THE BROOKINGS INSTITUTION

SAUL/ZILKHA ROOM

TECHNOLOGY POLICY AND
THE TRUMP ADMINISTRATION

Washington, D.C.

Wednesday, December 14, 2016

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P R O C E E D I N G S

MR. WEST: Good afternoon; I'm Darrell West, Vice President of
Governance Studies and Director of the Center for Technology Innovation at Brookings.
And we'd like to welcome you to our event on Technology Policy in the Trump
administration. And we think it is good timing on this, not just because the administration
is about a month away from taking office, but also today the President-elect hosted a
group of high tech industry people for discussion of these very issues. So obviously it's
something that's very much in the news and on his mind.

The results of the election have raised a number of questions in terms of
how the new administration will handle technology policy. What will the new president do
to continue the legacy of innovation across a variety of different sectors? What aspects of
Obama's approach to technology innovation will be maintained, and which ones will be
altered or completely rejected? What should the public expect from the new
administration moving forward?

So today we have a terrific panel of Brookings experts to discuss
technology policy under the Trump administration. And so we're going to be looking at
issues such as health information technology, telecommunications policy, net neutrality,
and cybersecurity, among other issues.

So I'm pleased to introduce Stuart Brotman, who is a Nonresident Senior
Fellow in our Center for Technology Innovation at Brookings. Stuart has extensive
experience as a university educator, as well as a government policymaker. He served as
Chief of Staff on the Founding Leadership Team at the National Telecommunications and
Information Administration, and he also completed two terms as a member of the U.S.
State Department Advisory Committee on International Communications and Information
Policy. He is the inaugural Howard Distinguished Endowed Professor of Media

Management and Law, and also the Beaman Professor of Communication and

Information at the University of Tennessee in Knoxville. He also is a faculty member at

the Harvard Law School's Institute for Global Law and Policy.

Susan Hennessey is a Fellow in National Security in Governance

Studies at the Brookings Institution. She is the managing editor of the very popular blog

Lawfare, which focuses on hard national security choices. She has expertise on

cybersecurity, surveillance, federal terrorism prosecutions, as well as Congressional

oversight of the intelligence community. And prior to joining Brookings, Susan was an

attorney in the Office of the General Counsel at the National Security Agency.

Nicol Turner-Lee is a Fellow in our Center for Technology Innovation and

a contributor to TechTank. She comes to Brookings from the Multicultural Media,

Telecom, and Internet Council, which is a national nonprofit organization dedicated to

promoting and preserving equal opportunity and civil rights in the mass media,

telecommunications, and broadband industries. While there, she served as Vice

President and Chief Research and Policy Officer. One of her notable contributions was

the development of the first national minority broadband adoption study, which was an

empirical study conducted at the Joint Center for Political and Economic Studies, and

was cited in the FCC's National Broadband Plan.

Niam Yaraghi is a Fellow in our Center for Technology Innovation as

well, and he is an expert on the economics of health information technologies. He

studies the business models and policy structures that incentivize transparency,

interoperability, and the sharing of health information among patients, providers, payers,

and regulators.

So I want to start with Stuart. You've studied the Trump campaign as the

election was getting underway, in terms of what he was saying on tax reform, jobs,

immigration, and trade. So what did you hear, and how do you think that will influence his actions as president?

MR. BROTMAN: Thanks, Darrell. First of all, these are very, very important priorities for the president-elect, and so I would expect what we saw on the campaign trail will translate quite directly to the early days of the administration.

Let's go over a few of those top issues. Taxes. Tax reform is really a major priority, not just for the administration, but clearly there's going to be, I think, a lot of movement in 115th Congress as well. One of the key elements of tax reform is lowering the corporate tax rate. And the implications for technology companies, in particular telecommunications companies, is how do you stimulate more capital investment. What we've seen during the past year to 18 months is that there has been a decline in capital investment in the telecom sector. And so one of the notions here is that if you lower the capital gains and other aspects of the corporate tax rate, then perhaps you will stimulate more capital investment. So I think there will be a direct relationship between tax reform and potential investment in the telecom sector.

The second area is research and development. During the latter part of the Obama administration, 2005, I'm not sure if many of you are aware that there was a major reform in R & D tax credits. So there was an expansion of R & D tax credits and they were made permanent. They were expanded into small and medium-sized businesses. The president-elect has spoken a great deal about returning manufacturing to the U.S., and part of that may involve an expansion of R & D tax credits because there's a relationship, obviously, between research and development, particularly applied research and development, and manufacturing. So we might see some expanded R & D tax credit initiatives and, again, support by Congress to enable a better environment for the creation of manufacturing jobs in the United States.

As Darrell mentioned today there's a very lively discussion, I'm sure, between the President-elect and a number of representatives from the technology sector, including Apple and Oracle and Microsoft and Facebook, a variety of different companies -- IBM. One of the President-elect's major campaign themes, and obviously something he wants to implement, is repatriation. In other words, having jobs come back from offshore back to the United States. And so we've seen already with United Technologies' Carrier Division. Last week there was an initiative which was announced personally by the president-elect that Carrier would be bringing a number of jobs back to the U.S. rather than ship them off to Mexico. We've seen a number of technology companies, obviously, move manufacturing primarily offshore, but services as well. And so one of the interesting developments that may come out of today's meeting, or as a consequence of further discussion, is whether or not the president-elect will initiate individual discussions with technology companies such as Apple, which obviously has a lot of manufacturing now in China, to bring back a number of those jobs to the U.S.

An area that's related to jobs, obviously, is immigration, because we had a great deal of rhetoric during the campaign regarding the reform of the immigration policy of the United States, and obviously a narrowing of allowing various sectors coming into the country. There is some tension between that and the notion of being able to bring in high tech and technology related people from around the world, from India, China, a variety of different countries. And so I think, again, that may be part of the discussion today, but it's something to watch. What will be the policy of the Justice Department, Homeland Security, and others with regard to processing HB1 visas, particularly for the high tech sector?

Finally, let me just touch a little bit on trade. Trade obviously was a major campaign theme. It will be a major theme in the early part and probably throughout

the administration. For all practical purposes, the Trans Pacific Partnership is dead.

Clearly, the president-elect has indicated that he wants it dead. There is no initiative in

Congress to revive it. And, in fact, had Hillary Clinton won, she had also indicated that

she had some real problems with TPP. I think one thing that reveals, at least with

respect to the president-elect, is that he has a real preference to move away from

multilateral agreements, whether it's TPP or NAFTA or CAFTA or a variety of agreements

that we've structured over the past decade or so, and moving more into the bilateral

mode, that is having the United States negotiate one-on-one with individual countries.

One of the issues that raises is, particularly in the technology and particularly in the digital

space, whether or not you can craft effective bilateral negotiations in trade, because, as

you know, digital typically transcends geographic borders. It's why we've had

approaches like negotiating with the EU or negotiating with Asian countries through TPP.

Typically, you have to take some sort of a regional approach when you're dealing with

digital technologies.

Let me just tick off a few potential trade issues that I think will arise even

in the bilateral context. First of all, custom duties. These are very important, and

obviously can create potential trade barriers. So custom duties for digital goods are, I

think, on the table to be negotiated, as well as formulating a more transparent custom

procedures, including electronic customs clearance, which we don't have in a number of

different countries. Cross border data flows are obviously on the table. We've seen a lot

of action, particularly in the Obama administration, between the United States and the EU

in the data flow area. I think this will be now looked at as a continuing trade controversy,

and certainly something that will be on the table.

Next is an issue which is just emerging, which are called localization

barriers. And these are requirements that countries have to locate large infrastructures,

such as cloud services and data centers, in their country. And so now I think, again, we will have these issues on the table. I would suspect that the United States will try to resist any of these localization requirements, or certainly minimize them. Safeguarding network competition. When the U.S. or U.S. based companies invest abroad, will they be guaranteed certain parameters of network competition? This gets very complicated, because, as you know, a number of countries around the word still have state-owned enterprises or still have enterprises that have state investment in them. And, finally, trade secret theft. Again, this is an area that hasn't received a lot of attention, but I think will be more prominent as trade negotiations take place in a bilateral context.

So I think that gives you maybe a little flavor of some of these top line issues.

MR. WEST: Thank you, Stuart. And you were mentioning immigration policy. And of course, during the campaign, Candidate Trump was very critical of the H1B visa program on grounds that he felt that giving all these visas to people from abroad, especially in the technology area, robbed Americans of jobs.

Last week I was in China talking about technology policy, as well as the Trump administration, and people in the technology companies there were hoping that Trump will crack down on the H1B visa program, because they see that as a great opportunity for them to engage in talent recruitment. That the people who might have come to the United States otherwise, if they are prohibited from doing so, then companies in China and Europe and elsewhere are going to grab this talent.

So, Susan, you work on cybersecurity. What are your expectations in that area for the Trump administration?

MS. HENNESSEY: Right. So first I think it's important to sort of be candid that we're very much reading the tea leaves here. President-elect Trump actually

hasn't provided all that much information about his policy views on cybersecurity issues, and none of his early senior hires have been people who are known for their cybersecurity backgrounds or have sort of a record from which we can then draw some assumptions.

So very much this is an open question. Certainly people will be looking to the meeting President-elect Trump held today with leaders in the technology sector. Not necessarily the substance of that meeting, but also the tone. There are sort of two possibilities. One in which the next administration will have a conciliatory productive relationship with Silicon Valley. It's also possible to imagine a far more antagonistic sort of vision. And so these early meetings, I think, will be important signals in understanding what exactly he expects the tone of that relationship to look like.

There are also areas in which Silicon Valley and Donald Trump, their instincts align here, their interests potentially align. So President-elect Trump has made pretty clear that he has anti-regulatory instincts. So one of his 100 day proposals was that for every new regulation, two regulations would go away. So not a huge amount of specificity, but sort of a general sense of being anti regulation.

In the cybersecurity context, that probably makes it less likely that we'll see robust regulatory authority for the FTC, which was one area in which a lot of people thought that regulatory authority for the Federal Trade Commission would correct or address some of the existing market failures. It's certainly possible that Donald Trump instead look to the Commerce Department, for example. Ironically, in some ways, the Obama administration, as of late, really embraced the Commerce Department and housed a lot of sort of their cybersecurity policy mission in Commerce. We could expect to see more voluntary frameworks, policies that are viewed as industry friendly, and that might be actually welcome news to Silicon Valley, especially considering the potential

alternatives of a robust or aggressive sort of regulatory enforcement.

Then there are areas in which I think it's reasonable to expect there will be conflicts. And they will almost certainly emerge sort of in the next 12-month period. So one is sort of the question of encryption and going dark. The most visible manifestation of that conflict was the Apple-FBI controversy back in February. So in response to that controversy, Donald Trump suggested a boycott of Apple, indicated strong sympathies with law enforcement and potentially intelligence equities, and did not demonstrate that that he was interested in being conciliatory or playing sort of a moderate role there. So potentially, depending on how those issues come to the fore, we might expect to see a more aggressive or hard line stance from the government. Then there are also the issue areas, you know, that Stuart mentioned, immigration, keeping jobs in the United States, other areas in which potentially conflicts will emerge.

One thing that will I think experts will be keeping their eye on is how President-elect Trump responds to, potentially, the dawning realization of the ways in which all of these issues are really quite complex and interconnected. So one area that the next administration will almost certainly be asked to confront is this question of Privacy Shield. So Privacy Shield has recently been agreed to as the replacement of Safe Harbor. There are broad expectations that that will be challenged in European courts. The fate of Privacy Shield may depend on the tone that Donald Trump takes on surveillance issues, the positions he adopts with relation to 702 reform. And so these are areas in which there's a great deal of complexity, and so we would certainly hope to see him bringing in very experienced counsel to help shape the administration's policy, considering that it appears to be more or less of a blank slate at this point.

The sort of third area in which we only have sort of broad instincts to draw from is his vision for federal cybersecurity, so how exactly the United States

government is going to secure itself, its own networks, and also provide support to civilian infrastructure. So Donald Trump has suggested sort of a pivot to DOD, housing more and more of the cybersecurity mission with the Department of Defense instead of the Department of Homeland Security, where it currently exists. There are broad concerns about sort of the militarization of civilian cybersecurity. There's also a number of legal questions, there are legal barriers he might run up against, not least of which being the Posse Comitatus Act, which prevents DOD from engaging in parts of the domestic law enforcement. And so these are areas in which, because there hasn't been much specificity, it remains to be seen how exactly he intends to implement these policies, and whether or not he will potentially pivot quite a bit as he starts to potentially recognize some of the challenges that he may not be aware of at this time.

MR. WEST: OK, thank you very much, Susan. So, Nicol, we know that one of the big initiatives under the Obama administration was net neutrality, as well as trying to improve access to digital technology. So what are your expectations in terms of Trump on these types of issues, and what do you think he should do?

MS. TURNER-LEE: Thank you, Darrell. So this is going to be interesting because I don't think any of us know, with certainty, what he's actually going to do, but we can glean from the people who are working with him on the transition team what might happen when it comes to the issues of net neutrality and other regulatory rule makings, et cetera, that have been made under the Obama FCC.

So what's interesting about the net neutrality debate, I think, is that the final chapter on this has not been written. And for those of us that have been following this, we're waiting for that final chapter, that final period, and I think we're in for it to still be an open conversation. Because what we're going to see I think in this new administration, particularly under the FCC, is this conversation around repeal or remand.

So for those of you that are unfamiliar, there was a very aggressive process for the last 12 months, dating back -- what, Stuart -- three or four years, on maintaining and creating an open internet, ensuring that it was fair, and out of that came four bright line principles: no blocking, no throttling, no paid prioritization, and greater transparency. And I would say the last year was sort of the moral compass for how people wanted to address this. For those of you that were following this, there were four million comments filed at the FCC alone in support of net neutrality, and it became a very dogmatic debate between companies versus people, which is something that the Obama administration really held onto a very liberal stance, Democratic stance, when it came to telecom policy.

In this new administration we are reading in the trades and in publications that we're going to see more pro-business, pro-innovation. And the question becomes what will happen with this moral compass, this conversation, this order, that has basically assured that there was some fairness and equity with the internet. My projection, if I would put on my psychic hat, is that there will be, in the first part of the administration, this conversation of repealing the order. And if smartly done, the repeal may consist of primarily looking at the Title 2 reclassification instead of totally throwing out the baby with the bathwater. I've told our team here that it appears to be something that as U.S., as a leader in media and telecom policy, that we wouldn't want to send a message that we want to throw out the open internet order in its entirety. I think this country has thrived on an open internet in terms of discussion. But there will be question in terms of that Title 2 reclassification that was applied to information service providers. Those bright line rules specifically apply to them, and within the last FCC, there are associated rules and regulations that are dependent on the preservation of that order. So it's likely that we'll not only see the unraveling of the order, but we will potentially see the unraveling of four years of work of the FCC, which for many of us, looking back, who

were part of that debate for a long time, it's an interesting recycle of history. And again

that final chapter will not be written in terms of what it's going to look like, because it's in

the Court. So there's going to have to be a process to go back to the Court, and the FCC

will have to actually figure out the way to actually unravel the particular order.

With that being said, you know, there are other concerns that have been

thrown into this debate that also are problematic with the open internet order. Obviously,

broadband privacy that was just confirmed, and the rules were actually established less

than a month ago, those were put in place because of the net neutrality order. They will

have to be re-examined. We will also look at this practice called zero rating, which in

many respects -- and you'll see some work on my end come out of this -- there could be

some conversation that it's not a zero sum game, that there are some parts of zero rating

that could actually have public interest benefit. But that is actually going to be a

conversation because it was very much part of the preservation of the open internet.

So I would say for all of us watching this, the question for the new FCC

and the new Trump administration is how much time is going to be spent repealing rules

and regulations that were made for the last four years, and will there be a balance of time

spent on what Darrell has mentioned, the digital access issues? We still in this country

face 13 percent of Americans who are not online. Those 13 percent still consist

disproportionally of older Americans, people of color, rural Americans, who are the base

of the voters, right, for the Trump electorate, as well as the disabled. And the more and

more they fall farther behind, the less effective all of the digital policies that come out of

the new administration will be. Those are the people who experience structural

discrimination or structural inequality that they can't get out of, whether it's an income

disparity, a place disparity, or an age disparity. So it will be interesting to see, again, how

much balance actually happens at the FCC, and where we're going to place some

emphasis on closing the digital divide.

What's also interesting, the Trump administration has said that they're going to focus on infrastructure -- and I know we're going to get this -- as a digital access concern. I think it's actually a really good one. If we make smarter cities and we're able to actually figure out ways to invest in infrastructure that creates jobs, we actually may be able to get at some of the disparities that exist with digital exclusion. The challenge will become -- and I see this when I think about this at night, I see it as a spiral -- will we have enough workers for this new economy given that they're digitally excluded? And so you can look at manufacturing and you look at, for example, the Carrier example, as one way to save manufacturing, but will we have workers who can actually work in a new automated economy, a new knowledge based economy, if they're digitally left off line or digitally disenfranchised?

So my prediction, as we move forward, is when we look at all these policies, they're very much interconnected and there will have to be some way to have a deliberate and intentional discussion among this new FCC and the administration of where they want to spend their time. And depending on how they spend their time, will determine if the next four years is a repeat of the last four years, just a different administration and different goals, or if we're actually going to see some progress that will allow us to look differently of how we integrate in this new ecology.

So I'll stop there, Darrell.

MR. WEST: OK, thank you, Nicol. So, Niam, you are focused on health information technology. Now we know there are going to be major changes in health care policy in general in terms of the repeal of Obamacare. They're talking about modernizing Medicare. How do you think some of these larger health care issues are going to play out in health IT in particular?

MR. YARAGHI: Well, I think making a prediction is very difficult, especially about Trump. And the U.S. government is the most important payer of medical services in the United States. It is very difficult to talk about anything in health or including health IT policy without knowing exactly what they're going to do about overall health care policy. Although Republicans have been very adamant in revealing their intentions about repealing Obamacare, we don't know about their replacement strategy. Although there are multiple solutions provided, which some of them may sound feasible, none of them has emerged as a serious one.

In addition to that we should also factor in the following: that good or bad, Obamacare provided insurance to about 20 million uninsured people. And despite all the problems that Obamacare has, and we cannot deny it, in this country we have never been able to repeal an entitlement program. So when you give something to people, even if they don't like it, you cannot take it back from them.

Obamacare is not only the legacy of President Obama, but also the legacy of the Democrats. So I think among the controversial issues that Trump has proposed, Democrats will fight very strongly against repealing Obamacare. And most important of all, health care was the only sector which continued to produce jobs, even during the recession. Health care is the number one job creator in the United States. And those are the jobs that Trump wants; those are the full-time, very well paying jobs. Repealing Obamacare and talking about efficiency in the health care system basically means slashing a lot of those jobs, which thrive on the basis that the health care in the United States is very inefficient. For every clinician in the United States, there are 16 other people in the health care who are not involved with the patients. So imagine you're in the operations room and the surgeon walks in with 16 other people following him, none of them is a doctor or a nurse, they are all in different administrative roles, which you are

paying for.

So in the short run, I think it is very expensive for Trump, politically, to focus on repealing Obamacare. And I think he understands it, and that is why he already has said that he is going to keep the major parts of Obamacare, those being a ban on excluding people based on preexisting conditions and allowing people to keep their children under their own health insurance until they're 26 years old. I think Trump is smart enough to understand that he will be better off if he spends his political capital on the other major issues that he has, reforming immigration -- as Stuart was talking about -- renegotiating many of the trade deals that we have, and bringing back manufacturing jobs. Every single one of those is a big, hairy, audacious goal. So I honestly don't think that health care, and specifically repealing Obamacare, would be on the top of the list when it comes to President Trump.

So in summary, in the short run, I don't think anything is going to change in the health care. So if you're an innovator in the health care IT area, rest assured that you should continue whatever you've been doing over the past four years. Now when it comes to the nominations that Trump has made for health care related jobs, the very first one is Dr. Tom Price. Again, regardless of the political intentions that he has, I think it's very good to have a physician leading the Department of Health and Human Services. We've not had a physician leading this department since 1993. And don't get me wrong, I'm not in favor of physicians running anything, let alone a multibillion dollar department, but I think it's a very unique time, and we would benefit from having a physician leading the agency primarily because of the policies that were put in place over the Obama administration to control costs and to increase quality. Washington, and HHS in particular, came up with different regulations and rules and policies to basically manage the delivery of health care and measure the quality of the health care services provided

by different types of physicians. And that created a nightmare for physicians in the United States. An article published a couple of months ago in *Health Affairs* showed that for every physician, an average of 780 hours per year should be spend to comply with the quality reporting requirements. That's about $15.5 billion per year. These policies suffer from a significant lack of understanding of how medicine is being practiced and how doctors spend their days. So I think it would be very refreshing to have a real, actual physician leading the agency and bringing the perspective of a doctor there.

The other position, which is not a Cabinet position, but I think is even more important than HHS Secretary, especially when it comes to health IT, is the Administrator of the CMS. Seema Verma, who has been nominated for this position, we don't know a lot about her, other than the fact that she's a really good tactician and she has favored giving freedom to the states during the experience that he had with Indiana's Medicaid expansion. So I predict that we're going to observe decentralization, which I believe is really good when it comes to innovation, and particularly health IT, entrepreneurship, and innovation. Again, during the Obama administration, if you were a health IT entrepreneur and you had an innovating idea, your success was a function of your closeness to the center, both literally and figuratively. You had an agency called Office of National Coordinator for Health IT who had to basically certify your product in order to get paid, and you wouldn't innovate and you wouldn't put your efforts in anything else other than complying the thing that the government certifies and pays for. And therefore one of the reasons that we see we have so many health IT startups here in D.C., and we don't see them in California.

So now that health care policy becomes more decentralized I think innovators would have a better chance innovating and creating products that addresses the real needs of physicians and the payers and, of course, patients.

MR. WEST: OK, thank you, Niam. So I have an infrastructure question for the panel, and any of you who want to join in are welcome to do this. So on the campaign trail, Candidate Trump talked about a trillion-dollar infrastructure bill. Now he mainly was talking about physical infrastructure, but presumably this could be a device to address some digital infrastructure issues as well. He also focused a lot of his bill on tax credits for developers as opposed to direct payments to those doing the infrastructure repair.

So the question I have for you is it seems like digital infrastructure is so crucial for smart cities, a lot of cities are developing new applications in transportation, energy management, and other areas. The emerging internet of things requires a high speed and universal broadband. So the question is: what should President Trump do to improve our digital infrastructure?

MR. BROTMAN: Well, Darrell, as you indicated, there's really a twofold approach here. One is direct money investment by the United States. We saw that with the stimulus that President Obama had early in the administration. Looking back on that we had -- about one percent of that stimulus money went to broadband and digital infrastructure. that was administered both by the National Telecommunications and Information Administration and by the Rural Electrification Administration in the Department of Agriculture. A lot of that money went to specific projects which related to what's called Middle Mile, which is to create hubs where you can have various individual facilities, whether it's hospitals, libraries, schools, tie into that. And I think by and large, there's a general consensus that was a reasonably good approach. On the other hand, it wasn't enough money and not enough attention was paid on the private side, which is how do you stimulate private investment?

As I indicated at the beginning, I think one of the macro issues that the

Trump administration is going to be dealing with is tax reform, and one of the rules or

tools for tax reform are expanded tax credits. And so if we have some targeted tax

credits aimed at infrastructure development, and if digital infrastructure is considered part

of that, we might see a balanced approach between direct government investment, which

would be in some sort of stimulus bill, and an expanded tax credit approach.

I think one of the other interesting aspects is how infrastructure

development relates to spectrum policy. Many of you have heard of 5G, which is really

the next wireless technology that is out there. 5G sounds very wireless, but 5G requires

a lot of physical infrastructure. It requires a lot of fiber that essentially interacts and

interfaces with the wireless technology. And so the extent that spectrum policy will favor

a broad role out of 5G in this country, it's going to be essential to have enough

infrastructure built. And that infrastructure, again, will need to be built by the private

sector, either with direct government funding or with tax credits, or a combination of both.

MS. TURNER-LEE: And I'll add to Stuart's comment. I think this whole

conversation around the infrastructure bill that President-elect Trump put out, and the fact

that smart cities must be a part of that conversation, because the infrastructure bill is

going to determine not only the highways and the byways, but the enhancement of the

broadband infrastructure, particularly where in this last few years we've had trouble

connecting rural communities when it came to Last Mile and Middle Mile deployment. In

particular, those areas are probably the last portion of the type of connectivity we need to

see at the old level, not even the new generation, as Stuart mentioned, when it comes to

5G. But my opinion, when I think about the infrastructure bill, is that this administration

will have to look to state and municipal coordination as well. It is not going to be just a

federal initiative. There will be, for example, in the roll out of 5G technologies, more small

cell deployment needed. So there's going to have to be a conversation on polls and

siting and other issues that take place, not in Washington, D.C., but in local communities, among state and local legislators. So we're going to have to figure out a way for this administration to make the infrastructure plan work with broadband where it's not just an isolated conversation. And I would suggest that even in the case of what Darrell has mentioned with these assets, that we think about to the extent to which that we have so much investment in the infrastructure that it still creates the rate of return that is often the blockage to infrastructure build out.

And so in my prior work, we looked at, for example, places where we saw minimal build out, and they tended to be in very low census tract communities because they just weren't profitable. So, again, I think we see some promise in the infrastructure bill, but the devil will be in the details as to the extent to which it's actually going to be implemented and executed in a way that makes sense for greater deployment in a more sustainable fashion as opposed to programmatic fashion.

MR. WEST: The other big change that is taking place is, of course, GOP majorities both in the House and Senate. So the question I have for the panel, and any of you who want to address it can do so, is how much of the change, in terms of Trump's technology policy, do you think is going to take place through Congressional legislation on the one hand, kind of taking advantage of these new Republican majorities, versus focusing on the agencies? Because it seems like a lot of the Obama changes -- because we had a gridlock and divided political system -- went through the agencies, the FCC, the Federal Trade Commission, and then the Department of Justice. So which of these venues should we be focusing on the most?

MS. HENNESSEY: Donald Trump is a little bit of an unusual candidate because, of course, he does not align with the traditional view of the GOP on a number of really critical issues, including potentially this infrastructure plan. And so it's possible that

we will see a pretty profound realignment either of GOP values or of the relationship

between a Republican controlled legislature and the president himself.

It seems like the safe bet at this point is that Congress and the new

president will spend sort of the first six months, however long, addressing those low

hanging fruit issues, those areas that are relatively uncontroversial. I think sort of

potentially some Obamacare repeals might be sort of early priorities, contrary to some of

Niam's thinking. The real question becomes what happens whenever Donald Trump

runs up against a GOP that actually doesn't agree with him? Because we've seen him be

inclined to make things work, I think that it is possible that his reliance on the legislature

will diminish over time, and as soon as he hits those first roadblocks, we will start to see

him building on some of President Obama's legacy in terms of the authorities of

executive agencies. That may actually be an area in which the Democrats come to

regret some of the positions they took in terms of the power of executive authority and

rule-making, because, of course, they are no longer in power. And so those same

expanded authorities may be set to really quite different priorities.

MR. YARAGHI: And when it comes to health care, I think most of it

bipartisan, health information technology part. And there are already so many laws being

processed in the Congress that at some part they address the health IT issues.

However, given the nature of technology, which requires rapid response, I think the

agencies would be more positioned to address these issues. Specifically, when it comes

to health IT, I think there are two major areas. One of them is privacy, and the other one

is interoperability. And I think for privacy, the Office for Civil Rights will be best positioned

to address the issues there, and interoperability again is going to be through ONC. I

don't see anything in particular that Congress can do. And whenever they want to do

something about it, because they want to keep it very, you know, bipartisan, they have to

leave the details out. And then they come up with things that are really good on the face of it, but very difficult to implement. The good example is the MACRA, the law that replaced the "doc fix," and now every physician has to rewarded based on the quality of the services that they're providing. Nobody can in the Congress say that they are against increasing quality of health care services or reducing the cost. And that is why this legislation passed with overwhelming support from both parties. However, they didn't say how to do it, and they tasked CMS or HHS by coming up with rules that basically tells how the country is going to achieve those goals. And the MACRA final ruling that came out, I've never seen the medical community rally against something so strongly.

So again, I think Congress really, when it comes to health information technology, doesn't have a lot to do, and even if they want to do something, the importance is in the details, which the agencies have to decide about.

MS. TURNER-LEE: I just want to add on telecommunications policy. This is a ripe time for the rewrite of the Telecommunications Act. The Telecommunications Act has always been a bipartisan exercise in Congress and there's this opportunity to help with much of what the confusion was in the last few years, which is the outdated regulations of that Act and how it applies to media and telecom policy, but also the fact that the community has changed, the digital ecology is different. There are new players, and disruption has sort of unsorted out what used to be very clean connections and interrelations in the economy. So this would be, in my opinion, on way -- Greg Walden started this, Congressman Greg Walden started this a few years back with a series of white papers. And it didn't go forward because there were other things that came to the table. But this could be an opportunity for Congress, because this will be the first time that we'll see unified government at its greatest sort. Unified White House in terms of Republican White House, Republican FCC, Republican Congress, and

potentially Republican Supreme Court.

So given that, there should be some room to actually work on something, I think, that has really great value for sorting out some of the regulatory concerns and adapting beyond the telegraph to some of the new regulations that are affecting the community.

MR. WEST: I have a question on competition policy and then I want to open the floor to questions from the audience.

So in recent years we've seen a number of very high profile mergers, Comcast and Universal being one example. Right now AT&T and Time Warner have proposed a merger. So I'm just curious, on the campaign trail, Candidate Trump did express some reservations about large scale mergers, and he has expressed some criticism of the AT&T and Time Warner deal. How do you think he will handle competition issues, and how should he handle these issues?

MR. BROTMAN: I think some of these issues relate to process. There's been very poor coordination of a lot of these M & A transactions because they take so much time, and typically there's a little bit of wrangling that goes on between the Justice Department and the FTC as to who will be the primary agency. And then when there's a telecom aspect to it, which falls under the regulatory authority of the FCC, there's a second gate that these transactions need to go through. And so as a result, I think it makes a number of companies very reticent to go through this process.

To the extent that there is some streamlining of coordination between the agencies, that may send a signal whether or not more of those deals will be encouraged, or whether, essentially, we'll have the status quo.

During the Obama administration, there was an important Memorandum of Understanding that was signed by the Justice Department and the FCC, which

essentially said that when we have wireless deals, we will expedite them, we will be on a shorter schedule than a typical M & A transaction. So from a process standpoint, again in the world of what we would like to see done, it would be great if there are more of these Memorandum of Understanding between these agencies, particularly between the FTC and the FCC and the Department of Justice, not just in wireless, but in a variety of different transactions. So at least it will give enough confidence that if you're going to announce one of these transactions that the transaction will be considered on its merits as opposed to having the time run out.

MR. WEST: OK. Why don't I open the floor to questions from the audience? We have a question from the gentleman right here. There's a microphone coming up from behind you. When you ask your question, if you can give us your name and organization.

SPEAKER: (Inaudible), independent consultant. Question on technology transfer for any member of the panel, including the moderator. Given the pro-business stance of the incoming administration, any thought on how places like the National Labs, DOE National Labs, sort of phenomenal work, DARPA; those who enter the valley of death. Obviously, there are only two kinds of things, things that would have required a little bit more time, or things that should have been killed earlier. We don't know which, but they are both in the valley of death. Any ideas or concepts that you could recommend to the income administration, how to use those?

MR. WEST: I'll give you a couple of thoughts on what I think will happen, but also what I would like to see happen. I mean, Candidate Trump did talk a lot about deregulation, kind of spitting up commercialization. So there could be good news in the sense that he should be very enamored of valuing technology transfer and wanting to eliminate some of the obstacles.

The concern I have, just in looking at the early profile of this administration is it seems like Trump himself made his money in real estate, some of his early cabinet appointments and appointments to other administrative positions that are coming from the corporate world are coming from the old industries as opposed to the digital economies. And I think somebody mentioned before much of Silicon Valley opposed him during the campaign, with the notable exception of Peter Thiel. So my concern going forward is just whether he actually understands these issues of technology transfer, how to promote a digital economy. I mean he has a lot of experience in kind of thinking about the old style economy, but not nearly as much experience thinking about the digital economy.

MR. SCHUCKMAN: Thank you. My name is Greg Schuckman; I'm from the University of Central Florida. I had two questions.

Building a little bit on the last one, when I think about technology policy, I'm usually thinking also about federal investment in R & D. And so you talked about the R & D tax credit, but we haven't heard Candidate Trump, or anybody else really, talking about R & D funding. Appointment of Rick Perry as Secretary of Energy is interesting in terms of the Labs.

SPEAKER: That's another panel.

MR. SCHUCKMAN: Yeah, another panel. The second question is about internet governance. So that was an issue and, Darrell, I think you talked about bilateral instead of multilateral treaties and certainly internet governance, transferring ICANN oversight of the net instead of NTIA seems like something he would not be in favor of. And certainly Senator Cruz was making that point. So I was wondering if you can speak to that.

MR. BROTMAN: I think we could change the metaphor from low

hanging fruit to the ship has sailed. But essentially the transfer of ICANN has already

taken place. I think it's functioning well, will continue to function well. Clearly, it has

political capital for individuals like Senator Cruz. I don't think this is the type of cause that

the administration as a whole is going to want to take on. And, again, it really generates

very little political benefit other than to be able to say we were opposed to something that,

for example, the Obama administration -- so I don't see much activity in the ICANN area.

That also is an area that's outside of formal trade processes. And so it

really was not negotiated as a treaty, it's something that essentially was a multi-

stakeholder process that led to it, and so would not formally fall under any sort of trade

policies.

MS. HENNESSEY: I think one thing that will be interesting -- I agree,

sort of the horse is out of the barn -- pick your metaphor -- that there's nothing for them to

do there and that actually it's been a pretty clear success. But there is sort of this

broader question of how this administration will think about the global internet. And so it

will be incredibly significant whether or not they undertake measures to relieve some of

those pressures on fragmentation, on data localization. One of the reasons we've been

moving toward this multi-stakeholder model, giving more people a seat at the table, is in

order to prevent the fragmented internet in the first place. And so whether or not this

administration will pursue MLAT reform, you know, a constructive conversation and

relationship with, for example, China and Russia about our differing views on the nature

of the open internet, that's going to be enormously consequential. And that's just an area

in which we have very, very little information about even the broad instincts of the

incoming team.

MS. TURNER-LEE: I mean I love your question because I think this is

going to be the tension and the irony of what we're actually going to see in the next few

years, particularly when you talk about federal R & D investment, because we haven't

heard anybody talk about that. And there is going to be, I think, this nuance in this new

administration -- the extent to which pro-business means being anti-government, in terms

of anti-government support or resources or overspend, et cetera. And we're going to

have to balance that conversation because many great things have come out of R & D

investments over the past few years that we would want to leverage to continue to help

us to grow, particularly in this new economy.

And so I'm curious, as well as you are, because I have not seen it written

out as to how we will leverage some of those investments, and what they actually mean

to new discoveries in science, technology, and other areas that actually touch upon

cybersecurity or national security, et cetera. I mean I think there's this confusion, and I

think we're sort of seeing this play out with the jobs conversation right now, that it's

important for us to have a national brand, which I think everyone in this room

overwhelmingly agrees. But having that national brand should not put us in a state of

isolationism, where we're actually not looking at ways to build off of those successes that

may not necessarily be in the case of technology, brick and mortar, or space confined,

where you can actually see it. And so I think it's really going to be up to people and

leaders and organizations to speak to those interests and those needs so that this

administration can recognize the value of the full picture -- pretty much your question --

and not just one component of what will preserve national identity and integrity and

economic growth. We would be kicking ourselves in the foot -- another cliché -- if we

actually, you know, abandon a lot of that investment that's taken place.

MR. WEST: This gentleman here had a question.

SPEAKER: I'm from the Chinese Embassy. I'm concerned about the

manufacturing sector, because the signature program in the Obama administration is the

Manufacturing USA, which is, in my mind, first place. So would you think the Trump administration will keep this program in the future, and what will he do to advance the manufacturing and also the general manufacturing sector?

Thank you.

MR. WEST: I mean a lot of the thrust of the Obama administration has been an emphasis on advanced manufacturing, 3D printing, kind of new approaches; digital design as part of the manufacturing process. But the unfortunate consequence of that is if you look in recent years, manufacturing output actually has gone up, manufacturing jobs has gone up a little bit, meaning there's been a real gap there. So if you take Trump's campaign rhetoric seriously, that he wants to bring jobs back in the manufacturing area, that approach is not going to do it because we can introduce all these new digital techniques into manufacturing, they can become a lot more efficient, it doesn't produce a lot more jobs.

So I think this is where Trump ultimately is going to get caught between his campaign promises and what he's actually going to be able to deliver. He claims he going to be bring back manufacturing jobs -- I just don't see that happening, and not only is that not going to happen, but the reason why manufacturing lost jobs and was able to increase efficiency, that model is going to spread to other sectors. And so the job creation problem is going to move beyond the manufacturing area, especially as it affects those working class voters who supported Candidate Trump.

MR. YARAGHI: And I just want to add to what Darrell said. The decision to move jobs out of the United States for the companies is a strategic decision to become more efficient and cut costs. Now, if Trump makes it more expensive for them to import their products back into the United States and give them tax credits to remain in the United States, what they're going to do is not that they're going to keep their old

practices and continue hiring expensive American workers. I think it's an invitation for the

companies to automate even more than before. So we can have the case where Ford is

going to keep its factories in the United States, however it's going to keep the factories

that are much more automated and they're going to hire more robots in the United States

rather than actual human beings.

MR. WEST: There is a gentleman here, over on this side, who has a

question.

SPEAKER: Is there any policy that you can point to during the vice

president-elect's time as governor that might inform us in the absence of specific policy

by the president-elect himself?

MR. WEST: I don't have specific policies that I can point to, but I think

it's a perceptive question in the sense that I think Vice President-elect Pence is going to

be the de facto prime minister of this government. Trump has already indicated he

doesn't want the daily intelligence briefings; Pence is going to do that. Trump himself

doesn't care so much about policy details: Vice President-elect Pence does care and is

very knowledgeable about those things. So I do think Pence is the person to watch and I

think it is -- you know, what governors always do is they try and import whatever seemed

to work and what they were familiar with in their home state into the national government.

We saw that with Bush in Texas, Clinton in Arkansas.

So it's a great question.

MS. HENNESSEY: Just to pick up on that. I also think sort of this same

vein, we may see an unprecedented amount of authority and control in the members of

the Cabinet. And so looking at those selections, trying to draw out of there. Even though

in the Obama administration there were individuals who served in Cabinet positions that

actually positions that were quite different from the president's, we potentially should be

looking at them very closely to try and glean what the future of sort of their agency, just because I think they will have increased control.

MR. BROTMAN: And I think another important appointment to watch is the head of the White House Office of Science and Technology Policy. That has not been made yet. Often that is not very high profile given the other announcements that are being made. But particularly for our discussion today, and for many of you in the audience, that's a very critical position to watch.

MS. TURNER-LEE: I was just going to say, on the Pence piece, I think I agree with everybody on the panel with regards to him being maybe the conscience of some of these issues. But I think looking at some of the recent decisions around manufacturing, we do, you know, coming from a Midwest town, we do have to be careful if the technology discussion is actually going to abound, right, in those discussions under Vice President Pence because of the way that that infrastructure -- you know, the infrastructure of Indiana is developed. And if you look at the tax incentive and where it went, for example, in the Carrier deal, is that where we want incentives to go when it comes to these conversations we're having around automation and advanced manufacturing.

So, again, I think it's going to be one of those where he'll be the conscience, but we also have to maybe break some people out of the box a little bit to ensure that they actually take this fuller picture of all the issues that we're actually talking about.

MR. WEST: That's a good point, Nicol. Indiana is not Silicon Valley, and I say that as a native Hoosier.

Right there is a lady with her hand up.

MS. STERN: Thank you. I'm Paula Stern. I'm asking my question on

behalf of the National Center for Women & Information Technology, NCWIT. And with

apologies to the speakers, I did come in late, you may have already covered the

questions that I have about human resources and preparing the workers of the future for

the technological innovation leadership, which we have had in the past and hopefully will

maintain under the Trump administration. The OSTP question, of course went to the

heart of that in the sense that they have been so active at the White House. I think

Obama has been the computer science for all initiative. It could go along with all the

other Executive Orders.

So I'd like you to address what you expect Trump, president-elect, to do

in office, and also address the issue of diversity in the workforce, which has been a

tremendous challenge which has required, overall, our economy to rely on importing

skilled labor, and even that's not adequate. So if you could address the computer

science for all, the K-12 initiatives, and -- particularly is important to me today it seems

because the President is speaking with a number of leaders in the business community,

but even in the corporate world of Silicon Valley the role of diversity has been quite

dismal. And I'm wondering where you think the input to the Trump administration will

come with regard to assuring that we do have a future in our human resources to go from

the manufacturing emphasis to the digital age.

MS. TURNER-LEE: So if I look at, Paula, his Cabinet, I have concerns,

right, that your question is not going to be answered under this administration. I mean

we're seeing a couple of things happen here, folks. We're seeing a president that was all

about multiculturalism and completely liberal on policies, and it's going to be a complete

change. And I think that's going to be somewhat of a shock for some of the initiatives

that were actually housed at the White House. The Caucus on Women and Girls, for

example, was a vital role in actually bringing in more conversation about computer skills

among women, you know, in general, and underrepresented women and girls in particular. There have been other initiatives that have come out of OSTP that have been so valuable in actually raising the cause for concern, because what we're finding in this country that while we have a group of people that are on the upward trajectory of getting involved with STEM, the numbers are still dismal when it comes to underrepresented groups, women and girls in particular, and women of color and girls of color more specifically.

So I don't know what's going to happen. I mean we would hope that we would see this spiral of investment to continue in women. I don't know, by some choice words that have been in the press from women leaders that are associated with the Cabinet, they're not promising, because they challenge many of the values that women have worked towards in terms of being in the workplace and being a mother, me being one of them. I'm not going to say who, but it's in the paper. And I think we're going to actually have to look at some of the people that he is also putting in and see if they're actually going to be representative of that type of diversity.

I want to say, on the point of education, I mean that department is one that everybody in this room should be watching. Not, you know, just that the administration is opting -- I think as someone said for more private entrepreneurs to run government agencies -- but the extent to which again we look at the U.S. federal government as a place that has to have some level of stewardship when it comes to public interest, and whether that's actually going to happen. If we're going to see, again, at the Department of Education some of those programs sort of unraveled because of the emphasis on charter schools.

On the diversity problem -- it's the last thing, Darrell, I'll say on Silicon Valley. So I found it very interesting, today's meeting -- and, you know, we've been told

we can say whatever we want, so I'm going to use that liberty for a second -- that there was this meeting that, not publicly, but an agenda item came out that the Silicon Valley meeting today was going to be about jobs. And I would laugh to myself as I read the article, I was like "Now you know they don't have the best record when it comes to jobs and diversity, so how is that conversation going to go?" You know, I think many of the things that we're talking on this panel, the knowledge economy that's bolstering, right? Think about the number of U.S. citizens, the people who voted for him that are ready for those jobs. In Silicon Valley right now we're seeing less than five percent of representation of people of color in key positions. How is that going to happen if there's not a concerted effort? The Congressional Black Caucus tried to make diversity an issue, and we saw a lot of change actually. I want to give credit to those companies that have tried to put those pieces in place. But if the focus is on jobs, you need a multicultural, you know, strategy to also make that work. Because the interesting thing about, I think, these next four years that all of us should have our seatbelt on, is that the country is going to look very different at the end of this four years in terms of demographics. So if we're going to go through a period of time where we're not taking into consideration that the workforce is going to be flip-flopped to look very brown and red and other colors, you know, the extent to which we actually don't make those changes now is going to influence the type of discussion we're going to have at the end of that term.

So I think your question is very relevant and I think we need to continue, I think Stuart is right on. Depending on who gets into that position will determine the type of progressive programs, like the Women and Girls Caucus, et cetera, you know, that will continue, that in many respects, were contributing to solving many of those issues.

MR. YARAGHI: Well, Nicol, I couldn't agree with you more on the issue

about the importance of the Department of Education, because if you want to bring more diversity into the workforce, specifically bringing more women, I think there is nothing more important than educating women so that they can compete. But when it comes Silicon Valley, I think Silicon Valley is the envy of the world. They have been very successful in innovating and creating jobs, and the fact that you don't see diversity there I think, you know, diversity should not be a goal. You cannot go to Google or Facebook or other big giant Silicon Valley companies and say "Hey, we have 52 percent of our adult population in females, therefore you should also have 52 percent of your people to be women." I think you should hold them accountable to bring equality when it comes to opportunity, so they should not discriminate against women because of their gender, and therefore they should also not discriminate against men because of their gender. That would be equality and that is what would bring, you know, innovation and prosperous jobs. I don't see any reason to push Silicon Valley from the government to say "You should hire more women," or "You should hire more people of color." And you're talking about diversity and you were critical of Silicon Valley of being not diverse while they are the biggest employer if H1B visas, which by definition are the most diverse you can get in the United States.

So if Silicon Valley is open to bringing people from my country, Iran, from other countries and, you know, deal with them not knowing the English language and, you know, going through a lot of problems that a new foreigner brings with himself in the United States, then how could you say that they are against hiring American women? I don't think anybody in the Silicon Valley has anything against women, and if they do, they are paying a price for that because they're really stupid if they have that grudge against women. I think they don't have it and they are very successful because they are businesspeople and they understand the value of diversity.

MS. TURNER-LEE: Okay, now, Niam, you're about to get -- you're about to get jumped by your colleagues on this one. (Laughter)

MS. HENNESSEY: I will come to Nicol's defense briefly. As a woman who works in an underrepresented area, I'm not aware of the significant barriers to diversity that men currently face (laughter), but I think that's an important point. Look, I think the bottom line -- and obviously there's diversity of opinion here -- is that we cannot expect these efforts to be led by the federal government for the next four years. As a practical matter, either because of different views in terms of the role of the federal government, because the president-elect himself doesn't appear to care about these issues because they're progressive, whatever sort of the reason is, the realistic sort of approach is just to recognize that that's not going to be where it comes from. And so these efforts are going to have to be community-based, state-based, you know, come from private industry themselves. I'm hopeful that we will see, sort of, various groups rising to the occasion, but I think it's fair to say that we're going to have to see that leadership, those initiatives, coming from somewhere that's just not White House.

MS. TURNER-LEE: And I want to add to this, because this is an area that's near and dear to me in terms of Silicon Valley and diversity and, you know, in conversations with those companies. I mean, the bottom line is that the consumption patterns, what's driving Silicon Valley, are all of us. And we are women, we are people of color, we are older Americans, we are people with disabilities, we're white men. But the problem is you still have an industry that disproportionately employs, within this country, these underrepresented groups. And as the global economy becomes highly consumed in terms of capital investment and capital share by these industries, it's just an unfair balance to have the majority of those industries not employing, at higher levels, people of color, women, and others to make those decisions. Because what people don't realize,

when you have that -- and I wrote a blog about this actually on the Brookings's TechTank -- what happens when you have homogenous workforces -- and I think this is not a goal and value of the United States -- you generate unconscious bias. And unconscious bias leads to, in the case of technology, oftentimes algorithmic value, so discrimination, and we replicate in this new burgeoning economy, the same old stuff that we've been doing for years. And the neat thing about the new sharing digital economy is that it allows us to do things differently. It lowers the barriers of entry for entrepreneurship for females; it lowers the barrier of obvious attention for people of color who want to be innovators.

And so I was with you the first part, Niam. Education is going to be the critical agency to ensure that people are educated and have the skill set needed so they don't drop out of the pipeline, but these other issues that we're talking about are equally important. We need to ensure that we have an administration -- and we're not on this topic because we're only talking about tech -- but that represents and respects the values of women in this country and people of color, no question.

MR. YARAGHI: Absolutely. Nobody should question that. I mean, I never implied or questioned -- it's too stupid to say that -- I mean, who can question the value of women? Nobody. I mean it's just --

MS. TURNER-LEE: We'll roll the tapes, so we'll see. (Laughter)

MR. YARAGHI: No, no, no. I want to be really, really serious about it. You know, you cannot put words in my mouth. I never said that we should ever question the value of anybody, let alone women.

MR. WEST: OK. Other questions? Right here, this gentleman on the aisle has a question. Right here.

SPEAKER: One of the answers you gave me really prompted a question for me. So the question about the National Network of Manufacturing Institute, so what

the Chinese Embassy gentleman asked. And I think your response was "These are

focused on advanced manufacturing, these are going to be developing the kinds of jobs

that are not what Trump's people are looking for." And I think everybody who has looked

at this has said that "Manufacturing jobs that left are not the ones that are coming back.

It's going to be these advanced manufacturing jobs." So I don't want to use the term

Luddite, but are we looking at, you know, as we're talking about autonomous systems

and we're looking at increased use of AI, are we looking at a danger of perhaps push

back on the kinds of R & D that the country would have gone in were it not for the fact

that Trump supporters probably don't want to see that?

   MR. WEST: The people who voted for Donald Trump were voting for a

U.S. economy where the types of manufacturing jobs we had 20 or 30 years ago are

going to come back. I just don't see that happening. And not only do I not see that

happening, but as you point out, we're going to see the kind of disruption that developed

in the manufacturing sector spread to other areas. So just to give an example, with

autonomous vehicles, we've done some research on this One of the first niches that's

going to adopt autonomous vehicles is going to be the truck driving area. We're already

seeing truck companies experiment with this. Truck driving is a job -- it's a great job for

working class individuals with a high school education. Basically, you can graduate from

high school, go to a truck driving academy, and a few months later you have a license

and you're out making really good wages. Those jobs are going to start to disappear,

and we're going to see that in other areas as well. Like, you know, some of those

traditional jobs that the person graduating from high school who does not want to go to

college had access to and are good paying jobs, they're just not going to be there.

   And so I think the question for Trump is going to be: how is he going to

square what he said on the campaign trail with what those voters want, and what he's

going to be able to deliver in the next four years?

SPEAKER: One comment, one question. I saw recently a map of the United States that showed the highest frequency job title in each state, and in over 40 of the states, that title was truck driver. So that's a real problem.

My question to the panel is, OK, given the impact of artificial intelligence, autonomous vehicles, and so forth, what position do you think the Trump administration should take in terms of taking this -- which I happen to agree with you is inevitable -- what can they do about it to try to create jobs for the people that voted for him?

MR. WEST: I mean it's very possible to -- there are two things they can do. One is, kind of, focusing on job creation in whatever sector they can get them. And certainly when you look at the Department of Labor, it's, like, the big growth area over the next decade is going to be health care. Like, that's where the biggest portion of new jobs is going to be created. But the second thing this administration needs to do -- and in this area I would also critique the Obama administration, because I don't think that administration handled this particularly well -- which is we're basically in a situation similar to where we were in the early 20th century when we were moving from an agrarian economy to an industrial economy. There is a role of government, as well as a role of the private sector, to help people ease that transition. Now we're moving from an industrial era to a digital economy. We need worker re-training programs, we need schools that are giving students the skills they're going to need for the 21st century jobs, not 20th century jobs that are going to be disappearing. I don't think the older administration -- and I worry that the new administration is not going to help people make that kind of transition, because it's not just a question of the lost manufacturing jobs, it's a structural change in the overall economy. It's much bigger than any government you know, we can't stop that kind of change. So the real response has to be to help people make the

adjustment by getting the proper skills they need, and for the older workers, helping them develop new skills. So we need to focus on adult education, worker re-training, and other things that will help people make those types of transitions.

I think we are out of time, but I want to thank our panelists, Stuart, Susan, Nicol, and Niam. We really appreciate each of you sharing your views, and I thank you very much for coming out. (Applause)

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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.

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