



COURSE ACCESS OPPORTUNITY INCENTIVE

*How States Can Incentivize Districts to Provide
All Students with Access to Critical Courses
November 2018*

INTRODUCTION

Learner-centered education requires broad access to high-quality coursework. However, too many students in the United States are underprepared for long-term success in college and career due to a lack of access to diverse, rigorous courses they need to pursue strong pathways. A course access policy can help states address gaps in access to courses. And to ensure students can benefit fully from a course access program, states should consider creating a Course Access Opportunity Incentive to encourage school districts to promote student participation in the program.

COURSE ACCESS TO EXPAND ACCESS AND EQUITY

Across the nation, there are significant gaps between the course offerings students want or need to pursue and what can be offered by their local district or school. These gaps may be due to the lack of qualified instructional staff, tight budgets or even a dearth of other course providers.

The Problem: U.S. High Schools Do Not Offer Access to Critical Courses

ExcelinEd's [analysis](#)¹ of the U.S. Department of Education's [Office of Civil Rights Data Collection](#)² (CRDC) reveals that more than half of our nation's high schools do not offer Calculus, and more than 4 in 10 high schools do not offer Physics. Among high schools serving high populations of minority students, 70 percent do not offer Calculus, while 40 percent of schools serving low populations of minority students do not offer Calculus.

Gaps in Access to Courses Highlight Two Pressing Issues



Lack of equity of access to core courses among schools.



Lack of opportunities for students to prepare for college and career.

Moreover, as students progress through the education system, their potential future opportunities continue to diminish due to lack of access. The CRDC asks schools for information on course offerings for each of these sequential high school math courses: Algebra I, Geometry, Algebra II, Advanced Math and Calculus. The data collection found that schools are less likely to offer a math course the higher in the progression it lies.

Without access to math and science courses in high schools, many students will struggle to pursue postsecondary credentials or the advanced career training needed for entry to middle- and higher-wage careers.

¹ Foundation for Excellence in Education (ExcelinEd), "[College and Career Pathways: Equity and Access](#)," October 2018.

² United States Department of Education, Office for Civil Rights, "[STEM Course Taking](#)," April 2018.



A recent [report](#)³ from the Government Accountability Office (GAO) analyzing the CRDC also found that public high schools with more students in poverty and smaller schools provide fewer academic offerings to prepare for college. While many colleges expect applicants to complete three or four credits of math, smaller high schools and high schools with higher levels of Hispanic and Asian students and higher poverty schools were both associated with lower odds of offering core math courses. The GAO also found that many colleges also expect three or four credits of science, yet higher poverty high schools; high schools with higher levels of Black, Hispanic or American Indian/Alaskan Native students; and smaller high schools were all associated with lower odds of offering core science courses.⁴

Mind the Gap

States are limited in their knowledge of what courses students are currently able to access and what gaps need to be addressed. Through the Civil Rights Data Collection (CRDC), the U.S. Department of Education examines student access to college and career preparation courses. However, there is no similar analysis done in states to identify access gaps by locale, what the highest need courses in the state are or what courses are the highest value for student access. Core course data from the CRDC is a starting point for states to analyze where gaps exist in their education systems. And note that the data collected by the U.S. Department of Education may not reflect the full breadth of course types—such as career pathways, computer science or even Advanced Placement—that the state is interested in encouraging students to pursue.

Strong data collection and reporting can help states make informed decisions on what types of courses to include in their program and where those courses would have the greatest impact. States should examine how they are actively collecting, reporting and maintaining information on course availability to ensure that all students in the state have equal opportunity to the courses they need to be ready for college or career.

A Solution: A State-Level Course Access Policy

State policy can address these opportunity gaps and help ensure that all students are able to access the courses that they need to be successful in college or career. However, it is not as simple as requiring that every district offer all these courses to their students in every school.

The Prohibitive Cost of Traditional, In-School Courses

Districts face real challenges recruiting qualified teachers and paying for the higher expense of offering additional courses to small numbers of students. A state can consider paying districts the additional funding needed for each district to hire extra teachers. However, the costs for doing so may be prohibitive.

To illustrate, Missouri has 555 regular secondary schools.⁵ Like many states, Missouri may have difficulties recruiting and retaining qualified teachers for advanced courses such as Physics and so may not be able to offer all courses in all schools, especially for higher-level courses. To pay for a Physics teacher at each of the 555 secondary schools would cost the state \$28.7 million.⁶ Assuming three students take Physics at each school, that amounts to \$17,240 per student. This is just for Physics. The cost of equal access for *all* courses in Missouri would total many times these figures.

³ United States Government Accountability Office, "[K-12 Education: Public High Schools with More Students in Poverty and Smaller Schools Provide Fewer Academic Offerings to Prepare for College](#)," October 2018.

⁴ GAO used regression analysis to examine the odds of offering core math (Algebra I, Geometry and Algebra II) and science courses (Biology, Chemistry and Physics).

⁵ U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "[Public Elementary/Secondary School Universe Survey](#)," 2015-16.

⁶ The annual median wage for Missouri secondary school teachers is [\\$51,720](#). This assumes schools could recruit Physics teachers at this salary.



A much more practical and affordable alternative is to have districts share teachers through a [course access policy](#). **Course access is a state-level policy that provides students with expanded course offerings across learning environments from diverse, accountable providers, both public and private.**⁷

With course access, students can select from a broad range of courses in a variety of relevant content areas and delivery formats (online, face-to-face or blended). Through course access, states have created a marketplace of providers that can offer critical courses to all students statewide. States review the providers to ensure quality control and negotiate the price to make course fees reasonable. By closing the gap in traditional school course offerings with options from partnering providers, course access programs can dramatically increase the learning and future earning opportunities available to students.

In the Missouri example above, the state can both scale resources that already exist and add new opportunities through outside providers. A district in Missouri may already have both the infrastructure to offer courses online within the district and a qualified Physics instructor. Through course access, districts in Missouri would then be able to scale those courses statewide to ensure equal access to students across the state from multiple, high-quality providers.

THE NEED FOR A COURSE ACCESS OPPORTUNITY INCENTIVE

Unfortunately, even in states with strong course access policies, students are not still not taking advantage of these courses in high numbers. The most challenging barrier to student engagement is the perception by school and district leaders that course access results in a fiscal loss for their programs.

The Problem: School Districts Are Disincentivized to Participate in Course Access Programs

Rather than funding being provided directly to the school district for course offerings, funds may be diverted (either through the district or from the state) to the provider of the course. This can result in districts not communicating about course access opportunities to students or actively discouraging participation to avoid loss of funds. Despite the opportunity available to students through course access, states have had limited success in reaching the students most impacted by lack of access.

One major reason is that, currently, districts do not have an incentive to participate. As courses access courses are supplemental, districts are still offering services to students for most of the day. In addition to paying a fee to course access providers, districts typically have to provide the space and equipment a student needs to take the course. Districts may also pay for a teacher or another adult to support the student taking the course, which research shows is critical to student success. Courses are supplemental, so the amount of time students spend in school will most likely not change. And districts are still responsible for providing oversight of the students, regardless of whether the district is providing the course.

An Example from Texas

Across Texas, an array of providers offers courses at relatively modest prices in both online or blended formats. Yet, with more than 5 million students in the state, there were only about 7,000 course enrollments through the Texas Virtual School Network (TXVSN) in 2017-18.⁸

The bottom line is that districts are in a better financial position if their students do not participate in course access. This disincentive is a major barrier to students having access to the full array of courses. States must do more than create a course access policy. They must ensure that districts have an incentive for their students to participate.

⁷ For more information on gaps in access to college and career courses, see ExcelinEd's "[College and Career Pathways: Equity and Access](#)."

⁸ Texas Education Agency, Texas Virtual School Network, "[TxVSN Enrollments by Semester](#)." 2017-18 is defined as Fall, Spring and Summer 2017-18.



Existing Funding Strategies to Address Districts' Disincentive

One strategy some states use to address this disincentive is to pay providers directly so that districts do not have to pay a course fee.⁹ This strategy is not available to all states, however, and has some disadvantages. For one, it requires a separate line item in the state budget, which must be defended each year and is vulnerable to cuts during difficult fiscal times. It also caps student participation each year, at whatever amount was put in the budget, even if many more students want to take the courses. Finally, and most importantly, paying separately for course fees still leaves the districts with all the other costs of supporting students in course access: space, equipment, a supporting adult and custodial care for the full school day.

The Solution: A Course Access Opportunity Incentive

To ensure equal opportunity for all students, a better approach for a state is to incorporate into its regular school funding formula an additional funding amount to districts for each course one of their students takes through course access. This additional funding will cover a portion of both the fees to providers and other district costs for participation. It also creates an incentive for districts to encourage student participation in course access. As part of the formula, this Course Access Opportunity Incentive will not become a standalone target for cuts, and it can grow as more students participate.

Comparison of Two Strategies to Support Course Access

The following chart shows the pros and cons of two different ways states can use to create a financial incentive for districts to let their students take courses through course access.

State Pays Fees to Course Providers	Course Access Opportunity Incentive
✓ Easier for course providers to collect fees	✓ Automatically in state budget each year
✗ Requires line item in state budget each year	✓ Student participation can grow during the year
✗ Law may bar state payments to non-districts	✓ Can cover all district costs
✗ Student participation capped each year	
✗ Districts still face other costs	

How the Course Access Opportunity Incentive Works

The best way to understand how the Opportunity Incentive can work is through an illustration. For this, consider an imaginary state that, through its normal education funding formula, provides each district or school with a base amount of \$7,200 per student. To provide a Course Access Opportunity Incentive, the state can provide an additional amount for each course a student takes through course access. In establishing this additional amount, there are two major options: 1) a funding “weight” or 2) a flat funding amount for each course.

⁹ One side benefit of this arrangement is that it can be easier for course providers to collect fees through the state rather than from multiple districts.



Funding Weight or Flat Funding Amount Per Course

A funding weight is a multiplier of the base funding that provides additional dollars for identified priorities or purposes. The weight value illustrated in this brief is one example of how a state could provide the Course Access Opportunity Incentive. States would need to estimate the amount of funding that would best incentivize districts under their individual environments. At \$7,200 per student, the base equals \$600 for each of 12 semester-long courses in a student’s full course load. For example, a weight of 1.5, or 50 percent above base, would provide \$300 extra per course for a district to pay the course provider as well as cover the other costs of supporting the student.

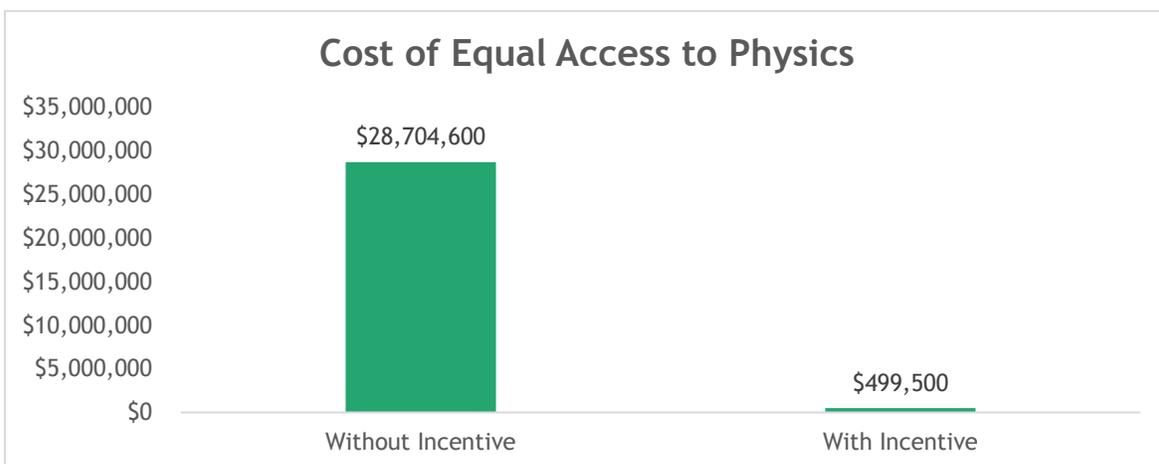
There are some advantages of the weight approach. Most state funding formulas include other weights (e.g., for students with disabilities or for students who take career and technical education courses). So, a course access weight will fit right in. Also, the state does not have to make separate adjustments to the weight for inflation. By adjusting the base funding, the same weight will automatically produce a higher amount.

In lieu of a weight, states can set a flat funding amount for each course a district’s students take through course access—for instance, \$300 for each course. One benefit of this approach is that it works in states that do not fund districts through base funding or weights. It is also more intuitive and can more naturally adjust based on how much districts are having to pay course providers.

Regardless of whether a state opts for a weight or flat funding amount, the Course Access Opportunity Incentive is incorporated by the state each year, as with any other part of the funding formula, into the budget. The additional funding provides an incentive for districts to participate in course access and does not limit student participation each year. It is up to the state to decide the additional funding amount for either weighted funding or flat funding amounts per course, balancing underfunding (thereby negating the incentive) with overfunding (potentially incentivizing abuse) based on the state’s circumstances.

Cost of the Course Access Opportunity Incentive

The Course Access Opportunity Incentive is by far the more affordable approach to ensuring equal opportunity to students. In the earlier illustration regarding Physics courses in Missouri, the state would provide an incentive of \$300 for 1,665 students (three students at each of the 555 secondary schools), or \$499,500, in comparison to \$28.7 million for Physics teachers at each school. That is a reduction of 98 percent, as shown in the chart below.





Additional Financial Benefits to the State

As more students take the courses needed for postsecondary education, these students will likely end up in higher-wage jobs, which will produce greater tax revenue for the state. As more high school students take courses that are eligible for college credit, the state will see reduced expenses in higher education. Thus, the actual cost of the Course Access Opportunity Incentive is lower, and the return on investment even higher.

Can the Incentive Work in States That Do Not Use Funding Weights?

Tennessee is implementing a course access policy for the first time. As state leaders look to grow this program statewide, they could approach district perceptions about funding losses by incentivizing funding throughout the existing funding formula. A small number of states, including Tennessee, do not use base funding with weights but instead fund various components needed to operate a district. These “resource allocation” states can still create a Course Access Opportunity Incentive by adjusting these components so districts receive more funding when their students participate in course access. The following illustrates how Tennessee could provide a similar \$300 incentive to districts for course access courses. Below, ExcelinEd used an example of ten students per teacher for a Course Access Opportunity Incentive illustration to show how course access can be used for low-demand, high-need courses.¹⁰ Districts could receive \$670 for each course a student takes through course access, which is \$301 higher than the \$369 for a regular course.

Illustration: Course Access Opportunity Incentive in Tennessee

Component	Tennessee Basic Education Program Components for a Regular Course ¹¹	Per-course calculation based on the Tennessee Basic Education Program Components	Illustrative components for an Incentive ¹²	Per-course calculation based on illustrative components for an Incentive
Teachers ¹³	22 students per teacher	\$178	10 students per teacher	\$393
Classroom Materials	\$81 per student	\$7	\$202 per student	\$17 [±]
Instructional Equipment	\$64 per student	\$5	\$161 per student	\$13 [±]
Classroom Travel	\$15 per student	\$1	\$36 per student	\$3 [±]
Teacher Benefits	15.4% of salaries	\$27	15.4% of salaries	\$61
Teacher Insurance	\$7,040 per teacher	\$27	\$7,040 per teacher	\$59
Other Components		\$124		\$124
Per Course		\$369		\$670

[±] Assumes a 2.5 times weight for the Course Access Opportunity Incentive.

Course Access Opportunity Incentive is possible in a resource allocation state. However, it is more complicated and focuses on the cost of inputs, as opposed to opportunity and outcomes. These states could consider student-centered funding, where all students receive base funding with weights for students with special needs or disadvantages.¹⁴

¹⁰ See page 7 on “Differentiation of Course Access Opportunity Amounts.”

¹¹ Tennessee State Board of Education, 2018-19 BEP Blue Book, “[Tennessee Basic Education Program - BEP.](#)”

¹² Components are used as an example of how districts in Tennessee could receive a similar \$300 incentive, as illustrated throughout the brief.

¹³ Based on the current salary unity for instructional personnel of \$47,150 divided by number of students per teacher divided by 12 courses.

¹⁴ For steps states can take to increase the proportion of education funding that is student-centered, see ExcelinEd’s [Student-Centered State Funding: A How-to Guide for State Policymakers](#), 2017.



Differentiation of Course Access Opportunity Amounts

Additional adjustments can be made to the incentive based on state priorities or fiscal realities. For instance, a state can differentiate the Course Access Opportunity Incentive to reflect the variation in course fees and district responsibility for types of courses. For example, an Advanced Placement course may cost more to provide; as a result, the fee paid to the course provider will be higher. The state can adjust the incentive upwards, so that it covers the higher fee. For a course with a laboratory component, the student's district may have to spend on space and equipment. Again, the state can provide a higher incentive to cover the greater district expense.

Example: Differentiated Concept for a State Using a Flat-Funding Approach

There are higher-cost courses at \$400 and lower-cost offerings at \$250. For courses requiring more extensive district responsibility, there is an extra 30 percent incentive; for other courses, it is 10 percent extra. Thus, for a higher-cost course with a higher district role, the incentive provides an additional \$520. For a lower-cost course with a lower district role, the incentive is \$275.

	District Role	
	Higher (+30%)	Lower (+10%)
Higher-Cost Course (\$400)	\$520	\$440
Lower-Cost Course (\$250)	\$325	\$275

Differentiation for Certain Districts, Specific Courses or State-Prioritized Outcomes

The Course Access Opportunity Incentive is most needed in districts and schools where students are currently unable to access courses needed for college and career readiness. These course access deserts can be in rural or remote districts, small schools, high-poverty schools and high-minority schools. However, states can include any districts or schools where students do not have access to critical courses. One option is for a state to confine the incentive to certain districts or schools. Another option is to make the incentive higher in some types of districts or schools than in others.

Similarly, the Course Access Opportunity Incentive can be adjusted to reflect state-prioritized outcomes. For instance, a state may choose to provide a higher incentive for courses that are required for college admission, eligible for college credit or associated with higher-wage, higher-demand careers in that state.

The chart below illustrates how a state can differentiate the incentive by type of district or school and course, using a weighted approach. For higher-value courses taken by students in rural or remote districts or small schools, the incentive is 1.5 and provides an extra \$300 per course. For lower-value courses taken in those schools, the incentive is 1.4, or \$240. The incentive is also 1.4 for lower-value courses taken by students in other course access deserts. Finally, the incentive is 1.2, or \$120 extra, for lower-value courses in these other districts and schools.

Regular Course = 1.00 (\$600)	Rural/Remote Districts & Small Schools	Other Course Access Deserts
Higher-Value Course	1.5 (+\$300)	1.4 (+\$240)
Lower-Value Course	1.4 (+\$240)	1.2 (+\$120)



Opportunity Incentive for Rural v. Non-Rural Districts

Snook Independent School District is in rural Texas, with less than 500 students. Base, or Tier 1, funding for the district is \$7,088 per student. If the state provides a Course Access Opportunity Incentive of 1.5, Snook Independent School District (ISD) would receive an additional \$295 for each course one of its students takes through course access. The district would also receive \$42 extra in a separate stream of state funding, called Tier 2, for a total of \$337 per course. Alternatively, the state could provide a flat amount of \$337 for the course. Through course access, Snook ISD students can take Advanced Placement Calculus AB, offered by Mansfield Independent School District, which charges \$350. The incentive covers nearly all the course provider fee, creating an incentive for Snook ISD to have their students take the course.

In Texas, rural and remote districts receive higher base funding, called an adjusted allotment, such that the Course Access Opportunity Incentive will provide more funding in these districts. As illustrated below, an incentive of 1.5 would provide \$337 in Snook ISD; whereas, it would provide \$271 in San Antonio ISD, a non-rural district.

Illustration: Course Access Opportunity Incentive in Texas

Independent School District	Snook	San Antonio
Base Funding (Adjusted Allotment)	\$7,088	\$5,651
Opportunity Incentive (=1.5)		
Tier I Funding	\$295	\$235
Tier II Funding	+ \$42	+ \$36
Total Incentive	\$337	\$271

Ensuring Return on Investment

It is important to ensure that states receive a return on the investment provided through the Course Access Opportunity Incentive and also prevent any misuse of the incentive. For example, the incentive might be misused if a district enrolls many students in course access courses and receives the incentive funding, but then most or all the students drop the course or fail to complete it.

One way to avoid this scenario is to make some of the incentive funding contingent on the student successfully completing the course. Some courses also have third-party assessments, such as Advanced Placement and International Baccalaureate courses and courses with industry certifications. Thus, a part of the incentive could depend on students passing these assessments.

However, it is important to consider the implications of discriminating against course access courses. If funding for a course access course is contingent upon successful completion, but funding for another course is not, then districts may feel that the financially prudent action is to discourage their students from participating in course access courses. That defeats the purpose of the incentive. States can consider a variety of other strategies to prevent misuse or abuse. For example, districts with a pattern of students not completing courses can be put under a corrective action plan.



Developing a Course Access Opportunity Incentive

Below are specific steps by which a state can design and implement a Course Access Opportunity Incentive:

1. **Identify the gaps in access to courses across the state.** Identify the schools and districts with the highest need and determine which courses are high- and low-value.
2. **Estimate an amount of funding that will incentivize districts to participate in course access.** On average, it should cover the fees districts will pay course providers as well as other costs districts incur for student participation, including space, equipment, adult support and custodial care.
3. **Establish the figure determined in the second step as a flat per-course incentive** or convert it into a weight (i.e., a multiplier of base funding that produces the figure).
4. **Determine whether and how to adjust the incentive for district or school type** (e.g., higher for rural or isolated districts and small schools than for other schools where there is not a course access desert).
5. **Determine whether and how to adjust the incentive for certain courses.** This can reflect, for example, the higher cost of providing certain courses, the extent of a district’s role in supporting a student in a course and/or the value of the course for college and career readiness.
6. **Identify policies to prevent misuse of the incentive.** This can include requiring corrective action if a high percentage of students does not complete and succeed in the courses. If a portion of the incentive is contingent on student performance, it is important to ensure that districts still have an incentive to participate.
7. **Incorporate the incentive into other policies that encourage all districts to offer the full array of courses to all students.** This includes a mandate that districts offer all courses needed for college and career readiness.

ADDITIONAL TOOLS FOR STATES

The Course Access Opportunity Incentive is one of several tools that can help states ensure that districts offer a full array of courses to their students. Four additional tools and strategies for expanding access to rigorous coursework are described below. These can and should be used in conjunction with the incentive to maximize its reach and effectiveness for schools and students.

Tools and Strategies for Expanding Access to Rigorous Courses	
✓	Affordable Course Fees: The state negotiates with course providers on behalf of districts to secure a reasonable fee. The lower the fee, the less the financial disincentive for district participation.
✓	High-Quality Courses: The state reviews course providers and courses to ensure the quality of courses offered through course access. This means that districts can have confidence that their students are receiving high-quality instruction.
✓	Mandated Course Offerings: The state requires that every district offer to each student all courses needed for college and course readiness. Districts can meet this requirement through course access.
✓	Course Gap Analysis: The state identifies what courses students are able to access and what gaps need to be addressed. State can determine where the largest gaps exist and assign high versus low values.



In establishing this set of tools, states need to create a balance. If a state mandates that all districts offer various courses, but without providing the incentive, districts are more likely to see it as an onerous requirement rather than an opportunity to increase students' readiness for college and career.

For example, a rural or remote district may want to establish a cybersecurity pathway for its students. However, the relevant courses and instruction may be unaffordable given the number of students and the difficulty of recruiting a qualified instructor. With the Course Access Opportunity Incentive, the district can both provide access to the cybersecurity courses *and* support students within the pathway—without adversely affecting its existing core course offerings.

CONCLUSION

Across the nation, millions of students attend high schools that do not offer a full range of math and science courses. All states in the nation need to do more to provide equal access to coursework and pathways opportunities for their students, which will lead to a better educated and prepared workforce. Funding course access through a Course Access Opportunity Incentive is one way to advance every student's potential by creating an incentive for districts to encourage student participation. ExcelinEd stands ready to work with states across the country to achieve expanded access and better preparation for students in their pursuit of college and career.