

# Higher Education and Public Schooling in Twenty-First Century America

*by Leon Botstein*

**D**uring the all-too-aggressive rage for educational reform in the 1960s, the distinguished philosopher Hannah Arendt pointed to something inherently obvious: that education is and ought to be a conservative enterprise. One generation after another locates in institutional arrangements ideas and practices of which it is certain and which it suspects may be endangered. Certainty, from an educational perspective, is based in past practice. The present is unstable. The future is unknowable. Therefore, schemes for educational reform cannot be based on speculative or utopian arguments about the future but on a persuasive account of what has worked and what has proven important.

In the United States since the early twentieth century, objectives regarding communal social behavior and societal integration—all perfectly admirable goals of social engineering in a largely immigrant society, including the advancement of long overdue greater social and economic equity—have dominated public school policy. More traditional criteria focused on the acquisition of knowledge, and intellectual skills were relegated to secondary, even marginal status. Consider, for example, the extent to which we have become accustomed to viewing the educational system in terms of levels and age groups, dividing elementary from middle schools, middle schools from high schools, high schools from colleges, and so on. While this seems quite in line with common sense from the perspective of creating homogeneous groups (in terms of psychological development) susceptible to management and control, this empha-

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sis on horizontal organization, by age and level of instruction, has come at a cost. It has weakened what should be the more powerful structural connection between age groups in terms of learning, a vertical link throughout the years of schooling by subject matter, curriculum, content, and skills.

The American education system now suffers from an absent or, at best, flimsy connection between the elementary school teacher and his or her curriculum in mathematics and the mathematics that is taught afterward in high school and college. Classroom professionals in all subjects, from history to biology, from kindergarten to college, need to get together at regular meetings, conferences, conven-

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tions, and in active professional organizations. They need to plan and design the curriculum from kindergarten through the end of college. If college mathematics, particularly for the non-major, needs to focus more on statistics and probability, that revised endpoint should influence how numbers are taught at the very beginning of schooling. There needs to be less conversation among professionals along the lines of the age group being taught, and more talk among those teaching the same subject, no matter the age of the student.

Age segregation has placed barriers to such cooperation and has created discontinuities and contradictions within areas of study. This privileging of considerations of age and level has resulted in weakening the cumulative achievement of American pupils before college, both in the sciences and humanities. Age segregation has created a misleading hierarchy of status in which the kindergarten teacher is at the bottom, and the permanent members of the Institute for Advanced Studies in Princeton, who are leaders in their fields and who teach no one, are at the top. The lopsided assignment of value to advanced learning and the attenuation of the connection between higher and lower levels of instruction in the same subject have led training programs for teachers to subordinate teaching subject-matter competence to instruction in pedagogical methods divorced from content.

All this is highly ironic, for it is the elementary principles in any field that are the hardest to teach, particularly if they are counterintuitive. Whether in physics or music, the fundamental concepts are the most important to transmit and require the most sophistication to communicate. If things go wrong early on, the errors and omissions are hard to fix. Yet we assign the teaching of beginners—children—to those who least understand the subjects they are teaching. We need to return to

a conservative, time-honored, and established tradition in which content vis-à-vis skills and knowledge takes precedence.

The overriding priority for American higher education with respect to elementary and secondary schooling is to create a dominant curricular vertical linkage throughout American education along subject matter and disciplinary lines. This restructuring demands eliminating the monopoly that education schools and departments hold on the training of school teachers within the university. It means ending all separate undergraduate education degree programs. The task of training teachers for the future must be given to the faculties of arts and sciences in a

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manner that places training in pedagogy and classroom management into the hands of master practitioners working in the schools and not in the university. Teachers should be trained like doctors. After a serious period of rigorous classroom instruction, a sustained phase of apprenticeship begins. And that apprentice experience must be defined by subject matter, not grade level; by what is being taught, and not by whom we teach.

The presumed significance of education as a discrete discipline must be challenged. Universities and colleges cannot delegate the task of raising the standards of American schools to education experts in schools within the university. They routinely have the lowest standing within universities and are accorded the least respect. At Harvard, America's richest university, the School of Education is the poorest unit and is regarded with condescension. To change that circumstance requires integrating the responsibility for the well-being of our schools into the mission of the entire university, including professional schools from law to engineering. This is relatively easy to accomplish today since the normal schools of yesteryear, the separate campuses once devoted to teacher training in our state universities, were transformed into comprehensive university campuses during the second half of the twentieth century.

**B**ut before American higher education can play its proper part in improving our schools below the college level, radical changes have to be made in our public policies with respect to education.

In the first place, the American system of funding and governance must be rethought. Education cannot be funded any longer by an antiquated measure of wealth defined in purely local terms: landed property. The property tax, defined by small geographic boundaries, is insufficient and discriminatory. Schools must be a

priority for the major tax revenue stream, the income tax, both state and federal. A patchwork quilt of local and state funding sources creates an inadequate and burdensome revenue stream that fuels political resentment and gross inequity. Federal support for education does not necessarily bring with it bureaucracy or control. For example, one could increase the compensation of public school teachers by exempting their incomes from federal income tax. If we can use the tax code to provide incentives for business investment, why not do the same for education?

However, with reform in funding that establishes a fair national distribution sufficient for operating costs and capital improvement on a uniform per capita basis, there will come an unpopular opportunity to reform school governance. The local school board might be a reasonable mechanism were there parallel elected structures with as much power and influence within localities that deal with other policy arenas. But with the exception of some zoning and planning boards (which have less power than school boards), the local school board has emerged as the last bastion of influential direct democracy on the local level. And the victims are children.

America's poor performance in education before the college level is a result of the extent to which localities have made school funding and policies the main stage and outlet for political debates and participation—marked by a resentment generated by the pervasive sense of powerlessness citizens feel on other subjects of state and national politics. School boards change their membership frequently, often with each election. Consequently, superintendents have short tenures and are part of a revolving door system of leadership. There can be, as a result, no long-range planning. Quick fixes, cosmetic changes, and the status quo are more often than not the rule. Fundamental change and improvement are impossible under current circumstances.



Furthermore, basic policies with respect to the curriculum before college need to become national. The same applies to standards for professional certification. Necessary variations required by individual states can be accommodated easily. This is the way standards are maintained in medicine and law, where state and national expectations cohere. Teaching should be treated with the same respect and approach. A national policy would also open the door to improving the pay and conditions of work for teachers. They need to have more autonomy within the classroom and at the same time be held more accountable for results. The monitoring of that accountability needs to be in the hands of peers, not defined as other

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teachers at the same grade level, but teachers and experts in the same subject matter. For example, the national professional organizations in chemistry, biology, history, and mathematics need to monitor and grade the performance of teachers and schools in those subjects at all levels.

This proposal, in turn, raises the bedeviling issue of student assessment and testing. As a nation, we have allowed ourselves to become hostage to an out-of-date, self-serving (in terms of the testing and textbook industry), ineffective, and ultimately destructive mid-twentieth-century ideology and practice of testing in education. No teacher in the best and most internationally competitive part of the educational system in the United States—the university—has to suffer what all teachers below the college level routinely experience. Their reality is that they face the necessity of teaching, in terms of materials and lesson plans, along lines dictated by standardized tests they neither write nor approve. Both the curriculum and the assessment are wrested from the hands of teachers and experts. Second-rate, uniform tests, whose results are never helpful diagnostically to the student or the teacher, drive and define the classroom. This outrageous and mediocre system is the result of politicians who seek easy answers through old-fashioned standardized testing as well as the consequence of the weakness and narrowly defined self-interest of those organizations who claim they represent the teaching profession.

Teacher unions and associations have been the butt of political criticism for decades because for too long they were legitimately preoccupied with bread and butter issues. Along the way, a crisis developed in terms of school quality, achievement, and assessment, which in turn led to regressive and punitive public policy. The admirable recent shift in focus back to educational curricular matters coincided with a low point in public confidence in those organizations that represented

teachers, leaving schools and children defenseless against the inadequate and crude metrics of current federal policy. The only beneficiaries are the testing companies and the textbook industry, for whom uniformity spells profitability.

What must be done to change this unworkable practice? First, the computer industry must be enlisted to create a new generation of tests that allow for timed tests with programs built in that help the test taker who gets a question wrong to learn from the mistake immediately, when the error is made. Computers can help testing do what a foul call does in a sports game. It can stop the clock,

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address the problem, and then permit the test taker to move on with some understanding of what went wrong and what is the right answer.

Second, tests need to be given on a diagnostic basis for each pupil at the beginning of each school year. The issue ought not to be aggregate grade-level achievement, but the rate and extent of individual change. If at the beginning of the fifth grade, one pupil reads at a third-grade level, and another at a ninth-grade level, then the test at the end of the year needs to assess whether each child has progressed and how much. It is on that basis, on the cumulative measure of change for each pupil, that a teacher's performance should be measured. Third, the tests must be written by the best people in each field and supported by the leaders in the relevant subject. The National Academy of Sciences, not state education departments, must approve and help design the testing instruments in the sciences. Fourth, classroom teachers should participate in the use and design of tests to ensure that the tests permit a sufficient variety of strategies and materials in the classroom.

Perhaps the most dramatic change that needs to occur and that will affect not only elementary and secondary schooling, but also higher education, concerns the length and pattern of common elementary and secondary education. Compulsory schooling needs to start earlier and end earlier. There should be universal pre-school education available two years before the normal start of kindergarten. On the other end, high school should stop at age 16, at the close of what is now the 10th grade. Older citizens and conservatives will recall that American education was once made up of a two-part system: eight years of elementary school and four years of high school. We need to return to that two-part system but reduce the elementary years to six. The middle school and the junior high school idea has been a failure and should be discarded. We have exacerbated the experience of age seg-

regation especially in a context where most families are small and the age range small. Older children need to take responsibility for younger children within single school buildings.

But the real gain from simplifying a three-part structure is on the adolescent side. In social and biological terms, today's 16-year-old is yesterday's 18-year-old. The last two years of high school are wasted on poor so-called advanced college preparatory instruction or low-level electives taught by inadequately trained teachers. The necessary, common, basic instruction required of all citizens can be accomplished in 10 years. At 16, young people should have a choice whether to

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continue with education at college. At 16, young people should be treated with the proper presumption of adulthood. They can elect to do something else and take a break from formal schooling, if only for a few years. National service, including military service, is an option. So, too, are various forms of employment apprenticeships. Going to college at age 15 or 16 was commonplace in the eighteenth and nineteenth centuries. We have overrated the distinctiveness of so-called adolescence and given it too much credence as an extension of childhood. By reducing the years of high school by two, enormous savings can be realized, some of which must be plowed back to create a viable pre-school option.

What such a change will demand of colleges and universities is quite significant. But that change is long overdue. We need to return the focus of institutional attention in higher education from postgraduate and graduate education, particularly in the sciences, back to undergraduate education. Even in our most elite universities the senior faculty do not spend time with undergraduates. Standards of scholarship will not be endangered if we do this. There is really no tradeoff between time spent teaching and on research. They are part of a vocation that requires both activities. Scholarship and teaching reinforce one another and are complementary, not competitive activities.

By dropping the average age of college entrance by two years—owing to the two-year differential itself—colleges will have to rethink two aspects of their current routine. First, the balance between general education and specialized education must be rethought. More general education, notably in the sciences for the nonscientist but also in history, foreign languages, and the other humanities and social sciences, will be needed. This does not mean more random distribution requirements. The younger college student is less cynical, more willing

to take risks, and more eager and open, making general education a delight. Furthermore, beginning college students need to acquire a sophisticated set of skills and sensibilities before deciding on specialized and career-related courses of study. Second, the extracurricular life of colleges, both residential and commuter, must be adjusted to a younger age group primarily to help young adults connect their personal lives with their studies and to link learning with the conduct of life.

Such a dramatic change will force, at long last, a reversal of premiums from graduate education back to undergraduate education, and may help put an end to

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the decline in the quality of undergraduate education and the failure to address the basic issues of general education. The only sector where the undergraduate years still maintain their priority is that of the freestanding liberal arts colleges. But they are far and few between, and exert minimal influence on higher education policies and practices.

There is a considerable body of evidence that the early start of college—even among those who perform poorly in high school, are in danger of dropping out, and are in underserved neighborhoods—works. The evidence emerges from the recent early college movement, spearheaded in part by the Gates Foundation, that has developed since the late 1990s.

Motivated by the falling high school completion rates in poor urban areas, educators began to think that there was little incentive for young adults after age 15 to remain patient and dutiful in high schools, in which they learned little and were treated as large children, not incipient adults. The early college movement, designed initially for high-performing, so-called “gifted and talented” students, offers, counter-intuitively, a new approach. As in community colleges, in early college programs, students with poor preparation are motivated to achieve excellent results if they bring a real desire to learn, trust the opportunity given them, and are treated seriously.

Early college initiatives have developed all over the country. The initial results, particularly from the Bard High School Early College, which is part of the public school system of New York City, indicate that ending high school at the 10th grade works for a broad spectrum of 16-year-olds and leads to improved performance and heightened ambition. The encounter with faculty with Ph.D. train-

ing in disciplines, the explicit institutional presumption of adulthood, the removal of standardized testing and textbooks, and the introduction of serious science and foreign language teaching all have contributed to excellent results over a wide spectrum of students in terms of race and class.

The early college strategy is just one approach. But it works because it requires by definition a partnership between a university or college and a public school system. Such a partnership is essential for all strategies directed at adolescents. This partnership is located not in a teacher training program or an education school but in the faculty of arts and sciences. The early college idea is only one dimension of

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how our higher education network of institutions, both public and private, can rethink their relationship to secondary education so that the necessary vertical integration of educational expertise and resources defined by disciplines can be developed. And without serious improvement in our systems of public education, the quality of our universities will be imperiled. If that should occur, the last American edge in the international arena will vanish—the advantage America now maintains in advanced research, training, and scholarship. With that loss, America’s economic competitiveness will be further eroded.

Given the context of a new administration in Washington, the time has finally come for a bipartisan effort to repair the public school system. Higher education has a central role to play in this effort, well beyond what has been done in the past and well beyond the confines of the education-school establishment within our universities. Our leading scholars, scientists, humanists, writers, and artists need to take part so that a curriculum of excellence can be delivered with equity throughout our democracy, encompassing all regions and sectors of society. The prospect of excellent schools linked to our university system will restore to the profession of teaching below the college level the dignity and respect it deserves, improving the likelihood that many of our most gifted young people will choose that noble profession for their careers. After all, without well-trained, first-class teachers, no plan for improving our schools will ever succeed. 

