

# Education-to-Workforce Indicator Framework

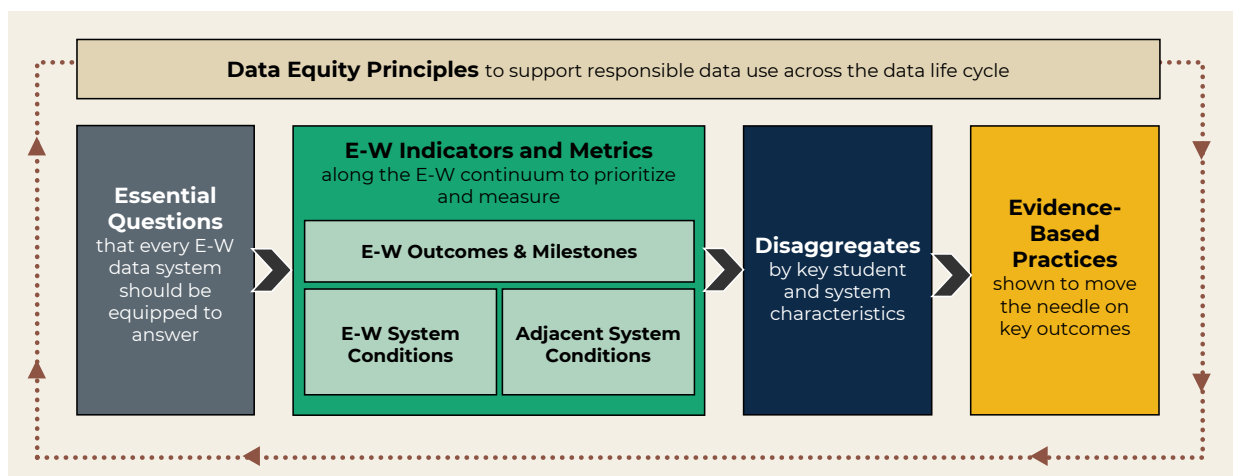
SUPPLEMENTAL  
RESOURCE

## Indicators 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 how **indicators** were selected, what information you can find about each indicator in the E-W Framework, and how they can be used by those working to improve outcomes.



Visit our website at [www.educationtoworkforce.org](http://www.educationtoworkforce.org) to learn more or contact us at [EWframework@mathematica-mpr.com](mailto:EWframework@mathematica-mpr.com) for additional support.

# Why do indicators matter?

Policymakers, system leaders, and community members need actionable and meaningful data that empower them to **effect systems change** and **promote equitable outcomes**. To drive lasting impact, communities need to know how students are progressing and whether the right conditions are in place to help students succeed.

E-W Framework indicators encompass **individual- and system-level data** that, together, offer insights into the role education and workforce systems play in shaping outcomes, assessing and addressing disparities, and supporting educational opportunity and economic security for all.

## What are the E-W Framework indicator profiles?

Indicator profiles offer key information about **99 indicators** of outcomes, milestones, and system conditions that matter most to help every student succeed as they progress from early education through their career (see [page 4](#) for an overview of the 99 indicators).

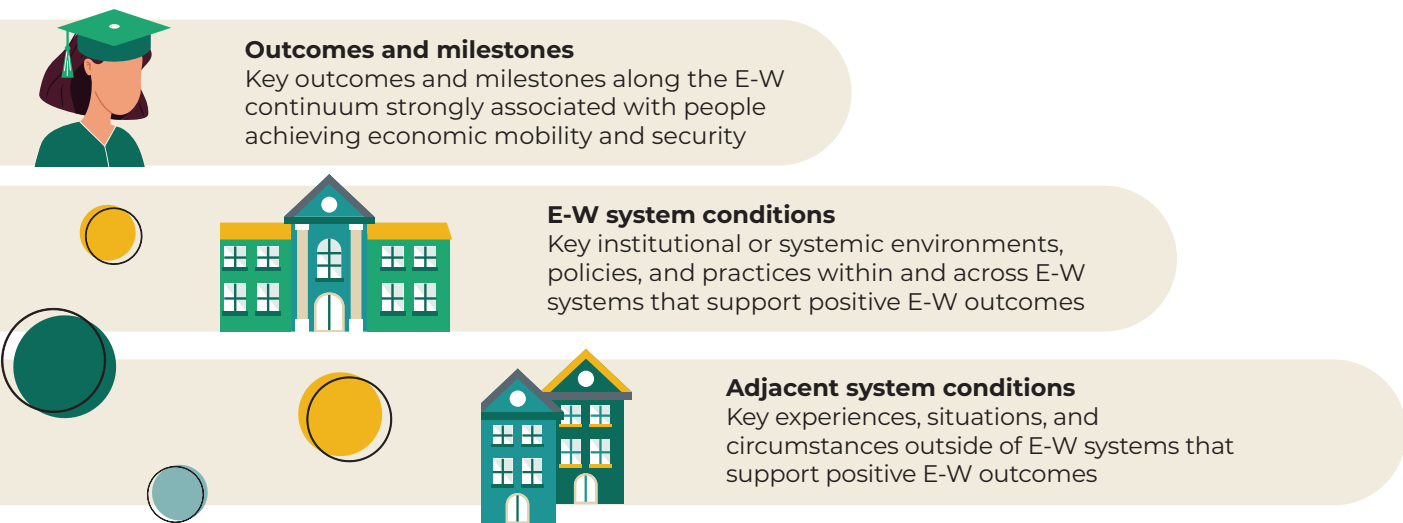
Each profile includes an indicator definition, evidence about its connection to economic mobility and security, recommended metrics, and measurement guidance.

Indicators are organized by **type**, **domain**, and **sector**:



### Type

Three types of indicators account for individual performance and system-level factors.



### Domain

Three interrelated domains affect people's journeys toward economic mobility and security:

- Academic progress and completion
- Physical, mental, and social well-being
- Career readiness and economic success

### Sector

Four sectors of the E-W system shape people's experience as they progress from early education through their career: pre-K, K-12, postsecondary, and workforce. Each indicator profile lists the relevant sector or sectors.



The 99 indicators in the framework are not meant to be exhaustive, nor will every state or community collect every indicator, or use them all at once. You can adapt your use of indicators based on local policy priorities though it's important to examine all three types of indicators together. This is because data on system conditions, both within and adjacent to E-W systems, are essential to understand and act on student level data. The reverse is also true: data on student outcomes and milestones shed light on the performance of systems.

# How to read an indicator profile

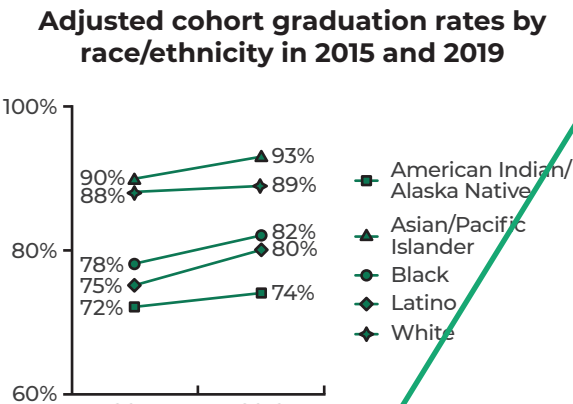
## Example E-W Framework indicator profile

### High school graduation

**Indicator name and relevant sector(s)** (Pre-K, K-12, postsecondary, workforce)

PK K12 PS WF

**Definition:** Students graduate from high school with a regular diploma within four, five, and six years of entering high school.



**Why it matters:** High school graduation is a critical milestone along the pathway to a multitude of better life outcomes, including the likelihood of attending college.<sup>275, 276, 277, 278, 279</sup> In contrast, individuals who leave school before earning a high school diploma face bleak economic, social, and health prospects.<sup>280, 281, 282</sup> There are narrowing but persistent gaps in graduation rates for students from low-income households; Black, Latino, and Indigenous students; and emerging multilingual students.<sup>283</sup> For example, in 2019, 93 percent of a Asian/Pacific Islander students and 89 percent of White students graduated on time, compared to 82 percent of Latino students, 80 percent of Black students, and 74 percent of Indigenous students.<sup>284</sup>

**Recommended metric(s):** Adjusted cohort graduation rate of first-time 9th graders who graduate with a regular diploma within four, five, and six years of entering high school, regardless of whether they transferred schools)

**Data source(s):** Administrative data

**What to know about measurement:** High school completion is regularly reported in administrative systems, and the metric definition (adjusted cohort graduation rate) has been adopted across states. However, states (and in some cases, districts) have leeway to set graduation requirements. For example, some states specify non-course requirements in addition to course requirements, which also vary.<sup>285</sup> Given the increases in graduation rates over time and their use for school accountability, there has been some concern that localities are incentivized to “lower the bar” or “game” the calculation of the adjusted cohort rates (for example, by removing certain students from the cohort count). Although some instances of problematic practices have been documented, research suggests standards for graduations have not been lowered and the observed improvements in the data are largely substantiated.<sup>286, 287</sup>

On-time graduation in four years is most commonly reported, as it is the most common metric that states should aim to achieve. As such, it is important to ensure equitable measurement. Examining four-year graduation rates only can mask the achievement of students who graduate (for example, special education students), so we recommend reporting five- and six-year graduation rates as well. Data systems should also collect information on whether students earned an equivalency credential.

**Source frameworks:** This indicator appeared in 13 source frameworks reviewed for this report. Our proposed measure aligns with the CORE Districts’ Improvement Measures, which include four-, five-, and six-year cohort graduation rates.<sup>288</sup>

**Recommended metric(s) and data sources** provide guidance on how to measure the construct.

**What to know about measurement** includes considerations about the feasibility, comparability, and risks for unintended consequences. We also note when there is limited consensus on measurement and opportunities to advance the field.

**Source frameworks** include the sources consulted that discuss the indicator or a version of it. We also note frameworks that we closely followed to develop the indicator’s recommended definition and metrics to apply best practices from the field.

## How were E-W Framework indicators selected?

Indicators were selected based on guidance from leading experts and research about their power to inform local, state, and federal policy and to advance practices that promote equitable outcomes and economic mobility and security. **Selection procedures included review of over 40 existing frameworks, creation of indicator review criteria with community partners, and evaluation of over 250 candidate indicators against the review criteria.** To learn more visit Chapter 2 of the report.

### Indicator review criteria:

- Is it actionable for addressing inequities?
- Is it predictive of later education or workforce success?
- Is it meaningful to parents, students, educators, and others working to improve outcomes?
- Is it feasible to measure?
- Is it comparable across contexts?
- Is it valid for disaggregation?
- Does it minimize unintended consequences?

## Indicator overview

| Outcomes and milestones   |   |   |  |   |   |  |  |
|---|---|---|--|---|---|--|--|
| Key positive education-to-workforce outcomes and milestones strongly associated with economic mobility and security |   |   |  |   |   |  |  |
| Enrollment in quality public pre-K  | Kindergarten readiness: language and literacy                       | Kindergarten readiness: cognition               | Early grades on track                          | Consistent attendance                                 | Positive behavior                           | Math and reading proficiency in grade 3                        | 6th grade on track                                   |
| 8th grade on track  | Math and reading proficiency in grade 8                             | Successful completion of Algebra 1 by 9th grade | 9th grade on track                             | Grade point average                                   | Math and reading proficiency in high school | College preparatory coursework completion                      | Early college coursework completion                  |
| SAT/ACT participation and performance   | FAFSA completion  | College applications                            | High school graduation                         | Selection of a well-matched postsecondary institution | Senior summer on track                      | Postsecondary enrollment directly after high school graduation | First-year credit accumulation                       |
| First-year program of study concentration   | Gateway course completion   | Postsecondary persistence                       | Transfer (if applicable)                       | Postsecondary certificate or degree completion        | Enrollment in graduate education            | Graduate degree completion                                     | Kindergarten readiness: social-emotional development |
| Kindergarten readiness: approaches to learning  | Kindergarten readiness: perceptual, motor, and physical development | Self-management                                 | Growth mindset                                 | Self-efficacy   | Social awareness                            | Cultural competency  | Civic engagement                                     |
| Social capital  | Mental and emotional well-being                                     | Physical development and well-being             | Successful career transition after high school | CTE pathway concentration                             | Industry-recognized credential              | Participation in work-based learning                           | Digital skills                                       |
| Communication skills  | Higher-order thinking skills  | Minimum economic return                         | Student loan repayment                         | Employment in a quality job                           | Economic mobility                           | Economic security  |  |

| E-W system conditions   |  |  |   |  |   | Adjacent system conditions  |                                 |
|---|--|--|---|--|---|---|---------------------------------|
| Key institutional or system environments, policies, and practices that help or hinder education-to-workforce outcomes |  |  |   |  |   | Key experiences, situations, and circumstances outside of E-W systems that help or hinder education-to-workforce outcomes |                                 |
| Access to quality public pre-K  | Access to full-day pre-K                       | Access to child care subsidies                       | School-family engagement                    | Equitable discipline practices                   | Access to full-day kindergarten                           | Childhood experiences   | Health insurance coverage       |
| English learner progress  | Teacher credentials                            | Teacher experience                                   | Educator retention                          | Classroom observations of instructional practice | Student perceptions of teaching                           |   |                                 |
| Teachers' contributions to student learning growth  | Effective program and school leadership        | Institutions' contributions to student outcomes      | Access to college preparatory coursework    | Access to early college coursework               | Equitable placement in rigorous coursework                | Food security   | Access to affordable housing    |
| Access to quality, culturally responsive curricula  | Expenditures per student                       | Access to early intervention screening               | School safety                               | Inclusive environments                           | Representational racial and ethnic diversity of educators | Access to technology  | Access to transportation        |
| School and workplace racial and ethnic diversity  | School and workplace socioeconomic diversity   | Access to health, mental health, and social supports | Access to college and career advising       | Access to in-demand CTE pathways                 | Unmet financial need                                      | Exposure to neighborhood crime  | Neighborhood economic diversity |
| Cumulative student debt   | Expenditures on workforce development programs | Access to jobs paying a living wage                  | Access to ongoing career skills development |  |   | Neighborhood racial diversity   | Neighborhood juvenile arrests   |

Domains:

Academic progress and completion

Social, emotional, and physical well-being

Career readiness and economic successCross-domain



# Measuring what matters

E-W Framework indicators can inform data collection, linking, and reporting policies and practices; support place-based initiatives driven by local leaders, community organizations, and parents and guardians close to the work; or be used to advocate for improvements to E-W systems. Read on for two examples of indicators in action.

## Indicators in Action: The CORE Districts' SEL indicators

The CORE Districts—a collaborative of eight school districts in California—are driven by a shared, unwavering belief in equity and access for all students. In 2013, the CORE Districts were granted a No Child Left Behind waiver, permitting them to use a rigorous accountability system developed by the districts themselves rather than adhere to the state of California's requirements. "Non-academic indicators," including social-emotional learning (SEL) indicators, comprise 40 percent of the index used to assess school quality in the CORE Districts' accountability system. CORE Districts engaged school administrators, educators, and data leads, as well as experts from outside the CORE Districts, to help determine what competencies should be included in the index. Competencies were also evaluated against the research base to determine whether they were meaningful, measurable, and malleable (that is, could be influenced by school systems). The districts developed student surveys for the four selected competencies—growth mindset, self-efficacy, self-management, and social awareness. The surveys were tested for quality and validated, and are currently administered annually to students in grades 5–12.

The E-W Framework includes the CORE Districts' SEL indicators (growth mindset, self-efficacy, self-management, and social awareness) and related indicators, such as social awareness, that have been shown to influence education and workforce success.

These indicators could be used in a variety of ways:

- To understand the effectiveness of SEL programming
- To improve the tracking and reporting of competencies reflective of the whole child experience
- To investigate the connection between contextual factors and outcomes



## Indicators in Action: ImpactTulsa's Child Equity Index

ImpactTulsa is a collective impact organization in the StriveTogether Cradle to Career Network that works with local partners in the Tulsa, Oklahoma area to overcome barriers to student success and build a more equitable future for Tulsa-area children.

The [Child Equity Index](#), a data tool developed by ImpactTulsa in partnership with Tulsa Public Schools, aims to help partners better understand student needs and the landscape of opportunity in the Tulsa area. The index uses more than 40 indicators to measure student factors and environmental conditions across six domains of influence: (1) student-level factors, (2) neighborhood health, (3) neighborhood socioeconomic status, (4) neighborhood safety, (5) neighborhood pride and custodianship, and (6) neighborhood access. The index also uses a Neighborhood Model to measure the relationship between environmental conditions and student outcomes. With this information, ImpactTulsa and others in the community can better understand the geographic landscape of access and opportunity, and better identify the types of interventions needed.

Findings from the index have sparked conversation about inequities in Tulsa and have sparked action for students and families. For example, when internet access maps by census tract revealed inequities in access for low-income communities and communities of color, local school districts adjusted their remote learning strategies, and their partners launched a City of Tulsa Internet Access Taskforce.

