THE BROOKINGS INSTITUTION

FOSTERING GROWTH THROUGH INNOVATION:
The Commerce Department and Innovation

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Introduction:

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Remarks:

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Moderator:

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P R O C E E D I N G S

MR. TALBOTT: We are very grateful to Secretary Bryson for finding a little bit of time to be with us this morning. Obviously, he is the cabinet officer who is most focused on the issues that are before us today and that we've already had some very good discussion of.

There are two reasons why he is the ideal person for us to hear from and to interact with a little bit. One is because of his current job; that goes almost without saying, and also the experience that he brings to that job. I think he's going to say a word or two about a report called America COMPETES that was published just last week by the Commerce Department.

But I think, as you all know, he comes with a very rich and relevant set of experiences from the private sector. So we have here somebody who embodies both what the U.S. Government can do and what the private sector can do and what can happen in partnership between the two.

He served for 18 years as the chair and the CEO of Edison International. He's been a director of Boeing and Disney. He was the director of some start-up companies, including Coda Automotive. And if I'm not mistaken, the CEO of that company was with us a year ago for this forum, which is very much into innovation and the use of new technologies, in particular, electric vehicles, lithium ion battery systems, which is just one indication of the extent to which Secretary Bryson has been part of the solution to one of the biggest problems of our time, one that Andrew Liveris referred to in his comments earlier, which is the need to transition to a low carbon and ultimately no carbon economy. And he has been active not just in the for-profit area in that regard, but in the NGO world, as well, as a co-founder of the National Resources Defense Council.

Now, his time with us today is very limited. We're going to have a little chance to hear him make some opening remarks, and then he has agreed to stick around for some questions. And the way in which we're going to handle the questions is very simple, at least I hope it'll work simply, and that is that we've got cards distributed around the room. Any of you who have a question, write down your question on a piece of paper, pass it to whoever is in the aisle, we will collect those. Bruce Katz, the director of our Metropolitan Policy Program, will then pick from those the most trenchant and work them into a conversation with the secretary.

On a personal note, I just have to say, Mr. Secretary, that I reminded you when you arrived a few minutes ago that I last saw you looking even more relaxed than you do now, on a flight from Sun Valley back to Los Angeles in August. That must seem like a galaxy far, far away and a time long, long ago. So welcome to the Brookings Institution.

SECRETARY BRYSON: Thank you. Well, many thanks to Strobe, and thanks to all of you who have invited me here. And I look around the room and I see so many friends, it feels like I'm right back at home. I could even be right back in Sun Valley, because I usually see Kathleen up there, for example, but this winter she wasn't -- oh, no, our paths crossed where it was a wild and wonderful time, and we do our family gatherings there, and we try to ski, pretend like we ski, and all those kinds of things and they're wonderful.

I'll try to go through my remarks. And I'm going to cover the responsibility the Commerce Department took on a year ago, almost exactly a year ago, and do something that was striking and I think quite important, and that is the reauthorization of so-called COMPETES legislation. And the only thing the Commerce Department was asked to do was support from the others, but the Commerce Department had the responsibility, was to assess the competitiveness of the U.S.

economy.

Now, I'm told that when the legislation was passed with that modest request, there was a kind of a sense on the part of the economists and statisticians and the various people in the respective roles at the Commerce Department how can we do that, and I think they did a spectacular job. And I'm going to go through and try to summarize that for you and do it in something like 15 minutes, and then I'd be very pleased to have questions.

So the central question, how competitive are we, what are we doing that makes us competitive around the world? We have been an extraordinary economy, the leaders in the world for a very long time. But it's not unknown, it's a relatively conventional observation to say we are losing that position and we need to address that now.

So what the COMPETES Report says, we've had the great benefit of spectacularly strong businesses and business leaders and we've had that for a long time. But the key thing is it was not alone. The responsibility was not a lone consequence of having these strong businesses that we have done as well as we've done all these years.

And the reality further is that the federal government has made a decisive difference. Their, as all of you would recognize, their tendencies across businesses across the private sector to under invest in some areas, and those traditionally have been substantially invested through the federal government, through state governments. And three areas in particular I'll touch on, and they're set out in some detail in the COMPETES Report, are in the field of education, in infrastructure, and in basic research. So I'm going to talk about those.

And then I'm going to, and I know Andrew Liveris is -- I can almost say, well, Andrew Liveris, you heard the manufacturing perspective, I agree, but I'll say a few words about that, in advance manufacturing in particular. But what I want to do is start on what I think is at least as fundamental a point, and that is what is happening, what has happened in federal policy-making that means we're doing less in support of those key areas, education, infrastructure, research, then was the case, 10, 15, 20 years and more ago.

And the focus there can be pretty simply put. What we've seen over the years increasingly is the damage that is done by very short-term thinking on the part of policymakers here in Washington.

So one way to get at this is, if you run a business, you make a distinction between what economists call investment, and on the other hand, consumption. So there are three. There are long-term investments that have to be made to ensure the health of the company and its ability to grow into the future. There are those immediate expenditures that would have to be made to keep a business functioning day by day, electricity payments and payrolls, for example. And then there are the long-term investments that have to be made to ensure the health of the company and its ability to grow into the future.

And too often in Washington what we have are decision-makers who simply do and have lumped those columns, those two columns on the spreadsheet together. So in that model, every expenditure, whether it's a short-term line item or a long-term investment, is treated -- almost seen as if they were exactly the same, and they're not.//

In the past, senior federal policymakers made more consistently decisions that took those things into account. The simple fact is, the private sector, for practical reasons, does under invest in those areas, but when federal and state governments have stepped in to fill that gap, there's been a significant benefit to businesses and a big return on investment for taxpayers in the form of new jobs, higher living standards, and life-changing advances.

But, unfortunately, the federal commitment to longer term investments has pretty steadily declined now over some number of years. U.S. policymakers have too often rested on the laurels of our 20th century. And at the same time, as you all know, over the past decade and more, many developed and what were formerly thought of as developing countries, have grown way more sophisticated.

And they have become, at the same time, very disciplined in the execution of carefully developed plans for optimizing economic development in their respective countries where they have advantages they carefully search out and then follow through on. And so the result, even as American businesses become more efficient, more productive and increased in their global reach, our underlying economic building blocks have eroded, and with that, so has our unquestioned global economic leadership.

So today, and you know these things, today U.S. ranks 14th in the world in terms of the percentage of college graduates it produces. We used to be number one. The world economic forum now ranks our infrastructure 24th best. We used to be at or near the top.

And the current federal share of research spending is now only one-half of what it was in the Eisenhower Administration, 50 percent then, only 25 percent now. Each of those declines is impacting our ability to attract and create the jobs of tomorrow.

Encouraging news in the COMPETES Report does show that this administration, over the past three years, has been working to reverse the trend lines on each of the fronts I've mentioned. So let me get then just to that. First, basic research. While businesses and entrepreneurs are generally the most innovative source of new ideas, the federal government plays a key role in supporting and developing those innovations.

And our country has been a very proud tradition, a proud tradition of supporting the work of federal and university labs, has helped change our world, the Internet, satellite communication, semiconductors, among other job-creating advances would not have been possible without the use of wisely spent U.S. tax dollars. But that commitment has dropped off. In 1980, the federal government funded more than 70 percent of basic research. Since then, the government's share of basic research funding has fallen to 57 percent.

So then education. All of us are very, very focused on education and what we're not doing. That is the second pillar of the COMPETES Report. We know now that the highly skilled workers boost innovation and economic competitiveness. But assuring that our children have the skills employers need for the jobs of tomorrow requires dedicated attention and resources at the state, local and the federal government levels.

Of critical importance are the science, technology, engineering and mathematical fields, the STEM fields as they're called. This audience knows full well that the numbers are there and I think they're worth mentioning. In 2009, about 12.8 percent of U.S. college graduates were in STEM fields, 12.8 percent. Significant economic competitors such as Korea, with 26.3 percent, and Germany, with 24.5 percent are on the long list of countries producing a much higher percentage of graduates who are STEM graduates. That simply has to change.

And then quickly, the third area of investment is infrastructure. The infrastructure needed to support a modern economy relies on publicly provided resources. We must do more to grow out a truly modern electrical grid with broadband Internet access in both urban and in rural areas. Here in America, 68 percent of households have adopted broadband. That is an almost eight-fold increase since 2001. And yet when you think about it, 68 percent adoption rate means about a third of American homes are simply now cut off from the digital economy.

So education, innovation, infrastructure, these are the areas we cannot afford to cut the role of the federal government. Indeed, investments in these areas will lead to a more competitive economy and higher growth.

So what can be done? The administration is committed to restoring the consensus that once existed through democratic and republican administrations, that there are long-term priorities in which the public sector must invest so that our businesses have, in turn, a better chance at success.

And what are we doing? We are increasing and sustaining the levels of funding for basic research by the federal government. The Recovery Act, of course, included a one time infusion of federal R&D of $21.5 billion. And federal funding for research increased from $56 billion in 2008 to $60 billion in this past year.

The President's budget for the past year called for more. The Congress didn't concur. Still, the enhancements we've seen have made a real difference. We're seeing that at the Commerce Department and elsewhere across the federal government. At the Commerce Department's, for example, National Institute of Standards and Technology, called NIST, the administration has expanded the core research mission by about $50 million.

The President and his administration will also continue to push to make permanent the R&D tax credit to give companies appropriate incentives to innovate and improve the way basic research is transferred from the lab promptly, directly, quickly into commercial products.

And then as to education, we simply must intensify substantially our investment in the skills and knowledge necessary to compete effectively in a world wide economy where, as I've indicated, many other countries are simply surpassing us.

Ongoing, new administrative initiatives are addressing these challenges by making college more affordable, spurring classroom innovation at all levels, and expanding the size and quality of STEM teacher ranks. One such initiative is the Aspen Institute's Skills for America's Future effort which the administration helped launch. That program, maybe you know of it, that program works with businesses, community colleges, labor unions and other groups to encourage the growth of job training and job placement programs that really work.

And then infrastructure. This administration is committed to investing in 21st century networks, including fostering access to high-speed Internet for citizens and businesses no matter where they are located. The federal government must continue its strides toward a smart electricity grid and a robust network of broadband Internet access, and the Commerce Department is deeply involved in both of those initiatives.

And then let me bring this to manufacturing. So this really deserves very careful attention. A flourishing U.S. manufacturing sector is simply crucial to our competitive strength, and it will continue to be a key source both of economic growth and of jobs.

Manufacturing pays higher than average wages, provides the bulk of U.S. exports and protects also national security. The manufacturing sector is also the biggest source of innovation in our business economy. Sixty-seven percent of all the business R&D in America is done by manufacturing companies.

That's why I have adopted one phrase as a central organizing principal for my priorities as commerce secretary. Some of you have heard me say this before, I say it again and again, I want -- we want at the Commerce Department, we want to cross the administration to build it here and sell it everywhere, build it here and sell it everywhere. If we do that, we can retain and even enhance our U.S. economic preeminence. Build it here and sell it everywhere means, of course, helping U.S. companies sell more of what they make to the 95 percent of the world's consumers who live outside our borders. Through the National Export Initiative we're doing just that and we're now on track. After two years, we're on track to meet the President's goal of doubling exports by the end of 2014.

But I will underscore with you, this is a non-stop challenge. We have to continue to intensify. So we have three more years. The first 2 years we've had increases, 16 percent in exports, then 17 percent in exports, this month's announced this morning. Results were not very good for the month of November. There will be ups and downs. This is an undertaking where we have to constantly focus, constantly find new means of taking this further. And I will say, of course, the Free Trade Agreements, the Korean Free Trade Agreement, for example, very important in our ability to take that further.

So building here also means attracting and retaining more investment so that companies are building their factories here in America. And it means doing everything we can to strengthen U.S. manufacturing and particularly advanced manufacturing, because if American businesses stop building things here, it won't be long before the actual innovating happens somewhere else. So the President and I are determined to reverse the tide to revive manufacturing in America.

Last summer the President announced the advanced manufacturing partnership and recently we created a national program office for that initiative at the Commerce Department. It brings together industry, universities, and all the federal government. So we work across the entire federal government. I lead that to drive investments in emerging industries like IT, biotech, and nanotechnology. And in December, the President named both Gene Sperling and me as co-chairs of his White House Office of Manufacturing Policy. So that's the policy focus.

Strengthening American manufacturing, especially advanced manufacturing, where we should enjoy a comparative advantage I will say is an issue that is close to my heart. With more than 25 years now in the business community, including 16 years, for example, serving on the board at Boeing, I watched a broad decline in U.S. manufacturing and the erosion of the middle-class jobs that came with that. I'm committed to working to stop that decline, building on past administrations' successes like the ones happening right now at our economic development administration within the Commerce Department, which in the last 2 years alone has invested in 68 competitive job-creating projects nationwide to support advanced manufacturing. The promising news is that we're starting to see a rebound in the sector. Manufacturing employment increased by 225,000 in 2011; 225,000 jobs. That's the fastest year-over-year growth since 1997.

So I'll conclude with this: The administration does not believe at all that government has all the answers. But it does believe that the public sector has a role to play in creating the conditions that make inspiration, innovation, and invention more likely to happen. Ultimately, job growth is the metric that is most important. And long-term job growth will occur most powerfully in a world where entrepreneurs and researchers are supported in pursuing new ideas and taking at an accelerated pace the essential step of turning them into new products and businesses. The priority set out in the COMPETES Report are building blocks for fulfilling our country's truest potential. It is critically important that we translate these ideas and strategies into action. Wherever possible this administration and I personally want to be a partner of researchers and entrepreneurs and any and all of your businesses in that effort.

So thank you very much.

MR. KATZ: First of all, I just again wanted to thank you for being here and for that discussion of why manufacturing matters because it's been out of our dialogue in the United States for quite some time.

So what I tried to do yesterday, we had a group of mayors in, people from metropolitan business chambers, university presidents, the typical metro mix. They would love "build it here, sell it anywhere or everywhere," because I think they believe fundamentally we do have a manufacturing moment in the United States, and we have an export moment. The advanced manufacturing partnership -- you're like a rock star right now. I mean, they are hearing the message about the fundamental policy change that we need to make around workforce, around clean energy, around infrastructure, et cetera, et cetera.

They raised some cultural issues yesterday. I just wanted to raise this and see what your response is; that we have cultural barriers to achieving our manufacturing moment and our export moment. On manufacturing it's a cultural sense that we've diminished manufacturing as a dignified work. We talk about the creative class. We talk about the consumption and the amenity economy. We talk about everyone getting a four-year degree. We don't really talk about a large portion of our workforce, moving into manufacturing, working with their hands and their minds.

The second piece they mentioned was the U.S. is somewhat export-phobic. We're the most diverse country in the world, but we're the most insular country in the world. We don't get out much. Only 28 percent of Americans have a passport. So I'm wondering as you think about really unleashing the dynamism of the manufacturing and export moment in the United States whether we need to think about and how you thought about moving beyond a policy conversation to almost a cultural discussion in the United States given where we've been for the past 25 years and how that seeped into our zeitgeist, so to speak?

MR. BRYSON: Well, I think you're right. There's been a sense and in some ways it's been more pervasive I think in the federal government than at the level of mayors and local governments. But there's been this sense for a long time that manufacturing is about highly untrained jobs, people in a world in which we put such an emphasis on getting traditional college degrees, we put little weight of any kind on working with your hands, bringing things together, making a difference that way. And I think we've lost a lot and, as a consequence, very little has been invested in and very little call it public support, public recognition, of what manufacturing brings to us -- 67 percent of the innovation in American business in the manufacturing sector. It's stunning.

I mean, Tuesday of this week in Detroit -- and there, of course, you see this in the automobile sector and what's being done is extraordinary. And it's not just the U.S. automobile companies; it's the overseas like U.S.-based automobile companies. And what they're about is manufacturing a really key product: cars, trucks. And once again so much of this is moving into advanced manufacturing. The old ways of thinking about manufacturing are mostly very, very outmoded and the kinds of skills that are required -- and if you're at Ford Motor Company and you have 30 percent of the value of all the new Fords, 30 percent of the cost of all those new Fords, and the manufacturing and production are in advanced electronics. We have to have people that have the skills to bring those to the market. I mean, I could go on and on that way, but that's the traditional way.

I live in Southern California. I'm going home for the first time since I became secretary of commerce tonight to be in Los Angeles, and I'll be with Antonio

Villaraigosa and we're going to go around to schools and he is a real leader. I mean, he's a guy with -- a labor union guy who was the labor representative, fighting a lot of what was being done in the field of education. And perhaps, as you know, he has totally changed his views and has taken the position, for example, that the UAW in Detroit has taken, and that is we've got to work together because the way to have jobs in this country is bringing business and labor representatives, places where labor unions are part of the business sector, and doing it together.

MR. KATZ: It seems like we might -- we're going to follow this panel with a representative from DuPont. Forty percent of their workforce is going to potentially retire in 5 years; 40 percent of their workforce is eligible to retire. So in some respects what we have is almost an urgent moment to begin to reach out to the community colleges, reach out to the high schools, reach out to other intermediaries who work on skills. And as we sort of begin to change the image of manufacturing, really begin to train and upgrade the skills of people who can move directly -- these are good jobs as you say.

MR. BRYSON: Fabulous jobs and Germany's done that spectacularly. And I was a student twice in Germany a long, long time ago, but there was just -- to get a job between sessions, you could get one of these jobs that were about learning and applying yourself to making instruments happen. Because we know the German tradition was universities were for a certain academic elite, but parents had tremendous pride and continue to have tremendous pride on the training in skills that lead into manufacturing, and they do it brilliantly.

MR. KATZ: So I've got a whole bunch of questions. We'll be here till around 2:00 in the morning, but I thought what I would try to do is at least enable you to give a little more detail about some of what you just described.

Question: Please share more details about the goals of the White House Office of Manufacturing Policy and the value you expect its work to add to already existing federal efforts to advance manufacturing in the U.S. I have a series of questions here actually about the President's call for agency consolidation and agency restructuring. Will that be under the remit of this Office of Manufacturing Policy because what you've described cuts across the federal government clearly? What are you thinking about timelines, the kind of both legislative proposals or administrative actions that you might see occur over the course of the next three, six, nine months?

MR. BRYSON: Well, the White House Office that Gene Sperling and I chair is focused on bringing together effectively all the elements of the federal government. So the Defense Department -- I mean, it's hard to identify any one department of the federal government that doesn't have a manufacturing arm. Some of these are extensive, but they haven't been brought together in the past. And even when we say the Commerce Department, substantially every drill in the Commerce Department has a manufacturing arm of one sort or another, but they've tended to be silent. So the core policy point here is let's work effectively to make this more productive, more efficient, where skills exist in one place. They don't have to be duplicated necessarily in another. Let's make them really productive, and let's take the dollars that are available and can be enhanced in the manufacturing sector and not spend those dollars fruitlessly on duplicating things from one department to the next. So that will be a big focus.

And then we have at the Commerce Department at NIST now set up the national program, so that it's going to be a spectacular program. And we from the outset -- under the leadership of Pat Gallagher, a Ph.D. physicist, a career person at NIST who was absolutely the right person to head NIST. So he is -- this is a case of a career person who is our undersecretary. Brilliant guy and he is reaching -- and a team of his and I'm spending a fair amount of time on this -- reaching out to all the other departments to work together on this. And this has got to go way beyond policy. Anything that is pure policy at some level becomes a waste of time unless you're putting it into the reality of production. And that's the key thing.

MR. KATZ: Other question, same line, Office of Manufacturing Policy, your own thinking coming out of the energy sector. How much do you think this is about the large global companies, their challenges, their supply chains -- many which are small- and medium-size enterprises -- or other small manufacturing firms, some which may be exporting, some which may not be? How do you think about size and scale because that does have an enormous effect on a whole range of policies, both delivery as well as design?

MR. BRYSON: Well, it's a very good question and the reality is that the largest part of manufacturing in the country actually is in the supply chains. So Andrew would have here in the U.S. a very substantial supply chain, that's true. The automobile companies, Ford didn't go into bankruptcy, but Ford couldn't have gone forward without the other, without General Motors finding a path through and out of its bankruptcy, because they had to have the support of a common supply chain that Ford couldn't afford to do if they did it independently. So this is happening everywhere.

And Ed and I have probably gone over this ground four times, I bet, in the time I've been commerce secretary, but I've done it widely with others -- Cummins Engine Company goes on at all. And what they value so much is the supply chain and the supply chains often are -- they're invariably not more than call it medium-size businesses, and a lot of them are quite small but growing businesses. So there's a span here and the people that want to work with their hands, that are willing to have the education and develop the education are really competitive. I guess to be in your supply chain, you have to be awfully good, right? And these small businesses, they're just competing like crazy. I mean, it's the instinct that business people have of getting out there and winning.

MR. KATZ: Last question -- going back to your prior life, if you remember your prior life -- deals with the potential of the clean economy and clean tech to be a driver of manufacturing. We did a report at Brookings going back about six months where we said that the clean economy is disproportionately manufacturing-oriented, disproportionately innovation-oriented, and disproportionately export-oriented. So it hits all the right buttons, but it requires a stable and predictable and certain level of national policy that obviously aligns with the state and local. Do you agree with the assessment of the potential of the clean economy to be part of the manufacturing moment and are there some short-term actions that the national government can do, either to do no harm or to potentially provide more proactive support?

MR. BRYSON: Well, I've been of the view that we would be better across the country in dealing with clean energy steps were there at some level a common set of requirements and supports across the entire federal government. This is an area in which the states have really led. And the states I think have done it with innovation, with offering the advantage of our federal forum; that is with different approaches, often very creative approaches. Where I've lived and where I've worked for a long time, California has been an extraordinary leader, a special leader. Everybody's facing the reality of a tough economy right now. We've had the great advantage and the ability in the world, for example, of utilities to have the natural gas prices come down so strikingly that allowed some room in many states for the state regulators and the utilities to continue to have something like current pricing in the market; with some of their fuel costs down, leaving some additional room for clean energy technology development and application. But that's fragile. I mean, the reality is we're all dealing with both the advantages and the disadvantages of a very tough economy. The advantages in my judgment make us think more fundamentally in fresher ways about how you get more out of every dollar that you have, for example, in the federal government, every dollar you have in the business. Where there's a disadvantage clearly is that some of the innovation and a lot of the financial support that was there to turn ideas into practical programs is diminishing.

MR. KATZ: Well, I know you have to go, though we'd obviously like you to stay. It strikes me just listening to your talk and to these responses that your view of competitiveness really is an agenda that's co-produced across sector and co-produced across all levels of government. And it strikes me that a lot of what the advanced manufacturing partnership is putting forward and what you've described here today can play out in the states and the cities and the metros, irrespective of what happens at the national level. So you may find that your manufacturing moment and export moment really begins to bubble up as we sort through our political difficulties at the national scale.

We really thank you for coming to Brookings.

MR. BRYSON: Thank you very much. It was certainly a pleasure.

(Applause)

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CERTIFICATE OF NOTARY PUBLIC

I, Carleton J. Anderson, III do hereby certify that the forgoing electronic file when originally transmitted was reduced to text at my direction; that said transcript is a true record of the proceedings therein referenced; that I am neither counsel for, related to, nor employed by any of the parties to the action in which these proceedings were taken; and, furthermore, that I am neither a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

Carleton J. Anderson, III

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