Early Childhood National Centers

NATIONAL CENTER ON

Program Management and Fiscal Operations

Part Two: Head Start Data Series:

Efficiency in Data Leadership and Capacity

Train the Trainer

Data is
Oxygen
for fueling
Deep
Learning
Systems
BIG
DATA
%
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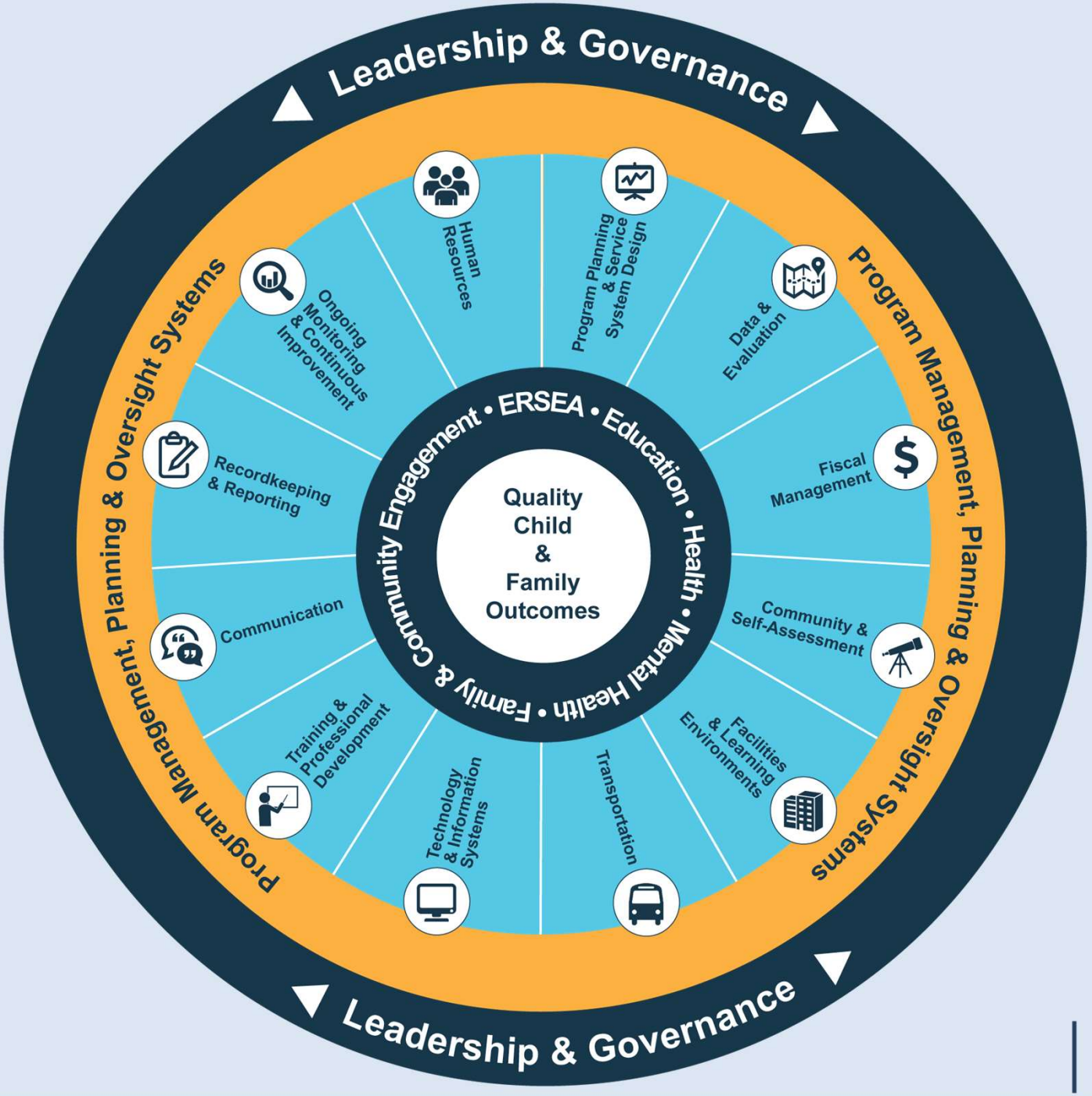
Head Start Management Systems



Data is Oxygen for fueling Deep Learning Systems
Community & Self-Assessment
Fiscal Management
Transportation
Facilities & Learning Environments
Technology & Information Systems
Program Planning & Service System Design
Training & Professional Development
Data & Evaluation
Recordkeeping & Reporting
Ongoing Monitoring & Continuous Improvement
Human Resources
Communication

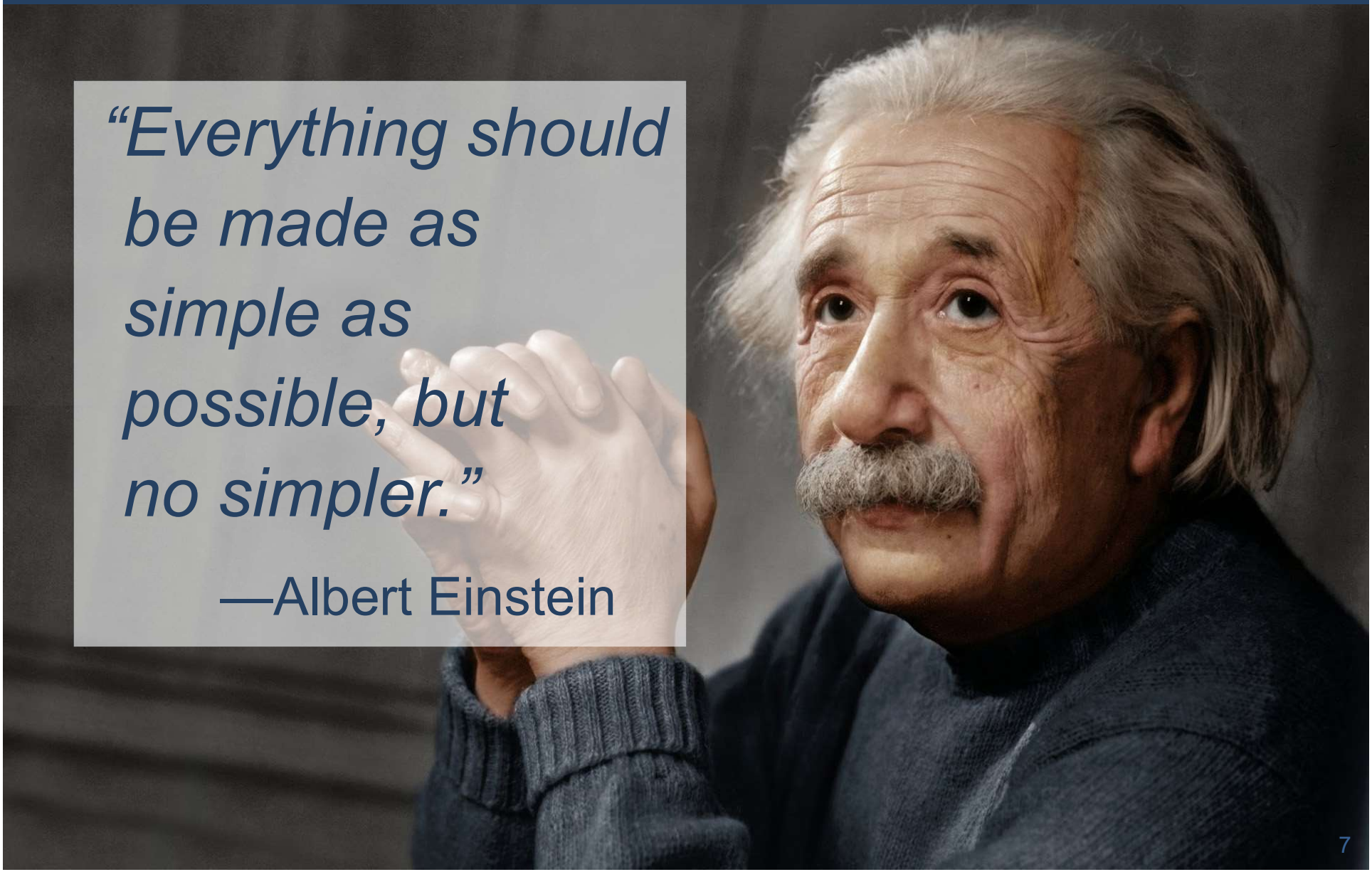
Organizational Self-Assessment

Where is your program on the following features?

- The language of data (data literacy)
- Data analysis (opportunities, skills, and techniques)
- Data management (four elements)
- Storytelling with data (data visualization, effective tools)

Talk About Vision

The Language of Data



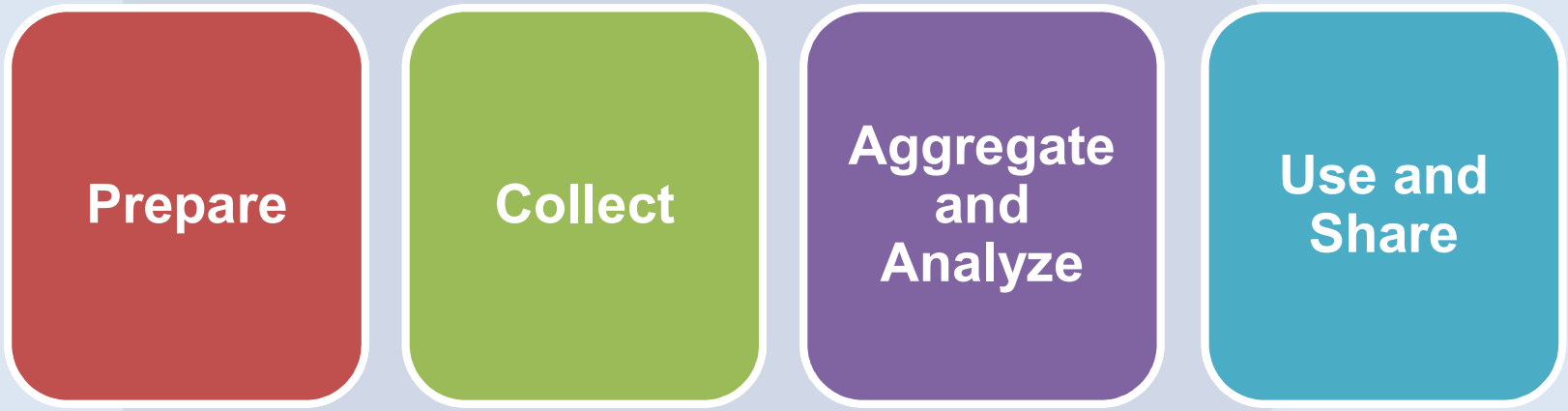
Learning Objectives

Through this training participants will:

- Recognize the relationship between data management, continuous quality improvement, and strong systems and services
- Review and update data management procedures
- Identify techniques and skills to strengthen data analysis
- Connect fiscal accountability with effort and effect
- Consider ways to establish and communicate data-informed goals with measurable objectives

The Data-Driven Journey

The High and Low Points



Cultivating a Data Culture

The Changing Landscape

Head Start programs should:

- Shift from "compliance-only" thinking to a culture of "continuous improvement"
- Move from being simply "good stewards" to demonstrating the impact of the investment in our communities

CONCEPTUAL ELEMENTS of Continuous Quality Improvement

Leadership in Data Management

- Be Transformational
- Adopt and Lead Change Strategy
- Communicate Clearly
- Motivate for Innovation and Creativity
- Distribute Responsibilities
- Be a Role Model

Organizational Characteristics

- History of improvements
- Program characteristics
- Size • Structure

Commitment of Resources

- Commit, finance, and sustain technology
- Commit leadership time
- Commit staff time

Analytic Capacity

- Assess technological capital
- Assess human capital
- Assess data capital

Culture of Collaborative Inquiry

- Promote systems thinking
- Share learning
- Engage partners
- Create safe space

Management of Program Data

- Security of data
- Usability • Integrity
- Availability

Professional Development

- Understand data systems
- Develop analytic capacity
- Integrate knowledge and beliefs

Environment

- Nongovernmental funders
- Government mandates
- Accreditation, licensing and professional systems
- Time

Quality Child & Family Outcomes

Early Childhood National Centers

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Source:
Derrick-Mills, Teresa, Heather Sandstrom, Sarah Pettijohn, Saunji Fyffe, and Jeremy Koulish. (2014). Data Use for Continuous Quality Improvement: What the Head Start Field Can Learn From Other Disciplines, A Literature Review and Conceptual Framework. OPRE Report # 2014-77. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families. U.S. Department of Health and Human Services.

Leadership in Cultivating a Culture of Data

Best-Selling Author of Mindset

Professor at Stanford

"My work bridges developmental psychology, social psychology, and personality psychology, and examines the self-conceptions (or mindsets) people use to structure the self and guide their behavior. My research looks at the origins of these mindsets, their role in motivation and self-regulation, and their impact on achievement and interpersonal processes."

Carol Dweck

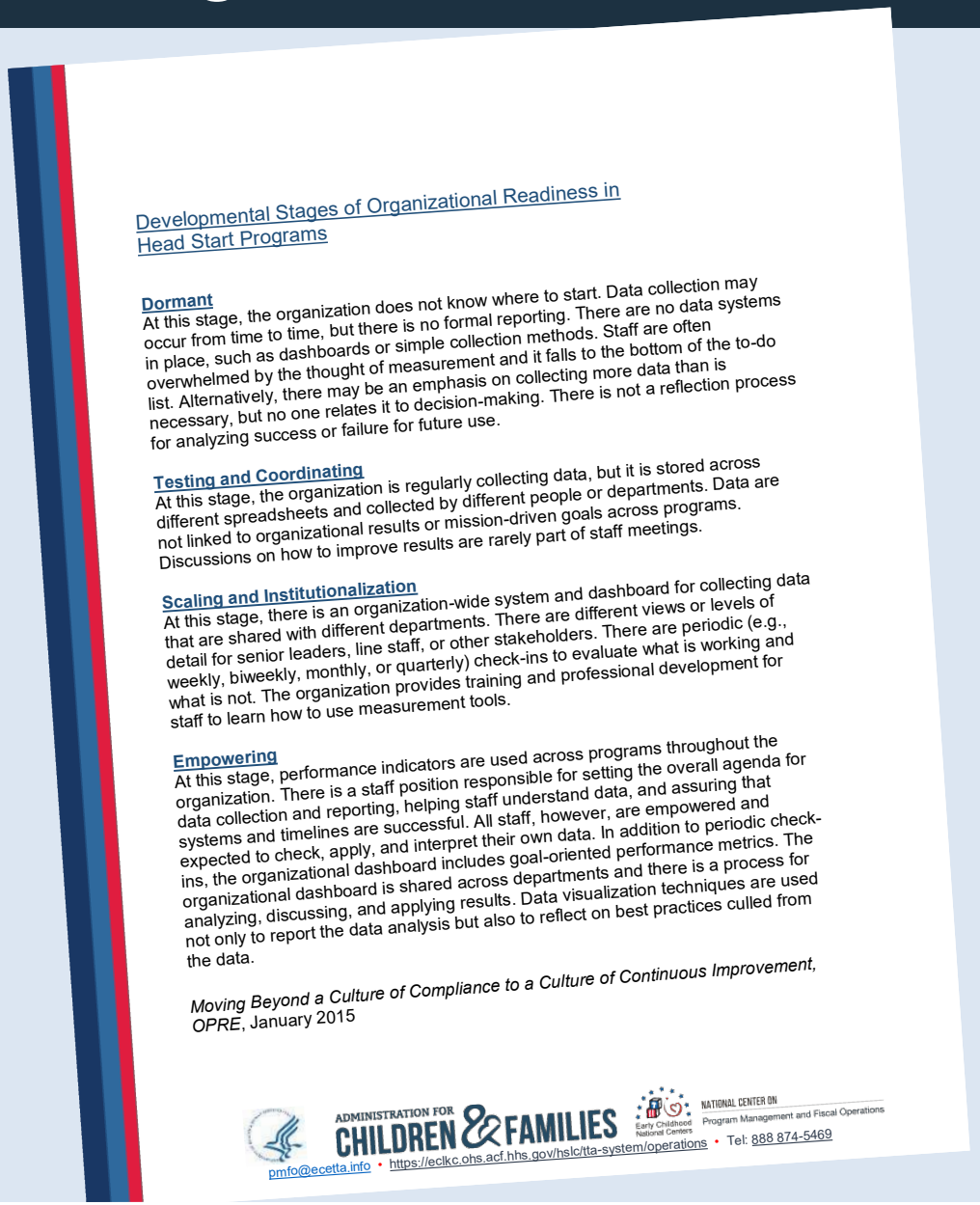
- Carol Dweck video
- https://www.youtube.com/watch?v=NWv1VdDeoRY

What are the Key Aspects of a Strong Data Culture?

- Curiosity
- Reflection
- Tolerance for vulnerability
- Use of feedback
- Systems thinking

Moving Beyond a Culture of Compliance to a Culture of Continuous Improvement, OPRE, January 2015

Stages of Organizational Readiness



Developmental Stages of Organizational Readiness in Head Start Programs

Dormant
At this stage, the organization does not know where to start. Data collection may occur from time to time, but there is no formal reporting. There are no data systems in place, such as dashboards or simple collection methods. Staff are often overwhelmed by the thought of measurement and it falls to the bottom of the to-do list. Alternatively, there may be an emphasis on collecting more data than is necessary, but no one relates it to decision-making. There is not a reflection process for analyzing success or failure for future use.

Testing and Coordinating
At this stage, the organization is regularly collecting data, but it is stored across different spreadsheets and collected by different people or departments. Data are not linked to organizational results or mission-driven goals across programs. Discussions on how to improve results are rarely part of staff meetings.

Scaling and Institutionalization
At this stage, there is an organization-wide system and dashboard for collecting data that are shared with different departments. There are different views or levels of detail for senior leaders, line staff, or other stakeholders. There are periodic (e.g., weekly, biweekly, monthly, or quarterly) check-ins to evaluate what is working and what is not. The organization provides training and professional development for staff to learn how to use measurement tools.

Empowering
At this stage, performance indicators are used across programs throughout the organization. There is a staff position responsible for setting the overall agenda for data collection and reporting, helping staff understand data, and assuring that systems and timelines are successful. All staff, however, are empowered and expected to check, apply, and interpret their own data. In addition to periodic check-ins, the organizational dashboard includes goal-oriented performance metrics. The organizational dashboard is shared across departments and there is a process for analyzing, discussing, and applying results. Data visualization techniques are used not only to report the data analysis but also to reflect on best practices culled from the data.

Moving Beyond a Culture of Compliance to a Culture of Continuous Improvement, OPRE, January 2015

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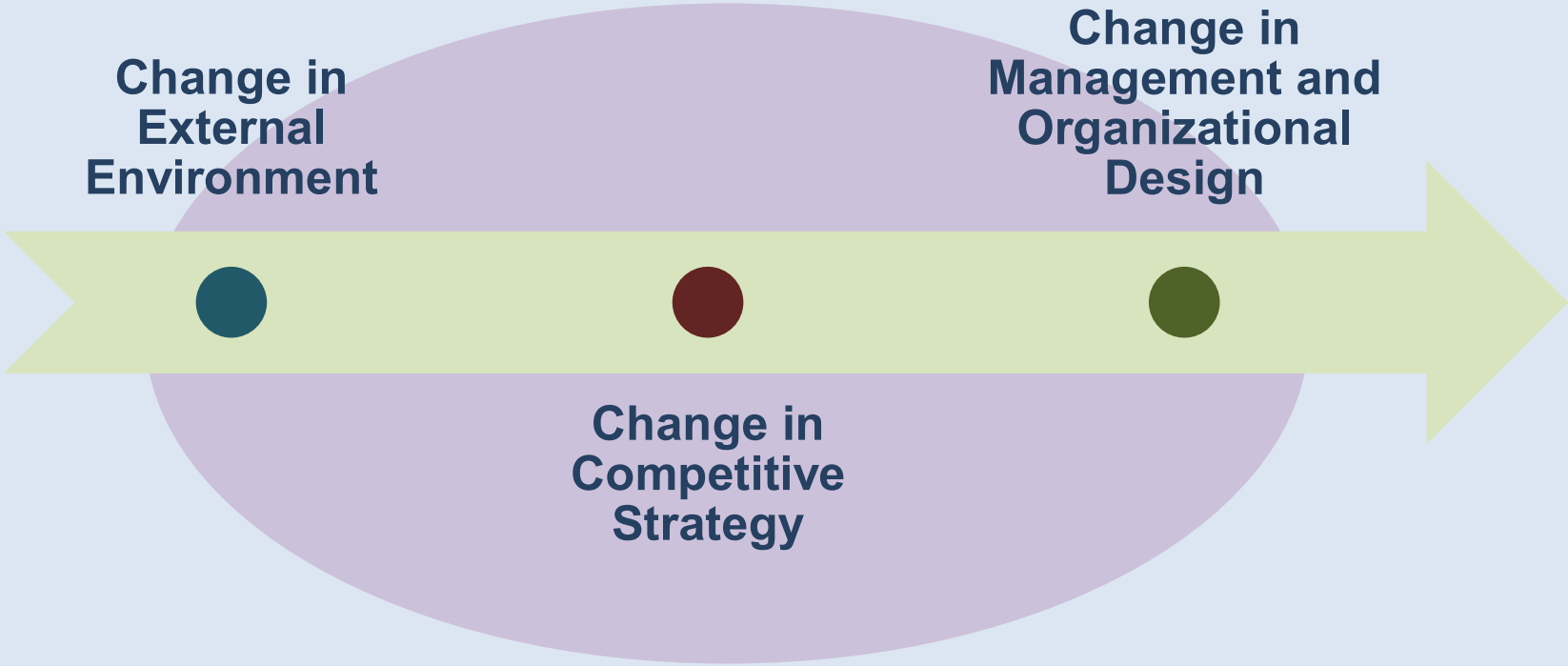
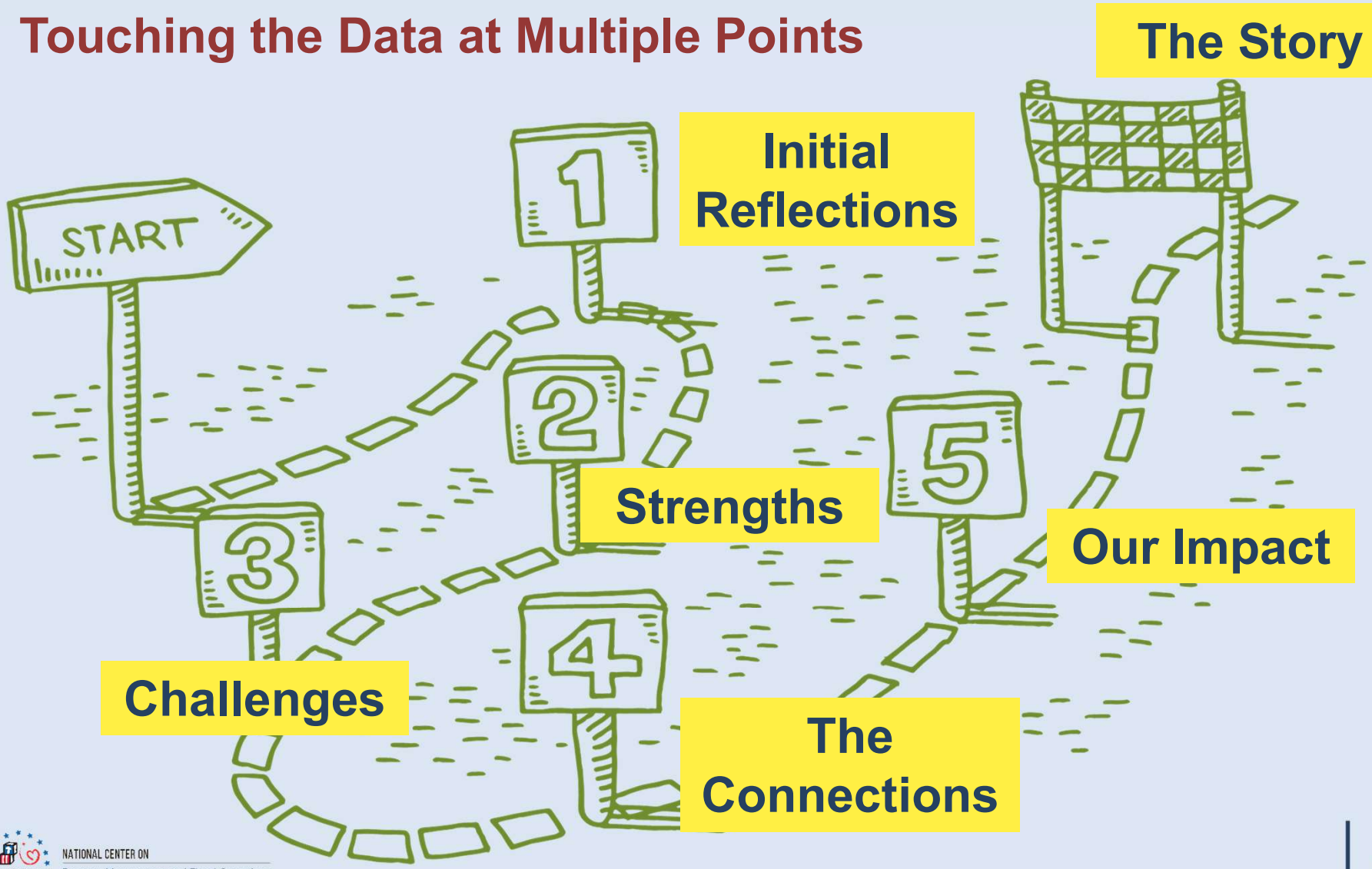
Change Leads to Change



Going From Data to Story

Touching the Data at Multiple Points



Data Touch Point #1

A. **What emerges from the data?**

B. What questions come up?

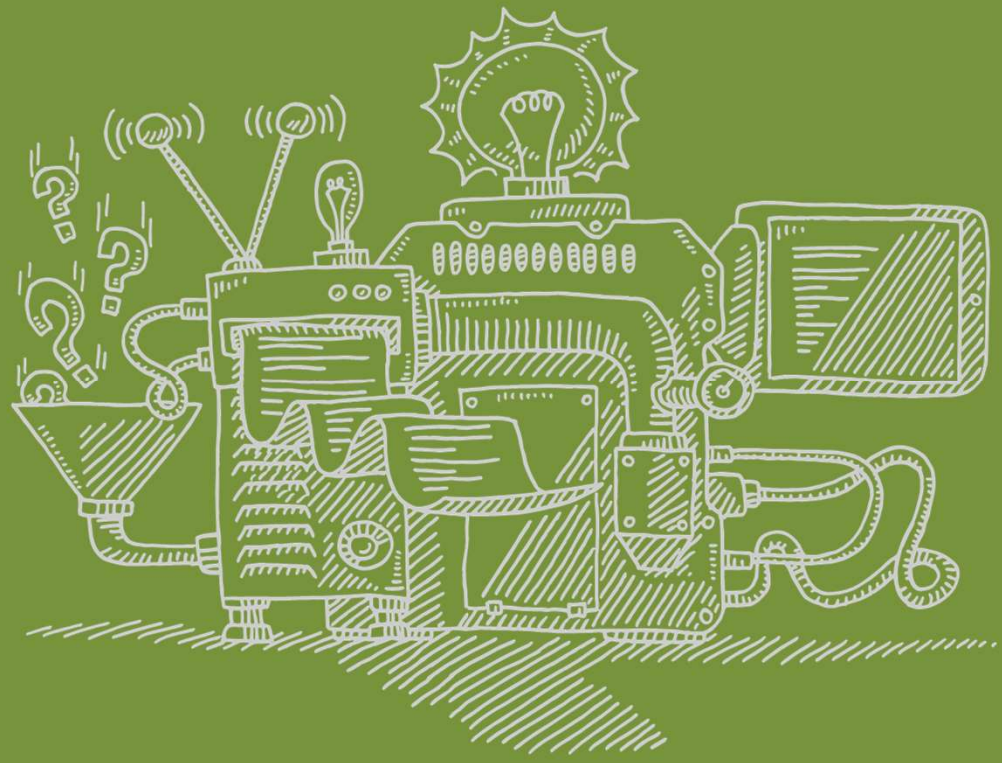
C. What is clear?

D. What is confusing?

Reflect on Cultivating a Data Culture

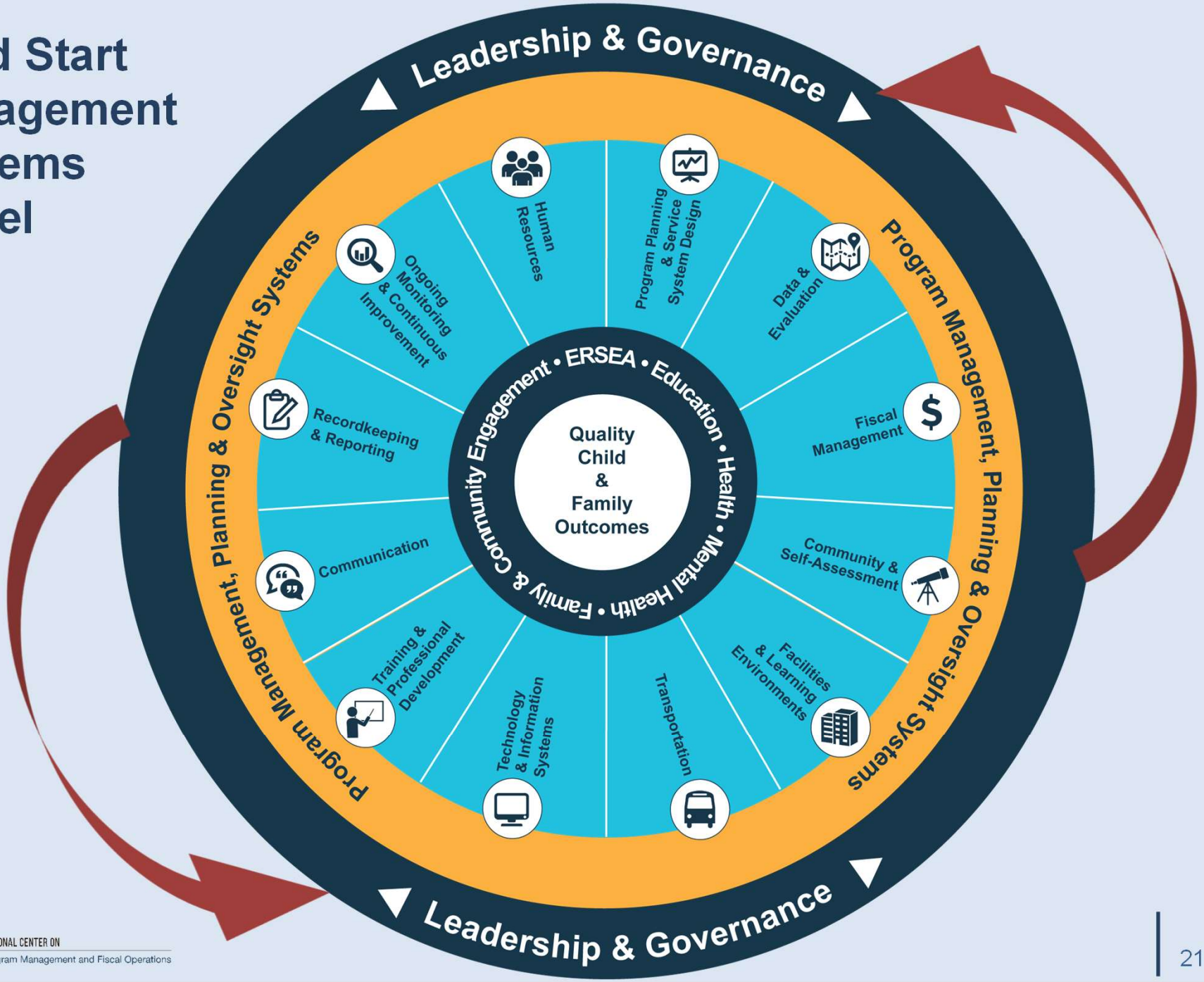
Where do you see a strong data culture in your program?

What are some ways you can begin to build a stronger data culture?



The Management of Program Data

Head Start Management Systems Wheel



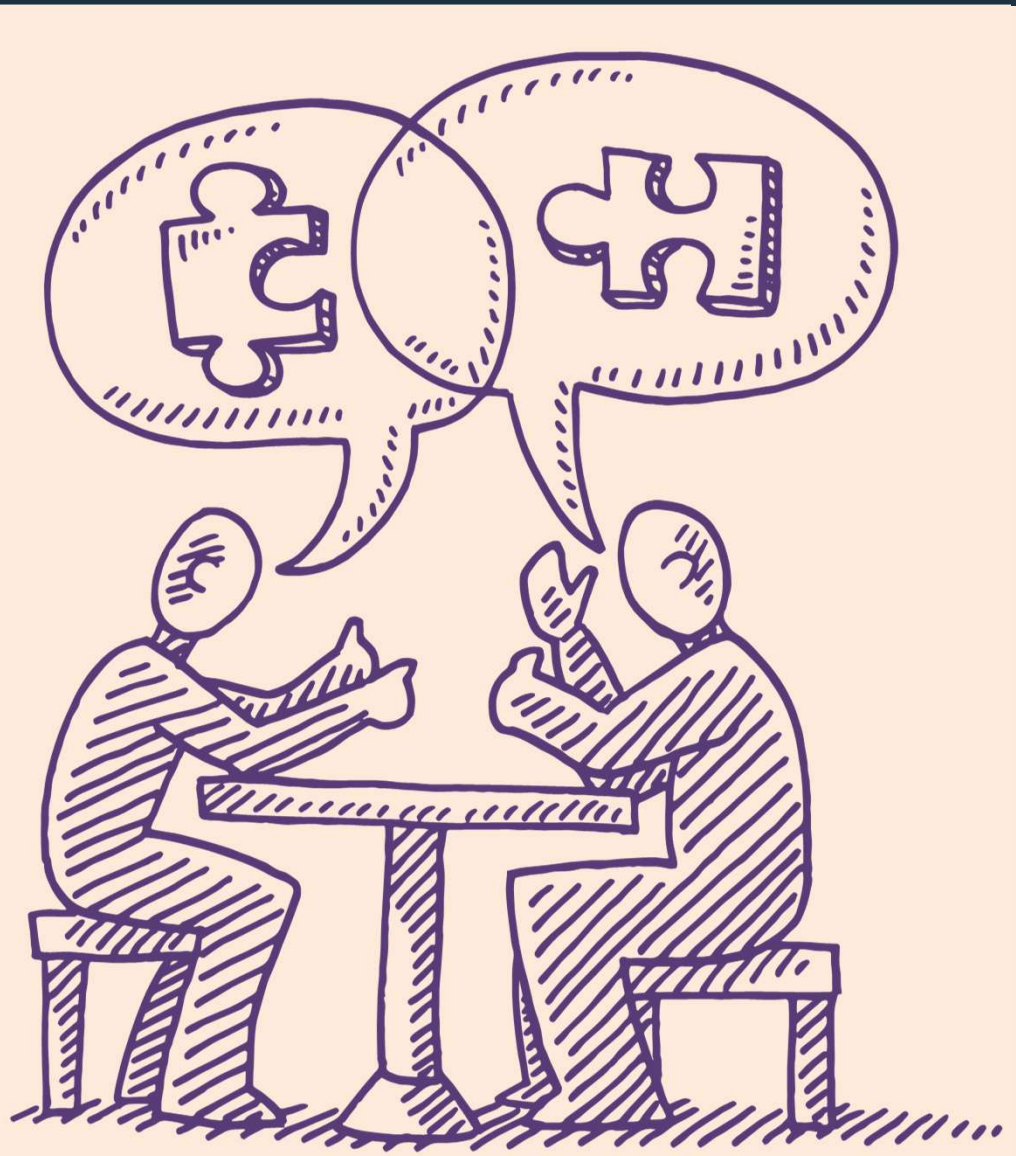
Data Touch Point #2

According to the data, what are the strengths of Community Connections' systems and services?

§1302.101(b) – Coordinated Approaches

Coordinated approaches. At the beginning of **each program year**, and on an **ongoing basis** throughout the year, a program **must design** and **implement program-wide** coordinated approaches that ensure…

Coordinated Approaches: What Were They Thinking?



§1302.101(b) – Coordinated Approaches

a. Implementation

b. Coordinated approaches

(1) Training and professional development system

(2) Dual language learners

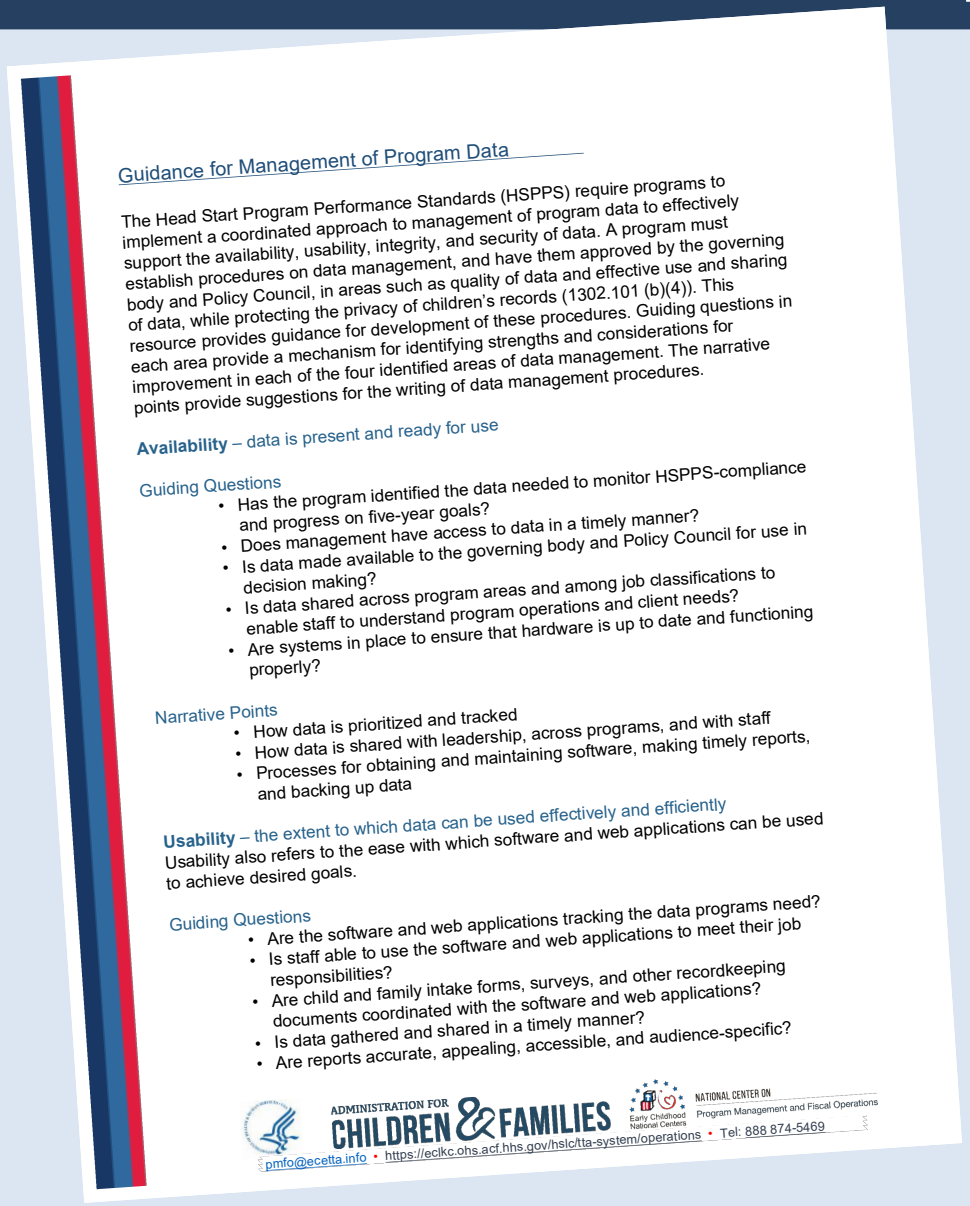
(3) Children with disabilities

(4) Management of program data

What Do the Performance Standards Say?

Management of Program Data

Guidance for Data Plan Development



Guidance for Management of Program Data

The Head Start Program Performance Standards (HSPPS) require programs to implement a coordinated approach to management of program data to effectively support the availability, usability, integrity, and security of data. A program must establish procedures on data management, and have them approved by the governing body and Policy Council, in areas such as quality of data and effective use and sharing of data, while protecting the privacy of children's records (1302.101 (b)(4)). This resource provides guidance for development of these procedures. Guiding questions in each area provide a mechanism for identifying strengths and considerations for improvement in each of the four identified areas of data management. The narrative points provide suggestions for the writing of data management procedures.

Availability – data is present and ready for use

Guiding Questions

- Has the program identified the data needed to monitor HSPPS-compliance and progress on five-year goals?
- Does management have access to data in a timely manner?
- Is data made available to the governing body and Policy Council for use in decision making?
- Is data shared across program areas and among job classifications to enable staff to understand program operations and client needs?
- Are systems in place to ensure that hardware is up to date and functioning properly?

Narrative Points

- How data is prioritized and tracked
- How data is shared with leadership, across programs, and with staff
- Processes for obtaining and maintaining software, making timely reports, and backing up data

Usability – the extent to which data can be used effectively and efficiently

Usability also refers to the ease with which software and web applications can be used to achieve desired goals.

Guiding Questions

- Are the software and web applications tracking the data programs need?
- Is staff able to use the software and web applications to meet their job responsibilities?
- Are child and family intake forms, surveys, and other recordkeeping documents coordinated with the software and web applications?
- Is data gathered and shared in a timely manner?
- Are reports accurate, appealing, accessible, and audience-specific?

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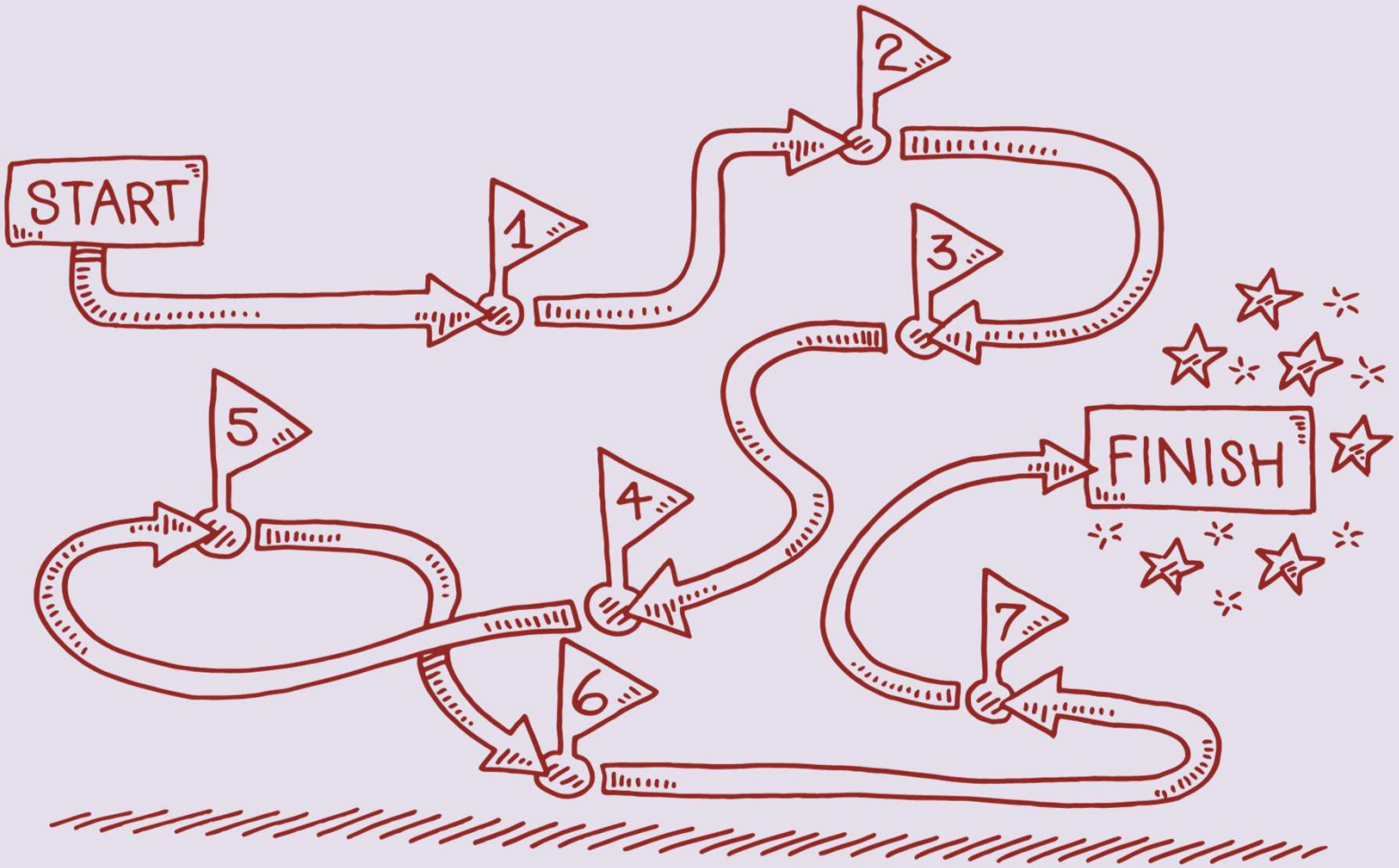
Procedures: Data Availability

Procedures: Data Integrity

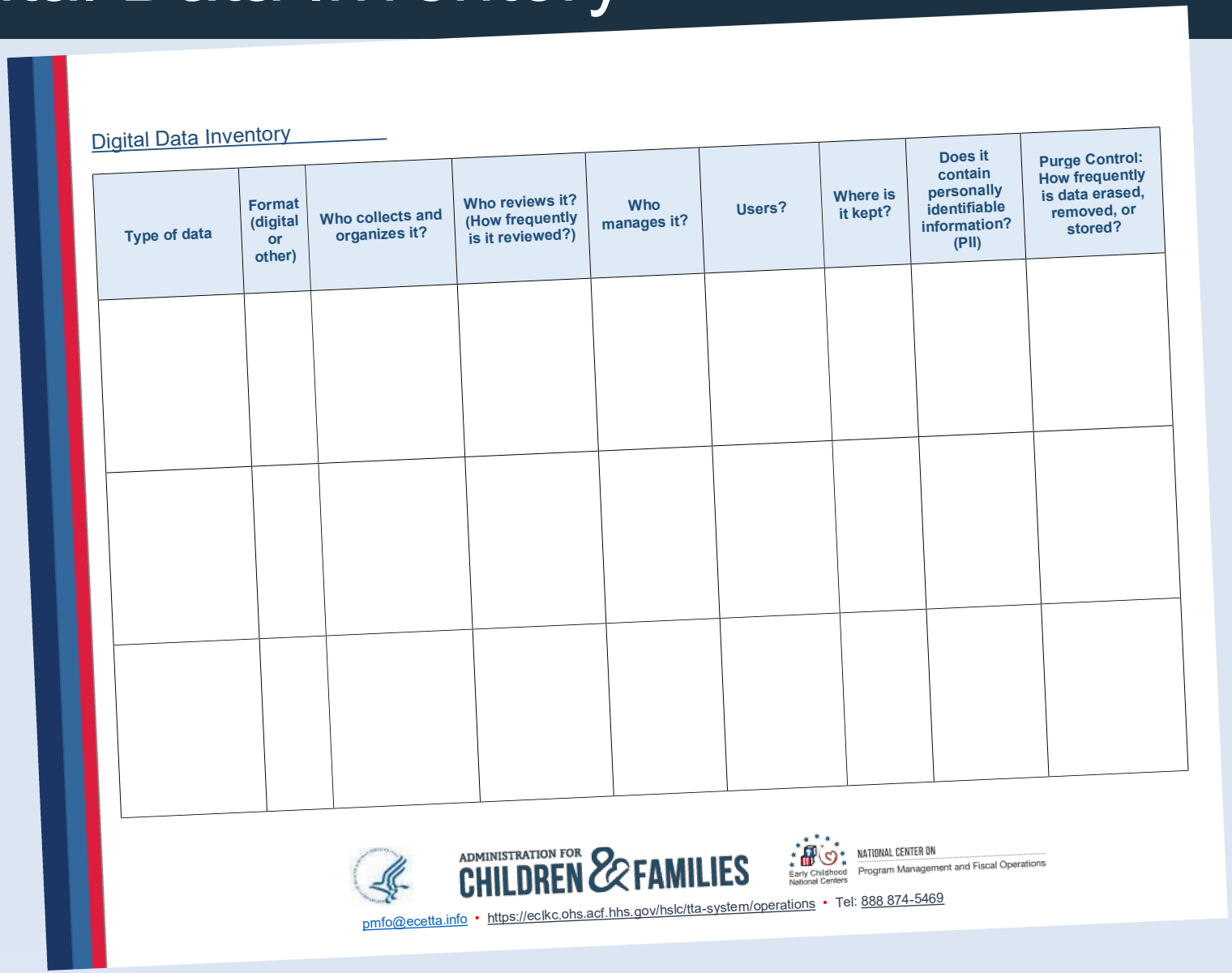
Procedures: Data Usability

Procedures: Data Security

A Resource for Developing Procedures



Digital Data Inventory



Digital Data Inventory

Type of data	Format (digital or other)	Who collects and organizes it?	Who reviews it? (How frequently is it reviewed?)	Who manages it?	Users?	Where is it kept?	Does it contain personally identifiable information? (PII)	Purge Control: How frequently is data erased, removed, or stored?

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Reflect on Management of Program Data

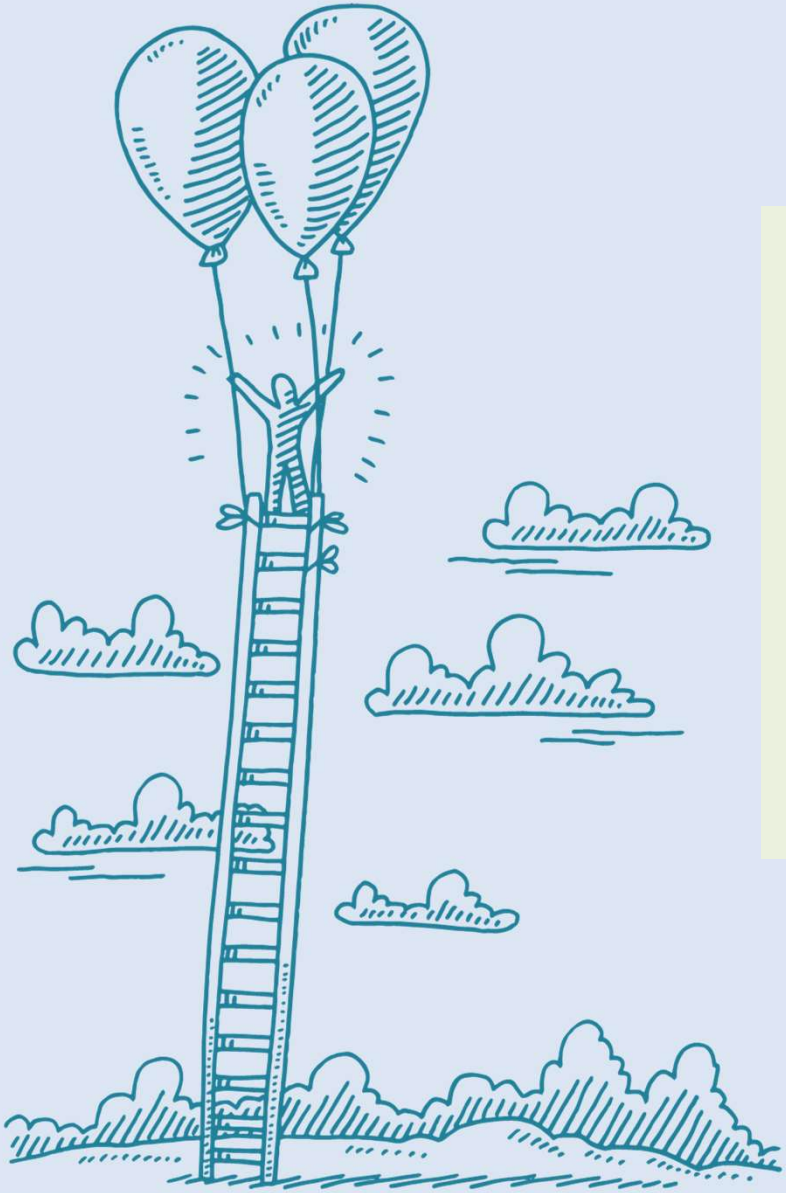
Where is your program strong in the management of program data?

What are some ways you can build a stronger plan for managing program data?

Analytic Capacity: Using Data Analysis to Show Outcomes

What Success Looks Like

What does success look like for your grantee?



How do you know when you have achieved an acceptable level of success?

Three Core Questions

How much did we spend?

How much did we do?

How much did it matter?

Looking at the Data – Roadmap to Analytic Capacity

Beginning with the end in mind,
What would successful goal attainment look like?

What data is necessary to show measurable steps towards goal attainment?

Conceptual Elements: Analytic Capacity

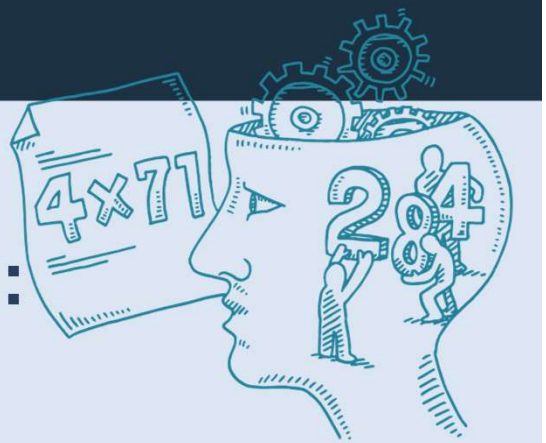
Technological Capital

Systems

- Do you understand your system(s)?
- Is it up to date?
- Is professional development needed to use effectively?
- Does the hardware have the necessary specifications to operate the software effectively?

Protections for personally identifiable information

Human Capital



Can staff effectively do the following:

- Use the four data activities:
  - Prepare
  - Collect
  - Aggregate & Analyze
  - Use & Share

What is the plan to increase capacity?

- Training
- Review historical data
- Leadership towards goal attainment (creating a culture of continuous quality improvement)

Data Capital

Data Quality

- Quantitative
- Qualitative

Data Integrity

- Is there strength to the data?
- Importance relative to other data?

Data Availability

- Accessing data put into systems
- Historical data

Looking at the Data – Roadmap to Analytic Capacity

Do community partners have an impact on goal attainment?

How and when do you receive it?

Do you need data from community partners?

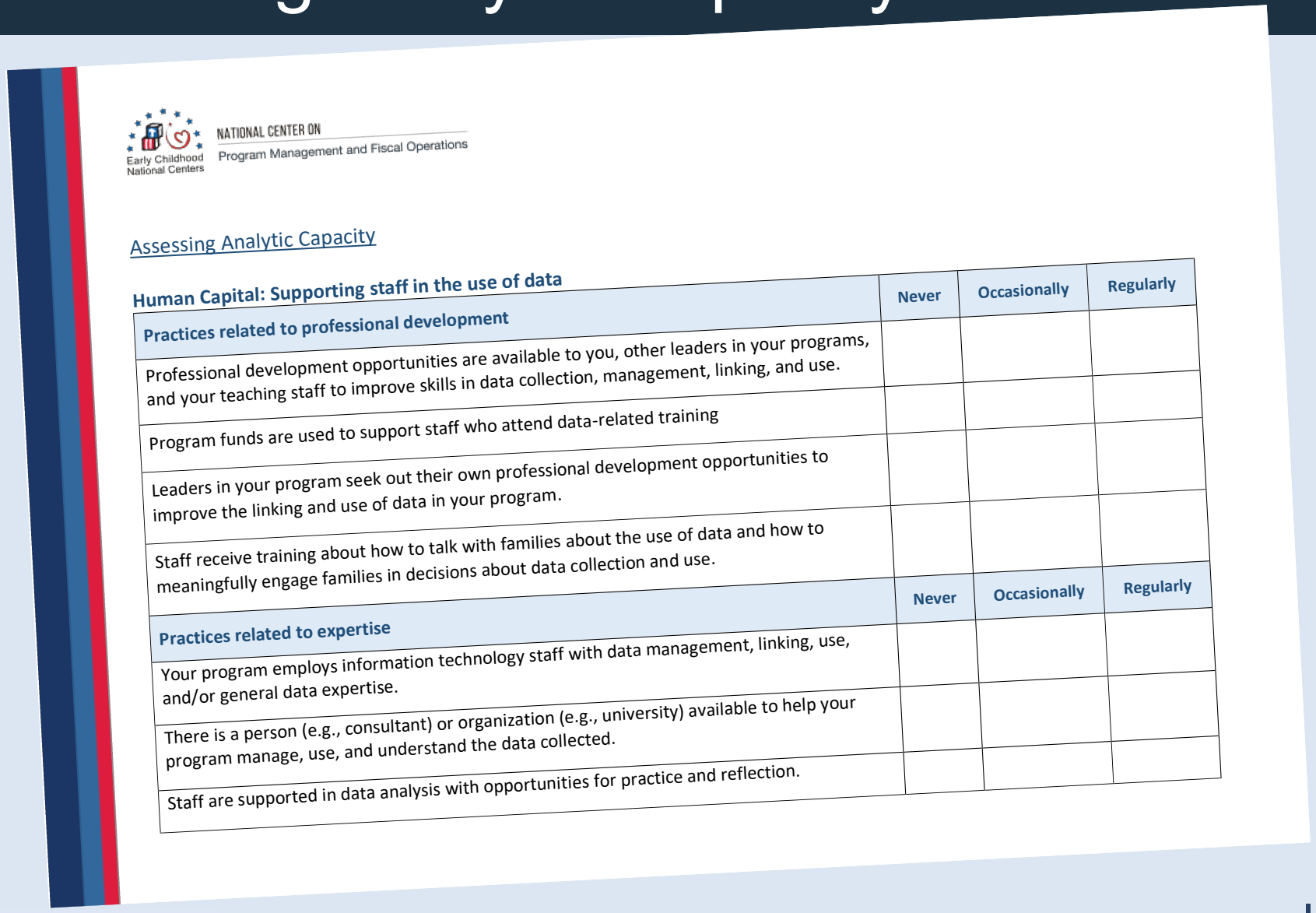
Ongoing Monitoring of Data and Data Use

- How is the data reviewed throughout the year? Does the data show progress towards expected goals?
- Are course corrections necessary? Why? What is the data telling you that you did not expect?
- Is the data reviewed showing sustainable outcomes? How do you know?

Data Touch Point #3

According to the data, what areas need attention at Community Connections Head Start?

Assessing Analytic Capacity



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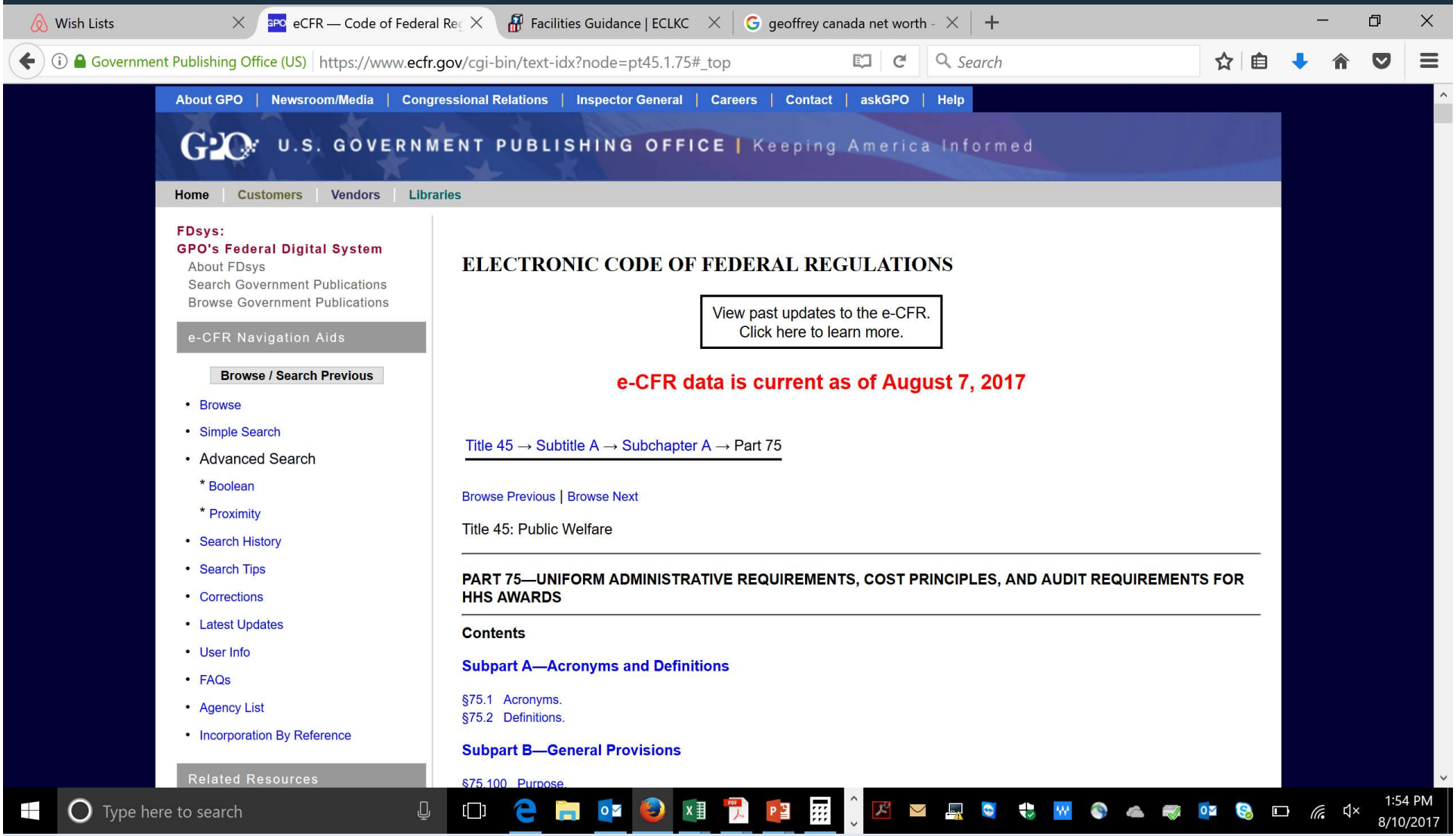
Assessing Analytic Capacity

Human Capital: Supporting staff in the use of data

Practices related to professional development	**Never**	**Occasionally**	**Regularly**
Professional development opportunities are available to you, other leaders in your programs, and your teaching staff to improve skills in data collection, management, linking, and use.			
Program funds are used to support staff who attend data-related training			
Leaders in your program seek out their own professional development opportunities to improve the linking and use of data in your program.			
Staff receive training about how to talk with families about the use of data and how to meaningfully engage families in decisions about data collection and use.			
Practices related to expertise	**Never**	**Occasionally**	**Regularly**
Your program employs information technology staff with data management, linking, use, and/or general data expertise.			
There is a person (e.g., consultant) or organization (e.g., university) available to help your program manage, use, and understand the data collected.			
Staff are supported in data analysis with opportunities for practice and reflection.			

Uniform Guidance on Planning



Results-Based Accountability™

	Quantity	Quality
Effort	How much did we do?	How well did we do it?
Effect	Is anyone better off?	

Trying Hard Is Not Good Enough – Mark Friedman

Rely on Your Community Assessment

Gap Analysis Tool

	Year One			Year Two			Year Three		
Major Strategies or Activities	Total Costs	Available Resources	Surplus / Gaps	Total Costs	Available Resources	Surplus / Gaps	Total Costs	Available Resources	Surplus / Gaps

CONDUCT GAP ANALYSIS

Data-Informed Budgeting

- Analyze historical expense data
- Project changes, increases, and additions
- Align with program goals

Put Your Money Where Your Mouth Is...

Three Core Questions?

- How much did we spend?
- How much did we do?
- How much did it matter?

Using Data for Action and Impact, Jim Fruchterman, Stanford Social Innovation Review, Summer 2016

Data Touch Point #4

- What are the connections between the data and the areas needing attention?
- What is the relationship between the data and the areas needing attention?
- Craft a BROAD goal and 2–3 objectives from these connections

Supporting Grantees

- Do grantees know what success looks like?
- Do they know what should be at the end of the road?

- Do grantees have a road map to get there?
- Is the technology "vehicle" running smoothly?
- What does the data show?
- Are grantees monitoring a "dashboard"?

- Is everyone on board?
- Are all stakeholders involved as effectively and efficiently as possible?

Reflect on Analytic Capacity

Describe the strengths in your program in the area of analytic capacity?

What can be done to improve your program's ability to analyze data?

What Is Your Story and What Is the Evidence?

Data visualization can:

emphasize key points

provide context

engage the audience

Ways to use data visualizations effectively:

- Analyze and make decisions
- Discover and identify
- Tell or support a story
- Inform or teach

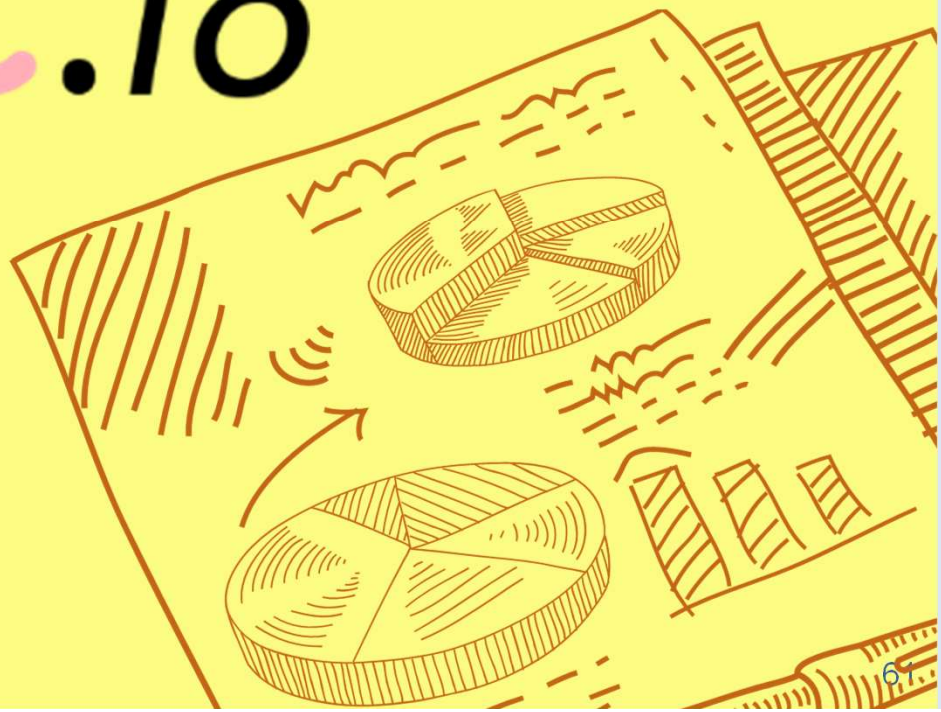
DaSy Resource

Mission

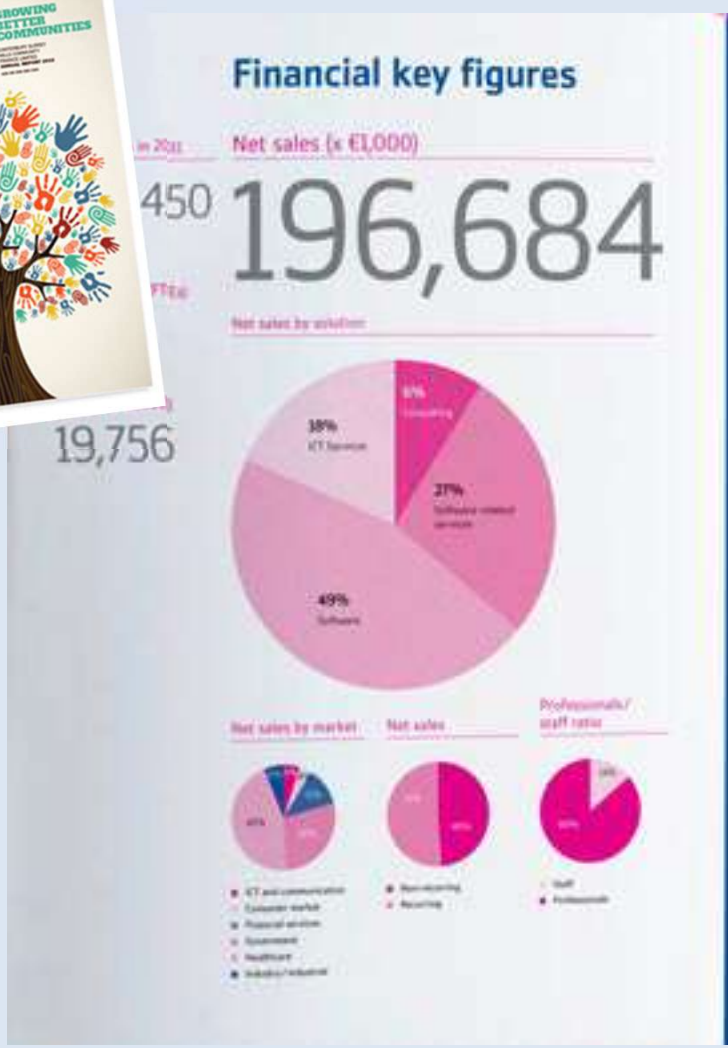
The Center for IDEA Early Childhood Data Systems (DaSy Center), funded by the U.S. Department of Education's Office of Special Education Programs (OSEP), provides technical assistance (TA) to states to support Part C and Part B preschool state programs' participation in the development or enhancement of integrated early childhood data systems….. http://dasycenter.org/

Web-Based Data Tools

data
BASIC.io



Your Annual Report



The Importance of Data in Measuring the Impact

Planning for Impact/Data Touch Point #5

Identify the data (evidence) you will need to monitor goal progress and achievement and impact of services

Planning for Impact

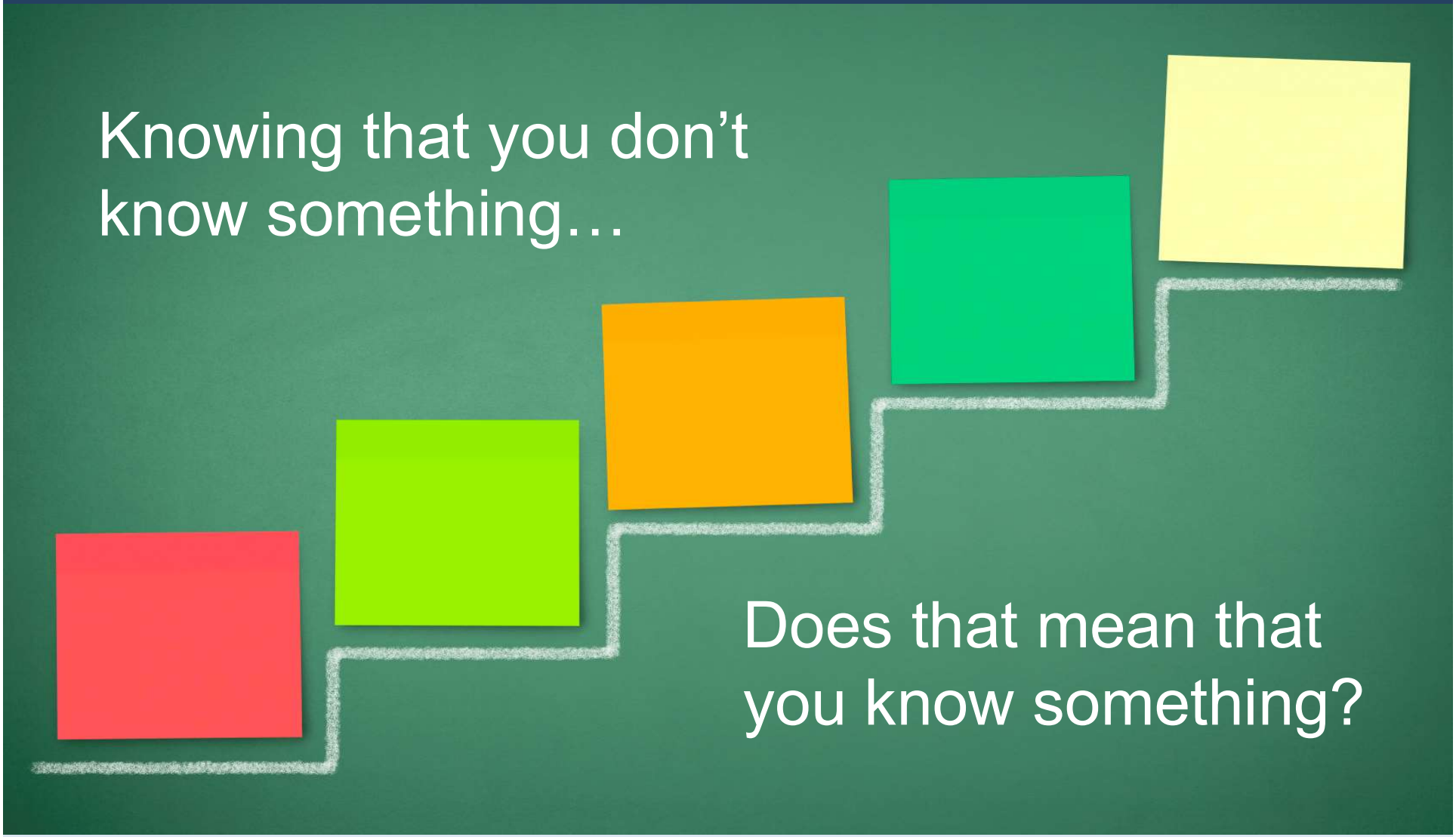
Forecast the desired result.

Determine data needed to monitor success.

Describe what progress will look like.

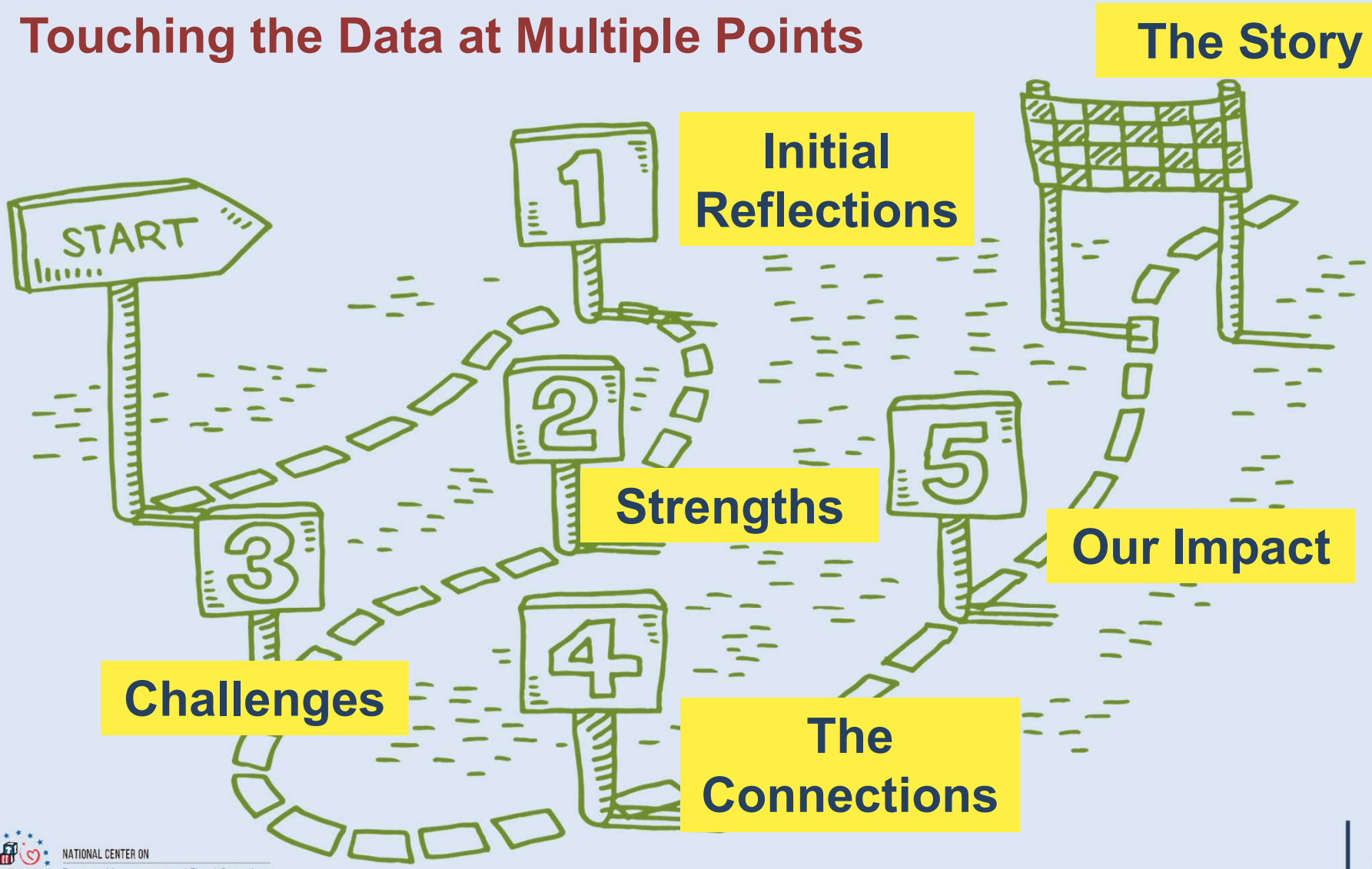
Putting It Together and Taking It Home

What Are the Next Steps in Your Data Journey?



Going From Data to Story

Touching the Data at Multiple Points



Data Touch Point #6

Data Sculpture Activity

- Collect office supplies such as sticky notes, markers, tape, paper
- Select 2–3 Community Connection charts
- Find a story to tell
- Build a quick sculpture

Data Sculpture Video

Here is an example

https://www.youtube.com/watch?v=Y3mwJi5kFLc

Building a Data Culture

Goal: _____

SMART Objective: _____

Expected Outcome:_____

Action / Strategy	Person (s) Responsible	Timelines	Data Source(s)	Status

We Made It!

You took the risk

You made it happen

You are leaving a little richer because of the time you spent at Data Boot Camp

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