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COLLEGE- AND CAREER-READY:

Using Outcomes Data to Hold High Schools Accountable for Student Success

By Chad Aldeman

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According to the Florida Department of Education, Manatee High School was not a place parents should have wanted to send their children in 2006. The Bradenton-based school received a "D" rating on the state's A–F scale of academic performance that year while failing to meet federal No Child Left Behind proficiency standards for the fourth year in a row. At the same time, Boca Raton Community High School was flying high, having just earned its second straight "A" rating and being named among the best high schools in the country by Newsweek magazine.

But while Manatee got dismal marks from state and federal accountability schemes, it was actually quite successful in a number of important ways. It graduated a higher percentage of its students than Boca Raton and sent almost the same percentage of its graduates off to college. Once they arrived on college campuses, Manatee graduates earned higher grades and fewer of them failed remedial, not-for-credit math and English courses than their Boca Raton peers.²

In other words, D-rated Manatee was arguably doing a better job at achieving the ultimate goal of high school: preparing students to succeed in college and careers. But because Florida's accountability systems didn't measure college and career success in 2006, nobody knew.

The goal of helping all students become college- and career-ready has become a focal point of American education. In announcing the guidelines for the \$4.35 billion Race to the Top Fund in late 2009, U.S. Secretary of Education Arne Duncan called for states to ensure that "students exiting one level are prepared for success, without remediation, in the next." This reflects a larger recent movement to improve high schools, one that has led states to adopt more rigorous academic standards, increase graduation requirements, and improve access to advanced courses.

But most high school accountability systems are lagging behind, failing to recognize college- and career-ready goals. Most high schools are rated on only two measures: graduation rates and student scores on basic skills tests given in a single year (usually ninth or 10th grade). While some states have added end-of-course or graduation exams as accountability measures, those exams have been plagued by lawsuits in some states and devalued by near-universal pass rates, after counting re-takes and alternate routes, in others.⁴

Fortunately, a growing number of states have the tools to do better. Florida, Oregon, and Ohio are among states that have built powerful new data systems that track student progress after high school into the work force and college, allowing vital information to flow between K-12, higher education, and work-force information systems. While few states have all the components in place, many have some. Sixteen states are already publicly reporting the college remediation needs of public high school graduates. They have the ability to calculate the percentage of students in a specific high school's graduating class who are in need of remedial coursework in college, who drop out of college, who earn successful grade point averages in their freshman year, and much more. States can also calculate the earnings of graduates who enter the work force, broken down by occupation and industry sector.5

States can use these new data systems to create richer, more accurate, more multi-dimensional measures of high school success. Congress has invested hundreds of millions of dollars in state data systems in recent years—\$245 million in federal 2009 stimulus funds were set aside for this purpose alone. Now, as federal lawmakers consider reauthorizing the Elementary and Secondary Education Act, they have the opportunity to use the dividends of that investment to solve one of the most vexing problems in K–12 policy: how to hold high schools accountable for preparing students to succeed in college and careers.

THE TROUBLE WITH HIGH SCHOOLS

The need to improve high school accountability is rooted in the stagnation of American secondary education. While fourth- and eighth-grade students have increased their scores on the National Assessment of Educational Progress over the last two decades, the scores of high school students have remained flat. And although nearly two-thirds of high school graduates go on to college immediately after completing high school, many of these students are unprepared for college-level work.⁶ That's one of the major reasons that only about half of all entering college students are able to graduate in six years.⁷

Current K-12 accountability systems do little to solve this problem. The federal No Child Left Behind Act (NCLB), and prior standards-based reforms at the state level, have focused primarily on the basic skills of elementary and middle school students. NCLB requires all schools taking federal Title I money to meet testing and attendance benchmarks, but, since only a quarter of high schools take this money, most high schools are not held to these requirements.8 Under NCLB, if a school fails, over successive years, to meet academic targets known as "adequate yearly progress" either on a schoolwide basis or on the basis of one of its subgroups (i.e., minority, English language learner, students with disabilities, or low-income students), it is subject to a cascade of interventions that become increasingly prescriptive. But these interventions—things like offering students in failing schools tutoring services or the option to transfer to another school-are poorly tailored to high schools. For instance, while three quarters of districts offer free tutoring for elementary students from failing schools, only one quarter of districts do so for high schools. The option to transfer schools is similarly under-utilized, partly stemming from the fact that 77 percent of all school districts have only one high school to choose from.9

There are legitimate reasons for NCLB's focus on elementary and middle schools. It makes sense to focus on younger grades, because gaps and deficiencies in educational achievement develop early in children's lives. There's also greater agreement on what young children need to master than on what's appropriate for high school students. Decades-old debates persist over whether high schools should prepare students for college with a comprehensive liberal education or whether students

should be equipped to enter the work force with training and skills in specific fields. These factors combine to make it harder to implement rigorous standardized tests in high school, where expectations for students diverge, than in elementary and middle schools.

Also, at the time NCLB was signed in 2002, few states were able to gather the most relevant information about whether students were college- and career-ready-that is, whether, once they began college or a career, they actually succeeded. That has changed. Nine states now track SAT, ACT, or AP scores, Twenty-one states track the percentage of high school graduates who go to college. Fourteen measure college grade point averages, credit attainment, or some other indicator of classroom success for the graduates of individual high schools. Nine track one-year college retention rates, and two states, Kentucky and Missouri, track college graduation rates by the high school the student attended. Two states. Florida and Missouri, look at work-force data to see if students who don't go directly to college can get a well-paying job. Twenty states can do at least two of these things, and some can do all of them.10

States, however, have not used this information to assess how well their high schools are preparing students for success in college or the work force. When the information is used in this way, it paints a different picture than what current accountability systems suggest.

Oregon, Ohio, and the Limits of AYP

Data from Oregon illustrate that NCLB's "adequate yearly progress," or AYP, measure does not provide a complete picture of high school performance. The Oregon University System tracks the first-year GPA of recent high school graduates and one-year college retention rates for each public high school. Surprisingly, the data show that, on average, graduates of Oregon high schools that met AYP had *lower* first-term GPAs and *lower* one-year retention rates than graduates of schools that failed to make AYP. While the differences were not large enough to conclude that the two types of schools produced fundamentally different graduating classes, they illustrate the limits of AYP in making sharp distinctions between high- and low-quality schools.

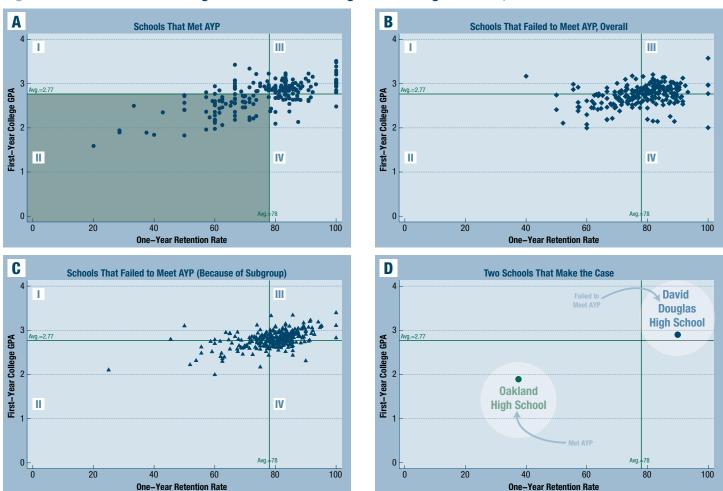
Figure 1 illustrates these findings by using information from nearly 200 Oregon high schools. These schools

sent almost 35,000 students to college over a five-year period from 2003 to 2007. (The charts do not include high schools without complete data or with such small numbers of graduates that including the school would risk the anonymity of individual students.)¹¹ Each symbol on the individual charts represents one high school in one year. The horizontal and vertical lines represent the sample averages for first-year college GPA and one-year college retention rates.

While most high schools tend to cluster around the averages, there are schools labeled fully successful under AYP whose graduates turn out not to be, and vice versa. In Figure 1A for instance, the schools in the bottom left

quadrant (II) met AYP. But the first-year college GPAs and retention rates of their graduates were lower than the state averages. Consider the 200-student Oakland High School, which is located about an hour south of Eugene. Oakland met AYP and graduated 34 students in 2007. Eight of the 34 students went on to an Oregon public university. They earned an average first-year GPA of just 1.89, and only three (38 percent) returned for their second year. Compare Oakland in 2007 to David Douglas High School in 2006. (See Figure 1D.) David Douglas, located 10 miles outside of Portland, did not meet AYP, because the school's 10th-graders, the only tested students, fell below the required benchmarks. But David Douglas sent about the same proportion of its graduates to an Oregon public university

Figure 1. Performance in College of Graduates of Oregon Public High Schools, 2003–07



Source: Oregon state accountability information was downloaded from http://www.ode.state.or.us/data/reportcard/reports.aspx and the Oregon University System's Freshman Profiles are available at http://ir.ous.edu/hsprofile/getSchool.do.

Note: Each dot, diamond, or triangle in the above charts represents one Oregon public high school in one year. Each chart is divided into quadrants based on whether schools fell above or below state averages in first-year college GPA and one-year retention rates (averages are represented by the vertical and horizontal lines dividing each chart). Schools in Quadrant I, for example, had graduates with lower-than-average retention rates who nonetheless earned above-average college GPAs in their first year of undergraduate study. Schools in Quadrant IV, in contrast, graduated students with higher-than-average retention rates but whose GPAs fell below the mean.

as Oakland did, and 90 percent of them returned for their second year of school carrying an average first-year college GPA of 2.92.

Data from Ohio tell a similar story. Ohio, Massachusetts, and Kentucky are able to determine, by state high school, what percentage of graduates went on to college, how many of them need remedial help once there (by subject), some measure of collegiate academic success (such as GPA or credits earned), and whether they return for their second year.

Schools that met AYP in Ohio, on average, graduated students with higher ACT scores who were more likely to attend college after completing high school, who were less likely to require remedial coursework, who earned higher first-term college GPAs, and who persisted into their sophomore year at higher rates than graduates of high schools that failed to meet AYP. All of these differences were statistically significant. But as in Oregon, AYP was a rough indicator, labeling some schools that were successful in terms of college attainment as failing while deeming other schools with lower attainment rates as successful.

Figure 2 illustrates the college transition of 114,000 graduates of 698 public high schools in Ohio in 2006.¹²

Again, each symbol represents one high school, and the high schools are split according to whether or not they met AYP. In this illustration, high schools are graphed according to their students' average first-term college GPA and the percentage of them required to take remedial coursework upon entering college. The horizontal and vertical lines indicate the state average on each of these measures.

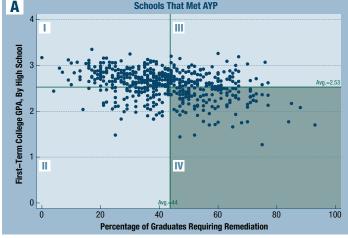
The high schools in the bottom right quadrant (IV) of Figure 2A met AYP, but have graduates whose first-term college GPAs are below the state average and who require unusually high levels of additional remedial work once they arrive on college campuses. These are schools that are rated as fully successful under NCLB, but whose students often were not college ready when they left high school. Bedford High School, located in a suburb of Cleveland, met AYP while graduating 240 students in 2006. Fifty-six percent (13 percent higher than the state average) entered an Ohio college or university right out of high school, but they averaged only a 2.38 GPA in their first term, and 73 percent were required to take remedial, not-for-credit courses.

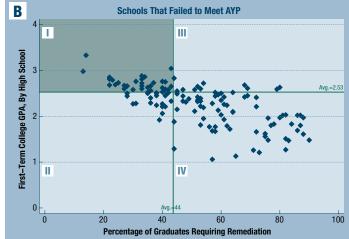
On the other end of the spectrum are schools in the top left quadrant (I) of Figure 2B. These schools failed under federal accountability rules, typically because one or

Figure 2. Performance in College of 2006 Graduates of Ohio Public High Schools

A Schools That Met AYP

B Schools T





Source: Data file obtained from the Ohio Board of Regents. Its High School to College Transition reports are available at http://regents.ohio.gov/perfrpt/hs2ct_reports.php and the state's accountability reports can be found at http://ilrc.ode.state.oh.us/Downloads.asp.

Note: Each dot or diamond in the above charts represents one Ohio public high school in one year. Each chart is divided into quadrants based on whether schools fell above or below state averages in remediation rates and first-term college GPA (averages are represented by the vertical and horizontal lines dividing each chart). Schools in Quadrant I, for example, had graduates with below-average remedial needs who were also able to earn higher-than-average college GPA in their first term of undergraduate study. Schools in Quadrant IV, in contrast, graduated students with above-average remediation rates whose GPA fell below the mean.

more subgroups could not meet performance targets, but that, on the whole, graduated students that earned high first-term college GPAs and required few remedial needs. Lakota West High School, located in a suburb of Cincinnati, failed to make AYP in 2006 because its students with disabilities were unable to meet the state's standards. The school should be held accountable for these students, to be sure, but Lakota West should also be acknowledged for getting large numbers of students into and ready for college. It graduates more than 95 percent of its students each year, and in 2006 sent 56 percent of its graduating class on to an Ohio college or university (the same as the AYP-meeting Bedford). Unlike Bedford though, only 13 percent of the 320 Lakota West graduates required remedial coursework upon entering college, and 91 percent returned for their second year. They earned an average first-term GPA of 2.98, compared to the sample average of 2.53. (See Table 1.)

Table 1. Results on Selected College-Readiness Indicators at Two Ohio Public High Schools, 2006 Graduates

College-Readiness Indicators	Bedford	Lakota West	
2006 Overall AYP	Met	Did Not Meet	
2007 School Improvement Status	OK	At Risk	
2006 High School Graduates	240	572	
Percentage Enrolling in Ohio Public College or University	56	56	
Percentage of Graduates Required to Take Remedial Courses	73	13	
Average First-Term GPA	2.38	2.98	
First- to Second-Year Persistence Rate (Any Ohio Public Institution)	77	91	

These examples from Oregon and Ohio reveal the often hidden consequences of an accountability system that labels schools using the results of a standardized test of preparation for college while ignoring actual evidence of college success. Schools like Oakland and Bedford that earn passing labels are not as likely to see a need to make improvements, even as their students struggle after they leave. Schools that are labeled failing, like David Douglas and Lakota West, are more likely to be subject to reforms and overhauls, even as their students go off to college and succeed.

CREATING A NEW INDEX

By compiling information on how well students do beyond high school, many states have taken the first step toward creating a multi-dimensional accountability system that aligns high school and postsecondary standards. And although few states have done so, these new state data systems can also track students into the work force—Missouri and Florida, for instance, are currently following high school graduates into both college and careers. The next step is to use the data to evaluate high schools and hold them accountable for preparing their students to succeed.

Florida is already taking that step. In 2010, Florida high schools will be held accountable for participation and performance in Advanced Placement or other college-level work, and, in 2011-12, for the percentage of graduates scoring "ready" on college entrance examinations, in addition to the measures currently in use.¹³ The state has long been a leader in educational data and accountability. According to the Data Quality Campaign, a national organization devoted to improving state longitudinal data systems, Florida became the first state to have all the elements of a comprehensive data system in place in 2007.14 It began administering standardized tests to all students in grades 3, 5, 8, and 11 in the 1970s, and became one of the first states to institute a competency-based graduation examination in 1983. In 1999 Governor Jeb Bush signed the A+ Plan into law, requiring the state Department of Education to grade all public schools in the state on an A-F scale, based on standardized test scores. The grading scale has evolved to include more elements over time: In 2001 the testing was expanded to all grades 3-10; in 2002 the state began awarding points for year-to-year learning gains in math and reading and for the percentage of the lowestperforming 25 percent of students making learning gains in reading; in 2005 the state began measuring learning gains for students with disabilities and limited English proficient students; and in 2007 the state began awarding schools for the performance of the lowest-performing 25 percent of students in mathematics. 15

But Florida is poised to go even further. Using information it is already collecting, the state could incorporate even more outcomes data and make its current accountability system more stable and more reflective of real student success. The following section considers a new accountability index for Florida which builds on the

system's current measures. This new index uses existing data on two years of 10th-grade test scores, collegegoing rates, remedial participation and completion rates, college GPAs, full-time employment, and wage data for 221 Florida public high schools. (See Sidebar "Florida's Accountability Systems Compared.") Altogether, the index includes over 150,000 Florida public high school graduates (60 percent of the 2005 and 2006 graduating classes) as they moved into their first year of college and the work force. (On all the key variables, this sample closely resembles the entire population of Florida high school graduates. See Appendix.)

Overall, Florida high schools had graduation rates of just over 70 percent in 2005 and 2006. Of these graduates, slightly more than half entered a Florida public college or university the first fall after graduating, but more than a third of these students needed remedial coursework in math, reading, and/or writing. Another 25 percent of Florida's high school graduates found full-time employment in Florida, earning an average annual salary of \$19,400.

To incorporate this data into a new college- and careerreadiness index, each school is eligible for up to 1,800 points:

- 600 points are awarded according to Florida's 2005 and 2006 A+ System, which includes performance on reading, math, and writing standardized exams; learning gains in reading and math; and learning gains of the lowest 25 percent of students in reading.
- Another 100 points each are awarded based on the school's graduation rate and the percentage of students taking an Advanced Placement, International Baccalaureate, or other college-level course.
- Schools earn up to 100 points for the rate at which graduates go on to college.
- 300 points are awarded for whether college-going students are able to pass out of remedial courses, and 200 for whether students who are placed in remedial courses pass those courses.
- 100 points for whether students in for-credit courses earn GPAs above 2.0.
- Schools are also given up to 300 points for the full-time employment rate and wages earned by graduates to ensure that schools are held accountable for all students, not just ones who

go to college. The measures are also such that the ratio of points schools earn for college versus career success (700 vs. 300) closely matches the ratio of students entering college versus entering the work force directly (about 61 vs. 25 percent) after finishing high school.

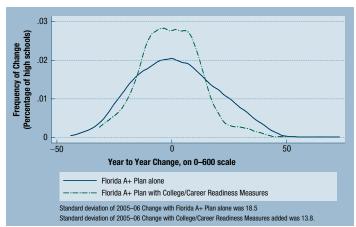
The career-readiness measures in this index use full-time wage data from Florida's Unemployment Insurance system. All states are required by federal law to collect similar data (both employer taxes and employee benefits are based on wages) but only a handful of states have used this database to compare high school or college graduates with their employment outcomes. There is, of course, no guarantee that wage data will identify individuals with strong career prospects, as opposed to just those with a job. (The wage data are typically grouped by industry sector, but are not tied to an employee's function within that sector, and some occupations, such as information technology, exist in all industries.) But linking educational experiences with employment outcomes is a necessary first step. States could also augment the wage data with some indicators of career potential such as apprenticeships, industry certifications, military service, or other measures that predict future occupational success.

Comparing the new college and career-readiness index with Florida's previous system shows that the new index is more stable. Figure 3 illustrates this, showing Florida's 2005 and 2006 A+ grading scale along with the new index, converted to a 0–600 scale for comparability. The chart shows year-to-year changes in total scores under Florida's A+ plan alone (the solid line) and total scores under Florida's A+ plan enhanced with the college- and career-readiness index (the dotted line).

The more concentrated nature of the dotted line suggests that adding the college- and career-readiness variables adds year-to-year consistency. Consistency matters. Systems that fluctuate wildly from year to year undermine confidence in the measures. More importantly, if the measures are not seen as reflecting actual performance, teachers, principals, and the public will be unlikely to press for changes. Stability is also particularly important for assessing the quality of small schools—because they have smaller sample sizes, more stable measures mean they'll earn more accurate ratings year-to-year.

The new index also will help ensure that schools are evaluated more comprehensively. Like the AYP measures

Figure 3. Change in High School Accountability Score, From 2004–05 to 2005–06, Florida's A+ Plan Alone and with College/Career Readiness Measures



Source: The data for this report were compiled by the author from several sources. School accountability information comes from http://schoolgrades.fldoe.org/default.asp and http://www.fldoe.org/eias/eiaspubs/excel0607.asp. Information on postsecondary enrollment, college GPA, and course completions is available at http://data.fldoe.org/readiness/default.cfm. Performance on common course placement tests can be found at http://www.fldoe.org/articulation/perfCPT/default.asp. Work-force and other data were downloaded from the Florida Education & Training Placement Information Program at http://www.fldoe.org/fetpip/high.asp.

Note: The steeper curve to the Florida A+ Plan combined with collegeand career-readiness measures indicates more stability and less year-toyear change.

in Ohio and Oregon, Florida's A+ grading system did have quite a bit of predictability. Students who scored well on standardized tests tended to go on to college at higher rates, require less remediation once there, earn higher college GPAs, and find better-paying jobs in the work force. Schools that scored higher on Florida's A–F grading scale scored higher, in general, on the college- or career-readiness scale. But, without incorporating these new data into accountability systems, schools will continue to be judged solely on substitutes for, rather than actual, success. As such, schools like Florida's D-rated Manatee will be forced to change their practices, despite the success of their graduates, while those like the A-rated Boca Raton Community will continue to be praised, even as their students struggle to succeed in college.

MOVING BEYOND THE CHALLENGES

Despite the abundance of new information, states continue to rely almost exclusively on proxies for judging

school quality. There are several reasons for this. The process of developing new data systems is often disconnected from the process of crafting education policy. The vast majority of the data on college- and career-readiness of high school graduates, for example, is collected and reported by state higher education agencies. The data are sitting on Web sites for all to see, suggesting that the challenges to using the new data to better align high school, college, and career standards are less a matter of technical know-how than they are of political will.

The data currently available to the public have some limitations. Florida, for instance, publicly releases only summary high school-level data, so the best calculations cannot ensure that students are not counted more than once (they could, for example, be working full-time and enrolled in college). The publicly available summary statistics, moreover, do not include data for student subgroups, an important feature of NCLB-style accountability systems. Florida has set up deliberate rewards in their existing accountability structure for schools that educate under-served populations well; the best accountability systems would use student-level data to calculate disaggregated college- and career-readiness measures in a similar fashion.

Also, as state-based systems, these databases are not able to track all high school graduates regardless of where they go. They can not, for example, follow high school graduates who leave the state to enter the work force elsewhere. Some, like Florida, have data sharing agreements with other states to track their public high school graduates attending college out of state. Florida has a relatively high percentage of its high school graduates entering college as freshmen attending an in-state institution, but smaller states with more graduate mobility may need to work with neighboring states to collect complete outcomes data. ¹⁶

Another challenge is the fact that the best measure of a school's success may not be available for years after that success has or has not occurred, limiting the utility of the information for rapid response. Under current accountability systems, schools are held responsible for the test scores of last year's students. They suffer any penalties or receive any rewards after the students leave. Utilizing outcome data would require even more of these delayed decisions, because outcomes cannot be

measured until the student leaves the school and begins experiencing success or failure. But in the long run, it is better to base accountability determinations on delayed measures of the right thing than immediate measures of the wrong thing.

Size is also a challenge in using outcomes data to assess high school performance. Even with a dataset like the one compiled on Florida, outcomes data alone is not as stable year-to-year as an index combining both the existing proxy and the new outcomes measures. If the

Florida's Accountability Systems Compared					
2005 and 2006 Florida A+ Accountability System	2009-10 Proposed Florida A+ Accountability System [†]	Proposed College- and Career- Readiness Index (using 2004–5 and 2005–6 data)			
FCAT Reading (100 Pts. Possible)	FCAT Reading (100 Pts. Possible)	FCAT Reading (100 Pts. Possible)			
FCAT Math (100 Pts. Possible)	FCAT Math (100 Pts. Possible)	FCAT Math (100 Pts. Possible)			
FCAT Writing (100 Pts. Possible)	FCAT Writing (100 Pts. Possible)	FCAT Writing (100 Pts. Possible)			
	FCAT Science (100 Pts. Possible)	N/A*			
Percentage of Students Making Learning Gains in Reading (100 Pts. Possible)	Percentage of Students Making Learning Gains in Reading (100 Pts. Possible)	Percentage of Students Making Learning Gains in Reading (100 Pts. Possible)			
Percentage of Students Making Learning Gains in Math (100 Pts. Possible)	Percentage of Students Making Learning Gains in Math (100 Pts. Possible)	Percentage of Students Making Learning Gains in Math (100 Pts. Possible)			
Adequate Progress of Lowest 25% Reading (100 Pts. Possible)	Adequate Progress of Lowest 25% Reading (100 Pts. Possible)	Adequate Progress of Lowest 25% Reading (100 Pts. Possible)			
	Adequate Progress of Lowest 25% Math (100 Pts. Possible)	N/A*			
	Graduation Rate (200 Pts. Possible)	Graduation Rate (100 Pts. Possible)			
	At-risk Graduation Rate (100 Pts. Possible)	N/A*			
	AP/IB Participation (100 Pts. Possible)	AP/IB Participation (100 Pts. Possible)			
	AP/IB Performance (200 Pts. Possible)	N/A*			
		College-going Rate (100 Pts. Possible)			
	Performance on College Readiness Test Reading (100 Pts. Possible)	Performance on College Readiness Test Reading (100 Pts. Possible)			
		Performance on College Readiness Test Writing (100 Pts. Possible)			
	Performance on College Readiness Test Math (100 Pts. Possible)	Performance on College Readiness Test Math (100 Pts. Possible)			
		Percentage of Students Earning College GPAs Greater Than or Equal to 2.0 (100 Pts. Possible)			
		Percentage of Students Passing Remedial Math Course (100 Pts. Possible)			
		Percentage of Students Passing Remedial Language Arts Course (100 Pts. Possible)			
		Full-time Employment Rate (200 Pts. Possible)			
		Average Quarterly Earnings (100 Pts. Possible)			
600 Points Possible	1,600 Points Possible	1,800 Points Possible			

^{†2009} Assessment and Accountability Meeting, "Revising High School Graduation Requirements," PowerPoint presentation available at: http://www.fldoe.org/evaluation/presentations.asp.

^{*}Data for these specific indicators were not available for the school years analyzed. Had they been available, the proposed index would have included them.

college- and career-readiness indicators prove stable over time, states could move toward weighting them more heavily. In the interim, outcomes data need more trials as augmentation to current test-only systems, as Florida and Oklahoma (which is beginning to evaluate high schools on the ACT scores, Advanced Placement credits, and college remediation rates of their graduates) are doing.

Still, holding schools accountable for real results has great potential. It could earn the much-needed buy-in that previous accountability systems have lacked. Test-based accountability systems have struggled to earn the respect of key stakeholders—especially teachers and administrators leery of their work being evaluated only on the results of a single set of reading and math tests—which has undermined improvement efforts. Tests and other proxy measures can offer only a limited snapshot of what students know and can do, and they have the potential to encourage educators to teach to the tests and narrow the curriculum.

Such a system may also help with inter-state comparisons. The rigor of state standards and assessments varies, so making AYP means entirely different things in every state. But with an outcomesbased index, where succeeding in college, getting a job, and earning a decent wage are what matters, the accountability systems would send a clear and credible signal of achievement understood nationwide.

There is also the potential to alter the incentive structure for educators as well as to encourage high schools and colleges to work together. Accountability is fundamentally about distinguishing good schools from bad in order to reward good behavior and establish incentives to improve poor performers. But, an accountability system fails if it identifies low performing schools without offering signals about how to improve their performance. A transition toward an outcomes-based accountability system from a test-based one would change the way schools look at the junior and senior years—rather than being a mad dash to get as many students as possible out the door, schools would also have to consider what happens to those young adults after they leave.

This type of forward-thinking would encourage alignment between high school, college, and work-force standards. The current accountability system places high schools and colleges in silos: Each is responsible only for educating students when they are under their care. High schools are not responsible for what comes after graduation, and colleges and universities often blame their problems on the preparation of their incoming students. Neither sector has much incentive to work with the other.

Yet, getting high schools and colleges to work together is essential. Success in college is not just a function of a student's high school preparation but is also dependent on how good the college or university is at teaching its students. The alignment problem between high school exit and college entry standards will not be fixed by focusing on an accountability system only for the former. If a state's postsecondary institutions do not have common placement standards, for example, high schools would be uncertain which set of standards to use in preparing their students. To create new incentives for communication, alignment, and collaboration between K-12 and higher education, states must develop integrated K-12 and higher education accountability systems, so instead of neither system being responsible for the high schoolcollege transition, both would be. Integrated data systems will be the foundation for such policies, and students will ultimately get a better education as a result.

ENDNOTES

- ¹ Available On-line at http://www.newsweek.com/ id/39380/?q=2006/state/201.
- ² The data for this report were compiled by the author from several sources. School accountability information comes from http://schoolgrades.fldoe.org/default.asp and http:// www.fldoe.org/eias/eiaspubs/excel0607.asp. Information on postsecondary enrollment, college GPA, and course completions is available at http://data.fldoe.org/readiness/ default.cfm. Performance on common course placement tests can be found at http://www.fldoe.org/articulation/perfCPT/ default.asp. Work-force and other data were downloaded from the Florida Education & Training Placement Information Program at http://www.fldoe.org/fetpip/high.asp.
- Race to the Top Program Executive Summary. (Washington. DC: US Department of Education, November 2009).
- See, for example, Nelson Hernandez, "Md. Says Graduation Stats Prove Exit Exams Work," Washington Post, September 22, 2009.
- Chad Aldeman and Kevin Carey, Ready to Assemble: Grading State Higher Education Accountability Systems (Washington, DC: Education Sector, June 2009).
- Joseph L. Marks and Alicia A. Diaz, Fact Book on Higher Education 2009, (Atlanta, GA: Southern Regional Education Board, June 2009).
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- State and Local Implementation of the No Child Left Behind Act, Volume VI---Targeting and Uses of Federal Education Funds, (Washington, DC: US Department of Education, Office of Planning, Evaluation and Policy Development, 2009).
- State and Local Implementation of the No Child Left Behind Act. Volume VI---Targeting and Uses of Federal Education Funds, (Washington, DC: US Department of Education, Office of Planning, Evaluation and Policy Development, 2009).
- 10 Ibid.
- ¹¹ Oregon state accountability information was downloaded from http://www.ode.state.or.us/data/reportcard/reports.aspx and the Oregon University System's Freshman Profiles are available at http://ir.ous.edu/hsprofile/getSchool.do.
- 12 Data file obtained from the Ohio Board of Regents. Its High School to College Transition reports are available at http:// regents.ohio.gov/perfrpt/hs2ct_reports.php and the state's accountability reports can be found at http://ilrc.ode.state. oh.us/Downloads.asp.
- 13 http://www.fldoe.org/board/meetings/2009 09 15/1-09981. pdf
- 14 http://www.fldoe.org/news/2007/2007_01_18.asp
- 15 http://schoolgrades.fldoe.org/reports/index.asp
- ¹⁶ According to the Chronicle of Higher Education's 2009 Almanac of Higher Education, 89 percent of all Florida residents who were freshmen in 2006 attended college in their home state. The national figure was 81 percent.

Appendix. Florida Sample Data						
	2005 Sample	2005 Sample Standard Deviation	2005 State Average	2006 Sample	2006 Sample Standard Deviation	2006 State Average
Graduation Rate	0.76	0.12	0.72	0.73	0.13	0.71
Percentage of 10th-Graders proficient in math	0.78	0.08	0.78	0.79	0.08	0.79
Percentage of 10th-Graders proficient in reading	0.5	0.1	0.5	0.48	0.1	0.48
Percentage of graduates completing an AP, IB, AICE or dual enrollment course	0.39	0.15	0.4	0.4	0.14	0.41
High school graduates with standard diploma or GED	76041		125969	77481		130306
Percentage of graduates enrolled in Florida public postsecondary institution in the fall after graduation	0.52	0.1	0.53	0.52	0.1	0.53
Percentage of graduates enrolled in an Independent Colleges & Universities of Florida member institution the fall after graduation	0.03	0.02	0.03	0.03	0.02	0.03
Percentage of graduates enrolled in an out-of-state institution the fall after graduation	0.06	0.03	0.06	0.06	0.03	0.06
Total percentage of graduates enrolled in postsecondary education the fall after graduation	0.61	0.11	0.62	0.61	0.11	0.61
Percentage of graduates at a Florida public postsecondary institution with a GPA greater than or equal to 2.0 in for-credit courses	0.76	0.06	0.77	0.74	0.07	0.75
Percentage of graduates at a Florida institution passing out of all remedial course	0.61	0.12	0.62	0.61	0.13	0.63
Percentage of public college-goers taking remedial math		0.11	0.31	0.32	0.12	0.3
Of college-goers needing remedial math, percentage who pass	0.55	0.13	0.55	0.58	0.13	0.56
Percentage of public college-goers taking and passing remedial math	0.18	0.07	0.17	0.18	0.07	0.17
Of college-goers needing remedial math, percentage who fail	0.45	0.13	0.45	0.42	0.13	0.44
Percentage of public college-goers taking and failing remedial math	0.14	0.07	0.14	0.14	0.07	0.13
Percentage of public college-goers taking remedial language arts	0.24	0.09	0.24	0.23	0.09	0.23
Of college-goers needing remedial language arts, percentage who pass	0.79	0.1	0.8	0.79	0.12	0.8
Percentage of public college-goers taking and passing remedial language arts	0.19	0.08	0.19	0.18	0.08	0.18
Of college-goers needing remedial language arts, percentage who fail	0.21	0.1	0.21	0.21	0.12	0.2
Percentage of public college-goers taking and failing remedial language arts	0.05	0.03	0.05	0.05	0.03	0.05
Percentage of graduates found employed full-time for the entire fourth quarter the fall after graduation	0.28	0.09	0.26	0.25	0.07	0.25
Of those employed full-time, average quarterly earnings (in \$)	4710.06	394.32	4718.02	4826.25	362.65	4872.19

Source: The data for this report were compiled by the author from several sources. School accountability information comes from http://schoolgrades. fldoe.org/default.asp. Information on postsecondary enrollment, remediation needs, college GPA, and course completions is available at http://data. fldoe.org/readiness/default.cfm. Work-force and other data were downloaded from the Florida Education & Training Placement Information Program at http://www.fldoe.org/fetpip/high.asp.