

ESSA

Boot Camp

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Break Out Session: Indicators of College and Career Readiness

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U.S. CHAMBER OF COMMERCE FOUNDATION



DEMOCRATS
for EDUCATION REFORM



These groups worked together to answer some critical questions about possible indicators

- What might be important?
- How is it measured?
- What do data/research tell us?
- What are benefits/risks of including this measure in a school rating system
- If a state is headed toward using this measure, what questions should advocates ask? What should they watch out for?

Indicator-specific factsheets...

Summarize what research and data tell us about an indicator, and highlight benefits and considerations related to rating schools on that indicator

Raise questions to ask if your state is considering including the indicator in school ratings

COLLEGE-PREP COURSE SEQUENCE COMPLETION

An Overview

A college prep course sequence is a set of high school courses designed to prepare students for college. Historically, these courses have been more rigorous than the standard course of study, though when it's "standard" is changing in an era where schools agree to get all of their children college and career ready.

Research shows that students who complete a rigorous sequence of high school courses are much more likely to succeed in college. But though the overwhelming majority of high school students now agree to attend college, more than half are "meandering toward graduation" — taking a random, unaligned set of courses instead of a coherent sequence.¹

Students

CAN'T WAIT

How is it measured?

There are two things that are important to measure when it comes to course sequences:

1. Participation: The percent of students enrolled in the course sequence; and
2. Success: The percent of students successfully completing required courses.

What do the research/data tell us?

1. Nationally, students from high socioeconomic status families are substantially more likely to complete a college prep course sequence than students from low socioeconomic status families. Only 43 percent of low-income graduates have pursued a college- or career-ready course sequence, compared with 56 percent of higher-income graduates.²
2. Not all course sequences are equally high-quality. A sequence of classes that's called "college prep" is not always aligned with actual entry requirements for the state's colleges.

What are the benefits and risks of including this measure in a school rating system?

Benefits	Considerations/Warnings
<ul style="list-style-type: none"> • Including this measure measures into the equation that all students should complete a rigorous course sequence, not just high-achieving students. • The measure is especially useful if the courses it aligns to are requirements for the state system of higher education. • The measure is an indicator that is highly relevant to students and parents. 	<ul style="list-style-type: none"> • If not carefully monitored with the actual courses that colleges require, the measure can be weak and not provide much information. • If the measure isn't fully aligned, students could mistakenly think they will meet the admission requirements for state systems of higher education. • There may be pushback from CTE and arts educators if their courses are not reflected in the sequence. • Including this indicator in accountability could incentivize reductions in rigor for the courses so as to increase participation and success rates.

State examples: In California, the A-G course sequence is aligned with the admission requirements for the University of California and California State University systems. The courses are certified by state institutions of higher education, which confirms that high schools are providing the content necessary to succeed in college.

If your state is considering including course sequence completion measures in school ratings, what questions should you ask? What should you watch out for?

How will the state define "college prep course sequence"?

How the state defines the sequence of classes that form a college prep sequence is hugely important. A course of study that's called "college prep," but isn't actually, has little use as an accountability measure, and may actually cause harm to students who are not to believe they are being prepared for college when they aren't. At minimum, your state should be able to show that its college prep course of study is aligned with admission requirements in its institutions of higher education. (Note: Indicators should not have schools' course sequence completion rates compare with other indicators of academic success, such as proficiency on state assessments. If the sequence is rigorous, schools that show higher percentages of students completing a college prep course of study, overall and by student group, should also show higher results on other measures of academic success.)

College-Prep Course Sequence Completion Rates and Proficiency Rates, All Students, CA

Remediation Course Sequence Completion Rates and Proficiency, All Students, Unaligned State

Using college prep course sequence in California, which when your system chooses a college prep course of study, the more rigorous or more demanding.

What college prep course sequence is in your state, which when your state chooses a college prep course of study, the more rigorous or more demanding, and its use.

How will the state measure participation and success in a course sequence?

If your state plans to hold schools accountable for college prep course sequence completion, it must measure both participation and success rates. Measuring only participation will give schools an incentive to water down classes, while measuring only successful completion rates could incentivize schools to restrict access to only the best-performing performers.

How will your state calculate participation rates? Will it be a participant for any student who is taking courses in the sequence and is on track to complete all required classes? Or will it only be someone who completed the entire sequence by the end of 12th grade? And will the denominator be all students in the cohort, or just graduates?

- Tip: Watch out for attempts to include only graduates in the participation rate denominator. Doing so could increase the incentive to push lower performing students out of school entirely.
- Note: If a college prep course sequence is the default for all students in your state, it will be important to track participation (and completion) rates to make sure that some students aren't getting "opted out" of the course sequence at high rates. If there are gaps in participation between schools or between groups of students, school leaders should take that into account.

How will your state define successful completion? As passing grades? As grades required for admission into institutions of higher education? As passing a series of end-of-course exams?

- Tip: To the extent possible, successful completion should be defined in a way that meaningfully aligns with higher education admission or placement requirements (for example, a specific grade or performance on a common end-of-course exam). And all students who count as participants should be in the success rate denominator.

How will the state ensure that the data are accurate? Is there a process for auditing districts to verify that data are correct? What does that process involve?

If states are planning to hold schools accountable for course sequence success, they need to have quality controls in place to make sure the data are accurate (that is, not just self-reported), and a means of protecting students from courses labeled "rigorous" that only teach the content of eighth grade math.

¹David Brinkley and Christine Trothen, "Measuring Talent: Education Trends of High School Graduates," Brookings, D.C. The Education Trust, April 2016.

²David Brinkley and Christine Trothen, "Measuring Talent: Education Trends of High School Graduates," Brookings, D.C. The Education Trust, April 2016.

³Test or proficiency Education Trust analysis of data from the California Department of Education and another source.

We also produced two other tools for advocates:

Indicators: What to include in school ratings

INDICATORS

What to include in school ratings

When designing their school accountability systems, state leaders will have to decide which indicators to include in their school ratings. This tool provides information to help them make that decision. It includes a list of indicators that are likely to be meaningful and actionable, along with a set of questions to help them evaluate the quality of each indicator.

The way that schools assess will have an impact on the information that is used to measure school performance.

The purpose of these five items is to provide additional information to help you decide which indicators to include in your school rating system. These items are not meant to replace the information that is already in your school rating system, but they can help you make decisions about which indicators to include in your school rating system.

- This position has been updated to reflect the changes to the ESSA Title I, Title II, and Title III requirements. The position has been updated to reflect the changes to the ESSA Title I, Title II, and Title III requirements.
- Indicators should be based on evidence that is collected on a regular basis. Indicators should be based on evidence that is collected on a regular basis.
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What does ESSA require when it comes to indicators?

The Every Student Succeeds Act requires states to include in their accountability systems a set of indicators that are based on student achievement, school quality, and student access to college and career readiness. The law also requires states to include indicators that measure student growth, school quality, and student access to college and career readiness.

States that are required to include indicators must include indicators that measure student achievement, school quality, and student access to college and career readiness.

- Student achievement:** A measure of student achievement that is based on standardized tests, performance assessments, or other measures of student learning. It must be a measure of student achievement that is based on standardized tests, performance assessments, or other measures of student learning.
- School quality:** A measure of school quality that is based on factors such as teacher quality, school climate, or other factors. It must be a measure of school quality that is based on factors such as teacher quality, school climate, or other factors.
- Student access to college and career readiness:** A measure of student access to college and career readiness that is based on factors such as graduation rates, college enrollment rates, or other factors. It must be a measure of student access to college and career readiness that is based on factors such as graduation rates, college enrollment rates, or other factors.

Indicator “Traffic Light” Table

INDICATOR “TRAFFIC LIGHT” TABLE

The table below lists a variety of indicators that some states are considering for inclusion in their school accountability systems. While this table lists many indicators for all indicators, some of these measures give higher priority to certain indicators. Using the colors green, yellow, and red, the table suggests the level of confidence — or conversely, caution — that advocates should have when thinking about whether to include each measure in school ratings. A red measure indicates that it follows the rating to look at a broader range of data to understand school level success or performance, and is subject to public reporting, respectively.

GREEN means a relatively high level of confidence. While data quality is always a concern, it is less of a concern with these indicators.

YELLOW means a moderate level of confidence. It is somewhat less confident in including these measures, which may need to use special attention to data quality.

RED means a high level of caution/low confidence.

See the indicators to which:

Indicator Name	Category	Quality	Confidence	Reporting
State assessment scores in mathematics	Student Achievement	Green	Green	Green
State assessment scores in reading/language arts	Student Achievement	Green	Green	Green
State assessment scores in science	Student Achievement	Green	Green	Green
State assessment scores in social studies/history	Student Achievement	Green	Green	Green
Student growth measures	Student Achievement	Green	Green	Green
Teacher quality measures	School Quality	Green	Green	Green
Student access to college/career readiness	Student Access to College and Career Readiness	Green	Green	Green
Graduation rate	Student Access to College and Career Readiness	Yellow	Yellow	Yellow
College enrollment rate	Student Access to College and Career Readiness	Yellow	Yellow	Yellow
Other measures of school quality	School Quality	Green	Green	Green
Other measures of student access to college/career readiness	Student Access to College and Career Readiness	Green	Green	Green
Other measures of student achievement	Student Achievement	Green	Green	Green
Other measures of school climate	School Quality	Green	Green	Green
Other measures of teacher quality	School Quality	Green	Green	Green
Other measures of student learning	Student Achievement	Green	Green	Green
Other measures of school safety	School Quality	Green	Green	Green
Other measures of student engagement	Student Access to College and Career Readiness	Green	Green	Green
Other measures of school performance	School Quality	Green	Green	Green
Other measures of student success	Student Access to College and Career Readiness	Green	Green	Green

Our focus today: Measures of college and career readiness

We'll discuss the college-related indicators first, followed by a discussion of potential career-related indicators.

On the College side, we'll look at:

- **Courses**
 - Completion of college prep curriculum
 - Advanced courses (AP, IB and the like)
- **Test-based Measures (like ACT, SAT)**
- **Percent of students who enter college (and percent who don't need remediation)**

General Theme

- **On the course-taking indicators, important to understand there are two parts: participation and success. If states are going to measure one, they have to measure the other.**

1. College prep course sequence completion

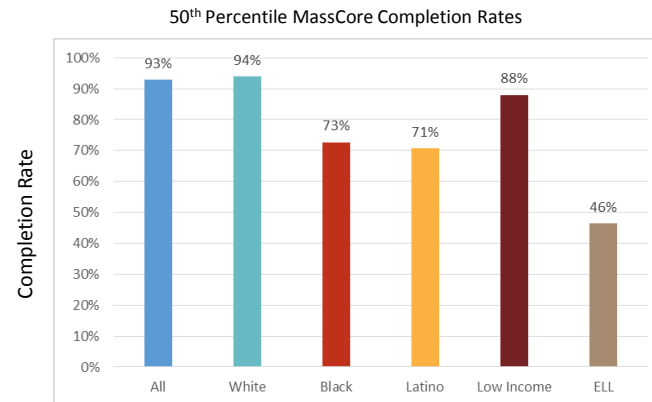
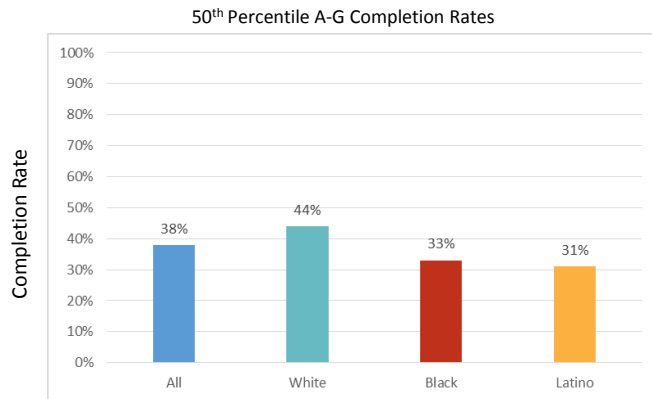
Definition: A recommended series of classes in high school, typically designed to be more rigorous than the standard course of study. May or may not be aligned with requirements for entry into the state higher ed system.

- For example:
 - In California: A-G Course completion is a recommended course sequence required to be completed in order to be considered for admissions to a University of California school
 - Two years of history/ social science, English, and Mathematics; one year of Laboratory Science and of a language other than English; four years of other “A-G” courses, including visual and performing arts and college prep-electives
 - In Massachusetts: MassCore is a recommended program of studies intended to be more rigorous than the typical MA high school course of study
 - Four years of English and Math; three years of history and a lab-based Science; two years of the same foreign language; one year of an arts program; five additional “Core” courses on subjects ranging from business to technology

Why it matters: Research shows that a rigorous course of study is key for success in college. Studies also show that a lot of students are “meandering toward graduation” rather than taking a coherent course of study.

Course Sequencing: How are schools doing on it?

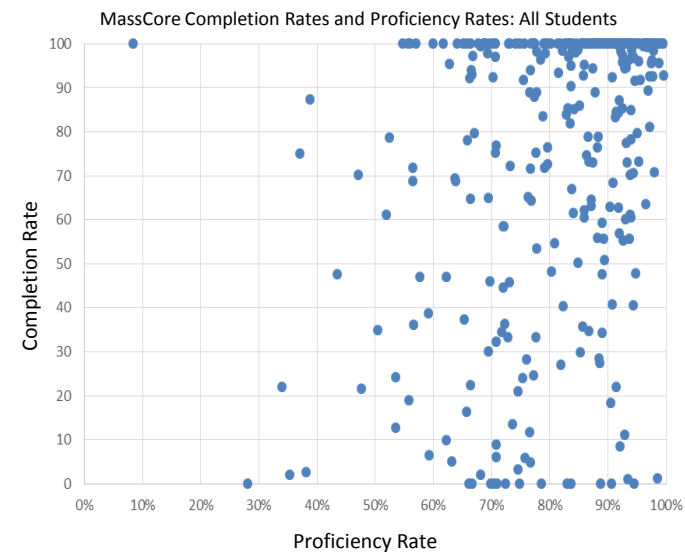
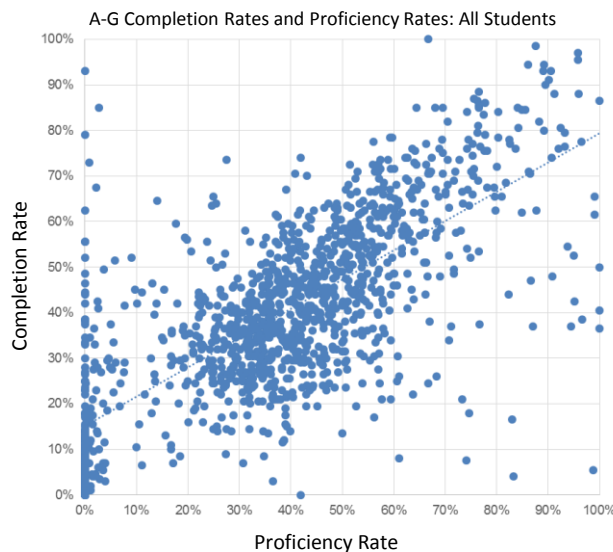
- Very different performance between the two states
 - In CA, there is a wide range of course completion rates across schools and subgroups, with historically underserved students typically completing the A-G sequence at lower rates than white students
 - In MA, MassCore completion rates tend to be higher across groups. On average, however, completion rates are lower for historically underserved groups – especially for ELL students.



Preliminary EdTrust analysis of CA Department of Education and MA Department of Education data

Course Sequencing: What can we tell from how results on this indicator relate to results on others?

- In CA, the higher a school's proficiency rate, the higher the A-G completion rate is likely to be. In MA, there is no relationship between proficiency and MassCORE completion.



Preliminary EdTrust analysis of CA Department of Education and MA Department of Education data

So what do we do with this?

- The data show big differences between the two states. What does that mean?
 - The way a college-prep curriculum is defined likely matters.
 - In CA, there is greater alignment with higher education and actual course certification by state institutions of higher education.
 - This definition should be a key part of deciding whether the indicator can be used for accountability.

Course Sequence Completion: Implications for Accountability

• Benefits:

- Sets the expectation that all students should complete a coherent course sequence
- Especially useful if sequence is aligned to the admissions requirements for the state system of higher education
- Is an indicator that may be relevant to students and parents

• Risks:

- If not done thoughtfully, the measure can be weak and not provide much information
- People could mistakenly think they will meet the admission requirements for state systems of higher education if this measure isn't fully aligned with admissions requirements
- They may be pushback from CTE and arts educators if those courses are not reflected in the sequences
- Including this indicator in accountability could incentivize reduction in rigor for the courses

Considerations: If a state is considering this indicator, what are the key questions to ask?

- How is a “college prep curriculum” defined?
 - Does it align with courses required for college admission?
 - Is course content defined (especially in math and science)?
- Who gets access to it?
 - Recommended, required, default?
- How is it measured?
 - Participation, success or both?
 - Denominator 9th grade cohort or graduates?

2. Advanced Coursework

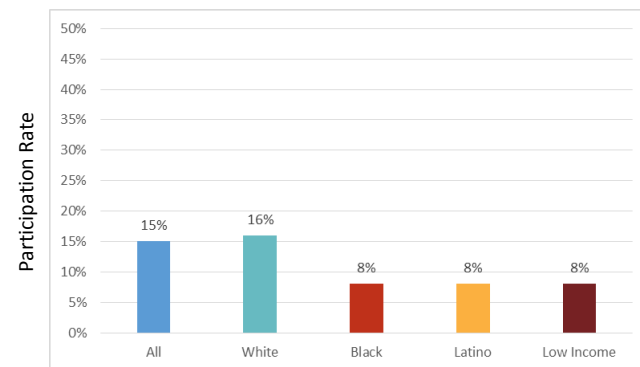
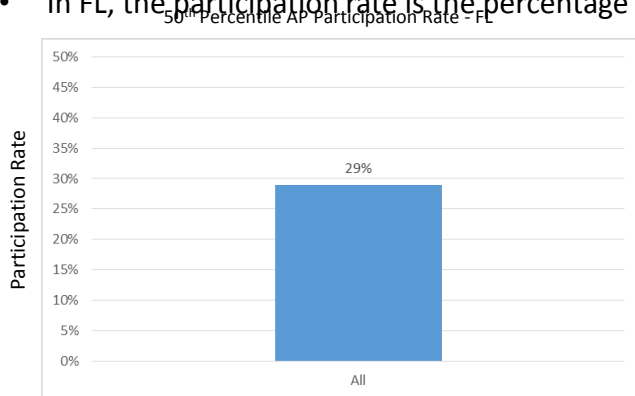
Definition: Courses that provide opportunity to earn college credit in high school. Includes, but may not be limited to, AP, IB, dual enrollment.

- This presentation focuses on AP courses, simply because there is a great deal of data available around them.
- The questions that we'll surface are relevant to other types of advanced courses, too.

Why it matters: Programs like AP/IB are designed to provide high school students with a head start on a college education. But today, access to these classes (and success in them) is far from equal.

Advanced Courses: How are schools doing?

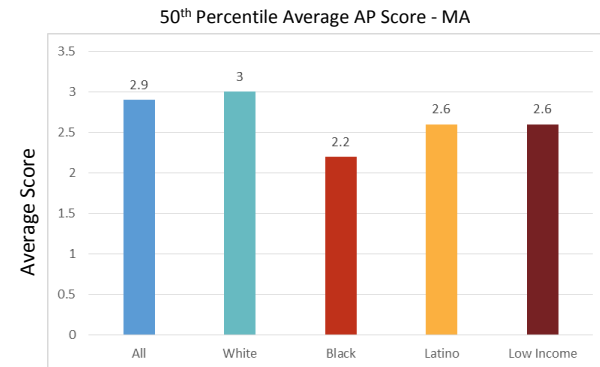
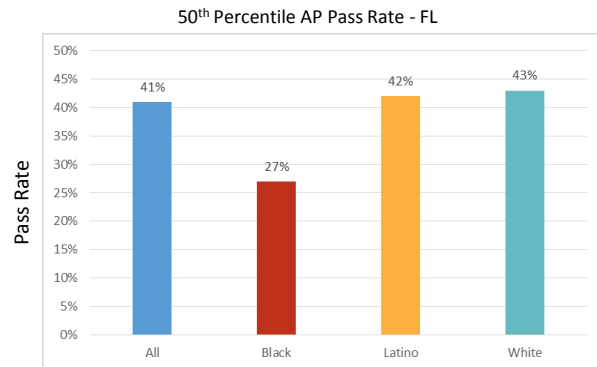
- In FL, we only had participation data for the all students group, which hovered around 30%.
- In MA, participation rates are often lower for historically underserved groups.
- Note: “Participation” was calculated differently for Florida and Massachusetts, so the two should not be compared.
 - In MA, the participation rate is the percentage of **all students** in the school who took one or more AP exam.
 - In FL, the participation rate is the percentage of all students in **grades 10-12** who took one or more AP exam.



Preliminary EdTrust analysis of FL Department of Education and MA Department of Education data

Advanced Courses: How are schools doing on it?

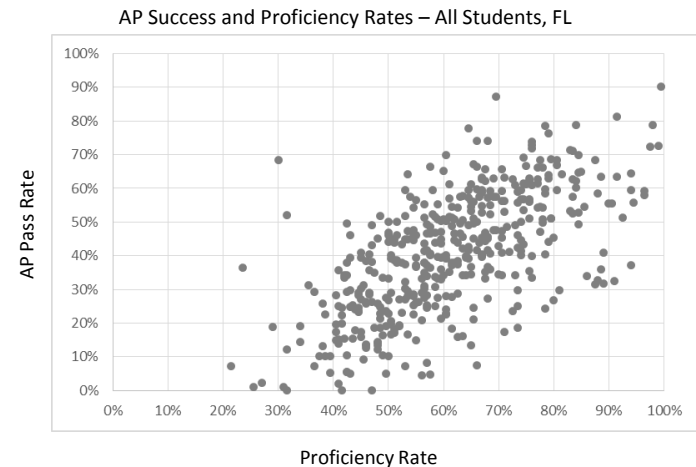
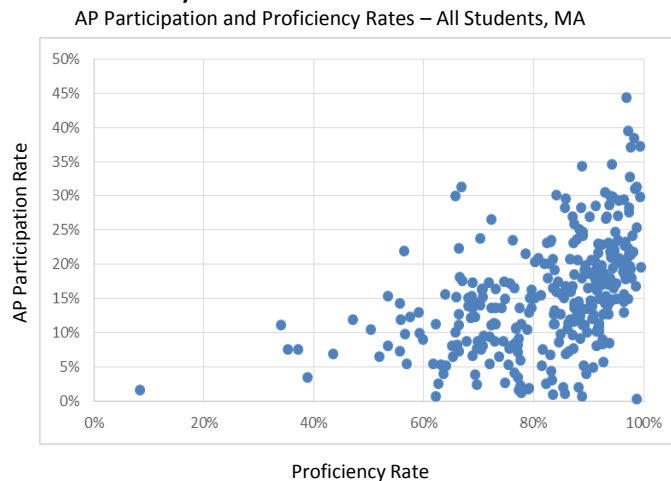
- In FL and MA, schools often have higher scores for their white students than for their students in historically underserved groups
 - Note: “Success” was calculated differently for Florida and Massachusetts.
 - In FL, success is the percentage of students scoring a 3 or higher on one or more AP exams.
 - In MA, success is average score across all test takers and exams in the school.



Preliminary EdTrust analysis of FL Department of Education and MA Department of Education data

Advanced Courses: What can we tell from how results on these indicators relate to results on others?

- In both MA and FL, there are generally positive relationships between participation/success and proficiency rates across groups
 - There is an exception here for ELL students in MA, for whom there is a negative relationship between AP success and proficiency
- For participation rates, there is sometimes a fair amount of spread at higher levels of proficiency, meaning schools that look good on proficiency sometimes look bad on AP participation, though this is generally not true the other way around



Preliminary EdTrust analysis of FL Department of Education and MA Department of Education data

Advanced Courses: Benefits and Risks

• Benefits:

- Including these indicators in accountability may incentivize schools to offer more advanced opportunities.
- Inclusion in accountability may highlight gaps in access to/success in advanced classes
- Advanced course access/success matters to students and parents
- Information provided by these indicators may not be captured by existing indicators – e.g., some high performing schools (based on proficiency) may be doing a better job of this than others.

• Risks:

- Because these courses are meant for college applications, including them might stress college-ready over career-ready
 - Is that a negative?
- These courses – and exams that go with them – cost money. If states do not subsidize the tests, then inclusion of the indicator in an accountability system may be unfair to high poverty schools and low-income students.
- Depending on the type of course and indicator used, schools could respond by watering down course content.
- Small schools/schools in rural areas may have a harder time offering advanced courses.

Considerations: Questions to Ask

- How will participation and success be measured?
- Will participation and success be separate indicators, or one combined measure?
- How will courses be approved and valued?
- Another note: Federal dollars to help more low-income students into AP were collapsed into a block grant, which can be used for a variety of purposes. Relevant?

3. Assessment-Based Measures of College Readiness (ACT and SAT)

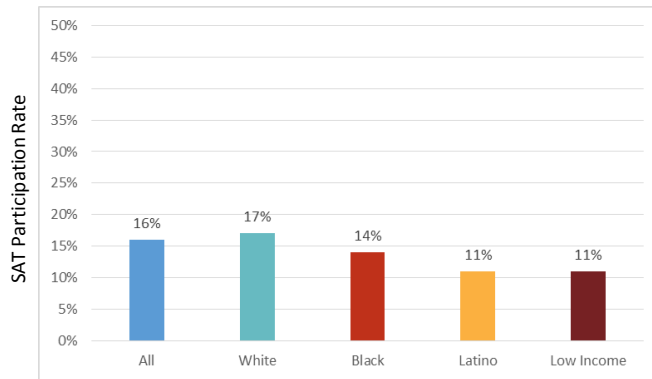
Why it matters:

- Colleges use these tests as part of their admission requirements. Low scores on these tests can prevent students from getting into the school of their choice.

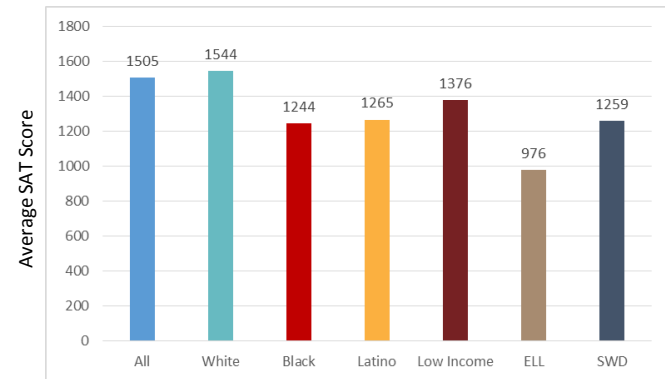
College-entry exams: How are schools doing on it?

- Participation rates appear low across the board, BUT note that they are calculated by dividing number of tests taken by the TOTAL number of students in the school (not just juniors and seniors).
- Average SAT scores for white students in MA tend to be higher than those of historically underserved students

50th Percentile SAT Participation Rates by Subgroup



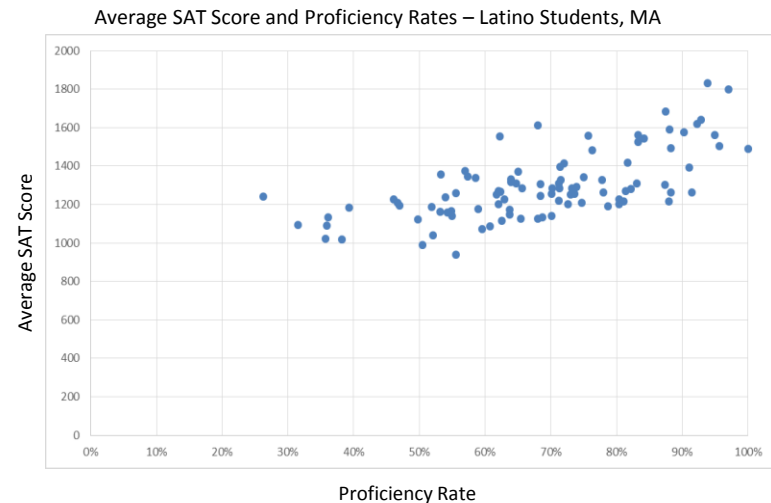
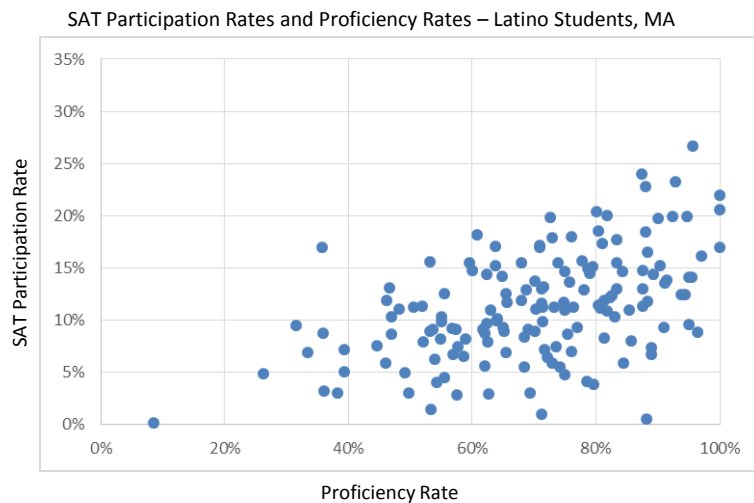
50th Percentile Average SAT Score by Subgroup



Preliminary EdTrust analysis of MA Department of Education data

College-entry exams: What can we tell from how results on this indicator relate to results on others?

- By and large, the higher a school's proficiency rate, the higher its SAT participation rate as well. This holds true for nearly every subgroup, although the relationship is weaker for historically underserved groups.
- In general, the higher a school's proficiency rate, the higher the average score on the SAT for nearly all subgroups



Preliminary EdTrust analysis of MA Department of Education data

College-entry exams: Implications for Accountability

• Benefits:

- ACT/SAT are tests that “matter” in high school
- Including these indicators in accountability may get schools to put systems in place to make registering for the SAT/ACT easier/more accessible
- Including might incentivize schools to start providing SAT-prep courses
 - Downside of this is it could provide an obvious advantage to wealthy schools
- It’s not a state-created performance measure, so it could provide an external check on student outcomes

• Risks:

- Because these tests are meant explicitly for college applications, including them might stress college-ready over career-ready
 - Is that a negative?
- There is a cost to taking these tests. Without subsidies, low participation rates may be an indicator of students’ inability to afford them, rather than of something with the school
 - The College Board waives the fee entirely for qualifying low income students
- There are serious challenges with SWD getting the accommodations to which they are entitled, especially if the goal is a score they can actually use for admissions purpose.
- The prevalence of SAT/ACT prep in wealthy schools/districts may give those places an extra (and unfair) advantage.

Considerations: Questions to ask

- How will participation and success be measured?
- Will participation and success be separate indicators, or one combined measure?
- How will you ensure that all students have access to these often costly tests?

4. Measures of College Going

Definition: This indicator is generally defined as the “percent of graduates who enroll in college” – though this definition raises as many questions as it answers.

- We’ll be looking at data from New Jersey, which uses information from the National Student Clearinghouse. NSC data include most students who go to school anywhere in the U.S.

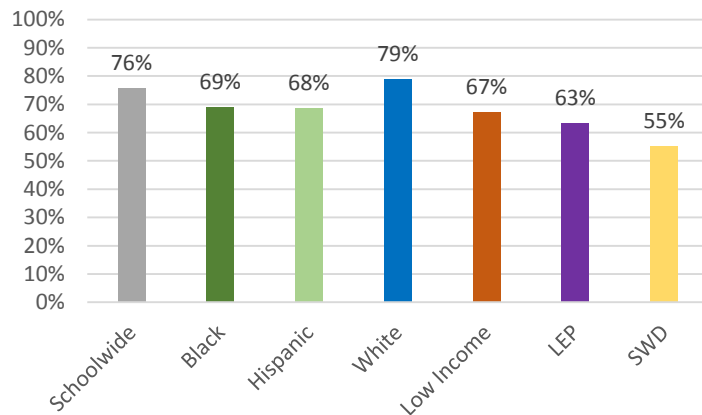
What do we know about it?

- Low income students, students of color, ELLs and students with disabilities are less likely to enroll in college than their peers.
- Enrollment rates have been increasing in recent decades, but the gaps in enrollment rates haven’t changed much.
- Low income students and students of color are more likely to start their college education at a community college or a for-profit institution.

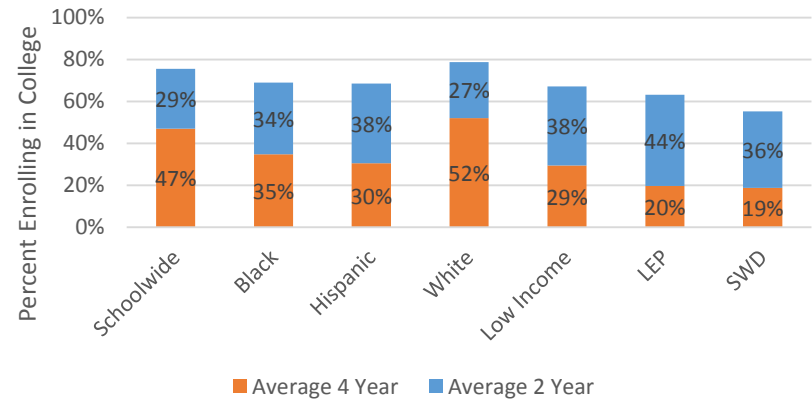
How are schools doing?

- In New Jersey, college-going numbers are relatively high across the board, with the notable exception of students with disabilities. However, students from historically disadvantaged groups are less likely to enroll in four-year schools than students from historically advantaged groups.

Average percent of graduates enrolling in college, New Jersey, 2014



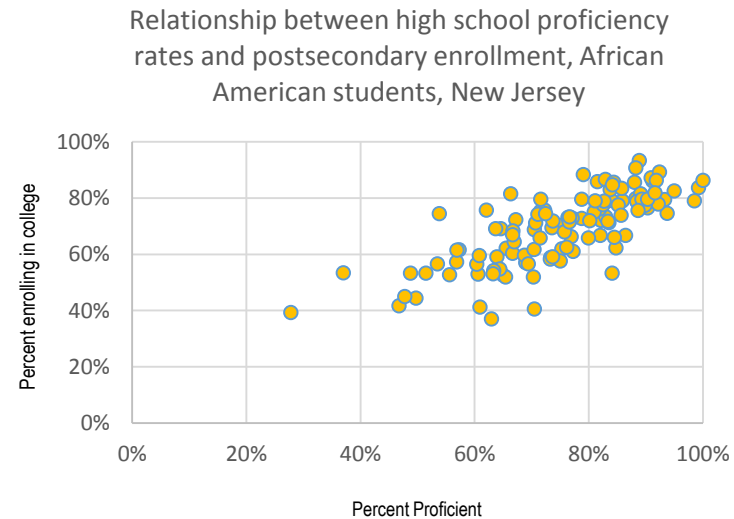
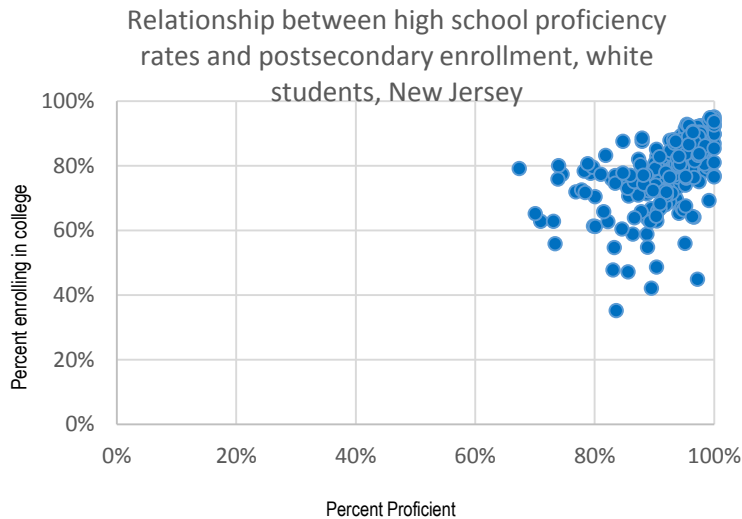
Enrollment by type of college, New Jersey, 2014



Preliminary EdTrust analysis of NJ Department of Education data

How does college enrollment relate to other measures?

- In NJ, there is a strong relationship between high school proficiency rates and postsecondary enrollment. That relationship is actually stronger for historically disadvantaged groups.
 - This is probably because for white students, both proficiency and enrollment rates are generally high.



Preliminary EdTrust analysis of NJ Department of Education data

Implications for accountability

Benefits

- May incentivize schools to support students through the college enrollment process.
- May incentivize schools to encourage students to consider going to college.
- A meaningful indicator for parents and community members.
- May be useful in differentiating between higher performing schools.

Risks

- Schools may respond by pushing students to enroll in non-selective institutions that won't necessarily support them to succeed.
- Schools may push students to enroll in college, but pay no attention to their academic preparation.
- Students may wind up in a situation where they are accumulating lots of debt, with no degree.
- Does including this metric without a career counterpart place too much emphasis on college?

Considerations/Questions to Ask

- Does the state have data, and what data are available?
 - National Student Clearinghouse data are expensive.
 - Many states can track college enrollment only within their state – and some only in public institutions.
 - Using within-state public-only enrollment figures for accountability could create all sorts of other bad incentives for schools.
- What's being measured?
 - Does it matter whether students are enrolling in a 2-year or a 4-year school?
- How do you set goals?
 - What is the ultimate goal?
- How do you measure success?

What are some potential ways of measuring success in college?

- Data challenges become bigger and bigger as we get into higher ed data, but a couple of possibilities may include:
 - Remediation rates
 - Degree completion rates

Challenges with including college-level measures in accountability

- Data availability/ data quality in general
- Very few high schools have these data for ELs and students with disabilities.
- Especially when it comes to attainment:
 - Time lag
 - Mismatch in responsibility: Colleges themselves play a huge role in helping their students attain a degree. And different colleges often perform very differently with similar students. Is it fair to hold high schools accountable for college degree attainment?

What about measures of Career Readiness?

Changing Perceptions of Career Readiness

Pre-2000	College or Career Readiness
2000	College For All
2008	College & Career Readiness
2016	College Ready Plus

State Experimentation with Career Readiness

Widespread experimentation and today 34 states publicly report some type of career readiness indicator

1. Workforce Readiness Assessments
2. Courses With Dual Credit Opportunities
3. Work-Based Learning
4. Industry-Recognized Credentials
5. Career Guidance

Limitations and Challenges

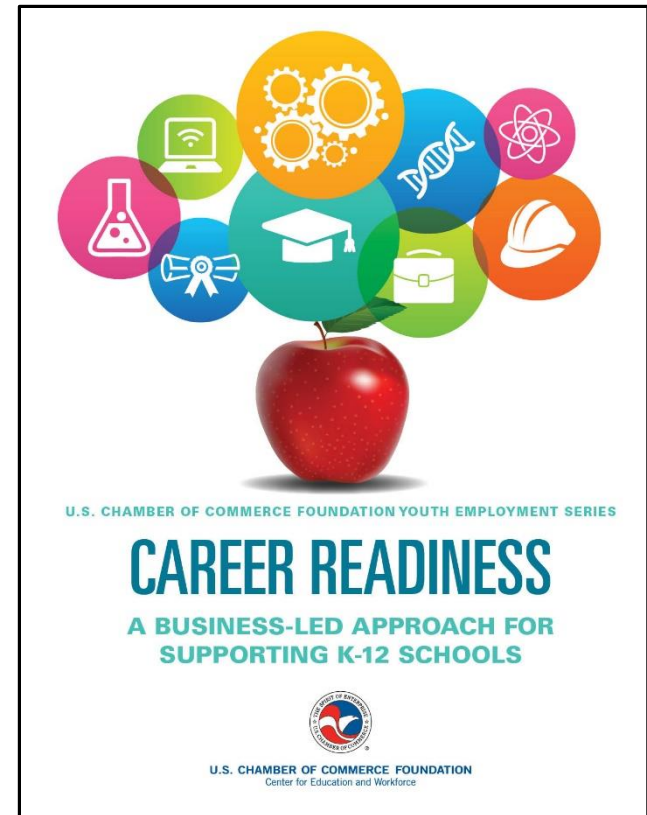
Each of the approaches face limitations and have yet to overcome major challenges facing career readiness

1. Career education remains stigmatized (“less than college”)
2. Lack of shared accountability across systems
3. Employer leadership and engagement is not systemic

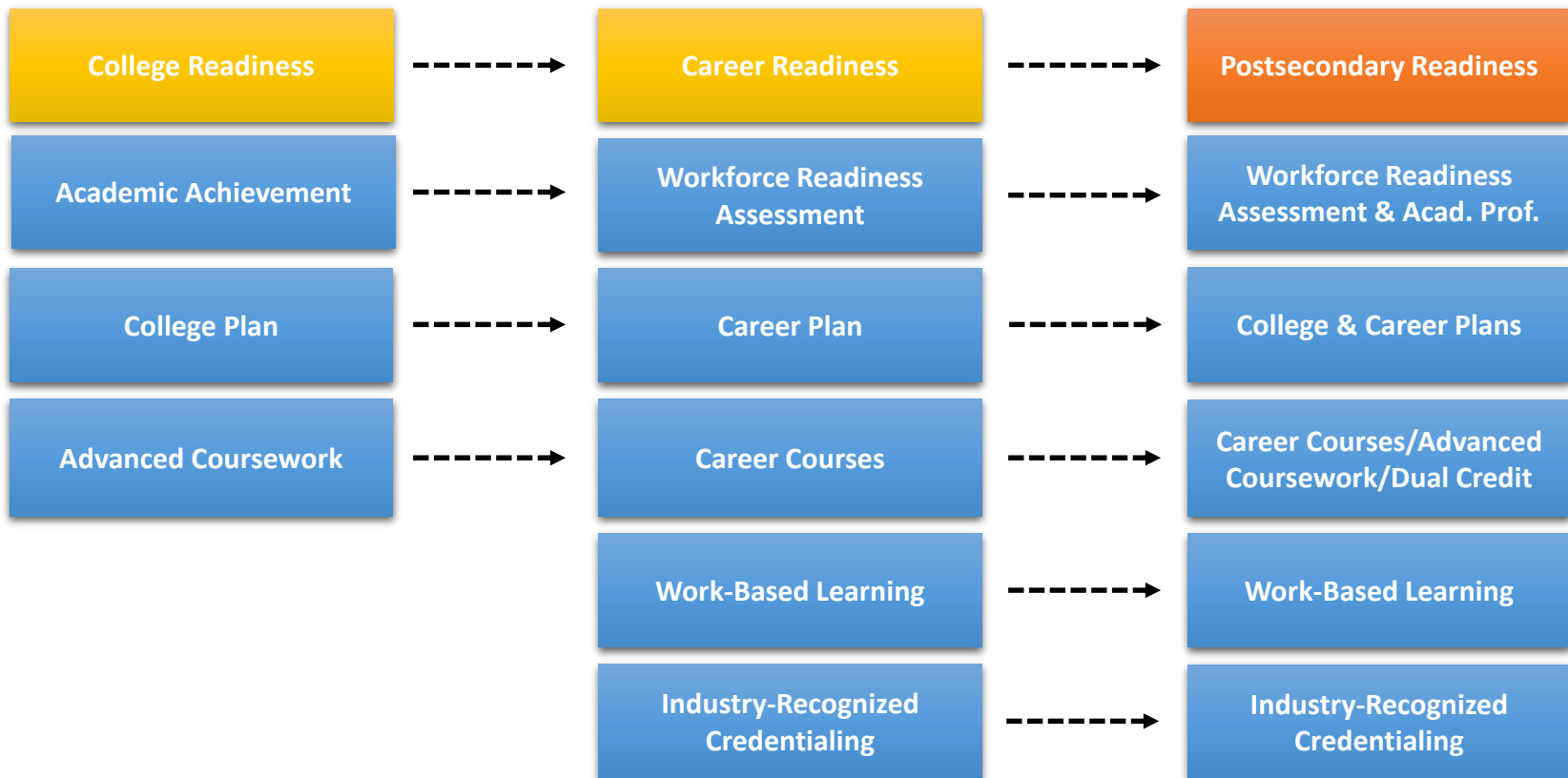
Career Readiness in ESSA Accountability

How the business community can support states and districts in implementing career readiness:

1. Adopt a combined college and career readiness indicator
2. Implement by addressing key gaps and systemic challenges tied to meeting employer requirements



A New Framework for Defining Career Readiness



College Ready Plus

Required Components

Workforce Readiness
Assessments &
Academic Proficiency



College & Career Plan



At Least One Additional Component*

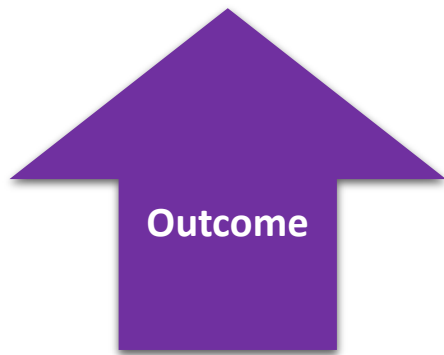
Career Courses/Adv.
Coursework/Dual
Credit

Work-Based Learning

Industry-Recognized
Credentialing

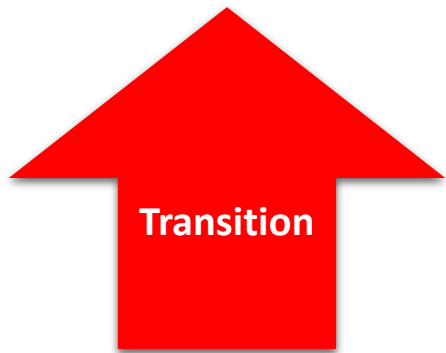
** No one measure is sufficient; instead, it is the unique combination of measures that when consistently and reliably validated by the business community makes for a robust career readiness approach*

Example Measures



Score Proficient on Assessments	Career Course Completers
College and Career Plan Completers	Work-Based Learning Completers
Industry Recognized Credentials Awarded	College Ready Plus Achieved
Participating in Career Related Assessments	Participating in Career-Related Courses
Received Career Guidance	Participating in Work-Based Learning

Example Measures



Entering Postsecondary	Working
Requiring Remediation	Neither Working nor in School
Score Proficient on Assessments	Career Course Completers
College and Career Plan Completers	Work-Based Learning Completers
Industry Recognized Credentials Awarded	College Ready Plus Achieved

Special Roles for Business in Advancing Career Readiness

The business community is uniquely positioned to support states and districts with implementing career readiness



Manage employer requirements



Endorse districts and schools



Manage work-based learning



Evaluate performance



Track industry recognized credentials

Important Roles for Attention by Both Business Reps and Other Advocates

- Insist on college AND career, rather than college OR career.
- Insist on an end to the practice of shunting low-income, EL, SWD and students of color disproportionately down a watered down “career” track, while students with more advantages are placed in the college track.

California Case Study

Can we do both—and do them well?

California's College and Career Index

- Adopted in concept July 2016; details still being worked out
- Identifies benchmarks that students in the 4-year graduation cohort must meet to demonstrate College and Career Readiness
- To be used for district and school accountability; students will not receive individual CCI reports
- Four performance levels:
 1. Well Prepared
 2. Prepared
 3. Approaching Prepared
 4. Not Prepared

Measures in the model

To start:

- Advanced Placement (AP) exams
- Early Assessment Program (EAP) for English-language arts (ELA) and math
- A-G
- Career Technical Education (CTE)
- International Baccalaureate (IB)
- Dual enrollment

And eventually:

- State Seal of Biliteracy
- –Golden State Seal Merit Diploma

What didn't make the cut and why

Didn't make the cut	Why
Percent of students who enter college, percent who succeed in college	No data system connecting K-12 and PSE
SAT or ACT	Strong advocacy from some corners against these measures; feeling that that don't effectively predict college success, are culturally biased, favor college-ready over career-ready in the model, are unaligned to Common Core, and are untested for use in accountability systems
GPA	The data is not readily available. There is still strong advocacy from some corners to include this, arguing it is a strong predictor of college success.

College/Career Indicator Model

Performance Level is based on a student's highest achievement on any one measure*.
Students included in the model are those in the CALPADS 4-year graduation cohort.

WELL PREPARED

Does the student meet at least 1 measure below?

- Three or more Advanced Placement (AP) Exams (Score 3 or higher)
- Scored "Ready" on Early Assessment Program (EAP) for both English-language arts (ELA) and Math
- Scored "Ready" and "Conditional Ready" on EAP plus Passed Approved Grade 12 Course
- International Baccalaureate (IB) Diploma
- Three or More IB Exams (Score 4 or Higher)
- Two or More Years of Academic/Career Technical Education (CTE) Dual Enrollment
- CTE Pathway Completion plus one year of Dual Enrollment

PREPARED

Does the student meet at least 1 measure below?

- Two AP Exams (Score 3 or higher)
- Scored "Ready" in one EAP subject area and "Conditional Ready" in the other EAP subject area but Did Not Take or Pass Approved Grade 12 Course
- Scored "Conditional Ready" on EAP for both ELA and Math plus Passed Approved Grade 12 Courses
- Two IB Exams (Score 4 or Higher)
- a-g completion plus one College/Career Indicator (CCI) Measure from "Approaching Prepared"
- One Year of Academic/CTE Dual Enrollment
- CTE Concentrator and scored "Conditional Ready" on EAP for both ELA and Math
- CTE Pathway Completion plus one CCI Measure from "Approaching Prepared"

APPROACHING PREPARED

Does the student meet at least 1 measure below?

- One AP Exam (Score 3 or higher)
- Scored "Conditional Ready" on both ELA and Math EAP
- Scored "Ready" and "Not Ready" on EAP
- One IB Exam (Score 4 or Higher)
- a-g completion only
- CTE Concentrator and scored "Conditional Ready" in one EAP subject and "Not Ready" in the other EAP subject
- CTE Pathway Completion

NOT PREPARED

The Student Did Not Meet Any Measures Above.
This Student is NOT PREPARED for College/Career.

* Measure: Each measure identified in this conceptual model may be a college measure, a career measure, or a combination of both.

Note: The following measures will be added when Statewide data are available (2017-18).

- State Seal of Biliteracy
- Golden State Seal of Merit Diploma
- Articulated CTE Pathways
- IB Career Related Programs

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Key issues

- College and career readiness vs. college or career readiness
- How to weight indicators in order to properly balance incentives
- How effectively does the Smarter Balanced assessment measure college and career readiness?
- How to ensure that career pathways are *high-quality* pathways