Americans have always believed that an educated citizenry is essential if we are to maintain our democratic form of government. But these days, we are also worried about maintaining our place in the world economy. People ask whether our students are well enough educated for us to compete successfully with other world economic powers. They worry about the United States' becoming a third-rate power. And there is good reason for these worries.

First, though, it's important to realize that we have had some real success in improving the educational outcomes among students in the least affluent segments of our society. After "A Nation At Risk," someone cleverly came up with the phrase "children at risk," which reminded us that we must not pursue excellence at the price of giving up on equity issues. So we have spent a good deal of time and attention -- though still not enough -- on the special problems of minority students from impoverished families. We've accomplished something, too, because the good news in American education is that the gap between minorities and whites has substantially narrowed over the past 20 years. The National Assessment of Educational Progress (NAEP) tells us this and another piece of good news as well -- none, or virtually none, of our young adults is totally illiterate or innumerate.

Everywhere else we turn, we are faced with nothing but bad news. Perhaps the most shocking and dramatic way of understanding the situation is to look at our top group of students. NAEP results for in-school
17-year-olds is a good place to start because most of the 25 percent of students who drop out of high school are already gone by then. So we can see how well we’re doing with our most successful youngsters, those who are about to graduate and, in most cases, go on to postsecondary education. If we look at the very top categories in each of the NAEP assessments -- the ones where students are able to write a decent letter or essay, read something as complex as an editorial in the Wall Street Journal or solve mathematical problems using arithmetic and simple algebra -- we find that only 3 to 6 percent of our students can function in these top levels.

NAEP assessments do not compare our students with students in other countries. But if you look at the Abitur, the examination that determines college entry in Germany, or at the college entrance exams in France or Great Britain or the Canadian provinces or Australia, it’s clear that anyone who can pass those exams would be in the top NAEP categories. In Germany, 28 percent of the students pass the Abitur. In Great Britain, which feels that it is doing very poorly (and indeed it is when you compare it with other industrial countries), 16 percent pass comparable exams. Our top group, as I’ve said, is only between 3 and 6 percent, and it probably would be less if we applied German or British standards. It’s true of course that anyone who is admitted to college in Germany or Great Britain, or in other industrialized countries, would be in the top categories on NAEP, but the obverse is not true; namely, that a student who scores in NAEP’s top categories would necessarily pass these other examinations.

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That is a devastating comparison because we're not talking about a marginal difference: The top groups in those countries are five, six, seven, eight times as large as ours.

That is one part of the context for a discussion of testing and assessment. The second part is social and political. Although many people are not aware of this, public education in America is facing a crisis of confidence. Look at the signs.

The massive school reform movement of the last six years is the most obvious. Carried out mainly by the states, it took the form of thick books of regulations for schools -- and this during a period when deregulation was practically a religion. The parental choice movement is another such sign. Choice assumes that, even though regulations tell school people exactly what to do, these people might still mess up, so parents should at least have a chance to put their children in another school. Educational bankruptcy laws, now in effect in a number of states, provide mechanisms for state takeovers of school systems regarded as unable to take care of themselves. The takeover of the Chelsea school system is a variation on this theme. Massachusetts, a state known for liberal legislation and policy, was willing to suspend a number of public interest laws so that Boston University, a private institution, could run the Chelsea schools on its own terms. And why were the legislators willing to dispense with the rules of democracy? Because they believed things couldn't get any worse in Chelsea. "Nobody else has done anything for that district," they said. "Why not give it a try?" It's hard to answer that.

In Chicago, the desperation took another form when the state legislature recently disbanded the central board of education and mandated a separate board of education for every school. Parents have to be in the
majority on these boards, and they are nominated by the Iowa Democratic Caucus system -- that is, eligible voters come into an auditorium, look each other over and decide which of them will be on the ballot. These school-level boards have the right to hire and fire the principal of the school, and this means, of course, they will have the right to run the school -- if the principal wants to keep his job, and most do.

This groping for solutions, some of which are pretty radical, is a sign that the public senses there is something wrong with our education system but doesn’t know quite what to do. So these are the contexts in which we have to look at testing: Our schools are getting disastrous results in terms of student achievement, and the public has begun to reach, sometimes rather desperately, for solutions.

Let me say first that I’m not against standardized testing. I remember, back in the 70s, a movement to abolish standardized testing. Its supporters publicized their campaign with ads showing little children crying because they had just failed a test. In fact, the anti-test people claimed that little kids who failed tests were being destroyed -- they were going to give up on schooling, and on life. But I was then, and I continue to be, a strong supporter of testing. I don’t think the American public is going to spend $180 billion a year, and more, on education without periodically finding out what it’s getting for the money. And I think that efforts to get rid of tests -- not to change them or improve them but to get rid of them -- are totally misguided. Such efforts will merely give ammunition to those who want to destroy public education. Because, whatever anti-test people intend, the message sent by efforts to abolish tests is that the people in the schools are doing a rotten job and want to get rid of the measurements that prove it; they want to sweep the results of their failure under the rug.
So our tests should report to the public on how well our students are doing. They should tell us whether schools are getting better or worse. But even though the United States probably spends more on testing and does more of it than any other nation in the world (perhaps with the exception of Japan), we actually know less about what’s going on in our schools than people in other countries. Take a look at the Gallup Polls, and you’ll find that most parents think the schools their kids go to are fine. How can people who believe that the overwhelming majority of schools in America are bad say that their own schools are good? Partly because that’s what the standardized tests tell them.

Every year, school districts publicize a few numbers that go something like this: 58.2 percent of our kids are above average this year in reading, as against 57.9 percent last year; and in math 61.3 percent are above average, compared to..., etc. What do these numbers mean? If 69.2 percent of students in your school are above average, what can they do? And what do they know? The numbers don’t tell us. A year or so ago, Dr. John Jacob Cannell shed some light on the subject when he told us that, according to the scores on standardized, multiple-choice tests, most kids in most states are above average -- Cannell called this the "Lake Wobegon effect" (after humorist Garrison Keillor’s fictional Minnesota town where "all the women are strong, all the men are good looking and all the children are above average"). So obviously the tests on which we’re spending so much time and money are not performing one of their key functions.

In fact, these test scores that the American people look for in their local papers are very much like body count numbers in the Vietnam War. A body count is supposed to be an accurate indicator of whether you’re
winning or losing the war. If it isn’t, it’s obviously worthless. And these test scores that the American people watch so obsessively ("Did our scores go up or go down this year?") don’t reveal anything either.

Perhaps this is part of our television culture; perhaps this is all the American people want -- a little news item containing a couple of numbers and not much information. It would be interesting to find out why people are so well-informed about whether this year’s scores on the standardized tests, which reveal almost nothing, are slightly up or down when they’ve probably never heard of NAEP results, which give a lot of information about what kids know and are able to do. And I’m not just talking about the man on the street. As I go from one group of corporation executives to another, I find them talking about the fluctuations in scores on the Scholastic Aptitude Test (SAT) -- which is designed to predict future performance, not show achievement -- and they never mention NAEP or other assessments that would give a concrete picture of what kids are able to do now.

If the business community had any idea about how most standardized, multiple-choice tests work, they might change their allegiance pretty fast. Often school districts ask me whether the business sector would really be in favor of our moving from the system we now have to something different. So I suggest that they imagine a standardized typing test on the model of the usual standardized multiple-choice test. (The first question would read something like this: "On a standard typewriter keyboard, the letter 'I' appears on a) row one, b) row two ...." ) Then I suggest they ask business people if they would hire their typists on the basis of how well they did on that examination. Of course, the business people would look at the
people from school as if they were crazy -- and the school people would have their answer then and there.

But it may be that the American people need something simple -- even though it doesn't mean anything. And, certainly, school people generally don't mind these standardized tests. Yes, they complain about them, but when Dr. Cannell came out with his revelation about standardized test scores and we had a meeting of the Forum of Educational Organizational Leaders in Washington, many people there seemed very uneasy at the thought that, if Dr. Cannell prevailed, some other system of assessment might replace our current one.

It's possible that schools feel comfortable with standardized tests because the scores convey no information and therefore represent no danger. Besides, standardized tests are a ritual with which schools are familiar; schools know they'll probably be able to move the scores up a little bit every year; and better the devil you know than the devil you don't know.

But even if our standardized multiple-choice tests gave us the information we need, we'd still have to realize that these tests are not mere thermometers; they intervene in schools. The truth in testing legislation Congress considered in 1979 would have mandated that testing companies reveal many of their questions and the areas that would be tested in advance. And when I testified against the legislation, one of my arguments was that putting out the test items would lead schools to set up all kinds of cram courses to get kids prepared for these items. And I did not want the school curriculum to be driven by these tests. I wanted tests to be independent indicators of what the schools were doing.
We all know what’s happened. We know that teachers are forced to spend a lot of time teaching kids how to do better on standardized tests. They coach kids on the materials that will be covered on the tests and on how to take the tests. They teach kids how to guess when they don’t know the answer and how to pace themselves. And the kids practice by going over and over the types of questions that will be on the test.

The very term “curriculum alignment” is a fancy way of saying that tests narrow and determine the curriculum. They cease to be the means of finding out what schools and students are achieving and become the ends -- or, at any rate, getting a slightly higher score every year becomes the end.

Of course it’s possible to have standardized tests with multiple-choice questions that involve critical thinking. However, the habits of mind students develop when they know that all they’ll have to do is pick an answer from among four or five choices are quite different from those encouraged by having to write an essay or stand up in front of a group of people to discuss something and respond to questions. The kind of teaching is different, too. When passive recognition is all that is required, it’s like preparing tourists to go on a trip to a foreign country where all they need is an acquaintance with some basic words, phrases and signs; they don’t have to know any of them -- just be able to recognize them on a restaurant menu or a bathroom door. And that, of course, is altogether different from the active knowledge of the language people need and want if they are going to be living in the country or even doing any kind of business there.

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The fact that so few of our youngsters can write is no accident when we consider that very few states report on writing achievement or have any kind of test to assess it. Standardized multiple-choice tests can't assess writing, so there's not a lot of pressure to teach it. And obviously, if kids don't write and if their papers aren't marked and they aren't coached on how to improve and they don't rewrite their papers, the kids won't learn how to write -- and they don't.

The point is that if tests intervene, they must either be as neutral as possible in their effect on teaching and the curriculum or they must be a positive force that will actually get schools to reorganize and to restructure along different lines.

But how willing are people to change? And what kind of impact is testing having on their willingness and their ability to reform our schools? Theoretically, assessments and tests should be a spur to change. Given the kind of NAEP results I've been talking about, people in schools should be getting together and saying, "What can we do to change? How can we do things very differently?" But that's not happening.

When Jack Bowsher, a former IBM vice-president who was in charge of IBM's internal education programs before his retirement, attended an American Federation of Teachers Executive Council meeting last June, one of our members asked him what he thought of the school reform movement. His answer was, "Let's say I was running an IBM plant making computers, and 30 percent of them fell off the assembly line before they ever got to the end -- and even though we kept looking for them and trying to put them back on the assembly line, we couldn't find them. And say 90 to 95 percent of the computers that did reach the end of the assembly line didn't work most of the time. In that situation, I don't think we'd be
talking about running the assembly line an extra month a year or an extra hour a day." But of course, that's exactly what we do when we find out something is wrong in our schools -- more of the same thing.

Theoretically, our test scores ought to lead us to change our schools, and this change needs to be based on a change in our central vision of schooling. Until very recently, our system functioned by weeding youngsters out. Children would come to school at a certain age and the school would present material at a certain rate. The students' job was to learn the material at that rate so they could hand it back in just the form the school wanted. Kids who couldn't do this were considered failures and schools, in various ways, encouraged them to get out. That vision of what schools should be is changing now as we feel our way towards a system that will cultivate youngsters instead of weeding them out. We need schools that reach out in different ways to different youngsters, instead of having one system that says, "If you don't make it -- if you don't fit this mold -- you're no good."

We could learn a lot here from doctors. When a patient comes back saying a medication the doctor prescribed hasn't worked, the doctor doesn't do what a school system would -- tell the patient he has a lot of nerve for not responding to the medicine and double the dose. No, the doctor says, "I'm sorry." And he offers you something else. He says, "Here, try this, and if that doesn't work, come back and we'll try something else.

This is the way we should be thinking about our schools: "Now here, try this." We need to base our practice on the understanding that different people learn in different ways and at different rates and on the realization that school-learning has become divorced from real-world learning. And we need to answer questions like these:
Should we be trying to individualize learning for all our students? Is group or cooperative learning a better idea? Or do we need some kind of combination of these methods?

In learning, what is the relative value of questions that have one right answer and those that require judgment?

To what extent and in what ways should we go beyond the manipulation of words and numbers?

The Holweide School, a comprehensive school in Cologne, West Germany, which was a kind of model for Turning Points, the Carnegie Council on Adolescent Development's new study, is a good place to see how some of these questions have been answered by imaginative practitioners.

At Holweide, groups of seven teachers take charge of groups of 120 or 130 students, and they stay with the youngsters as long as they are at the school (from the equivalent of our grade five until they leave secondary school). These teachers make all the basic decisions about how to teach their students: They agree on who will teach what classes; they decide on the schedule; they decide how to divide the youngsters into the learning groups where most of the learning takes place. (We are beginning to talk about this kind of group learning -- we call it cooperative learning -- but people at Holweide have been doing it for 15 years.)

But when I speak to various groups about schools like Holweide where fundamental restructuring has taken place, the first response I get is, "But that might lower our standardized test scores!" And I'm not talking about 10 percent of the schools -- I'm talking about all of them. Many of the people whose reflex is to worry about lowering test scores also know that students learn at their own speed, and they know that some students learn better by watching movies or by building something or by having a

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discussion than by sitting and listening to the teacher talk and then reciting. Some of these people have a vision that students have to be workers, actively engaged in their learning, and that there are different roads and different ways. But then comes the damning realization. It doesn’t matter how kids learn best: The best way to get those scores up is the same old way -- by having the teacher stand up in front of the group and go over and over the kinds of questions that are going to be on the test.

So the current group of standardized tests are not simply thermometers that tell us something about the health of our schools; they are devices inserted into our schools that maintain the current system. And if we are serious about our current discussions of school change, we need to think about coming up with tests that promote change instead of continuing with ones that lock in an education system that gets as poor results as ours.

I’ve been thinking, for a long while, about what such a system might look like. And for some years I’ve been describing an experience I had as a youngster in the Boy Scouts. The Boy Scouts, after all, are an educational institution. They have a curriculum and they promote kids who follow the curriculum from Tenderfoot to Second Class Scout to First Class and on up to Eagle Scout. The interesting thing about a Boy Scout troop is that the scout master cannot do what I am doing right now -- lecturing -- because there are different kids at different levels doing different things. Maybe two of them just joined today, and a few came in last week. In some ways, a scout meeting is like a one-room school because you’ve got kids with as much as a four-year age span, and they’re all doing different things. A scout master might have 60 kids, and some of them will be doing knots while others are doing first aid or bird study or civics, with a
curriculum that includes three or four hundred items. This works because the kids are proceeding at their own pace and learning in a variety of ways -- by reading the handbook, by working with volunteers or other kids, by using community resources or even by employing some simple technology -- for instance a board containing all the knots they have to learn so the kids can learn by copying them.

I often think of my own experience with the bird-study merit badge, the experience of a city kid who wasn't very interested in birds. And I think about the difference between school learning and school assessment and what happened in Boy Scouts. If I had learned about birds in school, my teacher probably would have had flashcards and pictures of birds all over the room. Eventually she would have given us a bird test where she would have asked us the birds' names and then we'd have had to fill in some kind of chart to show we knew what part of the country which families of birds came from. I know I would have forgotten the birds within three weeks of taking the test -- and that would have been no loss because I would probably have learned to hate birds.

In the Boy Scouts, you actually have to see forty different kinds of birds, see them. And you don't do it by looking out your window or taking a walk through Central Park. You've got to get up at five o'clock in the morning so you can be in some swamp as the sun is about to come up. Or you have to go at sunset to some hill or a mountain. And, of course, since you probably don't want to go all by yourself, you invite a couple of friends. When you look through your binoculars at a bird in flight, it's not the same kind of bird as the one you see stuffed in the Museum of Natural History. You see a certain shape and certain field marks -- a red crest or a prominent black stripe across the wing. So you start looking
through the field guides together with your buddies. You say, "There it is, that's the one." And one of your friends says, "No, you dope. That says Texas; we're in New York." So you keep looking through the book.

Your final assessment is very simple: You take a walk with one or two people who really know birds, and you spot every bird, by whether it's on the ground or it's got a particular mark or it's flying in a certain way. That's the kind of knowledge that doesn't leave you because it involves seeing things you've never seen before. It becomes part of you. I don't know of anybody who got a bird-study merit badge who didn't maintain an interest in birds for many years after that.

So I think that a lot of the discussion today about authentic assessment is very much on target. Assessment needs to move away from what we're doing today to something which is part of the student's engagement with the subject and part of the work.

Now, finally, I'd like to deal with one other aspect of tests and assessments. In most societies, they are part of an incentive system -- how well you do in high school makes a difference to your life after graduation -- but as has recently been pointed out, that is not the case in the United States. In Great Britain, for example, whether you've achieved "A" levels or "O" levels makes a difference in how quickly you get a job and what kind of salary you get. The subjects you've taken and the marks you've gotten -- they travel with you. But in the United States, few employers ask for high school transcripts. And if they did, how many high schools would be able to send transcripts out within a couple of days? Or how many employers would find the information on the transcript in a usable form?
To understand how important it would be to make this connection between high school achievement and getting a job after graduation, we have only to remember descriptions of high school students in The Shopping Mall High School or in some of Theodore Sizer's or John Goodlad's writings -- kids who are apathetic about school except when they ask, "Is that going to be on the test?" or "Do I need to take that to graduate?" These kids aren't dumb. They know that the only thing they're going to be asked by prospective employers is whether or not they've graduated. No one is going to ask if they took mathematics (and at what level) or history or English or a foreign language.

At meeting after meeting I attend, business people ask what they can do to help improve American education. The answer is they can begin linking school work with getting a job. They can show youngsters that how quickly they get a job and the starting salary they command is directly related to success in school. And they can make it clear that they're also going to ask for letters of reference from the schools and take them seriously -- just as colleges do. When employers do these things, teachers and parents will be able to say to kids, "Study and do well in school because the kind of mark you get really makes a difference."

Connecting school success with the workplace acts as a tremendous incentive in other countries, and it would work the same way here. But some companies would have to make one further change in their current hiring policies. A number of our better employers don't hire kids right out of high school. They prefer to wait until potential employees are 24 or 25 and have sown their wild oats elsewhere. The result of this policy is that most of the jobs available to kids just out of high school are at or near the minimum wage, and, again, their achievements in high school
don't seem to count. Later, of course, they do make a difference. Five, six, seven years later, Proctor & Gamble or IBM or some other top company will hire these kids, and in the long run the ones who did well in high school will do better than the ones who just hung in there to get the diploma. But this is far down the road. It's not visible to kids who are in school, and it certainly can't act as an incentive.

In the long run, reconnecting school and work will be especially important for minority students. Many minority students have felt that, even if they did well in school, they would be the last to be hired. And that history of discrimination has turned them off from making much of an effort. All this is about to change. We are entering a period when we will have a tremendous labor shortage, one so severe that employers will not be able to turn down applicants just because they don't like the color of their skin or their ethnic background. They will have to employ all those who are available and who are able to cut it. That message has to go out.

We should be aware, though, that in the short run, hiring and rewarding students on the basis of achievement could have a negative racial impact. In the short run, it might result in minorities being hired less and in being hired at lower salaries. We need to balance the plusses and the minuses of such a policy. But you cannot have the positive effect of the incentive without potentially having a negative effect until minority students learn that demographics have created a whole new ball game -- which they can win.

We have a similar problem with incentives when it comes to students going from high school to college. When I was growing up my mother and father told me -- if not every day, then every other day -- that if I didn't work hard I wouldn't be able to go to college, so I worked hard.
Parents still say that to kids in other industrialized countries, but can any parent in the United States look at a kid and say, "If you don’t do better you won’t be able to go to college"? No matter what a kid has or hasn’t done in high school, some college will admit him -- if he can come up with the money. Of course students who want to go to elite colleges work really hard. They know there are a limited number of places and they have to scramble if they are to get one. The other kids -- many of them -- have no more incentive to work than the kids who will take jobs right after graduation, and they, too, just sit back and do very little.

Of course, we could get better results and greater achievement if we established a national standard for college admittance instead of letting schools set their own standards. But this could shut off opportunities for large numbers of youngsters, a disproportionate percentage of them minority. So on the one hand, if we don’t have real standards for college admission, we reduce the incentive to achieve in high school, but if we establish these standards, we prematurely close the doors for a great many.

These are dilemmas that need to be dealt with in the months and years to come.

I would like to conclude my remarks with some observations about assessment from the National Academy of Education’s review of the Alexander-James report on NAEP and a story from my favorite educational philosopher Father Guido Sarducci. Though they come at the subject from different directions, both have something important to say about the nature of testing.
Talking about the relationship between tests and curriculum, the National Academy review observes that "when test results become the arbiter of future choices, a subtle shift occurs in which partial indicators of academic achievement are transformed into major goals of schooling." And it goes on to quote a 19th century British school inspector who perceived the negative effects of linking teacher salaries to pupil examination results: "Whenever the outward standard of reality" -- namely, examination results -- "has established itself at the expense of the inward, the ease with which worth, or what passes for such, can be measured is ever tending to become in itself the chief if not the sole measure of worth. And in proportion as we tend to value the results of education for their measureableness, so we tend to undervalue and at last ignore those results which are too intrinsically valuable to be measured."

Father Sarducci's experience is also right to the point. You'll recall that several years ago, Father Sarducci started his own university, announcing that he would give a Bachelor of Arts degree for $400 and that the entire B.A. program would take one day. When his audience laughed, he assured them that he was offering a rigorous program with the same curriculum as any four-year college.

When a member of the audience asked him how he could possibly do that, he said, "Well, I'll give you an example of how I do it. The other day when I was out on the street, I stopped a gentleman and asked him, 'Are you a college graduate?' When he said he was, I asked him, 'When did you graduate?' He said, 'Four years ago.' 'Did you take a foreign language?' 'Yes, I did.' 'What did you take?' 'I took three years of Spanish.' I asked him to tell me what he still remembered of his Spanish, and the fellow scratched his head. 'Well,' he said, 'I don't remember very
much. All I can remember is: "Como esta usted?" and "Muy bien?". 'That's all you can remember? 'Yes.' 'All right,' I said, 'that's the curriculum for three years of Spanish. Now, we'll go on to American history....'"

We need an educational program and an assessment program that creates a more lasting impression than that.

END