



# Using Assessment to Inspire Student Achievement



By Michael T. Nettles, Ph.D.

A Frank B. Womer Invitational Keynote Presentation

Presented February 18, 2021





# Using Assessment to Inspire Student Achievement

## Welcome

Good morning!

It is good to see and be with so many friends and colleagues, if only in “gallery view.” I know we would much prefer to be together “IRL,” as they say. But wherever you are logging on from — the kitchen, the basement, poolside if you are fortunate — welcome to the conference.

And thank you for sharing your time with me to explore an issue that we all care deeply about: creating assessments that support equity and quality in education for ALL learners, especially those from emerging, demographically diverse populations.

I am especially grateful to our host, Ed Roeber, for his unflagging commitment to this work. Along with Frank Womer, whose vision gave rise to the first gathering 61 years ago, Ed has made the Michigan Student Testing Conference an indispensable annual event.

As a sidebar, I will point out that last year’s program noted that the conference was created in a time of “turbulence and angst for our country.” Six decades ago, the anxiety was over Sputnik and the Cold War. Today, it is over everything. At least it sometimes feels that way.

Continued next page

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## II – Time for Change

Certainly, it has been a turbulent 12 months for education. Even before the pandemic struck, powerful forces had been combining to transform teaching, learning and testing. On the positive side of the ledger, the highlights included:

1. advances in educational technology and its ability to generate oceans of data about education and equity
2. the development of data analytics and other tools to collect, sort, analyze, and make use of at least SOME of that information
3. breakthroughs in cognitive sciences and other disciplines on how students learn, think and respond to test questions
4. and a deeper understanding — and a wider recognition — of the role of socioeconomic factors on individuals' health, wellness, and readiness to learn.

In the courtroom, too, we have seen important steps forward. Last summer's settlement of federal litigation over the Flint water crisis included a \$9 million fund to address the needs of special education students harmed by lead poisoning. And last week in New Jersey, where ETS is based, a state judge issued a scheduling order that should dislodge a long-delayed class-action case over persistent segregation in New Jersey's public schools.

On the negative side, the past year has been marked by eruptions of violent racial and ethnic animus; political discord and upheaval; and the deepening of our economic, social and cultural divides.

All these and more have played out dramatically in Michigan, from plots against the state government and attempted disruptions of the electoral process, to the continuing impact of the poisoned water in Flint.

And of course, the background against which everything has occurred: the coronavirus pandemic. In an instant, the virus upended education everywhere by driving so much of it online; all but suspending assessment; and widening the equity gaps among student population groups.

Predictions are always risky, but I suspect that after the pandemic finally passes, the education system we knew just 12 months ago will make an interesting subject for a history course.

And THAT is the good news! Because if you believe, as I do, that our current system has reached the limit of its ability to produce equity across population groups, then the pause in testing has given us an opportunity for TRUE transformation — for change beyond the traditional steps of adjusting curriculum, test content, and professional development.

We have been at the equity business for a very long time. The record of the past 50 years is replete with federal, state, and local initiatives, policy prescriptions, interventions, research, litigation, reports, blue-ribbon commissions, and substantial outlays of public funds.

And yet gaps in academic performance among different races and socioeconomic groups persist. And they continue to undermine disadvantaged students, literally from before birth, and through primary and secondary school, college, career, and life.

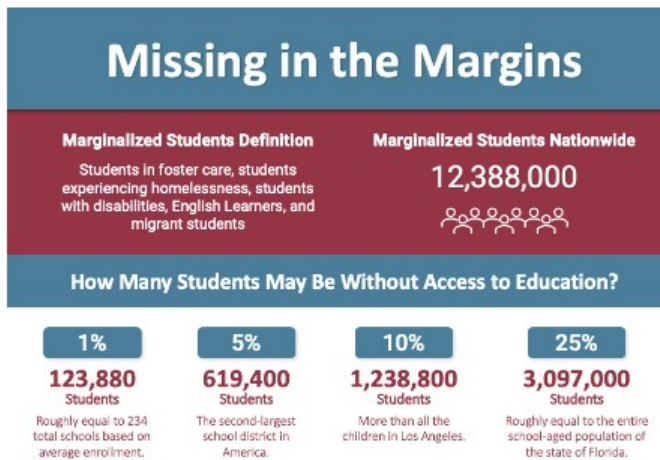
There is already evidence that the pandemic has widened the gaps that we have worked so diligently to narrow. NWEA, the maker of the MAP tests, examined data from tests administered to students in grades 3 through 8



last fall. What stood out was the paucity of scores from ethnic and racial minorities; from students from schools with higher concentrations of socioeconomically disadvantaged children; and from lower-achieving students.<sup>1</sup>

This slide is from research by Bellwether Education Partners.

## COVID-19: Students ‘Missing in the Margins’



- In [Los Angeles](#), 15%-20% of English learners, students in foster care, students with disabilities, and homeless students didn't access online educational materials from March through May.
- In [Washington, D.C.](#), back-to-school family surveys found that 60% of students lacked the devices and 27% lacked the high-speed internet access needed to successfully participate in virtual school.
- In Miami-Dade County, [16,000 fewer students](#) enrolled this fall compared with last year.

Source: "Missing in the Margins: Estimating the Scale of the COVID-19 Attendance Crisis." Bellwether Education Partners (2020). Korman, H., O'Keefe, B., & Repka, M. <https://bellwethereducation.org/publication/missing-in-margins-estimating-scale-covid-19-attendance-crisis>.

Bellwether estimated that from mid-March to mid-October of last year, some 3 million marginalized students — that is, those who are in foster care, experiencing homelessness, students with disabilities, migrant students, or English learners — were absent from education because of the pandemic. For perspective, Bellwether noted that 3 million students is about equal to the entire school-age population of the state of Florida.<sup>2</sup>

### III – A Wake-Up Call

A skeptical observer of the past hundred years of large-scale assessment might look at the persistence of racial, ethnic and income gaps in test scores and say that the assessment system is working precisely as designed — if it was designed to perpetuate the ranking of students by race, ethnicity and income, and thereby lock in the hierarchy of opportunity.

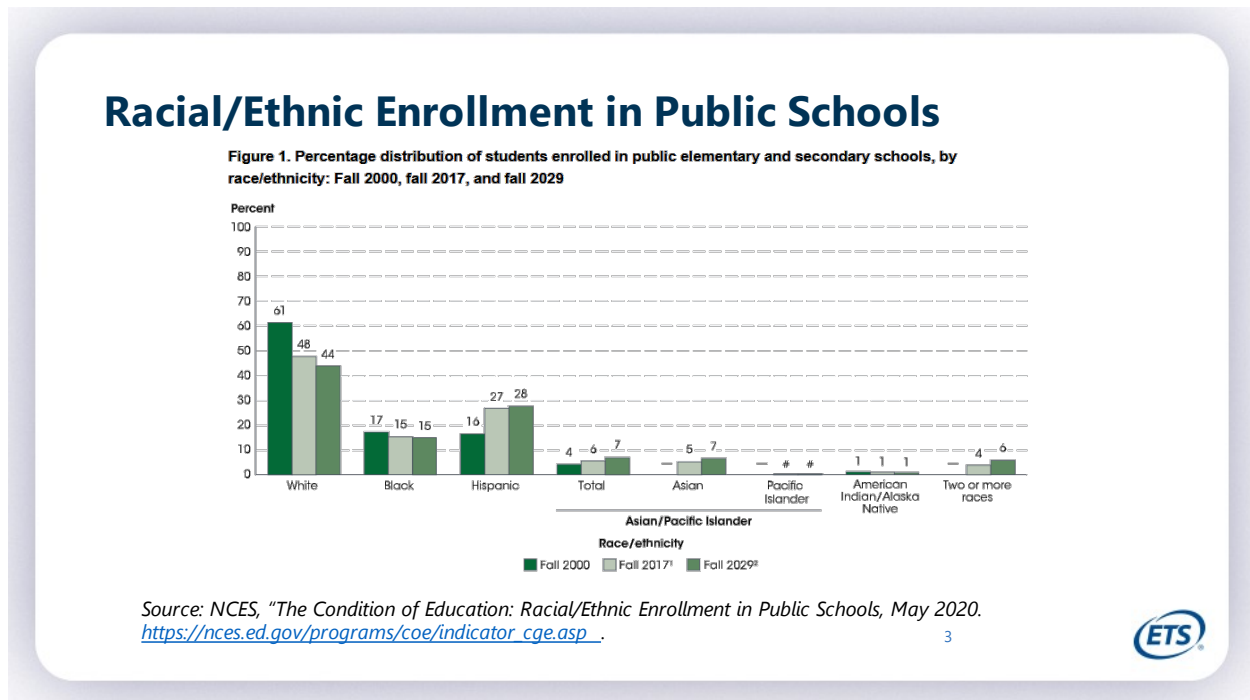
Whether intended or not, that undeniably is what we have. And it is more untenable than ever. Minority students are no longer even the minority in our public schools.

1 Kuhfeld, M., Tarasawa, B., Johnson, A., Ruzek, E., & Lewis, K. (2020). *Learning during COVID-19: Initial findings on students' reading and math achievement and growth*, page 8. NWEA. Retrieved from <https://www.nwea.org/content/uploads/2020/11/Collaborative-brief-Learning-during-COVID-19.NOV2020.pdf>.

2 Korman, Hailly T.N.; B. O'Keefe; M. Repka. (2020). *Missing in the Margins: Estimating the Scale of the COVID-19 Attendance Crisis*. Bellwether Education Partners. Retrieved from <https://bellwethereducation.org/publication/missing-margins-estimating-scale-covid-19-attendance-crisis>.



As this chart from the National Center for Education Statistics shows, between fall 2000 and fall 2017, the percentage of non-White students enrolled in public K–12 schools rose from 39% to 52%, and is projected to inch steadily upward through this decade.<sup>3</sup>



So those who would minimize the problem of inequity by arguing that only SOME students are being left behind have run out of places to hide from the facts.

The costs of unequal education, already so high, are escalating, doing incalculable harm to individuals, families, communities, our economy, our country — and to everyone’s future. Our prospects as a pluralistic democracy are not good if a high-quality education — and thus opportunity, earnings, voice, and power — is increasingly concentrated among fewer people.

The past 12 months have provided ample evidence of the dangers we face. The past 12 WEEKS have provided ample evidence of the dangers we face.

As assessment specialists, we have a part to play in addressing this challenge. And I believe our part is to reconceptualize the assessment enterprise itself: the demographics of the people who conceive and make the tests; the kinds of tests we design; the data they elicit; the test delivery mechanisms; and how we use the data.

This new era of assessment must be student-centered. It must accommodate students’ different learning styles. It must expand their opportunities to demonstrate their skills and knowledge rather than penalize them for who they are. It should nourish as much as measure. And it must take into account the non-school factors, such as race, ethnicity and wealth, that so powerfully shape a student’s “bandwidth” for learning.

<sup>3</sup> National Center for Education Statistics (NCES). (2020). The Condition of Education—Preprimary, Elementary, and Secondary Education—Elementary and Secondary Education Enrollment – Racial/Ethnic Enrollment in Public Schools—Indicator. Retrieved from [https://nces.ed.gov/programs/coe/indicator\\_cge.asp](https://nces.ed.gov/programs/coe/indicator_cge.asp).



The learning loss due to the pandemic is heartbreaking. But it is a wake-up call. And the message is that we need to do things differently. The good news is that the transformation is already under way.

## IV – About ETS

These are concerns for my company, ETS, because our mission as a nonprofit assessment and research organization is to advance quality and equity in education for ALL learners, at all levels of education and in the workplace.

We have a long record of innovation in educational technology and learning sciences — in such areas as computer adaptive assessment, Internet-based testing, natural language processing, and psychometrics.

So in this new era, we are on familiar ground. Before the pandemic, we had already committed to deepening our engagement with Artificial Intelligence, Machine Learning, data analytics and other tools for understanding, and thus improving, teaching, learning and testing.

The role of my area of ETS, the Policy Evaluation and Research Center, is to conduct and disseminate research; convene forums that promote understanding of quality and equity in education ... and deliver keynote addresses to annual assessment conferences.

We have focused some attention on closing gaps in access, achievement, attainment, and social opportunity among different populations, from pre-kindergarten to the workplace, in the United States and around the world.

## V – Multiple Measures: Beyond Test Scores and Grades

A priority of ETS's research is to try going beyond high-stakes, summative test scores, and instead focus on supporting individualized learning through assessments that are diagnostic, informative and useful; that are learning events themselves; and that take into account students' different conditions and cultures.

This is a time to address such questions as whether and how:

1. Assessment woven into the ongoing process of classroom instruction may produce evidence of student learning on an ongoing basis. This is the principle behind Continuous or Instructionally Embedded Assessment.
2. Embedded assessment might allow teachers to assess students in their daily lives in the classroom — for instance, through real-life problems that incorporate the concepts on which they are being tested, without students knowing they are being tested.
3. An Instructionally Embedded Assessment portfolio may include notes or pictures on students' observations; responses to engaging prompts; writing samples; projects; artifacts from a performance; even notes about conversations. The variety gives students different ways to show what they know and can do beyond answering high-stakes test questions.
4. Game-based assessments and game-like features embedded in classroom tasks can also keep students engaged and motivated.<sup>4</sup>

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<sup>4</sup> Sandberg, Hans. (2017). *Focus on ETS R&D, Issue 5*. "ETS Researchers Look for Innovative Ways to Measure English Language Proficiency." Retrieved from [https://www.ets.org/research/policy\\_research\\_reports/focus\\_on\\_rd/issue5](https://www.ets.org/research/policy_research_reports/focus_on_rd/issue5).



Reporting evidence from such practices will help to negotiate and expand these assessment practices. I like how the Michigan Assessment Consortium (MAC) puts it in an online teacher resource: Instructionally Embedded Assessments are intended to be “relaxed, constant, and integrated or embedded within classroom instruction.”<sup>5</sup>

Below is an excellent, six-step guide from the MAC website on how teachers can implement embedded assessments.

## Steps for Implementing Instructionally Embedded Modes of Assessments

1. Plan what, when, and how to assess each child.
2. Collect information from a number of sources, such as observations, classroom products, performance events, and conversations with the students and their families.
3. Assemble a collection of evidence or portfolio that may include notes/pictures on observations, prompted responses, writing samples, projects, performance event artifacts, and notes about conversations.
4. Review the portfolio often and write reflective summaries that can be used to share information about the student’s development. Narrative reporting may be completed by both students and teachers.
5. Present summaries and information from the portfolio to students, families, and staff to guide instructional planning and adjustments. Students may also be used as presenters of the information.
6. Use the information to determine student progress and growth toward proficiency of assessed standards.

Source: “Instructionally Embedded Modes of Assessment,” <http://bit.ly/IEA-guide>. (From [Prioritizing and Assessing Standards to Accelerate Student Learning](#) webinar event resources, Assessment Learning Network, Oct. 21, 2020.)



This “relaxed,” “integrated” method may help to address the structural stigma that many students experience when taking traditional assessments. That is crucial: Structural stigma may interfere with students’ overall academic engagement and achievement as well as their performance on standardized tests.

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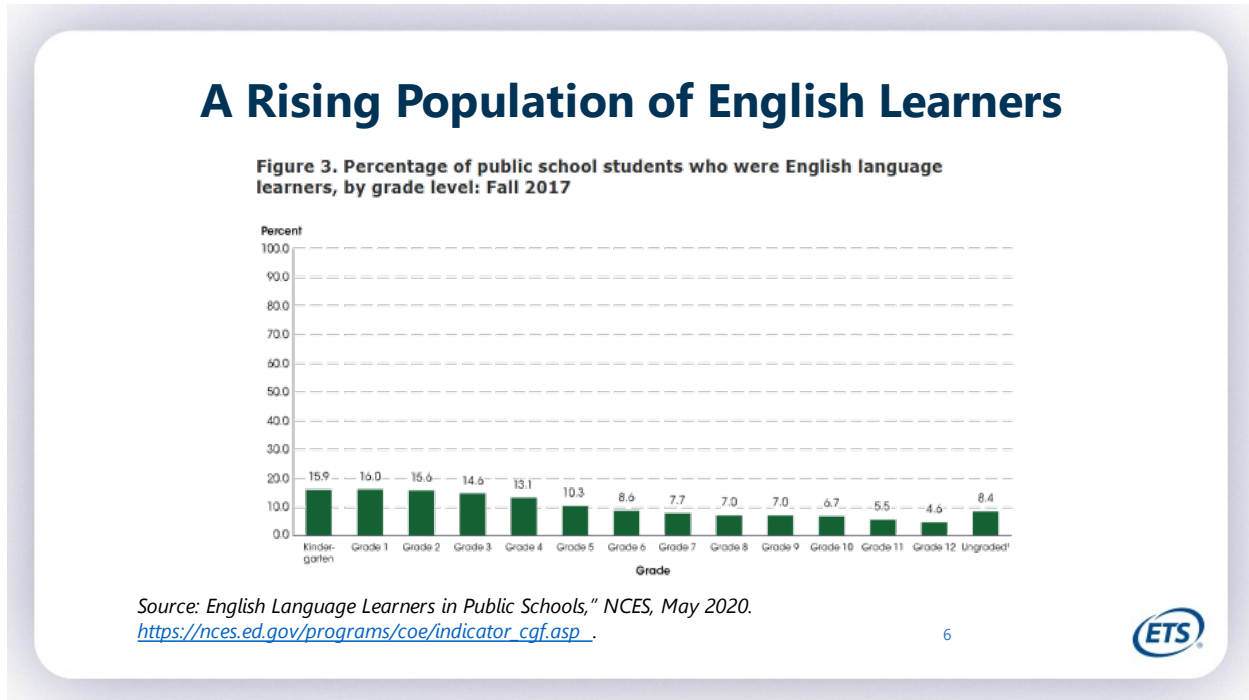
5 Assessment Learning Network. (2020). Prioritizing and Assessing Standards to Accelerate Student Learning. Retrieved from website of Michigan Assessment Consortium, <https://www.michiganassessmentconsortium.org/assessment-resources/prioritizing-and-assessing-standards/> and <https://www.michiganassessmentconsortium.org/wp-content/uploads/Instructionally-Embedded-Modes-of-Assessment-3.pdf>.



## VI – Culturally Relevant Assessment Is Equitable Assessment

English-language learning is another area in which innovative assessments can make a difference for students for whom traditional assessment may fall short or prove discouraging. It is a big group: There are 5 million English learners in the nation’s public K–12 schools. That is 10% of the total, up from 8.1% in 2000.<sup>6</sup> In Michigan, the percentage of English learners more than doubled between 2000 and 2017, from 2.9% to 6.6%.<sup>7</sup>

In this NCES chart, you can see the distribution of English learners by grade level for the fall 2017 term, and that they constitute a larger proportion in the lower grades.



These young learners speak more than 30 languages, including Spanish, Arabic, Chinese, Vietnamese, Somali, Russian, Portuguese, Haitian, Hmong, Swahili, Nepali and Karen.<sup>8</sup> They all deserve a fair opportunity to demonstrate their skills and knowledge without language or culture skewing their results.

That is the essence of culturally responsive assessment, which holds that students should have a clear understanding of what is being assessed, and a fair opportunity to show what they know and can do without being penalized because of unintended and possibly irrelevant factors. Culturally relevant assessment is equitable assessment.

6 NCES. (2020). *The Condition of Education, English Language Learners in Public Schools*. Retrieved from [https://nces.ed.gov/programs/coe/indicator\\_cgf.asp](https://nces.ed.gov/programs/coe/indicator_cgf.asp).

7 NCES. (2019). *English language learner (ELL) students enrolled in public elementary and secondary schools, by state: Selected years, fall 2000 through fall 2017*. Retrieved from [https://nces.ed.gov/programs/digest/d19/tables/dt19\\_204.20.asp?current.asp](https://nces.ed.gov/programs/digest/d19/tables/dt19_204.20.asp?current.asp).

8 NCES. (2020). *The Condition of Education, English Language Learners in Public Schools*. Retrieved from [https://nces.ed.gov/programs/coe/indicator\\_cgf.asp](https://nces.ed.gov/programs/coe/indicator_cgf.asp).





By using a technique called “translanguaging,” we can develop tests that leverage a student’s bilingual repertoire. Translanguaging allows students, especially those who are just beginning to learn English, to use all of their language resources — English, their home language or both — to demonstrate their competencies in other subject areas.

Our view is that bilingualism is not an IMPEDIMENT to learning, but rather a STYLE of learning. Language barriers and out-of-date notions of bilingualism can take a terrible toll on young learners, prompting many to drop out of school.

## VII – Classroom Diversity: A Promise of ‘Sweeping Change’

Linguistic knowledge, like content knowledge, is distributed across all students in a classroom. And learning is enhanced when students work collaboratively in multilingual classrooms through dialogic translanguaging.

Multilingual classrooms create opportunities for all students to learn in two or more languages, and to learn about and share one another’s culture. The long-term benefits of cross-cultural understanding are — forgive the phrase — immeasurable. Those are good reasons why we need to expand the teaching and assessment of other languages into U.S. curricula.

Just as inclusive learning environments support English learners, there is evidence that inclusive classrooms can help narrow achievement gaps.

My colleagues and I in the ETS Policy Information Center, in collaboration with a leading statistician at Rutgers University, Newark, used data mining techniques rarely applied in the educational arena to analyze standardized language arts literacy and math test score data from New Jersey. We found evidence that school district diversity can have a dramatic, positive impact on narrowing racial achievement gaps.

As the most racially diverse state, New Jersey was an ideal sample for our work. It hosts a range of school district “ecologies,” including urban, suburban, and rural school districts, as well as those along the shore, inland, and near large urban centers. The racial makeup of the state’s districts ranges from almost completely segregated to highly diverse.

We looked at test score data for 600,000 students in 2,500 schools in 480 districts. We discovered that the racial achievement gap fell — and test scores rose — when diversity increased. The achievement gap between Black and White third-grade students was more than 60% lower in racially diverse districts than in racially homogeneous districts.

Our findings were consistent with other research on the effects of peer diversity on academic performance. And they point to peer racial diversity as a possible pathway to narrowing achievement gaps.

This modeling carries the promise of sweeping change if applied in other states so that the findings can be generalized beyond New Jersey. School districts then might benefit from sharing and learning from patterns at the intersection of student achievement and school district structure. Superintendents and district and school administrators, too, could share methodological best practices and examples of successful programs.



We believe that this approach can finally move the needle on achievement gap reduction. By achieving greater diversity among students, it may be possible to take additional steps toward closing gaps that have recently widened, with an impact on society that is both significant and essential if we are to improve equity.<sup>9, 10</sup>

## VIII – Comprehensive Learner Records

In higher education, digitally based Comprehensive Learner Records are an excellent illustration of how educational technologies are supporting individualized learning, student empowerment, and diversity. They are also helping to knit together K–12, higher education and the workplace, a long-sought goal of education reformers.

Comprehensive Learner Records, or CLRs, are secure and verifiable learning records that reflect a framework of a student’s learning. They start from the principle that the traditional elements of a college transcript — courses, grades and degree — are not a complete or even sufficient representation of a student’s learning experiences, and may sometimes be a misleading indicator of future success, either in graduate school or the workplace.

CLRs, by contrast, might attempt to capture and convey a broader range of a student’s learning experiences, inside and outside of classrooms and on and off campus. In addition to courses, grades and degrees, CLRs typically include competencies, skills, badges, certifications, and licenses, as well as internships and other work experiences, participation in service learning, study abroad, undergraduate research, community-based learning, creative endeavors, entrepreneurial projects, and other co-curricular experiences.

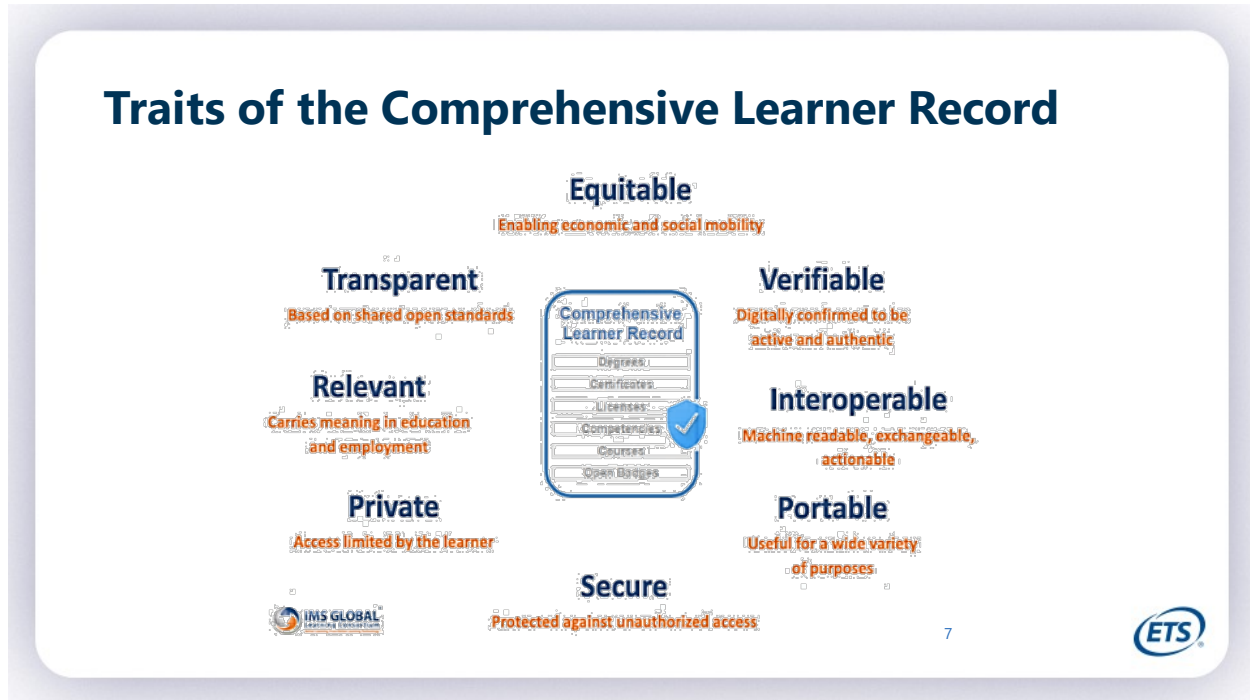
Much of that information already exists among various institutional databases. Institutions use data and learning analytics and other technology-enabled processes to gather the information in one place, collate and analyze it, and calculate, assess, validate, and assign value to a learning experience.

While CLRs should reflect an institution’s unique goals and culture, they share some baseline elements, as shown in the next slide from the IMS Global Learning Consortium.

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9 Hanson, S. J., Saunders, S., Aponte, A., Copeland, R., Nettles, M. (2020). Educational Testing Service. Diversity associated with reductions in the achievement gap: Data mining the 2010-2011 New Jersey Assessment of Skills and Knowledge (NJ ASK) (Research Report No. RR-20-12). <https://doi.org/10.1002/ets2.12292>.

10 Hanson, Stephen José Hanson, Nettles, M. (2021). ETS Open Notes, “School District Diversity Associated with Reductions in the Achievement Gap.” Retrieved from <https://news.ets.org/stories/school-district-diversity-associated-with-reductions-in-the-achievement-gap/>.



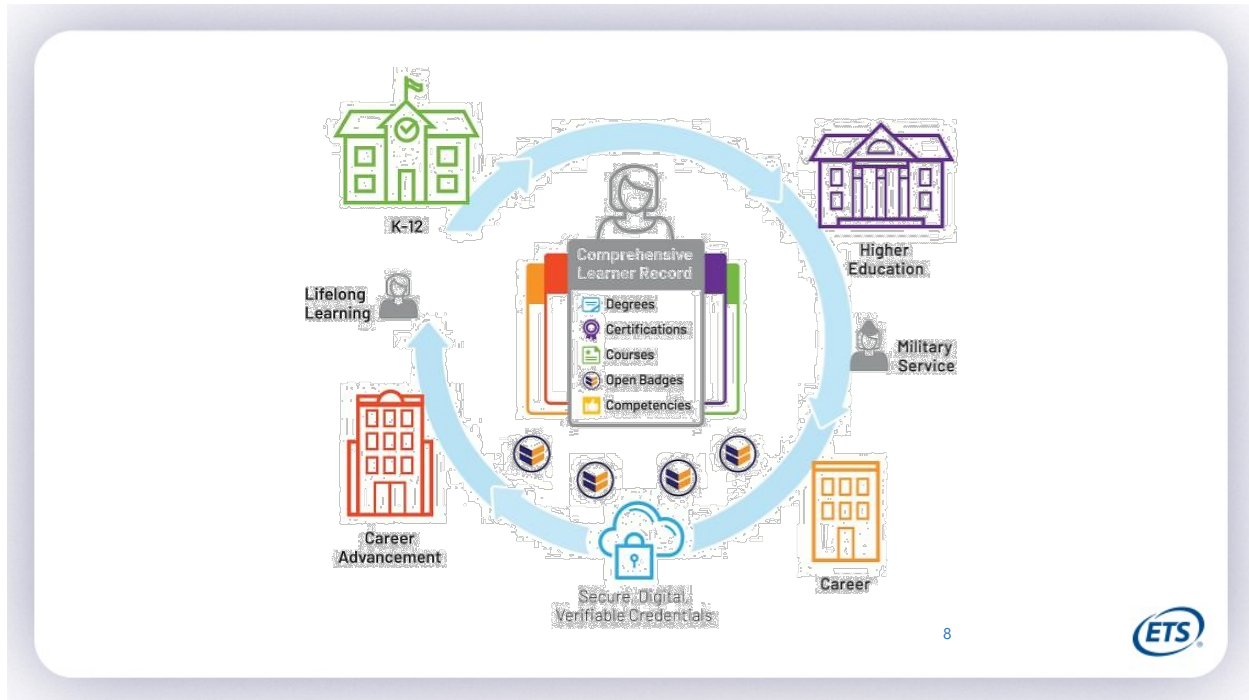
1. They should be based on frameworks for mapping learning outcomes or competencies. They should lead to students owning and controlling their own education and records and self-sovereign identities.
2. Their data systems should be interoperable so that they can be easily shared among institutions, employers and other users.
3. They should include built-in security features to protect the privacy of student data.
4. The records should be portable so that students can take and distribute them as they choose, whether on the next step in their academic journey or when applying for jobs. And of course, they must include assessments to signify learning.

The new generation of digital tools and processes makes it possible to meaningfully present such important but rarely measured aspects of education as the difficulty of a student’s coursework, and thus their willingness to challenge themselves intellectually; how a student compares to peers in particular domains; how deeply a student explored a field of study; even the impact of the grading culture within the institution.<sup>11</sup>

As this next slide shows, learning, achievements and credentials can be downloaded and securely stored onto a portable digital wallet that is owned AND CONTROLLED by the student for later use in education, employment, career advancement, and lifelong learning.

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11 Rayane Alamuddin, Brown, J., Kurzweil, M. (2016). *Student Data in the Digital Era: An Overview of Current Practices*. Page 3. Retrieved from [https://sr.ithaka.org/wp-content/uploads/2016/09/SR\\_Report\\_Student\\_Data\\_Digital\\_Era-090616.pdf](https://sr.ithaka.org/wp-content/uploads/2016/09/SR_Report_Student_Data_Digital_Era-090616.pdf).



For educators and researchers, the “granularity” and timeliness of student data on a CLR can also serve as a portal to a better understanding of student learning and behavior, including obstacles to persistence,<sup>12</sup> and can alert them to the need to intervene to support struggling students.

## IX – Credentials: Signifying Learning, Expanding Diversity

CLRs reflect a growing interest in holistic admissions, an approach that aims to evaluate the whole person beyond grades and summative test scores. For minority and low-income students, who tend to underperform on standardized tests, this makes CLRs a long-overdue vehicle for presenting a full portrait of themselves to graduate schools or employers.

For institutions and employers, CLRs can be a tool to support diversity. That is because they give us a way to break out of the traditional, school-bound concept of learning, in part through the use of secondary, postsecondary, and workplace credentials.

Credentialing is a rapidly expanding field, comprising diplomas, degrees, course completion certificates, badges, online degrees from foreign universities, licenses, certifications, and apprenticeships.

It is also a wide-open field. Credential Engine, a nonprofit group working to standardize the market, has identified nearly 1 million unique credentials conferred by secondary and postsecondary schools and institutions, providers of Massive Open Online Courses, or MOOCs, and workplace and other non-academic providers.<sup>13</sup>

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<sup>12</sup> Ibid.

<sup>13</sup> Credential Engine. (2021). *Counting U.S. postsecondary and secondary credentials*. Washington, DC: Credential Engine. <http://credentialengine.org/wp-content/uploads/2021/02/Counting-Credentials-2021.pdf>.



For credentials to have any value to stakeholders and decision makers, we need to develop ways to validate the learning that they represent. To pave a path for assessment, Credential Engine has created an open-source taxonomy to map the plethora of credentials to common, transparent standards accessible to learners, government offices and agencies, employers, educational institutions, organizations, and other stakeholders.<sup>14</sup>

Validating credentials and other co-curricular learning experiences will be a major advance in education, equity and opportunity. I suspect that many of us here today view our own co-curricular experiences as among the most valuable in our journeys of learning and growth.

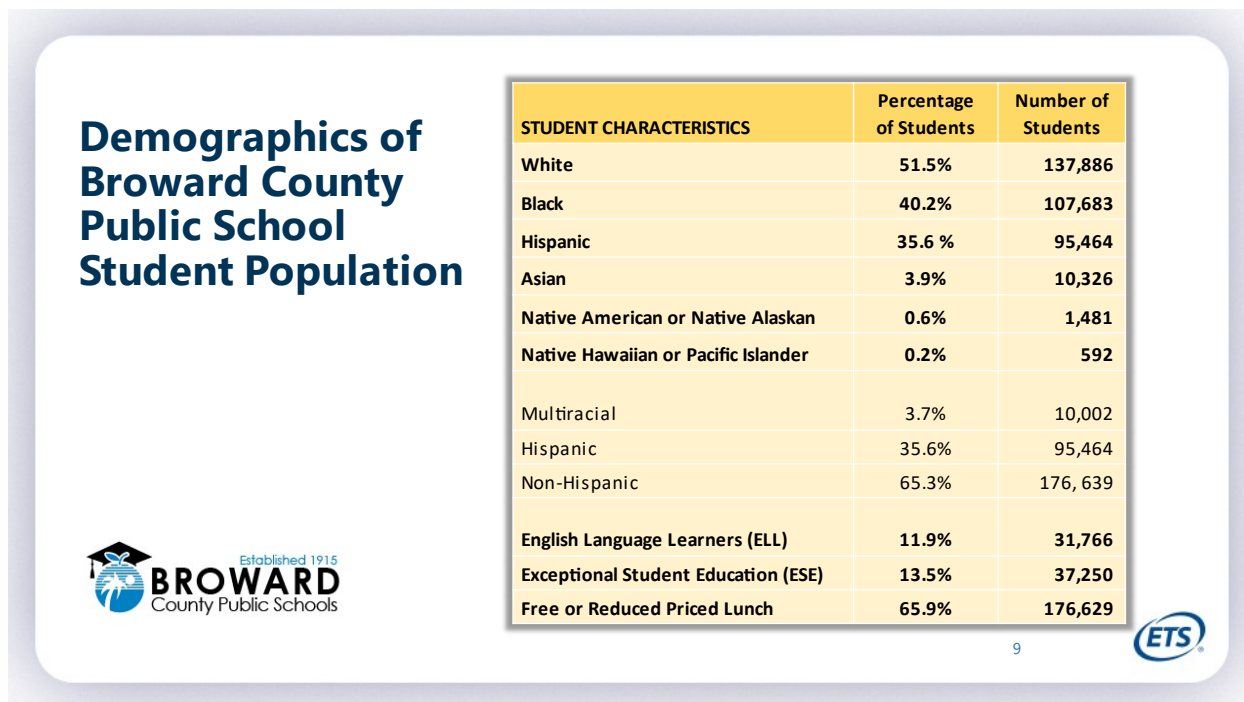
In my life, those experiences included selling World Book Encyclopedias; learning to be an altar server; participating in the Cub Scouts and Boy Scouts; serving as an undergraduate representative on Board of Trustees committees at the University of Tennessee, where I was an undergraduate; and working as an intern on the higher education governing board of Tennessee.

I learned so much from each of those experiences — about people, organizations, work, life, and myself — that I could not have learned in the classroom. They shaped my life.

## X – The Broward Co-Lab

An example of how CLR, co-curricular learning, digital wallets, and other technology-enhanced learning tools can support equity at the district level is the Broward County, Florida, school system’s Equity Collaborative Laboratory, or Co-Lab.

In this slide, you can see the racial, ethnic and economic mix of the student population here: 48.5% non-White, 12% ELL, and 66% low-income based on qualification for free or reduced-price lunch.



14 Ibid.



The Broward Co-Lab is a partnership of the school district, Broward College, and the Florida Local Alliance of Math Literacy and Equity, or FLAME. Its goal is to bridge systemic equity gaps by capturing and managing granular student achievement data using open-source technology and emerging technical standards for security and interoperability.

The district, the sixth largest in the country, formed the Equity Co-Lab in 2019 to reverse the high rate of students leaving high school with a lower-level certificate of completion in lieu of a diploma, and thus unprepared for college, careers or lifelong learning.

The district is determined to find and use new assessment tools; new instruments; new ways to encourage students to be engaged in their education, in and out of class; and a digital way for students to present their credentials, qualifications, and learnings.

The Co-Lab's initial focus has been on improving performance in Algebra 1 and 10th grade English language arts. Among its partners is The Algebra Project of Cambridge, Massachusetts. The Algebra Project works with urban schools to help students develop math literacy and problem-solving skills. It develops curricular materials and conducts teacher training and ongoing professional development and community building activities.

The Algebra Project was founded by Bob Moses, and it has a strong civil rights orientation. Its commitment is to equip disadvantaged students with the tools they will need to rise in the economy.

The Co-Lab is mapping its curricula and assessments to the Competencies and Academic Standards Exchange, or CASE, which was developed by the IMS Global Learning Consortium. In a similar way that that Credential Engine is seeking to map credentials to common standards, the CASE system uses a common digital format and learning standards so that students' CLR are transferrable and accessible to other data users, including institutions and employers.

ETS and other Co-Lab partners and consultants have helped the Co-Lab produce an "academic genome" of granular learning objectives encoded into the CASE system. We are also proposing learning progressions and assessment tasks related to the Algebra Project curriculum and classrooms; scenario-based assessments aligned with the algebra courses; test preparation materials to help prospective teachers prepare for the math performance sections of the *Praxis*<sup>®</sup> test; and support with the design, production and use of the CLR.

ETS is also collaborating on CLR projects with Morgan State University and the University of the District of Columbia, both HBCUs.

At the K–12 level, we are working on the design of a K–12 CLR with an EdTech company called Territorium. Territorium uses artificial intelligence and machine learning to track student progress into a Skills Profile, and collects proof of knowledge and skills to produce an evidence portfolio.

The Territorium CLR will use an ETS assessment to standardize the measurement of skills, including the social and emotional, or "soft skills," that are so important for success in the classroom, the workplace, and life.

## **XI – Bandwidth and Social and Emotional Learning**

The educational technologies available today are stunning. We are at the point where we can determine how students solve problems and answer test questions by analyzing their computer keystrokes, mouse clicks, and even their eye movements along the computer screen, and use that information to improve their academic behaviors and performance.



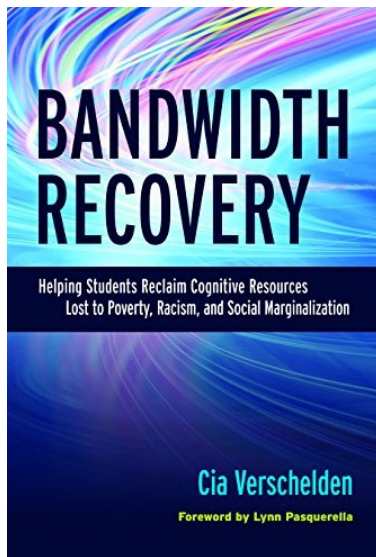
These tools are truly a marvel, and they are still in their infancy. No doubt, one could argue that we are using this technology simply because we can. But it would be irresponsible not to use data collected about the testing experience to IMPROVE testing, score interpretation, and student learning.<sup>15</sup>

Perhaps a better argument would be to point out that not every school or district has the means, ability, or even the opportunity to make use of all these wonders. If there is one thing that the pandemic has made absolutely clear, it is the depth of the digital divide. Hundreds of thousands of students do not even have access to laptops or adequate internet bandwidth, let alone AI-based learning programs that use gaming simulations to strengthen collaborative problem solving.

Unfortunately, that is not the only bandwidth obstacle facing minority and low-income students, pandemic or otherwise. There is also their internal, cognitive bandwidth.

Cia Verschelden, a senior scholar at the Association of American Colleges & Universities, examined this subject in two books: “Bandwidth Recovery: Helping Students Reclaim Cognitive Resources Lost to Poverty, Racism, and Social Marginalization,” and “Bandwidth Recovery for Schools: Helping Pre-K-12 Students Regain Cognitive Resources Lost to Poverty, Trauma, Racism, and Social Marginalization.”

Verschelden presents the “ample” and accumulating body of evidence that, as she puts it, “racism and poverty make people sick, waste human capital, and diminish cognitive resources.”<sup>16</sup>



## Marginalized Students, Marginalized ‘Bandwidth’

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“That persistent worry about money, including lack of regular access to adequate food, shelter, health care, safety, and so on, takes up parts of the brain that are then not available for thinking, learning, and making good choices.”

- Cia Verschelden

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15 ETS Policy Evaluation & Research Center. (2020). Policy Notes Volume 27, Number 1, Taxing the African-American Student: The Impact and Mitigation of Structural Stigma on Test Performance and School Success. Page 7. Retrieved from [https://www.ets.org/research/policy\\_research\\_reports/publications/periodical/2020/kboa](https://www.ets.org/research/policy_research_reports/publications/periodical/2020/kboa).

16 Verschelden, Cia. *Bandwidth Recovery: Helping Students Reclaim Cognitive Resources Lost to Poverty, Racism, and Social Marginalization*, Stylus Publishing. (2017). Page 5. Retrieved from ProQuest Ebook Central, <http://ebookcentral.proquest.com/lib/gwu/detail.action?docID=4983582>.



As she writes:

That persistent worry about money, including lack of regular access to adequate food, shelter, health care, safety, and so on, takes up parts of the brain that are then not available for thinking, learning, and making good choices. In addition, members of certain racial or ethnic groups in the United States — for instance, Black, Hispanic, and Native American, and some other minority groups — on their worst days exist within a dusty cloud of fear, worry, isolation, and frustration that robs them of available cognitive resources.<sup>17</sup>

To be sure, better assessments are not going to eradicate racism and poverty. Culture and human behavior also matter.

But we can help equip people with the tools to manage their experiences. One way is through Social and Emotional Learning, or SEL. It is the process through which we all develop and apply knowledge, skills, and attitudes about ourselves and others, and how we manage our emotions, and feel and show empathy.<sup>18</sup>

Developing students' social and emotional skills is important to ETS for the same reasons it is important to the Michigan Assessment Consortium — namely, the compelling evidence that SEL supports academic attainment, helps reduce bullying in schools, and can aid mental health in a variety of situations, including in post-traumatic contexts.<sup>19</sup>

Over the past five years, ETS and the Salzburg Global Seminar have conducted seminars and workshops around the world on the role of SEL in education. Our discussions led to the founding of Karanga: The Global Alliance for Social Emotional Learning and Life Skills.

The mission of Karanga, which is a Maori term meaning “welcome,” is to promote the view that choosing between academic skills and social and emotional skills is a false choice; that happiness and success in school, work, and life require both.

It is ironic that as we push further into the digital universe, there is rising interest among educators, policymakers, and researchers throughout the world in cultivating students' sense of humanness. That seems like a very good thing.

## XII – Diversifying the Assessment Industry

There is one other thing that we can do to improve assessment and equity. I will introduce it with an anecdote.

Some 20 years ago I was a Professor in the School of Education and a member of the National Assessment Governing Board. I had risen to the role of Vice Chair when I hosted one of the quarterly board meetings which included a national dialog on achievement levels in the United States. I remember three things about the event: It was in Ann Arbor; I thought we should develop a state-level NAEP; and I was the only person in the room who looked like me.

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17 Ibid.

18 Website of the Collaborative for Academic, Social, and Emotional Learning (CASEL). “SEL is ...” <https://casel.org/what-is-sel/>.

19 Salzburg Global Seminar, *Education for Tomorrow's World*, “Social and Emotional Learning: Time for Action.” (2019). Retrieved from <https://www.salzburgglobal.org/multi-year-series/education/pageld/8835>.





I have had the experience of being the only African American in the room many, many times throughout my career. It happens somewhat less frequently now, but not much less. And it is always unsettling.

There are analogs with regard to religion, gender, sexual preference and orientation, physical capability, wealth, and so on. But I can only speak from my own experience. And my experience tells me that we need to do more.

The fact is, the type of people who succeed in our system are, on the whole, much like the people who make the tests. So let's figure out how to make the tests look a little more like the people. And not just in the test questions, but in every step of the process, from test conceptualization, design and delivery, to score use.

Obviously, this is a message for ETS to act on. And we are, and we have been. We collaborate with numerous HBCUs and other Minority Serving Institutions, and we are expanding those collaborations to increase the diversity and of the assessment industry in general. I am sure we can do more. And I am sure that we WILL do more.

On a more systemic level, I would like for us to establish some guidelines for expanding diversity in the assessment process. I am sure that many of you have ideas as well. And I would like to hear them.

### XIII – Conclusion

I mentioned earlier that the Michigan Student Testing Conference was born against the backdrop of Sputnik and the Cold War. It was also a time of intense domestic conflict over racial inequities in many, many areas of society ... and of legislative landmarks aimed at addressing those inequities, including the Civil Rights Act of 1964, the Voting Rights Act of 1965, the Higher Education Act of 1965, and the Fair Housing Act of 1968.

Another landmark of the era was the creation of the National Assessment of Educational Progress, “The Nation’s Report Card,” whose first Director was Frank Womer, who served from 1967 to 1971.<sup>20</sup>

Those all were authentic, meaningful steps forward in our evolution as a society and our journey toward justice. But for all the change that we have seen over the past 50 years, things sometimes seem frozen in amber. White supremacy is overt and unabashed, and violent attacks on people of color — often at the hands of the authorities — are commonplace.

More insidious are voter-suppression laws that are deliberately designed to disenfranchise people of color. They are contemporary versions of the poll tax and the literacy test.

Nor is it a regional or partisan phenomenon. In the progressive bastion of New York City, the public schools are increasingly segregated by race; the poverty rate for young Black children from birth to 3 years old is nearly twice that of White children; and most low-income Black and Latino students still lack highly effective teachers, quality early childhood programming, and Advanced Placement®, International Baccalaureate, early college and other rigorous courses.<sup>21</sup>

Even Sputnik is back in the news, although this time it is in the name given to Russia’s COVID-19 vaccine.

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20 University of Michigan Faculty History Project, Memoir: Frank B. Womer, Regent's Proceedings 970. (2011). Retrieved from <http://faculty-history.dc.umich.edu/faculty/frank-b-womer/memoir>.

21 New York Urban League. *The State of Black New York*. (2020). Retrieved from [https://ad1a3eae-9408-4799-abe6-aa6ebc798f5b.usrfiles.com/ugd/ccf12e\\_06a44ca499](https://ad1a3eae-9408-4799-abe6-aa6ebc798f5b.usrfiles.com/ugd/ccf12e_06a44ca499).



I will conclude on this thought: We all hope and expect that classrooms and campuses will soon reopen and stay open, and that things will return to normal. If and when that happens, I hope that assessment does NOT return to normal. I hope that it continues to advance in ways that move us toward genuine equity for ALL learners. I think we are on the right track.

Thank you very much for your time and attention. And I look forward to discussing these issues with you further.

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## Author biography

*Dr. Michael T. Nettles, Senior Vice President and the Edmund W. Gordon Chair of Policy Evaluation and Research, ETS*

Michael Nettles has a national reputation as a policy researcher on educational assessment, student performance and achievement and educational equity. His publications reflect his broad interest in public policy, student and faculty access, opportunity, achievement, and assessment at both the K–12 and postsecondary levels.

In August 2014, President Barack Obama appointed Nettles to the President’s Advisory Commission on Educational Excellence for African Americans. He was appointed by two U.S. Secretaries of Education to serve on the National Assessment Governing Board (NAGB), which oversees and develops policies for the National Assessment of Educational Progress (NAEP). He also served for eight years on both the College Board of Trustees and the GRE Board.

Nettles now serves as Chair of the Board of Trustees of the Southern Education Foundation (SEF), member of the Board of Trustees of the Peddie School, member of the Board of Directors of the National Association for Equal Opportunity in Higher Education (NAFEO), and member of the Board of Directors of the Urban League of Middle Tennessee.

Nettles' history with ETS dates back to the late 1980s, when he was a Senior Research Scientist working in the organization’s Division of Education Policy Research Studies. Before returning to ETS in 2003 as Executive Director of the ETS Policy Studies & Research Center, Nettles had been a professor of education at the University of Michigan's Center for the Study of Higher and Postsecondary Education. From 1996 to 1999, he served as the first Executive Director of the Fredrick D. Patterson Research Institute of the United Negro College Fund. In that role, he published the three-volume African American Education Data Book series and *Two Decades of Progress*, the most comprehensive reference book ever produced about the educational status and condition of African Americans in the United States. He also served as Vice President for Assessment for the University of Tennessee System, Knoxville, Tenn., and as Assistant Director for Academic Affairs at the Tennessee Higher Education Commission in Nashville.

A native of Nashville, Tennessee, Nettles earned his bachelor’s degree in political science at the University of Tennessee. He earned Master’s degrees in political science and higher education, and a Ph.D. in education at Iowa State University.



## About the Frank B. Womer Invitational Keynote Series

The Michigan School Testing Conference (MSTC) began in 1960 in a time of turbulence and angst in our country. The late Dr. Frank B. Womer, whose job at the time in the U-M Bureau of School Services included visiting schools to review and advise on their testing programs, was given responsibility for the first U-M testing conference. Frank saw the value of this first conference and decided to keep the conference going. Thus, the Michigan School Testing Conference was born. It is the nation's longest-running state assessment or testing conference.

Over the years, changes have occurred in its audience, content, length, location, size, speakers, sponsors, impact of current educational and political ideas – and perhaps most of all – its impact on attendees, schools, and students. The conference expanded to serve the needs of a more diverse audience. The conference featured sessions on national policy initiative born of legislation such as NDEA, ESEA, ISA, NCLB, and ESSA. The conference was impacted by the winds of change in education and politics - from “guidance testing” in the early 1960s, statewide assessments in the 1970s, to measuring readiness, informing classroom instruction, evaluating school programs, improving curricula, awarding state scholarships, monitoring equity, judging school quality, and evaluating educators.

Frank's vision was responsible for the creation of the conference and directing it from 1960 to 1999. His vision for the conference endures through an endowment that he provided to the U-M School of Education. This endowment permits the conference to attract a nationally-known presenter to make the Frank B. Womer Invitational Keynote Presentation to the annual conference. This individual also provides a lecture to faculty, students, and friends in the U-M School of Education, thus permitting this individual to provide insights to both current and upcoming education practitioners and researchers.