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LOCAL AND STATE INNOVATION:

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Closing Comments:

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PROCEEDINGS

MR. GREENSTONE: Okay. Welcome to the last session of today's important conversations. We're going to cover state and local economic development policies, and how they fit into a broader growth agenda for the United States.

So I wanted to begin this panel by illustrating the urgency of, I think, effective state and local economic development policies, especially in the current environment, with three, I think, somewhat simple observations.

The first is that local economic distress can be real. Like in the blackboard world of economics, there aren't any things that economists call "frictions," but something bad happens, and then the world adjusts, and everything is fine. In practice, that's not what happens. And there's a really, I think, salient example that comes from the recession from the early 1980s.

If you just look at the 600 counties who had the biggest shock -- I'm sure Pittsburgh and Buffalo are in that group -- and ask, "Well, what happened to those places 30 years later?" And the really astonishing thing -- which I think is not always fully appreciated -- is those places, it's not that they continue to bear the scars of that shock and that their incomes are lower, but they have not yet returned to the growth path of the rest of the country. So, just think about that -- 30 years later, they still, in many respects look like different places. And before, they had looked like just the rest of the country. So that's one observation.

The second, which I think is related to the first, is that there's a long history of local economic development policy proposals. And I think the shortcoming of that history is that there's an element of a merry-go-round to that history. Ideas come and go in and out of fashion, without any real rhyme or reason. And along the way, we never develop a play book of the ones that worked, and the ones that, despite the best intentions, didn't work out quite as well.

And so I think evaluation of state and local economic policies has to be part of developing an effective set of them.

And then the third is that I think -- and I don't think anyone has accused me of being a political scientist or having particular insights that deserve lots of notice about the political environment -- but I would say, as someone who's not an expert, it does seem like the federal government is not

going to be a leader in growth policy for state and local economic issues in the coming years. And so I think that shines an especially important light on trying to identify policies that work well.

And for that, we have really a fabulous group of people here. I can't quite believe the testament to the Growth Through Innovation Project, the group of people we have here.

And I think the way we're going to run this is I'm going to ask each of our panelists a question in this broad topic area. And I thought I would start with Bob Rubin, who despite being former Secretary of the Treasury, actually has a lot of expertise when it comes --

MR. RUBIN: Let's see where this sentence goes.

MR. GREENSTONE: -- a lot of expertise when it comes to local economic development. He's the Chairman of the Local Initiatives Support Corporation, which gives away, or makes investments of more than a billion dollars a year, I believe, in local communities.

And so, Bob, I guess my question for you -- besides recognizing your vast importance as a Treasury Secretary --

MR. RUBIN: That wasn't quite the way you said it -- but, all right.

MR. GREENSTONE: I'm trying to recover a little bit.

MR. RUBIN: Recover ground -- yes. It's like being in the bottom of a deep hole. And you look up.

MR. GREENSTONE: And so I wonder if you could talk a little bit about what role states and cities play in a national growth policy?

MR. RUBIN: Okay. Good. Let me give you my view, as best I can.

Look -- I have thought for a long time -- and maybe I was mentored a little bit in this by Bruce Katz, and at Metro Project -- but it has seemed to me for a long time -- and now with the dysfunctionality of the federal government it seems to me it's even more to the point -- that states and cities have a lot of natural advantages. And I, at least, think that states and cities, or state and city activity, ought to be an important part of any national growth strategy. And let me just make a few more specific comments that follow up on that.

One is, states and cities have comparative advantages in various areas. And it seems to me that one great opportunity for our country is to build around those comparative advantages. Some obvious examples are Silicon Valley developed around Stanford and Berkeley.

You could develop industrial parks around transportation hubs. You could develop -- of course you could, obviously, ship the output more readily. You could also develop industrial parks around areas where there are large numbers of low-skilled labor, and that way you could have labor-intensive industries in a more obvious and advantageous position.

So I think there are a lot of opportunities.

Another good example are the many areas of this country, I think, that have great natural endowments but are still underdeveloped as tourism sites -- the Adirondacks in upstate New York being one example. So that's one set of points.

Another is we have the federal system. And the federal system gives us a great advantage, which is we could try different approaches to areas that are critical to growth, and then see which ones work best, and then take the best practices and spread them elsewhere. And a certain amount of that's going on in K through 12 education, in health care costs, and in other areas. And I think that's something that we could build a great deal more around.

A third one -- which I think has gotten far less focus than it should -- is that we have immense infrastructure needs in this country, but we have a paucity of capital. I think there's a real opportunity to attract very large amounts of capital from entities around the world that have it -- for example in China and the Mid-East. And very often, the greatest impediment to that kind of flow into infrastructure is the concern about political reaction. And you could structure that either by ownership of actual infrastructure assets, or the infrastructure assets could be publicly run, but there could be ownership of the revenue flows.

And I think there's a tremendous opportunity for mayors and governors to develop strategies around infrastructure, and then work with these entities so that the mayors and the governors bring their own expertise about navigating in our system to help them navigate through the political issues and the regulatory issues.

And, finally, let me mention LISC, which Michael just mentioned. And it's a very technical subject, but let's leave all the technicalities aside.

The reality is, as Michael said, LISC distributes, in various forms, about a billion dollars a year in inner cities. And I think there are four essential points that you could take from the LISC experience.

Number one, LISC, though it's a 501(c)(3), is run as a real business, with real business metrics. It seems to me that could be applied to the public sector.

Number two, the projects are neighborhood-developed and neighborhood-led. They're not led from Washington or from LISC, or from anyplace else. And I think that's another example of what could be done in the public sector.

Third, a lot of it depends on low-income housing and tax credit. Which means that in that indirect sense, public funds are being used, but they're combined with the private sector expertise. Or, more accurately, which private sector financial discipline. That's another lesson for public sector activity.

And, finally, LISC provides technical assistance with respect to the projects, and also with respect to these local neighborhood institutions that have developed the projects.

I think there's a lot to be learned from that experience, in public sector activity. And let me just wind up by making one observation in that regard.

Michael told me once that there was a study done someplace or other that he seemed to think was a serious and responsible study or he wouldn't have mentioned it -- or maybe that assumption's not right -- but in any event, that showed that the return on infrastructure in the United States today is about 2 percent per annum. That has to be because the infrastructure investment resources are allocated by a political process, rather than the kind of activity you have at LISC, where capital is allocated based on private sector investment criteria.

So for all those reasons, I think, Michael, that state and local activity could be, under any circumstances -- or should be, under any circumstance, an important part of a national growth strategy -- and particular now, where our federal government seems to be relatively dysfunctional.

MR. GREENSTONE: Bob, can I ask a follow-up question?

So, I understand your vision that a lot of the knowledge resides locally. Suppose that the federal government were operating on its maximum efficiency curve, what could the federal government do to facilitate some of those activities at the local level?

MR. RUBIN: Oh, I think it's probably a lot about -- Alice Rivlin once did some work on this, if I remember correctly -- I think there's a lot of opportunity, Michael. You just don't have a choice in a lot of these things, a lot of activities. You can either run them from the federal level, or you can devolve them down to the state and local level and provide federal funding for them.

And I think there's a lot to be said for the devolution idea, where you then have neighborhood -- or you have localities deciding where a bridge should be, or where a street should be, or where a road should be, or where an industrial park should be, as opposed to somebody in Washington that doesn't begin to know the area. And where you could also, I think, create more accountability, and more efficient management, and more metrics, and the application of metrics, and so forth.

So I think it's devolution with federal funding.

MR. GREENSTONE: Okay, next I wanted to turn to -- thank you, Bob -- to Shirley Jackson, who's the -- actually has many roles, and has a very unique perspective on state and local development, both as a president of a major research university, to her serve on the President's Council of Advisors on Science and Technology, and is co-chair of one of Governor Cuomo's economic development councils in the State of New York.

And with that perspective, I wondered if you could talk a little bit about your views on the elements that comprise an innovation ecosystem, which I know you and I have talked about before -- and, further, how do cities and states fit into that?

MS. JACKSON: Well, I thought I would just talk about what is the kind of "evolved view" of what the key elements of an innovation ecosystem might be, and then to talk about three examples that are actually spaced 50 years apart -- you know, 25 years, roughly, each -- 26, to be exact, being a scientist.

And those elements are a strategic focus, idea generation, translational pathways to bring things into commercial realization and therefore provide an economic base, and infrastructure. And that means human, financial, and infrastructural -- human, physical, I should say, and financial capital or infrastructure.

So let me talk about three things that have occurred over time.

Back in 1959 -- and I don't know if most people realize it goes back that far -- business and academic leaders down in the Raleigh-Durham area came together with the idea of creating a locus for high-end research activity and business. And they started with creating a park -- Research Triangle Park. And the idea would be to be proximate to at least the three great research universities in the area, Duke University, North Carolina State University, and UNC at Chapel Hill. It's since evolved to include a larger number of universities, including an historically minority institution.

And they started about with about 200,000 square feet of occupied space. Today it's over 22 million, and home to 170 companies -- many major enterprises or parts of enterprises. And so there was an example that I think plays into something that Bob Rubin mentioned about you have certain assets, you have a certain geographical opportunity, and then one sets out to build on those. And we all know about Research Triangle today.

Fast-forward about 26 years from there, and in 1985 Governor Tom Kean got the New Jersey legislature to create the New Jersey Commission on Science and Technology. And that was at a time when other states were looking at things like this, and the idea was to have the state capitol leverage university-industry partnerships in areas that were deemed to be important to New Jersey's economy. The structure of the commission deliberately was structured to have government officials -- in fact, the state senate majority leader and the speaker of the assembly on the commission -- presidents, at any given time, ex officio, of two of the research universities in the state, always one

public and one private, and then a certain number of private citizens who were gubernatorial appointees. And I was one of those. It was not a paid position, I assure you.

And so the commission focused on creating centers -- advanced research centers -- building actual infrastructure, and then it had a budget to do a competitive grants program in certain research areas that the commission discussed and deemed to be important. Things like advanced biotechnology and medicine, informatics, at that time, and computation, and so on. And it's interesting, in a way, how many of those things are still things people talk about today. The one thing that was missing from the discussion at the time was, of course, nanotechnology.

And I would say that that effort, in fact, strengthened mightily Rutgers University as a research university. It certainly has played into pharmaceutical industry in New Jersey, and helping to retain it -- not alone, but it has played into that -- and has just improved the overall visibility of the state.

So now we come 26 more years down the line, in 2011, and Governor Andrew Cuomo was elected in New York State. And he creates -- he has the state divided into 10 regions, and each of the regions has 8 to 10 counties in it, and creates regional economic development councils. And sets out a competitive process to have each region develop its own strategic plan, and to have those plans then competitively evaluated against each other -- but to lay out a framework with at least a five-year outlook.

And in the end, there were four -- quote-unquote -- "winning plans" that had certain characteristics. But all of the regions developed, 10 regions developed these plans, and therefore have a strategic outlook for the next five years. It caused people to come together in collaborative ways. Some were further down the pike than others in that, in terms of readiness to launch activities. And so it's still a work in progress.

Now, what's the difference? Then how does it relate to what I said?

One, on the idea-generation side, one could make the argument that when you have the academic and business leaders come together, or you create people who are legislators and

heads of the universities and business leaders in a New Jersey context, it's kind of more of a top-down process in identifying key areas for investment and so on.

What's interesting in the New York situation is that it's a bottom-up, because each region was asked to decide what was important for that region. Now, when that happens, one runs the risk of confusing "development" with "economic development," because people always want to build and have shovel-ready projects.

But I think these are interesting experiments. And I would say there's been persistent effects, to varying degrees, for each one. The one in New York is new.

Now, New York is coming at this process off of having had a very top-down process under a previous governor, and it made a huge investment in nanotechnology, which looks like, at least, is bearing fruit in terms of a major facility. But it cost \$1.2 billion to get there.

So then if you go back through, all of them have these elements -- some more directly investing in human capital, in research, most of them investing in some kind of infrastructure. And the financing mechanisms were different. In New Jersey it's a bond issue. In New York it's appropriated money. And, frankly, I don't remember in North Carolina.

So I think these are elements we need to think a little bit about, because it's a question of what's strategically important, how is competitive advantage really -- persistent competitive advantage -- developed and/or conferred?

And that played into work we've been doing in PCAST. And if I have a chance to talk about it, I'd like to do that.

MR. GREENSTONE: Shirley, could I ask you one question?

MS. JACKSON: Sure.

MR. GREENSTONE: You've identified all kinds of ways in which states and localities could be dynamic. I tried to do a little bit of it.

But at a time when almost every state is facing extremely difficult fiscal constriction pressures of their own, where's the financing for all this going to come from?

MS. JACKSON: That's a good question. And let me talk about New York, because we're right in the middle of that.

Well, I think, you know, you had a governor who came in -- came in with a real kind of mandate. Managed to work across the partisan divide, and get people to really pass a true balanced budget. It required some cutting, and he worked through that and was willing to do that.

Then, essentially, it amounts to essentially using funds that the governor always, in New York, has available to him, and essentially redirecting those funds. But coupled with that, creating a more consolidated funding application process for the "usual" things that the government would fund -- maybe at whatever levels the budget allows. And so it gives people more of a one-stop-shopping. So there's an efficiency factor and clarity factor that gets put in.

I'm not going to argue that we're totally where we, you know, need to be. And there are issues about regulatory reform, and other issues that all of the councils want us to deal with. But it's really being willing to make the hard, strategic focus decisions to redirect. Because the New Jersey situation came along in a different time, when these kind of bond issues could be passed. But here, it means taking what you have and placing debts. And that's always hard to do.

But that's -- the other is, embedded in some of the regional plans are collaborative mechanisms of having the banking community come together to create loan funds. That was actually part of one of the plans, a revolving loan fund, as well as having local example of Grameen-type funding, and things like that.

MR. GREENSTONE: So this is -- if I could interject -- this is exactly why I was so excited to be able to moderate this panel, because the question has moved to funding -- and who do have sitting to my left but Judith Rodin, who's President of the Rockefeller Foundation.

And I am just dying to ask you -- because I know you've been doing incredibly innovative work on financing for state and local governments, and I wondered if you could talk a little bit about that.

MS. RODIN: We have. And we were driven to this perspective because we recognized that there really are not enough dollars in philanthropy or development to solve the large

global problems that we face. And that when countries all over the world are facing these kinds of situations, we really need to look at other mechanisms, create a really ecosystem around pilot opportunities for exploring innovative financing.

And so I'd like to talk about three, briefly. And they really touch on something Bob said, and something Shirley said.

So, Bob, we are now funding a collaboration among the states of Washington, Oregon, and California. And they are putting together the infrastructure that will ultimately create an infrastructure bank for the western coastal states. And it's the governors and the state treasurers together -- and I think they've recognized, quite correctly, that innovation is about process as well as product. And before they're able to create the product, they really have to align and platform the kinds of issues which are timeframes, payback. State budgets don't have 10-year budgets, and so how can they really give a payback horizon?

And so they're actually building the kind of infrastructure, including multi-year budgeting, in their states that would allow the attraction of private capital, aligning the policies that would really do that. And they're ready to roll in about 18 months, I would say, from now, to really begin to attract large private investment with regard to infrastructure, which they think is going to be in the next 15 years about a trillion dollars of needs -- and which they don't think they can get through conventional bond structures.

So that's a new kind of both debt and equity structure.

MR. GREENSTONE: Can I just interrupt for one second? These four states are --

MS. RODIN: Three states.

MR. GREENSTONE: -- three states, they're not going to wait around for the discussion of the 47th version of the Federal Infrastructure Bank?

MS. RODIN: No. No. I think what we're seeing -- and maybe this is even a better place to start -- I am actually optimistic. Bruce Katz and I have been writing recently on what we call the "pragmatic caucus," which is what our first two speakers are talking about, which is the fact that in

a lot of areas in the United States, the metro regions are not waiting around for the federal government.

MR. GREENSTONE: But there's 47 very good plans about national infrastructure banks floating around this city right now.

MS. RODIN: Right. We hope that they will come to fruition. We actually funded the construction of two of those plans. But we're not waiting either anymore.

The innovation is occurring in the states and the metro regions -- it's really clear -- for whatever reason. And we could spend 14 hours speculating on the reasons. We're not going to get that kind of creativity, currently, out of the federal government. So we ought to go back to a "federalist" system, if you will, which is what we're really talking about, and look for ways to promote that kind of energy and creativity at the regional, state, and local level.

Two other incredibly innovative examples -- so we have had the privilege of supporting the pilot in the UK on social impact bonds. These are bonds that really try to take a proven social intervention -- in the case of the first UK pilot, it's reducing the rate of juvenile incarceration, re-incarceration. So these are juvenile re-offenders. And the UK government was able to see the cost to them for the repeated re-incarceration. They developed, with the investment bankers, a model where they would float a bond, sell it to the private market, and the payout would be if they could reduce the rate of the re-offending -- if this social intervention, this proven social intervention, could reduce the rate of the re-offending below what the government had then.

It is in the marketplace now. It was sold out very, very quickly.

And it's been brought, the idea has been brought to the United States, and Massachusetts has now solicited RFPs for proven social innovations. They've gotten 34 really, really interesting ideas. Minnesota has actually gotten the legislature to float a \$20 million bond for trying this process.

So how you marry private sector capital with proven social innovation, where you demand metrics -- because the payout requires both metrics in advance, and metrics-driven

assessment for the payout -- you're really getting a triple win. Because one of the questions is, are these interventions really being measured and monitored?

The next different example, one that Rockefeller led about five years ago in creating a New York City housing acquisition fund. And, actually, LISC was one of the beneficiaries of this. The idea here was that the commercial banks didn't want to put money up for the acquisition of land. Obviously, they felt that the risk was too great, particularly for low-income housing.

So a group of foundations came together and put in \$50 million for the first level of risk capital. That allowed the commercial banks -- J.P. Morgan, Deutsche, HSBC -- to be willing to take the second tier of risk, and they put in \$250 million. And then New York City put in the third tier of risk.

That has built tens of thousands of units of housing, without waiting for money from HUD.

So, again and again and again, what we're really seeing is that the marriage of Wall Street capital, equity, and debt structures to government policy in producing social outcomes is really, really going on. And it's very powerful. And it's very compelling.

MR. GREENSTONE: Thank you.

I think Shirley --

MS. JACKSON: Yes, I just had a quick kind of follow-up.

You know, another marriage that has worked and created more sustainable advantage has been the marriage of universities with government and the private sector. And you're here in your incarnation as President of Rockefeller, but you were president of one of our great universities -- you know, the University of Pennsylvania. And at that point, you did some amazing things with the University of Pennsylvania in Philadelphia.

Can you talk about that, and how that -- that was then, and this is now. But are there any lessons learned out of that?

MS. RODIN: Well, you gave such great examples of the economic development capacity of really bringing together universities and the private sector and government. We -- Penn sat in the middle of a very disadvantaged neighborhood, West Philadelphia, and we felt that we had a

strong commitment to helping to rebuild that neighborhood, not only economically, but socially -- its housing stock, its schooling stock.

And so we initiated a multi-pronged intervention, over a number of years, initially, actually, investing university endowment funds in order to then both get believers -- so that we put our money where our moth was -- but also then to be able, ultimately, to attract private capital, as well.

And so we intervened in safety and security, in building back housing stock, and building really high-quality schools that were neighborhood schools. They weren't for the Penn faculty -- unless they lived there. And building economic development by creating a mechanism that said, "Buy West Philadelphia first." So Penn owned five hospitals. We sent our laundry out all over Philadelphia and New Jersey. We created a minority-owned laundry in West Philadelphia that now has all of the hospitals in Philadelphia as their client. It supports 2,000 jobs, and really has started to move the economy forward.

So I think that the moral commitment, the intellectual capacity, and the economic resources that universities have make them a critical partner as we talk about regional development. In my case, I wrote about this as the role of urban universities -- and you've been doing such magnificent things, as well. In most of our large cities and small towns, eds-and-meds are among the largest private employers.

And so we often don't look to universities to be one of the partners economically, in terms of their resources -- not only their academic capacity. But I think, as we think about what states and regions and cities will need going into the 21st century, they will not be able to accomplish this without universities really putting some skin in the game.

MS. JACKSON: And universities, let us not forget, are really attracters of talent.

MS. RODIN: Absolutely.

MR. GREENSTONE: We're also extremely fortunate to have Alan Berube here, who is part of the -- a leading part of the fantastic Metropolitan Program team, and a wrote fascinating paper that is part of the papers released today. And I think Alan and his colleagues really have their

finger on the pulse of what's going on around the country at the local level. And one thing that comes out of reading that paper is there's a lot of diversity of experiences.

And I wondered, Alan, if you could talk a little bit about what's allowing some places to flourish in kind of a relatively tough macroeconomic environment? And what's holding some places back?

MR. BERUBE: Sure. I'd be happy to do that.

You know, I think, in Washington we live in all sorts of different bubbles of our own creation. But one that those of us who live here are fortunate to live in is a bit of a labor-market bubble. This is a fairly healthy regional economy, lots of buildings being built, our restaurants are pretty full. I don't know that many unemployed people. Maybe it's because they're all working on infrastructure bank proposals.

But, you know, in the Washington area our unemployment rate stays 5.4 percent. It's more than 3 percentage points below the national average.

Several months ago I was visiting my friends who live in Modesto, California, in the heart of the Central Valley out there. And you drive out to their house, and you pass these sort of ghost-town subdivisions on your way. The downtown has a lot of vacant storefronts now. They know, personally, a lot of people who are unemployed and underemployed -- people who have college degrees. Their only saving grace is that the two of them commute back to San Francisco and San Jose for their respective jobs, much healthier labor markets.

But the local unemployment rate in the Modesto area is north of 15 percent. It's double what it was before the recession.

So the point of all that is: This is a very big country, vastly different conditions on the ground when you look around. And I think, you know, we talked a lot about the macro measures that, I think, are vitally important for our broad labor market recovery. But I'm not convinced that they're really sufficient for addressing the unemployment crisis, and the differences in the nature of the crisis that affect our local communities.

So the paper that I wrote looks at what's going on in the hundred largest metro areas across the country. They're two-thirds of our population, they're three-quarters of our GDP.

And I see three factors that are present, in combination, in varying degrees, across these hundred different markets that I think have implications for how you address the crisis at the local level.

One is just about industries, and what different metropolitan areas do -- what they did before the crisis, what they're doing coming out of the crisis. We all know that there were a lot of manufacturing areas, particularly the auto manufacturing belt, that were clobbered in the first stage of the recession -- Detroit, Cleveland, Greenville, South Carolina. Actually, those places are recovering very, very quickly right now. So they've made up a lot of the ground that they lost during the recession. The unemployment rate in Detroit, for instance, has dropped by 5 percentage points just over the last two years, versus about a 1 percent decrease nationally.

So I think you see a lot of strength in some of these export-oriented metropolitan areas. They're focused on meeting domestic demand and foreign demand.

At the same time, you've got these metropolitan areas that were very invested in housing, real estate, consumption economies, before the housing crisis -- Las Vegas, Phoenix, a lot of places in Florida -- struggling to recover right now, struggling to rebalance their economy towards more productive sources of employment, meeting demand elsewhere, outside just the local economy, and bringing wealth back in.

As well, you're seeing a lot of government-focused metropolitan areas, that were buffered from the worst effects of the initial crisis, struggling right now in the face of public sector employment cuts, and the ripple effects of those.

A second related issue is just the nature of the housing market, and housing prices, and what happened there. Gary Burless just talked a little bit about that this morning -- between a Las Vegas, where prices are about 65 percent off their peak values pre-recession, to a Pittsburgh, where they're only 8 percent off their peak value.

So, of course, the metro areas that had these larger house-price declines -- irrespective of how many people were working in construction -- have experienced stagnant unemployment rates, both because of, again, the direct effects of that unemployment, but also the indirect effects in terms of how wealthy households feel, and what their consumption patterns are.

And then the third thing that we've talked about at the macro level today, but which I think is relevant at the metro level, too, is workforce skills. We know that less educated workers are unemployed at much higher rates -- 13.2 percent for individuals without a high school diploma, versus 4.4 percent for individuals with a college degree.

At the national level, the evidence I've seen -- I'm not totally convinced that workforce skills are a barrier nationally to labor market recovery, but at the local level we do see it affecting the longer road to recovery in some metropolitan areas. Both places like Philadelphia, Little Rock, San Antonio, where there seems to be a bit of a gap between what the occupational structure of those metropolitan areas suggest is needed from an educational perspective, and what their workforce really looks like from an educational perspective. And then places like an Augusta, George, a Los Angeles, a Memphis, a Phoenix, that have the sort of double-whammy of both the industry structure problem, and what looks like a significant education problem, too.

So I think, in the main, that's mostly a longer-run issue, but one that may be having some more short-term effects in certain metropolitan areas.

So, as the panelists have already noted, fortunately I think there are a lot of state and local leaders across the nation who are responding to this crisis, not just generally -- right? -- but specifically with respect to the unique sorts of issues that their places are facing. And, in fact, our program is working directly with several governors, metropolitan leaders, across the country on initiatives supported by the Rockefeller Foundation under the auspices of our Brookings-Rockefeller project on State and Metropolitan Innovation. And Judith might talk a little bit more about some of the examples coming out of that work.

So, some of those are highlighted in the paper. But, again, I think these places are largely acting in the absence of federal leadership. But the upside of that is that they're tailoring their

interventions in ways that I think are really about the unique sorts of challenges and opportunities that they face.

MR. GREENSTONE: I think Bob had a --

MR. RUBIN: Yeah, I do -- or anybody in the panel, I suppose.

Michael asked me, before, what the federal government could do to try to contribute to the vitality of state and local activity. I answered "devolution."

Turn the question the other way around: What is it the federal government does that impedes the state and local governments from doing what they could do? And what are the changes that could be made? That's one area where maybe even in this dysfunctional federal system you could get Republicans and Democrats to come together -- which is to free up local energy.

So -- that's a question for anybody.

MR. BERUBE: Sure. And I'll start.

I'd say the various metropolitan areas that we're working with as part of this project on export initiatives, to try to increase their reach into foreign markets for consumption of the goods and the services that they produce, they're having to navigate a very complicated and incoherent thicket of federal programs, policies, agencies that, in the end, it's not transparent, things are done at too small a scale because they're distributed and diffuse in a way that doesn't actually allow these areas to act on what, in many cases, is a very coherent strategy. But, you know, the federal government, for better or worse, still retains a very large responsibility for foreign trade. So there's only so much that these cities and metropolitan areas can do on their own.

And I think some of the stuff that Secretary Bryson talked about today, in terms of bringing greater coherence to the way that the Commerce Department works -- doing that in collaboration with cities and states, and actually acting in more of a bottom-up way that promotes their ability to interact with foreign markets, I think that would be a huge thing the federal government could do.

MS. RODIN: Yes, I'll build on that.

The problems don't land on the ground in cities and regions in convenient packages that have the labels of the federal agencies. And so how that kind of collaboration across the federal government can occur with funds that they already have -- so we have a Sustainable Cities Initiative among EPA, Transportation, and HUD, that is one of the first of getting these agencies to really work together, to recognize that each of the three of them has, both from a regulatory and a funding perspective, a real ability to transform the sustainabilities of urban America. They can't each do it in this siloed way.

But those kinds of collaborations are few and far between.

MS. JACKSON: I would say the following -- that the government, historically, has always played a role in three key areas: in education, in research, and in infrastructure. And many times when we talk about infrastructure we think about roads and bridges. But let's not forget things like the internet, the development of the microprocessor, the, you know, GPS system. Now, these things came out of mission-driven needs of the federal government, but their being opened to the commercial sector actually has led to, you know, the creating of many great industries.

An area where there are clouds on the horizon really does have to do with support of our great research universities, particularly the private research universities. And there, they're being hurt both by state-level policies in terms of support, as well as a definite slowdown in federal funding for basic research.

So we just had this discussion about the important role that universities, particularly major ones, can play. They obviously are in the human capital business, but they also are in the research business. And they are an attracter and retainer of talent.

So immigration policy is another area. And that affects, obviously, businesses. And we hear a number of technology-oriented companies speak to that. But it has an effect on the research universities as well, both at the -- particularly at the level of faculty and researchers, but there are even some wrinkles in the world of students and student visas.

So these are two key areas -- the research and support and immigration. But then there are broader issues having to do with coherence of governmental approaches relative to major

infrastructure, particularly as it relates to energy, broadband, the use of the spectrum, et cetera. And these are things that do rest with the federal government.

And earlier, in a different, in a more private conversation, I talked about the fact of having a discussion about the degree to which the government should be the first-follower versus the first-leader. And I think there are a number of innovative initiatives and pilots being done at the state and regional level that, rather than the government having its program that people compete for, it might be the time for the government to focus some of its resources to undergird some of these initiatives.

MR. GREENSTONE: You know, I just want to pick up on a thread that you put out there.

Look -- I think there's nothing that says that the United States has to have the highest living standards in the world. And, in fact, a lot of that reflects, a lot of our history reflects conscious choices.

And, you know, one cannot help but think that, as you see the inability to pass a highway bill that's more than six months at a time, or to kind of meet infrastructure more broadly, or basic research and development, in many ways we are choosing a future. And state and local governments are obviously doing a lot to respond to that, to try and fill in the gap, but I think the role of the federal government cannot be missed in all this.

Now, I think we have about seven minutes left. And we have such an excellent panel that I think it would be a shame to not give everyone here a chance to kind of talk to them and ask them questions.

And so I thought we'd open the floor for questions.

SPEAKER: Thank you.

MR. GREENSTONE: And if you could say your name and your affiliation.

SPEAKER: Yes. My name is (inaudible) from (inaudible) Company, Washington, D.C., office. I have a question about the SME -- Small and Medium Enterprises.

Today I learned that the 94 percent of global market is outside the U.S. And, of course, multinationals are doing good for export, and also FDI.

But how do you connect that growing market, rest of the world, with local SMEs? I know export is encouraged by the federal government. But FDI is not necessarily encouraged, because of the image that we are losing jobs outside.

But unless you get closer to end customers, you don't really expert growth of exports. So how do you connect the FDI?

Thank you.

MS. RODIN: One way -- and it goes to one of the innovative experiments that we're seeing on the ground -- is to really link the SMEs more effectively into an ecosystem with a larger global company. So, for example, there's an initiative in Puget Sound putting a number of universities, very large companies, and many, many SMEs that are a little further along down in the value chain, together to collaboratively -- and several research institutions -- to collaboratively work on energy-efficiency IT. And their goal is to become the energy-efficiency IT producer of the world, and then export, export, export.

The SMEs, then, go along in that ecosystem through that kind of collaborative process. Otherwise, you're really building them within a national or even a local environment, and the capacity to really grow may not be there sufficiently.

MS. JACKSON: Let me make one other comment.

You know, I had the pleasure of co-leading with Eric Schmidt of Google the advanced manufacturing study that PCAST did. And one of the key points that we talked about was the importance of the government, where possible, being a convener, or providing a safe harbor, for public-private partnerships, where you do, in fact, bring together the larger and the smaller enterprises -- particularly in areas where there can be shared infrastructure. Because that can be of great benefit to SMEs.

We've talked a lot here about manufacturing. But what we've not talked a lot about is advanced manufacturing. And when we talk about it, we tend to talk about it from the point of view of

it cutting out jobs. But what we don't talk about is how more advanced techniques, including modeling and simulation, can help existing enterprises, existing SMEs, to improve both the productivity and the quality of what they produce, which helps their competitiveness vis-a-vis selling into global markets -- as well as a definition of advanced manufacturing that has to do with using the newer technologies, and bringing new approaches and new technologies to market.

And, to me, those are things -- and when you're talking, on the one hand, about pre-existing companies, and how they can, you know, grow and improve what they do, and on the other, you're talking about start-up, entrepreneurial enterprises, and having them. But they do come together at the level of public-private partnerships of a certain kind. And they do come together when it comes to having shared infrastructure that can be at a university, it can be government-sponsored out of a national lab or some other mechanism.

So I think those are important things to think about.

MS. RODIN: Another place -- we haven't mentioned the green economy today, at least in this session. And there's a whole SME infrastructure around the green economy, jobs that can't be outsourced because they're energy-retrofit jobs, waste management, water supply chain. All of those represent, really, growth opportunities in the United States.

And, again, we're seeing a lot of regional and local governments understanding, I think, with a fair degree of creativity, what the opportunity here is. And it's a real SME play at the local level.

MS. JACKSON: And the capital region of New York State has taken advantage of this.

MR. RUBIN: I'd just make a one-second additional comment -- and I don't know the answer to this question.

But the German economy, as you know, has enormous numbers of SMEs, and they produce little niche products which they manage to find out a way of exporting and to come into -- as you put it, as you say -- into appropriate nexus, or effective nexus with their customers all over the world.

I don't know how the German economy has done that, but it seems to me it's worth looking at that as a model.

MR. GREENSTONE: Okay, I think we have time for a couple more questions.

MS. VANDERHYE: Thank you. Margaret Vanderhye, McLean, Virginia.

I want to circle back to some of the things we were speaking about this morning, and tie it into your panel this afternoon, on workforce preparedness, and the opportunities that states and localities would have in terms of education preparation and job training preparation.

In Virginia, although we have a tremendous disparity between the sort of a booming economy in Northern Virginia, and what used to be the timber, textile, and tobacco economy in the south side, which is pretty decimated at this point -- but they share commonality, which I'd welcome your perspective on.

K-12 education is not really integrated with community college curriculum and preparation. So that our community college presidents complain that when their students come into the community college system -- which we have a very strong one -- 50 percent of the freshman class, the first-year class, needs remedial classes.

And they would like -- we've had a big discussion about this in Virginia -- we would welcome the chance to have some ideas and some thoughts about how we prevent these silos in education systems within states, what the federal government could do, what academia and businesses could do to help.

And the other sort of non-integrated part of this is we talk about "STEM" curriculum, whereas overseas they talk more about "STEAM," because the arts are added into it. And it seems if you're going to use terms like "innovation" and "creativity" and "creative work class," you can't create distinct sort of silos of the humanities and science if you're going to compete in a global economy.

What are the kinds of things that you see that the government could do to create a partnership with local and state governments to improve those kinds of things, and make us all competitive in the future?

MS. JACKSON: Well, let me speak as an educator on the panel. And then I, of course, defer to Judy, as well.

I think, first of all, any institution that says that it has people arrive at the door who are unprepared has to then make an articulation of what it is they expect, in terms of knowledge, skills, and abilities. But then you have to have people who are listening, in terms of the K-to-12 system, in terms of people having certain baseline skills, and how you bridge to the next level.

Secondly, I worry sometimes, when we talk about "training programs," in particular, that we say that there are people who don't have the skills for the jobs that are needed today. And that is certainly true. There is dislocation.

But some of it is a geographic dislocation, that the people with the skills are not where the jobs are. And so the question is whether there are incentives, and programs that could get people to make geographic moves.

The third is: How compelling is the curriculum when one does the more vocationally-oriented education? Because what I think is, how do you simultaneously train someone in a certain kind of skill, but give them some undergirding knowledge that allows them to have self-portability?

So if we're really talking about a migration -- which I think there has to be in our manufacturing sector. And it's already happening -- you have people who are going to be working with much more sophisticated systems, with computer-driven, with the use of sensors and actuators and robotics. And I'm not so clear that, you know, we're educating folks to that.

Now, that doesn't get totally at your question about what skills people arrive at the door with. But we all know that we need to think of different ways.

So I come down on the side of two things: the back to the fundamentals. Because I'm a theoretical physicist. But I tell you what, if you can't read, write, add, subtract, multiply, and divide, think on your feet and do a few fractions, understand, you know, what logarithms and a few statics are, and do some graphing, I don't see how you're going to do anything. On the other hand --

MS. RODIN: Half the people are going to walk out.

MS. JACKSON: But on the other hand, we have a number of new --

MR. GREENSTONE: Now, you know, Shirley, my wife is an English major.

MS. JACKSON: I'm sure she can add, subtract, multiply, divide, think on her feet -- you know, et cetera -- read and write.

MR. GREENSTONE: I'm not so sure about the logarithm thing.

MS. JACKSON: But the other thing is, you talked about the "A" and "STEM." And we built, we spent \$200 million to build an experimental media and performing arts center. Why? Because we believe in the cultural-rootedness and the arts.

But, in addition, you can't just talk about "the arts," to "keep the arts in the curriculum." The real issue is what is the value added, and how does it play into what you're doing across a more integrated front? And use those things in new ways, given new technologies, to reach our students in a different way, to have different pedagogical approaches.

MS. RODIN: I would just add -- and I won't give examples -- I am serving on a White House commission on looking for community-based solutions, that the First Lady and Patty Stonecipher are chairing. And so we've been searching in communities for really good interventions that are working, that address this set of issues.

And the driver for us -- think about the depression we feel listening to some of Alan's data -- we were looking at data, at our first meeting, that showed the exponentially quickest growing country, in terms of middle-school dropout rate is the United States, in the last seven years.

And so we are on a trajectory which really is going to put us at far increased risk that the one that you just described.

And we can't solve that with the federal government. We have got to think about community-based solutions.

And so we'll be issuing a report with recommendations. But we're going to populate a website with all of the really great examples that we have found from around the country. And I really commend that to you, because it's a very good, and really heartening, demonstration of the kinds of interventions that work.

But we have a serious national problem here.

MR. BERUBE: I think we're out of time, unfortunately.

I think the one thing I would just -- to amplify the last two comments -- are, you know, if I were in charge of all state and local economic policy -- which no one has appointed me or even suggested that I be in that role --

MR. GREENSTONE: But go ahead --

MR. BERUBE: But I think, you know, the most important thing for living standards for Americans are skills. To a first order, people get paid what their skills are.

And to the last two comments, I think the K-to-12 system has not been -- you know, test scores are flat for 30 years. College completion rates are flat for 30 years. It shouldn't be surprising that -- and, in turn, wages have been, for many Americans, have been declining or flat for a long time.

So I think for state and local governments the most important thing is to get the education systems working as well as they can. (Applause)

MR. GREENSTONE: I think that was just a terrific panel. It's entirely possible that we left the best for last today.

So thank you very much for doing that.

As I said when we kicked off the day -- I know, there's a competition out here. Martin, I know -- come on, guy. You guys did a great job, too -- which was what I was just about to say, Martin. So, thank you.

Which is I promised earlier today that, among other things, you'd see Brookings intellectual property and its engagement with the real world on parade in front of you. And I think that's what we've seen today. So I couldn't be more proud and pleased about what we've seen, and what it expresses about Brookings.

I have one last thought to leave you today.

We heard a bunch of different perspectives from a bunch of different -- well, not only industries, but government, and union, and scholars, and other actors in the community. One theme that came back to us is the absolute importance of good governance in facilitating progress.

And we heard it from a variety of different angles, whether it's the new industries racing forward and not having time for the government to catch up. Whether it's state and locals creating what we call in the technology business a "work-around," the dysfunctional government in Washington. And whether the important questions that were raised about can you actually have a continuing economic prosperity in the absence of functional governance?

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And if there's one thing -- what we're going to do from today is digest what we've heard, come forward with actionable paths forward, make this a very practical day. But the one thing I think Brookings can really do and which I know we're going to focus on is how we can create some kind of road map for functional governance in this town, without which very little gets done or if it does get done despite what happens here. So thank you very much for coming; enjoy your weekend.

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