

# Emerging Issues Forum

## *Education for a Competitive Economy*

Address by

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*School Restructuring:  
Breaking Out of Orthodoxy*

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Thank you, Jim. It's a pleasure to be here and to have this opportunity to share some thoughts with all of you about what we need to do if we are indeed to restructure our schools. And, Jim, I'd like to say that the most pleasurable years of my professional life have been the last five years, where we have shared many things on the original Carnegie Board and the teaching standards board which now exists. And I want to share a fear that I had at one time, and that was when you came to head that board.

I said to myself, "Well, here's a former governor. Chances are he'll get back into politics--I hope he does--and run for office, and I don't know whether having a person to chair a board like this where there will be a lot of fights, and who eventually is going to want the help of a lot of people around this table, whether he's going to end up making a lot of compromises to keep everybody in support of him personally."

Well, that's the question I had in my mind at the time, and I want to say that one of the most wonderful experiences has been to watch you call the shots as you see them, no matter who gets hurt a little bit each time, and it's just been great, because without that kind of strength and integrity, the movement on that professional board will not get anywhere.

Some months ago I had an opportunity to go to Poland two times to work with people in Solidarity. When I came back from one of those visits, I read a report in the *Wall Street Journal* of a Polish economist who was asked this question: "Is it possible to lift the Polish economy from where it is to some state of prosperity?" And I raise this question because I think the question we have before us today is whether we can raise the level of our student achievement and our school performance from where it is now--which, unfortunately, I do liken to the Polish economy--to a state of prosperity. The Polish economist answered, "Yes, there are basically two ways of doing that." He said, "There is a natural way and a miraculous way." He said, "The natural way would be for a host of angels to descend on Poland and to lift it into prosperity. The miraculous way would be to have the Poles do it themselves." Now, therefore, I stand before you calling for a miracle, because I think that exactly the same applies to those of us in public education in America.

Let me start by saying that I think one thing that's very interesting at this conference--and I hope that it does signify a major step forward--is that usually when you have speaker after speaker talking about the need for basic transformation, for restructuring, for revolution, you get a tremendous number of responses that are very defensive saying, "Well, it's not that bad, and everything's okay here." Sure there are problems, but that's only with minorities or only with at-risk youth. And, "The medicine you're putting out, the operation you're asking for is a lot too drastic." I haven't heard anything like that at this meeting.

But just in case those who harbor those thoughts have not had a chance to get to the microphone, I would like to spend one or two minutes to say that none of us will be willing to invest the effort and to take the risks that are necessary to bring about the changes that are needed unless we start with a realization of just how bad things are. After 25 to 30 percent of the kids drop out, when you look at the 17 year olds who are

about to graduate and be viewed as successful in our society, then only 20 percent of those graduates can write a very simple letter of application, and 80 percent cannot. Only 12 percent of them can take six ordinary fractions and arrange them according to size. Only five percent of them who are graduating--and remember that 50 percent of them are going to be going to college--only five percent of them are capable of reading a high school level textbook or beginning college level work in science or mathematics. Five percent!

We are not talking about kids who are at risk. Yes, they need special help. We are not talking about minorities. Yes, they need special help, although as you heard many times today they are catching up. What I'm saying is that if every minority and every at-risk kid caught up tomorrow--if we pressed the magic button and we didn't have at-risk or minorities, if they were right in with all other white middle-class Americans today--we would still have a national disaster in education. And until we realize that and stop comforting ourselves with the view that the problems are only some group over there, not us, not the majority of our kids but some other group of kids--until we look at what's out there, we will not be willing to take the risks or to make the changes.

The temptation when you get results like the ones I just talked about, the temptation is--and I must say, Bill Bennett is an example of one who takes that road--is to think of the good old days when things used to be better. That is to say, "Once upon a time, that wasn't the case. Once upon a time, all the kids did know all the stuff, and then along came some things which brought us down--broken family, television, teachers' unions, John Dewey, and all sorts of other things." Right?

Well, I like Bill Bennett's view of education. I went to his James Madison High School. It had a different name. It's still an excellent school--Stuyvesant High School in New York City--and I took just that kind of curriculum, and I did that homework and everything else, and it was terrific. The only thing that Bill Bennett didn't notice is that when I was getting that education back there, only 20 percent of the kids in this country were graduating high school, and 80 percent were dropping out.

So the question is not whether we're doing worse than we did in the past. In a way, it's something like our auto industry. The automobiles we're producing this year are a hell of a lot better than the ones we produced in 1950. In 1950, though, the automobile industry had no problems. It does today. Why? Well, there weren't any Japanese cars around in 1950. It isn't that we're moving down. It's that we've either stood still or we've gotten better too slowly compared to the rest of the world.

There were no headlines in 1940 when 80 percent of the kids dropped out. Why? Because it was a different world to drop into. You could get a job in a steel mill, an auto plant, garment factory, all sorts of jobs. Not a line in the newspapers about 80 percent dropping out.

Now, why is this happening? Why are we getting this yield with our schools? Well, we're getting it because we have a system of education which basically screens out lots of kids. Well, no sensible person--if we had no school system in effect today and

had never had one, if we had been a fourth world country up to now and all of a sudden discovered wealth, and we were a committee designed to establish places where our young people would go to be educated--no person in his right mind would invent what we have today. He would not do it. If somebody suggested that we could have buildings with a lot of rooms and that we'd put 25 kids and a teacher in each one, and that a teacher would stand there talking to them, somebody else would raise the question, "What makes you think the kids are going to sit still for five or six hours a day?" And someone else would ask, "What makes you think you could get any adult to want to be locked in a room with 25 kids?" You know, you'd start asking questions and you'd redesign the whole thing. But that is the reason we're getting the results that we are getting.

Please remember that the Japanese are getting tremendous results, but what they're getting are kids who memorize a lot. They're not getting the individual creativity, the things that John Sculley was talking about this morning. They're rethinking their school system. They're not satisfied with what they have.

The Europeans have heavily tracked school systems, something like what we had in 1940. Take your top 20 percent and give them everything you can possibly give them, make them work, use their family support, community support, and what do you get? You get 20 percent who are really terrific students. That's better than what we're getting right now. And one could make an argument for that, but I'm not going to.

The French Minister of Education says, "We cannot continue to run our country with 15 percent of our people being educated." And the British are very unhappy, and they've just gone over to a kind of a radical privatization plan. So it isn't that others are happy, either. They're all having problems because basically they all have the same kind of system.

Now, what's wrong with it? What's wrong with it is that we have a fundamentally flawed analogy as to what a school is like, and the analogy is essentially that teachers teach kids and the kids take in the learning. So that's the view. That's the analogy. And what is not seen basically is that all learning occurs as the result of one's work. You educate yourself. Socrates was right when he said, "I am not a teacher. I am a midwife. I can help you deliver, but you have to go through the labor." I learn by listening, by reading, by speaking, by building, by imagining, by doing all sorts of things, but it is my engagement and my work which results in learning. I go from school to school, and I hear people say, "I taught them but they didn't learn it." What does that mean? "I taught them but they didn't learn it."

Did you ever see a contractor who said, "I built it, but it's not there"? "I taught them but they didn't learn it." Well, if--the student has to be a worker and, therefore, the job that the school system has, the job that teachers have and principals and superintendents and educators is essentially the same job as the manager of any factory or industry or anyone like that, and that is: "How do I get my workers to come every day? How do I get them to do the job? How do I get them to monitor their own work? Because no matter how much money I spend on inspectors, I'm never going to

have inspectors to be able to watch people enough to be able to make them do it." That's the job. These are the questions we have to ask. How do we get our employees, who are students--how do we get them to work and to be engaged?

Now, there's a British guru--management guru, sort of the British equivalent of Peter Drucker--who wrote a beautiful couple of paragraphs on this issue. He says, "All right, if the student is a worker, what kind of work is he doing? What is it close to in that real world out there?" Well, it's not like coal mining or auto making or being a merchant mariner or being a garment worker. School work for the student is most like office work. In office work, you write reports, you read reports, you listen to reports, you give reports, and you move words around, and you move numbers around. Not exact, but pretty close.

Now, he says, suppose you set up an office like this. You hire me, Al Shanker. You say, "All right, Al, here is your desk, and around you are 25 people, and they're doing exactly the same work that you're doing, but you are never to talk to them and they are never to talk to you. And there is your supervisor. She will give you the work to do and you just do it. And by the way, every 40 minutes a bell will ring, and you will then leave your desk and leave these 25 co-workers and move to a different room where you will be given totally work to do, and you'll have a different boss, and you'll have 25 other co-workers around you, and you are not to talk to them, either. And that will happen every 40 minutes."

Now, how many of you organize your offices that way? Why not? Well, because it takes time for people to get accustomed to the work they're doing. It's confusing to go from one type of work to a totally different type of work every 40 minutes. It is very confusing to have to relate to a different manager every 40 minutes, different personality, different expectations. In other words, any person managing an office or a business would say, "You're not going to get any work out of these people."

That's what we do to students, though. That is the life of a secondary student in the United States of America and throughout most of the world. Now, how did this ever happen? Well, it happened because we don't think of students as workers. We think of them as inanimate objects moving along an assembly line, being worked on by teachers who are the workers. That is, this system makes perfect sense if the student is an inanimate object, and in the first stage on the assembly line the English teacher is hammering English into him. Forty minutes later, he is moved to the math teacher who screws mathematics into him, and then the next 40 minutes--you see, it's an assembly line. It is a factory. The student isn't expected to do anything. We are doing things to the student. That doesn't make sense. It makes no sense if you view the student as an active participant who has responsibility for his own education.

Now, let's look at the specifics of this. What is wrong? We all know that each and every one of us learns at his or her own rate. No matter what the task is, if each one of us did it, we would finish at a different time. And yet we organize schools in such a way that each of you may learn at your own rate, but you had damn well better learn at the same rate that I'm talking.

And so I, as the teacher, have to figure out which group in this class I'm going to talk to, and I usually pick the middle group, which means that one-third of the group is bored to death--they know it already--and another group doesn't know what I'm talking about, and half of the ones I am talking to are looking out the window having sexual fantasies.

So at any given time, if I've got 25 kids in the class, I'm lucky if three of them are listening to me, and then we wonder why this thing doesn't work. Now, we ask these kids to sit still for five hours a day. How many adults can do that? And we essentially say to kids that only those will learn who are able to listen for five hours to words coming out of someone's mouth and who are somehow able to create pictures and hold those words in memory. What if you don't learn that way?

Well, that's too bad. By the way, if I took my three kids at home and sat them down and made them sit there, sit still and listen to me for five hours, someone would come to get me, some society, you know, some public interest group for children. At school, when we do this to 40 million kids every day, the kid who can't sit still is labeled special education. That's a troubled child who can't sit still for five hours a day.

Now, if doctors behaved like teachers, you'd go to a doctor, and he'd prescribe something. You come back a few days later, and you say, "Doc, not only didn't that cure me, but look, I broke out all over." If the doctor were an educator, he would grab you by the neck and shake you and say, "You've got a hell of a lot of nerve not responding to my medicine. Here, take twice as much."

But what does a doctor say? Well, if he's a good doctor, he says, "I'm sorry." He doesn't blame you for not responding to his pills. He doesn't say that you are physiologically stupid or slow. He says, "I gave you what other doctors would give you. It works on most people, but it doesn't work on everybody. Here, try this. Try something else." The notion is that even when it comes to something that's physical, medical, physiological, the same thing doesn't work for everybody. Where's the "Now here, try this" in education? Instead of the lecture, where is the videotape, the audio tape, the group discussion, the simulation game, the computer, the trip, the experience, the whole variety of different ways in which people can connect and learn. Where are those things built into the substance and structure of our educational system? They're not there.

And then what do we do when we don't lecture? We call on kids after we talk to them for hours and hours, and we ask them questions. That's what we do. Some kids love it. Their hands are up all the time. They'd come on Thanksgiving day, they get so much pleasure, because every time they're called on they show how great they are. And some get it some of the time, but then there are some who are always sitting engaged in an unconstitutional act. They're praying that I not call on them. There is a lot of prayer in schools.

What happens when I do call on them, which I have to do? When I call on Johnnie in the morning, and Johnny doesn't know it in the morning, and he doesn't have

the answer to another one in the afternoon, and the next morning and so on. Well, what I'm really doing is I'm publicly humiliating him in front of his peers.

What does every book about management tell you about humiliating one of your employees in front of his or her peers as a way of motivating that person? Well, I'll tell you what it makes you do. When you get humiliated, you say, "This is not my game. I'm not going to play." And if students are workers and the only way they can learn is by working, anything that you do that gets that worker to say, "I'm going to stop working. I can't do it. If I try to do it, I'm going to look stupid. I'm going to look silly and, therefore, I'm going to tell all my peers I'm not even trying, so stop laughing at me." Anything that you do to get your kid--the worker out of the game trying to work, that's it. It's all over. Then the game becomes different. It's no longer learning or teaching. It's how do you re-engage him? How do you once again get him to believe that he's going to be able to do it?

And that's what we've got in school. We talk about the kids who drop out. We don't talk about the kids who have dropped out in their heads and are sitting there in school all day long, not getting a thing. That's a much larger number. In a way, those who leave are better kids. They know what they're not getting.

Well, we do a lot of other things wrong. We have this reward system that sort of says, "This is September now. We're opening up our schools. How much time do I have? When do I get my final marks?" "Next June." Well, how many adults can really plan that many months ahead? How many adults would go home and do their homework that night if the final mark were ten months later? We don't. We've got the incentive system for the workers, the kids, too spread out. It's too far away. It depends on a type of character. We like to develop people who can think ten months and ten years in advance who will sacrifice today. But we don't have them. We don't have many adults in our society who are like that. It's unreasonable to structure a school based on that set of assumptions. Of course, if your parents are pounding away at you every day, you've got that system. They'll make you do it. But if you don't have it, you don't.

Well, these are some of the things--only some of them--a fraction. Believe me, if any of us--because we've all been to school--if we sat down and started thinking of little things, we could build quality into the product. You start thinking about a lot of little things that you haven't thought of before that have some impact on the final answer, and you don't have to be a teacher to see these things. You're a student, you're a parent--they're all there. They're all there in your memory, and we need to pull those things out.

Then the next thing that we need after we pull these out and we see that the system that we have now really turns a lot of kids off, that it's based on a fundamentally flawed analogy, then we've got to ask ourselves, "Is it possible in some simple way to get a vision of what might be?" As a matter of fact, are there places where something substantially different is happening that we could look at and say, "We don't have to do it this way." We could make a start next September, as a matter of fact, doing

something that's radically different. Well, there are such places, and I will spend a few minutes sharing one of them because it's the best one I've seen.

This is a school in Germany. It's in Cologne. It is a secondary school. Don't think of it as a nice German school where the blonde kids salute the teacher everyday and take their homework home and do everything--this is an urban school, a lot of Turkish kids, a lot of Moroccan kids. In Germany, all the kids in the country are tested in the fourth grade, and then they are labeled as people were in Plato's *Republic*. There is a top group. That's the gold and they go off to Gymnasium. And then there's a middle group and they go to their school, and then there's a bottom group and they go to their school.

This school in Cologne is a comprehensive school, which means that they take kids from all of these groups, except those who can go to Gymnasium. Their parents would have to be pretty doctrinaire egalitarian not to take the opportunity to go to that top school if you get the opportunity. So basically this is a school made up of 2,000 to 2,200 kids who are in the bottom two groups. That is, they have been told they're too stupid to go to college. So they've got to have another type of education.

Now, what is different about this school? Here are some little changes that make a fundamentally different school. If I were to be employed there at the beginning of the term, somebody would say, "Al, go down to that room, and you will meet the other six members of your team." Teachers work in teams of seven. That team of seven is really self-contained. That is, that team of seven gets a list of the 120 or 130 kids, and that team is told, "First, it is your job to group these kids into classes or groups--large, small, whatever you want--and you can re-group them during the year as you see fit." So if some kid seems to be deciding that he's not going to work because he feels he's the slowest, you can move him. You can move kids around so that they help each other. That's your job, to group the kids.

Secondly, no bells in this school. You can decide whether you want to spend the whole morning learning mathematics and the whole afternoon learning German. If you see that's too long for the kids, you can change that decision, because any time the seven of you get together you can modify it. So maybe at the beginning of the year the kids can only take one hour of a certain type of work, but as they get interested in something three weeks from now, they want to spend the whole day at it. There's no reason why you've got to do the same thing every day. As a team, you get together, and you play it as you see the workers are going with it.

"The next thing we want to tell you is we're never going to hire a substitute teacher because they just encourage disrespect. The kids know they can run rings around them. We've already given you the seventh teacher in this team, and you have organized yourselves in such a way that if any teacher is absent you can handle it. Nobody else is coming in."

Now, the next thing is very important, "These kids are coming in next week, and this is the fifth grade. The seven of you are going to be with these kids until they



graduate at age 19--from fifth grade to age 19. These kids are not coming to you on an assembly line where it takes you ten weeks to learn their names and you can say, 'I inherited them from some other teacher who ruined them last year, and I can't wait to get rid of them next June and pass them on to some other teacher.' You are not going to pack up in June because they're the same kids you're going to have in September. You're going to get to know their mothers and their fathers and their sisters and their brothers, and when you look at yourself in the mirror, you're going to know that you are responsible for what happens to those children because you've been with them for all of these years."

Now, here's a school with 2,200 kids. There are three supervisors in the whole school: one principal and two assistant principals. And according to German law, every single supervisor must be in the classroom teaching at least six hours a week. And, by the way, the principals would have it no other way there because they don't want to be viewed as being out of or disconnected from the teaching profession. So how do we develop accountability here? You've only got one principal and two assistant principals and all these teachers. Well, the accountability is very simple. If you've got a team of seven teachers and you know that you're going to be working together all those years, guess who's going to get after some teacher who's doing a lousy job? The other six. Anybody who is not doing his work is making more work for you. Anybody who is getting kids angry or getting them to do things that are unproductive is making more work for you. You are living in a society where you will inherit the problems that other people create, and you will live from the pluses and the profits that other people do.

Well, what happens in the classrooms? No lecturing! The classrooms have tables with five kids at each table, and everything is done, and it's been done for fourteen years now, through what we call "cooperative learning." That is, the kids are given a problem to work on, not a simple yes-no or factual thing but something that takes discussion, give and take, something where kids can look things up, make contributions. Essentially the kids learn to work together, to work as a team. And the other thing they learn is that if one of them is absent, somebody from the team calls them up and says, "Al, we didn't do as well today because there were only four at the table. Are you really sick?" I mean, it's not the teacher or the hooky cop who's putting the pressure on the kids; it's the other kids. Why not use the natural peer relationship?

What do we do at schools? We break the kids up. You've got two friends sitting next to each other? Break them up. They're at opposite ends of the room and they send notes to each other--God forbid they should learn how to write letters that way. We ask the principal to move them to another room. Here, they use the teamwork that kids naturally have on baseball teams, football teams, basketball. Use it in the classroom; get them to compete with each other.

Now, this is what's meant by teacher empowerment, not some abstract thing about taking power away from the superintendent or the principal or the school board or the governor. It means that those teachers have the power to make the judgment about how to allocate students to each other, to judge which teachers work with which kids. I mean, the kinds of things that it takes to get the job done, not abstract, remote,

political types of powers or anything like that. And the whole idea is that the people who are right there with the kids are going to have the best judgment, provided that they're given the flexibility to do the job.

Now, what's the bottom line of this school? Huge numbers of students from this school go on to college, even though in the fourth grade they were told that they were too dumb to go to college. And going to college in Germany is not like going to college in the United States. You pass a national examination called the *Abitur*, which involves days and days of essay writing and tough examinations. They pass the exam on the basis of a single national standard, not by shopping around for some school that's looking for students and will take anybody in.

Now, is this the model that I want all over the United States? No. I don't even know if I want one of them. That isn't the point. The point is, here are teachers who are no longer isolated. They're working as a team. They can share ideas. Here are teachers who, because the kids are engaged by themselves around the tables, have time to coach. They have time to mark papers. They've got time to do the things that we will never find time to do in our current self-contained classroom model. Here are teachers who have the time to think about how to group students. If a kid is learning, he is making some mistakes, as we all do. Learning is a messy process. These kids are not doing it in front of the whole group with the teacher calling on them. They're doing it with their own little group of friends. It's like practicing hitting or practicing catching when you're on a team. That's perfectly all right in your little group. So they've got a supportive system. In other words, they move at their own rate; they make their own contribution.

Now, maybe you don't want them together for all those years. Maybe you want to try it where they're together for three years. Maybe you want a team that's of a little different size. Maybe you want to have this for a part of a day. I mean, there are all sorts of things to think about here. But the fact is that it is possible to very fundamentally alter the structure of the relationship of kids and materials.

Now, what's missing here? I want to conclude by mentioning a few things that are needed if we are to redesign our schools. What is missing in our system is any kind of staff differentiation. All the teachers are at the same level. They can do that in Germany. You know why? Because in Germany, for every teaching job there are three people lined up who want to be teachers who are graduates--who know mathematics and science and German--and, by the way, they all know a second language in Germany if they've gone to a university. They have no problem of a shortage of people. We do. There is no way that we're going to get 2.2 million people of the caliber that we need in this country, and therefore we have to organize schools a lot more like the way we organize hospitals or law firms or engineering firms or accounting firms. Not everybody can be a senior partner. And we've got to organize our schools differently just because our demographics are different.

The second thing that's missing from this is practically no use of technology. I want to spend a minute or two about technology, because I think without technology

none of this really works. It doesn't work for two reasons. One is the obvious one, and that is the wealth of experiences that you can give kids now through technology that is so much more exciting. That is part of the alternatives, that if this pill doesn't work, there's this one, there's this one, there's that one. No individual teacher can create all those alternatives except through the use of technology. Didn't have it twenty years ago. When people in progressive schools and open classrooms tried to do this, they absolutely fell flat, because if a single teacher has to create and manufacture all the different types of experiences for a class, they burn out very, very quickly, and the kinds of experiences they create are inferior because one individual just can't generate that amount of creativity.

The other thing has to do with communication. What if doctors had to invent all the pills and all the medicines and all the procedures, if accountants didn't have standard procedures, if lawyers didn't have standard forms and standard ways of handling things? Look, most professions operate on the basis that the professional doesn't have to think. Think about that quotation from Alfred North Whitehead today about civilization moving forward each generation by allowing people to do without thinking what they used to have to think about. To be able from habit to do things that used to be hard is fundamental here. You need to have a situation where 95 percent of what teachers do is available to them and they don't have to think about it so they can spend all of their time thinking about the hard problem, the one where you've tried this and this and this and nothing seems to work, and now you've got to come up with something different.

How do you do that? Well, you do that by creating a kind of educational pharmacy. That is, you need a national database. A seventh grade teacher needs the ability to say, "I have the seventh grade, and I'm teaching history, and I want to know the following." And out pops, "Here are the best two chapters of books. Here are the best bunch of pictures. Here's the best simulation game. Here's the best computer material to use on this. Here are the best audio tapes." Not 500 choices. I don't have time to review hundreds and hundreds of things. I want to know what the one thousand best sixth grade social studies teacher-reviewers recommend after they have looked. By the way, we should then have a national contest to invent better materials and new ones and test them so that you begin to share in an entire profession. It's not just every person for himself or herself. It is a national database. Now, we can't make believe that this technology doesn't exist. It exists, and it's cheap, and it's available. And we can start doing that job right now.

My final word is that I think school restructuring will not happen merely with communication. I have been communicating for the last five years, and I feel a lot like the preacher who comes in and everybody decides they're not going to sin again after they've heard me. But when I come back, it was short-lived decision not to sin.

Right now if you've got a guru, and if you've got somebody who's really strong and courageous, they will do it. But unless you have that, they won't do it, because the incentives for doing something right are nonexistent. You may make a mistake if you try to do something. There is no way in which you transform an institution this

fundamentally without going through a lot of trial and error, and there will be a period of time where the productivity may even go down a little bit, where things are just going to look messy. They will not be as orderly as we wish. Now at least we've got order, right? Relative! So the incentives aren't there.

Basically we've got two systems in the world. You've got the Polish-Russian system, and you've got ours. Theirs gives you a lot of security, but it doesn't produce anything. And ours--well, some good products don't make it. Some good people lose out. There are all sorts of injustices. But it lays a lot of golden eggs, and it gets a lot of people to keep working and to keep thinking and to keep trying.

I think that what we have now in public education is a "command economy." It's a system in which there's no incentive. Look, that's why it's been the same for a hundred or two hundred years, because there's no incentive for anybody to move.

I think that we need to think of how to create a market in public education. I think we need winners who can make it big, and I think we need losers who will lose an awful lot. And I think until we do that, if we just count on the preacher to come by every week and give an inspiring message, that's very nice. But it won't move the system.

Thank you very much.