CENTER ON EDUCATION POLICY CEP

3. Can Goals Motivate Students?

This is the third in a series of six papers by the Center on Education Policy exploring issues related to students' motivation to learn. The first paper provides the general context for the topic and background information on theories and dimensions of motivation. The major findings from all six papers are summarized in the CEP report Student Motivation—An Overlooked Piece of School Reform.

While almost all students recognize that learning is important, some are simply not motivated by academics or love of learning alone. But maybe if that learning were reframed as a means to achieve a certain goal, these students would be better able to see its value. We all have friends who are especially goal-oriented, whether they're "type A" people who love crossing things off their to-do lists or big-picture people who dream about future plans and work hard to fulfill them. For some people, simply having a certain end point to aim for is motivation enough. It makes sense, then, that some students would be motivated by setting goals—whether short-term, concrete goals, such as passing a test or achieving a certain grade, or long-term, abstract goals, such as getting into college or pursuing a certain career.

This type of goal-oriented motivation should not be confused with the more extrinsic idea of rewarding students for reaching certain benchmarks, with an immediate task and subsequent reward every few weeks. While some of the principles are the same, this is a broader concept of goals that frames learning and achievement as a gateway to something else.

So what sorts of goals are common in education? Naturally, goals overlap; being a good student and getting into college both involve doing well on assessments, which could also be seen as a goal in itself. Goals also change over time and can be as specific as reading a book or as broad as becoming a better student. In addition, each student, often with guidance from the family, sets individual goals based on his or her unique situation. To make the scope of this paper more manageable, it focuses primarily on two types of goals that are ubiquitous in education and serve as "gateways" of a sort: doing well on assessments and attending postsecondary education. Assessments in their various forms, including standardized tests, diagnostic assessments, teacher-designed classroom tests, and other types, are encountered by every student. And the goal of attending postsecondary education is commonly upheld as the "light at the end of the tunnel" of K-12 education. This paper examines various programs that use test performance or

postsecondary attendance as motivational goals and the effects of these goals on students. How do policies surrounding assessments and college readiness affect engagement? How does the future possibility of higher education affect motivation?

Before considering those questions, it is useful to review the theory and research behind using goal-setting as a motivator. Then we will turn our attention more specifically to assessments and postsecondary education as motivational goals.

Goal-setting Through the Lens of Motivational Theory

The dimensions of motivation and the theories or mindsets summarized in the first paper in this series can shed light on the role of goal-setting in student motivation.

Goal-setting and the four dimensions of motivation

Each of the four main dimensions of motivation—competence, control/autonomy, value/interest, and relatedness—can play a crucial role in goal-setting. To feel competent, students need to see their goals as realistic and achievable, which may require altering the goals or altering students' perceptions of their own abilities. To feel in control, students must be able to see a clear path to achieving the goal, through means they can control rather than through luck or chance. Control is also maximized when students set goals themselves, or at least agree with and internalize goals set for them by someone else. Student support for the goal will also foster interest and value. Lastly, relatedness can be affected by what students perceive is expected of them by society, how they will be judged by people of social importance, or what goals other members of their own social group or another desirable social group are pursuing.

Motivational theories

Of the several theoretical perspectives most often used in motivation research, achievement goal theory is, as the name indicates, most directly applicable to goal-setting. "Achievement goal theory posits that students' academic motivation can be understood as attempts to achieve goals," writes Seifert (2004, p. 142). Goal theorists generally break down education goals into two groups: "mastery" (or "learning") goals and "performance" goals. Mastery goals involve demonstrating increased understanding, skills, and content knowledge. Performance goals, on the other hand, involve reaching a pre-defined performance level or outperforming others. Researchers have consistently found that students who have a mastery goal mindset exhibit deeper cognitive processes, strategize more effectively, and are more adaptable to challenges. Performance-oriented students show more adverse reactions to failure, see less of a link between effort and outcome, and focus more on their performance relative to the performance of others (Pintrich, 2003; Seifert, 2004). Thus, mastery goals are more effective and desirable from a psychological viewpoint. The same student can have different mindsets and goals in different contexts, however; he or she may have a mastery orientation in one situation and a performance

orientation in a different situation. Therefore, students' mindsets can be changed; setting effective goals may be one way to accomplish this.

What Does Research Suggest About Goal Setting?

Findings from research about how goals are set and what types of goals are effective motivators have implications for programs that use goals as motivators.

Who sets the goal?

A goal is a specific idea that one forms consciously, as opposed to motives or desires, which more often occur on a subconscious level. This makes goal-setting an interesting hybrid of the internal/external motivator dichotomy discussed in the first two papers of this series. It could almost be said that a goal is an extrinsic manifestation of intrinsic motivation. Interestingly, students lacking intrinsic academic motivation may be incapable of setting their own goals (Barry, 2007), but if they are helped to set goals, they may be able to establish motivation and boost their achievement. Another way to think about this is as a spectrum of externalization along which goals could fall as either partially externalized, if set by oneself, or completely externalized, if set arbitrarily by someone else (Rigby et al., 1992). This is notable because of the high correlation between intrinsic motivation and achievement, and the negative effects sometimes correlated with extrinsic motivation. Indeed, Rigby refers to this in his categorization of "introjected regulation," which is defined as being motivated by internal pressure driven by external demands—in other words, pressuring yourself to do something because you think you "should" or are expected to. Although students who display this type of motivation usually work very hard, it is also correlated with dropping out of school, anxiety, and maladaptive strategies for coping with failure (Rigby et al., 1992, p. 174).

In summary, goals are intentionally established, allowing us a great amount of control over what exactly they are. We must be careful about who sets goals for students—if they are encouraged by an outside party, then they should at least be founded in students' internal, intrinsic motivation. This is important because research has also shown that the actual goals themselves can affect student achievement levels.

Setting the "right" goal

Researchers at the University of Michigan (Destin & Oyserman, 2010) examined the types of future identities (in other words, long-term goals) that students envisioned for themselves. They observed that almost 90% of 8th graders in three Detroit middle schools, many of whom were low-income and minority students expected to attend college, but about half of those same students did not choose the classes or exert the academic effort that would earn them college admission. Although the students had set the admirable goal of attaining higher education, it did not influence their educational behavior. What could explain this gap between goal and action? The researchers employed identity-based motivation theory, which holds that people act in ways they feel correspond to their

established identity and that these identities are sensitive to contextual cues. They found that two factors are needed in order for future-related goals to improve academic performance: the future identity students are striving for must be education-dependent, and the identity must be relevant when students are making academic choices.

In one experiment, researchers found that while most children wanted to attend college, children who held future professional goals that were education-dependent spent more time on their homework and had a higher GPA at the end of the study. To establish causality, the same researchers performed another experiment in which they showed one group of children a graph of future income linked to educational level and another group a graph of median lifetime earnings compared with the earnings of sports and music stars. Eight times as many children from the first group (who were thinking about education-dependent goals) as from the second (who were thinking about non-education-dependent goals) completed an extra-credit homework assignment that evening, and more reported that they intended to spend additional time on studying and homework (Destin & Oyserman, 2010). Therefore, the type of goal and the context in which it's set can determine how much it impacts academic motivation and effort. Similarly, research by Schultheiss has shown that "when explicit goals and implicit motives are congruent, then individuals are more motivated and perform better" (Pintrich, 2003, p. 670).

Lastly, one of the most important guidelines for setting goals is that the goal must be of an appropriate difficulty. Atkinson (1964) found that goals which are too difficult are actually demotivating. People exert the most effort toward a task that is moderately difficult and the least amount of effort toward a goal that is quite easy or quite difficult. This may seem abstract but makes sense in the context of the four motivational dimensions: if the goal is set too high, it will undermine competence and control, but if the goal is too easy it will have no value. These findings were reiterated by Locke and Latham (1990), among others.

In general, motivational theory and research support goal-setting as an effective means of increasing student motivation, if the goals are established properly. Now, let's turn our attention to how the practice of goal-setting is being used in schools and how that practice might be improved to have a more substantial positive effect on motivation.

Assessments, Goal Setting, and Academic Motivation

Assessments are a hotly debated topic because their outcomes are increasingly being used to judge students, teachers, and schools. The No Child Left Behind Act mandated that states and districts assess student achievement in math and reading every year and set consequences for schools that failed to bring a sufficient percentage of students to a designated level of proficiency. Some teachers are also beginning to see their pay linked to students' performance on assessments. Students themselves are judged based on test scores; in some cases, an end-of-course assessment may be the most important factor in a student's grade, and in 25 states students are not permitted to graduate from high school without passing an exit exam (CEP, 2011). It is therefore in everyone's best interest that

students are motivated to excel on various types of assessments, making it a goal around which the work of teachers, administrators, and students revolves. Not surprisingly, to some students it seems that the *only* goal of learning is to excel on assessments. As Richard Stiggins puts it, "The conventional wisdom has been that the way to spur greater effort is through intimidation by means of the threat of dire consequences for low test scores" (Stiggins, 1999, p. 191). So, the goal of succeeding on assessments, whether for the purpose of graduation, accountability, or grades, is being used to increase students' academic motivation.

Differences in motivation depending on type of tests

As described earlier, there is a difference between extrinsic and intrinsic motivation and therefore between extrinsic and intrinsic goals. So which type are assessments? Few assessments are enjoyable to take and intrinsically motivating. Some assessments provide concrete extrinsic goals to students, through grade promotion, graduation from high school, or admission to college. Other assessments provide extrinsic goals to teachers and administrators because they are used for school accountability purposes; the pressure of these goals can be passed on to students.

Different types of assessments are motivating to different extents, depending largely on what is at stake—graduation, grade promotion, and class grades matter most to students. The consequences of assessments, and therefore motivation for students to excel on them, can vary across a continuum. Classroom tests designed and administered by teachers may be even more motivating to students than the high-stakes standardized tests administered by the state, if the classroom tests have a direct effect on students' grades. On the other hand, some classroom tests are used for diagnostic purposes and may not affect students' grades at all. Some state-mandated standardized tests are used to determine grade promotion and graduation status and therefore matter greatly to students, while other external tests like NAEP have virtually no consequences for individual students. So there are high-stakes and low-stakes assessments, and external and internal assessments, comprising a continuum of motivation. The same student might be differently motivated by each of these types of assessments.

Assessments that are used to provide students with information about where they stand academically, rather than to determine rewards or sanctions or make an overall judgment about student potential, can be motivating by increasing feelings of competence and control (Anderman et al., 2010; Heyman & Dweck, 1992).

The most motivational goal is one that is not too difficult (Atkinson, 1964; Deci & Ryan, 1985) but also not too easy, and aligns with students' own personal interests and goals. If an assessment meets these criteria for a certain student, then it will likely be an effective academic motivator for that student.

Impact of high-stakes testing

Much has been written about the impact of high-stakes assessments on curriculum, instruction, and student achievement. Although few of these studies have looked specifically at the impact of high-stakes assessments on student motivation, some findings from research on high-stakes assessment are relevant to our purpose here.

Student achievement on state accountability tests has improved in most states since 2002 (CEP, 2010). These state tests have high stakes for schools, teachers, and administrators and relatively high stakes for students, especially when the results are also factored into decisions about graduation, promotion, or course grades. While the research indicates that test scores have improved since the adoption of high-stakes testing, one should be cautious about drawing conclusions about the effectiveness of these testing policies (Hamilton, Stecher, & Yuan, 2008). And one should be particularly cautious about inferring that test scores have increased because students are more motivated.

The primacy of test results in state and federal accountability systems has changed instructional practices. While some of these changes, such as providing extra instruction to low-achieving students, would generally be considered positive, many others have distorted instruction in ways that could undermine motivation. For example, in response to pressure to raise test scores, many schools, administrators, and teachers are devoting more instructional time to subjects and content that are likely to be tested and less time to important but untested knowledge and skills (CEP, 2007; Hamilton, Stecher, & Yuan, 2008). This could result in a reduction or elimination of content that is interesting and valuable to students and a decrease in motivation.

Another outcome of high-stakes testing is an excessive emphasis on test preparation practices that are designed to raise test scores without necessarily promoting a broader understanding of the subjects being tested. For examples, teachers may respond to test-based accountability by using classroom exercises based on a particular test format, drilling students with practice examples similar to those used on important tests, or changing the sequence of topics to accommodate the testing schedule (Stecher, 2002; Hamilton, Stecher, & Yuan, 2008; Koretz & Hamilton, 2006). Whether these practices are desirable depends on the quality of the test. If the test is a complex, performance-based assessment, then preparing for it can lead to a greater emphasis on problem-solving in the classroom, which may be beneficial and motivating (Lane et al., 2002). But if the test is the more common type of multiple-choice test, then extensive practice in this testing format may be counterproductive from a learning and motivational standpoint (Hamilton, Stecher, & Yuan, 2008).

Research on the effects of high-stakes testing on students' motivation is somewhat mixed. On one hand, high-stakes testing can breed anxiety and other feelings that can undermine student motivation. n a survey of 236 teachers in 16 schools and 5 districts of North Carolina, conducted after the state implemented a high-stakes accountability program, 28% of teachers responded that their students were more prepared for learning as a result of the program. But 61% reported that their students felt more anxiety, 24% indicated

their students were less confident, and almost 49% said the program "had a negative impact on students' love of learning" (Jones et al., 1999, p. 202).

On the other hand, some students may be motivated by the high stakes and threat of consequences. Researchers at the University of Chicago (Roderick & Engel, 2001) surveyed 102 low-performing middle school students in Chicago before the administration of the Iowa Test of Basic Skills, which under a new policy would be used along with teacher assessments of students and student records to determine whether the students could move on to the next grade. The majority of students seemed to experience an increase in motivation under the new policy, reporting increased attention to their classwork, increased effort, and more time spent outside of school on class work. However, about one-third of the students still reported relatively low levels of academic effort, especially the students who were the furthest behind their peers in terms of academic skill level. Likewise, a 2006 CEP study of high school exit exams found that some students responded to these exams by working harder in school, while others were resentful and doubtful about their ability to succeed (CEP, 2006).

Assessment and the four dimensions of motivation

A look back to the four dimensions of motivation—competence, autonomy/control, interest/value, and relatedness—can help explain why the use of assessments as a goal, particularly high-stakes assessments, can have a negative effect on motivation for some students.

Most assessments, as they are currently implemented, strongly encourage a performance-goal rather than mastery-goal mindset, and so it is no surprise that some students respond by feeling anxious or frustrated, fearing failure, and generally becoming unmotivated. If the test measures performance level instead of growth, and if students feel that achieving at the prescribed level is outside of their abilities, competence could be undermined. Studies have also consistently shown that, when presented with the goal of simply exploring new material or trying to understand it for the purpose of explaining it to someone else, students retain more interest and more knowledge of the material over the long run than if they are told simply to memorize it for a test (Sheldon & Biddle, 1998).

Likewise, most high-stakes assessments are administered infrequently, requiring months of preparation; if students don't understand what steps they can take to succeed on the exam, or have opportunities to prepare for it, they feel hopeless, and their control and autonomy are undermined (Stiggins, 1999). If the consequences tied to the exam are not important to students, there will be no interest or value. And if certain meaning or consequences is tied to low scores on the exam, students who fail or fear failure on the exam could exhibit a "profound and long lasting loss of confidence" (Stiggins, 1999, p. 192).

Even the finding that countries in which more students are forced to repeat grades have overall lower achievement on the PISA math and science exams (OECD, 2011) makes sense if we accept social relatedness as a motivational factor. Students who fail to move on to the

next grade with their peers may lose feelings of relatedness and thereby suffer a decline in motivation.

Thus, while high-stakes assessments may provide motivation for some high achievers, they seem to have a disproportionately negative effect on students who are already at risk for losing motivation.

Differences between students

An additional point to consider is which students are most affected by having assessments as a goal. For students who pass exams easily or simply need an end point for which to aim, having assessments as a goal can be an academic motivator. At the same time, if high-achievers think the exam is too easy, it can cause them to feel cynical or resentful toward school. But for students who struggle academically, that same exam may seem like an insurmountable obstacle. One student said about the Washington state exam, "For a while, the WASL made me feel dumb" (Shaw, 2008, p. 1). Nichols and Berliner (2008) note that for students who struggle academically, high-stakes testing can diminish self- worth and academic motivation; for students who see tests as easy, "a school culture formed around high-stakes testing is boring and unconnected" (p. 16).

Additionally, the goal of assessments will shape student behavior differently. As Stiggins says, "When students decide to manage the potential risk of punishment by studying very hard and learning a lot, then the behavior management system works as desired . . . [For other students] no level of intimidation will change their view of themselves. No statewide assessment and no threat of an 'F' on their report card will bring them to believe in themselves as learners . . . they have stopped caring" (p. 197). So there may be some negative motivational effects connected to assessment goals for some students.

It is difficult to use assessments as goals because, as discussed earlier, to be effective a goal must be tailored to the person. If the goal is too hard or too easy, it is not motivating, but in some types of assessments, all students take the same test, regardless of their skill level. If a goal is imposed upon a student rather than grounded in something the student autonomously cares about, it will not be motivational. Based on goal theory, assessments may increase motivation if they coincide with goals a student already holds, but when all students are required to take the same common assessments, it will be motivational for only some and may undermine the motivation of others.

Types of assessments with the potential to motivate

This discussion of assessments and motivation is not meant to suggest that assessments themselves are inherently bad. They provide useful data to students, teachers, and parents about which students need help and whether students are learning the knowledge and skills they are expected to learn (Stiggins, 1999). If assessments are to be used as a motivational goal, then the key is to consider what types of assessments could provide that kind of data, and at the same time more closely align with goal-setting theory to increase students' academic motivation.

Of course, there is no ideal assessment, and assessments differ based on their purpose, content and type, so the same suggestions do not apply to all assessments. But motivational theory is supported by assessments with the following characteristics:

- Assessments that reward effort, creative strategy, and gains in knowledge or mastery rather than the attainment of a specific achievement benchmark are more likely to promote a growth and mastery goal mind-set. As Dweck says, "When adults praise students' intelligence after a student performs well, they send a fixed mind-set message: you're intelligent and that's what I value in you. When adults praise effort (or strategies), however, they send a growth mind-set message: you can build your abilities through effort" (Dweck, 2010, p. 28).

- Assessments that include short-term, easily achievable goals and then gradually increase in difficulty can build competence and confidence, as well as a feeling of control within students. Additionally, these types of assessment can allow students to see a clear path to success and understand the link between effort and achievement (Barry, 2007).

- Assessments that allow students to understand what they will be tested on ahead of time can give them clear knowledge of what's expected of them. In fact, some scholars suggest allowing students to be a part of this process by asking for their input on which testing criteria and test to use and what sorts of outcomes should be expected (Stiggins, 1999; Eckerson, 2011). While this may not be possible for larger-scale assessments, involving students in a discussion about the assessment and its purpose may be helpful.

- Another promising approach is to allow students to first master concepts in pursuit of a non-formal goal, and then later apply their knowledge to a graded assessment, rather than administering a one-time exam, Studies have repeatedly found that children who were asked to master new material with an end goal of a quiz or test ended up retaining less of the material than did students who were given the material and told to master it so that they could answer some general questions or explain it to others (Heyman & Dweck, 1992; Rigby et al., 1992). Being allowed to first demonstrate their knowledge through alternative means may also increase students' confidence and feelings of competence in preparation for more formal exams.

- Though they have drawbacks, performance goals are important to developing social success and adaptive coping behavior (Heyman & Dweck, 1992,). But if assessments are administered frequently instead of once per semester or year, they can provide more performance feedback so that students can better understand where they are performing relative to expectations. Low-stakes tests that allow students a chance to fail without dire consequences can be more supportive of learning than assessments with performance goals. "Performance feedback is unlikely to undermine learning goals when it is seen as an assessment of present skill level. It is only when difficulties and mistakes are viewed as judgments of broad, underlying competence or potential . . . that

individuals are likely to be deflected from learning pursuits" (Heyman & Dweck, 1992, p. 244).

In short, assessments are not inherently motivating or not motivating; rather, the type of assessments and the way they're presented should be carefully considered.

Postsecondary Education, Goal Setting, and Academic Motivation

One of the most widespread goals in K-12 education is to prepare students to continue their education *past* high school, whether this means attending a four-year college, community college, or technical institution. President Obama (2009) has stated that by the year 2020, he wants America to "have the highest proportion of college graduates in the world," and the Lumina Foundation is working to ensure that by 2025, 60% of Americans hold a high-quality postsecondary credential (Lumina Foundation, 2011). Achieving some sort of postsecondary education has essentially become a national goal, set by society on behalf of all students, so that students finish their education prepared to be productive members of society. But is this a good way to motivate students?

The prospect of college as a motivator for students

To answer this question, we need to think about how the four dimensions of motivation might be applied to make postsecondary education an effective motivational goal:

- ***Competence*:** Students need to feel prepared to succeed at each step that is required to enter postsecondary education. They need to feel able to maintain good grades, pass an exit exam if required (see above section), take and score well on college entrance exams like the SAT or ACT, and feel prepared to succeed in college. In other words, students need to feel academically and personally qualified.

- ***Control/autonomy:*** Students need to see a clear pathway to postsecondary education. This may seem obvious to some, but unfortunately many students don't grow up in a context in which these pathways are well-established. On a general level, many students simply don't know what kind of grades are required or expected, which high school courses to take, how extracurricular and leadership experiences can make their application more competitive, or how to frame their experiences in a way that would be useful for postsecondary admissions. On a more basic level, some students lack even rudimentary knowledge of how the postsecondary process works, which can be overwhelming. If you are the first in your family or neighborhood to go to college, scholarships, financial aid forms, and school applications can seem daunting, leading students to feel that the process is beyond their control. For others, there may be a conception that only "rich kids" or "smart kids" go to college, leading them to feel that it's worthless to try. Similarly, some students assume their families don't have the financial means to pay for school and without knowledge of scholarships or financial

aid, they discount the option of postsecondary education entirely (Destin & Oyserman, 2009).

- ***Interest/value:*** Having a parent or teacher tell them that higher education is important does not make students adopt the goal as their own, and therefore won't be motivating; students need to understand the value of postsecondary education. For some, it's a problem of access to information: students may not know about the long-term effects (salary, quality of life, etc.) associated with higher education, or may not realize that a postsecondary degree might now be a requirement for the job they want. Some students may think they'll be successful in a job that doesn't require further education and therefore do not formulate an alternate plan. (Oyserman & Destin, 2010)

- ***Relatedness*:** Postsecondary education has to be presented in the proper social context—if students see their peers invested in achieving a postsecondary degree, they're more likely to be as well, and vice versa. Similarly, if students feel that going on to higher education is expected of them by society or respected adults, that can act as a motivational cue, as opposed to students thinking that no one expects them to be the "college type" (Oyserman & Destin, 2010).

For postsecondary education to be a goal that actually spurs student motivation, schools, districts, families, and teachers need to establish policies and programs that ensure students feel prepared, know the steps they need to take, see the value in continuing education, and feel that it's socially encouraged.

Examples of programs to encourage postsecondary as a goal

Now let's take a look at a sample of the programs and policies currently in place to encourage students to go on to postsecondary education and the extent to which these programs are accomplishing that purpose. While most of these programs have not undergone formal research studies, they have produced some data and anecdotal evidence to indicate their long-term impacts.

The following example illustrates what happened when a program initially attempted to use college as a goal without providing necessary supports to increase motivation.

- ***Say Yes to Education program.*** In one interesting example, philanthropist George Weiss has made it a personal mission to provide scholarships to lucky cohorts of students. The project first began in Philadelphia's Belmont Elementary School in 1987, when Weiss promised the 112 members of the 6th grade class that he would pay for their college education if they were admitted. Since that time, he has spent $33 million creating similar programs through his Say Yes to Education program in New York, Connecticut, and Massachusetts. But of those first 112 students from Philadelphia, only 20 completed a bachelor's degree—and 20 ended up in prison. 62 graduated from high school, 7 earned their GED, and 13 finished trade school. Ten earned associates' degrees. Weiss now feels that he began when the kids were too old and didn't have

enough time to change their mindsets or behaviors; his newer programs also provide teacher and parent training. Of a 1990 class of 78 3rd graders, 18 entered college, and 8 graduated from college four years later (Mezzacappa, 2004).

Unfortunately, when actually implemented, programs to encourage postsecondary attendance have produced mixed results. This may be because so many other factors play into students' motivation and ability to keep college as a reasonable goal; any of the four dimensions of motivation could be undermined, even if students see a clear means of financing postsecondary education. Ann Coles, former senior vice president of the Education Resources Institute, noted that it is hard to distinguish whether the far-off prospect of a free college education is actually motivating or whether the real motivating factors are "the support services, the caring, the mentoring" that accompany the more comprehensive postsecondary motivational programs (cited in Mezzacappa, 2004, p. 3).

Several other programs not only use college as a motivational goal but also provide necessary supports:

- ***The Kalamazoo Promise.*** In Kalamazoo, Michigan, the Kalamazoo Promise program promised students who graduated from a district high school and were admitted to community college, trade school, or a public state university that the entire cost of their tuition would be paid for by a group of anonymous donors. Consistent with the sentiment noted by Ann Coles, this program used a comprehensive, community-based design, although the Promise did not specify what steps the school district should take. The program was initially intended to spur regional economic development but ended up leading to whole-school reform—a perfect example of how a goal can serve as a motivator and agent of change if enacted properly (Miron, Jones, & Kelaher-Young, 2010).

  The key came when district leadership implemented a comprehensive package of reforms from pre-k through 12th grade. These included instituting universal preschool, adding 30 minutes of daily writing to 3rd grade English instruction, moving 6th grades to the middle school building so students were exposed to subject-specific teachers, and sending all incoming 6th graders a book to read every 10 days over summer vacation. Other reforms spurred by the program included increasing the number of AP subjects offered in high school from 8 to 12, encouraging more students to take AP classes by giving more emphasis to grades from these classes in GPA calculations, and making a host of other changes that were not particularly dramatic or expensive (Miron, Jones, & Kelaher-Young, 2010). In other words, the Promise led to a reassessment of curriculum, structures, and programs, all based on one goal. School climates also changed; in a survey of all three high schools in the district and interviews with 42 students, 12 principals, 9 counselors, and 20 teachers, researchers found that teachers pushed students harder academically, which increased expectations as well as instructional support. Students noticed "their teachers using the incentive of the Promise to inspire changes in school performance [and] behavior"; students reported that they were "exerting influence on peers to 'stay on the right track'" (Miron, Jones, & Kelaher-Young,

2011, p. 10), and students asked for help more often and self-regulated their behavior more. Among the educators surveyed, 40% reported an overall positive change in school climate, and 20% reported a strong positive change (Miron, Jones, & Kelaher-Young, 2011, p. 14). The community was also very enthusiastic: parents said they were more focused on their children's academics and enforced more discipline at home, and community organizations began offering tutoring and mentoring programs.

According to district leaders, the Promise worked because of constant feedback, as schools talked with parents, students, and the community and made adjustments to the program. Everyone felt as though they had a stake in its success. This fostered huge amounts of interest, relatedness, and control, and therefore a great degree of motivation. As the principal at one high school said, "It's not just the money. It's the academia. It's the social skills. It's the behavioral skills—all of those things as a package that the Promise helps restore, I think" (Miron, Jones, & Kelaher-Young, 2011, p. 15).

Evidence shows that about 84% of eligible students are using the scholarship, and others are attending out-of-state or private universities. About two-thirds of scholarship recipients attended a four-year public Michigan university, and more than 1,500 students have used the scholarship so far. Schools have seen a 71% increase in AP course enrollment and steady increases in student achievement on state assessments (Miron, Jones. & Kelaher-Young, 2011). Those accomplishments—combined with significant reforms to the entire K-12 system and changes in school climate and community attitude—suggest this approach is an excellent way to implement a goal of postsecondary education as a motivator.

- ***Houston.*** In the Houston Independent School District, 35% to 50% of students dropped out before graduation, and many who graduated did not go on to college (Mellon, 2008). In 2008, the district used a $1.1 million grant from the Bill and Melinda Gates Foundation, in partnership with Houston Community College, to revamp its schools' college preparation programs. The district ensured that each high school had a specialized college counselor (which can help to foster students' feelings of control over the process). The superintendent also mandated that every school create a "college-bound culture" (which addressed the value and relatedness dimensions of motivation). District leaders encouraged more students to take college-level courses (building competence), and almost all high schools established "college centers" to help students navigate applications and financial aid. These changes not only helped students practically (filling out applications, applying for financial aid, getting advice from counselors) but also signaled to students that they are expected to go to college, that it's a realistic goal for *all* of them, and that there is community support for that goal (Mellon, 2008).

- ***Project GRAD.*** In early 2000, under the leadership of then-Superintendent Beverly Hall, the Atlanta Public Schools required 33 of its schools to participate in Project GRAD, which aimed to better prepare students for college. Project GRAD worked to improve math and reading skills (fostering competence); partnered with Communities in

Schools to provide tutoring (also creating competence); and helped provide college counseling and assistance with admissions and financial aid forms (giving students some control). The Project also ran trips to college campuses (interest/value), established a summer enrichment program (competence), and offered $4,000 in scholarship money to students who were able to meet several requirements (control) (Maxwell, 2008). Results have been promising so far. At Booker T. Washington High School, the four-year graduation rate increased dramatically from 62% in 2003 to almost 87% in 2007. The former executive director of Project GRAD in Atlanta also noted that the program helped to increase parents' expectations of their children and helped higher education institutions see the Atlanta public schools as a source of high school graduates who can succeed in college (Maxwell, 2008, p. 29). In other words, society expects these students to succeed, motivating them by increasing relatedness. Project GRAD also runs similar partnerships with schools in more than 10 locations around the country, helping thousands of low-income students prepare for postsecondary education. Students who pass through the program complete college at almost twice the rate of students from similar socioeconomic backgrounds (Project GRAD, 2011).

- ***College-Bound Foundation in Baltimore.*** The Baltimore school district has tried to foster a college-going culture that is not just about counseling and filling out applications—although that technical support is important for students to feel in control—but is also augmented by many levels of background support. "It's about putting the fire in their bellies, the idea in their heads," said Mavis Jackson, a college counselor in Baltimore (Gewertz, 2009). Staff and faculty at every level are tasked with creating an atmosphere that demystifies the idea of postsecondary education for students who are not otherwise exposed to it. This is done through things as simple as the principal making daily announcements, teachers making an effort to note how lessons will apply to college work, the school posting acceptance letters in hallways so students see what their peers are accomplishing, or teachers wearing t-shirts or decorating classrooms with logos of their alma maters so that students have a concrete example and role model of a college graduate. Through actions like these, students begin to view postsecondary education as something that's expected of them, as the end goal toward which the whole school is working.

  Baltimore schools decided to put up the money to bring the CollegeBound Foundation into 28 of its 34 regular public high schools. The foundation provides support like college fairs, visitation trips, advising and counseling, fee waivers for applications and entrance exams, and scholarships and grants. As Baltimore schools CEO Andres Alonso explained, "[W]e are an urban school system putting an enormous amount of resources into preventing violence in schools, building community supports, building after-school programs, building supports to help our kids stay in school. By definition, it almost overwhelms our ability to do certain other things. So [the program is] filling an important niche in these schools" (Gewertz, 2009, p. 12) And indeed, the program is generating results. The number of students completing college applications almost doubled between 2002 and 2009. Of the high school seniors who participated in the

program in the 2007-08 school year, 79% were accepted to two- or four-year colleges, an increase from 47% in 2005. The number of students taking the SAT exam in the district increased by 70% over 10 years, compared with an increase of 30% nationally. Of the 180 students who went through three years of the program and were tracked as they went on to college, 90% returned for their sophomore year of college, while the national average was only 70%. Anecdotally, some students credited the program's relentless barrage of information and support with helping them to consider college as a goal and making the academic changes necessary to be a competitive applicant (Gewertz, 2009).

In summary, research has shown that the most successful programs to encourage college-going are implemented in a way that fosters the four major dimensions of motivation. While programs that simply encouraged kids to attend college had some limited success, programs that focused on improving attendance, grades, counseling, and scores on admissions exams and on keeping the goal of college foremost in students' mind had more positive results.

What can we do better?

Recent research suggests that there are some specific areas in which schools can do a better job of helping students embrace postsecondary education as a motivational goal:

- Many students do not feel they are academically prepared for college. In two recent surveys, conducted by the College Board and AdvancEd respectively, only half of recent high school graduates reported that they were well-prepared for college and work, and over 60% said that their high school did a below fair job of preparing them for postsecondary education. Holding their high school educations in such low regard undermines feelings of competence and motivation and makes students feel that postsecondary education is not a reasonable goal for them (Kinsey, 2011; Hart Research Associates, 2011).

- College counseling is often weak, if not entirely absent, in the schools that need it most. According to the director of public policy and research for the National Association for College Admission Counseling, even in schools with guidance counselors, college advising often takes a back seat to other duties of counselors and administrators, such as dropout prevention and class scheduling. This is exacerbated by the reality that the average high school counselor has a caseload of close to 300 students. General counselors also often receive little professional training on how to help students prepare for postsecondary education (Gewertz, 2009).

- Some colleges and universities recruit students who have very little chance of being admitted. Students who take the preliminary SAT exam (PSAT) have the option of providing their address to receive informational mailings from schools. Unfortunately, some students receive these mailings and think they should apply, spend money and time on the application, and are rejected when schools did not intend to admit most of them in the first place. Of course, students should know which schools are realistic for

them to apply to, but determining that can be a confusing and overwhelming process; for example, the director of college counseling at a San Francisco high school called mailings from Harvard "misleading." There is no evidence to suggest that colleges are doing this on purpose, but large application pools improve rankings of college selectiveness, and application fees bring money into the school. For students who had their hopes raised and then dashed, this undermines feelings of competency and interest and humiliates, frustrates, and disappoints, underscoring the need for better college counseling and advising (Lorin, 2011).

What Do These Findings Suggest about Setting Goals as a Means of Motivating Students?

As the research and programs described above suggest, goals in general can help motivate students to work harder if certain conditions are present. Findings from research and practice have also addressed the motivational value of the two specific goals analyzed in this paper—passing assessments and attending postsecondary education.

Goals in general

Whatever the specific goal, it is more likely to be motivating if it has the following characteristics:

- The goal is realistic and attainable, yet challenging. The goal is desirable and education-dependent.

- The goal is suggested, or at least embraced, by the student, and the student can see a clear path for attaining it. It also helps if the goal is supported by people important to the student.

- Goals can be tailored to recognize that different students may need different types of goals, based on their mindsets and motivational styles.

- Mastery-based goals, which involve demonstrating increased understanding, skills, and content knowledge, are preferable to performance-based goals, which involve reaching a pre-defined level of performance or outperforming others.

By the same token, goals can actually undermine motivation if they are too difficult, or if students feel a goal has been imposed on them or that failing to meet it would have dire consequences.

Assessments as motivators

Goal theory, the four dimensions of motivation, and the research summarized above suggest several lessons about assessments as motivators:

- Assessments are not inherently motivating; rather, their motivating power varies depending on the stakes attached to them, how they are presented, and how an individual student reacts to them. When assessments are used as motivational tools, it's important to consider which types of assessments can provide useful information about students' learning *and* are aligned most closely with the key dimensions of motivation.

- For an assessment to be motivating, educators need to make clear to students what they need to learn to do well on the assessment. Motivational theory also suggests that assessments that reward creativity, effort, growth, and strategizing and that allow students to use failure as a learning tool can have a stronger effect on motivation than assessments that emphasize competition or performance levels. More frequent assessments that start with easier goals and gradually increase in difficulty can build students' competence and sense of control, as can opportunities for students to demonstrate their knowledge with performance tasks or low-stakes tests before taking an assessment that counts. Lastly, helping students to understand what's expected of them on the assessment ahead of time can increase feelings of competency and control.

- While high-stakes assessments do spur some students to work harder, they can have a negative effect on the motivation of other students by evoking anxiety, frustration, or fear of failure. Some critics also maintain that the types of drill and practice often used to prepare students for high-stakes assessments can cause students to lose interest and motivation.

Postsecondary education

The goal of attending college or another postsecondary institution can be academically motivating for elementary and secondary students if it is presented correctly and if students receive the academic, social, and other supports they need to feel competent and in control. Research suggests that using postsecondary education as a goal is most effective when it embraces the four dimensions of motivation:

- Students' feelings of competence, confidence, and control are greater when they have access to and are academically prepared for the type of high school classes they will need to be ready for college.

- Providing students with information, advice, and guidance about college admissions requirements, entrance exams, applications, and financial aid can also increase their competence and control.

- Relatedness is helped by creating a "college-going culture" in which students receive cues from all members of their community that they are expected to pursue postsecondary education.

- To spur interest and value, students may need help with understanding the importance of postsecondary education in a context that applies to their personal life goals.

As Heyman and Dweck (1992) summarize, "an optimal motivational environment is one that allows the coordination of goals in the service of long-term learning and achievement and that teaches children how to coordinate these goals on their own" (p. 245).

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Credits and Acknowledgments

This report was researched and written by Alexandra Usher, CEP research assistant, and Nancy Kober, a CEP consultant. Jack Jennings, CEP's founder, and Diane Stark Rentner, CEP's interim director, provided advice and assistance. We appreciate the suggestions provided by Richard Rothstein, who reviewed an earlier draft of this paper, and Naomi Chudowsky, who reviewed the final draft.

Based in Washington, D.C. at the George Washington University's Graduate School of Education and Human Development, and founded in January 1995 by Jack Jennings, the Center on Education Policy is a national independent advocate for public education and for more effective public schools. The Center works to help Americans better understand the role of public education in a democracy and the need to improve the academic quality of public schools. We do not represent any special interests. Instead, we help citizens make sense of the conflicting opinions and perceptions about public education and create the conditions that will lead to better public schools.

The Center on Education Policy receives nearly all of its funding from charitable foundations. We are grateful to the George Gund Foundation and the Phi Delta Kappa International Foundation, which provide the Center with general support funding that assisted us in this endeavor. The statements made and views expressed are solely the responsibility of the Center.

Center on Education Policy
Graduate School of Education and Human Development
The George Washington University
2140 Pennsylvania Avenue NW
Washington, D.C. 20052
Ph: 202-994-9050
Fax: 202-994-8859
E-mail: cep-dc@cep-dc.org
Web: www.cep-dc.org