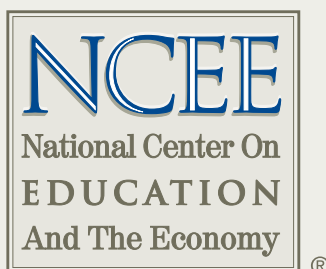


The American High School Crisis and State Policy Solutions

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Dear Conference Participants,

We are delighted that you are able to take part in today's conference, The American High School Crisis and State Policy Solutions. The National Center on Education and the Economy and the National Governors Association Center for Best Practices are pleased to bring together leading educators, policymakers, and scholars to explore ways to leverage high school reform on a large scale. With an increasing percentage of good jobs requiring advanced education, there is a pressing need for strategies to ensure that all high school students are prepared and motivated to continue their education after graduation.

We look forward to your contribution to what we expect to be an engaging day's discussion of a much-neglected topic in school reform.

Sincerely,



Marc S. Tucker
President,
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Education and the Economy



Dane Linn
Director
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National Governors Association
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CONFERENCE PAPERS

INTRODUCTION

As part of today's event, we invited our panelists and other experts on secondary and post-secondary education to draft short essays that reflect on high school reform from a number of perspectives. We are pleased to present their insights on the following pages. The ideas and opinions in the essays represent the views of the authors and not necessarily those of the National Center on Education and the Economy or the National Governors Association Center for Best Practices.

THE HIGH SCHOOLS' NEW MISSION

By Hilary Pennington

Income and education are more closely linked than ever before in the United States. A U.S. college graduate now earns nearly 70 percent more, on average, than a high school graduate, more than double the 27 percent wage gap of only a decade and a half ago. The new reality is that all students now need to continue their education beyond high school if they are to thrive in an economy that increasingly reserves well-paying jobs for the well-educated. Low-skill, high-wage jobs are a relic of the last century's industrial economy.

High school reformers, as a result, must focus not only on improving the performance of the nation's secondary schools, but also on getting more students to — and through — postsecondary programs. To do this, they must find ways to align the separate and often conflicting governance structures, performance expectations, and funding priorities of the secondary, postsecondary and “second-chance” education systems into a single, mutually reinforcing system that creates greater incentives and opportunities for more students to complete two- and four-year colleges, technical training, industry certification, and other postsecondary education that leads to high-wage jobs (and a more involved citizenry: college graduates vote in much higher proportions than do high school graduates).

The challenge is immense. For every 100 students who enter 9th grade, only 67 graduate from high school, 38 enter college, 26 are still enrolled in college after their sophomore year, and 18 graduate with either an associates degree or a baccalaureate within six years of graduating from high school. The numbers are even worse for low-income students and for African Americans and Hispanic Americans, the fastest growing proportion of the youth cohort.

Raising academic standards, instituting exit exams, breaking large schools into smaller units and/or creating new schools should increase the numbers of students who graduate from high school prepared for careers or college-level work. Expanding awareness of the importance of college among families that do not have a

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tradition of college-going and increasing financial aid for low-income students would also help. But these strategies alone will not improve the percentage of students completing postsecondary education. Only if we improve the pipeline linking our high school, postsecondary and second-change education systems can we be truly successful in that task.

Some high schools have moved larger proportions of traditionally underrepresented students into higher education by beginning to bridge the secondary/postsecondary chasm on their own. These schools, research by Jobs for the Future, Pathways to College and other organizations have found, treat student completion of postsecondary credentials as their highest priority and organize themselves accordingly. They align their expectations, curricula and assessments with those of postsecondary institutions. They place low-achieving students in advanced courses and give them the help they need to be successful (in sharp contrast to the traditional high school practice of watering down the curriculum for struggling students). And they set up data systems to track students longitudinally, gathering information on students' college enrollment and outcomes that they use to improve students' academic preparation in high schools and their postsecondary planning.

The schools also create academic and social support systems for students that includes reorganizing the school day into longer blocks of time for core courses, individualized coaching, and the creation of advisory systems to ensure that every student has an adult advocate in their school and often in their local communities.

Some schools have gone so far as to establish dual-enrollment programs with local community colleges that include the sharing of teaching staff. And a number of innovative school configurations have emerged from these new relationships. So-called early college high schools, middle college high schools and drop-out recovery programs at community colleges, each involving students in grades 11 through 14, permit students to take an accelerated route to postsecondary education. They create more flexible learning environments for struggling students by locating high schools on college campuses, introducing college-level curricula and expectations to high-school age students, encouraging the accelerated accumulation of college credits, and providing students with greater respect and independence than they generally encounter in high school.

States could help create a coherent K–16 strategy by taking six important steps.

- Set goals for increasing the numbers of students who finish high school and complete a recognized postsecondary credential by age 26.
- Establish rigorous statewide high school exit standards limited to the gateway skills of numeracy and literacy — standards calibrated to the requirements of credit-bearing postsecondary courses and to entry into high-skill occupations.
- Dramatically increase the supply of early college high schools and other secondary-school options that build bridges between high schools, colleges and our second-chance education system. This should include allowing postsecondary institutions to issue high school diplomas.
- Link students' movement up the educational ladder to their academic performance rather than how many courses they have taken and encourage the transferability of credits between institutions.
- Develop financial and other sorts of incentives reward both secondary and postsecondary institutions for students' successful progression to and through college.
- Hold postsecondary, as well as secondary, institutions accountable for how well they do at helping students complete a recognized postsecondary credential by age 26. This will require data systems that track students' progress longitudinally.

As difficult as these tasks would be to achieve, there are few things that states could do today that would pay them greater economic and civic dividends.

THE NEED FOR SYSTEMS

THE DANISH SYSTEM: BIG LESSONS FROM A SMALL COUNTRY

By Roland Svarrer Øesterlund

As the United States embarks on the unprecedented task of preparing a much higher percentage of students for the high-skill jobs that they need to earn a good living in today's global economy, American state-level policymakers might find the Danish model interesting. In Denmark, 95 percent of students voluntarily take demanding qualifying exams for advanced secondary education.

Some say that we are not a good model for the United States because we are a small, homogenous country. In fact, with a population of 5 million we are the same size of the typical American state, and a sharp rise in immigration and the number of guest workers in the country has made Denmark a far more diverse country than most Americans realize. Students from all backgrounds achieve at high levels in our secondary education system. A key to our results is that we give students multiple pathways to follow to advanced studies, each with its own demanding standards and examinations. Ours is a performance-based system.

The Folkeskole

The foundation of the Danish system is its Folkeskole, public schools for students from ages seven to sixteen (with an extra year for students who fall behind) that teach a demanding national core curriculum but permit students to select from among different foreign languages and a limited number of electives.

Folkeskole is mandatory in Denmark, but once students graduate from the schools they may end their formal education. If they want to continue their education Folkeskole students in their last year (9th grade) take a set of national examinations in core subjects. Ninety-five percent of Danish students take the voluntary exams because students must pass them to continue their education. The exams have both written and oral components and are scored by external examiners in cooperation with the students' teachers.

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“Upper Secondary” Options

Once students complete Folkeskole and pass the national Folkeskole exams they may move on to what we call the “upper secondary” level of education. They may go to “gymnasiums” offering three-year academic programs that prepare students for university studies and other higher education programs. Or they may go to technical or commercial “vocational colleges”, three-year programs that offer pathways to both higher education and to high-quality technical and professional careers.

The Gymnasiums

Danish national education authorities create courses of study such as the humanities or mathematics and the sciences that are taught in gymnasiums nationwide. Entering students select their course of study and they follow the national syllabus regardless of the gymnasium they attend. Each course of study has the same high standards. When they complete their three years of coursework, students take a set of national examinations in their course of study that have been written by national education officials and that are well-known to all students. External examiners grade the written portion of the exams and, working in cooperation with students’ teachers, grade the oral portion of the exams. Students must pass the demanding exams to win entrance to higher education. They must also earn a minimum grade point average in their gymnasium course work. Higher education programs set the grade-point-average standards, based on the supply of and demand for places in each program. About 35 percent of Danish students enroll in gymnasiums.

The Vocational Colleges

We have two types of vocational colleges: “technical gymnasiums” and “commercial gymnasiums.” Students may qualify for university admission by attending either of the three-year program, the same way they would by attending traditional academic gymnasiums. Technology and technology applications are at the core of the technical gymnasium curriculum, while commercial gymnasiums focus on economics, trade and language training. Like the traditional gymnasiums, both of the vocational gymnasiums teach a national curriculum and administer national examinations. About 20 percent of Folkeskole graduates attend technical or commercial gymnasiums.

“Sandwich” Programs

Danish vocational colleges also offer what we call “sandwich programs,” highly modernized versions of traditional apprenticeship programs that have both school and

worksite components. Most students begin the program by spending six months in school, where they learn about a variety of careers before settling on one. Once students make their selections they must obtain apprenticeship contracts with employers covering the remaining part of the sandwich program.

The curricula of sandwich programs include a combination of general academic subjects, broad vocational subjects and specialized technical or commercial training (both theoretical and practical) at very high levels. These curricula are created by national trade committees that are comprised of employers, labor representatives, and academics. The committees are also responsible for ensuring that course content is relevant and updated, for selecting public and private companies as “training companies,” and for creating the “trade tests” that students must pass at the end of their sandwich programs before they are allowed to work in their chosen fields.

About 40 percent of Denmark’s students enroll in sandwich programs and another 10 percent take a shortened sandwich program after completing a vocational college program. Importantly, when students enroll in the programs they are told which additional courses they must take if at some point they want to shift gears and enter a university. Sandwich programs are typically three to four years long, but their duration is flexible in order to allow for these supplementary courses. This ensures that there are no dead ends in our post-Folkeskole system.

The Importance of Multiple Pathways

There are several reasons why the Danish education system includes a number of different but equally demanding pathways to post-secondary education.

- Because the different Danish upper secondary programs take place in different settings, use different teaching strategies (the technical gymnasiums do a lot of project-based work) and have different types of teachers (master craftspersons in sandwich programs versus traditional academics in gymnasiums, for example), the different schools appeal to different types of students with different learning styles and aspirations. This seems to give more students a chance to have success.
- The creation of very strong vocational colleges gives the many students who do not want to pursue a traditional route to advanced education other respected options. In many other countries, in contrast, vocational education is often viewed by students and schools alike as a second-class curriculum.

- Sandwich programs permit the Danish educational system to draw on the expertise of key stakeholders: employers and labor. The result is a set of world-class vocational programs that both labor and employers respect because they are “invested” in the programs’ success.
- Sandwich programs also provide a very smooth school-to-work transition for Danish students. Recent studies have found very high rates of employment among the programs’ graduates: 75 percent to 85 percent are working within six months and the numbers would be higher if graduates who are self-employed, fulfilling their national service, or attending universities were not counted among the unemployed.

Providing students with different pathways to advanced education, each with its own demanding standards and performance measures, has helped Denmark create a skilled workforce able to compete effectively in a global, knowledge-based economy.

THE SYSTEM IS THE PROBLEM — AND THE SOLUTION

By Marc S. Tucker

High schools are the most deeply troubled of our public school institutions. A majority of students lack incentives to take tough courses or to study hard and many find high school boring and often alienating. A large fraction fail to graduate. And many of those who do earn diplomas lack the knowledge and skills they need to acquire good jobs or to be successful in college.

As the National Center on Education and the Economy has searched for solutions, we have looked to the experiences of other countries that have outperformed the United States in education. What we have found are standards-based education systems that connect secondary education to higher education and work far more deliberately than we do in the U.S.

These systems — in Denmark, Singapore, Scotland, and elsewhere — set clear expectations and high standards for both students and schools, measure student performance against the standards, and link advancement to performance, giving schools and students alike powerful incentives to be successful.

They also typically expect all students to complete a standard curriculum by age 16, and then they permit students to take several different but equally demanding routes through the “upper secondary” level of high school to college and the workplace.

At the heart of these high-performance education systems are “gateways” — well-known standardized examinations that students must pass at key points in their academic careers. While students are permitted to select academic pathways that suit their career objectives and learning styles, they know that they can advance to the next level in the educational system only by making it through the required gateways.

Because the gateway exams are based on clearly articulated standards that do not change dramatically from year to year, such systems are highly motivating for students. They make it easy for students to see the connection between their educational goals and

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the school work they must do to achieve them. They signal to students — and schools — exactly what is expected of them.

I think the gateway model would dramatically improve the performance of the high school system in the United States. Here is how states might introduce it:

Step One

Create state standards for entrance to state college systems that require students to do real college-level work. Develop high quality assessments to judge whether students have met the standards. Make achievement of the standards a condition for advancing to the upper division of high school (the 11th- and 12th-grades). This would be the first gateway.

Most students should be expected to meet these standards by the time they are 16. All should meet them before going on to an upper-division program in high schools and no student should receive a regular diploma without meeting the standards, though they should have all four years of high school to meet the standards, if necessary. Getting all students to meet these standards should be every high school's first obligation.

It is important that states invest enough resources in this effort to ensure that the assessments are of a high quality. None of the countries that we have studied rely heavily on the multiple-choice basic skills tests that are now so widely used in the U.S. Rather, they are akin to our Advanced Placement exams, requiring students to write essays, make oral presentations and do other "performance" tasks.

It is also important to ensure that students who pass the exams are guaranteed admissions to state two-year and four-year colleges without having to take remedial courses after being admitted.

Step Two

Create the tools, policies and support systems that enable high schools to ensure that their students achieve the first gateway standards.

This is, of course, an enormous task. But it is made easier by making it clear that getting every student through the first gateway is the first priority of every high school in the state and being very clear about what the standard is.

Step Three

Establish the options available to students who have successfully passed through the first gateway.

The next step for students who make it through the first gateway ought to be some form of going to college. But it should be possible to do that in high school. A student who wants to pursue a technical career should be able to enroll immediately in a community-college or technical-college program leading to a two-year technical degree. These are the institutions that can afford the highly specialized teachers and equipment needed to offer these courses. If students instead want to pursue a non-technical or professional program, they should be able to stay in high school and enroll in a program designed to prepare them for demanding college entrance exams. The program should offer college credit for some or all of the upper division course work.

These programs should be of two kinds: conventional college-level programs (such as the Advanced Placement or International Baccalaureate programs), and programs that are heavily project-based, typically involving a lot of lab work. Both should have the same high academic standards, though their pedagogical methods would be very different. We know capable students who would fail in the first kind of program and flourish in the second, and vice-versa. Both should be accommodated.

Step Four

Establish the second gateway. It would be set at the standard required for transfer into the upper division (3rd and 4th years) of states' less demanding four-year colleges. Create the examinations needed to determine whether this standard has been met.

Whether students have chosen an academic program or a vocational one, a traditional style of instruction or a project-based approach, they should have the option of going on at some point to a full four-year college program. Because many students will elect two-year degree programs at some point after they leave high school, it will be very important to set a public statewide standard for entering the upper division of the four-year state college system. Only in this way will students of a wide variety of ages in a wide variety of high school and college programs know just what they must do to ready themselves for four-year colleges.

Step Five

Establish the third set of gateways: skill standards for technical degree programs to be offered in two-year, post-secondary institutions.

In most of the rest of the industrialized world, there are clear standards for entering most occupations. Those standards make it possible for high schools, colleges and technical schools to develop curricula that they know will actually prepare young people for jobs that employers are offering, because the employers have participated in setting the standards for those programs. Students know that they are not wasting their time in pursuing such programs, for the same reason. And students can evaluate the merits of different providers of education and training services on the basis of their record of success in preparing students to meet the standards set for the jobs and occupations they are interested in.

Step Six

Build financial incentives into the system.

Systems of the kind I am describing work best when institutions are rewarded not for getting a student into a classroom, as we typically do in the U.S., but for making sure that students actually get through the next gateway in the system. Such systems are called “performance finance systems” and they work effectively in many other countries.

Academic standards and the quality of vocational education would both rise under a gateway system. And such a system could achieve these improvements at no additional cost, because many students would start college earlier, generating saving that could be invested in higher quality programs.