

Chapter 2: Understanding the Move Toward End-of-Course Exams

Introduction

In the 2007 CEP report on state high school exit exams, we noted an increase in the number of states with mandatory exit exams that had begun adopting end-of-course exams (EOCs). EOC tests assess mastery of specific high school courses, are usually standards-based, and are taken after the completion of a specific course. These differ from other exams, which tend to be larger, comprehensive exams taken in a specific grade (typically 10th) and cover material taught throughout several grades. To better understand this trend, we further investigated the reasons some states are moving toward end-of-course exams. This chapter presents findings from our study involving some of the states that we have been tracking in this trend.

In particular, we examined the movement toward the adoption of end-of-course exams by asking state education officials and school district administrators to discuss (1) reasons why their states have adopted end-of-course exams; (2) plans for how states will use end-of-course exams; (3) responses to the adoption of the exams; and (4) benefits and challenges associated with the adoption of these exams. We also asked national education experts similar questions regarding the trend to adopt end-of-course exams. This chapter presents the perspectives of these stakeholders about the movement toward end-of-course exams. The lessons learned from this study hold relevance for a number of states that may be considering or have already adopted EOCs.

Key Findings

- > State education officials reported many reasons for adopting end-of-course exams. Representatives from all six states that participated in our interviews reported that they are doing so to improve overall accountability, increase academic rigor, and achieve alignment between state standards and curriculum.
- ➤ While all state education officials interviewed reported using end-of-course exams as a tool for ensuring greater accountability, only a few are beginning to consider how to use the assessment as a measure of college and work readiness.
- ➤ Stakeholders highlighted many different ways that data from end-of-course exams can be used. Some interviewees reported that end-of-course exam data, when compared to other test data available, allows for better assessment of content mastery. District administrators spoke about the opportunity of using end-of-course exam data to inform classroom instruction as well as identify areas of professional development for teachers.
- End-of-course exams have been generally supported by legislators, the business community, parents, and teachers, according to interviewees. Most questions and concerns about end-of-course exams have cen-

tered on the implementation timeline for the exams and the impact that the exams would have on graduation requirements.

- > States face logistical challenges associated with implementing end-of-course exams, such as managing tight timelines required to develop multiple exams or figuring out how to get exam results back to school districts quickly. Other challenges reported include developing remediation for students who do not pass the exams and addressing concerns about the length and frequency of testing.
- > Study participants recommend that states considering adopting end-of-course exams phase in the exam over time. Interviewees also cited the importance of consulting with teachers and other education stakeholders in states that have undergone the process of adopting end-of-course exams. In addition, many interviewees stressed the importance of reviewing state academic standards to ensure that they are rigorous and well-defined before implementing end-of-course exams.

Participating States

Table 5 summarizes the six states (Massachusetts, Mississippi, New Jersey, South Carolina, Tennessee, and Texas) that participated in this study with regard to their stage in implementing end-of-course exams, the subjects being assessed in these states, and how the exams are factored into their overall assessment program.

Reasons for Adopting End-of-Course Exams

Improving Accountability

All of the stakeholders interviewed reported that the goal of adopting end-of-course exams to replace other types of assessments was linked to improving accountability. As one district administrator explained, "Accountability is what it comes down to. When you have a general test of content that's not specifically tied to something in the high school, then no one, from the principal on up, knows what to do when students aren't passing." Accountability was described in tandem with student performance and classroom instruction. A few state education officials described the adoption of end-of-course exams as a response to legislative mandates that are linked to improved accountability.

The link between accountability and student performance was mentioned by nearly all of the stakeholders we interviewed as a benefit of moving to end-of-course exams. Unlike minimum competency or comprehensive exams, EOCs offer the benefit of assessing students' understanding of academic content immediately upon completion of the course. According to a state education official:

There was a desire on the part of the legislature to move away from a single, high-stakes, exit-level test. And the promise of end-of-course exams would be that we can drill down deeper into the material. Obviously it's better instructionally to assess a student right after they've taken the course and still have the material fresh in mind. I think we heard complaints about the students not taking algebra for several years, and it being assessed on an exit-level test.

One district administrator referenced the benefit of end-of-course exams as a means of improving teacher accountability and creating opportunities for improving instruction:

33

With the close alignment to courses, we really start to get some information about what's going on in that course, and if used properly, that empowers teachers. That gives them a greater sense of what is going on in their class-room. The discussion between or among administrators, deans, consultants, and the teacher becomes more focused on how to help each other, rather than on a, "How come you are not doing better?" kind of discussion.

Another district administrator commenting on the use of end-of-course exams, teacher accountability, and instruction noted:

How we teach is getting to be very scientific and if we use it properly, it's not a scare tactic for getting rid of teachers. It's an improvement system that really says, 'here is how we do our craft, and here is how it's impacted and here's what the different kinds of kids do on these things.' And that, I think, will help us understand more about learning.

Table 5

Summary of the Status of Participating States that are Moving Toward End-of-Course Exams

States that Have Completely Shifted to End-of-Course Exams

Mississippi: End-of-course exams have been administered since 2000-01. They were phased in as a graduation requirement, eventually replacing the minimum-competency exam. End-of-course graduation requirements followed this schedule: 2003, U.S. history; 2004, U.S. history and English II (with a writing component); 2005, U.S. history, English II (with a writing component), and Biology I; 2006, U.S. history, English II (with a writing component), Biology I, and Algebra I.

Tennessee: End-of-course exams have been administered since 2001-02. Beginning with students graduating in the class of 2013, there will be end-of-course exams in 10 subject areas (English I, English II, English III, Algebra I, geometry, Algebra II, Biology I, chemistry, physics, and U.S. history). At that time the tests will account for 25% of the grade for each course.

States that Will Have a Dual Testing System (Comprehensive Standards-based and End-of-Course Exams)

Massachusetts: End-of-course exams will become a graduation requirement for students graduating in the class of 2010. These students will be required to pass a science end-of-course exam in one of four science content areas (biology, chemistry, introductory physics, and technology/engineering). The four science exams have already been developed. Students graduating in the class of 2012 will also be required to pass a U.S. history end-of-course exam. Pilot testing for the U.S. history test took place in May 2007 and May 2008. Science and history testing requirements will be in addition to the 10th grade English language arts and mathematics Massachusetts Comprehensive Assessment System (MCAS) exams.

South Carolina: Beginning with the graduating class of 2010, students will be required to pass a high school credit course in science in which an end-of-course examination is administered. The proposed science test will be biology. Items for this end-of-course test will be field-tested in spring of 2008 and 2009. The exam will count as 20% of the final grade in the course. This requirement will be in addition to the already existing High School Assessment Program (HSAP), which assesses English language arts and mathematics.

States in the Process of Shifting to End-of-Course Exams

New Jersey: The state is planning to adopt end-of-course exams as a graduation requirement starting with students graduating in the class of 2012. A pilot end-of-course exam was given in May 2008 in biology and Algebra II. Students currently take the High School Proficiency Assessment (HSPA), a comprehensive standards-based test.

Texas: End-of-course exams have recently been adopted. They will replace the Texas Assessment of Knowledge and Skill (TAKS) starting with students entering of grade in 2011-12. Twelve end-of-course exams (English II, English III, English III; Algebra I, geometry, Algebra II, Biology I, chemistry, physics, U.S. history, world history, and world geography) are expected to be developed to cover four core subject areas. Students will be required to take three end-of-course assessments in each of the four core subjects. A minimum average score will be required for passing each test. The tests will be averaged into course grades and will account for 15% of the grade for each course.

Increasing Rigor in Curriculum

Another reason for adopting end-of-course exams cited by interviewees was the connection between EOCs and rigor. One national education expert agreed and said, "One reason for wanting to use end-of-course tests is to ratchet up the content that kids are expected to master." All of the district administrators and state education officials we interviewed discussed the potential that end-of-course exams might have on improving the rigor of course content. Again, this was referenced in contrast to general, comprehensive exams. One state education official noted:

We think that the end-of-course tests are a better way of assessing the content knowledge that we expect students to know based on our core curriculum content standards. We also feel that end-of-course tests will drive improvements in the content areas that are taught. We know that some courses called Algebra I, geometry, are very basic, low level. If we test in Algebra I, and the other courses, if we show how the assessment will be aligned to the standards and we give a course description, we think that that will drive up the rigor of the content that's being taught.

In describing the desire to improve rigor, a few interviewees mentioned the importance of articulating a K-12 curriculum. As one district administrator noted, "Looking at end-of-course assessments and moving to rigorous graduation requirements, we have to ask, 'What does the middle school education have to look like to ensure that students have the most opportunity for success at the high school level, when more is expected?"

Aligning Curriculum to Academic Standards

The process of reviewing local curriculum in preparation for the implementation of end-of-course exams was described by most participants as a necessary step for improving alignment between the local curriculum, instruction, and state standards. For most interviewees, the alignment process was a distinguishing feature of the end-of-course test compared to other types of assessments. As one education expert said, "The end-of-course test basically provides the right kind of alignment between standard tests and curriculum in ways that other forms of high school testing don't." One district administrator said she realized the need for curriculum mapping, which involves knowing the state standards and aligning the curriculum with those standards. "Once you have your alignment," she said, "and you've got your curriculum in front of you, and you kind of know where your roadmap is leading you . . . you can actually focus on how to best teach this to the children."

A district administrator agreed that end-of-course exams ensure that teachers cover the curriculum and create consistency between subject area teachers:

Well, I support the EOCs and I'm glad were doing it. As a former principal, one of the things that I tried to make sure we were doing was covering the same material in algebra classes, because that wasn't always the case. When we have a set of standards, you find, in many cases, that teachers have specific areas within their content where they love to focus. Well, with the EOCs, we have to make sure that we're covering the material that needs to be covered, as outlined in those standards. So it's created that consistency, I think, from class to class, and that's something that I've really appreciated with these exams.

Another state education official talked about how EOCs create consistency and alignment in curriculum and instruction from the primary grades through the secondary grades. "We talk to our districts about letting the subject area teacher talk to the elementary and middle grade teachers, because there has got to be a continuum."

Use of End-of-Course Exams

While all state education officials we interviewed reported that end-of-course exams are used as a graduation requirement, only a few noted the potential of these exams to help prepare students for the world of work or college. One of the hopes expressed by some stakeholders is that end-of-course exams will improve the validity and rigor of courses in ways that will help reduce the need for remediation in postsecondary institutions and to better prepare students for the workforce. As one expert explained, "...these tests have the potential for being used by postsecondary systems in ways that high school tests of any kind have never been used before." While all stakeholders acknowledged the potential benefit of linking postsecondary institutions and employment readiness to the results of the end-of-course exams, few have made substantial progress in establishing these links.

College Readiness and Placement

One state developing linkages between end-of-course exams and postsecondary institutions for the purpose of college placement is Texas. Texas is also part of a college readiness movement that links assessment to student preparation for postsecondary coursework. Texas recently adopted the College Readiness Standards (CRS) in English/language arts, social sciences, mathematics, and science. According to education officials, once these standards are fully implemented, they will better align public and higher education curriculum, allowing students to easily transition between high school and college and the workforce. Further, state education officials report that a separate section of their end-of-course exams will be devoted to questions that assess college readiness. The college readiness component will not count toward the graduation requirement. One state education official in Texas who described the college readiness component said, "It's sort of on top of the graduation requirement. I do think that it will have an effect on instruction and make instruction a little bit more rigorous so that more kids have the capacity to meet that college readiness measure."

A few stakeholders from other states expressed interest in developing dialogue with postsecondary institutions to discuss the use of end-of-course assessment data for the purposes of college readiness and college placement. Most comments focused on the potential use for the exams rather than on current practices, as one district administrator noted:

To me, [end-of-course exams] give us better ground to have better discussions with colleges about college readiness. Right now, college readiness is basically accusatory and based on vague standards. [These exams] give us some real, good, solid data. If they didn't do well, how did they do on the algebra end-of-course exam, and can we change those to make them to be more in line with college readiness standards. So I think there are some really interesting benefits coming along.

Another district administrator added:

I also think that there is a place for a generic writing test and a generic college preparatory, college readinesstype test. We hear from a lot of colleges and universities that the high school students are not coming out prepared to write well enough to be in a four-year comprehensive college, and they don't process information at a college level yet.

While Texas has made progress in the use of end-of-course exams as an indicator for college readiness and college placement decisions, the other states in this study report they are still exploring this issue and were vague in their responses about specific future plans. One expert noted the role that improved rigor might play in generating more interest in the use of end-of-course exams as a college readiness and college placement benchmark:

Here is another test in which some kids did better than others, and if you want to figure out who you should let into your college, you probably should take the kids who did better rather than the kids who did worse. That's about all you get out of that and that does not add any information to what they already have, so they don't use it, but if you peg the test at a rigorous enough level, then you can get them to pay attention to it. At least that's what we are aiming for.

Employment Readiness

Most study participants did not directly link EOCs with employment readiness, which is similar to our findings about employment readiness and exit exams in general. Only a few interviewees talked about employment readiness, and in these instances, they spoke about the potential use for the exams rather than their current use. One district administrator, contemplating the potential that end-of-course exams might have for employment purposes, noted:

As we evolve as a country and we lose some of the manufacturing jobs, there may be some job opportunities where you would have to demonstrate proficiency in mechanical drawing or architectural drawing or some level of chemistry without needing a full college diploma. I almost think that they would look towards associate degrees and community colleges and not the high school level but, we may evolve to where it counts more.

Another district administrator noted that if employers were made aware of end-of-course exams, they might consider them when considering job applicants.

Use of Data Generated from End-of-Course Exams

Almost all of the district administrators and state education officials agreed that data generated from end-of-course exams offers information that other exams, such as comprehensive exams, do not. Stakeholders talked about how end-of-course exams allow for a more in-depth assessment of how well students have mastered course content and how the data might be used for interventions. One state education official commenting on the ability of end-of-course exams to provide more in-depth information noted, "We'll be able to delve deeper into the subject matter rather than having just a few questions scattered through an exit-level test."

Interviewees also described some of the ways that end-of-course exam data could be used to target areas for improved instruction and professional development for teachers. A state education official commenting on the link between end-of-course data and teacher accountability noted:

The nature of end-of-course testing is such that it connects more directly, more immediately to an instructional period and by extension an instructor or set of instructors with a more fully demarcated content area. It's certainly not the intention of the state to use end-of-course testing as a way to evaluate teachers, but there's no getting around the fact that it will give an individual high school a more direct handle on how well its biology teachers are teaching biology or its geometry teachers are teaching geometry.

A district administrator describing the data generated by the end-of-course exam and the usefulness of the data said:

With the end-of-course exams we get back different reports. The data will show which items the students had trouble with, and then the teacher can take that information and prepare lessons more effectively. It gives us data on our school as a whole . . . how our school compares with other school districts in the state that take those same end-of-course exams. It's really a tool that we can use with classroom teachers to prepare for teaching more effectively.

Another district administrator, reflecting on the potential use of end-of-course exam data, said the data will help show how students are learning, and provides an "interesting microscope . . . into how teachers are doing. This hopefully will be used for very effective in-staff development and in-service for our teachers, rather than as an evaluation tool."

Overall Positive Response to End-of-Course Exams

Most interviewees reported that stakeholders such as legislators, business leaders, parents, and teachers supported the adoption of end-of-course exams, with few exceptions. A state education official in Tennessee described the support base in his state:

We've seen a real push in our curriculum and instruction that has some kind of grass roots component. It's coming from the community, from businesses, and from other leaders who see the economic advantages to having a very skilled work force. These are the same advantages associated with having a very educated population of people who live in the state, and so they want them to be college and work ready. They wanted higher levels of instruction. They wanted students to not only know but to be able to apply the information that they've learned.

Support from Education Stakeholders

The idea of overall support for improvement and changes offered by end-of-course exams was the prevailing sentiment for all of the stakeholders who participated in this study. Some participants also noted that the cost of adopting and implementing end-of-course exams was seen as a benefit by some education stakeholders, especially state legislators. For example, one state education official reported, "The legislators are pretty well pleased because they are always looking at the cost of things, and this is one of our cheaper programs. The tests are total multiple-choice, and 30% of the end-of-course exams are delivered online." However, education experts were unsure whether or not EOCs were really going to be less costly, given the number of tests that may ultimately be developed in a state.

Support from Teachers and Parents

According to most district administrators and state education officials interviewed in this study, teachers and parents are generally supportive of the end-of-course exams. However, given the limitations of the study, we were unable to interview teachers or parents to corroborate this finding. Thus in the following sections, we present only what state and district administrators told us about how EOCs were received by teachers and parents.

Teachers

Teachers in one state were reported to have been primarily interested in getting practical information about the test. For example, teachers wanted to know when the exam would become a graduation requirement, details about the availability of practice tests, the length of the test, and questions and other concerns that one district administrator described as "teacher questions." According to other stakeholders, a key factor in garnering teacher support for end-of-course exams was involving teachers in the adoption process. As one district administrator noted, "We make sure we have teachers at the table, administrators, counselors—all of those people who are going to be impacted sitting at the table."

A state education official summarized a number of questions that teachers had regarding end-of-course exams. Some questions appeared to be similar to questions stakeholders have for exit exams in general. For example, one state education official reported that teachers wanted to know whether the exam would count for graduation the first time it was administered, and what alternative assessments would look like, and how

they could help prepare students. But other questions seemed more specific to EOCs, such as wanting to know whether districts with block scheduling would have the end-of-course testing at the end of the course (some block schedule courses are semester-based, with some students taking the test in winter and some in fall); or whether the state would provide a course description that would define the standards in life sciences.

Parents

Interviewees reported that parents were for the most part supportive of end-of-course exams. Most stakeholders talked about the importance of providing timely information to help parents understand the implementation process. Some district administrators identified concerns that parents have about end-of-course exams. These concerns are usually very specific to their own child's performance on EOCs. For example, some parents are critical of the end-of-course exams when their child is not able to pass the exam. This situation is critical when students pass the course but not the exam. Another district administrator noted, "Sometimes there is frustration about whether students really have to know this in order to graduate."

Challenges Associated with the Use of End-of-Course Exams

The major challenges mentioned during this study involved the logistics associated with developing and implementing end-of-course exams, usually under a tight timeline. A few interviewees also highlighted the difficulty associated with managing the review and revision of academic content standards while at the same time trying to maintain a schedule for piloting the exam or introducing new test items. While these concerns were highlighted in connection with EOCs, they seemed to be concerns of state testing in general. One education expert summarized some of these challenges associated with end-of-course exams as follows:

If you think that end-of-course exams are a good idea in principle but you want to make sure that you also have good exams, then there's a set of issues that are both test construction and implementation issues. It's how do we make sure that we can have a test that you get the results back quickly and has a strong performance component to it, whether it's essays, or open-ended items, or whatever. And how do we make that component as robust as possible and still get the scores back on time.

A state education official described the challenge of managing the timing issue:

Timing is critical. A problem that we're experiencing right now is that we are in the process of rewriting our curriculum standards and trying to infuse new college readiness standards into them. So the calendar is somewhat challenging right now because as we field test items and put out the first administration, we might also have to revise the assessments based on changes in curriculum standards as well as the infusion of college readiness standards. I think that if I were doing this over again, I would have the calendars lined up a little better.

Other challenges reported were more specific to end-of-course exams. For example, one school district official noted how some high schools with alternate kinds of scheduling may face distinct challenges with endof-course exams. High schools with block scheduling may end up having students take the end-of-course exam either several months after students finish the course or even three-quarters of the way through a course. One administrator whose district adopted a 4x4 intensive block schedule recommended that endof-course testing not be given at "some arbitrary date" but rather allow for a flexible testing schedule to accommodate schools that do not have traditional schedules.

Providing EOC Results to School Districts in a Timely Manner

A common challenge mentioned by stakeholders was managing the turnaround of the scores for the endof-course tests. One state reported that it addresses this challenge by offering shorter exams that are 100% multiple-choice and can be completed online. Other states administer exams with open-response items where the scores are not made available until the beginning of the following school year. While many acknowledged that multiple-choice exams may address the time issue, other interviewees found this solution problematic. As one state education official noted:

The whole purpose of this is to improve student performance, to evaluate it accurately but to improve performance at the same time, and if we resort to multiple-choice-only tests just for the sake of turning results around quickly, then that defeats the whole purpose. You are turning around results that potentially lack validity or are weak in validity, so what is the point?

Timeliness of results may also impact whether or not EOCs can be used as part of a student's grade or can even replace the school's final exam.

Adopting Multiple EOCs May Increase Frequency of Testing

Other stakeholders raised issues about the challenges associated with the length and frequency of testing. The states included in this study are implementing anywhere from four to twelve end-of-course exams in various subjects. One district administrator commenting on this challenge said, "This is a logistics thing more than an academic thing, but what bothers me with testing is we do too much of it; it's too long, and it disrupts the school day too much."

One state education official added:

A lot of this "testing to death" happens because there's so much test prep and there's over benchmarking. Kids at the local level are doing a lot of testing just to get these measures across the year to determine whether or not kids are going to pass the test. What we really ought to do is make sure that kids are learning the curriculum and that they're developing an understanding of what's actually being taught and of course making sure that the curriculum is a good match and fit for what you are testing them on.

The Challenges of Remediating Students Who Do Not Pass EOCs

A few stakeholders discussed the challenges related to remediation for students who do not pass the end-ofcourse exams and alternative assessments. Many of the states that have only recently adopted end-of-course exams are still working through the details of how remediation will work. Some interviewees stressed that the timing of remediation is crucial, and that remediation should occur shortly after students complete the course. One education expert advised, "You've got to give them enough tutoring and remediation to enable them to pass the test, hopefully sometime in the first semester or the next year, and move forward." A state education official described the problem of remediation and the timing of remediation this way:

We don't know how we're going to deal with it yet. It's something that we've talked a lot about. I mean, how do you remediate a student? I am assuming that some of it is going to be done through individualized computer programs, but if a student passed his geometry class and doesn't pass the geometry end-of-course exam, he is now on to Algebra II but still needs to retake geometry. That's one of the biggest challenges that we're going to have. School districts are going to try to figure out how to run instructional interventions with kids when they're no longer in these classes.

A district administrator provided insight into what the process of remediation at the local level entails:

We have a plan in place for students who are not successful. When they take their end-of-course exams, we provide them with tutoring . . . We even remediate students at risk; those students are referred for tutoring or to an interventionist who is more or less like a tutor. We try to do our part in making our students successful. They can take the test over. Sometimes when they have gotten to their senior year and have not passed an exam, we find that they might drop out. Our district has been fortunate in that we could almost count on one hand those who have gotten to their senior year and have not completed the requirement of state testing. Even after their senior year, if they want to come back and take that exam again, they can.

Recommendations Regarding End-of-Course Exams

As more states adopt end-of-course exams, there will be a growing number of lessons learned regarding managing the challenges that are inherent in adopting these assessments. One education expert recommended that states consider adopting more "out-of-the-box thinking" with regard to how they approach the adoption and implementation of end-of-course exams. For example, this expert suggested that states consider options such as implementing state end-of-course exams in place of local high school final exams to avoid excessive testing and duplication of effort. In order to ensure that the end-of-course exams could be graded in time, they could be divided into sections and taken at different times during the semester and could include both essay and online multiple-choice.

In the following section, we offer lessons learned from state education officials and district administrators who have implemented or are in the process of implementing end-of-course exams. Their recommendations centered primarily on some of the more pragmatic issues associated with adopting end-of-course exams.

Phase in End-of-Course Exams

Both state education officials and district administrators stressed the importance of implementing end-ofcourse exams over time, particularly when the test is to become a high-stakes graduation requirement. One state education official noted:

I think that if we had tried to do everything at once, it would have put an enormous strain on everybody, especially since we were doing multiple subjects. I think that the phasing-in process helps. We gave every test for a period of years before it became a graduation requirement, and there was time for teachers to get familiar with the test and get familiar with what's expected instructionally. Students, even though they weren't necessarily going to have it count as a graduation requirement, had exposure, and that helped us gain information for those students that would be held accountable.

Adopt End-of-Course Exams in Consultation with Stakeholders

All interviewees agreed on the importance of bringing all stakeholders into the implementation process. Teachers were recognized as being integral to the development process, especially to increase buy-in. One state education official recommended:

Try to keep the teachers in the process because when they feel ownership, things go much better. If it feels like things are being thrust upon them without their knowledge or say-so, then there will be more of a fight. But if they see what is happening step-by-step and are part of it, then the majority of them will probably support it.

Review State Content Standards

Many stakeholders addressed the relationship between developing EOCs and state content standards as stressed by one district administrator:

I don't care whatever type of testing, make sure that your content standards are rigorous enough and defined well enough that you can communicate them from the administration all the way down to the classroom teacher, and make sure that that's in place before you go to putting any high-stakes exam out there. I thinkthat's a really important piece and sometimes we forget about [it].

Another district administrator agreed and commented, "I think that the key is having a solid set of standards in place first, making sure that people understand the standards." Stakeholders mentioned the importance of having teachers review standards while developing EOCs and the need for well-defined, rigorous content standards aligned with other instructional supports. One state education official noted:

Use a lot of teacher committees to look at the standards and they should be sure that those standards are agreed upon as much as possible. And continue to use teachers to review items whenever possible. Make sure content standards are rigorous enough, well-defined and aligned with all other instructional supports.

A district administrator, commenting on the process in his state remarked,

We have a good deal of teacher involvement. With our teacher committees we have passage review for English, we have item review across all four [exams] and we have data review across all four [exams] and we have bias review for all content areas.

Prepare Teachers for Implementation of End-of-Course Exams

The idea that teachers should be prepared for the implementation of end-of-course exams through training and professional development was widespread. In part, it was linked to the accountability that falls on teachers who teach in subjects that are tested. As one state education official said:

Something I am talking quite a bit about in anticipation of the next legislative session is what training and professional development are we going to offer teachers prior to the implementation of these new exams to make sure that they're ready in terms of what their instructional practices are in the classroom.

Consult Other States Regarding End-of-Course Exams

Although only a few stakeholders reported that they consulted with other states that had adopted end-ofcourse exams as part of their implementation plan, most advised talking with more experienced states before adopting EOCs. One state education official suggested, "borrow some of the same techniques that were used in other places. That would probably shorten the process some." Many stakeholders also talked about moving toward implementation of end-of-course exams in consultation with testing agencies and in partnership with consortiums.

Conclusions

Interviewees were very optimistic about the potential that end-of-course exams offer to improve accountability and classroom instruction, to serve as a more rigorous measure of student mastery of course material, and to apply to life beyond high school. However, few of the stakeholders in this study were able to cite research linking these potential outcomes with the use of end-of-course exams. Many states appear to be moving more toward end-of-course exams (and away from comprehensive exams) because they seem to make more sense in terms of alignment with existing high school curriculum.

It is also too early to tell the true impact of the move to end-of-course exams. For example, Mississippi enforced the graduation requirement of end-of-course exams beginning in 2003 with the first of four endof-course exams, but the graduation requirement did not cover all four end-of-course exams until two years ago, in 2006. Tennessee began to enforce the requirement in 2005, but the state is still undergoing changes, with plans to add more end-of-course exams in the future. All other states in this study are still in the process of developing these exams.

When asked about potential research studies that could be undertaken to promote implementation, one stakeholder mentioned the need for research on what actually works. While there is some research on implementing end-of-course exams (ie., Massell, et al., 2005), there clearly is a need for more specific and detailed studies about not only implementation issues but about the impact of these exams on curriculum, instruction and special populations of students (such as English language learners and students with disabilities). Findings from a recent study commissioned by the Washington State Board of Education, for example, indicate that end-of-course exams alone are not linked to improved classroom teaching, curriculum quality, or student learning (Vranek, 2008).

This study also indicates a need to better understand how the implementation of end-of-course exams impacts issues like remediation for students who do not pass these exams and alternative testing for students with disabilities and English language learners.

Although there is much talk about the potential use of end-of-course exams for higher education placement and to counter the need for remediation in higher-education institutions, most of the states in this study are still focusing on the details of how to implement end-of-course exams most effectively.

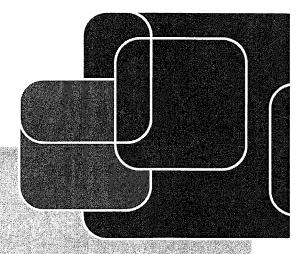
The profiles included in the CD that accompanies this report provide basic information about the exit exam systems and policies in the 26 states that currently have or are phasing in mandatory high school exit exams. The profiles also provide data on pass rates and state funding for remediation.

The information in the profiles was taken from the responses of officials in participating states to CEP's 2008 state survey of exit exam policies and from state Web sites and media coverage. The survey responses were condensed and edited somewhat to fit a standard format for the profiles. After developing the profiles, CEP sent draft profiles to the survey contacts in each state and asked them to review the content for accuracy. The final profiles included on the CD reflect the changes states made as a result of that review process.

References

- Alabama State Department of Education. (2008). First Choice: The right choice for Alabama Schools. Retrieved May 2008 from www.alsde.edu/general/aen.pdf
- Arizona Department of Education. (2008). Arizona's Instrument to Measure Standards (AIMS) augmentation update. Retrieved May 2008, from www.ade.az.gov/standards/aims/AIMSAugmentation.asp
- Arizona Education Association. (2008). History of *Flores v. Arizona*. Retrieved June 20, 2008, from www.arizonaea.org/politics.php?page=186
- Associated Press. (2008). State graduation tests to be voluntary, not mandatory. *Pittsburgh Tribune-Review*. Retrieved July 9, 2008, from www.pittsburghlive.com/x/pittsburghtrib/search/s_576471.html
- Becker, Arielle L. (2007). Board approves stricter standards for high schools. Retrieved December 10, 2007, from www.Courant.com
- Bland, K. (2005, November 8). Passing tough for English learners. [Electronic version] The Arizona Republic.
- Center on Education Policy. (2002) State high school exit exams: A baseline report. Washington, DC: Author.
- Center on Education Policy. (2004). State high school exit exams: A maturing reform. Washington, DC: Author.
- Center on Education Policy. (2006). State high school exit exams: A challenging year. Washington, DC: Author.
- Center on Education Policy. (2007a). State high school exit exams: Working to raise test scores. Washington, DC: Author.
- Center on Education Policy. (2007b). Caught in the middle: Arizona's English language learners and the high school exit exam. Washington, DC: Author.
- Connecticut Department of Education. (2008). *State to conduct public forums on high school reform*. Retrieved June 5, 2008, from www.sde.ct.gov/sde/lib/sde/pdf/Pressroom/HighSchoolReform_Sessions.pdf
- Grodsky, E., Warren, J.R., Kalogrides, D. (2008). State high school exit examinations and NAEP long-term trends in reading and mathematics, 1971-2004. Educational Policy.
- Jimerson, S., Furlong, M., Sharkey, J., Felix, E., Skokut, M., and Earhart, J. (2008). Struggling to succeed: What happened to seniors who did not pass the California high school exit exam? California Dropout Research Project. Santa Barbara, CA.
- Massell, D., Goertz, M., Christensen, G., & Goldwasser, M. (2005). The press from above, the pull form below: High school responses to external accountability. In B. Gross & M. Goertz (Eds.), Holding high hopes: How high schools respond to high stakes accountability. pp. 17-42. Philadelphia: Consortium for Policy Research in Education.

- New Jersey State Board of Education. (2008). Standards and expectations: Alternative approaches to meeting New Jersey's high school assessment requirements. New Jersey: Author.
- Oregon Department of Education. (2008). State board continues work on diploma requirements at May meeting. Retrieved May 16, 2008, from www.ode.state.or.us/news/releases/
- Public Policy Institute of California. (2008). Research brief: Predicting success on the California high school exit exam. San Francisco, CA: Author.
- Rotermund, Susan. (2008) When do California students drop out of school? California Dropout Research Project. Santa Barbara, CA.
- Scarpinato, D. (2008). AIMS bill with grade boost is approved. *Arizona Daily Star.* Retrieved May 20, 2008, from www.azstarnet.com/sn/printDS/239123
- Stock, Erin. (2008) Graduation paths made harder, easier. *The Birmingham News*. Retrieved on May 16, 2008, from www.al.com/printer/printer.ssf?/base/news/1210320996230990.xml&coll=2
- Vranek, J.L. (2008). *The role of statewide end-of-course assessments in high school assessment systems*. A study for the Washington State Board of Education. Education First Consulting, LLC.
- Western Interstate Commission for Higher Education (2008). *Knocking at the college door: projections of high school graduates by state and race/ethnicity* 1992-2022. Retrieved on May 2008, from www.wiche.edu/policy/knocking/1992-2022/index.asp
- Wise, L.L., Becker, D.E., and Watters, C. (2007). *Independent evaluation of the California high school exit* examination (CAHSEE): 2007 evaluation report. Human Resources Research Organization. Alexandria, VA.



Credits and Acknowledgments

This report was written and researched by the following CEP staff and consultants: Dalia Zabala, consultant; Dr. Angela Minnici, consultant; Jennifer McMurrer, CEP research associate; and Liza Briggs, CEP intern. Jack Jennings, president of CEP, provided advice on the content of the report. Rebecca Barns, consultant to the Center, edited the report. Brian Needles of Chadick + Kimball designed the report.

The Center on Education Policy extends its deepest gratitude to the officials in the 26 states who responded to our state survey on exit exams, verified the information in the state profiles, and answered other questions about their state's exams. We also extend our gratitude to the 10 state education officials, 7 district administrators, and 2 national education experts who participated in our interviews regarding the move to end-of-course exams. They volunteered their time to participate in phone interviews, verify transcripts, and some of them provided feedback on our final write-up of their interviews. Without their assistance, time, and patience, this report would not have been possible.

We would also like to thank the experts who reviewed a draft of this report and provided insightful comments and suggestions about its content: Dr. David Conley, professor and director, Center for Education Policy Research, University of Oregon; Dr. Sherman Dorn, associate professor, Social Foundations of Education, University of South Florida; and Dr. John Robert Warren, Associate Professor and Director of Undergraduate Studies, University of Minnesota.

Finally, we are grateful for the assistance the Center has received from the Bill & Melinda Gates Foundation to support our annual reports on exit exams. In addition, the Center draws on general support resources from the George Gund Foundation, the John D. and Catherine T. MacArthur Foundation, and the Phi Delta Kappa International Foundation. The statements made and the views expressed in this report are solely the responsibility of the Center on Education Policy.



Center on Education Policy

1001 Connecticut Avenue, NW, Suite 522 Washington, D.C. 20036

tel: 202.822.8065 fax: 202.822.6008

e: cep-dc@cep-dc.org w: www.cep-dc.org