organizations that have access to advanced software.
  Example: Partner with a local university to use SPSS or R for analyzing the correlation between placement stability and academic outcomes.
- **Advocate for Resources:**
  Build a case for funding or grants to acquire new tools.
  Example: Demonstrate how adding Tableau software could improve visualization of data trends, making reports more actionable for stakeholders.

4. Steps to Take if You Lack Staff Capacity or Expertise

- **Simplify Your Scope:**
  Narrow your focus to manageable questions that fit current capacity.
  Example: Instead of analyzing all outcomes for youth in foster care, start by examining graduation rates in one school district.
- **Provide Training Opportunities:**
  Invest in staff development to build internal capacity.
  Example: Enroll team members in data analysis or schedule a training session with your local university.
- **Create Shared Roles Across Agencies:**
  Collaborate with partner agencies to hire a shared data analyst.
  Example: A jointly funded data coordinator could support both the school district and child welfare agency by integrating datasets and conducting analyses.

5. How to Handle Challenges with Cross-Agency Collaboration

- **Start Small:**
  Build trust with simple, low-risk collaborations.
  Example: Begin with a joint project to analyze aggregate attendance data for youth in foster care, while working towards a plan to share individual records.
- **Facilitate Communication:**
  Use regular meetings or shared platforms to align efforts.
  Example: Schedule bi-weekly check-ins with both education and child welfare teams to review progress and address challenges in data integration.
- **Clarify Data Privacy Requirements Early:**
  Ensure compliance with FERPA and HIPAA when sharing data.
  Example: Draft a data-sharing agreement that includes protocols for anonymizing student and placement data to protect confidentiality.

6. What to Do If There Is No Clear Path Forward

- **Focus on What Is Feasible Now:**
  Prioritize what you can do while planning for long-term solutions.

Example: Analyze existing attendance data for youth in foster care, even if placement data is not fully integrated yet, to identify trends that inform immediate interventions.

- **Document Challenges:**
  Keep detailed notes about barriers you face.
  Example: Record that placement history data is unavailable due to system transitions and note that resolution will require IT updates within the child welfare agency.
- **Ask for Help:**
  Seek advice from peers or experts with similar experience.
  Example: Contact a neighboring state agency that has successfully integrated education and foster care data to learn from their process.

Data Capacity Assessment Tool

This tool guides education and child welfare agencies through the process of assessing their data capacity, fostering collaboration, and ensuring comprehensive preparation for meaningful data analysis. A complete tool with sample responses is provided below. See the appendix to this *Guide* for a blank data capacity assessment tool. Refer to the *Self-Assessment Appendix Toolbox* for data capacity assessment tools specifically tailored for local or state level collaborations.

Audience: This tool is designed for teams tasked with evaluating and improving their data capacity to enhance educational outcomes for youth in foster care. It provides a structured approach to assessing current practices, identifying gaps, and fostering collaboration for actionable improvements. While data specialists and program managers may lead the technical and operational aspects of the assessment, input from all team members ensures a holistic approach. Engaging diverse stakeholders—such as IT staff, case managers, and researchers—also fosters collaboration and ensures that the findings and action plans are both practical and impactful.

Primary Audiences:

1. **Child Welfare Agencies and Education Agencies:**
   - **Agency Leaders**: To oversee the assessment process and ensure alignment with strategic goals.
   - **Data Specialists**: To evaluate data availability, quality, and technical capacity, and recommend improvements.

- **Program Managers**: To translate findings into actionable steps that support program goals.

2. **Cross-Agency Collaborative Teams:**
   - Designed to facilitate collaboration between child welfare and education organizations by identifying shared data needs, aligning goals, and fostering effective communication.
3. **IT and Legal Professionals:**
   - **IT Teams**: To assess and upgrade technical tools and ensure compatibility between systems.
   - **Legal and Compliance Officers**: To review or update data-sharing agreements and ensure adherence to privacy laws like FERPA and HIPAA.
4. **External Partners:**
   - **Universities and Researchers**: To offer expertise in data analysis and advanced modeling.
   - **Nonprofit Organizations**: To support efforts in improving data practices and fostering collaboration.

How to Use this Tool:

1. **When used in collaboration across agencies**, ensure representatives from education and child welfare agencies are present to complete each section of the tool.
2. **Document findings** in the response sections, identifying strengths, gaps, and areas for improvement.
3. **Use the action planning table** to assign tasks, set deadlines, and track progress toward building data capacity.
4. **Revisit this tool regularly** to monitor improvements and address new challenges as they arise.

Example of a Completed Data Capacity Assessment Tool

This example highlights how education and child welfare agencies can work individually (or in collaboration) to evaluate their data capacity and create actionable steps to address gaps, improve quality, and build technical skills.

Section 1: Inventory Available Data

Question	Example Response
What data sources are available?	*School district records, child welfare case management database, state education performance reports.*
Which agency/partner owns this data?	*School district (attendance and test scores), child welfare agency (placement stability, service records).*
What data points are included?	*Attendance records, standardized test scores, placement histories, demographics, service utilization data.*
Are there existing data-sharing agreements? (Y/N) If yes, describe the scope.	*Yes, agreements are in place to share attendance and test score data between the district and child welfare.*
Are there any gaps in the data?	*Placement stability data is incomplete for students who moved across state lines. Some test scores are missing for mobile students.*

Section 2: Evaluate Data Quality and Completeness

Question	Example Response
Are there inconsistencies in the data?	*Yes, mismatched student identifiers between education and child welfare datasets.*
Are there missing or incomplete data points?	*Yes, missing placement data for 15% of students and incomplete attendance records during the pandemic.*
How are missing data points currently handled?	*Ignored in most analyses, but plan to use statistical imputation (based on median or averages) for missing placement histories.*
What steps can be taken to address these gaps?	*Statistical imputation for missing placement durations, improved data-sharing agreements for real-time updates.*

Who needs to be involved to improve data completeness and quality?	*Data specialists from the district and child welfare agency, as well as IT staff to ensure compatibility of systems.*

Section 3: Assess Technical and Analytical Tools

Question	Example Response
Will new data analyses be needed to answer our questions or are reports currently run that analyze the data in ways we need? If yes, can we obtain those reports?	*New analyses will be needed to examine the relationship between school transfers and academic outcomes, as current reports focus only on attendance rates and test scores in isolation.*
What tools are currently used for data analysis?	*Excel and Google Sheets for basic analysis; SPSS for advanced statistical modeling; SurveyMonkey for qualitative survey data.*
Do staff have the skills to use these tools effectively? (Y/N)	*Yes, for Excel and SurveyMonkey, but if more advanced statistical analyses are needed then staff will need training on SPSS or SAS (or consultants hired).*
Are additional tools or software needed?	*Yes, considering R for data visualization and predictive analytics.*
What training or resources are needed to build technical capacity?	*SPSS training, workshops on using R, and more cross-agency collaboration to share expertise.*
Are there opportunities to collaborate with external partners for analysis?	*Yes, a local university has offered to assist with data cleaning and advanced statistical modeling.*

Section 4: Promote Cross-Agency Collaboration

Question	Example Response
What stakeholders need to be involved in this data project?	*School district administrators, child welfare case managers, IT staff, and local research organizations.*
What data-sharing agreements are required or need updating?	*Agreements need to be updated to include real-time sharing of placement data and attendance records.*
What joint initiatives or trainings could improve cross-agency collaboration?	*Hosting a joint data analysis workshop and creating a shared glossary of key terms for consistency. Forming a data workgroup or committee with membership from different systems to oversee efforts.*
How will data privacy and confidentiality be ensured across agencies?	*Develop protocols for anonymized data sharing, encrypt sensitive files, and comply with FERPA and HIPAA.*
What shared goals can agencies align on to promote effective data use?	*Improving school stability, reducing chronic absenteeism, and tracking the long-term academic outcomes of youth in foster care.*

Section 5: Action Planning

Action Step	Responsible Party	Timeline	Notes
Inventory and review available data sources	*Data analysts from both agencies*	*1 month*	*Ensure comprehensive review of all datasets.*
Address gaps in data completeness and quality	*IT specialists and child welfare liaisons*	*3 months*	*Focus on missing placement and attendance data.*
Assess and upgrade tools and technical capacity	*School district and university partners*	*2 months*	*Prioritize training in relevant analysis programs.*

Develop or update data-sharing agreements	*Legal teams from both agencies*	*1 month*	*Include protocols for real-time data sharing.*
Schedule cross-agency collaboration meetings/training	*Joint agency project coordinators*	*Quarterly*	*Use these sessions to align goals and resolve challenges.*

Chapter Three: Data Collection Practices

This chapter provides guidance on identifying the data you need, selecting appropriate collection methods, and implementing practical strategies to ensure high-quality, actionable results. Data collection is more than just gathering information; it involves aligning metrics with your goals, ensuring compliance with legal requirements, and fostering collaboration across systems.

The guidance in this chapter is designed to help child welfare agencies, education agencies, and their partners address key challenges, such as incomplete data, inconsistent definitions, and cross-agency collaboration barriers. Whether your focus is on program evaluation, compliance reporting, or improving day-to-day decision-making, the tools and strategies included here will support your efforts to build a strong foundation for meaningful data use.

Why This Guidance Matters:

- **Improved Decision-Making:** High-quality data ensures that agencies can make informed decisions to support youth in foster care.
- **Compliance and Collaboration:** Clear processes for data collection help ensure compliance with laws like FERPA and promote stronger partnerships between agencies.
- **Resource Optimization:** A well-defined data collection plan reduces inefficiencies and focuses efforts on gathering the most critical information.

Audience: The tools in this chapter are designed for data specialists, program managers, and team leaders who oversee the data collection process. It includes technical guidance on ensuring data quality, ethical considerations, and selecting appropriate metrics. The tools in this chapter are also helpful to cross-disciplinary teams that include child welfare leaders, educators, and data specialists, as well as third-party collaborators. It provides a structured approach to align diverse perspectives and guide the team in identifying key data elements, their purposes, and practical steps for collection.

Data Collection Planning Tool

How to Use this Tool: Once you have your team in place, facilitate a meeting with your team to discuss each of the questions in the worksheet below. Your goal is to achieve consensus on the response or to identify areas that will need to be followed up on to get an answer. For example, you may not be able to come to consensus yet on the "questions the data will answer" without additional input from others. As a result, you implement a follow-up survey process to obtain more insight from a larger group of individuals. You can use the data collection planning discussion described below with example responses to help guide the conversation. See the appendix to this *Guide* for a blank tool.

Data Collection Planning Tool	
Question	Team's Response (Example response provided; see appendix for blank tool)
What is the purpose of this data?	Specify the primary reason for data collection (e.g., reporting, tracking outcomes, evaluating program effectiveness). *"To evaluate how placement stability impacts academic performance and identify trends that can inform program improvements and policy decisions."*
What questions will the data answer?	List key questions you aim to address from previous discussion steps (e.g., How does placement stability affect academic performance?). *"How does the number of school changes within an academic year affect test scores in reading and math? Are youth in foster care who participate in tutoring programs less likely to experience chronic absenteeism?"*
What data points are needed?	Identify specific data metrics (e.g., attendance rates, test scores, program participation rates, qualitative feedback). See the data capacity tool in the *Self-Assessment Appendix Toolbox* document with suggested data elements to inform this discussion. *"Attendance rates and chronic absenteeism records; standardized test scores in math and reading; frequency and timing of school transfers; and participation in support programs like tutoring or counseling."*
Who owns the data?	Note where the data is housed and who has access (e.g., school districts, child welfare agencies).

	"Attendance and test score data are owned by local school districts; placement history and demographic information are managed by the child welfare agency; and qualitative feedback is collected by our organization through interviews and surveys."
What tools/resources are needed?	List any software, platforms, or additional data sources required (e.g., Excel, SPSS, collaboration with other agencies). *"Excel for organizing raw data; SPSS for statistical analysis; and a data-sharing agreement between the school district and child welfare agency to enable access to relevant data."*
What data can be prioritized to achieve early wins?	Be realistic about the amount of data you wish to collect. Selection of an overwhelming number of measures, even though some are very important, can derail your data collection efforts. *"We will focus initially on analyzing attendance rates and school transfer frequencies, as they are readily available and can provide immediate insights into mobility patterns and their effects."*
What are the limitations?	Identify potential or known gaps or challenges (e.g., incomplete data, confidentiality issues). *"Some school districts do not have complete transfer records, leading to gaps in the data; privacy concerns may limit access to detailed case management notes; and a lack of staff training on data analysis tools may delay processing."*
What is the timeline for collection?	Specify key deadlines or reporting dates to ensure timely data collection and analysis. *"Data collection will begin in February, with preliminary analysis completed by June to meet the reporting deadline for our annual program review in July."*
What is the ultimate use of the data?	Outline how the findings will be shared or utilized (e.g., improve programs, report to funders, advocate for policy changes). *"Findings will be used to develop training for foster parents and educators on reducing the negative impact of school transitions; results will be shared with funders to secure additional resources for tutoring programs; and Insights will guide advocacy efforts to improve policies around school enrollment for youth in foster care."*

Identifying Data Collection Methods

Once you know the data you need, you must choose appropriate data collection methods. This process is crucial for capturing relevant information to answer any questions you have about the educational needs, progress, and outcomes for children in foster care, as well as any evaluation questions you have about the success of a practice intervention or program. Often, a collaborative approach across education and child welfare agencies, including shared data systems and agreements, is important to your successful data collection efforts.

Common data collection methods are summarized below, followed by a step-by-step process that can be applied to help you identify appropriate data collection methods and implementation strategies. A completed sample data collection methods selection tool is also included. See the appendix to this *Guide* for a blank tool.

Common Data Collection Methods for Data on Education and Youth in Foster Care

- **Shared Information Systems and Data-Sharing Agreements**:
  Collect needed data by leveraging existing data-sharing agreements (e.g., Memoranda of Understanding [MOU], Interagency Agreements [IA]) and shared information systems, dashboards, or student information portals. These tools facilitate efficient data collection by enabling access to integrated records across education and child welfare agencies.
  Example: Obtain administrative data from existing systems to develop a shared dashboard to combine attendance data from schools and placement data from child welfare agencies, providing a comprehensive view of student stability and outcomes.

- **Surveys and Questionnaires**:
  Use surveys to collect firsthand information from youth in foster care, educators, or caregivers about their experiences and needs.
  Example: Survey students to understand their sense of belonging at school or the perceived effectiveness of academic support services.

- **Administrative Data Analysis**:
  Analyze existing records, such as school transcripts, attendance logs, and standardized test scores, to identify trends and patterns.
  Example: Review district-wide test scores to compare the academic performance of youth in foster care with their non-foster peers over time.

- **Casefile or Record Review**:
  Conduct systematic reviews of educational, social service, or foster care files to extract data pertinent to your research questions. This method is cost-effective and leverages pre-existing information.

Example: Analyze case files to investigate the relationship between placement stability and academic performance.

- **Observations:**
  Observe and record behaviors, interactions, or environmental conditions in real time to gather contextual data that complements other methods.
  Example: Observe tutoring sessions with youth in foster care against a best practice checklist to assess the quality of tutoring and engagement of the student in the tutoring session.

- **Interviews and Focus Groups**:
  Conduct interviews or focus groups with teachers, caregivers, and youth with lived experience in foster care for qualitative insights.
  Example: Use interviews to explore stakeholder perceptions of how long-term placements influence access to academic support and mentorship opportunities.

- **Case Studies**:
  Develop detailed case studies to analyze individual students' educational experiences and outcomes.
  Example: Create a case study of a student who transitioned from a high-turnover placement to a stable foster home to examine how their academic trajectory changed.

Practice Example of Data Collection

Suppose you want to evaluate the impact of mentoring programs on school engagement for youth in foster care. A multi-method approach could include:

- Administrative Data Analysis: Analyze attendance records and disciplinary logs before and after participation in the mentoring program.
- Surveys: Distribute surveys to mentees to gauge changes in their attitudes toward school and perceived academic support.
- Focus Groups: Facilitate discussions with mentors and mentees to identify perceived program benefits and challenges.

A Step-by-Step Process that Applies to Multiple Data Collection Methods

1. **Define the Scope and Purpose of the Data Collection Strategy**
   Before beginning, clearly define what you aim to achieve. For example, with a case file or record review, specify which records are necessary to address what you are interested in,

such as school attendance, standardized test scores, placement history, or behavioral reports. If your data collection effort focuses on the impact of placement stability on academic performance, your review will focus on records that include placement duration, transfer history, and academic performance indicators.

2. Obtain Required Permissions, Ensure Confidentiality, and Secure Information Exchanges

Sharing and managing data between education and child welfare agencies requires strict adherence to confidentiality and privacy laws to protect sensitive information. Establishing clear protocols for data exchange ensures compliance with regulations like the Family Educational Rights and Privacy Act (FERPA) and Uninterrupted Scholars Act (USA), while promoting trust among stakeholders. Here are some specific steps that should be followed:

Steps to Ensure Confidentiality and Secure Data Sharing

Establish Data-Sharing Agreements

Develop Memoranda of Understanding (MOUs) or Interagency Agreements (IAs) to formalize the terms of data exchange. These agreements should outline:

- What data will be shared (e.g., attendance records, placement history).
- How data will be used to meet shared goals (e.g., improving educational stability for youth in foster care).
- Safeguards for protecting privacy and ensuring proper use.

Example: An MOU between a school district and a child welfare agency may specify that student-level data, such as attendance and grades, will be shared solely for the purpose of monitoring academic progress and supporting intervention strategies.

For more information about data and information sharing MOUs, see Memoranda of Understanding and Interagency Agreements.

Understand Key Privacy Laws

- **The Family Education Rights and Privacy Act (FERPA):** Protects the confidentiality of student education records but allows for certain exceptions, such as sharing information with child welfare agencies if specified under the USA amendment.
- **Uninterrupted Scholars Act (USA):** Allows schools to share educational records with child welfare agencies without requiring parental consent, provided the data is used to support the student's educational needs and the agency has placement care and responsibility for the student.

*Example***:** A child welfare agency can request attendance data for youth in foster care to ensure educational continuity during a placement change, as permitted under USA.

For more information about FERPA and USA, click HERE.

Define Access and Permissions

Limit data access to authorized personnel who need the information to perform their roles. Agencies should:

- Assign role-based access to data systems (e.g., data analysts, or caseworkers, or education liaisons).
- Require written authorization before sharing data externally.

Example: A school district that shares information with a child welfare agency to support students in foster care who receive special education services ensures only designated caseworkers may access sensitive records like Individualized Education Programs (IEPs) to support educational planning.

Implement Secure Data Storage and Transmission

Use robust security measures to protect data integrity during storage and transfer. Examples include:

- Encrypting data files during electronic transfer.
- Storing data in password-protected systems or restricted-access databases.
- Avoiding email for transmitting sensitive information unless it is encrypted.

Example: Use a secure file-sharing platform to exchange data between agencies rather than sending files via email.

Train Staff on Confidentiality Protocols

Provide ongoing training for staff to ensure understanding of privacy laws, agency agreements, and proper data handling practices.
Example: Offer annual training sessions for caseworkers and educators on FERPA and USA compliance, as well as secure data practices like encrypting files and maintaining audit logs.

Audit and Monitor Data Use

Regularly review data access and sharing activities to ensure compliance with agreements and privacy laws.
Example: Conduct quarterly audits to verify that only authorized personnel are accessing shared dashboards or student information systems.

By embedding these confidentiality and security measures into information exchanges, education and child welfare agencies can safeguard sensitive data while supporting the shared goal of improving outcomes for youth in foster care.

Key Considerations for Cross-Agency Collaboration

When exchanging data:

- Ensure all shared information is used solely for the agreed-upon purpose (e.g., supporting educational outcomes for youth in foster care).
- Work collaboratively to resolve data-sharing challenges while maintaining compliance with applicable laws.
- Prioritize transparency with stakeholders, including youth in foster care and their families, about how their data will be used and protected.

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3. Develop a Data Collection Instrument or Template

Create structured data collection forms or spreadsheets to systematically capture relevant information from each file. The form should include specific fields for each variable or data point of interest, with options for coding qualitative information when necessary.

4. Establish a Review Protocol and Codebooks

Develop a protocol that standardizes how data are collected via your instruments to ensure consistency across reviewers. This protocol should outline:

- **Inclusion and Exclusion Criteria:** Specify what to include based on factors like age range, length of time in foster care, or specific educational records. Exclude items that lack necessary data or fall outside your defined criteria.
- **Data Extraction Procedures:** Provide detailed instructions on how to locate and extract each data point. For example, specify where to find test scores within educational records or how to code placement stability based on the length of each placement.
- **Coding Guidelines:** If collecting qualitative data (e.g., case notes on student behavior or academic engagement), develop coding categories to organize themes or trends.

5. Conduct Training for Reviewers

To ensure inter-rater reliability, train all data collectors on the protocol and data collection

instrument. Training should include practice exercises where reviewers analyze sample files, code and discuss their findings, helping to standardize interpretation and minimize bias. This step is critical when multiple reviewers are involved, as it ensures that data extraction is consistent.

Data Collection Methods Selection Tool

This tool is designed to help identify and select the most appropriate data collection methods for your needs, ensuring compliance with confidentiality laws and alignment with shared goals if used collaboratively with other system partners. A completed example is included below with a blank template in the appendix to this *Guide*.

Audience: This tool is designed for cross-disciplinary teams and organizations involved in data collection efforts related to the educational outcomes of youth in foster care. Its structured framework ensures that selected methods align with shared goals, comply with confidentiality laws, and address the specific needs of collaborative or individual agency initiatives. The tool is adaptable for various contexts, including local, state, and interagency efforts.

Primary Audiences:

1. Child Welfare Agencies and Education Agencies:
    - Data Specialists: To evaluate existing methods, ensure technical alignment, and recommend strategies for data collection.
    - Program Managers: To oversee the process and ensure alignment with agency goals and compliance requirements.
    - Leadership Teams: To approve and guide data collection efforts within the organization.
2. Cross-Agency Collaborative Teams:
    - To identify shared goals and align data collection practices across agencies, fostering effective collaboration.
    - To ensure mutual understanding of data-sharing agreements and confidentiality protocols.
3. Third-Party Organizations and Researchers:
    - To contribute expertise in data analysis, survey development, or qualitative methods.

- To collaborate with agencies on shared data collection initiatives, offering external insights and technical support.

4. Legal and Compliance Teams:
    - To ensure that all selected methods adhere to FERPA, USA, and other legal frameworks.

Why It is Relevant for All Team Members:

- Collaborative Relevance: The tool provides a shared framework for fostering consensus across teams, enabling a unified approach to data collection.
- Broad Applicability: While data specialists may lead the process, contributions from program managers, educators, caseworkers, and legal advisors ensure that chosen methods are practical, compliant, and aligned with program goals.
- Action-Oriented: The tool includes steps for creating action plans, assigning responsibilities, and monitoring progress, making it relevant for all roles within a data project.

How to Use the Tool: Use the tool in your organization or in joint meetings with education and child welfare agencies to align efforts.

1. Iterate as Needed: Revisit the tool periodically to ensure the selected methods remain effective.
2. Document Your Process: Identify the project lead and the keeper of the data. Keep detailed records of decisions and actions for accountability and future reference.

Completed Example: Data Collection Methods Selection Tool

Scenario: A state level collaboration involving the state child welfare and education agencies is interested in assessing how placement stability impacts academic outcomes for youth in foster care. They have identified the following goals or research questions:

- *How does the number of school changes correlate with standardized test scores?*
  What is the relationship between placement stability and attendance rates?

The following emerged in team discussions about data capacity:

- The scope of the data collection involves statewide analysis of youth in foster care enrolled in K-12 public schools.
- The team identified the past three academic years as the timeframe of interest.

- There are MOUs in place between the state Department of Education and the child welfare agency to share aggregate level data.
- The potential data sources identified are attendance logs and test scores from the department of education and placement history and service utilization from the child welfare database. Data points included in these sources are attendance rates, standardized test scores, number of placements, and case notes on educational services.
- Placement data are incomplete for youth who transferred across state lines. Attendance records are missing for some mobile students. Race and ethnicity data of students are incomplete.
- A secure state dashboard allows cross-agency access to attendance and placement data.

Based on this information, the team engaged in discussions to select data collection methods, review confidentiality laws and ensure they would be followed in data collection efforts, designed a data collection action plan and a process to monitor and evaluate their results. Their completed worksheet is provided below.

Data Collection Methods Selection Tool

STEP ONE: SELECT DATA COLLECTION METHODS

Method	When to Use	Does This Apply?	Selected	Notes
Shared Information Systems	When data already exists in agency systems and can be accessed via dashboards or secure portals.	Yes	Yes	Use the state dashboard to combine school attendance and placement stability data.
Administrative Data Analysis	When analyzing historical data, such as test scores or attendance, to identify trends.	Yes	Yes	Review statewide attendance and test score data to identify correlations with placement history.
Surveys and Questionnaires	When firsthand feedback is needed (e.g., from students,	Yes	Yes	Distribute surveys to students to understand their experiences with school transitions.

	caregivers, or educators).			
Casefile or Record Review	When detailed qualitative or quantitative information is stored in existing files.	Yes	Yes	Review case files for additional context on placement stability and educational challenges.
Interviews and Focus Groups	When gathering in-depth qualitative insights from stakeholders.	Yes	Yes	Conduct focus groups with foster parents and caseworkers to discuss educational barriers.
Observations	When direct observation of behaviors or interactions can provide valuable context.	No	No	Observations would not provide relevant information.
Case Studies	When analyzing individual cases for a comprehensive understanding of specific scenarios.	No	No	The focus is on aggregate data rather than individual cases.

STEP TWO: ENSURE COMPLIANCE WITH CONFIDENTIALITY LAWS AND PROTOCOLS	
Question	**Example Response**
Have you reviewed applicable laws (e.g., FERPA, USA) regarding data use and sharing?	Yes, FERPA and USA allow sharing of educational data of youth in foster care with child welfare agencies.
Are data-sharing agreements in place to enable collaboration?	Yes, current MOUs cover aggregate data sharing, but they may need to be updated for individual-level data.

Have confidentiality protocols been established for the selected methods?	Yes, only authorized personnel will have access to identifiable data, and all records will be anonymized for reporting.
What steps will you take to ensure secure data handling and storage?	All data will be stored in encrypted databases, and files will be transferred using secure file-sharing platforms.
Will staff receive training on confidentiality and data-sharing policies?	Yes, annual FERPA/USA compliance training will be provided to all participating staff.

STEP THREE: CREATE AN ACTION PLAN

Action Step	Responsible Party	Timeline	Notes
Finalize the data collection purpose and scope.	Project Lead	1 week	Confirm research questions with all stakeholders.
Inventory and assess existing data sources.	Data Specialist	2 weeks	Review state dashboard for available data and identify gaps.
Select appropriate data collection methods.	Collaborative Team	1 week	Choose methods that balance feasibility and depth of insight.
Develop or update data-sharing agreements.	Legal and Agency Representatives	1 month	Revise MOUs to include individual-level data sharing, ensuring compliance with FERPA/USA.
Train staff on confidentiality and selected methods.	Training Coordinator	3 weeks	Include training on secure data handling and survey/questionnaire design.
Implement selected methods and begin data collection.	Project Manager	Start Date: Jan. 2025	Ensure all methods are launched simultaneously to streamline timelines.

STEP FOUR: MONITOR AND EVALUATE	
Question	**Example Response**
Are the chosen methods yielding the data needed to address your goals?	Yes, administrative data and surveys are providing robust insights into school stability and performance.
Are there any unexpected challenges or barriers?	Survey response rates from youth in foster care are lower than expected; plan to send follow-up reminders.
What adjustments are needed to improve the process?	Expand casefile reviews to include more qualitative context about placement stability.
How will you document lessons learned for future data collection efforts?	Create a report summarizing challenges, successful methods, and recommendations for future studies.

Chapter Four: Data Analysis and Reporting Practices

Data analysis is the critical step that transforms raw data into actionable insights, enabling child welfare agencies, education agencies, cross-agency teams and other partners to make informed decisions that improve outcomes for youth in foster care. This chapter guides you through best practices for ensuring data accuracy, handling missing data, combining qualitative and quantitative methods, and effectively communicating findings through clear visualizations and reporting.

By providing guidance on analyzing data accurately and thoughtfully, this chapter equips diverse audiences with the tools to uncover meaningful trends, interpret findings responsibly, and use those insights to advocate for and implement changes to improve the educational outcomes of youth in foster care.

Audience: This chapter is intended for those tasked with analyzing data and reporting the findings. While some technical guidance tailored to data experts is offered (e.g., it covers technical methods for handling missing data, performing statistical and qualitative analyses, and interpreting results), the information presented is also relevant to non-technical team members. By focusing on the key steps of reviewing, analyzing, and reporting data, the chapter provides practical insights that help all team members understand and contribute to meaningful discussions about the data. A tool is also provided to assist teams in their data analysis and reporting planning (see appendix to this *Guide* for blank tool).

Review Your Data as an Important First Step in Analysis

Why Review?

Once you have collected your data you need to review it to ensure the data are accurate and clean. Remember the saying, "garbage in, garbage out." If your data are not reliable, your findings will not be either.

Key Steps:

- **Clean and Organize Your Data**: Remove any irrelevant or incorrectly formatted entries. For instance, ensure test scores are entered consistently (e.g., not mixing percentage scores with letter grades). Look for data entry errors, like swapped dates or duplicate student records.

- **Check for Missing Data**:

Types of Missing Data

1. **Missing Completely at Random (MCAR):**
   - **What it means**: Data are missing for no reason. There is no pattern to why it is missing, and it does not depend on anything about the people or situations involved.
   - *Example*: A random mix of students' test scores were lost because of a computer glitch. It has nothing to do with the students or their performance.
2. **Missing at Random (MAR):**
   - **What it means**: Data are missing in a way that is connected to something we know about, but not to the specific data that is missing.
   - *Example:* Attendance records are missing more often for students from low-income families. The missing data is not about their attendance habits (which is what we want to study), but it is tied to their family's financial situation, which is something we know about.
3. **Missing Not at Random (MNAR):**
   - **What it means**: Data are missing for a specific reason related to the data itself. This makes it harder to figure out.
   - *Example*: Reports on student behavior are incomplete because students with more serious issues are less likely to participate in surveys. The missing data is directly tied to the sensitive nature of the behavior we want to study.

Why These Types Matter

- **MCAR**: This type is easiest to deal with because the missing data are purely random. Simple fixes, like ignoring the missing data or filling in the gaps with averages, often work well.
- **MAR**: This type is a bit trickier, but since the missing data are linked to things we know, we can adjust for it using statistical methods.
- **MNAR**: This type is the most challenging because the missing data depends on what is missing. It might need deeper investigation or extra information from outside sources to understand and fix.

Handling Missing Data – Listwise Deletion, Re-Coding, and Statistical Imputation

1. **Listwise Deletion**: Remove any case with missing data. This is feasible if your dataset is large (e.g., deleting five incomplete records out of 1,000). This method handles missing data by removing any observations (rows) in the dataset that contain missing values. This method ensures that only complete cases are used in the analysis, simplifying the statistical process but potentially reducing the sample size and possibly introducing bias if the missing data is not random.

   Example Scenario: Imagine you are analyzing a dataset of educational outcomes that includes variables such as attendance rate, test scores, and parental involvement. You find that 15% of the observations have missing data for one or more of these variables. If you use listwise deletion, any child with a missing value in any of the variables would be removed entirely from the analysis. For instance:

   Initial Dataset:

   - Child A: 95% attendance, 85 on test, involved parent
   - Child B: 88% attendance, missing test score, involved parent
   - Child C: 92% attendance, 78 on test, uninvolved parent

   After Listwise Deletion:

   - Only Child A and Child C would remain in the analysis because Child B has a missing test score.

   Pros: Simple and easy to implement. Maintains consistency across analyses as all analyses use the same cases.

   Cons: Reduces sample size, which can decrease statistical power (see text box regarding statistical power). Potentially introduces bias if the missing data is not missing completely at random (e.g., children with lower test scores are more likely to have missing data).

   Example in Practice: In a research study evaluating educational outcomes for children in foster care, applying listwise deletion might result in excluding those who frequently miss school and thus have incomplete data. This could lead to an analysis that may not fully represent the true performance of the broader group, potentially skewing results toward higher-attendance children who are more likely to have complete data.

2. **Re-coding and Follow-ups**: Reach out for missing details when possible, such as contacting schools for verification.

Re-coding Practice Example: If a survey asks foster parents about the type of educational support their child in foster care receives, but some respondents leave the question blank, you might recode this data by assigning a common category based on available information. For instance, if most of the respondents who skipped the question are known to be from a school with robust support programs, you could recode their responses to reflect that they likely receive such support, thereby filling in gaps based on contextual knowledge.

Follow-Up with Schools Practice Example: If a child's school attendance records are missing from a dataset, consider reaching out directly to the school administration. You could ask them to verify the child's attendance for the school year, ensuring you gather accurate and complete data. This direct communication not only provides clarity but also strengthens the dataset's reliability. If test scores are missing for a group of children in foster care, contacting the schools to verify if the tests were administered and whether the scores are recorded could fill in these gaps. If some children did not take standardized tests, reaching out to the schools can provide insight into why and whether alternative assessments were used.

Follow-Up Surveys Practice Example: After distributing an initial survey, you might find that a significant portion of foster parents did not respond. Sending out a follow-up survey with a reminder and an invitation to share their experiences can encourage participation. Consider offering a small incentive for completing the survey, which can also increase response rates.

3. **Statistical Imputation**: Use statistical techniques to estimate missing values. Statistical imputation refers to the process of replacing missing data points with estimated values to maintain a complete dataset for analysis. The aim is to minimize bias and retain the representativeness of the dataset. To use this strategy, you may need to engage with data analysts or research consultants.

   Here are a few common types of imputation:

   1. **Mean Imputation:** A simple technique where missing values are replaced with the mean of the observed values in the dataset. *Example*: If a dataset of students' math scores has a few missing values, the mean score of the known data points can be calculated and used to fill in the blanks.

   2. **Regression Imputation:** Uses statistical models to predict the missing values based on relationships with other variables in the dataset. *Example:* If you have data on students' attendance and reading scores but some test scores are missing, you could use a

regression model with attendance as an independent variable to estimate the missing test scores.

3. **Multiple Imputation:** A more sophisticated approach where the process is repeated multiple times to create several different completed datasets. Each dataset is analyzed, and results are combined to provide estimates that reflect uncertainty due to missing data. *Example*: In analyzing school satisfaction surveys where demographic information is missing, multiple imputation could create multiple datasets with different plausible values for those demographics. The combined analysis of these datasets would yield robust insights.

Why Use Statistical Imputation? These methods help retain the statistical power of the dataset and avoid bias that may arise from simply deleting incomplete cases.

Example in Practice: Suppose you are working with a dataset tracking educational performance of children in foster care and notice some missing grades. By using mean imputation, you might replace those with the average grade across the class. If you use regression imputation, you could predict grades based on related data, like school attendance or standardized test scores. Statistical imputation ensures that your analysis is as complete as possible without distorting the dataset's integrity.

NOTE:

Statistical power is the probability that a statistical test will detect an effect when there is an actual effect present. In simpler terms, it measures how likely your statistical test is to avoid a *false negative* result, which means failing to identify a real difference or effect when it exists.

A ***higher statistical power*** means that there is a greater chance of correctly rejecting a null hypothesis when it is false, leading to more reliable conclusions. For example, if you are researching whether a special tutoring program improves the test scores of children in foster care, the null hypothesis would be: *"The tutoring program has no effect on the test scores of children in foster care."* In testing, you seek to collect evidence to reject the null hypothesis, showing that there is a significant effect or difference.

Statistical power depends on factors such as sample size, effect size (the magnitude of the difference or relationship being tested), and the significance level (the threshold for deciding if an effect is statistically significant). For example, if you are conducting a study on the impact of a tutoring program on the educational outcomes of children in foster care, a high statistical power would ensure that if the program truly makes a difference, your analysis is more likely to detect this positive effect.

Quantitative vs. Qualitative Data

Effective data analysis often requires combining quantitative (numerical) and qualitative (descriptive) data to provide a complete understanding of educational outcomes for youth in foster care. This chapter details the key differences, best practices for analysis, and practical examples of how these approaches can be applied to real-world scenarios. It also highlights the importance of leveraging both methods—known as **mixed methods**—to generate actionable insights.

Key Differences Between Quantitative and Qualitative Data

Aspect	Quantitative Data	Qualitative Data
Nature of Data	Numerical and measurable (e.g., test scores, number of school changes, attendance rates).	Descriptive and exploratory (e.g., interview responses, observations, open-ended survey comments).
Collection Methods	Structured tools like standardized tests, surveys with closed-ended questions, and administrative records.	Open-ended interviews, focus groups, observations, and case studies.
Analysis	Statistical techniques to identify patterns, trends, and relationships (e.g., averages, regression).	Thematic analysis, coding, and narrative interpretation to identify key themes and insights.
Purpose	Answers "how many," "how much," or "to what extent."	Explores "why" and "how" phenomena occur.
Output Format	Tables, graphs, and statistical summaries.	Narrative descriptions, quotes, and thematic summaries.

Best Practices for Quantitative and Qualitative Data Analysis

Quantitative Data Analysis Tips

1. **Summary Statistics:** Use means, medians, and percentages to describe your data.
   Example: If 60% of youth in foster care meet grade-level reading proficiency, include the sample size: "60% of 300 students."
2. **Comparative Analysis:** Look for differences across groups or time periods.
   Example: Compare math scores before and after a tutoring program using gain scores.
3. **Visualizations:** Use bar graphs, line charts, or scatter plots to present trends clearly.

Qualitative Data Analysis Tips

1. **Identify Themes:** Analyze responses to detect recurring topics, such as “transition challenges” or “positive teacher support.”
2. **Create Categories:** Group data into categories like "barriers to success" or "resources that helped."
3. **Quantify Themes:** Highlight the prevalence of themes, such as “70% of youth in foster care mentioned difficulty adapting to new schools.”
4. **Quotes for Context:** Use anonymized quotes to illustrate key findings.
   Example: “I wish I didn’t have to move schools every year, it really set me back with my grades.” (youth in foster care, grade 8)

Mixed Methods: Combining Quantitative and Qualitative Data

By integrating both approaches, you can gain a deeper understanding of complex issues.

- *Example*: Use attendance records to show trends in absenteeism (quantitative) and focus groups with students to understand the reasons behind those trends (qualitative).

***Combining data and context enhances understanding*:**

1. **Quantitative data** captures measurable trends (e.g., graduation rates, attendance improvements).
2. **Qualitative insights** provide the underlying reasons and lived experiences behind the numbers (e.g., stability, reduced anxiety).
3. **Mixed methods** offer a powerful approach to identify issues, measure progress, and inform future decisions by connecting numerical trends to real-world stories.

Plan the Analysis

1. Start by Defining the Specific Questions your Data will Address.

A clear focus ensures your analysis aligns with your organization's or agency's goals and priorities. Refer to the goals and research questions you identified for your data collection efforts (see guidance in Chapter One).

Examples of analysis goals might include:

General Analysis Goals:

- Do students in foster care achieve comparable graduation rates to their peers?
- How does the number of school changes relate to academic performance?
- What are the most significant barriers students in foster care face in achieving educational success?

Agency-Specific Questions:

- How many students in the school/district are in foster care?
- Where are the students in the care of the child welfare agency attending school?
- How many students in the care of the child welfare agency have Individualized Education Programs (IEPs)?
- What percentage of youth in foster care demonstrate academic growth in core subjects over a school year?
- How does access to school-based counseling affect attendance rates for youth in foster care?
- What trends exist in suspension or disciplinary action rates for students in foster care compared to non-foster peers?
- Are students in foster care participating in extracurricular programs at the same rate as their non-foster peers?

2. Data Grouping and Description

Consider how best to group and describe your data to provide the most meaningful analysis. Consider grouping findings by sample characteristics and meaningful categories.

Sample Characteristics: The descriptive traits or attributes of the individuals in your dataset. They provide a snapshot of who is included in your sample and give context to the analysis by summarizing important demographic or contextual details.

- *Purpose*: To help understand the makeup of your sample population and ensure that analyses consider the diversity or representativeness of the group.

- *Examples*:
    - Number of students in each grade level.
    - Demographic information such as age, race, ethnicity, or gender.
    - Types of foster care placements (e.g., kinship care, group homes, or independent living situations).

Categorical Grouping: This involves organizing data into meaningful categories based on patterns, behaviors, or characteristics that relate to the questions being analyzed. It is often used to group data into ranges, types, or trends to make comparisons easier.

- *Purpose*: To facilitate analysis by focusing on specific variables that help answer the research questions, often involving behavior, frequency, or outcomes.
- *Examples*:
    - Frequency of school changes (e.g., 0–1 changes, 2–3 changes, 4+ changes).
    - Types of educational programs accessed (e.g., special education, tutoring, or mentoring).
    - Attendance trends (e.g., chronic absenteeism, regular attendance).

Key Difference

- **Sample characteristics** describe "who" is in your dataset (e.g., age, gender, placement type).
- **Categorical grouping** organizes data into categories based on "what" you are analyzing (e.g., how often students change schools, what programs they access).

Practice Example:

To analyze academic outcomes:

- Use **sample characteristics** to describe the group of youth in foster care being studied, such as the percentage in different grade levels or placement types.
- Use **categorical grouping** to compare academic performance by the number of school changes, grouping students into categories like 0–1 changes, 2–3 changes, and 4+ changes, and then analyzing their average math and reading scores.

3. Consider Data Visualizations

Clear and effective visuals help communicate findings to diverse audiences. Tailor visualizations to meet the needs of your audience, including educators, child welfare professionals, families, and policymakers.

Visualization Tips:

Audience Type:

- Use detailed tables for technical audiences needing granular data.
- Use simplified charts or infographics for general audiences.

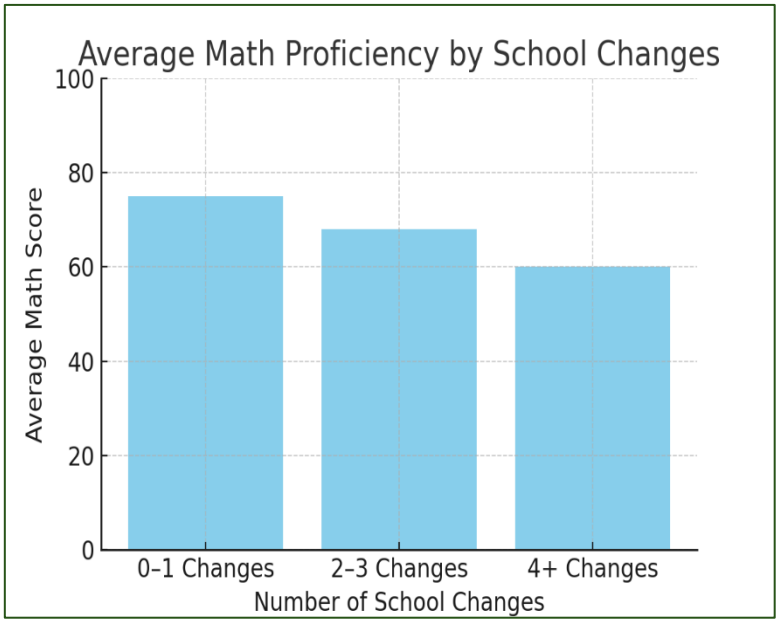
Context in Visuals:

- Label axes clearly, define key terms, and include sample sizes (e.g., 80% of 250 foster students').
- Include annotations or callouts to highlight key insights.

Data Visualization Examples

Quantitative Data Example: Bar Graph

Use a bar graph to compare average test scores of children in foster care by number of school changes.



This bar chart visually demonstrates the relationship between the **number of school changes** a student experiences and their **average math proficiency scores**.

Key Observations:

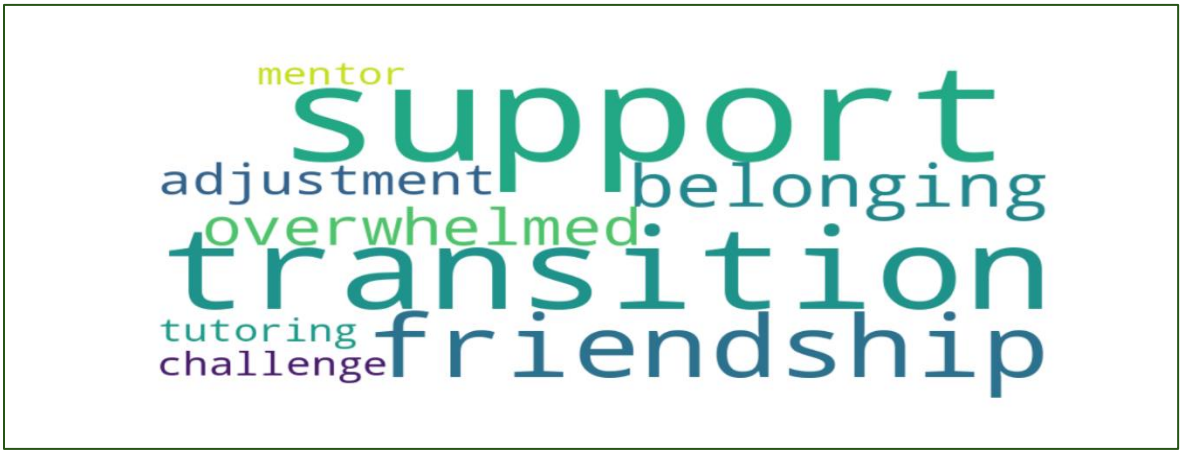
1. **Categories of School Changes:**
   The chart divides students into three groups based on the number of school changes:
   - **0–1 Changes**
   - **2–3 Changes**
   - **4+ Changes**
2. **Math Proficiency Declines with More School Changes:**
   - Students with **0–1 school changes** have the **highest average math proficiency score** (around 75).
   - Students with **2–3 school changes** have a slightly lower average math proficiency (around 65).
   - Students with **4+ school changes** have the **lowest average math proficiency** (around 60).
3. **Implications:**
   - This trend indicates that **frequent school changes** may have a negative impact on math proficiency.
   - Stability in schooling (i.e., fewer school changes) appears to be associated with higher academic performance, particularly in math.
   - Programs aimed at reducing school instability or providing additional academic support for students experiencing frequent school changes could help mitigate this issue.

Conclusion:

The chart highlights a **downward trend** in math performance as the number of school changes increases. It underscores the importance of addressing school mobility to improve educational outcomes, particularly for populations like youth in foster care who may experience frequent disruptions in schooling.

Qualitative Data Example: Word Cloud

Use the word cloud to highlight key themes obtained from interviews conducted with youth in foster care about their experience of school transitions (e.g., 'support,' 'friendships,' 'confusion').



This word cloud visually represents the most common themes or keywords identified in a set of qualitative data, such as interview responses, survey feedback, or open-ended comments. The **size of each word** corresponds to its **frequency or importance**—the larger the word, the more frequently it appeared in the data.

Key Observations:

1. **Prominent Themes:**
    - The largest words, such as **"support," "transition,"** and **"friendship,"** suggest that these concepts were the most frequently mentioned or emphasized by respondents.
    - This indicates that themes like receiving support, experiencing transitions, and building friendships are central to the discussion.
2. **Secondary Themes:**
    - Words like **"belonging," "overwhelmed," "adjustment,"** and **"mentor"** are slightly smaller but still significant. These words may represent challenges, emotions, or positive experiences commonly referenced.
    - For example, "overwhelmed" might point to difficulties during transitions, while "belonging" and "mentor" highlight positive factors that support stability or success.
3. **Implications for Interpretation:**
    - The word cloud likely emerged from a study or feedback process related to youth experiences—perhaps in educational or foster care contexts—where respondents

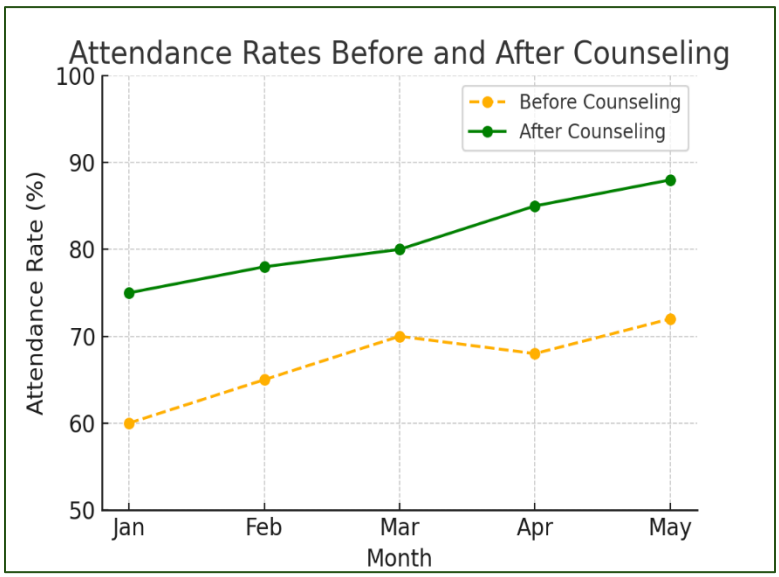
expressed needs (e.g., "support"), challenges ("adjustment," "overwhelmed"), and positive aspects ("friendship," "tutoring").

- Programs or initiatives focusing on **mentorship, stable transitions, and fostering friendships** could address the needs and themes reflected here.

By analyzing the word cloud, teams can identify the most common experiences, concerns, or priorities and use this insight to guide decision-making, develop targeted support programs, or explore these themes further through additional qualitative research.

Combined Example: Line Graph and Qualitative Insights

Create a combined visualization to tell a story with data. The line graph below shows improved attendance rates after counseling, supported by student quotes describing the impact of counseling.



Sample student quotes (100 interviews were completed):

"Counseling helped me feel more comfortable at school."

"Having someone to talk to made me want to attend every day."

"I felt supported to do my best at school by my counselor which motivated me to attend."

This line chart shows the improvement in student attendance rates after counseling interventions, with added insights from student surveys explaining why attendance improved.

Key Observations:

1. **Quantitative Trends (Attendance Rates):**
   - Before Counseling (orange dashed line):
     Attendance rates started low, around 60% in January, and increased only gradually, reaching about 72% in May.
   - After Counseling (green solid line):
     Attendance rates were consistently higher, starting at 75% in January and improving steadily to 90% by May.

- Gap in Attendance:
  By May, there is an 18% difference between attendance rates before and after counseling, highlighting the impact of the intervention.

2. **Qualitative Insights (Student Quotes):**
   Student surveys provide context for the improved attendance rates:
   - "Counseling helped me feel more comfortable at school."
     This suggests counseling reduced anxiety or discomfort, enabling students to feel safer and more supported, which likely increased their willingness to attend.
   - "Having someone to talk to made me want to attend every day."
     This indicates that counseling provided emotional support and connection, giving students a positive reason to come to school regularly.
3. **The Connection Between Data Points:**
   - The steady improvement in attendance rates aligns with students' reported experiences of increased comfort and connection due to counseling.
   - Emotional support likely addressed barriers such as disengagement, anxiety, or a lack of motivation, which are common contributors to absenteeism.

Key Takeaways:

1. **Counseling as a Supportive Intervention:**
   The combination of quantitative data (rising attendance rates) and qualitative feedback (student quotes) demonstrates that counseling programs address both the emotional and practical barriers to attending school.
2. **Positive Trends Over Time:**
   The widening gap between the two lines indicates that the counseling intervention had a sustained and growing impact on attendance rates. Students' improved comfort and motivation likely compounded over time.
3. **Practical Implications:**
   - Counseling programs are an effective strategy to increase attendance, particularly for students experiencing emotional challenges.
   - Scaling counseling services and incorporating similar emotional support programs could yield broader improvements in student engagement.

Conclusion: The attendance data, combined with student feedback, highlights the value of counseling in creating a supportive school environment. Measurable improvements in attendance were seen after the counseling intervention, while qualitative insights provide a deeper understanding of how and why counseling was effective. This mixed-method approach strengthens the case for investing in student support services to improve school engagement and overall outcomes**.**

Cautionary Language on Inferring Causation

When interpreting the data presented in these examples, and your own data, it is important to exercise caution and avoid assuming causation. In the example presented, while the trends in attendance rates and the qualitative insights from students suggest a relationship between counseling and improved attendance, these results do not establish a direct causal link. Instead, findings should be viewed as evidence that counseling programs may contribute to improved outcomes and warrant further investigation.

- **Correlation vs. Causation**:
  The increase in attendance rates after counseling may be influenced by multiple factors beyond the intervention itself. For example, improved attendance could also be tied to changes in school policies, increased family support, or other external influences during the same time period.
- **Qualitative Insights**:
  Student feedback, such as "Counseling helped me feel more comfortable at school," provides valuable context for understanding why attendance may have improved. However, these statements reflect students' perceptions and should not be used as definitive evidence that counseling alone caused the observed changes.
- **Other Contributing Factors**:
  Attendance improvements might also be linked to factors like:
  - New transportation programs,
  - Supportive foster care placement,
  - Broader school-wide initiatives, or
  - Changes in class schedules or teaching practices.
- **Further Analysis Needed**:
  To explore whether counseling directly caused the attendance improvements, additional research—such as a controlled study or statistical testing—would be required to account for other potential influences.

Data Analysis and Reporting Plan Tool

This tool is designed for teams and individuals involved in analyzing data and reporting findings related to foster care and educational outcomes. By using this tool, teams can ensure a systematic approach to analyzing and reporting data that aligns with shared objectives and addresses the needs of diverse stakeholders.

Audiences:

- Data Specialists: To structure and plan the technical aspects of data analysis.
- Program Managers and Team Leaders: To align analysis efforts with program goals and organizational priorities.
- Cross-Agency Teams: To foster collaboration between child welfare and education agencies, ensuring shared understanding of data and findings.
- Policymakers and Administrators: To guide the process of translating data insights into actionable recommendations and decisions.
- Third-Party Collaborators: Researchers, evaluators, and nonprofit organizations seeking to assist agencies in data-driven decision-making.

Instructions for Use:

1. Assemble the Right Team: Include representatives from key stakeholders, such as data specialists, program managers, and partners from child welfare and education agencies. Ensure the team has the technical expertise and contextual knowledge needed for effective data analysis and reporting.
2. Follow the Sections of the Tool: Work through each section systematically to—
    - Define clear goals for analysis.
    - Review and prepare the dataset for accuracy and completeness.
    - Select appropriate methods for analysis, including quantitative, qualitative, or mixed methods approaches.
    - Plan visualizations tailored to diverse audiences.
    - Develop a detailed report structure and dissemination strategy.
3. Document Decisions and Assign Roles:
   Use the tool to record key decisions, assign responsibilities for each task, and track progress. Ensure all team members are clear on their roles and timelines.

4. Adapt the Tool to Your Context:
   Tailor the tool to meet the specific needs of your project. For example:
   - If working on a local initiative, focus on granular data analysis and community-specific reporting.
   - For statewide or cross-agency collaborations, emphasize standardized approaches and joint goals.
5. Revisit the Plan Regularly:
   As analysis progresses, revisit the tool to address challenges, refine methods, or incorporate new data. Document any changes to ensure transparency and accountability.
6. Use the Tool for Action Planning:
   The final sections of the tool focus on translating findings into actionable recommendations and identifying next steps. Use this as a springboard for discussions on implementing improvements, addressing gaps, and enhancing collaboration.

Completed Example Data Analysis and Reporting Planning Tool

Section 1: Define Analysis Goals

- **What are the main questions the analysis will address?**
  Example:
  - *How does placement stability impact academic performance?*
  - *Do students in foster care achieve comparable graduation rates to their peers?*
- **What is the purpose of the analysis (e.g., program evaluation, policy advocacy)?**
  Example: To evaluate the effectiveness of a mentoring program on school engagement.
- **Who are the intended audiences for the findings (e.g., policymakers, educators, funders)?**
  Example: Policymakers and child welfare agencies.

Section 2: Review and Prepare Data

- **What steps are needed to review and clean the data?**
  Check off the following items in this "to do" Checklist:
  - Have duplicate entries been removed?
  - Have inconsistencies in formatting been corrected? (e.g., percentages vs. letter grades).

- How have we addressed missing data? (use methods like listwise deletion, recoding, or statistical imputation).

- **Are there any limitations in the data that should be noted?**
  Example: Missing placement stability data for youth who moved across state lines.

Section 3: Plan Analysis Methods

- **What type of analysis will be conducted?**
  - *Quantitative Analysis*: Identify statistical methods to measure trends and relationships (e.g., regression analysis, comparative statistics).
  - *Qualitative Analysis*: Plan for coding and thematic analysis of interview or focus group data.
  - *Mixed Methods*: Combine both approaches for a comprehensive view.
- **How will the data be grouped or categorized?**
  Example:
  - By demographic characteristics (e.g., age, race/ethnicity).
  - By educational metrics (e.g., attendance rates, test scores, graduation outcomes).
- **What tools or software will be used for analysis?**
  Example: Excel for data organization, SPSS for statistical modeling, NVivo for qualitative coding.

Section 4: Design Data Visualizations

- **What types of visualizations will be used to present findings?**
  Options:
  - Bar graphs to show trends in academic performance.
  - Word clouds to illustrate themes from qualitative data.
  - Combined visuals (e.g., line graphs with qualitative quotes).
- **Will visualizations be tailored for different audiences?**
  Example: Use detailed tables for technical audiences and simplified charts for policymakers.

Section 5: Develop a Reporting Plan

- **What is the structure of the report?**
  Template:
  1. Executive Summary (overview of findings and implications).
  2. Background and Purpose.
  3. Methodology.
  4. Key Findings (include visualizations).
  5. Recommendations and Action Steps.
- **How will the report be disseminated?**
  Options:
  - Present findings in a formal meeting or webinar.
  - Share an executive summary with stakeholders via email.
  - Post findings on an agency's website.
- **Who is responsible for each part of the report?**
  Example:
  - Data analysis: Data specialist.
  - Visualization design: Program manager.
  - Final report writing: Project lead.

Section 6: Address Limitations and Ensure Contextual Accuracy

- **What potential biases or limitations should be addressed?**
  Example: Missing data or sample size limitations.
- **How will we ensure that findings are interpreted responsibly?**
  - Include cautionary language on the difference between correlation and causation.
  - Provide context for qualitative insights.

Section 7: Plan for Action and Follow-Up

- **What are the next steps after the report is completed?**
  Example: Host a workshop with stakeholders to discuss findings and next steps.
- **How will findings be used to inform decisions or improvements?**
  Example: Recommendations will be incorporated into the development of new programs or policies.

Chapter Five: Using and Sharing Data Findings in Continuous Quality Improvement

Once data collection and analysis are complete, the true value lies in interpreting the findings and using them to inform decisions. For agencies working with youth in foster care, leveraging results effectively can drive impactful program improvements, policy changes, and long-term planning. This chapter provides strategies for interpreting data, engaging stakeholders, and fostering continuous improvement, including addressing challenges like environmental or contextual factors that may influence results.

Audience: This chapter is relevant for all team members, especially program managers, policymakers, and stakeholders responsible for applying data findings to drive improvements. By providing strategies for interpretation, stakeholder engagement, and continuous improvement, the chapter equips all audiences with tools to make informed, impactful decisions. Data analysts can also use this chapter to ensure their reports are accessible and actionable for non-technical audiences.

Interpreting and Discussing Findings

The interpretation phase transforms data into actionable insights. It is critical to go beyond the numbers to understand the "why" behind the findings and identify implications for practice and policy.

Guiding Questions for Stakeholder Discussions

1. What do the findings tell us about educational challenges for youth in foster care?
   Example: If the data reveals lower high school graduation rates among youth in foster care compared to their peers, this indicates a priority area for intervention, such as targeted academic support or credit attainment initiatives.
2. Were there unexpected outcomes?
   Example: If youth in rural districts perform worse academically than those in urban settings, this might highlight challenges with resource availability, such as fewer specialized programs or limited access to extracurricular activities.
3. Can differences be explained by external factors?
   Example: A significant decline in attendance rates during a year with widespread teacher strikes or staff shortages may indicate the need to consider broader systemic disruptions that could affect student engagement.

Practice Example: Interpreting Minimal Impact from a Tutoring Program

Imagine post-intervention data shows minimal improvement in math scores among youth in foster care after implementing a new tutoring program.

- Questions to consider:
  - Was the program delivered as designed?
  - Were there barriers to participation, such as scheduling conflicts or a lack of alignment with curriculum needs?
  - Did external factors, such as inconsistent teacher availability, limit program effectiveness?
- Next Steps:
  Conduct additional data collection, such as surveys or focus groups with students, tutors, and caregivers, to explore the program's limitations and identify areas for improvement.

Planning and Implementation

Collaboration across agencies and stakeholders is essential to turning data insights into action. Data-informed discussions can guide both immediate interventions and long-term strategies.

Guiding Questions for Stakeholder Discussions

1. What worked well and why?
   Example: If data shows improved attendance and engagement among youth in foster care in peer mentorship programs, focus on scaling these programs.
2. What areas need more support?
   Example: If students excel in reading but struggle with math, prioritize investments in targeted math interventions, such as specialized tutoring or adaptive learning technologies.
3. How can findings inform future policies or programs?
   Example: Use evidence to advocate for hiring full-time educational liaisons in schools with high populations of youth in foster care, ensuring these students receive consistent support.

Practice Example: Scaling Effective Mentorship Programs

If analysis reveals that mentoring programs are linked to improved reading levels among youth in foster care:

- Collaborate with stakeholders to plan expansion to more schools or additional age groups.
- Use qualitative data (e.g., interviews with youth and teachers) to understand the program's success factors, such as trust-building or one-on-one attention.

- Present evidence to policymakers to secure funding for program scaling.

Using Results for Continuous Improvement

Data should not only guide immediate decisions but also support a culture of ongoing evaluation and refinement. Continuous improvement ensures that interventions remain responsive to the evolving needs of youth in foster care.

Strategies for Continuous Improvement

1. Review and Adapt:
   Regularly revisit program outcomes and adjust based on new data.
   Example: A pilot homework assistance program shows initial promise but plateaus in effectiveness after six months. Focus groups with participants might reveal the need for additional resources, such as training for staff or integrating more advanced subject support.

2. Benchmarking and Long-Term Goals:
   Compare current results with historical data or benchmarks to measure sustained progress.
   Example: Track high school graduation rates among youth in foster care over five years to evaluate the effectiveness of stability-focused interventions, such as reducing school transfers.

3. Anticipate Emerging Trends:
   Use findings to forecast challenges and opportunities.
   Example: If analysis reveals a drop in attendance during years with extreme weather events (e.g., hurricanes or wildfires), focus on building contingency plans that address transportation and housing stability in affected areas.

Practice Example: Evaluating Resource Gaps in Rural Areas

Findings show that youth in foster care in rural districts have lower standardized test scores compared to urban peers.

- Quantitative Data: Compare academic performance and program participation rates by district type (rural vs. urban).
- Qualitative Insights: Conduct interviews with youth in foster care and educators in rural areas to explore challenges, such as limited access to advanced coursework or stable internet connections.
  Next Steps: Use findings to advocate for resource investments in rural districts, such as increasing broadband access or funding mobile tutoring units.

Practical Tips for Using Your Results in Continuous Quality Improvement

1. Track Trends Over Time:
   Use time series data to monitor improvements or identify declining metrics.
   Example: Compare attendance rates across three school years to evaluate the impact of transportation assistance programs.
2. Set Benchmarks and Key Performance Indicators (KPIs):
   Define clear performance indicators to assess progress and align strategies.
   Example: Establish KPIs for attendance rates, grade-level proficiency, and participation in extracurricular activities.
3. Combine Data Types:
   Blend quantitative findings with qualitative insights to create a holistic picture.
   Example: Present test score improvements alongside quotes from students describing how mentoring helped them focus on academics.
4. Share Findings Transparently:
   Tailor presentations to your audience, using visuals to convey key insights.
   Example: Use graphs to illustrate trends, such as increasing graduation rates, and pair them with narrative summaries or direct quotes to humanize the data.

In Summary

Using results effectively means interpreting data in context, collaborating with stakeholders, and creating a feedback loop for continuous improvement. By leveraging both quantitative and qualitative insights, agencies can implement targeted interventions, advocate for necessary policy changes, and build a more supportive educational environment for youth in foster care—even when external factors such as systemic disruptions or resource inequities pose additional challenges.

Tool for Using Data Findings

This tool is designed to help agencies working with youth in foster care—such as education and child welfare agencies—collaboratively interpret findings, plan actionable steps, and establish a process for continuous improvement. It incorporates principles from the chapter to ensure data-driven decisions are made with stakeholder input and contextual factors in mind.

Audience: This tool is designed for education and child welfare agencies, cross-agency teams, and partners working with youth in foster care, including program managers, data specialists, and policy advocates. It is particularly useful for teams looking to:

- Collaboratively Interpret Findings: Bring together diverse stakeholders to ensure findings are understood within the context of lived experiences, systemic barriers, and local realities.
- Develop Actionable Plans: Translate findings into targeted programs, policy adjustments, or interventions that directly address identified gaps or challenges.
- Engage Stakeholders: Equip teams with strategies for presenting results and involving educators, caseworkers, parents and caregivers, policymakers, and other key players in decision-making.
- Promote Continuous Improvement: Establish a process for using data insights to guide ongoing evaluation and adaptation of programs and policies.

How to Use the Tool:

1. Collaborate Actively:
    - Use this tool in joint meetings with stakeholders to ensure inclusive discussions and shared decision-making.
    - Create an open environment where diverse perspectives can inform actionable steps.
2. Document Responses:
    - Record answers for each section in a centralized location to track team progress and ensure alignment.
    - Update responses as new insights or data become available.
3. Revisit Regularly:
    - Treat this tool as a living document. Revisit it periodically to measure progress, address emerging challenges, and refine strategies based on updated findings.
4. Combine Insights:

- Use the questions to integrate both quantitative findings (e.g., graduation rates, test scores) and qualitative insights (e.g., focus group feedback, interviews) into a comprehensive narrative.

5. Leverage Visualizations:
   - Identify effective ways to present findings through visual tools such as graphs, charts, and narrative summaries tailored to various audiences.

Using the Tool

1. **Collaborate Actively:** Use this tool during joint meetings with stakeholders to ensure all voices are heard and considered.
2. **Document Progress:** Record answers to each section, update responses as new insights emerge, and share updates with relevant parties.
3. **Revisit Regularly:** Continuous improvement depends on revisiting findings, evaluating progress, and making necessary adjustments

Completed Example Tool for Using Data Findings

This completed example illustrates how teams can use findings to create actionable plans, address barriers, and promote continuous improvement. A template blank tool is provided in the appendix to this *Guide*.

Section 1: Interpreting and Discussing Findings

Question	Example Response
What do the findings reveal about the educational challenges of youth in foster care?	Graduation rates for youth in foster care are 15% lower than their non-foster peers. This highlights a significant gap in educational attainment.
Were there any unexpected outcomes?	Yes, youth in foster care in kinship care placements demonstrate higher academic performance than those in group homes. This suggests family-like environments may positively impact education.
Can the findings be influenced by external factors (e.g., systemic disruptions, resource limitations)?	Transportation barriers in rural districts may explain lower attendance rates. Limited access to specialized academic support programs could also be a contributing factor.
Are there discrepancies across subgroups (e.g., rural vs. urban districts, placement types)?	Youth in foster care in rural areas have lower standardized test scores compared to urban peers. Additionally, older youth in care have lower participation in extracurricular programs.

What additional qualitative insights (e.g., interviews, focus groups) can help explain the results?	Conduct focus groups with rural foster families to explore challenges, such as access to technology or reliable transportation. Interviews with caseworkers could provide additional context.

Section 2: Planning and Implementation

Question	Example Response
What programs or policies were most successful? Why?	Peer mentorship programs were associated with improved attendance and engagement, likely due to the supportive relationships they foster.
What areas require more attention or improvement?	Math proficiency among youth in foster care remains significantly below grade level. Targeted interventions are needed to address this gap.
What steps should be prioritized to address identified gaps or challenges?	1. Expand peer mentorship programs to rural districts. 2. Develop targeted math tutoring initiatives.
How can findings guide future program or policy development?	Advocate for educational liaisons in schools with high populations of youth in foster care to provide consistent support and monitor academic progress.
What resources are required to implement these changes?	Additional funding for mentorship programs, staff training for math tutoring, and collaboration with local nonprofits for rural outreach.
How can agencies collaborate to scale successful interventions?	Partner with local universities to train mentors and work with transportation services to improve program accessibility in rural areas.

Section 3: Stakeholder Collaboration

Question	Example Response
Which stakeholders (e.g., educators, caseworkers, policymakers) should be involved in the decision-making process?	Educators, child welfare caseworkers, policymakers, foster parents, and representatives from nonprofit organizations.
What is the best way to present the findings to stakeholders (e.g., visualizations, narrative summaries, workshops)?	Use visualizations (graphs showing attendance trends) paired with a narrative summary to provide a clear, actionable overview. Present findings during a collaborative workshop.
What specific input or feedback is needed from each stakeholder group?	Educators: Feasibility of implementing new math tutoring programs. Caseworkers: Insights into barriers

	faced by youth in foster care. Policymakers: Support for funding and policy advocacy.
What mechanisms will be used for ongoing collaboration and communication?	Monthly joint meetings, shared progress dashboards, and an email listserv for continuous updates.

Section 4: Continuous Improvement

Question	Example Response
What metrics or benchmarks will you use to measure progress over time?	Graduation rates for youth in foster care (aiming for a 10% increase over three years). Attendance rates in rural districts (goal: 90% regular attendance).
How often will data be reviewed and updated?	Data will be reviewed quarterly, with updates shared during stakeholder meetings.
What additional data collection or analysis might be needed?	Focus groups with rural foster families to understand barriers to attendance. Surveys to assess the effectiveness of mentorship programs.
What adjustments can be made to programs or policies based on the findings?	Scale mentorship programs to underserved areas and align math tutoring curricula with state standards.
What process will you use to evaluate the long-term impact of interventions?	Track year-over-year attendance, graduation rates, and math proficiency to evaluate sustained improvements.

Section 5: Visualizing and Sharing Results

Question	Example Response
What type of visualizations (e.g., graphs, charts) best communicate key findings?	Bar graphs comparing graduation rates and line graphs showing attendance trends by district type.
How will you combine quantitative and qualitative insights for a holistic narrative?	Pair test score trends with quotes from youth in foster care describing challenges like frequent school transfers. Use focus group findings to contextualize attendance data.
What additional context or explanations are needed to make the results actionable?	Highlight systemic barriers, such as limited resources in rural schools, and propose actionable solutions.
Who is the intended audience for the results, and what format will be most	Intended audiences include school administrators, child welfare leaders, and policymakers. A detailed

impactful (e.g., reports, presentations)?	report supplemented with a slide deck will be prepared for presentations.

Summary – Putting it All Together

This *Guide* equips child welfare agencies, education agencies, and their partners with the foundational knowledge and tools to build robust data practices. By aligning efforts across agencies, focusing on actionable insights, and maintaining a commitment to data quality, teams can use these resources to improve educational outcomes for youth in foster care.

Each process step—forming teams, establishing shared goals, collecting and analyzing data, and using findings—provides a roadmap for creating meaningful, measurable change. This *Guide* is designed for a broad audience, including program managers, data analysts, educators, policymakers, and third-party collaborators, ensuring its relevance across diverse roles and responsibilities. It is designed to be adaptable to local efforts, statewide efforts, and cross-agency collaborations.

Additionally, the companion *Self-Assessment Appendix Toolbox* serves as a companion resource tailored for teams focused on assessing data capacity and readiness to measure educational outcomes for youth in foster care. While this *Guide* lays the groundwork for foundational data practices, the Toolbox offers practical tools for localized, state-level, and cross-agency efforts, helping teams identify gaps, set priorities, and develop actionable strategies.

By using this *Guide* and the *Self-Assessment Appendix Toolbox t*ogether, agencies and their partners can strengthen cross-system collaboration, address disparities, and drive long-term improvements in educational equity for youth in foster care.

APPENDIX OF TOOLS

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Teaming Checklist to Build an Effective Self-Assessment Team

Teaming Checklist Items	Status (Yes, No, In Progress)
1. Have you included agency leadership (e.g., child welfare director, education agency leader)?	
2. Have you included data management, or IT specialists?	
3. Have you included program managers and practitioners (e.g., case managers, educators)?	
4. Have you included legal and compliance officers (e.g., privacy officers, legal advisors)?	
5. Have you included stakeholder representatives (e.g., youth advocates, community partners)?	
6. Have you included a research and evaluation expert to ensure methodological rigor and actionable insights?	
7. Have team members been briefed on the shared vision and goals of the self-assessment?	
8. Has a regular meeting schedule been established and agreed upon by all team members?	
9. Have team members committed sufficient time to actively participate in the process?	
10. Are roles and responsibilities clearly defined for each team member?	
11. Is there a plan for maintaining communication and collaboration across agencies?	
12 Other(s) who should be invited based on local needs?	

Shared Vision and Goals Discussion Tool

Instructions:

1. Use the following sections and questions to guide your team discussion.
2. Document the responses collaboratively during the meeting.
3. Revisit these responses periodically to ensure alignment and progress.

Section 1: Defining the Vision

1. What is the overarching purpose of this self-assessment process?

2. How does this process align with our mission to improve outcomes for youth in foster care?

3. What would success look like at the end of this process?

Section 2: Setting Measurable Goals

1. What specific outcomes do we aim to achieve through this self-assessment?

2. How can we ensure our goals are Specific, Measurable, Achievable, Relevant, Time-bound, Inclusive and Equitable (SMARTIE)? [See Chapter Two for more guidance on SMARTIE goals]

3. What are the short-term and long-term goals for this process?

Section 3: Aligning the Team

1. How can we ensure all team members are aligned with the vision and goals?

2. What strategies can we use to maintain focus on our vision throughout the process?

3. How will we handle disagreements or differing perspectives during this process?

Section 4: Establishing Accountability and Milestones

1. Who will be responsible for tracking progress toward our goals?

2. What are the key milestones we need to achieve, and what are their timelines?

3. How will we measure and celebrate success at each milestone?

Data Collection Planning Discussion Tool

Question	Your Team's Response
What is the purpose of this data?	Specify the primary reason for data collection (e.g., reporting, tracking outcomes, evaluating program effectiveness).
What questions will the data answer?	List key questions you aim to address (e.g., How does placement stability affect academic performance?).
What data points are needed?	Identify specific data metrics (e.g., attendance rates, test scores, program participation rates, qualitative feedback). *See tool in appendix with suggested data elements to inform this discussion*.
Who owns the data?	Note where the data is housed and who has access (e.g., school districts, child welfare agencies).
What tools/resources are needed?	List any software, platforms, or additional data sources required (e.g., Excel, SPSS, collaboration with other agencies).
What data can be prioritized to identify early wins?	Be realistic about the amount of data you wish to collect. Selection of an overwhelming number of measures, even though some are very important, can derail your data collection efforts.
What are the limitations?	Identify potential or known gaps or challenges (e.g., incomplete data, confidentiality issues).
What is the timeline for collection?	Specify key deadlines or reporting dates to ensure timely data collection and analysis.
What is the ultimate use of the data?	Outline how the findings will be shared or utilized (e.g., improve programs, report to funders, advocate for policy changes).

Evaluation and Research Question Development Tool

Step	Questions to Discuss with Your Team	Your Team's Input
Assess Existing Literature and Data Gaps	What do we already know about the educational outcomes of youth in foster care? What gaps in knowledge are most critical to address?	
Consult Stakeholders	Who are the key stakeholders we need to engage? What are their top concerns regarding education for youth in foster care?	
Define Research Focus	What is the specific topic or issue we aim to explore? (E.g., attendance rates, graduation outcomes, impacts of support programs)	
Formulate Specific Questions [Check Against SMARTIE Criteria	What are the specific questions we want to answer? [list those and check they are SMARTIE questions] - **Specific:** Is the question clear and focused? - **Measurable:** Can we collect data to answer the question? - **Achievable:** Do we have the resources and access needed to answer the question? - **Relevant:** Does the question align with stakeholder priorities and our research goals?	

	- **Time-bound:** Have we defined a timeframe for the research? -**Inclusive**: Have we included diverse perspectives in developing the research questions of interest? Are there research questions that are meaningful to people with lived experience as well as professional stakeholders? -**Equitable**: Have we included research questions that help to identify and address possible inequities, disparities or fairness issues?	
Finalize Questions	Based on the discussion, what are the final research questions we will pursue?	

Data Collection Methods Selection Tool

STEP ONE: SELECT DATA COLLECTION METHODS				
Data Collection Method	**When to Use**	**Does This Apply to This Effort?**	**Selected?**	**Notes**
Shared Information Systems	When data already exists in agency systems and can be accessed via dashboards or secure portals.	Y/N	Y/N	
Administrative Data Analysis	When analyzing historical data, such as test scores or attendance, to identify trends.	Y/N	Y/N	
Surveys and Questionnaires	When firsthand feedback is needed (e.g., from students, caregivers, or educators).	Y/N	Y/N	
Casefile or Record Review	When detailed qualitative or quantitative information is stored in existing files.	Y/N	Y/N	
Interviews and Focus Groups	When gathering in-depth qualitative insights from stakeholders.	Y/N	Y/N	
Observations	When direct observation of behaviors or interactions can provide valuable context.	Y/N	Y/N	
Case Studies	When analyzing individual cases for a comprehensive understanding of specific scenarios.	Y/N	Y/N	

STEP TWO: ENSURE METHODS COMPLY WITH CONFIDENTIALITY LAWS/PROTOCOLS	
Question	**Your Team's Response**
Have applicable laws (e.g., FERPA, USA) regarding data use and sharing been reviewed?	
Are data-sharing agreements in place to enable collaboration?	
Have confidentiality protocols been established for the selected methods?	
What steps will you take to ensure secure data handling and storage?	
Will staff receive training on confidentiality and data-sharing policies?	

STEP THREE: DATA COLLECTION ACTION PLAN			
Action Step	**Responsible Party**	**Suggested Timeline**	**Notes**
Finalize the data collection purpose and scope.	Project Lead		
Inventory and assess existing data sources.	Data Specialist		
Select appropriate data collection methods.	Collaborative Team		
Develop or update data-sharing agreements.	Legal and Agency Representatives		
Train staff on confidentiality and selected methods.	Training Coordinator		
Implement selected methods and begin data collection.	Project Manager	Start Date: _____	

STEP FOUR: MONITOR AND EVALUATE DATA COLLECTION PROCESS	
Question	**Team Response**
Are the chosen methods yielding the data needed to address your goals?	
Are there any unexpected challenges or barriers?	
What adjustments are needed to improve the process?	
How will you document lessons learned for future data collection efforts?	

Data Capacity Assessment Tool

Section 1: Inventory Available Data

Question	Your Response
What data sources are available to obtain the data we need to address our needs or answer our questions**? (e.g., school district records, child welfare databases, community reports)**	
Which agency/partner owns this data?	
What data points are included? (e.g., attendance records, test scores, placement histories, demographics)	
Are there existing data-sharing agreements in place? (Y/N) If yes, describe the scope.	
Are there any gaps in the existing data sources and what are they? (e.g., do existing data sources miss key data elements of interest to us? For example, are there specific or entire data points that are not being currently being collected?).	

Section 2: Evaluate Data Quality and Completeness

Question	Your Response
Are there inconsistencies in the data? (e.g., mismatched records between agencies).	
Are there missing or incomplete data points?	
How are missing data points currently handled? (e.g., ignored, estimated, replaced with averages)	

What steps can be taken to address these gaps? (e.g., statistical imputation, data-sharing collaboration) *See page 54 for definitions.*	
Who needs to be involved to improve data completeness and quality?	

Section 3: Assess Technical and Analytical Tools

Question	Your Response
Will new data analyses be needed to answer our questions or are reports currently run that analyze the data in ways we need? If yes, can we obtain those reports?	
W**hat tools are currently used for data analysis? (e.g., Excel, SurveyMonkey, SPSS)**	
Do staff have the skills to use these tools effectively? (Y/N)	
Are additional tools or software needed?	
What training or resources are needed to build technical capacity?	
Are there opportunities to collaborate with external partners for analysis? (e.g., universities, research organizations)	

Section 4: Promote Cross-Agency Collaboration

Question	Your Response
What stakeholders need to be involved in this data project?	
What data-sharing agreements are required or need updating?	
What joint initiatives or trainings could improve cross-agency collaboration?	
How will data privacy and confidentiality be ensured across agencies?	
What shared goals can agencies align on to promote effective data use?	

Section 5: Action Planning

Action Step	Responsible Party	Timeline	Notes
Inventory and review available data sources			
Address gaps in data completeness and quality			
Assess and upgrade tools and technical capacity			
Develop or update data-sharing agreements			
Schedule cross-agency collaboration meetings/training			

Data Analysis and Reporting Plan Tool

Section 1: Define Analysis Goals

1. What are the key questions your analysis seeks to answer?
2. What are the objectives or goals of this analysis?
3. How will the results support decision-making, program improvement, or policy development?

Section 2: Prepare and Review Your Data

1. What data sources will be used for this analysis?
2. Are there missing data points? If so, how will they be addressed?
3. What steps will you take to clean and organize the data?
4. Have the data been checked for accuracy and consistency?

Section 3: Select Analysis Methods

1. What type of analysis will you perform (e.g., quantitative, qualitative, mixed methods)?
2. What statistical or qualitative methods will be used?
3. Are the methods appropriate for the data and goals of the analysis?
4. What tools or software will you use for analysis?

Section 4: Plan Data Visualizations

1. What types of visualizations will best communicate the findings (e.g., bar graphs, line charts, word clouds)?
2. How will the visualizations be tailored to different audiences?
3. What contextual information (e.g., definitions, sample sizes) should accompany the visualizations?

Section 5: Develop a Reporting Plan

1. What format(s) will the report take (e.g., formal report, presentation, dashboard)?
2. Who is the intended audience for the report?
3. What key messages or findings will be emphasized?
4. How will the report be disseminated to stakeholders?

Section 6: Action Planning and Next Steps

1. What actions or decisions are expected based on the findings?
2. Who is responsible for implementing the findings and recommendations?
3. What timeline will guide the implementation of these actions?
4. How will progress and outcomes be monitored after the findings are implemented?

Tool for Using Data Findings

Section 1: Interpreting and Discussing Findings

Question	Response
What do the findings reveal about the educational challenges of youth in foster care?	
Were there any unexpected outcomes?	
Can the findings be influenced by external factors (e.g., systemic disruptions, resource limitations)?	
Are there discrepancies across subgroups (e.g., rural vs. urban districts, placement types)?	
What additional qualitative insights (e.g., interviews, focus groups) can help explain the results?	
What trends were identified by the data findings?	

Section 2: Planning and Implementation

Question	Response
What programs or policies were most successful? Why?	
What areas require more attention or improvement?	
What steps should be prioritized to address identified gaps or challenges?	
How can findings guide future program or policy development?	
What resources are required to implement these changes?	
How can agencies collaborate to scale successful interventions?	

Section 3: Stakeholder Collaboration

Question	Response
Which stakeholders (e.g., educators, caseworkers, policymakers) should be involved in the decision-making process?	
What is the best way to present the findings to stakeholders (e.g., visualizations, narrative summaries, workshops)?	
What specific input or feedback is needed from each stakeholder group?	

What mechanisms will be used for ongoing collaboration and communication?	

Section 4: Continuous Improvement

Question	Response
What metrics or benchmarks will you use to measure progress over time?	
How often will data be reviewed and updated?	
What additional data collection or analysis might be needed?	
What adjustments can be made to programs or policies based on the findings?	
What process will you use to evaluate the long-term impact of interventions?	

Section 5: Visualizing and Sharing Results

Question	Response
What type of visualizations (e.g., graphs, charts) best communicate key findings?	
How will you combine quantitative and qualitative insights for a holistic narrative?	
What additional context or explanations are needed to make the results actionable?	
Who is the intended audience for the results, and what format will be most impactful (e.g., reports, presentations)?	