

2009 State of Education Speech
(WRITTEN VERSION)

I am going to confess an addiction to you, and ask you to keep it a secret. I am a CSPAN junky. I was struck by a Congressional hearing on the collapse of the credit markets, in which they found an email from one analyst of a bond rating agency to another, saying “let’s hope we are retired and rich before this thing hits.” He was referring to the fact that the bond rating agencies used to be paid by the investors, but were now making much more money being paid by those issuing securities. As a result of that conflict of interest, they were putting Triple A ratings on securities that contain nothing more than worthless mortgages. This stimulated an ever growing demand for these worthless mortgages, and when the bubble burst, the economy went down with it. The attitude demonstrated here shows how we, as a nation and a culture, have allowed two vital traits to slip away from our public consciousness; they are: Discipline and Character. I’ll do a quick detour and come back to this.

Many of you know that I have worked hard to raise the level of academic rigor in Arizona classrooms. But equally important has been my efforts to teach character to our students, so that they will use their knowledge and skills to improve their communities, rather than make them worse. I’ve always worked hard for character education because I believe in it for its own sake. But what has just happened in our economy demonstrates that an economy of individual freedom and capitalism can only succeed if our schools produce people of character.

Character Education is one of 25 initiatives that I’ve announced to the public over the past six years. Every year, I have announced three or more initiatives for the following year. Each following year, under the theme

“Promises Made, Promises Kept,” I report what we have done to accomplish the prior year’s initiatives, and announce new initiatives for the upcoming year. So I first need to tell you what we’ve done with our three initiatives last year, and then tell you what we will be doing in the last two years of my eight years in office.

I. Prior Year Goals.

1. Healthy Bodies, Healthy Minds.

Last year I spoke about the fact that those who began history and literature, science and mathematics, and the arts, as we know them, in classical Greece and Rome, emphasized not only the development of the mind, but the importance of a healthy mind in a healthy body. Nationally, the percentage of overweight students has doubled in the past 20 years. Nothing is more important to a community than the health of its children. Students need to eat healthy, and exercise every day, to do better academically, improve their health, and develop healthy habits for life. Our initiative last year had two main objectives: 1) identify ten schools that would add elements to the school environment to allow for increased physical activity; and 2) increase the number, by 5, of high schools participating in Voluntary Arizona Nutrition Standards. We met and exceeded our goals.

Ten schools were recognized for their work in increasing physical activity. Examples of some of the physical activities were: creating structured after school programs, involving vigorous physical activity, increasing family involvement in physical activity, and adding exercise-based technology to the school environment.

The second goal was to have at least five new High Schools adopt The Voluntary Arizona Nutrition Standards, and we exceeded this, with nine.

We confirmed through site visits that these schools will increase the availability of nutritious foods for their high school students and promote healthier lifestyles.

To serve as a role model, I announced that there would be healthier eating and more exercise on the part of the members of the Department of Education, verified by the fact that I would lose 20 pounds and the Department as well would lose 1,700 pounds. As those of you who know me will hopefully notice, I met my goal. For the agency, adjusting for attrition of personnel, the goal would be 1,423 pounds, and the loss was 1,516, almost 100 pounds above our goal.

Now, it's time for you, the legislature, to do your part. Don't worry; I'm not going to ask you to exercise. But years ago, you passed a law requiring that the schools would have to get the junk foods, containing excessive amounts of sugar and saturated fat, out of their vending machines. It's time to extend this to the high schools. I see this as an issue of parental rights. If parents give students candy bars to bring to school, no one will take it away from them; but most parents teach their children at home to eat healthy, and resent it when the schools undermine that by putting high fat, high sugar snacks in the vending machines. This is something that you can do to improve education which ... will not cost any money.

2. Transparency and Depth in Academic Achievement.

When I announced this initiative last year, I pointed out that technology now makes it possible to report to teachers, administrators, researchers, analysts, and the public, not only how our students are doing, but how each individual student is doing with respect to every AIMS concept that we test. The AIMS test can therefore be used; not only to

measure progress, but also to help teachers and tutors direct instruction to the individual needs of each student.

In addition to developing this service, known as the “data warehouse,” we have delivered the initial version of the public school report card system providing a layer of transparency of district and school measures to any interested party. Thus this tool empowers parents in choosing their children’s school and holding the schools accountable.

The data warehouse allows researchers and analysts to have another program evaluation tool by linking student enrollment and program participation data to the student’s AIMS scores.

3. Adjunct Teacher Program.

The third goal last year was an Adjunct Teacher Program so that we can be sure that every student has a highly qualified math or science teacher. When we increased our high school graduation requirements to four years of math and three years of science, the business community strongly supported that change. However, the change initially exacerbated an already severe shortage of highly qualified math and science teachers. One of the hopeful signs was that the business community stepped up to the plate, and agreed at their own expense to give time off to practicing engineers and scientists to teach courses in our high schools. Five businesses participated – Intel, Honeywell, Boeing, First International Bank, and Tucson Texas Instruments – to provide teachers in algebra, engineering, and calculus.

At first, there was a fear that the businesses participating in this pilot would recruit the schools’ math and science teachers. However, just the opposite has occurred. For example, four Intel adjuncts are so excited about their teaching experiences, that Intel is further providing all

their adjuncts with the opportunity to earn their Master Degree in Education, funded by Intel. At least two of the Intel adjuncts now desire to pursue their careers as educators. In addition, one of our retired adjuncts has already begun the process of becoming fully certified as a teacher.

Under my administration, we have broken the monopoly that limited the supply of teachers to those going through conventional teaching programs. We have supported Teach for America program which has been flourishing in Arizona. We began an Alternative Pathways program under which those with substantive Bachelor's Degrees, who passed a subject matter test, could begin teaching after a six week summer program in teaching methods. Alternative Pathways brings college graduates with rich content knowledge into Arizona's classrooms, and this adjunct program brings scientists and mathematicians from businesses to Arizona classrooms. Arizona is on the cutting edge of reform to break monopolies, and bring enthusiastic people with content knowledge into our classrooms.

II The Future.

In 2010, I will have served eight years in this position, which is all the law allows. For my last two years, rather than announce new initiatives, it seemed appropriate to look at our greatest successes in our previous 25 initiatives, and expand their reach.

Our theme is a new three R's formulated by the education theorist Bill Daggett: rigor, relevance, and relationships.

1. Rigor.

The most important of these is Rigor. In 2013, it will have been 50 years, a half century, since the beginning of the decline in the quality of American public education. The peak year for test scores for American

students was 1963, and the decline in test scores accelerated in the 1970's. One of the great strengths of a representative republic like ours is its great ability for self correction. The first to act on the idea that something had to be done to reverse this decline was the business community, recognizing the important economic consequence of a declining quality of education. The business community began a movement, known as the Standards Movement, that has been a guiding principle of my administration. The Standards Movement has three principles: Standards, Assessment, and Accountability. The Standards set forth in detail what students need to know and be able to do. They can be viewed on our website. The problem with Standards is that they can be put in the teachers drawer and be ignored, unless we test for them. This is the second principle of Assessment. Testing is not meaningful, unless everyone in the system – schools, teachers, students – are held accountable for the results of the test. The third principle is therefore Accountability. One of the central themes of my administration has been to abandon the *laissez faire* theory of education, in which how much students learn was a hit or miss thing. Now, everyone in the system – schools, teachers, and students – is held accountable for how much students learn, as measured by test scores. Not everything that is valuable in education can be measured in tests. But when students cannot demonstrate in tests the knowledge and skills expected of them, that is now a warning sign that triggers intense corrective action.

Under our system of local control, the state's primary interest is that the students can demonstrate on their tests that they have mastered state standards. Our standards are developed by Arizona teachers and approved by the State Board. They set forth in detail: what students need to know and be able to do. They can be viewed on our website. How the

schools teach the standards is a matter of local control, as long as they achieve the result. In those cases, the principal role of my department is to see to it that the schools get the help they voluntarily request.

But if test scores show that students are not learning the standards, then that becomes a state responsibility. We are determined that never again in the state of Arizona will parents get their children up in the morning, washed, dressed, fed, eager to learn, and then send them to schools where they do not learn.

When a school shows three years in a row that it has not been teaching, we take it over. We first had the authority to do this in 2005. In 2004, there were 81 schools that had underperformed for two years in a row, and were in danger of being subject to takeover. Consistent with my philosophy of “service first, compliance second,” we focused our energies on helping those 81 schools. Seventy of them raised learning, and test scores, enough to become performing schools. Of the remaining 11 that required intervention, nine became performing schools the following year. We have conclusively demonstrated our ability to help schools improve their teaching.

Equally important, to holding schools and teachers accountable, is holding students accountable. Before we started doing that, teachers would ask their students to do well on the AIMS test, and the students would respond “why should I?” The students had leverage over the teachers, rather than vice versa. Since we began to require that students pass the AIMS test to graduate, I’ve gotten calls from teachers and principals from around the state, saying they had never seen the students work so hard, and that parents were more involved, because they knew their children would have to pass the AIMS test. Unlike some, I have little

sympathy with students who have numerous absences, habitually refuse to do their homework, and then blame “the system” for their inability to pass the test. Permitting students to be lazy, passing them from grade to grade whether they learn or not, and giving them meaningless diplomas was a disease of American education which had adopted “permissive” philosophies promoted by so-called “progressive” colleges of education. This philosophy has done no favors to those who have received meaningless diplomas, and has undermined the culture of learning of the education community. The Arizona Department of Education is the tenacious opponent of this philosophy in all of its manifestations.

Each year, I have had to fight against attacks on our system of accountability from some who give too sympathetic an ear to constituent parents who complain that their little darlings cannot pass a test. The following response might not garner votes, but it will be a public service: “Tell the student to study harder. Monitor and assist him. The student will then acquire knowledge and skills needed for the rest of his life.”

Some argue that it is not fair to pass students along and then suddenly hold them accountable in high school. This may be, but the solution is to add accountability at the earlier grades, rather than eliminate it in high school. Some states require students to pass tests to enter grades four and nine. I believe the time has come for the Arizona legislature to require the same here.

Rigor means not only making sure that all students reach proficiency, but that students who are capable of going far beyond proficiency, reach their potential. In this I differ from the Federal Government, which has what I refer to as “proficiency obsession.” I believe that a capable student who does not reach his or her potential is as much

left behind as a student who does not reach proficiency. Unlike the Federal system, the Arizona system measures not only how many students reach proficiency, but how many students exceed it. With a focused initiative, we have tripled the number of poverty students taking advanced placement courses, and have increased, faster than the national rate, not only the number of students taking advanced placement courses, but the number of students passing the advanced placement tests. This continues to be among our highest priorities.

2. Relevance.

I am a follower of the education theorist E.D. Hirsch. For those interested in education policy, the first book I recommend is his book *The Schools We Need and Why We Do Not Have Them*. He traces the decline of American public education to the 1920's, when the view gained currency that knowledge was not important, because knowledge changes, and what was important was the ability to learn and think creatively. Hirsch teaches that the best way to be able to learn, and to think creatively, is to have a lot of knowledge, because knowledge is like Velcro: the more you have, the more areas you have to stick on new pieces of knowledge. I believe every person in this room has had this experience: If you are reading in an area you are familiar with, because it is your job or your hobby, you absorb it quickly. But if you are reading in a new area, you have to read more than one time, and from other sources, before it starts to penetrate. This is because an essential element of reading comprehension is background knowledge, on what in education jargon is called "domain knowledge."

For students to find relevance in their learning, they must begin acquiring large amounts of domain knowledge in areas like history,

science, and the arts, from the earliest grades. So one of my initiatives, to which we gave highest priority was to reform our standards and make them much more content rich. After we had achieved this with our history standards, the chief historian for The History Channel held a press conference and stated that she had read the history standards of all 50 states, and that Arizona's were head and shoulders above the other 49. The prior year, we had done the same with the science standards.

The remaining task is to extend our testing, which is now in reading, writing, math, and science, to include also history. While most schools conscientiously teach the standards, some will teach only what is tested. The failure by some schools to teach history is one of our most serious problems. Future generations will preserve our institutions only if they know what there is to be proud of about them, which means that they must know their history. We now test science in grades four and eight. We need authorization to test history in grades three, six and seven.

I would like to give an example of the importance of testing history, so we are sure our schools are teaching it, in an area of life that might be surprising to you. I get my example from a brilliant new financial history of the world by Niall Ferguson, a newly published book that I recommend to everyone. In 1993, two mathematical geniuses created a hedge-fund that invested in options based on the variation of the price of the options for an ideal price calculated by the following formula:

$$C = SN(d_1) - Xe^{-rT}N(d_2)$$

where

$$d_1 = \frac{\log\left(\frac{S}{X}\right) + \left(r + \frac{\sigma^2}{2}\right)T}{\sigma\sqrt{T}} \text{ and } d_2 = d_1 - \sigma\sqrt{T}$$

The formula worked so well that by 1998 its balance sheet had reached \$134 billion. A couple of mathematicians controlled assets worth more than thirteen times the annual budget of the State of Arizona. But there was one problem. They had calculated that a move in the market large enough to cause them to lose all of their money was something that would happen only once in every four million years of trading, a risk worth taking if your time horizon is, say, only 100 years out of that four million years. But the fact is that a market move of this size is something that happens four times every century. They had miscalculated because their formula was derived from data that went back five years. If they had gone back eleven years, they would have picked up one of those market moves, and would have been alerted to looking at a longer history to arrive at their assumptions. A market move of that type occurred in 1998, and their assets went so horrendously far below zero that the Federal Reserve Bank of New York, fearful that this could trigger a generalized meltdown on Wall Street, brokered a bailout by fourteen Wall Street Banks. So little was learned from this incident, that the generalized meltdown did occur, as we know, ten years later. I believe an important lesson of this hedge-fund and its fascinating formula is that, as important as it is to learn mathematics, it is equally important to learn history.

Two years ago, Senate Bill 1177 would have added history testing in grades three, six, and seven, and added high school tests in history and science. It was passed unanimously, by all Democrats and all Republicans, in the Senate Education Committee and the Senate Appropriations Committee, but got dropped in final budget negotiations. Freshman Representative Cecil Ash has introduced HB2559, a similar bill. It would delay implementation of these tests until there could be money in

the budget to develop them. But by passing the bill, the legislature would send a signal to the schools that these tests are coming. They would know that to have high achievement profiles, they need to teach not only reading, writing, and mathematics, but also science, history and the arts.

3. Relationships.

A prime factor in developing a first class education for a student is that student's relationship with parents, teachers, counselors, and other school personnel. The State Board of Education has now passed a rule requiring that every student consults with these adults and develops an education career and action plan (ECAP). It can and should be changed from time to time, as the student's interest's change, but it gives the student a goal and direction for his or her education. We will make sure that every student in Arizona has an ECAP, which requires consultation with these important adults in the student's life.

Also important are the relationships that students have with each other. To begin with, they need to be able to talk with each other. That means that students coming here from other countries must learn English quickly. We now require that English Language Learners have at least four hours a day of intensive English language instruction (where the previous average was between a half an hour and one hour) so that they will learn English quickly, and will be able to relate to, and compete with, their peers, on an equal basis. Three districts, Florence, Glendale Elementary and Humboldt, that partially adopted the new models a year early, more than doubled their rate of reclassifying students from English Language Learners to English proficient. In the next two years, you will see a dramatic increase in the percentage of students becoming proficient in English quickly, and therefore having the capacity to excel academically.

Last year you appropriated \$40 million for the extra cost of these new models. This year, we have worked hard with the districts to find more efficient ways to implement the new models, and for next year are reducing that cost from \$40 million to \$8,800,000, a savings to the taxpayer of \$31 million.

One of the problems we have had with English Language Learners is that students coming to school historically were asked three questions. If they answered any one of those questions with any other language but “English,” they were classified as English Language Learners. One of the questions was “What is the primary language used in the home regardless of the language spoken by the student?” As a result of that question, students who were proficient in English were classified as English Language Learners, because their parents might have another language as their primary language. In the early grades, some of these students had trouble testing out of the program, because it required reading and writing knowledge of English that most students do not yet have, regardless of their classification. This problem was especially pronounced in the Indian Reservations. Having done extensive research to assure ourselves that we have the authority to correct this problem, and that the Federal Government will not object, I am announcing today that we are changing the system, and the student will not be classified as an English Language Learner unless that student’s primary language is other than English.

How students relate to each other in school can determine how they will relate to their neighbors and communities as adults. Two of our most important initiatives are closely related: discipline and character. We continue to expand our discipline initiative which promotes teaching students what is expected of them, rewarding them for good behavior,

making expectations clear, and enforcing consequences with consistency, fairness, and rigor. Our students can only achieve academic excellence if they are in disciplined classrooms.

I would like to end this address as I began it: by emphasizing the importance of expanding our efforts in both academic and character education. Our character education initiative is now taught in about 1500 schools where our students learn universal principles such as: trustworthiness, respect, responsibility, fairness, caring, and citizenship. The state has about 2000 schools. In the next two years, we will hope to extend this program to all of our schools. We must graduate students who are not only academically capable, but who also have good character.

I started by describing the deplorable attitudes and behavior of the Wall Street financiers that fostered our country's current economic climate. We can do better. For us, it starts in the classroom here in Arizona, where students must be provided a first rate education, both academically, and in discipline and character.

This will help to achieve what we all want for our future: a country which is economically prosperous, in which we all can enjoy the promises of our founding fathers: life, liberty and the pursuit of happiness.