*"There is a Bigger Story Going on Here"**

How are States Using Broader Measures of Student Success to Address Education Disparities?

Section 3: Framework for understanding & organizing equity measures
January 2022

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experience | quality | results

3 | Framework for understanding & organizing equity measures

Measures of education equity are intended to better identify disparities among K12 students by using a broader range of indicators (including student outcomes, access to opportunities and community context)

While federal accountability policies emphasize student learning as measured by traditional tests—which remain an important tool for addressing equity—many educators and policymakers increasingly want to measure and understand a broader range of outcomes that examine student progress across more important K12 transitions, whether and how well opportunities and access are provided to help students succeed, and the community context students experience outside of schools that may also need attention.

"Equity indicators go far beyond disparities in test scores and graduation rates to include broader measures of **student outcomes**, … a deeper understanding of disparities in **school-based opportunities to learn**…and **school and community conditions** that influence learning." —*FutureEd[1]*

"In March 2020, the coronavirus pandemic and attending shift to remote schooling initiated a dramatic impact on student learning, an impact that state and district leaders feel a sense of urgency to understand and address…. **These conditions warrant an expanded indicator system.**"—*Center on Assessment[2]*

"A carefully chosen set of equity indicators can **highlight disparities**, provide a way to explore **potential causes** and point toward **possible improvements**."—*National Academies of Sciences, Engineering and Medicine[3]*

[1] *FutureEd, 2021. Changing the Narrative: The Push for New Equity Measures in Education*
[2] *National Center for the Improvement of Educational Assessment, 2020. Using Opportunity-to-Learn Data to Support Educational Equity*
[3] *National Academies of Sciences, Engineering and Medicine, 2019. Monitoring Educational Equity*

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To better understand the various conceptions of "education equity indicators" and to organize our research, Education First examined research reports and analysis. From these ideas, we created a framework with 3 major categories

Context

Indicators of **family, community and societal conditions** that support student learning and development.

Note: Education systems acting alone may have limited agency to influence these indicators; still, these data can provide important insights.[1]

Access

Indicators of the **educational resources and supports** that contribute to more successful students, including especially indicators measuring the quality and extent of available learning opportunities.[2]

Outcomes

Indicators of **student learning and achievement at key milestones** from kindergarten through postsecondary learning, including traditional indicators of student outcomes and success.[3]

Our literature review reinforced that, while education systems have appropriately prioritized improvements in student achievement, (1) student success should be measured on a broader range of measurable **outcomes** , and (2) understanding—and then reducing—disparities in **context** and **access** can work to reduce disparities in outcomes.

[1]*National Academies of Sciences, Engineering and Medicine, 2019. Monitoring Educational Equity.*
[2]*Marion, Scott, 2020. Using Opportunity-to-Learn Data to Support Educational Equity.*
[3]*National Academies of Sciences, Engineering and Medicine, 2019.*

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Within each category of our framework, we identified specific measures of education equity that have broad support and a research base to support their use; the categories build on each other to create a larger picture of education equity

Outcomes

| Kindergarten Readiness | Student Engagement | Learning and Achievement | Educational Attainment |

Access

| High-Quality Early Learning | Funding | High-Quality Curricula and Instruction | Supportive School and Classroom Environments |

Context

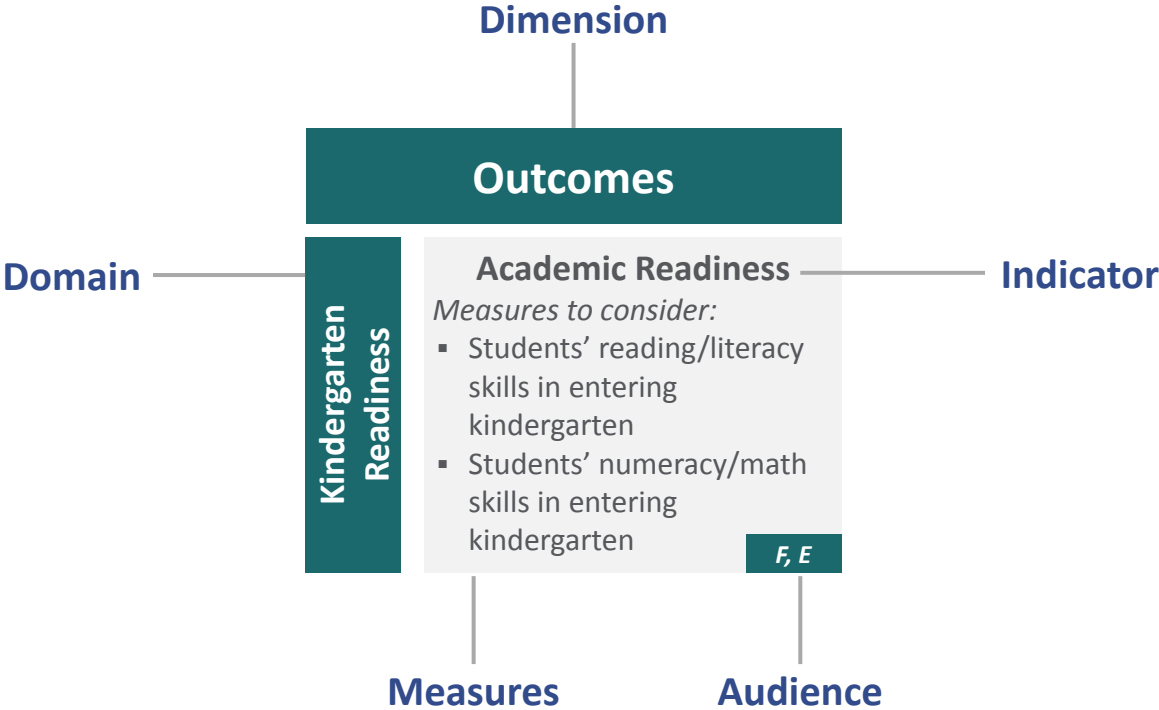| Neighborhood Circumstances | Family and Community Assets | Safety, Trauma and Chronic Stress |

While all 3 categories contribute insights into education disparities, the Access and Context categories include indicators often described as the "opportunity to learn"

Measures of Education Disparities

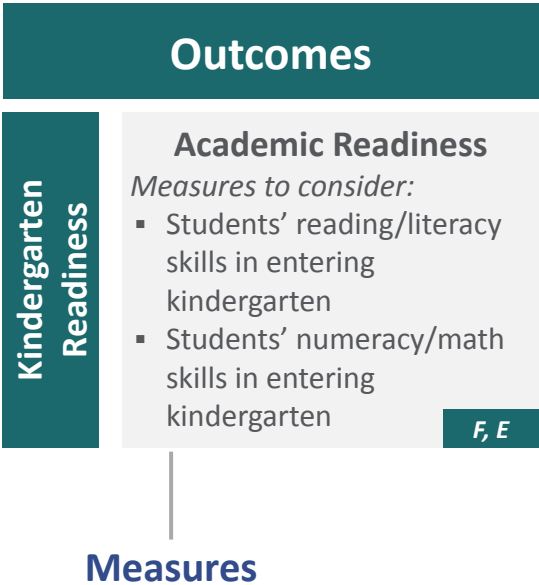| Outcomes |
| Access |
| Context |

Opportunity to Learn Measures

Policymakers can use opportunity to learn measures (and our access and context measures) as both *input measures* that gauge the quality of students' learning environments (*i.e., Did students receive the supports and resources they needed to achieve*) and *output measures* that report on the quality of the education system overall (*i.e., Were important education priorities that contribute to student learning—for example, improving teacher credentials or ensuring students' access to technology---accomplished?*)

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The following slides in this section offer details for each of the 3 categories in our framework

Our framework organizes equity measures into *domains* (major categories of student learning), *indicators* (sub-categories), *sample measures* (what data specifically would help indicate what students are learning) and suggested *audiences* (who could best use these data to effect change)

Dimension

Outcomes

Domain

Kindergarten Readiness

Academic Readiness — **Indicator**

Measures to consider:
- Students' reading/literacy skills in entering kindergarten
- Students' numeracy/math skills in entering kindergarten

F, E

Measures

Audience

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We drew sample measures for each indicator from our literature review and discussions with experts about valuable, viable measures

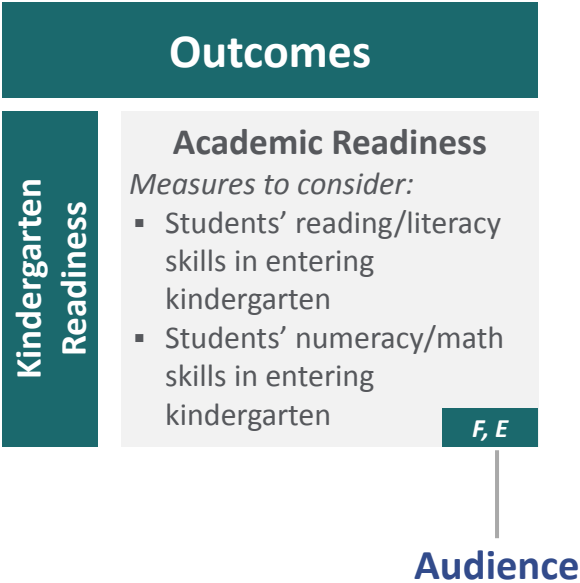| Outcomes	
Kindergarten Readiness	**Academic Readiness** *Measures to consider:* ▪ Students' reading/literacy skills in entering kindergarten ▪ Students' numeracy/math skills in entering kindergarten *F, E*

Measures

Later in this report, we share the status of each SEA's current efforts to use any of these indicators for Context, Access and Outcomes in decision-making. In compiling state information, *we specifically looked for whether any of the 100+ example measures we include in this framework* across the 3 categories were being used.

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Our "Audience" labels suggest which stakeholder group(s) may find data from each indicator most actionable: *Families* (F), *local Education system leaders* (E) or *Policymakers* (P)

In identifying likely audiences (or actors) for each measures, we are acknowledging that different stakeholder groups and government agencies have varying abilities to influence or change student performance on different measures—**and** that a greater variety of data are still worth collecting and sharing if they can inform a wider set of activities and approaches toward the shared goal of greater student learning and reduced disparities.

Outcomes

Kindergarten Readiness

Academic Readiness
Measures to consider:
- Students' reading/literacy skills in entering kindergarten
- Students' numeracy/math skills in entering kindergarten

F, E

Audience

In particular, while education systems usually lack direct control over some of our proposed indicators—for example, neighborhood composition or family education levels—we included them in our framework because:

- Research suggests these indicators signal how well students' are able to engage in their learning
- Even if school leaders can't ultimately change these inputs other policymakers can act on them
- Understanding the status of students on many of these indicators *outside of school* can inform strategies *inside of school* and what additional supports for different students may be required

CONTEXT: Indicators and measures
What community conditions may be contributing to disparities?

Context

Neighborhood Circumstances

Racial, Ethnic and Economic Segregation
Measures to consider:
- Degree of racial segregation within and across neighborhoods
- Concentration of poverty within schools

E, P*

Neighborhood Resources and Health
Measures to consider:
- Access to parks, affordable housing, public transportation, healthcare and grocery stores
- Environment quality

F, P

Family and Community Assets

Family Circumstances
Measures to consider:
- Degree of income and financial stability, housing security, food security
- Parent education attainment

F, P

Community Populations
Measures to consider:
- Neighborhood poverty levels
- Community education attainment
- Community incarceration rates

F, P

Family and Community Engagement
Measures to consider:
- Opportunities for and participation in parent and community involvement activities in schools

F, E

Safety, Trauma and Chronic Stress

Childhood Trauma and Stress
Measures to consider:
- Prevalence of adverse childhood experiences
- Access to timely and affordable mental and behavioral support

F, P

Neighborhood Safety
Measures to consider:
- Neighborhood safety and crime rates
- Prevalence of exposure to violence

F, P

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*Indicator most relevant/actionable for:
F = families & communities; E = education systems; P = policymakers & governing bodies

CAVEAT & NOTES: In selecting different measures for our framework, we were mindful of limitations in how they could be used—or should not be used; also, we only included measures that already exist and could be used broadly in systems*

Within **Context**, we recognize many measures we have organized into this category have been used in the past to make excuses for why today's disparities exist. However, we include them because research suggests they can, when used thoughtfully, provide insights to policymakers and educators about which out-of-school or wrap-around-school resources should be prioritized—and insights over time to see if those investments are in fact making a difference in student learning.

More Work to be Done	While many states collect information about the indicators in this category, most of these data are neighborhood-specific and *not* publicly linked to school enrollment zones—so significant work may be needed to start using any of these date for school-level insights into education disparities. (*Our research did turn up some places that have successfully linked these data, such as DC's school system*.)
	Government agencies also may need to more closely coordinate and collaborate to provide services.

* As part of our survey of SEA leaders, we asked about interest in co-creating and using new equity measures that don't currently exist. See findings in Section 5 (starting on page 44)

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Access: Indicators and measures
What school-based decisions, approaches and policies are impacting disparities?

Access

High-Quality Early Learning

High-Quality Pre-K Programs
Measures to consider:
- Availability of and participation in licensed and/or accredited programs
- % of certified teachers

F, E, P

Funding

District & School Funding
Measures to consider:
- State and district funding amounts; per pupil spending amounts
- Allocation of resources across schools

E, P

Curricula and Instruction

Effective Teaching
Measures to consider:
- Deployment of most highly effective teachers
- Teacher-student ratios
- % of certified teachers
- Teacher tenure/turnover
- Teacher absenteeism

E, P

Curricular Rigor/Breadth
Measures to consider:
- Availability of and students' enrollment in advanced coursework
- Availability and students' enrollment in arts, social sciences and CTE

E, P

High-Quality Instructional Materials
Measures to consider:
- Schools' adoption/use of high-quality curriculum, textbooks and other tools
- Provision of high-quality teacher supports

E, P

Academic Supports
Measures to consider:
- Access to and students' participation in high-quality tutoring or extended learning programs
- Provision of high-quality SPED and ELL services

E

Supportive Environments

School Climate
Measures to consider:
- Students' perceptions of safety, support, culture and teacher/student trust
- School violence instances
- Social and emotional learning practices

E, P

Discipline Practices
Measures to consider:
- In- and out-of-school suspensions and expulsions
- Schools' use of restorative justice practices
- Other discipline data

E, P

Nonacademic Supports
Measures to consider:
- Availability of supports for students' emotional, behavioral, mental and physical health
- Access to counselors/ social workers

E, P

Racial Diversity
Measures to consider:
- Racial diversity of teaching force and support staff
- Students' access to same-race teachers, plus same-race counselors and social workers

E, P

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Indicator most relevant/actionable for:
F = families & communities; E = education systems; P = policymakers & governing bodies

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CAVEAT & NOTES: In selecting different measures for our framework, we were mindful of limitations in how they could be used—or should not be used; also, we only included measures that already exist and could be used broadly in systems *

For **Access**, some recommended indicators in this category are easy to quantify (e.g., student/teacher ratios and individual school funding amounts), others are more challenging both to quantity and to collect/analyze at scale… which also is why nuanced measured are not more regularly used.

More Work to be Done

For some of the most measures being debated in the field to better understand "access" disparities, there is still no consensus and too few tools on how best to measure how schools improve students' social/emotional learning capacity, whether school leaders are effective or the contributions of any "extended learning time" to student outcomes. Also, we learned more research is needed to establish a causal relationship between certain inputs and certain outputs in the "access" area.

Also, during the past two years of the pandemic, students' access to technology and the Internet/broadband emerged as a pressing issue and enormous disparity—and states and LEAs prioritized addressing this widespread need. Given this push, what ongoing measurement of access-to-technology is needed?

* As part of our survey of SEA leaders, we asked about interest in co-creating and using new equity measures that don't currently exist. See findings in Section 5 (starting on page 44)

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Outcomes: Indicators and measures
What disparities exist in different students' outcomes, as they progress K12?

Outcomes			
Kindergarten Readiness	**Academic Readiness** *Measures to consider:* ▪ Students' reading/literacy skills in entering kindergarten ▪ Students' numeracy/math skills in entering kindergarten *F, E*	**Student Engagement**	**Engagement in Schooling** *Measures to consider:* ▪ Student attendance and absenteeism ▪ Student drop-out rates *F, E*
Learning and Achievement	**Performance in Coursework** *Measures to consider:* ▪ Students' success in classes ▪ Students' course grades and GPAs *E*	**Performance on Tests** *Measures to consider:* ▪ Students' achievement and growth in reading, math and science *E*	
Educational Attainment	**Academic Progression** *Measures to consider:* ▪ 3rd grade reading proficiency ▪ 9th grade on-track ▪ Accumulation of credits toward graduation *E*	**On-Time Graduation** *Measures to consider:* ▪ Students' on-time graduation rate *E*	**Postsecondary Readiness and Success** *Measures to consider:* ▪ Postsecondary enrollment ▪ 1st to 2nd year college persistence rates ▪ 2- and 4-year college completion rates *E*
			Workforce Readiness and Success *Measures to consider:* ▪ Entry into workforce and/or enlistment in the military ▪ Earnings at age 25 *E*

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Indicator most relevant/actionable for:
F = families & communities; E = education systems; P = policymakers & governing bodies

CAVEAT & NOTES: In selecting different measures for our framework, we were mindful of limitations in how they could be used—or should not be used; also, we only included measures that already exist and could be used broadly in systems*

For **Outcomes**, many aspirations for what students are learning have broad public support but are nonetheless hard to quantify at the school level—much less collect, analyze and use to inform policies at the state level. Examples include students' creativity, leadership, self identity, self awareness and work ethic. By not including these in our framework, we are *not* suggesting they should be deprioritized; we encourage schools and districts to continue working to find ways of teaching students these skills and giving them experiences to practice them.

More Work to be Done	While most states require schools/educators to administer some form of kindergarten entrance assessment, few states are using the results to guide any system-level improvements or alignment—perhaps because of continued pushback from advocates and educators who worry that early education assessments will be misused. Also, educators and advocates have begun investigating additional ways of understanding student learning disparities in mathematics, perhaps by measuring students own attitudes and beliefs about self-efficacy. Measures like these could eventually be helpful additional "outcomes" measures for school systems.

* As part of our survey of SEA leaders, we asked about interest in co-creating and using new equity measures that don't currently exist. See findings in Section 5 (starting on page 44)

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Deliberately looking at data from all 3 categories in our framework can help policymakers and system leaders better direct new resources or new policies to more effectively address education disparities

Well-chosen use of equity measures can help answer questions such as…

Context	Access	Outcomes
▪ How might **family, community and societal conditions** be impacting student learning and development in schools? How could these conditions be better addressed? ▪ Are there **policies, investments or supports** outside of schools that could strengthen or stabilize in-school learning for some students?	▪ Do disparities exist in how **resources or educators** are deployed to different schools? ▪ What **conditions or opportunities** do policymakers or district leaders believe most influence student learning—and are those conditions **available for all students**, especially those achieving lower outcomes than others?	▪ Are disparities between what students are **learning and accomplishing** as they progress through the K12 system growing smaller or larger? Why? ▪ In addition to graduation rates, what else can we learn about how well different schools have **prepared students to succeed** in their next steps after high school?

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While all indicators provide insight into students' educational experience, we recommend that policymakers and education leaders prioritize measures most helpful for their own context

Principles for prioritizing equity indicators
▪ The indicator can be measured (either quantitatively, qualitatively or both) with the **existing or newly implemented structures** in place throughout the system
▪ The indicator has a **significant correlation or impact** on student outcomes
▪ The indicator is at least partially informed by students, families and other stakeholders who are **proximate to the issue** within local context
▪ The indicator can be linked to a set of policies or practices that could be a **root cause of disparities**
▪ The indicator can be **reasonably addressed** through new or existing **policies, practices and processes** or through **partnerships** with local agencies

This list above is not exhaustive, and we encourage state and local leaders to consider additional prioritization principles relevant to their own communities

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Thank you!
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