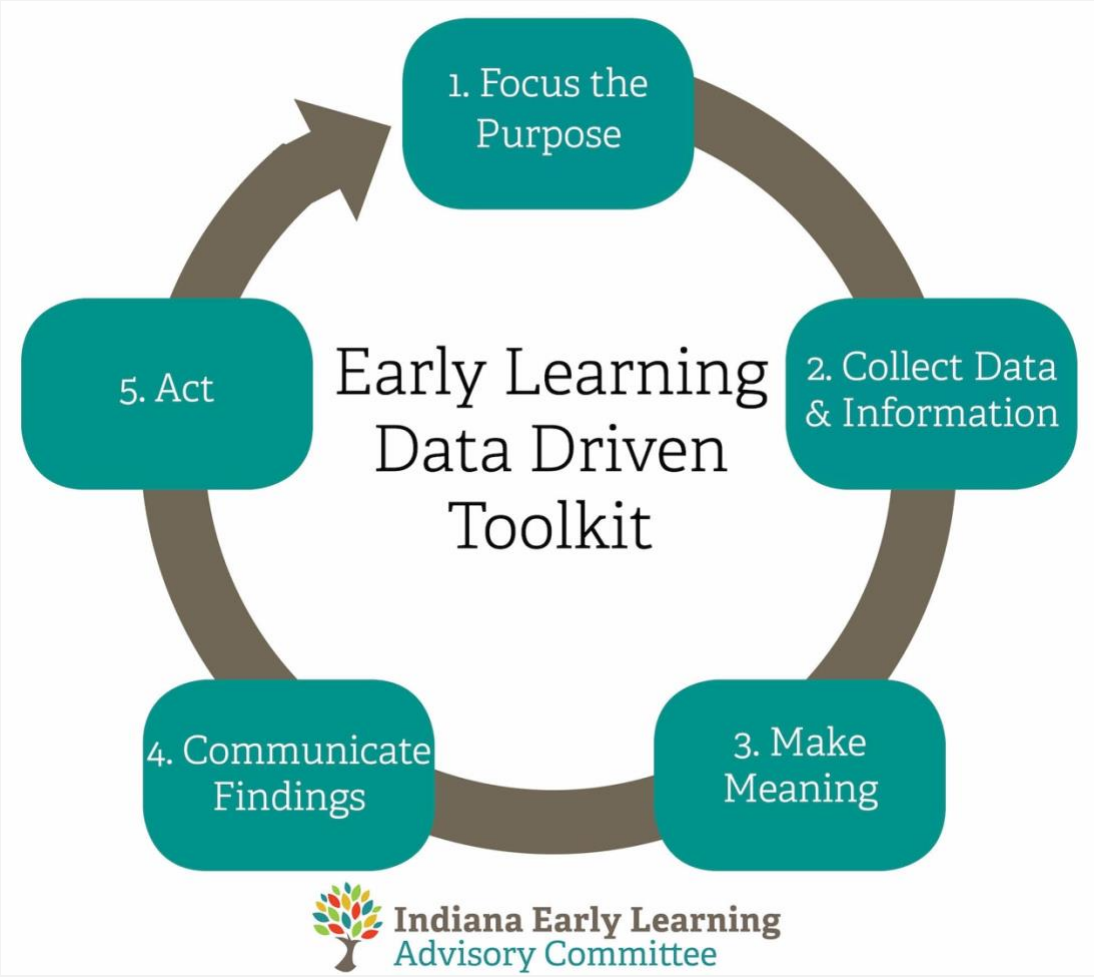
ELAC Early Learning Data Informed Decision Making Toolkit



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I. Introduction

Why Data is So Important?

Used wisely, data can provide communities the insight and information they need to make smarter investments in the success of every child. The main purpose of collecting data is to answer questions whose answers are not immediately obvious. Here are some additional reasons why knowing how to gather data and use it effectively are so critically important:

- Data can inspire action. That is what happened when one Indiana county discovered they had the highest child poverty rate in the state. It happened for another county that discovered they had zero high quality early learning programs to serve their children.
- Data can help identify gaps by race, gender, age, family income levels, ZIP codes and other demographics to understand the needs of the most marginalized and vulnerable children.
- It can help collaborating organizations and individual programs strategically focus limited resources where they can have the greatest impact.
- Data can keep meetings focused on identifying and achieving shared goals rather than wandering off on tangents or letting "the loudest voice in the room" monopolize discussion.
- Data is a source for continuous learning and continuous improvement that can help sustain collaborative efforts over time.
- Data provides a way to share evidence of progress with important stakeholders, including funders who want their investment s to result in measurable and meaningful impacts.
- Effective partnerships use data as evidence to make decisions in real time, improve and scale effective practices and target resources to support what works.

Purpose of this toolkit

The purpose of this toolkit is simple. It is to teach the skills of gathering and using data to achieve meaningful outcomes for Hoosier children, so they are prepared to succeed in school and life. The Early Learning Advisory Committee (ELAC) knows that using data effectively is critical to expanding access to affordable high quality early care and learning and to the goal of ensuring that every child can develop to his or her fullest potential socially, emotionally, physically, cognitively, and academically. This toolkit can help users:

- Understand and dig deeper into the ELAC Annual Report and county profiles.
- Use data skillfully when talking about making improvements in early learning.
- Provide evidence to support strategies to improve outcomes and increase investment in what works.

- Build a data-informed, action-oriented culture.

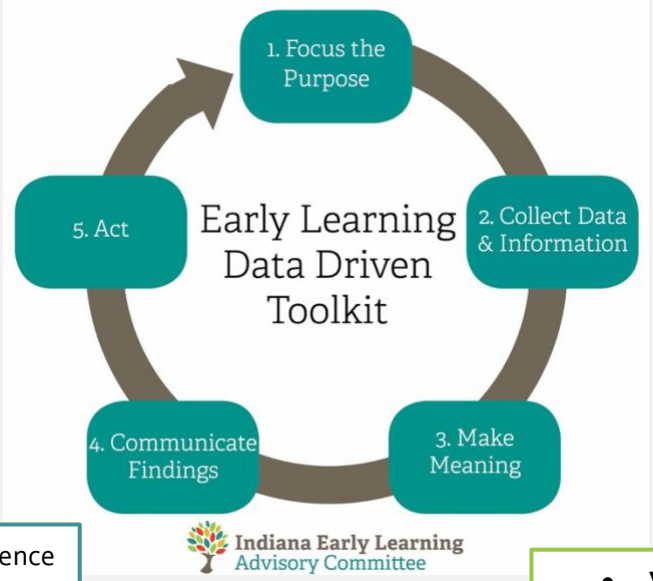
Overview

This toolkit is organized around the five stages of the data cycle diagram on the following page—from focusing on the purpose of collecting data to taking action-- followed by a section on "Establishing a Data Informed Culture." Each section explains why the stage is important and frames essential questions to consider. Each section includes tools and resources to help the reader get started or dig deeper into the subject matter.

Data Driven Cycle

Gather your team and get started!

- **Determine** issues
- **Identify** key questions



- **Identify** needed and existing resources and data
- **Locate** resources and data
- **Implement** a plan on how to collect and where to store data

- **Make** decisions
- **Devise** strategies and plans
- **Measure** and **Evaluate**

- **Identify** audience
- **Determine** messages
- **Choose** methods and products to communicate

- **Visualize** data
- **Analyze** data
- **Discuss** the findings

II. Focus the Purpose

Background

When thinking about the problems you want to solve for early learners, the list may seem endless. It can be useful to brainstorm potential outcomes, indicators of success and other data that may be interesting to consider. But collecting too much data is like "trying to boil the ocean." To narrow your focus, it is helpful to learn what is important to your stakeholders and what other successful communities have done. It may also be helpful to create data "buckets" to categorize potential types of data. Here are categories to consider:

Essential Questions

What is your purpose?
What are the key issues?
What are the questions you are trying to answer?
What other research exists that can be helpful?

- **Community level outcomes:** These are the overarching goals your community seeks to achieve over time. A common one is "Every child prepared for success in school." Outcomes should be population based, representing conditions at the community level you want to change. They should be ones team members are willing to "own" and work to improve over time. Outcomes can also be subdivided into the following buckets, which convey the fact that change takes time:
  - Short Term (learning: awareness, knowledge, skills, motivations)
  - Medium Term (action: behavior, practice, decisions, policies)
  - Long Term (ultimate consequences like kindergarten readiness, reading at grade level)

- **Indicators** are objective measures of achievement toward the outcomes. The number of children enrolled in high quality learning is a common indicator used to measure progress toward the outcome of all children prepared for success in school, for example.

- Some entities may want to use a "logic model" or "theory of action" framework that expresses the logical relationships between the inputs, activities, outputs and outcomes of their effforts. **Inputs** are the resources used to achieve results, such as funding, programs, partners and training. **Outputs** measure what the activities directly produce. For example, trainings produce a number of educators trained. A summit produces a certain number of attendees. Outputs that contribute to achieving the outcomes you want to produce become the indicators to track over time. For example, an activity aimed at increasing the number of programs on Paths to QUALITY™ (PTQ) achieves the output of two programs joining. This output helps move the chosen indicator of the number of programs on PTQ (The indicator was 4 programs; now it is 6).

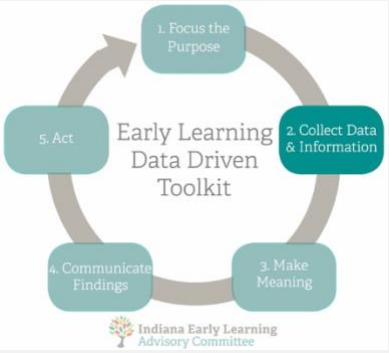
One way to focus the purpose of data collection is to ask, "Is it actionable?" Is there a strategy that could be implemented to change the data? It is also important to subject potential data to the following criteria:

TOOL/RESOURCE

Suggested criteria for selecting indicators

- ✓ Indicators should be a **valid measure** of achievement toward the outcomes.
- ✓ Indicators must be **easily understandable** to local stakeholders.
- ✓ Indicators must be **reasonably similar** across collaborating entities. (Definition of attendance, e.g.)
- ✓ The data must be produced by a **trusted source.** (See next section for a list of trusted sources.)
- ✓ Indicators need to be **affordable to gather and report.**
- ✓ Indicator data should be **available consistently** over time to mark progress--every year
- ✓ Indicators must be **changeable to a significant degree by local action** and useful to work teams.

III. Collect Data and Information



Background

Discovering where to find quality data is the first step in the data collection process. There are many places that contain data related to early childhood. Some are easier to access and more reliable than others. Gaining access to the data will present timing, legal and other hurdles. Once you navigate these hurdles you want to consider how you will receive the data, where you will store the data, and how you will protect it. Data security is very important when working with individual records. Data about individuals can provide valuable insights, but security must be at the forefront of data users' minds at all times. Once you've collected the data you need, you can begin harnessing the power of data using analysis and visualization which are detailed in the next section. In the following Data Resource Guide, we have done some of the initial data collection work for you. We hope you find it helpful.

Essential Questions

What data do I need to answer the questions?
Where is the data? Does it already exist?
Locate the data.
How can I get the data?

ELAC DATA RESOURCE GUIDE

This directory of data sources is designed for Indiana early childhood coalitions and other entities focused on the education and well-being of children ages 0-8. Its purpose is to help them acquire the basic data they need to describe the current state of important early childhood indicators in their community and to track improvement in key measures over time. The list begins with places where you can find county-level data online, followed by places to access state and national data online that may be helpful in comparing to your county-level data. If the data you want is not already published somewhere in the format you want, you may be able to request it. A list of organizations that provide that kind of service follows the sites that have already-published data. Finally, we provide a list of organizations that are not necessarily data sources, but can help provide some context around the data. To help you get started we list the most 5 commonly used resources to find such data in Indiana.

Most commonly used resources for early childhood data in Indiana

- **The ELAC Annual Report** covers the current state of early childhood education in Indiana. Where to get it: http://www.elacindiana.org/resources/
- **ELAC County Profiles** include a comprehensive overview of nine state agencies' data to provide an annual update on the status of young children ages 0-5, access to and availability of high quality early childhood education, workforce development, and kindergarten readiness that keep children healthy, safe, and learning. Where to get it: http://www.elacindiana.org/why-early-childhood-matters/early-childhood-profile/

- **Early Learning Indiana** has real-time child care supply, cost, and quality information on licensed and regulated early childhood education programs serving children infants through age 13. Where to get it: Send an email to datahelp@earlylearningindiana.org
- **The Indiana Youth Institute KIDS Count Data book** provides information about child well-being in five categories: family and community, economy, education, health and safety. Where to get it:https://www.iyi.org/data-library/data-services/kids-count-data-book/
- **Stats Indiana** is the statistical data utility for the State of Indiana, maintained by the Indiana Business Research Center at Indiana University. Where to get it: http://www.stats.indiana.edu/

Published Collections of Data by County or Smaller Geographical Area

Product Name:	**ELAC County Early Childhood Profile**
Source:	Indiana Early Learning Advisory Committee (ELAC)
Description:	ELAC County Profiles include indicators of access to, quality and affordability including a comprehensive overview of nine state agencies' data to provide an annual update on the status of young children ages 0-5, access to and availability of high quality early childhood education, workforce development, and kindergarten readiness that keep children healthy, safe, and learning. Where to get it: http://www.elacindiana.org/why-early-childhood-matters/early-childhood-profile/
Data Categories:	Early Education, Workforce, Demographics
Timing:	Published annually
Geographic Area:	County – published for each Indiana county

Product Name:	**KIDS COUNT in Indiana County Snapshot**
Source:	Indiana Youth Institute (IYI)
Description:	Snapshots provide information about child economic well-being, health, early childhood, safety, and public education.
Where to get it:	https://www.iyi.org/data-library/data-services/county-snapshots/
Data Categories:	Early Education, Health, Demographics (children under 18), Economics, Education
Timing:	Published annually
Geographic Area:	County – published for each Indiana county

Product Name:	**Indiana Community Report Card & ALICE Report**
Source:	Indiana Association of United Ways
Description:	The Indiana Association of United Ways compiles data from multiple sources to publish both Indiana Community Report Cards and the ALICE Report on households struggling financially in Indiana. The report card is an interactive tool that allows users to view what's happening in their county. ALICE is an acronym for Asset Limited, Income Constrained, Employed – households that earn more than the U.S. poverty level, but less than the basic cost of living
Where to get it:	http://www.indianaimpact.org/ & http://www.iauw.org/alice/index.htm
Data Categories:	Report Card: Education, Health, Economics; Alice Report: Population, Poverty, Housing
Timing:	Report Card: Updated regularly. Alice Report: At least biannually

Geographic Area: State and county

Product Name: **SAVI**
Source: The Polis Center at Indiana University-Purdue University Indianapolis
Description: SAVI is a free resource that provides data about Central Indiana communities, tools to analyze and visualize the data, and training to build users' capacity to use it effectively.
Where to get it: http://www.savi.org/
Data Categories: Multiple: Health, Economics, Education, Sites, Programs, and Agencies
Timing: Updated regularly
Geographic Area: Central Indiana: Boone, Hamilton, Hancock, Hendricks, Marion and Morgan counties.

Product Name: **A Stronger Nation**
Source: The Lumina Foundation
Description: This report tracks U.S. progress toward the goal of having 60% of all Americans earn post-secondary credentials that prepare them for informed citizenship and success in a global economy, a long-term outcome to which high quality early learning contributes.
Where to get it: http://strongernation.luminafoundation.org/report/2017/#nation
Data Categories: Education, (post-secondary attainment), Demographics
Timing: Updated regularly
Geographic Area: National, state, county and Metropolitan Statistical Area levels

Published Collections of Data by State Geographical Area

Product Name: **Indiana Early Learning Advisory Committee Annual Report**
Source: Indiana Early Learning Advisory Committee (ELAC)
Description: The ELAC Annual Report covers the current state of early childhood education in Indiana.
Where to get it: http://www.elacindiana.org/resources/
Data Categories: Education, Workforce, Demographics
Timing: Published annually
Geographic Area: State – Indiana only

Product Name: **KIDS COUNT in Indiana Data Book**
Source: The Indiana Youth Institute (IYI)
Description: The data book provides information about child well-being in five categories: family and community, economy, education, health and safety.
Where to get it: https://www.iyi.org/data-library/data-services/kids-count-data-book/
Data Categories: Education, Health, Demographics, Economics
Timing: Published annually
Geographic Area: State – While IYI provides data for Indiana, the Annie E. Casey Foundation provides data on all states at http://datacenter.kidscount.org/

Product Name: **The State of Preschool Yearbook**

Source:	National Institute for Early Education Research (NIEER)
Description:	The yearbook provides data on funding, access, and policies of state-funded preschool programs only, including quality ratings, average cost and enrollment.
Where to get it:	http://nieer.org/state-preschool-yearbooks
Data Categories:	Education, Workforce
Timing:	Published annually
Geographic Area:	State with a national overview
Product Name:	**Head Start Program Information Report (PIR)**
Source:	Head Start/Early Childhood Learning & Knowledge Center, U. S. Department of Health & Human Services
Description:	The PIR provides data on enrollment, center types, and the services Head Start provides. This data is all aggregated and can be requested for a specific state or nationally.
Where to get it:	https://eclkc.ohs.acf.hhs.gov/data-ongoing-monitoring/article/program-information-report-pir
Data Categories:	Center based data and statistics
Timing:	Published annually
Geographic Area:	State with a national overview
Product Name:	**Hoosiers by the Numbers**
Source:	Department of Workforce Development & Indiana Business Research Center
Description:	Hoosiers by the Numbers provides comprehensive information about Indiana's workforce as well as tools and resources. Data is made available in the aggregate and is searchable by region, topic, and occupations including preschool, kindergarten and elementary teachers.
Where to get it:	http://www.hoosierdata.in.gov/
Data Categories:	Workforce, Education, Demographics
Timing:	Most data is updated on an ongoing basis
Geographic Area:	Can find data by county or region, but most data is about the state
Organization:	**Indiana State Department of Health (ISDH)**
Description:	The ISDH has put together multiple reports that can be accessed via its website on various health related topics including maternal and child health, infant mortality, etc.
Where to get it:	Reports and statistics: http://www.in.gov/isdh/18888.htm & Geographic data: http://www.in.gov/isdh/26720.htm
Data Categories:	Health, Demographics
Timing:	Reports and data are updated on an ongoing basis
Geographic Area:	State and some regional data
Product Name:	**Stats Indiana**
Source:	Indiana Business Research Center (IBRC)

Description:	Stats Indiana is the statistical data utility for the State of Indiana, developed and maintained since 1985 by the IBRC.
Where to get it:	http://www.stats.indiana.edu/
Data Categories:	Demographics, Workforce, Education, Health
Timing:	Data is updated regularly
Geographic Area:	Can find data by census tract, county or region, but most data is about the State

Organization:	**Civil Rights Data Collection**
Description:	This site provides data collected through a required survey from the U.S. Department of Education's Office for Civil Rights on key education and civil rights issues including student enrollment and educational programs and services, disaggregated by race/ethnicity, sex, limited English proficiency and disability. It includes data on pre-K, K-12, course information, assessments, school profiles, etc.
Where to get it:	https://ocrdata.ed.gov/
Data Categories:	Education, Demographics, Workforce
Timing:	Data is updated approximately every 2-4 years
Geographic Area:	Data is searchable all the way to individual school

Product Name:	**The Early Childhood Workforce Index**
Source:	Center for the Study of Childcare Employment
Description:	The index provides an appraisal of the workforce conditions and policies across the United States as of 2016.
Where to get it:	http://cscce.berkeley.edu/early-childhood-workforce-index/
Data Categories:	Workforce (Early Education)
Timing:	This is a report released in 2016.
Geographic Area:	Data can be found for each State

Searchable Sites for Early Childhood Data

Source:	**Indiana Department of Education (IDOE) website data page**
Description:	The IDOE website provides data on enrollment, attendance and student performance on various tests, preschool through grade 12. Interested parties may request access to data not found on the site by using the following address: datarequests@doe.in.gov
Where to get it:	http://www.doe.in.gov/idoe/idoe-data
Data Categories:	Education, Demographics
Timing:	Data is updated periodically and displayed by school year
Geographic Area:	School and school corporation (district)

Source:	**Indiana Early Learning Advisory Committee (ELAC) web page**
Description:	The ELAC website provides reports and data on early childhood topics such as funding, workforce, return on investment in early childhood and pre-K pilot program evaluations

	on its "Resources" tab. Research reports and resource links can be found under its "Resources" tab.
Where to get it:	http://www.elacindiana.org/
Data Categories:	Education (Early Childhood), Workforce, Demographics
Timing:	Data is updated periodically
Geographic Area:	State, National

Organizations that can supply custom data when requested

Organization:	**U.S. Census Bureau**
Description:	The U.S. Census Bureau collects data from citizens on a variety of topics and makes the data available for the entire U.S. Going to their main page is helpful, but checking out the American Community Service and Data pages will be a good place to start.
Where to get it	https://www.census.gov/ & https://www.census.gov/data.html &https://www.census.gov/programs-surveys/acs/
Data Categories:	Multiple including Demographics, Education, Economics, Workforce and Health
Timing:	The U.S. Census takes place every 10 years, but most data is updated on an ongoing basis using The American Community Survey (ACS).
Geographic Area:	All levels down to census tract.

Organization:	**Family and Social Services Administration (FSSA)**
Description:	FSSA has information on licensed and registered child care and education programs serving children infants through age 13 including the On My Way Pre-K pilot program through the Office of Early Childhood and Out of School Learning. It also has information on early intervention for infants and toddlers (First Steps), food and cash assistance for families via Supplemental Nutrition Assistance Program (SNAP) and Temporary Assistance to Needy Families (TANF). A few reports and data may be found on the FSSA website. Contact for custom data requests can be found on the FSSA contact page (http://www.in.gov/fssa/2404.htm).
Where to get it:	Statistics: http://www.in.gov/fssa/2388.htm
Data Categories:	Education, Family Services
Timing:	Data and reports are updated periodically
Geographic Area:	State, County

Organization:	**Early Learning Indiana (ELI)**
Description:	ELI has real-time child care supply, cost, and quality information on licensed and regulated early childhood education programs serving children infants through age 13.
Where to get it:	Data inquiries can be sent to: datahelp@earlylearningindiana.org
Data Categories:	Education
Timing:	Data is available by request and reports are updated periodically

Geographic Area:	State, Region, County
Organization:	**Management Performance Hub (MPH)**
Description:	MPH has education and workforce data linked from FSSA, DOE, the Commission on Higher Education (CHE), and the Department of Workforce Development (DWD) that spans pre-K to the workforce. Currently, this data can be accessed by request only.
Where to get it:	http://www.in.gov/mph/
Data Categories:	Education & Workforce
Timing:	Data is updated on an ongoing basis
Geographic Area:	State

Complementary Resources

ReadyNation

ReadyNation leverages the experience, influence, and expertise of nearly 2,000 business executives to promote public policies and programs that build a stronger workforce and economy. ReadyNation's evidence-based publications, like "Early Education: The Business Case," express why investments in high-quality early childhood programs, K-12, and post-secondary education are imperative to the health of America's future workforce. ReadyNation has supported Indiana's Summit on Economic Development via Early Childhood Coalitions by providing speakers and the 2017 Indiana Brief on "Social-Emotional Skills in Early Childhood Support Workforce Success."

Center on Enhancing Early Learning Outcomes (CEELO)

One of 22 Comprehensive Centers funded by the U.S. Department of Education's Office of Elementary and Secondary Education, CEELO works to strengthen the capacity of State Education Agencies (SEAs--school districts) to lead sustained improvements in early learning opportunities and outcomes. CEELO works in partnership with SEAs, state and local early childhood leaders, and other federal and national technical assistance (TA) providers to promote innovation and accountability. CEELO publishes a range of material on data in the early learning space.

Council of Chief State School Officers (CCSSO)

CCSSO leads and facilitates collective state action to transform our public education system in the four strategic areas of Educator Workforce; Information Systems and Research; Next Generation Learners; and Standards, Assessment, and Accountability. It publishes policy reports about the need to provide earlier, more sustained, intensive, enriched, and carefully sequenced early learning experiences to children who are most at risk, to overcome the odds that are stacked against them. The link above will provide access to this and other policy statements by this group.

Indiana Association for the Education of Young Children (IAEYC)

The mission of the Indiana Association for the Education of Young Children, Inc. is to promote and support quality care and education for all young children, birth through age eight, in Indiana. Indiana AEYC is the voice

to influence policy and promote research-based practice to benefit young children, their families, and those who work on their behalf.

Robert Wood Johnson Foundation (RWJF)

RWJF is working to build a national culture of health. Its goal is to help improve the health of everyone in the United States starting in early childhood, which it believes will take unprecedented collaboration—a movement for better health. Its website includes research briefs, blogs and news on early childhood development and health (http://www.rwjf.org/en/our-focus-areas/topics/early-childhood-development.html).

Institute of Medicine and National Research Council. (2015). "Transforming the Workforce for Children Birth Through Age Eight: A Unifying Foundation."

This full report discusses the implications of child developmental science for early care and education professionals in terms of necessary competencies and practices, as well as the systems change needed to better support the preparation, competency, professional development, and compensation for the early care and education workforce.

The Early Childhood Data Collaborative (ECDC)

The ECDC supports state policymakers' development and use of coordinated state early care and education (ECE) data systems. It promotes data-driven decision-making to improve program and workforce quality, access to high-quality programs, and child outcomes.

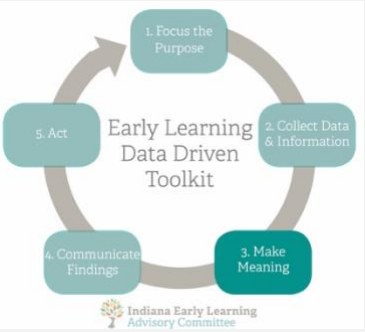
US Health and Human Services: Federal Poverty Guidelines

The poverty thresholds are the original version of the federal poverty measure. They are updated each year by the Census Bureau. The thresholds are used mainly for statistical purposes. The poverty guidelines are the other version of the federal poverty measure. They are issued each year in the Federal Register by the Department of Health and Human Services (HHS). The guidelines are a simplification of the poverty thresholds for use for administrative purposes.

Local Potential Sources of Data

- Local school districts, public and private schools
- Local Child Care Development Fund (CCDF) intake agency
- County Department of Health: infant mortality, births, vaccinations, etc.
- County United Way and United Fund organizations

IV. Make Meaning



Using Data Visually to Tell Your Story in a Way That Leads to Action

I have my data, now what?

This section provides resources which may be of assistance to your team as you process and analyze your data and identify important trends and correlations.

Essential Questions:

How do I display my data in a way that will create a strong visual impact for my audiences?
What are some examples of visual graphics, including charts and tables that can be used to tell my story?
Where can I find resources and tools to help me develop meaningful visual displays for presentations?

Data visualization is a technique used to communicate data and information as a visual object. Data patterns and trends often go undetected in text-based data. Using visualization tools will help your audience understand the significance of key data points, as you tell your story.

Storytelling Tips from Data Playbook (https://www.schusterman.org/playbooks/data/)

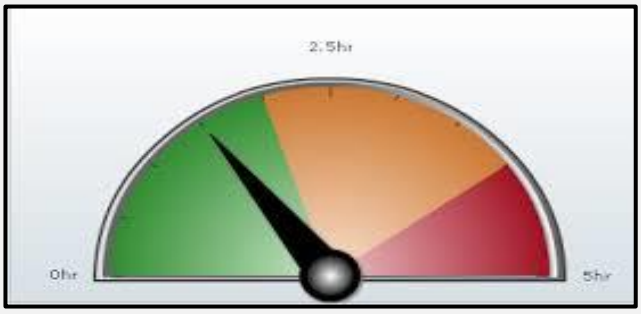
- ✓ Determine your audiences.
- ✓ Start with the end in mind: what message do you want your audience to walk away with?
- ✓ Make it personal: how can you connect your audience emotionally?
- ✓ Storyboard: whether it is a short executive summary or a 40-page presentation, storyboarding can be helpful in deciding what to convey and in what order. Story boarding resource: https://multimedia.journalism.berkeley.edu/tutorials/starttofinish-storyboarding/
- ✓ Make sure to include qualitative data, stories, anecdotes and comments that add color and context to your quantitative data.
- ✓ Find the right balance between visualization and narrative. Digital content should be heavier on the visualization, while a formal print evaluation report should be heavier on narrative. You want your visualizations and narrative to support each other without being duplicative.

You need to decide how to best take advantage of your data to tell your story. Always keep in mind these three things: audience, medium and purpose.

All of these charts and graphs can be created through Excel. You can easily download free data visualization resources as well. Please see the reference section for some great websites!

DATA VISUALIZATION TIPS

- Keep it simple (no 3D, blow apart effects, or overloading chart), organized, and labeled
- Use color with cautions:
    - Use colors that are associated with meaning (Example: Stoplight Colors)
    - Make sure that you have enough contrast between your colors.
    - In presentations, check if the colors are still clear if shapes are overlapping.
    - Always take color blindness into account when selecting or creating graphics.
    - Don't use more than six colors.
- Show appropriate comparison to define and describe the overall magnitude of the problem in target population (e.g. choose the state with best ranking).

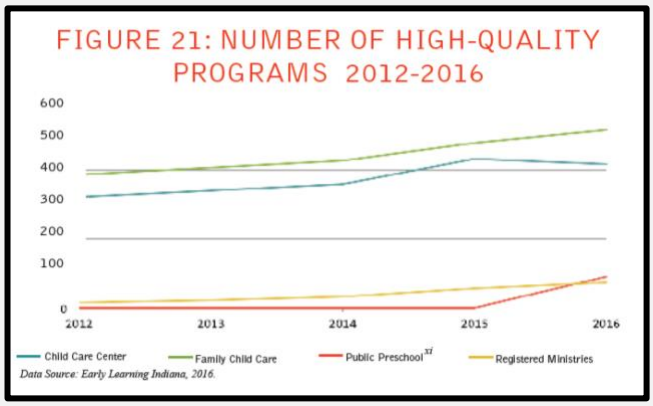


Choose the Right Visualization

Line Chart:

For trend, data comparison per group, good for continuous data set:

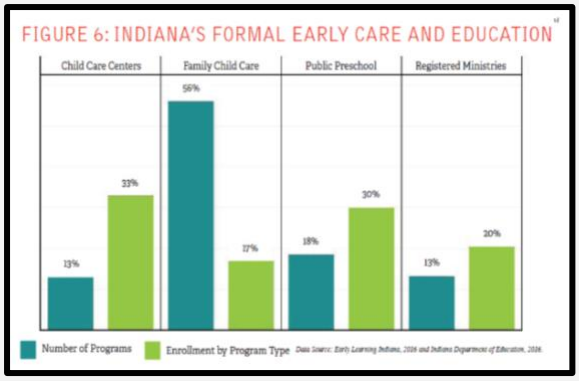
- Use solid lines only.
- Don't plot more than four lines to avoid visual distractions.
- Use the right height so the lines take up roughly 2/3 of the vertical, y-axis' height.



Column Chart:

For comparing multiple values/ categories or data over time:

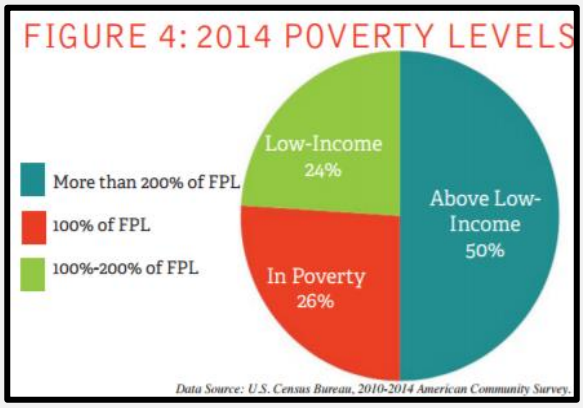
- Use consistent colors throughout the chart, selecting accent colors to highlight meaningful data points or changes over time.
- Use horizontal labels to improve readability.
- Start the y-axis at 0 to appropriately reflect the values in your graph.
- Use the same scale across or within charts.



Pie Chart:

To show percentages or composition of something:

- Don't illustrate too many categories to ensure differentiation between slices (6 or less).
- Ensure that the slice values add up to 100%.
- Start at 12 o'clock.
- Order slices according to their size (big to small).



Dual Axis:
Two Y axes and shared X axis for correlation between data sets:

- Use the Y-axis on the left side for the primary variable because brains are naturally inclined to look left first.
- Use different graphing styles to illustrate the two data sets.
  (e.g. line graph for one, bar chart for the other)
- Choose contrasting colors for the two data sets.

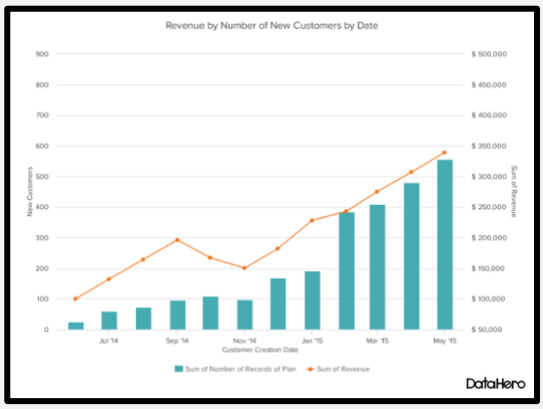


Table:
Shows numbers, for demographics:

- To add meaning to the data, benchmark it and show whether it is good or bad in different colors.

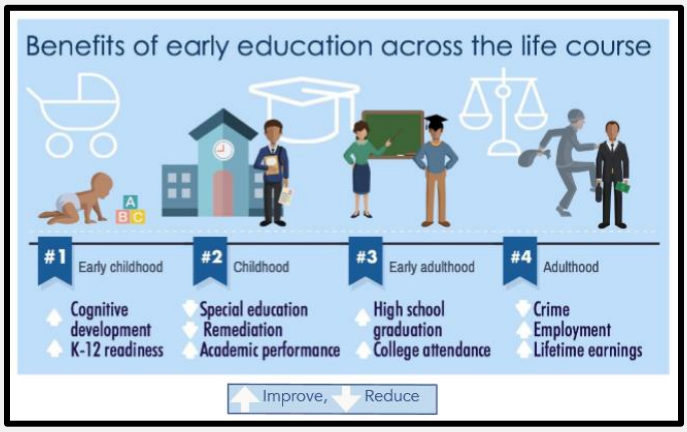
FIGURE 3: FEDERAL POVERTY GUIDELINES

	Less than 100% FPL	100%-125% FPL	125%-185% FPL	185%-200% FPL
Family Size	A family in 100% poverty makes less than the following annual income.	A family within 100% to 125% of poverty makes less than the following annual income.	A family within 125% to 185% of poverty makes les than the following annual income.	A family within 185% to 200% of poverty makes less than the following annual income.
2 People	$16,020.00	$20,025.00	$29,637.00	$32,040.00
3 People	$20,160.00	$25,200.00	$37,296.00	$40,320.00
4 People	$24,300.00	$30,375.00	$44,955.00	$48,600.00

Data Source: 2016 Poverty Guidelines, U.S. Department of Health and Human Services.

Infographic:

- Keep it focused.
- Good balance of visual information with written information.
- Use white (empty) space to separate key elements.
- Cite your sources.

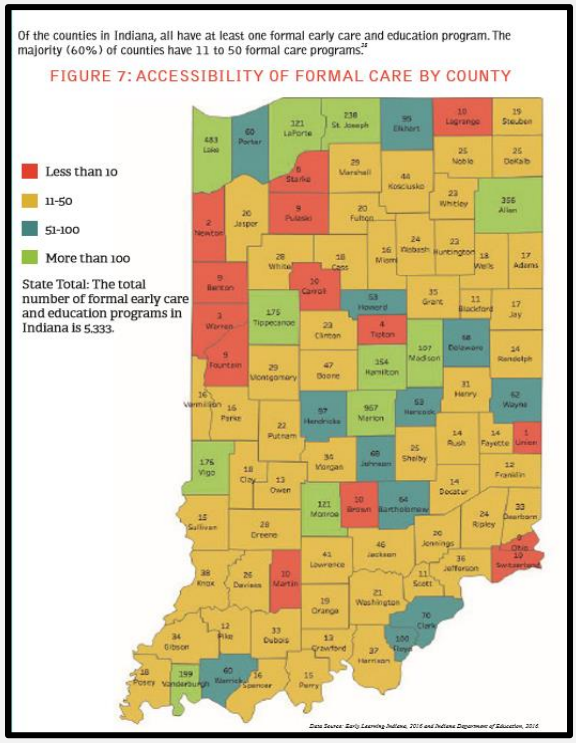


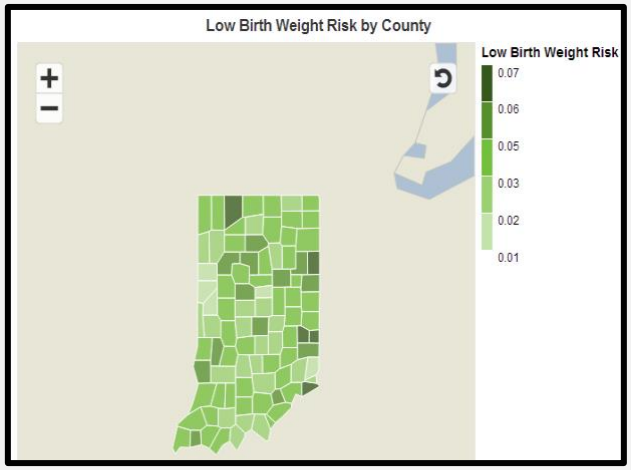
Resources to create infographics:

- https://piktochart.com
- https://venngage.com

Maps:

- Use a basic and clear map outline to avoid distracting from the data.
- Use a single color in varying shades to show changes in data.
- Avoid using multiple patterns.





How to create a Data Dashboard:

What Is a Dashboard?

Dashboards track metrics, and other data points in one visual, in one central place. They give you a high-level view of data that informs stakeholders. The visual nature of a data dashboard should simplify complex data and may use tables, charts, gauges, and numbers.

First Determine:

- What is your purpose?

- Who are your audiences?
- What data is relevant to tell your story?

Dashboard Tools:

- https://www.smartsheet.com/how-create-dashboard-excel
- YouTube has videos on how to create a data dashboard
- https://www.smartsheet.com/free-excel-dashboard-templates

Web Resources:

Data visualization tools:

- https://www.tableau.com/solutions/topic/data-visualization
- http://www.qlik.com/us/
- https://hbr.org/2016/06/visualizations-that-really-work
- https://hbr.org/2014/04/the-quick-and-dirty-on-data-visualization
- https://www.researchgate.net/publication/303290034_Daisy_Visualization_for_Graphs

V. Communicate Findings

Background

Once you have analyzed your data and found meaningful ways to express it, then it is time to communicate findings to stakeholders. Taking time to create a strategic communication plan can help ensure success.

Step one is to identify your target audiences and consider their unique perspectives. Whom do you want to take action? Who simply needs to be informed?

Essential Questions

- What do we want to say with our findings?
- Who needs to know about the information?
- What methods or products do we need to produce?
- How will we share the findings?

The second step is to frame key messages, so they will resonate with specific audiences. Third, determine the best means of communicating your story. What materials and channels make the most sense--printed materials, an email blast, social media, personal or group meetings? Make sure you have the resources to implement effectively. Consider strategically partnering with others to increase your reach and impact.

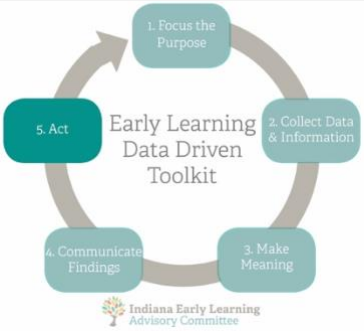
Finally, consider timing. What time of year or time of day will your audience be most receptive to receiving your message and responding to your call to action? Following is a suggested template for planning your communication efforts.

TOOL/RESOURCE

Template for Creating a Strategic Communications Plan

- **Project name:** _____
- **Critical Partners:** List all parties involved in executing this plan.
- **Target Audience(s):** List primary, call-to-action recipients of the message and secondary audiences, such as those that should be informed as a courtesy or for information only.
- **Background:** Provide a brief history of the program, event or activity (how it came to be) and describe the context/atmosphere/environment in which it will be launched.
- **Purpose/Rationale:** Why is this plan needed?
- **Goals:** List up to 5 high-level goals. – What are you are trying to accomplish overall through the communications plan? Link your mission and vision when possible.
- **Objectives:** State the **M**easurable, specific **B**ehavior changes you want a target **A**udience to achieve and the **T**imeframe in which you want to achieve them. *(Example: By next May (Timeframe), 80 percent (Measure) of child care centers in our county (Audience) will have completed the Family Engagement Self-assessment (Behavior).*
- **Strategies:** State the communications practices, channels, methods, partnerships, etc. that you will use to engage your key audiences and accomplish your objectives.
- **Key Messages:** List up to 3 key messages.
- **Talking Points:** Prepare a list of concise, key talking points and answers to questions you anticipate your audiences may have. Add talking points, questions and answers (Q & A) in response to what you hear during implementation and share them with key communicators.

VI. Act



BACKGROUND

The purpose of collecting, analyzing and sharing data is to take collective, data-informed action to achieve shared goals. Often the baseline data you collect will identify what needs attention.

Essential Questions

- What actions do we need to take?
- What outcome or change do we want to accomplish?
- How will we evaluate the impact?

The quality of decisions about what to address and how and the likelihood of success increase when you have the entire system represented at the table. This often entails a cross-sector group of individuals who bring important perspectives and knowledge to the decision-making process. These may include subject-matter experts, practitioners and researchers in the field. It may include employers, funders and others from the social, private and

government sectors. They should reflect community diversity. It may also be helpful to include the voice of those being served, such as family members. In addition to considering local data and national research, families, funders and practitioners can provide valuable insights about what works, what doesn't and why for different segments of the community.

Actions chosen should be designed to move an indicator that leads to achieving a community level outcome. It is often helpful to identify a potential "early win" and achieve it quickly. For example, helping an early learning program move from Level 2 to Level 3 on Paths to QUALITY™ would show progress worth sharing. Early wins help build momentum and sustain interest in collective efforts.

Before implementing a strategy, it is helpful to predict what will happen as a result and determine how you will use data to measure what did happen. This will lay the foundation for creating a learning process and a continuous improvement plan. The following diagram and links may help you design a system to: Plan your strategy; Do it; Study the results; then Act on what you learn to either improve the next implementation, change strategies or scale what works to expand success.

Tools/Resources

http://fcit.usf.edu/data/index.html **

https://www.msdf.org/blog/2016/10/education-data-actionable/

https://hbr.org/2014/05/making-big-data-actionable-how-data-visualization-and-other-tools-change-the-game

https://www.forbes.com/sites/mckinsey/2013/10/22/four-steps-to-turn-big-data-into-action/#dd292c243808

https://www.inc.com/jeff-haden/turn-data-into-insight-into-action-six-rules-for-nailing-digital-analytics.html

https://dataqualitycampaign.org/timetoact17/

VII. Establish a Data Informed Culture

Background

Building a culture of continuous improvement founded on data informed decision-making requires sustained, intentional effort. It is up to the leaders of an organization or collaborative effort to model the behavior they want others to follow.

Essential Questions

- How do we ensure being data informed is ingrained in our culture?
- What policies, practices and protocols do we need to implement and sustain?
- How do we continuously improve our data informed practices?

For example, here are some questions to ask for reflection:

- Are meetings centered around data and what it says about progress toward shared goals?
- Do participants ask questions like: How do we know? What progress have we made toward our goal? What have we learned from our experiments, our surveys, our results?

Many organizational leaders may have succeeded based on their gut instincts and experience, and by giving orders. Collaborative efforts require a different kind of leadership where knowledge and power are distributed among many. Focusing meetings on the data can help prevent discussions from getting off track. It can prevent dominant personalities from stifling other voices who may have something valuable to contribute. Focusing on data and adhering to the Plan/Do/Study/Act continuous improvement cycle can also aid in establishing shared accountability among partners.

Continuously using data, discussing data and sharing data in a timely manner are important steps toward creating a data informed culture. It also requires building a strong data infrastructure. This entails establishing clear data roles, policies, protocols, procedures and data governance. Protecting confidential data shared by partners as well as student-level data and adhering to privacy laws like FERPA and HIPAA can help build trust among partners. The ELAC "White Paper on Data Privacy and Security Considerations" can help participants understand what can be shared and steps to take to protect sensitive data. Here are links to other tools and resources for creating a data-informed culture:

Tools/Resources

http://www.oreilly.com/data/free/data-driven.csp

https://www.oreilly.com/topics/data-culture

https://www.forbes.com/sites/emc/2014/06/06/5-steps-to-a-data-driven-culture/#5f79bf2936f8

https://www.powerschool.com/five-keys-building-data-driven-school-culture/

http://www.gartner.com/smarterwithgartner/the-key-to-establishing-a-data-driven-culture/

https://eleducation.org/resources/using-data-data-culture **
https://www.tableau.com/solutions/customer/fostering-healthy-data-culture-education
https://dataqualitycampaign.org/why-education-data/

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