

Remarks of Arne Duncan  
National Science Teachers Association  
Friday, March 20, 2009

Good morning. Thank you so much for inviting me.

As you can imagine, it's been a pretty eventful couple of weeks – from starting a new job – to moving my family – to passing a massive stimulus bill that includes over \$100 billion in new funding for education.

And now – just when I thought I could catch my breath and get really focused on the President's bold education agenda – the NCAA basketball tournament is starting.

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The stimulus bill is a historic opportunity to lay the groundwork for a generation of education reform – and I want to talk about that for a few minutes before discussing science education.

### **Economic and Education Crisis/Historic Opportunity:**

I call it the perfect storm for reform:

- Barack effect
- Support on Capitol Hill
- Proven Strategies in the classroom
- And over \$100 billion from the stimulus package.

As you know, the primary goal of the stimulus is to save jobs – but the larger goal is to drive a set of reforms that we believe will transform public education in America.

The four issues are:

- Higher standards
- Data systems
- Teacher quality
- Turning around underperforming schools

The law requires states to commit to these reforms in order to get the first round of funding – and to begin moving toward them for the second round of funding.

For those states that move fastest and furthest – we have a \$5 billion race to the top fund – and we will use that money to incent a handful of states that are really pushing the envelope.

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Now you're probably wondering just how much of this \$100 billion dollars will go to science education.

If I told you that right now, you probably wouldn't listen to the rest of my speech – so let's hold the thought for a moment.

Let me begin by saying that science education is central to our broader effort to restore American leadership in education worldwide – and I want to start with a little story.

Last week, I had my first opportunity to testify on Capitol Hill about the President's proposed education budget.

As you know, this is both an opportunity for me to testify, but it's also an opportunity for elected officials to speak.

And several of the members of the House Budget Committee spoke about science education. In fact, they reached all the way back to Sputnik to affirm their commitment to science in the classroom.

On the one hand, it's good to remember where the modern era of science education began – but on the other hand, it reminded me that we have much further to go.

America won the space race but – in many ways – American education lost the science race.

A decade ago, the TIMSS benchmarking study showed that our best districts could compete with anyone in the world, but our worst districts – which of course were in low-income communities – were on a par with third-world countries.

This kind of extreme inequity in education is not unique to science, but it has enormous repercussions in the workforce, where science-based industries are desperate for skilled workers.

Studies show that interest in science is strong in high school but it drops dramatically at the college-level.

We need to change that. We need more people in engineering. We need them for the health care and the green energy industry. We need them in technology.

And we need them in the classroom. Too many middle school students are being taught by a generalist. We've known about this for years, but we haven't done enough to address it.

Part of the problem is the labor pool just isn't there. Too much of the talent is going into other areas and that's especially true among women—who are underrepresented in several fields of science.

Another part of the problem is that math and science teachers leave the profession in greater numbers than others – because there are better job opportunities out there. Not everyone is as dedicated to teaching as all of you -- and I want to thank you for that.

But we need to respond to the market by paying more to teachers in high-need subjects like science and math.

I'm a big believer in differential pay. I want to reward excellence by paying teachers and principals who do a great job in the classroom.

I want to reward them for going into struggling school districts. That's where the challenge is. If you're going to take on a tough job, you should be rewarded.

I want to incent schools to attract and support great talent in the STEM subjects.

In his education address last week, the president called for a lot of things:

- Lifting charter caps
- expanding performance pay
- longer school day and a longer school year
- More parental responsibility
- And greater access to college

That's a very aggressive agenda. Some say it's too aggressive – but I say we don't have a choice.

I'm just grateful that we have a president who is willing to fight for schools. Given that we are facing two wars and the worst economy since the depression, it's remarkable how much he keeps coming back to education.

He understands that we need to educate our way to a better economy. He understands that the nation that out-teaches us today will out-compete us tomorrow.

He understands that a nation not only needs its poets and scholars to give us words and wisdom but also its inventors and engineers to design a new cell phone and rebuild the levys of New Orleans, find new sources of energy and new treatments for disease.

Moreover, he is a president who will not allow scientific research to be held hostage to a political agenda. Whether it's global warming, evolution or stem cell research, science will be honored, respected, and supported by this administration.

The President sent a strong signal when he picked a Noble-Prize winning physicist to be our Energy Secretary – and I plan to work closely with him and with all of the other key agencies – From NASA to the EPA to the National Science Foundation -- to launch a new era of science education in America.

But the challenge of getting more young people into science is not something we can successfully implement in Washington. That falls to you and your colleagues in classrooms all across America.

You need to challenge yourselves and each other to move the curriculum beyond dinosaurs and volcanoes – and I know that many of you already have – but we need to take the best ideas to scale in tough inner-city districts like this one – as well as rural areas that cannot find qualified teachers in every subject.

You need to make inquiry-based science relevant to kids – stimulate their curiosity – connect it with their lives. Together we need to change the national dialog about science – to prepare our kids to be honestly critical and technically competent.

Science is all about questioning assumptions, testing theories, and analyzing facts. These are basic skills that prepare kids not just for the lab – but also for life. We're doing kids a disservice if we don't teach them how to ask tough and challenging questions.

In Chicago, we began one of the most comprehensive science initiatives in the country – upgrading curriculum, training teachers, and expanding programs. We need to do that everywhere and I welcome your ideas, your input in how we can get that done.

Above all, I just want to thank you for your commitment to education and to children. We don't say thank you nearly enough to the men and women who do the hard work every day of teaching children.

So, on behalf of the President and his wife Michelle as well as the Vice President and his wife Jill -- who is a teacher, I want to say thank you for all that you do. America depends on you. Our future depends on you.

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As I mentioned before, you probably want to know how much off the \$100 billion will be going into science.

I can't put a hard number on it – but I can promise you that many of the teaching jobs we will save with stimulus dollars will be in science labs all across America.

I can promise that some of that money will help modernize those science labs – although those decisions will be made at the local and district level.

There is also a pot of \$650 million dollars for education technology grants.

I am also confident that dollars from other funding streams – Title I, Special Education, and School Improvement Funds – will find their way into science classrooms.

Lastly there is the \$5 billion race to the top fund which will reward the school districts doing the most to advance reforms – and that includes science education.

So the money supply is there. Now we need to drive the demand. We need to get kids and parents engaged, and make our case forcefully that science education is critical to America's future.

We have the leadership in the White House, we have the support on Capitol Hill, and now we have the funding.

Now we need you -- your ideas, your energy, and your leadership -- to build on the great tradition of inquiry, research and theory that produced Edison and Einstein and create a new generation of scientists to make the world smarter and healthier.

America's economic security tomorrow is directly tied to the quality of education we provide today. This is our task. This is our challenge. Now let's get to work.

Thank you.