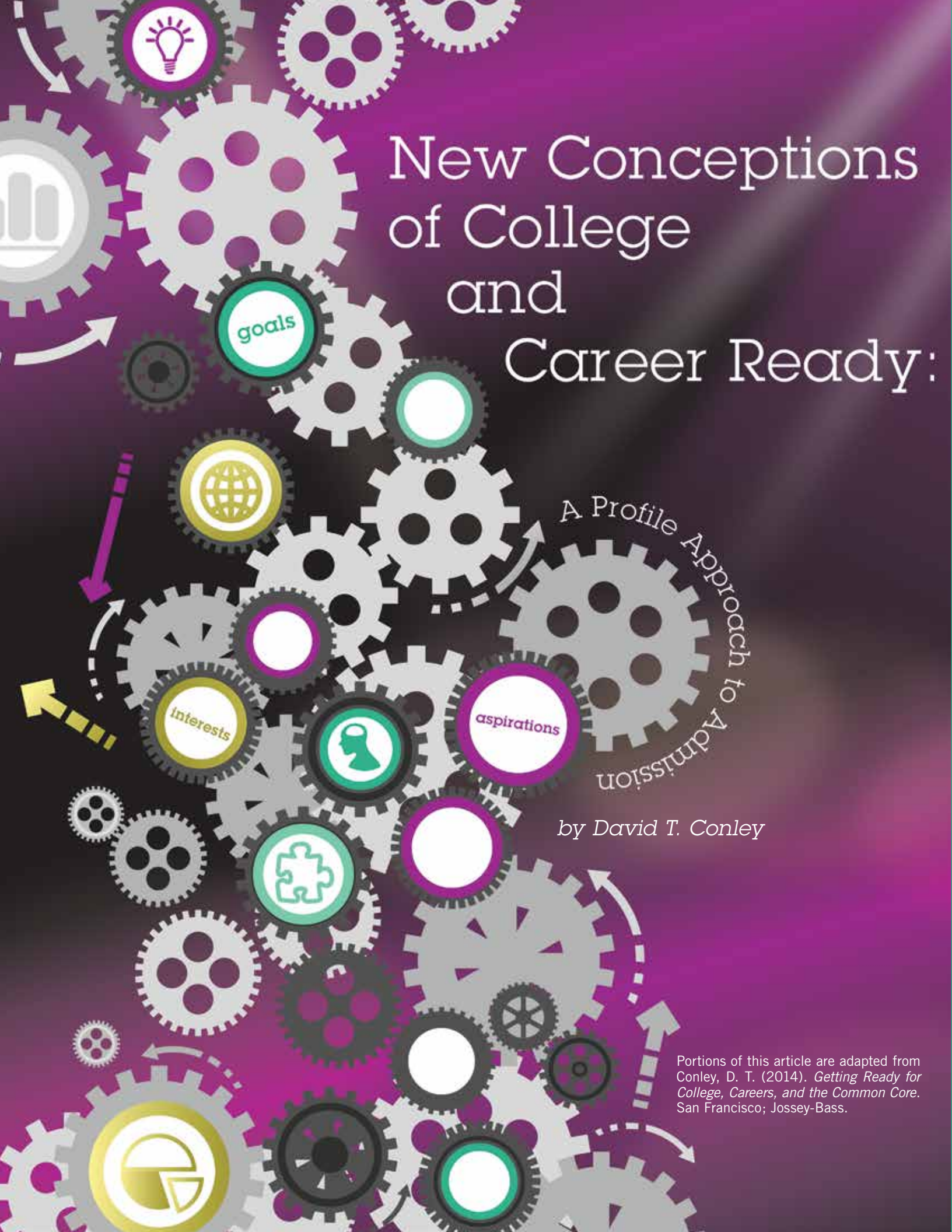

New Conceptions of College and Career Ready:

A Profile Approach to Admission

by David T. Conley

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Why do we need new measures of college and career readiness? Doesn't the current system work entirely adequately to make determinations about who will succeed in college? Isn't it sufficient to know which courses students took, the grades they received, their standing relative to others in their class, and maybe a score on an admission test? What's changing that requires more information about students?

The primary reason that changes to admission methods and systems are necessary is that students do not need simply to be admitted to college; they need to be ready to succeed. The only way the admission process can help them be ready to succeed, not just eligible to attend, is by collecting more information directly related to succeeding in entry-level college courses. This information allows admission offices to make better decisions about student readiness, but it also signals to students more clearly and in greater detail what they need to do to prepare properly for the challenges they will encounter in postsecondary education.

The other reason that more and better measures of readiness are necessary is that an ever-increasing proportion of students is going to need to attend and complete a postsecondary program of study. The primary reasons for this trend are the monumental changes in the US economy that began in the late 1970s and have continued unabated since. These changes have been well documented[1] and are generally accepted, yet secondary and postsecondary education systems have not yet fully come to grips with the implications of this transition to a high-skills knowledge economy where essentially everyone needs to keep learning beyond high school. One has only to look at the struggles of many formerly prosperous communities throughout the country as they attempt to find their place in the new economy and the concomitant emergence of a new set of "winners" to understand how disruptive these changes can be.

This new economy is leading to a radically redefined role for education, in large measure because essentially all participants in tomorrow's labor force, blue- and white-collar alike, are going to need to be able to learn new skills to change jobs, occupations and even careers.[2] The future likely holds only more such challenges, as the world economy continues to develop and the US economy both responds accordingly and also leads in new directions. All of this unpredictable, uncontrollable change results in periodic tectonic shifts that ripple through sectors of the economy and the society, creating disruption and making some entire career areas instantly obsolete while, at the same time, generating entirely new opportunities. How does an educational system prepare students to live in such a world?

No capability or knowledge set is going to trump the ability to learn new skills. Getting students ready to be true lifelong learners requires several components. Students will always need foundational knowledge, but they will increasingly need to develop tools for learning. In addition, they will need to become much clearer about the interests and aspirations that motivate them and guide them toward a chosen field of study. English and mathematics knowledge and skills are certainly important, but they are not ends in and of themselves anymore. They serve as foundational learning tools to explore possibilities, acquire skills and venture deeper into specific areas.

Additional content knowledge is required as well. Science, social sciences, the arts, second language, and career-technical subjects all create opportunities for the application of literacy and numeracy, and they also contain their own set of big ideas, ways of knowing, rules and structure, nomenclature, and learning strategies. As students apply their foundational skills in these areas (and potentially others), it needs to be crystal clear to them how to use foundational knowledge to delve deeply into subject areas and how they can apply learning skills to master new areas.

Because participation in the US economy is going to require nearly everyone to have at least some postsecondary education, it will be critical to find ways to increase access opportunities for students who have characteristics that can balance off content knowledge deficits.

Using a narrow set of content-knowledge measures as the primary means for determining access to postsecondary educational opportunities can overlook many of the learning skills all students need to succeed. The issue becomes more critical in the case of students who have gaps in content knowledge, but have well-developed learning skills and are highly motivated to pursue a specific goal. Understanding the strengths and specifying and helping them address their weaknesses may lead to a different decision about their eligibility and about the supports they need to succeed. Because participation in the US economy is going to require nearly everyone to have at least some postsecondary education, it will be critical to find ways to increase access opportunities for students who have characteristics that can balance off content knowledge deficits. Many of these students will be first in family to attend college or from groups now underrepresented in college. Current methods will tend to deny them the opportunity to succeed in college or fail to connect them with the resources and supports they need to make a successful transition.

The current system for determining college admission has issues that tend to be overlooked largely because it uses metrics that are familiar. For example, a great deal of research has been conducted on the relationship between the courses students take in high school and their success in the first year of college.[3] But nowhere near as much research has been undertaken to determine the fidelity of the content of courses with their titles, although most observers note the wide variation in the content of courses with the same title and the variation across high schools in courses with the same title.

As a result, it's essentially impossible to specify the degree to which one high school class prepares students well for college and another does not. Researchers offer generalizations about "rigor" and "challenge level," but no external benchmarks exist to determine how well any individual high school course is meeting such criteria. While admission officers develop their own insider knowledge about the courses at specific high schools, the only courses in the US that have any external quality control are those in the Advanced Placement® program. Each course is checked for alignment with a set of curricular requirements. Absent such a quality control process for the rest of the courses at high schools, individual courses will continue to vary dramatically in terms of the knowledge and skills necessary to succeed in them. This makes it difficult for admission officers to understand or interpret individual courses consistently.

High school grade-point average (GPA) is another measure with a research base to confirm its importance and predictive value. Even a cursory review of grading practices reveals tremendous variation ranging from semi-standardized systems requiring all grades be reported in percentages to the more common combination of percentages, holistic grading and combinations of the two.[4] The net result is that a cumulative GPA is made up of performance measured in a wide variety of ways against unknown standards. Because it is an average, it levels out higher performances in some subjects and lower performances in others. It is essentially a compensatory system that amalgamates higher performance in some subjects with lower performance in others (except for those increasingly numerous students who maintain a 4.0 in all classes). This allows for the masking of serious weaknesses in particular subject areas, both by the way the grade is derived in the first place and how it is then blended in with grades from all other courses. However, GPA is well understood and reasonably easy to understand and interpret. This familiarity and the fact that GPA demonstrates an association with grades in freshman courses has led to a turning of a blind eye to why it is associated with college success.

However, it is what GPA does not measure directly that is of greater interest. One of the reasons that GPA is the strongest predictor of postsecondary success is the very fact that it is comprehensive; it is a measure not only of academic knowledge and performance, but of a whole series of metacognitive learning skills such as time management, study skills, help-seeking strategies, persistence, and goal focus.

Unfortunately, none of these critically important factors are measured directly, so it is impossible to

determine the degree to which the GPA reflects any of these and in what proportion or where specific strengths or weaknesses in learning skills might exist. Simultaneously, grades don't let students know very directly or with much specificity the actions they need to take to improve academically (other than get better grades). So, while GPA is certainly predictive, it is not very diagnostic or terribly actionable for students. As a result, in practice, it is not a strong tool for improving student performance or for making sophisticated placement decisions or recommendations to students about the steps they should be taking in high school to be better prepared for success in college.

In addition, as average high school GPAs continue to increase[5], approaching or even exceeding 4 on a 4-point scale, the underlying meaning of a GPA is being eroded. Many students with high GPAs may be college ready, or well on the way to it, while others may be nowhere near that level. The problem is that students with solid GPAs don't know into which camp they fall, nor do admission officers. Current practices, such as weighted GPAs, only serve to obscure further the inherent meaning of a grade. Class rank, an old stand-by, is rendered essentially meaningless by grade inflation and weightings as students cluster at the very top of the distribution. Students whose GPAs would have earned them very respectable class ranks a couple of decades ago now find themselves in the lower half of their graduating classes. The amount of variance in college performance for students with high school GPAs well above 3.0 continues to increase.

This overreliance on a limited set of measures that purport to capture college readiness ignores the fact that research on what it takes to succeed in college has identified a much wider range of knowledge and skills.[6] This research, which draws from analyses of the content of entry-level courses at two- and four-year institutions and systematic inquiry to identify what faculty require of students for success in such courses, paints a much different picture of what students should be doing to prepare for college and what admission officers and others should be looking for when making crucial decisions about all students, but particularly those students most vulnerable to rejection from or failure in college.

Definition of a College Ready And Career Ready Student

What, then, is the definition of a student who is prepared to succeed in college and careers? The following section elaborates a more comprehensive model that suggests both the data needed to determine readiness and the skills students should develop to be ready, whether they intend to pursue a college education before entering a career pathway or to go straight to a career. The model is based on research over a 15-year period that has included more than a dozen major studies of the content of entry-level college courses, the priorities of college instructors, and multiple sets of college and career readiness standards.

A college and career ready student possesses the content knowledge, strategies, skills, and techniques necessary to be successful in any of a range of postsecondary setting. Success is defined as the ability to complete entry-level courses at a level of performance that is sufficient to enable students to continue to the next courses in their chosen field of study. Not every student needs exactly the same knowledge and skills to be college and career ready. A student's college and career interests help identify the precise knowledge and skills the student needs.

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This definition is very different from many of those in use currently, most of which rely on an absence of remediation as a measure of readiness. While avoiding remediation is important to student success in college (and I have previously included remediation avoidance in my own definition of readiness), the research suggests readiness is more than the lack of a deficit in a general set of reading, writing and math skills.

This definition differs from that offered by others in several important ways. Importantly, it includes all postsecondary learning as its reference point, not just a bachelor's degree. Included are

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students who seek to garner a certificate or two-year degree with the intent of entering a career pathway at that point in addition to those who attend four-year institutions, as well as those engaging in formal training in the military and those attending proprietary schools.

Although it's important to avoid remediation, the definition emphasizes the ability to proceed successfully through entry-level courses at a level of achievement that allows for continuation in a program of study. Current remediation models treat all students as if they need the same set of literacy and numeracy skills. The problem is that they don't because the content of entry-level courses varies so dramatically. Some campuses offer student success classes that attempt to address success more holistically, but few remedial programs help students develop the full set of knowledge, skills, and dispositions needed to get all the way through the first entry-level courses.

The definition calls attention to the fact that different programs of study require different knowledge and skills at the entry-level. While this is a fairly common-sense observation, it is not an element in considering the readiness of most students. Research conducted by the Educational Policy Improvement Center (EPIC) for the National Assessment Governing Board examined five different career-training programs that led to certificates, generally offered by community colleges or proprietary institutions. Researchers analyzed the content of entry-level courses in each career area and then mapped the results onto English and mathematics frameworks for the National Assessment of Educational Progress (NAEP). The resulting profiles for each career area were dramatically different, with little overlap among all five areas. A companion study of general education courses at baccalaureate institutions found more overlap among core skills, but also noted that not all NAEP framework elements were found in these courses, meaning students either were expected to have mastered them previously or that they were not necessary to succeed in the course.

This suggests that admission, placement and remediation decisions are much more complex and contextually sensitive in nature than has been acknowledged. While the effect of a poorly informed decision in one of these areas on a high performing, well-supported student may be surmountable, it can be and often is devastating for first-generation students or those who may have good grades but are nevertheless not well prepared.

The only way to make a contextually sensitive decision about student readiness is to know more about student learning skills and their interests and goals as reference points for judging readiness. The definition emphasizes the importance of understanding more about student skills and interests. It is not necessary or desirable to develop vastly different criteria for each college major or certificate program students may wish to enter, but it is useful to understand more about the relationship between student skills and interests and the program they hope to enter. Many factors are relatively constant across all interest and goal areas, including characteristics such as personal organization and study skills, the ability to set and pursue goals in the first place, time management, self-appraisal of performance, persistence, and the ability to seek help when needed. Certainly the ability to read, write and apply foundational mathematics skills also applies in all areas.

However, this definition seeks to emphasize the importance of putting the student at the center of any readiness determination and of being able to view readiness from that perspective rather than an institutional point of view only in which student performance is standardized into a one-size-fits-all model. Doing so ends up empowering students and enabling them to make decisions about their own behavior that allow them to own their learning and take greater responsibility for developing their readiness across the full range of variables that will prove critically important to their subsequent success.

The most selective colleges and universities have long employed some version of this process, whether they call it "comprehensive," "table," "holistic" review, or some other variant that reflects the fact that the admission staff takes into account a wide range of information from multiple data sources. These institutions are able to do this in part because they can devote the resources to the process and in part

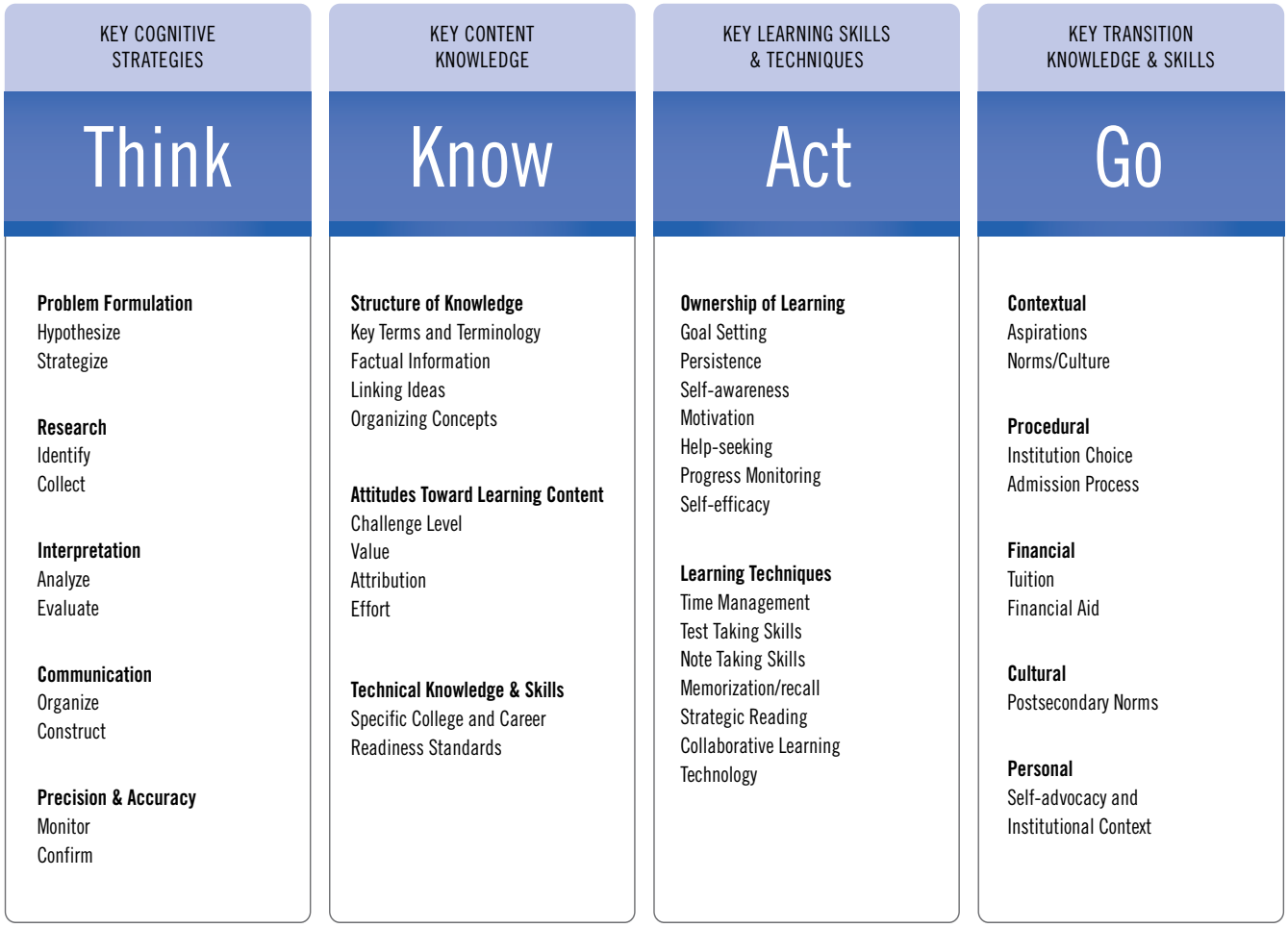
because the pool from which they draw comprises students who are almost uniformly capable of succeeding at these institutions. The review process is concerned more with "fit," the right kind of student for the institution, than success. However, the process does end up taking into account student motivation and interests, the match between those interests and the institution's programs and resources, and the maturation and sophistication of the applicants' learning skills and strategies.

Less-selective institutions cannot devote the resources to such an idiosyncratic and personalistic process. However, they could do a version of a comprehensive review if they were provided with a wider set of data in a form that they could interpret easily. Having the right information in hand is critical to making the right decisions. The challenge, in an age of information, is to know what is most important and organize and transmit it in a form that is most useable. The discussion now turns to these points.

Although the specific English and mathematics skills required for particular majors or career pathways differ, studies in all areas assume a core foundational set of knowledge and skills sufficient to read informational texts, to manipulate numbers with facility and automaticity, to understand graphical elements in texts and elsewhere, and to be able to read strategically for meaning. In addition, each area requires facility in a series of cognitive strategies associated with the field of study. The general categories are similar, but they differ when applied in context. These include formulating problems and selecting problem-solving strategies; researching issues by collecting information or consulting source materials; interpreting findings or information through analysis and evaluation through a variety of techniques; communicating to others through multiple formats including papers, oral presentations, PowerPoint, poster boards, projects, and demonstrations; and demonstrating precision and accuracy appropriate to the area of study and task at hand.

A final common component of college and career readiness is the ability to make a life transition from youth to young adult, from semi-dependent high school student to semi-independent college student. This life transition can be extremely jarring and requires

Figure 1. Four Keys to College and Career Readiness



a range of skills including the ability to pick the right postsecondary program in the first place, the ability to secure sufficient financial resources to enter the program and remain in it, an understanding of the norms and culture of postsecondary institutions generally and how they are different from high schools, and the ability to advocate for one's self in a complex bureaucratic context. An absence of any of these skills can lead to failure just as surely as deficiencies in reading, writing, or math can.

Assessing College and Career Readiness

A great deal of attention is being paid to new assessments devoted to measuring student achievement or proficiency in English language arts and mathematics. Some educators are pushing back against external exams and the time devoted to them. Many states are seeking to reduce the costs of these assessments to the minimum possible. Legislatures raise concerns about data systems that capture longitudinal information on students. The US Department of Education continues to search for a formula for a post-NCLB assessment and accountability model that will be acceptable to states and school districts.

These trends would seem to argue against the kinds of comprehensive information systems necessary not only to determine college and career readiness but to allow students to develop necessary knowledge and skills in the first place. In fact, rather than needing less information on student performance, as many states seem to be interested in doing, more information on multiple data points is required. By seeking to reduce the information available or limit it to a few often overlapping or redundant measures of reading skills and math knowledge, education, it seems, is going in the opposite direction of almost every other sector of the society and economy, where more information on an ever-wider range of variables is being generated and used to understand the needs of individuals better.

One reason more data points are needed now, as noted previously, is that readiness is far more important than it once was. Getting the richer information required to determine readiness (and to signal to students what they should be doing to prepare for postsecondary success) requires a willingness to move beyond the transcript to a *readiness profile*. A profile considers readiness in absolute terms (in relation to cut scores), relative terms (in relation to other students goals and aspirations), and self-referential terms (in relation to student goals, interests, and aspirations). A student-centered model for readiness as embodied in a profile creates opportunities for more students to reach the level of college and career readiness. It also engenders numerous challenges because it represents a transformational approach both in terms of necessary evidence and the ability to view evidence through the lens of student goals and aspirations.

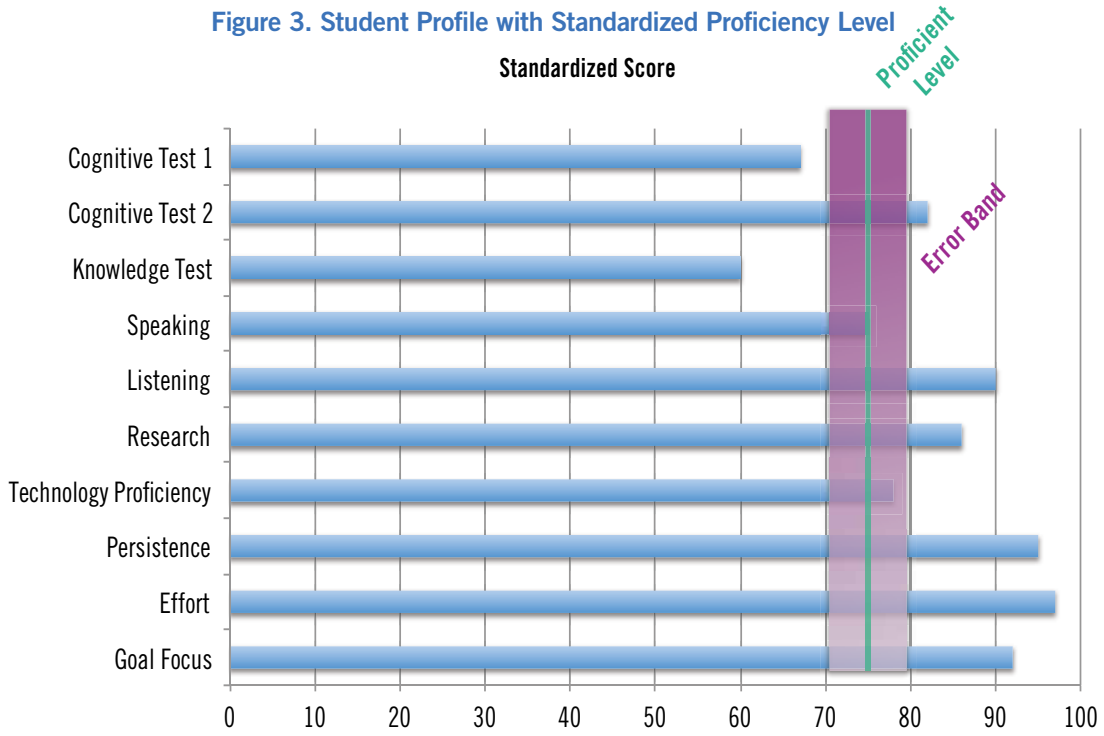
The Challenges of Moving to a System of Assessments and Profiles

A profile-based approach will require changes in assessment in high schools, moving from the traditional concept of an assessment system with a few scores that are judged more or less independently, to a *system of assessments* in which evidence from a range of sources is combined and judged based on a set of baseline criteria and a more integrative and personalized series of measures calibrated to individual student goals and aspirations.

Figure 2. Example of Conceptual Design of a Profile

Learner Skill	Four Keys	Stakes	Assessment Source
Content knowledge/cognitive skills	Key Cognitive Strategies/ Key Content Knowledge	High to Medium	SAT, ACT
Content knowledge	Key Content Knowledge	High	Consortia English and math tests, SAT/ACT, MAP
Cognitive skills	Key Cognitive Strategies	Medium	ThinkReady tasks scored against Key Cognitive Strategies
Speaking	Key Content Knowledge	Medium	Oral problem solving task, scored discussion, fishbowl
Listening	Key Content Knowledge	Medium	Note-taking, following directions, describing an event
Research skills	Key Cognitive Strategies	Medium	Research paper scored reliably by teacher
Technology proficiency	Key Learning Skills & Techniques	Medium	Online technology competency demonstration
Persistence	Key Learning Skills & Techniques	Low	Evidence-based rating by teacher of student persistence
Study skills	Key Learning Skills & Techniques	Low	Evidence-based rating by teacher of student study skills
Goal focus	Key Learning Skills & Techniques	Low	Evidence-based rating by teacher of student goal focus

Figure 3. Student Profile with Standardized Proficiency Level



In practice, this two-tiered approach to integrating assessment data results in a combination of conjunctive and compensatory approaches to standard setting. Overall performance must meet a certain level, but then student strengths can be recognized and allowed to compensate for non-essential areas of weakness.

Current assessments being developed by the Partnership for the Assessment of Readiness for College and Careers (PARCC) and the Smarter Balanced Assessment Consortium (SBAC) hold some potential as a starting point for a system of assessments approach. However, they test only English language and mathematics skills. They are not sufficiently broad or deep enough to gather information on the full range of readiness criteria necessary to help students determine their likelihood of succeeding in postsecondary education. Although they incorporate some new item types, they are not a radical departure from current tests. They will yield useful insights but will not provide all the evidence necessary to judge student readiness for college and careers. Information from other sources will be needed as well.

What Does a Profile Look Like?

Clearly, a profile approach will elicit numerous challenges. Whether the challenge will be worth undertaking depends on whether education in the US will become a system that uses significantly more information that is actionable by individual students. If current education reforms generate deeper student engagement with content, then a profile can capture more insights into student readiness for college and career readiness. A profile allows for the inclusion of all traditional measures of postsecondary eligibility and then augments those measures with data on additional readiness indicators.

The example profile in Figure 2 is designed to illustrate how a wider range of data points might yield better information on readiness while also signaling more accurately to students the broader range of knowledge and skills they need to be ready for college and career programs. The profile still contains two measures of English and mathematics from a national admission exam and a Common Core-aligned test. Beyond these somewhat redundant measures, the profile might contain information on cognitive strategies derived from a classroom performance task that measured problem formulation, research, interpretation, communication, and precision and accuracy.

The profile could contain additional lower stakes information designed to inform rather than judge. Classroom-based demonstrations of speaking and listening, two absolutely critical success skills that are significantly under-taught and under-assessed currently, would be important to include. Research skills in the form of either a standardized research task or an equivalent classroom-based task would yield valuable information on student ability to handle independent investigation. Proficiency with technology could also be determined in a relatively straightforward way by means of a skills test.

In the low-stakes category but still important are dispositions, such as persistence, effort and goal focus. Initially at least, teacher

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observations of these behaviors could serve as the basis for ratings. Over the longer term, it may be possible to infer these from other sources. For example, persistence might be inferred if students complete a complex task that requires multiple drafts and revisions. Goal focus might be inferred from the alignment between a student goal program that extended over multiple years and the actions taken during that time to achieve the program's goals.

To help postsecondary institutions cope with this richer but more complex information, the scores from the various sources could be placed on a common scale. Analytic processes could be applied to generate a proficient level for each measure. While performance categories of this nature bring with them their own problems, it may be necessary to employ them at least until enough is known about student performance patterns and their associations with postsecondary success.

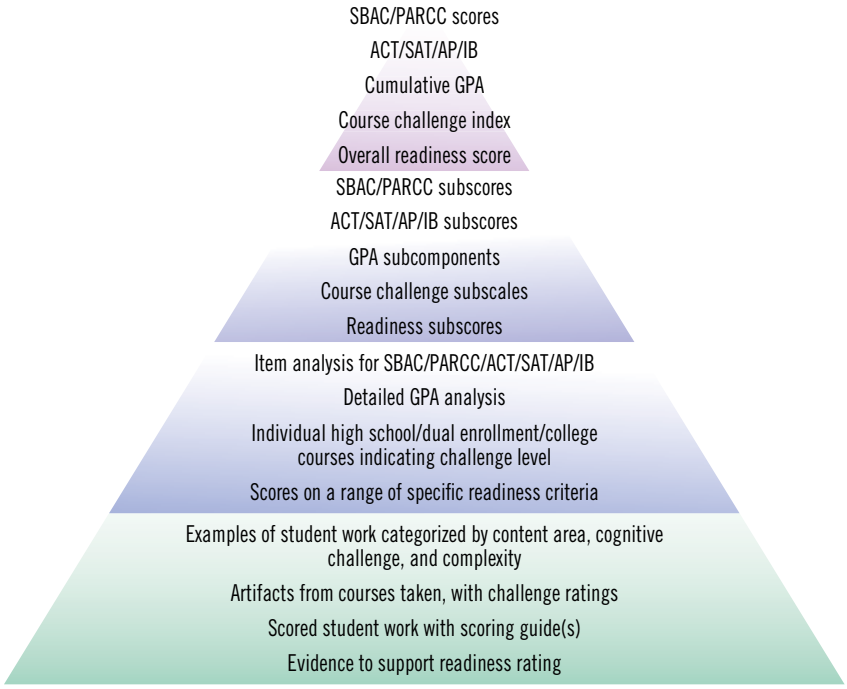
Even if profiles were not factored into high stakes decisions, they could serve an important purpose by informing students better about a broader range of areas where they needed to be ready to succeed post-high school. Postsecondary institutions could use them initially to make recommendations to admitted students about their overall readiness and to link students with resources to help them improve readiness quickly subsequent to admission and placement. Ideally, this information would also be shared with instructors in entry-level courses, in a strictly informational fashion without identifying individual students, to help instructors become more sensitive to the strengths and areas in need of improvement of students in their classes. It's entirely possible that more comprehensive information on readiness might help alleviate the frustration of many who teach entry-level courses and lead them to anticipate problem areas and provide supports to students or at least caution them about the need to develop knowledge and skills in particular areas to be successful in the course.

Examining the profile in Figure 3 leads to some observations that may be different than the conclusions reached by looking at this hypothetical student's transcript. This student showed content knowledge mastery that was not up to standard, which could be the basis for finding the student not college ready. Further examination reveals a student who is persistent, demonstrates significant effort, and has a strong goal focus. Furthermore, this student is a good listener with skills that meet standard in research and are very close in technology proficiency. Applying a broader analytic framework based on multiple data points might suggest a student who would be worth taking a chance on admitting to postsecondary education, even to an institution with a somewhat more competitive admission policy. At the least, a profile like this could help the student see the need to seek help to build the content knowledge and cognitive skills to complement strengths in other areas. In other words, the message to the student would not be that they were not college ready, but instead that they still needed to address a few important areas to be fully ready.

This type of analysis builds upon what students can do, not solely what they can't do. It emphasizes areas of competence while also pointing out improvement needs. All of the information is actionable so that students can do things to address any deficiencies. Postsecondary institutions can process this more complex information relatively efficiently and make a decision based either on a cursory examination of the profile or by going deeper. Even if the decision was made to place the student into a remedial program, the instructor in the remedial program might be able to take advantage of this information to help build a learning experience that took advantage of this student's strengths. Similarly, the student's advisor might use the full set of information in the profile to help connect the student with available resources and to develop personalized success strategies that built on strengths.

The initial goals and uses for a profile might be quite modest and still result in improved student performance and better decisions about student readiness. One of the key principles of the profile is that not all information needs to come from high stakes tests or from tests at all. It is important to remember that admission is competitive at a relatively small percentage of US postsecondary institutions. For the vast majority of postsecondary

Figure 4. Multi-level Profile Data Structure



settings, readiness will be far more important than ranking students. Understanding more about student strengths and areas in need of improvement will enable these institutions to increase student success while not necessarily decreasing the number of admitted students or burdening admission offices with unmanageable workloads.

Structure of a Profile

Ultimately, a profile might take on more of a wedding-cake structure, with the cut scores on the top levels and additional information and detail contained in concentric levels that could be accessed in situations where a deeper understanding of a student's readiness was desired or required. Note that this approach is qualitatively different than the portfolio models that were popularized in the 1990s by the Coalition of Essential Schools and others.[7] While portfolios may remain useful within schools as a means to capture authentic student performance with first-order measures, they do not translate or transmit well outside the high school where they were developed. The profile approach is designed with both the student and the end-user, the admission officer, equally in mind.

A multi-level profile would allow admission officers and other interested parties, such as college advisors and college instructors, to drill down based on need and interest to learn more about student knowledge and interests, as well as about metacognitive learning skills, goals and aspirations, and other conditions affecting academic success.

Even institutions not inclined to delve deeply into the profile would still have at the top level more information than they have currently about student readiness, and that information would be more reliable and valid. These data points could be triangulated to yield greater insight and more diagnostic information even at the highest level of the profile.

Subsequent levels would contain additional information that might not meet the technical standards of high-stakes measures but would be highly valid reflections of the actual work students were capable of doing and the techniques and strategies they used to learn. This second-level data might include the major score components that aggregated to the first level measure. For tests, such as the SAT and ACT, PARCC, and SBAC, this would include any scale scores or other subscores. These would be presented in a way that made it easy for postsecondary parties to map this information onto the major decisions they need to make.

The next level of information would consist of some of the major components that went into determining student grades at the course level. These would include any scoring guides used on major assignments or papers, final exams and unit tests with scores, and any record of attendance, participation, homework completion, revision and resubmission of major assignments, and other indicators of key learning skills. This information would help establish what the grade for any course actually meant.

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The final or root level would be first-order examples of student work. This level comes the closest to approaching the old portfolio model. However, the profile would be designed to categorize student work and use metadata tags to array it by characteristic that would make it easy and convenient for a reviewer to, for example, pull up samples of interpretive thinking or research or mathematical reasoning with ease.

Profiles of this nature would yield much more information about student readiness for college and careers. In their favor is the fact that information technologies are now sufficiently sophisticated and efficient enough to be able to accommodate the management of complex information of this sort. They would, however, still face a series of daunting challenges in order to be implemented successfully and on a large scale.

Challenges Facing Portfolios

It is beyond the scope of this article to identify the full range of issues involved in designing and implementing profiles. However, it is possible to identify some of the bellwether challenges, particularly those that go beyond the purely technical in nature, that will need to take place for a profile approach to readiness to become widely accepted.

First is the tendency of many, perhaps most, secondary teachers to view any additional measurements of student performance to be "testing" and therefore a diversion from teaching and learning. Second is the challenge of recording or capturing this additional information. Third, because the profile would be longitudinal in nature (although it could conceivably just be an 11th and 12th grade system), all teachers in a school would need to agree to participate in it, much like all agree to submit grades currently. Fourth is the challenge of comparing and scaling unlike measures, such as grades, performance tasks and self-reported measures.

The final and in many ways most pivotal challenge is the willingness of postsecondary institutions and admission offices to use any of this information in the first place. The jury is still out on whether colleges and universities will be open to a broader, more complex, more valid set of readiness indicators that will also signal students and teachers what it takes to be college and career ready. If external pressure to improve the success rate for students entering postsecondary programs continues to build, additional information that could help connect students to support resources might be viewed as more valuable. Postsecondary institutions are culturally inclined toward conservatism when it comes to new methods of admission or placement, so a profile approach will need to prove itself to be superior to current methods or at least to be provide significant additional value to justify the time, energy and resource that would be necessary to implementing a profile approach initially.

On the positive side, postsecondary participation in a profile system linked to the Common Core State Standards or other college and career readiness standards could send a positive message about system alignment between K-12 and colleges, a message that may resonate with policymakers, parents, teachers, and students themselves. Furthermore, and most important, if profiles lead to improved student readiness and success, the odds of being embraced by postsecondary education improve dramatically.

Conclusion

The PARCC and SBAC assessments could provide more detailed information on content knowledge in English and mathematics than state tests or admission exams, such as the ACT or SAT, but they will stop short of generating anything like a profile. While both ACT and the College Board are redesigning their tests to provide more Common Core-linked information, these tests are still limited to English and mathematics. As important as knowledge and skill in these subject areas is, they are not the only components of a college ready student.

However, the larger issue really is what constitutes the full set of information that is needed for students and admission officers to know how ready students are to succeed in postsecondary education. The current measures have been unchanged for virtually 100 years. The demands of the new economy require

more and more people to acquire postsecondary education. The ever-increasing cost of college raises the stakes for students to succeed. Education reforms seek to raise the bar for all students and to assess them more comprehensively. Every other sector of the society is increasing the amount of information generated and used to make decisions. All of these factors reinforce the need and urgency for K-12 and postsecondary education systems to collaborate on the development of radically new methods to capture, analyze and use a much wider array of information to inform key decisions and maximize student success.

Endnotes

[1] See, for example, Carnevale, A., Jayasundera, T., & Cheah, B. . 2012. The College Advantage: Weathering the economic storm. Washington, DC: Georgetown University Center of Education and the Workforce; Carnevale, Anthony Patrick. 1991. *America and the New Economy: How New Competitive Standards Are Radically Changing American Workplaces*. San Francisco: Jossey-Bass Publishers.

[2] Carnevale, A.P., Smith, N., & Strohl, J. 2010. Help wanted: Projections of jobs and education requirements through 2018. Washington, DC: Georgetown University Center of Education and the Workforce.

[3] Baron , J., & Norman , M. F. (1992). SATs, achievement tests, and high-school class rank as predictors of college performance. *Educational and Psychological Measurement, 52*, 1047-1055; Noble, J., & Sawyer, R. (2002). Predicting different levels of academic success in college using high school GPA and ACT composite score Iowa City, Iowa: ACT; Morgan, R. (1989). Analysis of the predictive validity of the SAT and high school grades from 1976 to 1985. New York, NY: College Entrance Examination Board.

[4] See, for example, Conley, D. 2000. "Who Is Proficient: The Relationship between Proficiency Scores and Grades." Annual Meeting of the American Educational Research Association, New Orleans LA, April 24-28.

[5] Woodruff, D. J., & Ziomek, R. L. (2004). High school grade inflation from 1991 to 2003. Iowa City, Iowa: ACT.

[6] See, for example, Conley, D. T. (2003). *Understanding university success*. Eugene, OR: Center for Educational Policy Research, University of Oregon; Conley, D. T. (2005). *College knowledge: What it really takes for students to succeed and what we can do to get them ready*. San Francisco: Jossey Bass; Conley, D. T. (2007). Redefining college readiness. Eugene, OR: Educational Policy Improvement Center. Conley, D. T. (2009). Creating college readiness. Eugene, OR: Educational Policy Improvement Center; Conley, D. T. (2011). Reaching the goal: The applicability and importance of the common core state standards to college and career readiness. Eugene: Educational Policy Improvement Center; Conley, D. T. (2014). *Getting ready for college, careers, and the Common Core: What every educator needs to know*. San Francisco: Jossey-Bass/Wiley; Texas Higher Education Coordinating Board. (2008). Texas college and career readiness standards. Eugene, Oregon: Educational Policy Improvement Center; American Diploma Project. (2004). Ready or not: Creating a high school diploma that counts. Washington, DC: Achieve; Council of Chief State School Officers, and National Governors Association. 2010. Common Core State Standards. Washington, DC: Authors.

[7] See, for example: Muncey, D., & McQuillan, P. (1993). Preliminary findings from a five-year study of the Coalition of Essential Schools. *Phi Delta Kappan, 74*(6), 486-489.; McDonald, J. P., Smith, S., Turner, D., Finney, M., & Barton, E. (1993). *Graduation by exhibition: Assessing genuine achievement*. Alexandria, VA: Association for Supervision & Curriculum Development.

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