By Anne Hyslop

Data That Matters: Giving High Schools Useful Feedback on Grads' Outcomes

Angelique Simpson Marcus, the principal of Largo High School, knew her students. For five years she had taught health and physical education at the Prince George's County, Md., school before serving in a number of administrative positions at other schools and then returning to Largo as principal in 2007. Although Largo consistently failed to make Adequate Yearly Progress (AYP) under the federal No Child Left Behind Act, Simpson Marcus knew there was more to the school's story of student achievement. AYP considered only quantitative data like test scores and graduation rates, not the anecdotal evidence of success that Simpson Marcus had been collecting as she informally followed her students after graduation. "Where's your brother or sister?" she would ask current students. "Are they going to college? Did they finish?"[1] From the resulting personal stories, she believed her students were entering and completing college at higher rates than those at other high schools in the county.

But Simpson Marcus needed data to back her intuition. She got it from a University of Maryland System report that provided information on students enrolling in the state's higher education system and the rates at which they needed to take remedial (or "developmental") classes before moving on to credit-bearing work. Simpson Marcus was right; most Largo students were enrolling in college. But the numbers on how prepared they were for college were disheartening: of the high school's graduates that enrolled in college, about 60 percent, it turned out, were forced into remediation.

Simpson Marcus immediately went into diagnostic mode. "My thought was, OK, 60 percent of our students are taking remedial courses. We did not prepare them well. Is it the curriculum? Do we need to focus on writing? Do we need to focus on mathematics?" She wondered if the school was telling students that they were taking calculus and pre-calculus when they were actually getting watered-down versions of algebra 2 and trigonometry. She began to change the conversation around college readiness. Students, she said, needed "to understand that high school is the floor, not the ceiling."

Specifically, Simpson Marcus encouraged students to take Advanced Placement courses, to participate in a dual or concurrent enrollment program at the nearby community college, and to take four years of math, science, and social studies—more than what is required by Maryland law. The school also partnered with College Summit, a national nonprofit, to ensure that all students made a postsecondary plan and knew how to apply to college. The efforts seem to be paying off.

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The percentage of Largo students scoring a three or better on AP tests (the level typically required for college credit) nearly tripled between 2008 and 2010.[2] And 80 percent of seniors apply to at least one college or university.

That's the good news. The bad news is that Simpson Marcus' data-driven efforts are the exception, not the rule. Most principals don't have access to useful information about their students' success and failure in college and the workplace. According to a 2010 Deloitte educational survey, only 13 percent of high school educators receive reports of their graduates' academic performance in college. Most frequently, principals receive college readiness information the way Simpson Marcus used to, through occasional anecdotes from former students and their families. Worse, 8 percent of educators reported they receive no information at all.[3]

College and career readiness information should be collected routinely and shared automatically with district and school administrators and made available to all teachers, parents, and the public. If it were, then everyone responsible for educating students would be able to drive improvements based on solid evidence of what is working and what is not.

Improving the Data Pipeline

Simpson Marcus isn't the only one worrying about whether her students are ready for college. From employers to college professors to President Barack Obama, many are reacting to a growing body of data, along with abundant anecdotal evidence, that suggests that high school graduates are not getting what they need to succeed in postsecondary education or on the job. Thirty-eight percent of students who enter American colleges are referred to remedial classes before they can enroll in credit-bearing courses. At community colleges, the figure is closer to 60 percent. And of these students, fewer than 25 percent complete their degree or certificate within eight years.[4]

As a centerpiece of his educational agenda, President Obama has called for increasing the number of students with college degrees by roughly 50 percent by 2020, and he wants stronger assurances from high schools that they can help the nation realize that goal. States and districts are raising expectations, and all but five states have adopted Common Core State Standards, an initiative by the nation's governors that embraces college and career readiness.[5] At the same time, U.S. Secretary of Education Arne Duncan has announced that he will exempt states from certain accountability requirements of NCLB if they adopt standards to ensure their students are ready for college and careers and have sound assessments to prove it.[6]

Before they can begin to fix the problem, though, high schools need to know just how bad the problem is. That means they need to know not just what their students *should* be learning to prepare for college and careers, but whether they actually *have* learned. And the best way to measure that is to determine whether graduates are succeeding on the job, in workforce training, or in the college classroom. As Education Sector reported four years ago in *Reality Check: Tracking Grads Beyond High School*, the first step that states need to take to gauge postsecondary preparedness is to create an information infrastructure that allows student data to move between K–12 and higher education.[7]

As sensible as such a system seems, data about individual students in K–12 and in higher education has traditionally been collected separately, giving educators no way to follow a student's progress and performance from one system to the other or to determine whether high school graduates who enrolled in college succeeded once they got there. One data system could tell you whether a student graduated from high school, and another could identify whether he needed remediation in college, but the two systems—or the agencies that run them—could not talk to one another to share this information.

Thanks to significant plumbing work by the federal government, this vital data pipeline is no longer so leaky. Since 2005, the federal government's Statewide Longitudinal Data Systems grant program has awarded over $515 million to states to help them track students by linking these systems. And in 2007, the America COMPETES Act codified 12 essential elements of education data systems, including the necessity of K–12 and higher education systems connecting with each other.[8] As a condition of accepting their share of $45 billion in federal stimulus money, states were required to build all 12 elements into their data systems by October 2011. Acknowledging the challenges of linking the two disparate data systems, the government proposed an extension of the deadline until December 2012.[9] Still, states have come a long way: in 2005, only 12 of them could match K–12 records with higher education data; now more than 40 can.[10]

Indicators vs. Evidence

State and federal investments in K–12 and higher education data systems are beginning to pay off. As **Chart 1** shows, a majority of states are reporting at least one indicator of college readiness or, even better, evidence of college readiness by high school. There is an important distinction between *indicators* of college readiness and actual *evidence* of readiness. High school data should include both. *Indicators* of college readiness are things that are measured while students are in high school, such as ACT or SAT scores, completion of AP or International Baccalaureate programs, completion of dual enrollment courses, graduation rates, and

the like. These indicators are the ones most often reported as measures of college readiness because they are generally controlled by high schools and don't require linking to postsecondary data. *Evidence* of college readiness, on the other hand, is taken from data collected after the student has left secondary education; it covers things like college enrollment, remediation, and persistence into a second year of college.

CHART 1

Most states report at least one indicator of students' college readiness, but fewer provide evidence of college readiness to high schools.

High School College Readiness Data by Number of States

Indicators of College Readiness			
Any	Average ACT or SAT Scores	AP or IB Participation and Success	Dual Enrollment Rate
35	29	17	13

Evidence of College Readiness						
Any	Enrollment Rate	Remediation Rate	Remediation Rate by Subject	Average College GPA	Freshman to Sophomore Persistence Rate	College Graduation Rate
34	28	22	17	13	9	2

Collecting and reporting this sort of evidence is a critical component of college readiness reports. A decent ACT score is at best only a predictor, not a guarantee, of college success.[11] Indicators like the ACT can help principals *guess* which students will succeed, but it is only by looking at actual evidence that they can actually *know* who succeeds.

The High School for Public Service in Brooklyn, N.Y., provides a case in point. According to a 2010 article in *The New York Times*, more than 90 percent of the 80 students who entered the school as freshmen in 2003 graduated in 2007, and the vast majority went to college. This sounds like a high-performing school. But the *Times* reported that of the 26 students who enrolled in the city's public colleges, more than half needed to take a remedial math course.[12] Without this new information provided by the city's Department of Education, high school leaders may have had no idea that so many of their graduates could not perform at the college level. With it, they have a much more complete picture.

As might be expected, Chart 1 shows that indicators of college readiness are more commonly reported by states than evidence is, with average ACT or SAT scores reported more often than any other piece of data. But, nearly as many states provide evidence of readiness: 28 states provide college enrollment information,

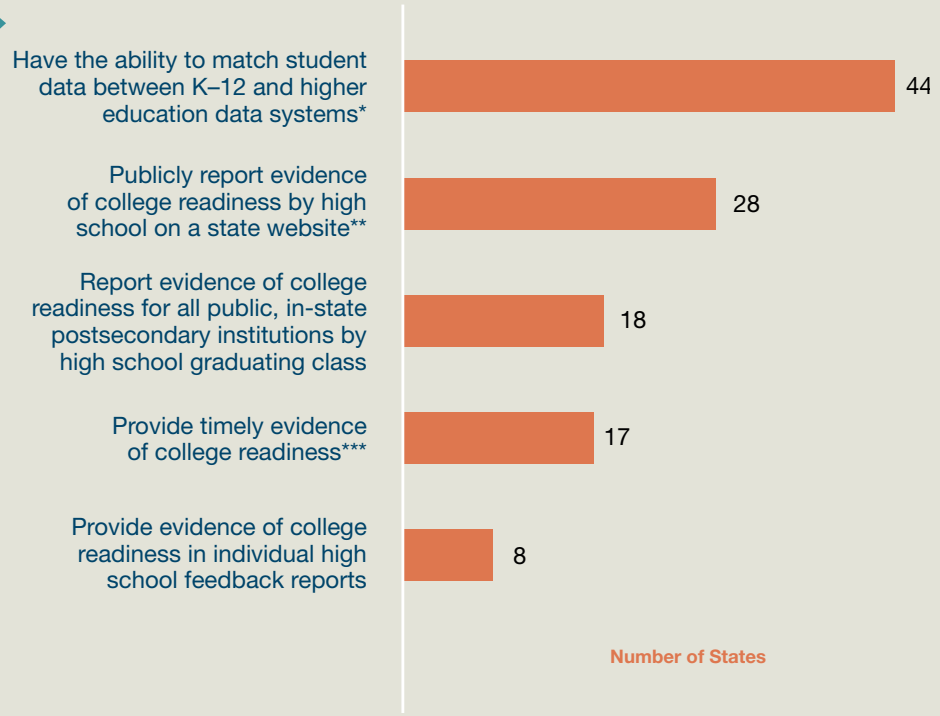
and 22 provide remediation rates by high school. Fewer states report AP or IB performance data even though it is, in theory, simpler to collect because it requires no coordination with postsecondary data systems. The fact that so many states report enrollment and remediation data suggests that states have evidence of college readiness available, but that they are failing to package it in an accessible, comprehensive report for high schools and districts.

Making College Readiness Feedback Useful

Although states are getting better at collecting this vital information, they are not yet *using* the information in ways that could materially improve college preparation. As **Chart 2** shows, although 44 states report having systems with the potential to produce readiness data, only 8 (Florida, Georgia, Hawaii, Indiana, Kentucky, Missouri, Tennessee, and Wyoming) have taken the next step to provide high schools with feedback that allows them to make meaningful interventions.[13] Many states, however, are somewhere in between. They might provide the data, but not publicly, or not for all high schools or colleges, or not in a timely manner.

CHART 2

Few states provide high schools with useful feedback on the college readiness of former students.



***Source:** The data for this report were compiled by the author from several sources. Information on state's ability to match student data between K–12 and higher education comes from the Data Quality Campaign, Data for Action 2010 and U.S. Department of Education, State Fiscal Stabilization Fund 2010 Annual Reports. Data for all other criteria collected from state K–12 or higher education websites.

**Evidence of students' college readiness is based on postsecondary data and does not include data collected when students are still enrolled in high school.

***Timely feedback reports include data from the high school class of 2008, 2009, or 2010.

Those states that are leading the field in providing college readiness data often do so in the form of individual high school feedback reports. These reports, much like the one that helped Simpson Marcus to change the conversations at her school, give principals a clear and complete analysis of their graduates' experiences after high school, allowing them to *use* the data to take action. This report identifies four characteristics—the 4Ts—of the most successful college readiness reports.

TRANSPARENT. Data should be open and accessible to principals, state and district officials, and the general public. When it is, school officials can use it to build internal pressure, and parents, legislators, and others can use it to generate external pressure on high schools to improve. Kentucky, for example, aggregates high school feedback reports not only by school district, but by state legislative district. It also mails the report to each legislator.[14] Others are not so open. Arizona and South Dakota, for instance, have developed high school feedback reports, but they don't share them with the public. Out of the 44 states, only 28 provide public access to college readiness information by high school.

THOROUGH. Reports should include multiple measures from all public high schools and state colleges for each graduating high school class to maximize the data's accuracy. Two states that do not provide thorough and complete data are Washington and Oregon. The University System that provides Oregon's data does not include community colleges, and in Washington, data is collected by the State Board for Community and Technical Colleges and does not include four-year institutions. These limitations threaten the data's usefulness. In New York City, high school feedback reports only include college data for graduates that enroll in City University of New York community colleges. Says Shael Polakow-Suransky, the chief academic officer for New York City Public Schools, "You could have really misleading information if you try to make a comparison [between schools], because there are variables missing."[15] Eliminating states that don't include such comprehensive data drops the number of states also meeting the criteria for thoroughness to 18.[16]

TIMELY. Feedback should be produced soon enough and often enough so the information can be useful to individual schools. Outcomes data on students who graduated six years ago—what the otherwise outstanding Massachusetts report now provides—may be interesting to a principal, but it is less relevant to and representative of current practice than a report based on students who graduated just one or two years ago. In six years, the high school might have changed its curriculum, transitioned to a new principal, restructured its schedule, or made other changes that render the old data less valuable. It makes more sense for states to provide feedback within one or two years, and then update it as the cohort of graduates progress through college. Yet only 17 states also meet this timeliness criterion.

TAILORED. Rather than burying the data in illegible spreadsheets or hundred-page documents, reports should be thoughtfully designed for school administrators and explicitly compare schools to similar institutions or to a state average. The more user-friendly the data is, the more likely it is to be tapped to improve instruction. Yet of the 17 states meeting the first three criteria, only eight also meet the fourth by presenting college readiness outcomes in a feedback report that is tailored to individual high schools. In many states, writes Chad Aldeman, author of Education Sector's 2010 report *College- and Career-Ready*, "the data are sitting on websites for all to see, suggesting that the challenges to using the new data … are less a matter of technical know-how than they are of political will."[17] For example, in Illinois it took four years to overcome political opposition and privacy concerns and report college remediation data to high schools as mandated by a 2007 law. Some of the state's colleges and universities were concerned the report would reflect poorly on them. Meanwhile, schools were thirsting for the data: at Morgan Park High School in Chicago, Assistant Principal Remy Washington printed out copies of her high school's report for every guidance counselor within days of its release.[18] Similarly, Michigan principals hoping to find school report cards once had to search through three different databases on two different websites.[19] The state now presents the data, including newly available information on postsecondary outcomes, in one place. But both Michigan and Illinois have yet to use the new data to design reports unique to each high school.

One of the states that gets all four "Ts" is Hawaii. The P-20 Council's "College and Career Readiness Indicators" report, compiled through a partnership of Hawaii's Early Learning Council, Department of Education, and University System, illustrates what transparent, thorough, timely, and tailored feedback for high schools could look like. (See Figure 1.) Concise and informative, the report provides graduation rates, high school assessment scores, average SAT scores, college enrollment figures, and college remediation rates in English and math. The high school figures are compared to the state average, and, when possible, information is also included for students who attended out-of-state universities.[20] High school principals and administrators, like Ron Nozoe, who oversees three of Hawaii's high schools, have wanted this kind of feedback for years. "It's a real wake-up call for us," says Nozoe.[21] He and other Hawaii educators have responded to the feedback by pushing a more rigorous curriculum, promoting career pathway programs, and creating a college-going culture.

FIGURE 1

College and Career Readiness Indicators in Hawaii

College and Career Readiness Indicators Class of 2010

President Barack Obama challenged the country to return to its position as first in the world in higher education: 60% of working age adults with a two or four year college degree by 2025.

The Hawai'i P-20 Council set a goal of 55% of Hawai'i's working age adults having a two or four year degree by 2025, an increase from 40% in 2000.

Hawai'i Department of Education's Vision of a High School Graduate

All public school graduates will:

- Realize their individual goals and aspirations;
- Possess the attitudes, knowledge, and skills necessary to contribute positively and compete in a global society;
- Exercise the rights and responsibilities of citizenship; and
- Pursue postsecondary education and/or careers without need for remediation.

For Hawai'i and its residents to be competitive globally, we must increase the education of our residents. Meeting the goals for economic competitiveness requires improvement of educational outcomes at all levels:

- More children in quality early education programs and entering kindergarten ready to learn;
- More children reading at grade level by third grade;
- More youth graduating high school ready for success in careers and college;
- More high school graduates entering college and earning their degrees in a timely manner; and
- More college graduates meeting the state's workforce needs.

This report presents information on how well Hawai'i's graduates are prepared for career and college success and to achieve the State of Hawai'i Department of Education's Vision of a High School Graduate. The indicators are selected from data currently available and based on recommendations from the report, *Measures that Matter: Making College and Career Readiness the Mission of High Schools* (http://www.achieve.org/node/79).

The College and Career Indicators Report is an annual collaboration between the State of Hawai'i Department of Education (DOE) and the University of Hawai'i, coordinated by Hawai'i P-20 Partnerships for Education. Hawai'i P-20 issues this report each spring for the previous year's graduating class. This year's report includes DOE graduate placement into college-level math and English courses and information provided by high schools about their graduating class. Additional report measures are expected to be added in the future as data becomes available.

We appreciate your suggestions and comments about the data reported, explanations of the data and other indicators to include in this report. Please contact Jean Osumi at josumi@hawaii.edu Hawai'i P-20 Partnerships for Education.

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College and Career Readiness Indicators Class of 2010

Kalani High School

June 2010 Graduates

	School	Statewide
High School Completers	226	10,787

Exceeding College and Career Readiness

College enrollment nationwide, Fall 2010	77%	50%
2-year college	38%	26%
4-year college	39%	24%
University of Hawai'i System enrollment in 2 & 4 year campuses, Fall 2010	148 (65%)	4,232 (39%)
Advanced Placement (AP), 2009– 2010: Number of students taking AP exams	128	3445
Number of exams taken / Exams scored 3 of 5 or better	167 / 78	4,935 / 2,085
Running Start participants, Class of 2010, Summer 2009–Spring 2010	19	479

Meeting College and Career Readiness

College Board SAT, number of graduating seniors Class of 2010 taking the SAT	146	4,733
Critical Reading / Mathematics / Writing (average scores)	485 / 537 / 476	460 / 479 / 442
BOE Recognition Diplomas awarded, 2010	60 (25%)	1,991 (18%)
On-time graduation rate (2010 graduates)	88%	79%
College-level mathematics and English, University of Hawai'i System, Fall 2010		
Number of students enrolled in college-level mathematics (percent of 2010 graduates enrolled in the University of Hawai'i System)	53 (36%)	856 (20%)
Number of students enrolled in college-level English (percent of 2010 graduates enrolled in the University of Hawai'i System)	74 (50%)	1,509 (36%)

Approaching College and Career Readiness

Hawai'i State Assessment, 2008 – percent proficient Reading (10th gr) / Mathematics (10th gr) / Science (11th gr)	81% / 53% / 43%	62% / 43% / 24%
High school diplomas awarded, June 2010	220	10,549
Remedial/Developmental mathematics and English, University of Hawai'i System, Fall 2010		
Number of students enrolled in remedial or developmental mathematics (percent of 2010 graduates enrolled in the University of Hawai'i System)	43 (29%)	1,516 (36%)
Number of students enrolled in remedial or developmental English (percent of 2010 graduates enrolled in the University of Hawai'i System)	26 (18%)	1,376 (33%)

School Reported College and Career Indicators

No additional college/career readiness information provided by the school.

Source: Hawaii P-20 Partnerships for Education, available online at http://www.p20hawaii.org/sites/default/files/10kalani.pdf

Career Outcomes Harder To Track

Educators concerned about preparation presumably care about their students' future job performance as well as their performance in the college classroom. As Secretary Duncan acknowledged, "There is a lot of talk these days about the need to boost college and career readiness. But the truth is that most people—and I include myself here—have focused primarily on college readiness. Too often, career readiness is an afterthought."[22] Some states are starting to change this mentality. To improve career readiness, Georgia is retooling career and technical education courses to promote more relevant work-based learning for all high school students. But state efforts to link K–12 data with career outcomes lag far behind their efforts to link K–12 data with higher education outcomes. The reasons include an absence of common student identifiers between data systems, lack of resources, failure to coordinate between education and workforce agencies, and concerns about student privacy. In some states, linking education and workforce data is even prohibited by law.[23] As **Chart 3** shows, only 10 states report participation in career or technical education on their high school feedback reports—even though participation does not directly capture career readiness.

CHART 3

States struggle to define and measure career readiness.

High School Career Readiness Data by Number of States

Participation in Career or Technical Education on Feedback Report	Career Readiness Outcomes Reported	Career Readiness Outcomes on Feedback Report	Career Readiness Outcomes based on Employment Data
10	10	5	1

High schools can get more meaningful and measurable information by collecting data on *completion* of vocational training, participation in apprenticeship programs, military enlistment, attainment of professional licenses or certifications, and future earnings by occupation. But only 10 states publicly report any of these outcomes at the school level, and just half of them report the outcomes directly on high school feedback reports. Only Florida publishes career outcomes based on students' earnings or employment data at the school level. Florida has long been a leader among states in developing and using student data, thanks in part to dedicated funding and support from the state Legislature.[24] However, even in Florida, state feedback reports don't include career readiness data.[25]

Despite consensus around the importance of college and career readiness, and big investments in state data systems, too few states are providing districts and high schools with relevant and actionable feedback about their students' postsecondary success—or struggles. And when they do provide feedback, it rarely includes both

college and career outcomes. In the right hands, as Largo High School's Simpson Marcus has shown, this kind of information can have a powerful impact on student learning and postsecondary attainment. Simpson Marcus at Largo has the AP scores and college acceptances to prove it. Other districts can see these gains, too. Deloitte's survey found that if data on students' college performance were available, 83 percent of high school educators say they would use it to target areas for improvement. Yet the demand for information is unmet. Every state has the potential to replicate the initiatives of states like Hawaii, Kentucky, and Florida. But until more district and school leaders have access to more meaningful information, too many educators won't know enough about their students' readiness for the future. And without this information, they won't be able to do anything about it.

MORE ON THIS TOPIC

Data Quality Campaign's "High School Feedback Information: An Analysis of States' Current Efforts" gives a state-by-state breakdown of current state efforts to link and use K–12 and higher education data, including web links to state websites. Available online at: http://dataqualitycampaign.org/resources/details/1424

Seizing the Measurement Moment from College Summit identifies four key state actions to "unlock the power of high school postsecondary performance data." Available online at: http://www.collegesummit.org/images/uploads/CollegeSummitWhitePaper2011.pdf

Education Sector's report *College- and Career-Ready: Using Outcomes Data to Hold High Schools Accountable for Student Success* describes how postsecondary data can be used to refine state accountability systems to better reflect college and career ready goals. Available online at: http://www.educationsector.org/sites/default/files/publications/College-Ready.pdf

Notes

1. Presentation given by Angelique Simpson Marcus at "College- and Career-Ready Students: How Can We Tell?" (*Education Sector*, March 11, 2010). All subsequent quotes are from this event or follow-up interviews. Video available at http://www.youtube.com/watch?v=2Ux4hNw8tRI&feature=player_embedded (Accessed September 8, 2011).
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10. See Data Quality Campaign's *10 Essential Elements of a State Longitudinal Data System*, http://dataqualitycampaign.org/build/elements/9/ (Accessed September 19, 2011).

11. Jay Mathews, "Report finds 2 of 4 tests in ACT poor predictors of college success," *Washington Post*, July 19, 2011, http://www.washingtonpost.com/blogs/class-struggle/post/report-finds-2-of-4-tests-in-act-poor-predictors-of-college-success/2011/07/19/gIQAOiPFOI_blog.html (Accessed August 17, 2011).

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13. In Data Quality Campaign's *Data for Action 2010*, 41 states self-reported they could match K–12 and postsecondary student data. Additionally, 33 states self-reported that their progress in implementing the America COMPETES Act from State Fiscal Stabilization Fund 2010 Annual Reports included the capacity to communicate with higher education data systems. We aggregated these two sources to capture as many states as possible with the capacity to produce high school feedback reports including both K–12 and higher education data. For a discussion of differences between Data Quality Campaign and State Fiscal Stabilization Fund reporting, see Data Quality Campaign, "Alignment Between the DQC's 10 Essential Elements and the America COMPETES Act's 12 Elements," http://www.dataqualitycampaign.org/files/America_COMPETES.pdf (Accessed August 4, 2011).

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23. For more on states' status in linking education and workforce data, see Data Quality Campaign, "Education and Workforce Data Connections: A Primer," http://www.dataqualitycampaign.org/files/DQC%20Workforce%20Primer_2011_Format.pdf (Accessed August 4, 2011).

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25. See Florida Department of Education, "Florida Education and Training Placement Information Program," http://www.fldoe.org/fetpip/high.asp (Accessed August 18, 2011). Florida's High School Feedback Reports can be viewed at: http://data.fldoe.org/readiness/ (Accessed August 18, 2011).

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