Brown

Schwartz

College Prep for All?

***Education Next* talks with Cynthia G. Brown and Robert Schwartz**

There's broad commitment to ensuring that all high-school graduates are college- and career-ready, but heated debate about the best means of achieving that goal. The big question is, how can schools both respect the diversity of students' interests and ambitions and set a high bar for all? In this forum, two longtime advocates of high school reform weigh in. Cynthia G. Brown is senior fellow at the Center for American Progress and formerly served as the center's vice president for education policy. Robert Schwartz is professor emeritus at the Harvard Graduate School of Education and coleads the Pathways to Prosperity Network.

All Students Need Common Foundational Skills

by CYNTHIA G. BROWN

All students should be prepared in accordance with a college-preparatory curriculum. But the key word is "a." At early levels, all academics are mostly common, but choices should be allowed at later points in the continuum. High school students in particular need curricular options that fit their interests, skills, and plans for the future. A variety of rigorous pathways through high school can prepare students for postsecondary-learning programs. Regardless of their specific plans, however, all students need to be proficient in the range of fundamental skills and knowledge in math, English language arts, science, and history/social science if they are to go forward with postsecondary learning that prepares them for good jobs, healthy families, and contributing citizenship.

(continued on page 58)

Multiple Pathways Can Better Serve Students

by ROBERT SCHWARTZ

Traditionally, we have thought of our high schools as having a three-part mission: to prepare students for further learning, work, and citizenship. While we still pay lip service to the work and citizenship parts of the mission, the reality is that our high schools have become increasingly focused on a single mission: college preparation. We have allowed a very important idea—that all students need a solid foundation of core academic knowledge and skills—to morph into a not-so-good idea: that all students need to be prepared to attend a four-year college.

So what's wrong with the idea of making the four-year college-prep curriculum the default curriculum for all students, as some states have done, or making completion of

(continued on page 59)

ILLUSTRATION / ANDREW JUDD / MASTERFILE

Our current system of public education has not aggressively stepped up to the challenge and the reality of today's high-tech–based service and manufacturing economy, which demands increased educational attainment for workers who expect a middle-class lifestyle. While the U.S. holds its own internationally in baccalaureate attainment, ranking second, it ranks 16th in sub-baccalaureate attainment (associate's degrees or formal credentials). Not all American students need to attend a four-year college, but most will need some postsecondary learning. Too many students, after years in low-performing elementary and middle schools, languish in dumb-downed high school courses that may be labeled college-prep or career-technical education, and graduate ill-prepared to take the next step.

In countries that have well-developed and integrated secondary and postsecondary career-preparation systems, graduates go into relatively high-paying jobs with skills that industries need. Many of these graduates have the equivalent of highly respected U.S. postsecondary training and credentials, and in some OECD (Organization for Economic Cooperation and Development) countries, a secondary school diploma is equivalent to a U.S. associate's degree. Large numbers of students in these advanced countries pursue the equivalent of the U.S. four-year bachelor's degree as well. The end result of widespread low-quality high-school education in the U.S. compared to the secondary education in equally economically advanced countries is that a greater proportion of adults in the United States are woefully underprepared for today's jobs. Skill development in other countries is accelerating, as it stagnates in this country.

Too many students, after years in low-performing elementary and middle schools, languish in dumb-downed high school courses.

An Academic Foundation

Among some outspoken leaders there is nostalgia for the vocational schools of yesteryear. Such programs are no longer appropriate or compatible with current skills expectations: automotive repair courses in high school where practice continued on components that had been replaced by sophisticated computers in current cars; cosmetology courses whose graduates didn't have the math skills to pass licensing requirements for hairdressers and ended up as hair shampooers; distributive education courses that taught "selling" but not the computer, computation, and communication skills needed for any but the lowest-level sales jobs.

Successful career-pathway schools need constantly updated equipment and well-trained professionals who continually learn new techniques in their occupational field in a rapidly evolving technological world. The vocational high schools of the past, and still sometimes present, have never had the level of sustained investments that make this kind of constant updating possible. As numerous reports from the U.S. Department of Education documented in the 1980s and 1990s, these schools were too often dumping grounds for students whose math and reading skills were years below grade level, but who mistakenly believed they were on a path to a decent job.

Today, there is a great deal of thoughtful work being done to develop high-quality pathways through high school and onto a postsecondary degree or credential. The growth in career-themed high schools, career-technical schools, and early-college partnerships, all often connected to community colleges and local businesses, is setting students on stable paths to solid jobs. Many of these career-focused secondary school programs of study involve major projects of many weeks and hands-on learning experiences that combine strong content and skill development related to specific careers.

While too few in number, some of these programs involve work-based learning or apprenticeship programs in which students earn wages and study on the job, including in the lucrative trades. Now often called career and technical education or even STEM (with a focus of study on careers in science, technology, engineering, or mathematics), these are all two- and three-year courses of study, not simply career exploration. Students in these programs are not able to advance unless they have proficiency in reading and math, as well as in problem solving and so-called softer skills—the personal qualities, habits, attitudes and social skills that make someone a good employee and compatible in the workplace.

For today's students who aim to be career-ready, appropriate curricula might include exposure to more electronics, with applied physics and computer science as the base; or health care, with a strong grounding in biology and chemistry; or travel/tourism, with a strong communications, management, accounting, and second-language skills curriculum. It's up to educators to embed basic academics into the career-prep curriculum, just as they are embedded into the college-prep curriculum. Students must have the common foundational skills for success in post-secondary endeavors, be they four-year college programs, certification or credential programs, associate's degrees, or apprenticeships.

Continued page 60

the curriculum required for admission to a state's four-year public university system a condition of high school graduation, as several large districts in California have done? Isn't it true that virtually everyone will need a college degree in order to survive in the 21st-century economy?

Let's begin with some basic facts. If we follow a cohort of 8th graders, roughly 2 in 10 will drop out before high school graduation, and another 3 will graduate high school but choose not to enroll in postsecondary education. Of those who do go on and enroll in four-year institutions, nearly 4 in 10 will drop out before attaining a degree. Of those who enroll in community colleges, roughly 7 in 10 will drop out. The bottom line: by age 25, only 33 percent of the cohort will have attained a four-year degree, and another 10 percent will have earned a two-year degree.

One of the two main reasons dropouts tell us they leave school is that they can't see any connection between what they are asked to study and any future life they can imagine for themselves.

And what about the rising skill requirements of the 21st century? While it is absolutely true that two-thirds of jobs projected over the next decade will require education beyond high school, and that as a general proposition the more education you get the greater your lifetime earnings, it is also true that for the foreseeable future there will continue to be many good jobs that require some education beyond high school but not necessarily a four-year degree. A recent study from the Brookings Institution, for example, argues that half of the STEM jobs are in this "middle skills" category, requiring some education beyond high school but not necessarily a four-year degree. The average salary for these jobs is $53,000.

I certainly don't mean to suggest that projected earnings should be the primary basis on which a young person should select a postsecondary pathway, or that career preparation is or should be the sole purpose of higher education. But given the rising costs of college and the uncertain return on that investment, it shouldn't surprise us that there is increasing interest among policymakers in developing a much stronger set of career-focused pathways into two-year postsecondary programs to sit alongside the dominant pathway into the university sector.

What are the implications of this analysis for the organization of high schools and for their curricular requirements? First, we need to pay much more attention to providing all students with systematic information and advice about the broad spectrum of careers and the education and training requirements associated with them. This should begin no later than middle school and should include opportunities for exposure to a wide variety of workplaces and the adults who work in them. This is especially important for those most at risk of dropping out, for we know that one of the two main reasons dropouts tell us they leave school is that they can't see any connection between what they are asked to study and any future life they can imagine for themselves.

Second, we need to build a strong set of career pathways in such high-growth, high-demand fields as information technology, health care, and advanced manufacturing that begin in high school, continue seamlessly into two-year postsecondary education, and culminate in a degree or certificate with value in the labor market. These pathways need to provide substantial, sequential opportunities for workplace learning culminating in paid internships or apprenticeships in order for students to see and test the application of academic concepts in a real-world setting and to demonstrate that they are "career-ready." While these pathways need to combine rigorous academics with relevant career and technical preparation, it is not at all clear why the course sequences in these career pathways need to be the same as those for students in the four-year college pathway.

Adapting the European Model

While one should be mindful of the usual caveats about the relevance of European experience in the U.S. policy context, the typical European division between lower- and upper-secondary education is useful here. In most countries in northern Europe, all students pursue a common curriculum up through grade 9 or 10, and then choose between an academics-only pathway leading to university and a more applied-learning pathway leading to a vocational qualification. In the strongest of these systems (e.g., Switzerland), the vocational pathway opens postsecondary options leading to a degree from a university of applied sciences, as well as crossover options back to the classical university system.

So how would an adaptation of this division between lower secondary and upper secondary help in the U.S. context? First, it would enable us to concentrate our attention and resources in pre-K through Grade 10 primarily on preparing all students to meet the requirements of the Common Core State Standards. Ideally, this is the point at which the last common assessments in English language arts and math would be administered.

Continued page 60

Common Core and Testing

Nothing about these learning pathways is in conflict with the call for higher career- and college-ready standards, such as the Common Core State Standards adopted by 45 states and new science standards adopted so far by a smaller number. Indeed, the common core standards call for an emphasis on deep and thoughtful engagement with informational texts as well as literature; student-centered information gathering; and problem solving—all competencies that are well aligned to the materials skilled workers deal with on a daily basis.

There is no question that in most states the current high school testing regime is out of step with current needs. High school students should earn diplomas only when they pass rigorous exams indicating college and career readiness, especially in English language arts and math. End-of-course exams in other subjects may be fine if a student chooses a career-technical course of study.

Work on appropriate assessments of students' learning in career-prep programs has lagged behind, but the move away from awarding course credit based on seat time is encouraging. As states and districts adopt measures of content and skill competency, new accountability systems must be developed. Education officials are already experimenting with new systems, and hopefully by the time Congress decides to move forward with a reauthorized ESEA (Elementary and Secondary Education Act), there will be strong competency-based accountability systems to incorporate, particularly at the high school level.

Ready for Their Future

College- and career-prep curricula might look different, but the basic academics required for success in postsecondary life must be embedded in whatever curriculum a high school student pursues. Educators must not veer to the one-curriculum line. And they need to be more careful about their word choice in explaining programs of study to the public and parents. Any "college-prep curriculum" should be one of several options, all tied to "college- and career-ready standards."

A so-called college- and career-ready curriculum must not imply that every graduate needs a four-year traditional college education ending in a bachelor's degree. What are needed are courses of study that prepare each student well for quality post-secondary-learning opportunities that lead to good jobs. The nation's public schools have an obligation to prepare students with the content and skills necessary for them to successfully go forward, and they should all be held accountable for doing so. ■

It's in the upper-secondary years, grades 11 and 12, where the case for a differentiated curriculum is strongest. If we do the job right in the pre-K–10 years and supplement a thoughtful, untracked implementation of a common core–aligned curriculum with a systemic, sequential program of career information and exposure, young people and their families should be in a position to make an informed choice among a set of pathways, all of which lead to some form of postsecondary education or training, but only some of which lead directly to a four-year college or university. Progress in meeting the requirements of each upper-secondary pathway would be measured by end-of-course assessments. College readiness would be measured by the successful completion of at least one dual-enrollment college course, preferably taken on a college campus. Work readiness would be measured by the successful completion of an internship or other form of workplace learning, as certified by a workplace supervisor.

Implications for the Curriculum

For those who choose career pathways other than those leading to a four-year university, their curriculum choices should be guided by the requirements of their pathway. In mathematics especially, it is absurd that the views of university mathematicians should drive the curriculum requirements for all students. If only 11 percent of jobs even in STEM fields require advanced mathematical knowledge, why should we force march all students through a mathematical sequence leading to calculus?

In my view, the vast majority of students in two- and four-year institutions would be much better served by getting a solid grounding in data, statistics, and probability in high school. In recent years, promising courses in statistics and quantitative reasoning have been developed and field-tested by researchers at the Dana Center in Texas and the Carnegie Foundation in California to address the remediation problem in community colleges. If these courses could be offered to students in grades 11 and 12 as dual-enrollment courses, it would provide a more relevant, engaging math option for those not heading for math-intensive majors or careers, and in the bargain get more students launched on college-level work without the need for remediation.

Four-year colleges and universities for too long have exercised an undue influence over the high school curriculum. Why should a set of institutions that are effectively serving only one young person in three be setting the requirements for what *all* students are expected to know and be able to do in order to become productive participants in civic and economic life? If we continue to communicate to young people that the principal reason for completing high school is to sit in classrooms for another four years, we will continue to lose an unacceptably large percentage of them along the way. We need multiple pathways to get many more young people through high school and on to a two-year postsecondary credential with value in the workplace. ■