Education-to-Workforce Indicator Framework

SUPPLEMENTAL RESOURCE

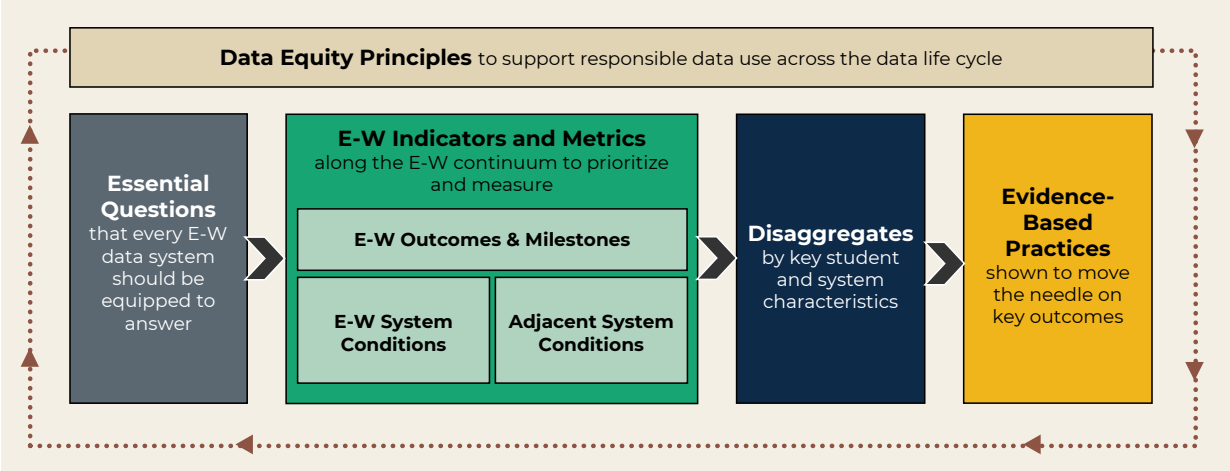
Data Equity Principles at a Glance





The **Education-to-Workforce Indicator Framework (E-W Framework)** is designed to promote data collection and use to advance educational and economic opportunity for all. The framework offers guidance for ethical and effective data use, essential questions and data that matter most, ways to disaggregate data to inform action, and evidence-based practices to drive positive change.

This **at-a-glance resource** offers a look into the **data equity principles** and the data life cycle included in the E-W Framework.



Visit our website at www.educationtoworkforce.org to learn more or contact us at EWframework@mathematica-mpr.com for additional support.

What is data equity and why does it matter?

Using data in service of equity goals means that at every stage of the data life cycle, users must think about both the risks and the benefits data might bring. Data can be a **powerful tool for promoting equity when used ethically and effectively**, but data are not inherently neutral. Like any tool, they require thoughtful use and careful handling. How we collect, access, analyze, and report data can have serious and potentially harmful impacts on individuals and communities. Historically, education and workforce data have been used in both helpful and harmful ways.

Helpful: Disaggregated data have shined a light on how schools have vastly different resources to support their students. These education data informed the passage of landmark policies such as the Elementary and Secondary Education Act, which established the Title I program to provide additional funding to schools with a high percentage of students from low-income households.

Harmful: Data on disparate academic outcomes, often referred to as "achievement gaps," have been used to argue the inferiority of specific racial groups, primarily Black and Indigenous people, and reinforce beliefs that highlight deficits and blame individuals rather than the systems that generate advantages for some groups and disadvantages for others.

Data equity principles offer guidance data users can apply throughout the data life cycle to minimize harm and promote greater equity.

How were these principles developed?

The principles were developed with a diverse range of partners, including education and workforce policymakers and data strategists, researchers, equity advocates, and parents and educators. To incorporate scholarly, practitioner, and lived-experience perspectives, we:

1. Conducted a thorough literature review to gather information on how data equity principles are defined and used in practice. We analyzed and synthesized common themes leading to:
   - **Seven core data equity principles** that undergird the recommendations in the source publications we reviewed
   - **Six key phases of the data life cycle** during which data users should apply these core principles
2. Presented an initial synthesis of this literature to people who make—and feel the effects of—data-driven decisions. Their input informed the final seven core data equity principles, as well as the guidance to implement them.

Six phases of the data life cycle

Reflection questions to consider throughout the data life cycle

- Who is affected—positively or negatively—by the disparity in question? Why? How?
- What opportunities have we provided for community members to lead and drive contextual understandings to support project goals?
- Do our analyses identify historical structures, policies or practices, and institutions involved? What conditions contribute to the problem?
- Do our analyses go far enough, or are we attributing inequitable outcomes to factors that are not root causes? Are there alternative explanations that fit better?

What are the seven data equity principles?

The order in which the principles are listed does not reflect relative importance—all seven principles must be put into action to achieve data equity. In particular, Principle 7 (restoring community members as data experts) is critical to successfully implementing all of the other principles and meeting equity goals.

Chapter 5 of the E-W Framework offers more information on each principle, including:

- A **description** of why it matters
- A **case study** of the principle in action
- Specific **tips** for applying this principle throughout the data life cycle
- Reflection **questions** to consider
- Potential **risks** to look out for
- Additional **resources**

Principle 7	**Restore communities as data experts** using culturally responsive approaches to engagement and co-creation that support equitable data use.	Engaging community members with lived experience is key to centering equity throughout the data life cycle. Data users should follow best practices outlined in the framework for effective community engagement.
Principle 1	**Employ ethical behavior** to respect the rights of individuals who provide data, promote greater equity and well-being, and minimize the risk of harm	Data users should consider and question data practices at the outset of any data project to determine whether they have potential to contribute to greater equity and whether they are addressing the underlying factors that perpetuate inequities.
Principle 2	**Protect the privacy** of individuals who provide data while ensuring appropriate ownership and access to information.	Acknowledging that data represent the lived experiences of individuals, protecting data from improper use and exposure, and returning the data to community partners are all critical to promoting equity and earning public trust.
Principle 3	**Disaggregate data** on both outcomes and system conditions to analyze disparities, monitor progress, and guide action.	Data users must collect data on multiple relevant background characteristics guided by a contextual and theoretical understanding of root causes to avoid perpetuating existing stereotypes and deficit narratives.
Principle 4	Examine social and historical contexts to identify **root causes of disparities**, inform data collection and use, and develop data-informed solutions.	Data users must examine data on structural conditions; learn about relevant past policies, programs, and institutions and their role with racial inequity; and understand what members of priority communities[1] see as the barriers to equity.
Principle 5	**Question default methods and assumptions** for data collection and analysis and triangulate (that is, compare) quantitative data with other sources.	Quantitative methods are sometimes seen as unbiased, but no data are inherently neutral. Data users must be aware of potential risks and question their own biases, the data sources and what they might leave out, and the people or institutions that they see as data experts.
Principle 6	Ensure data visualizations **promote inclusion and awareness** across culturally, linguistically, and racially diverse audiences.	Data users should consider the experiences the data communicate and every detail used to present that information—including labels, colors, ordering, graphics, and icons—to ensure they are accessible to multiple audiences and do not reinforce stereotypes and deficit narratives.

[1] In the context of the E-W Indicator Framework, priority communities are identified as Black, Indigenous, and other communities of color and/or communities experiencing poverty. Priority communities may differ depending on the context and locale in which the framework is used.

Data equity principles in action: Principle 4 and the data life cycle journey

Principle 4	Examine social and historical contexts to identify **root causes of disparities**, inform data collection and use, and develop data-informed solutions.	Data users must examine data on structural conditions; learn about relevant past policies, programs, and institutions and their role with racial inequity; and understand what members of priority communities see as the barriers to equity.

Scenario: A local research organization in Waterside City is interested in analyzing student data on the COVID-19 pandemic to track trends in academic performance for an upcoming report. To adequately understand this issue, the research team thinks it is important to examine the social and historical contexts in its city to identify root causes, inform data collection and use, and develop data-driven solutions. The research organization hopes that policymakers will ultimately use the report to advocate for equitable funding and resources within their city school district.

Should this research organization create a report that analyzes student data without consideration of social and historical contexts, the organization will be unable to make key connections between historical underfunding, lack of access, and student experiences. These connections are integral to the creation of effective policy and programs.

Principle 4 through the data life cycle

Context setting: As part of this report, the research organization begins by identifying key historical events, policies (such as commercial development and redlining) and processes that provide context for the observed present-day disparities in Waterside City. To do this, the organization conducts a historical analysis through an equity audit and environmental scan where they create a visual timeline that maps trends in outcome data against policies and other changes over time.

Planning: The research organization then moves forward with planning. It vets research questions and data collection plans for a root cause analysis with groups of people from areas of the city that are most affected by the identified problem of practice. Through an open forum discussion, community members provide input on whether the right problem of practice has been prioritized and which data points should be collected and from whom to explore its root causes.

Collection: During the data collection process, the local research organization follows the data priorities suggested through community member input outlined in the planning session.

Access: The research organization employs data privacy methods from Principle 2 to ensure data security prior to analysis. The research org ensures that data is stored securely and is only shared (securely) with individuals who are properly trained in best practices. In addition, the research organization asks about the historical harms that existed in this context around data access, to avoid causing further harm.

Analysis: Also included in this step is the research organization's commitment to cross-referencing any perceived present-day root causes with historical events, policies, and processes to identify possible relationships. Context continues to matter because historical elements may sway the actors involved. It may help highlight the current practices and why they have felt normal, despite being rooted in conflicting goals of the past.

Reporting: The research organization seeks community reactions to and interpretation of findings to illuminate root causes not otherwise surfaced. The organization and the community co-create action items, including potential data-driven solutions to address the root causes, to promote change through advocacy.