



JAMES A. BAKER III INSTITUTE FOR PUBLIC POLICY
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VIDEO BRIEFING TRANSCRIPT:
PUBLIC POLICY FOR THE PUBLIC –
SCIENCE AND TECHNOLOGY

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Chris Bronk: Hello. Welcome to “Public Policy for the Public,” a presentation of the Baker Institute for Public Policy at Rice University in Houston, Texas. I’m Chris Bronk. I’m the Baker Institute’s fellow for technology, society and public policy. Today, we’re going to discuss — actually, more of a conversation, really — between my colleagues here at the Baker Institute on the issue of science and technology policy, particularly in the United States. To discuss the issue, we have gathered a physicist, an economist, an electrical engineer, a molecular biologist, along with me, a political scientist by training.

So I’d like to throw out to all of you, kind of a toss up. Looking prescriptively, because I was always trained, I was trained in part as a public administrator, so you always have to have a prescription for every problem — doesn’t matter the problem, but always have an idea on how to fix it, which has been the undoing of at least one presidential administration in the last 30 years or so. But I wanted to throw out to you, because we do agree this is so important, what would your message be to Mr. President? “This issue is very important, and I want to tell you why, but more importantly, here’s my roadmap for the future. Try this.”

So I’d like to hear from each of you your idea on what you would throw out to leadership in reversing some of these problems.

Neal Lane: I think the first thing that a new leader of our country needs to understand is the importance of leadership itself. John Kennedy is an example of a president who was not in office very long, sadly, but who clearly exercised leadership in a way that inspired a nation and generations of young people and changed America for a good long time. We need a leader of either party like that, who can get the attention of the American people and convince young people, particularly, that the way America is going to be a leading nation in the future, with a quality of life that they would all want to enjoy, is by taking these issues very seriously and by making whatever necessary changes in their careers and in their lives are going to be necessary to make that happen. Some of those might fall under the category of “sacrifices,” but for the most part I just view them as decisions.

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So I think on the education issue, many of the recommendations in the National Academy's "Gathering Storm" report are very thoughtful. There are a number of them that need to be done. They include scholarships and fellowships, they include attention — meritorious recognition of the best teachers — and all the sorts of things that make sense: increased investment in particularly important areas of research, because that's what's going to keep America's universities strong so that they'll continue to be the leading institutions of higher education in the world; a sensible immigration and export control policy that will remove the barriers that are not actually protecting America, but in many ways hurting America and its ability to compete in the future; and then finally, I would say — it's not finally, but just on my list right now — is to remove some of the barriers to U.S. companies and U.S. industry to ensure that they're able to compete on a level playing field with the rest of the world.

Patent law — not an area I have any expertise on, but I know people who care a lot about reform of patent law — it was written a long time ago, and now we're patenting genes and other kinds of peculiar biological things that Dr. Matthews knows a lot about, but [there are] a number of issues having to do with protecting intellectual property, because if we can't protect it, then people are less inclined to make the investment to discover in the first place.

So those would be some things on my list, but first would be real leadership — a new president who says, "Here's what we're going to do to move America forward in a progressive way, in a different world, and I'm calling you, America, to do your part."

Kirstin Matthews: Well, I wanted to kind of go back a bit and state that one of the best indicators for not only wealth, but also for health, is actually education. They say that if you, the more education you have, the more likely you'll make more money, but you'll also be healthier, and I think John [Diamond] would agree that having a healthier, smarter, wealthier work force means that you have a bigger tax base, and then we have more discretionary spending.

So, knowing that, then I think it goes down to having that skilled labor force and the education, and I feel like what's important for the United States is to have a balanced research portfolio to begin to address biomedical research and support biomedical research, support physics research,

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engineering research. Also, because by supporting these areas of research, you tend to attract more people toward these areas.

And I also think that, we should also start stressing a little bit more some international collaborations in science. I think that scientists really do want to talk with other people in different countries, to collaborate with people in China, but it's not also just the immigration issue and visa issues that get in the way, but there's also some funding issues. It's hard to have something funded with collaborators outside the U.S., especially since money transferred overseas from grants is limited. With the increased industry presence in countries such as China, it's best for the United States to also engage in these countries, and science research is an easy avenue to do that. They're doing it there — they're getting engineers that will work in Shanghai, that will collaborate with their engineers in Houston, Texas, and that is the model that academics want to do, and our research spending and our funding limits people's abilities to do that. And I think that's a barrier, and [resolving] that would actually improve science everywhere, as well as get the United States involved even more.

Chris Bronk: And doesn't that have a bigger picture impact of lessening tensions with other countries in the world? I mean, isn't, can't we take the evidence that our science diplomacy with the Soviets in the 1970s probably produced an outcome at the end of the Cold War that was far more rosy than the most pessimistic predictions? Isn't it good business, diplomatically?

Kirstin Matthews: I think Neal and George could probably speak to that even better than I can, but scientists tend to get a really good reception when visiting other scientists. We know each other from the literature, we don't seem to regard the political tensions between different governments as much as other people do. And I think that is a good example, as well as, I think, a lot of collaborations that everyone wants to do with NASA, and is willing to do with NASA, and in the past has done with NASA is a good example of that.

George Abbey: I think, probably, if you look at our relationship with Russia, I don't think you'll find any area of interaction with Russia that is going as well or is as effective as our relationship in the space program, because I think we've been able to, as Kirstin says, really work well with

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our counterparts there. And I think we have got into a situation there where our space programs at this point in time are very much intertwined. When we had the Columbia accident, we wouldn't have been able to continue to operate the space station were it not for our relationship with Russia. And I think when President Putin spoke here at Rice University, when he visited Rice, he made the point that in other areas we ought to look at our relationship in space as a model of how we can work in other areas together.

So it is, I think, important to have that kind of interaction between the engineers and scientists on an international level. But to get back to another point, I think that Neal made a very good point that it's leadership. And fortunately, we've been blessed with leadership in the past, and if you look at the successes our country has had, it's because we've had good leadership.

We're in a different environment today. In this country, we don't manufacture a lot of goods today in this country; they're manufactured elsewhere around the world. We're a leader today mainly because of our science and technology. And, as we pointed out, if you don't look to the future, with the situation and all the warning signs that have led to looking ahead at the gathering storm, we're going to really be in difficulty in future years because science and technology are dependent on young people going into those fields — and allowing, as Neal has pointed out, having people come from other countries. Without that resource, you're not going to be a leader in science and technology. It gets back to the point John made on education. That's critical, to try and change that, and we're going to have to really address that if we're going to maintain this country in a role, in the future, that we've gotten used to in the past.

So, education and leadership are critical to us. And we have to consider the demographics and put emphasis on bringing those people into this education workforce and giving them the opportunity to go on to university and build up that resource of engineers and scientists.

John Diamond: Well, let me just say, I think that we do face some major problems, and it's only through leadership that we're going to solve them, I think. I'm a little surprised when I listen to the seemingly endless numbers of debates and yet I hear very little about Social Security and Medicare, and actual solutions to those problems.

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So my list would basically be, we need to start putting down some solutions, putting out solutions that we can discuss about solving the fiscal imbalance related to Social Security and Medicare. We need to think about fundamental tax reform. The tax system is in a mess, a large portion of it is temporary and will expire in 2010, the AMT [alternative minimum tax] is out of control. I just think that the corporate tax rate, the one at which we tax corporate capital, is about as high as any country; we're at least at the top end.

I think that we need to reform the tax system to make sure that we are encouraging investment in capital in the United States. I think that's ultimately one of the most important issues. Education is also an important issue, and I personally would like us to focus on reforming the education system to reduce the amount of income segregation. I think income segregation has a very negative effect on those who are stuck in schools that are segregated among, mainly, low-income families, and I would like to see that changed in the next five to 10 years. Those would be the issues that I care most deeply about.

Chris Bronk: Neal, Kirstin, George, John — thank you very much for your comments today.

As you've heard from our conversation, the issue of science and technology policy is something we believe to be of great importance in the United States. We hope that our elected officials and the public at large will recognize this significance.

I hope you will join us in the future for additional conversations here at the Baker Institute.

Thank you very much.