

U.S. DEPARTMENT OF COMMERCE
OFFICE OF ADVISORY COMMITTEE

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U.S. MANUFACTURING COUNCIL MEETING

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THURSDAY,
APRIL 12, 2016

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CLEVELAND, OHIO

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The U.S. Manufacturing Council Meeting
convened at the Union Club of Cleveland, 1211
Euclid Avenue, Cleveland, Ohio at 9:15 a.m.

PRESENT:

SUSAN SMYTH, Chair, Chief Scientist for GM
Manufacturing
CLAUDINE MARTINEZ, Vice Chair, President
& General Counsel, MCT Industries
JAN ALLMAN, President, CEO & General Manager,
Marinette Marine Corporation
CHRISTIE WONG BARRETT, CEO, Mac Arthur
Corporationb
CRAIG FREEDMAN, President & CEO, Freedman Seating
Company
ROBERT FRIEDLAND, President & CEO, Proton OnSite
CODY FRIESEN, Founder, Fluidic Energy
HIROYURKI FUJITA, Founder, President & CEO, QED
ALBERT GREEN, CEO, Kent Displays
DAWN GROVE, Corporate Counsel, Karsten
Manufacturing Corporation
JAMES KEPPLER, Vice President, Integrated Supply
Chain & Quality, Whirlpool

KATHLEEN KINGSCOTT, Vice President, Strategic
Partnerships, IMB Research, IBM Corporation

ZACHARY MOTT, Chief Alignment Officer, Atlas
Tool and Die Works

TIMOTHY O'MEARA, President, GEMCITY Engineering
and Manufacturing

ANDRA RUSH, Chief Executive Officer, The Rush
Group

MARSHA SERLIN, Founder & CEO, United Scrap Metal

IRWIN SHUR, Vice President, General Counsel &
Secretary, Snap-on

JEFFREY WILCOX, Vice President, Engineering,
Lockheed Martin

RAYMOND YEAGER, President & CEO, DMI Companies

BILL YEARGIN, President & CEO, Correct Craft

MEGAN BREWSTER, Fellow of the Oak Ridge Institute
for Science and Education, Department of
Energy, and Senior Policy Advisor for
Advanced Manufacturing, the Office of
Science and Technology Policy

SUSAN HELPER, Carlton Professor of Economics,
Case Western University

ETHAN KARP, President & CEO, Manufacturing
Advocacy and Growth Network

ARCHANA SAHGAL, Director of the Office of
Advisory Committees and Industry Outreach

DANA SMITH, Senior Policy Advisor for National
Manufacturing Policy, Office of the
Secretary

LAURA TAYLOR-KALE, Deputy Assistant Secretary for
Manufacturing

LI ZHOU, Deputy Director of the Office of

Advisory Committees and Industry Outreach

ISRAEL MARTINEZ, Chairman, Axon Global

XIANG ZHAO, Staff Researcher, GM

PETRA MITCHELL, President & CEO, Catalyst

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P R O C E E D I N G S

(9:15 a.m.)

DR. SMYTH: Ladies and gentlemen, I would like you welcome -- I would like to welcome you to the U.S. Manufacturing Council Meeting in Cleveland, and officially open the meeting.

Before I run through the agenda, I would like to read a letter from the United States Senator Sherrod Brown.

"Dear friends, please allow me to extend my sincerest welcome to the U.S. Manufacturing Council and U.S. Department of Commerce as you commence an open meeting, reviewing possible means of enhancing high school education programs. Cleveland's industries and its workers are committed to working in service, preserving our natural resources, and making innovations in science and technology. I can't think of a better place to discuss such an important issue than Cleveland, a manufacturing hub for not only Ohio, but for the United States. Congratulations and good luck on your upcoming

1 deliberation. You have my best wishes for the
2 years ahead. Sincerely, Sherrod Brown, United
3 States Senator."

4 So thank you very much.

5 So moving to this morning's agenda --
6 we have a very tight schedule, so I'm going to
7 apologize in advance if I need to move the
8 dialogue on at times. We have a number of
9 updates from the Department of Commerce. We have
10 some comments, a little bit of a recap on
11 cybersecurity discussion. We have a guest today,
12 Ethan Karp, President and CEO of MAGNET, who will
13 be discussing the MEP extension partnership. We,
14 again, have Dr. Sue Helper, with a little
15 continuation on the supply chain discussion. And
16 then we have a deep dive on one of our
17 subcommittees, the workforce development
18 discussion. And then we finally wrap up with
19 each one of the subcommittees giving a brief
20 update on what the status is on their
21 initiatives.

22 So I would like to pass the chair to

1 Vice Chair Martinez.

2 MS. MARTINEZ: Well, good morning
3 everyone. Before I get started with the official
4 agenda, I'd just like to tell everybody that the
5 resounding result of yesterday's activities, both
6 from our government colleagues that we have here
7 -- very privileged to have here, as well as our
8 Cleveland community colleagues that Hiro and his
9 team were able to assimilate. Everyone said they
10 were just in awe of the comradery and the respect
11 that we all have for another, and how we're able
12 to create the sort of ecosystem. We're able to
13 discuss these very complex issues and really
14 actualize some very specific actionable items for
15 the Secretary. So I think everyone deserves a
16 round the applause, especially Hiro and his team.
17 So thank you.

18 All right, I'm going to start with
19 Lieutenant Colonel Dana Smith, Secretary
20 Pritzker's senior policy advisor for the national
21 manufacturing policy. I'm also going to
22 introduce Ms. Laura Taylor-Kale. I think I

1 mispronounced that, and I apologize to you,
2 ma'am. I should have checked that yesterday. So
3 -- beautiful name -- deputy assistant secretary
4 for manufacturing, who we heard from yesterday as
5 well. So I'll turn -- I'll turn the chair over
6 to you.

7 Colonel?

8 LTC SMITH: Thank you. My pleasure to
9 be here today. And then what I want to do real
10 quick was give you an update, from my perspective
11 in the Secretary's office, on NNMI, IMCP, and
12 Manufacturing Day; a brief kind of one over the
13 world.

14 And I'll start with NNMI. First up,
15 there was a lot of work going on this year, in
16 the first real year of the network. There's a
17 branding effort underway where we are in
18 partnership with the Department of Energy in
19 working to come up with a brand for NNMI. The
20 confusion that's been caused by NNMI, IMI, MIII.
21 So they're trying to simplify that and the goal
22 is by September 12th at the International

1 Manufacturing Technology Show in Chicago to
2 announce and unveil this branding effort.

3 There is an effort to do some shared
4 services where Commerce, as the lead agency over
5 the network, is looking to provide common-core
6 services to the institute. So this is going to
7 become more important as there are more
8 institutes. I won't bore you with the details of
9 exactly what the five things are, but just know
10 that there is an effort for Commerce to get their
11 hands around the network and provide value to it.

12 As I think Jeff mentioned yesterday,
13 the DOC competition started in February. The
14 first round of proposals are due -- the first
15 proposals are due next Wednesday, at which point
16 this team, with other government folks can sit
17 down and evaluate the proposals that come in, and
18 they will take 30 days and request full proposals
19 from those folks that submit.

20 But from a government standpoint, and
21 I've already set expectations of this in the
22 Secretary's office, we're not going to know at

1 the government level what those topics are.
2 We'll probably get feedback on how many, but
3 that's part of the fair competition piece. So
4 it'll be interesting.

5 In terms of the number of institutes,
6 there's a lot of math behind this, but
7 essentially whatever the FY17 funding comes out
8 to be is going to drive how many institutes we
9 fund. It may be one, it may be two, it may be
10 three. It's really going to depend on what is --
11 what are the proposals and how much money is
12 available. But the intent is to do as many as
13 possible.

14 April 1st, DOD announced their newest
15 institute up in Massachusetts -- the
16 Revolutionary Fibers and Textile Manufacturing.
17 We like to call this "smart fabrics." This is
18 the -- I'll read it off their website, "Fiber
19 materials and manufacturing process will soon
20 allow us to design and produce fabrics to see,
21 hear, sense, communicate, storage for energy,
22 regulate temperature, monitor health, and change

1 color." And they are also working a RFI at the
2 moment to find their next topic for their next
3 institute. And I understand last night, DOE has
4 released theirs.

5 DR. BREWSTER: Exactly, so -- exactly
6 as Dana was saying. DOD is -- has -- is working
7 on finalizing their RFI for their next two
8 institutes. And DOE recently announced their
9 Notice of Intent on Friday, I believe, of last
10 week for Modular Chemical Process
11 Intensification, and that will be one of two
12 institute topics; the second topic they'll be
13 announcing in the future.

14 LTC SMITH: And there is an underlying
15 effort to make sure that we do not duplicate
16 efforts. So we will not have two of whatever
17 Megan just said. Moving along to IMCP, we do
18 have -- this spring, there is bicameral --
19 bipartisan support for an IMCP Bill. We've been
20 working offline with Congress on some of that.
21 The one thing I would highlight for the council,
22 IMCP designation is not going to confirm the

1 designation. The thought process behind that, we
2 don't have enough manpower to have 36-40, however
3 many communities are out there.

4 So right now it's looking at a four-
5 year consecutive designation of what we're
6 looking for, at which point that helps free up
7 that target designation to four communities. And
8 should a community that wasn't previously
9 designated want to reconvene at a later time,
10 that's kind of where we were going from an intent
11 standpoint.

12 I will tell you that coordination
13 between the interagencies -- basically, you're
14 got 13-plus agencies out there trying to provide
15 goods and services to these communities and
16 that's a challenge. But nevertheless, we're
17 working through it to make sure that those
18 federal funding opportunities get communicated
19 and pushed out to the community so they know
20 what's available.

21 We also have an effort underway to
22 measure of impacts of IMCP; that's always one of

1 those questions. So this year they're going to -
2 - without being asked, we're going to start
3 writing a report to kind of highlight what's
4 working about the program.

5 Manufacturing Day -- and I talked a
6 little bit about this last night, but the view
7 for Manufacturing Day -- and I open this up to
8 the council for your consideration, definitely
9 want a short list type of event. Right now we
10 don't have the Secretary committed. It's my
11 personal goal to get Education, Labor, and then
12 Commerce Secretaries in the same place at the
13 same time to help create the story of the
14 interagency support for Manufacturing Day.

15 I have not asked exactly where that's
16 at, and I've had conversations with the White
17 House, et cetera. So the long story short is, if
18 there is an event that as announced you think
19 would be a good recommendation, please let me
20 know, and I will pass that along to my follow-on
21 Erin Sparks.

22 The last point I'll make -- actually,

1 it's not last point. Endorsers and sponsors and
2 co-producers of Manufacturing Day really working
3 hard to reach out to the larger corporations and
4 get them to sign on to be endorsers or sponsors
5 of Manufacturing Day. Shell Oil, since the
6 beginning of this, has been the number one
7 contributor at \$70,000 a year to make
8 Manufacturing Day work.

9 Their annual budget, and it works out
10 to about \$198,000, so I mean, this is peanuts in
11 terms of the grand scheme of things. But most of
12 the endorsers are out there at \$7.5 to \$250,000.
13 So it's one of those things that we hope to get
14 more legitimacy into the event by getting, you
15 know, even the major corporations. If they
16 endorse it that helps us get the message out
17 there that this is a nationwide effort.

18 I'll give you a little insight on the
19 3,000 event goal we had set; that's not a real
20 good measure of success. However, it's easily
21 communicated that the goal is 3,000. Really what
22 we would like to see is more people at events

1 however that math works out to; but that's really
2 hard to communicate. So 3,000 is the number.

3 And I also will say that we are working with
4 Labor to help cross-promote, not only
5 manufacturing, but the National Apprenticeship
6 Week, which will follow shortly thereafter. So
7 there's some stuff on there.

8 Quick comment on TPP, basically what
9 I -- well, I'm not a TPP expert, but when I asked
10 our experts they said essentially the talking
11 point -- and we still have the President, and the
12 Speaker, and the Majority Leader that support
13 this; the pro tra. And essentially it's -- we
14 are standing by to help Congress when they're
15 ready to work on it. And there still is a vision
16 that this is possible to pass in this
17 administration, so. And that's all I have for
18 you.

19 DR. SMYTH: Thank you, Colonel Smith.

20 MS. MARTINEZ: Do you want to go next?

21 MS. TAYLOR-KALE: Sure, thank you. Is
22 this working? Great.

1 Thank you very much. I -- it is my
2 absolute pleasure to be here. As you know, I'm
3 now day seven on the job. And I -- well, first,
4 I'd like to thank the chair and vice chair, Susan
5 and Claudine, for their leadership; Dr. Fujita
6 for planning these meetings here in Cleveland. I
7 thought yesterday was great. I thought the
8 opportunity to interact with Cleveland community,
9 and sort of the community at large, on
10 manufacturing issues. The opportunity for you
11 all to present the work that -- the hard work
12 that you all are doing I think was great.

13 I also want to acknowledge former
14 Manufacturing Council member and my predecessor,
15 Chandra Brown, and thank her for her leadership
16 and collaboration. It makes it much easier to
17 step into a job like this when you have, you
18 know, a short timeframe when you know that your
19 predecessor established really strong
20 relationships with the people in the room that
21 you're about to go meet with. So I am -- I'm
22 really excited to be here and really thankful for

1 her work, and you all's work in the past year. I
2 hope you realize that you've only been doing this
3 for a year. Like, you've had a year to come up
4 with these recommendations.

5 As I mentioned yesterday, I've gone
6 through all the letters that you've written, and
7 I could tell how much of your own time and
8 resources that you put into this council and into
9 the idea of being able to give the Secretary
10 actionable ideas on how to -- how the Department
11 of Commerce can support manufacturing. It's
12 very, very -- very much evident. So I want to
13 commend you for the work that you've done thus
14 far. .

15 As I noted yesterday, I come to you
16 all with a background in international finance,
17 development, and economic policy. And having
18 lived overseas, particularly in Africa and Asia
19 for almost all of my career, I am an unabashed
20 enthusiast for American exporters, manufacturers.

21 In the countries that I lived in, the
22 opportunity to have the quality and the standards

1 that you all bring, either as investors or as
2 exporters, is critical. And I've heard from
3 business leaders and government leaders in all
4 these countries that I've lived in that they want
5 that.

6 So know that I will be a partner, I
7 will be an advocate for you, and also having come
8 from the career government service before
9 becoming a political, I am also very mindful of
10 how we can embed a lot of the partnerships and a
11 lot of the agreements that we put in place in
12 this administration on for the next
13 administration. .

14 So I will just add a couple things to
15 what Dana mentioned. We also, within the
16 International Trade Administration, are working
17 on the President's trip to Hannover Messe later
18 this month to highlight U.S. goods and products.
19 I will likely also be attending that as well. I
20 think I'll be on day 20 by that point; that'll be
21 good.

22 We are also nearing the completion of

1 our next set of top market studies; and you all
2 are probably very familiar with them already,
3 you've probably already actually contributed to
4 them. But each report will focus on future
5 export opportunities. So look forward to those
6 coming very soon. I will also make a point of
7 making sure that you get a special note that --
8 when they come out. So please be ready for those.

9 Other than that, I'd like you all to
10 think about -- and certainly in your final time
11 here, this meeting, you have another meeting
12 coming up, to really think about how we can focus
13 the priorities that you've laid out for the
14 Secretary. And, like I said, I'm going to be
15 your advocate.

16 I will be happy to take on and sort of
17 think about how we can accomplish some of these
18 things over the next several months. I'm known
19 as a doer, so let's try to work together on this
20 and try -- and like I said, I, myself, and my
21 staff will be a resource for you all as a
22 council. Thank you.

1 DR. SMYTH: Thank you very much, Ms.
2 Taylor-Kale.

3 So I would like to open the floor for
4 any questions to Ms. Taylor-Kale and to Colonel
5 Smith.

6 MS. RUSH: I have a question. Dana,
7 what kind of venue --

8 MS. MARTINEZ: Excuse me, Andra, could
9 you identify yourself for the record, just so we
10 have a clean
11 just so we have a clean record --

12 MS. RUSH: Yes.

13 MS. MARTINEZ: -- record, please?
14 Thank you so much.

15 MS. RUSH: Sorry. Andra Rush,
16 Workforce Council Subcommittee and President of
17 the Rush Group. My question is what types of
18 venues seem to be most attractive for the
19 Secretary to visit on Manufacturing Day? Perhaps
20 you can give me a couple of examples from the
21 previous Manufacturing Day events. Thank you.

22 LTC SMITH: Well, yeah. The -- her

1 preference -- she really loves getting out and
2 talking to people, loves interacting with the
3 kids. So from a -- any event that we will
4 recommend for her to attend, it's less about the
5 politicals that will attend. It's less about the
6 specific company. It's about engaging -- and she
7 loves that story and talking to the people that
8 are making it happen. So a large executive
9 roundtable is not what we're looking for. It's -
10 - and it's not to interject herself into the
11 process, but she just wants to be there and bring
12 attention to what's going on.

13 MS. RUSH: Thank you.

14 DR. SMYTH: Do we have any other
15 questions?

16 Okay. I think this is an indication,
17 Laura, of the level of conversation that happened
18 yesterday rather than the level of disinterest
19 this morning. So and, again, a reminder that
20 this is our second to last meeting, not our last
21 meeting. So we have more opportunity for
22 dialogue between now and then, so.

1 Okay. So again, I'd like thank
2 Lieutenant Colonel Dana Smith and Department
3 Assistant Secretary Taylor-Kale.

4 And I would like to introduce Dr.
5 Megan Brewster. And Megan will give us an update
6 on cybersecurity. Oh, I apologize, Megan will
7 give us an update on democratizing manufacturing.
8 Thank you, Megan.

9 DR. BREWSTER: Thank you. And if
10 anyone does have questions about cybersecurity,
11 I'm happy to take those as well.

12 DR. SMYTH: Thank you, Megan.

13 DR. BREWSTER: I just wanted to
14 provide a little bit update from the Office of
15 Science and Technology Policy within the
16 Executive Office of the President, where I sit
17 and work on advanced manufacturing broadly,
18 including cybersecurity for manufacturing. This
19 is a particular topic area that I thought you all
20 might be interested in learning about. I'm sure
21 you all have interest in this area as well. And
22 it's the democratization of manufacturing; that

1 is bridging the gap between maker and
2 manufacturer for small batch manufacturing.

3 OSTP is interested in supporting the
4 development of hardware, software, and platforms,
5 be them: knowledge transfer platforms, business
6 platforms, space for small batch manufacturing,
7 what have you. We're defining this space very,
8 very broadly.

9 To help give you some examples of
10 technologies already in this space, when we think
11 about hardware, for example, the 3-D printer has
12 really democratized manufacturing, desktop CNC
13 mills have democratized manufacturing. This is
14 the equipment that an individual -- a small group
15 of individuals may be able to purchase themselves
16 or may be able to access at a MakerSpace, for
17 example.

18 We want to engage in the dialogue
19 around democratizing manufacturing at a few
20 points along the calendar year for 2016 that I
21 want to make you all aware of. The first
22 opportunity is an ideation that will be hosted by

1 the Alliance for Manufacturing Foresight.
2 MForesight, which as you know, is a think and do
3 tank that was stood up by NIST and NSF out of --
4 coming out of the recommendations from the
5 Advanced Manufacturing Partnership, which were
6 then adopted by the PCAST and embraced by the
7 President.

8 So MForesight will be running that
9 ideation, and you can find more information on
10 their website. I think right now they just have
11 a little teaser in the corner, but more
12 information will be coming soon. The second
13 opportunity during this calendar year will be the
14 National Week of Making. So that was recently
15 announced. The dates for the National Week of
16 Making will be June 17th through the 23rd. So
17 again, there will be opportunities to engage in
18 this dialogue around maker to manufacturer.

19 And then the third opportunity, of
20 course, is Manufacturing Day. As Dana discussed,
21 this -- the topic of democratizing manufacturing
22 will be just one of the topic areas I think that

1 Manufacturing Day will cover. But we're very
2 excited to engage in that dialogue at that time
3 as well.

4 So I wanted to make you all aware of
5 this. If you would like to discuss more of
6 these, let me know. From the OSTP perspective
7 and the White House perspective, we see that both
8 the National Week of Making and Manufacturing Day
9 as an opportunity to learn about announcements
10 that you all may have, or other folks in the
11 manufacturing community, be that companies, be
12 them universities, nonprofit organizations, and
13 associations. So if that's of interest to you,
14 please let me know.

15 I also just wanted to very quickly
16 highlight one separate topic, the National
17 Science and Technology Council; the NSTC. There
18 is a Subcommittee on Advanced Manufacturing. The
19 NSTC is a legal framework by which OSTP can host
20 interagency conversations.

21 So the Subcommittee on Advanced
22 Manufacturing has about 15 agencies that come to

1 the table to talk about advanced manufacturing;
2 that group was rechartered and has been very
3 active, again as -- in response to a
4 recommendation from the Advanced Manufacturing
5 Partnership.

6 And we've just recently, on April 1st,
7 released a report that articulates technology
8 areas that are common priorities across the
9 federal agencies. So you can find that report on
10 the NSTC website, and I'm happy to talk with
11 anyone more about that as well. So thank you.

12 MS. MARTINEZ: Excellent. Thank you,
13 Dr. Brewster.

14 Do we have any questions or dialogue
15 we'd like to engage in with Dr. Brewster? I'd
16 like to remind you all that we have a very
17 captive audience now of leaders, so now is your
18 chance.

19 MR. MOTT: Hi, this is Zach Mottl
20 with Atlas Tool Works. I always appreciate the
21 discussion around democratizing of manufacturing.
22 I'm always slightly curious (a) what it exactly

1 means and (b) as a small business, who
2 specializes in small lots and prototypes and
3 things like that, I'm always concerned for an
4 undermining of a business model. There are a lot
5 of businesses who do that.

6 But I would -- you know, we specialize
7 in prototype work, but I would assume that
8 typically if customers need the level of
9 sophistication of what a company like mine or
10 others in the room would provide, they would be
11 willing to pay for that. But I do appreciate the
12 enthusiasm and bringing more excitement and
13 interest to manufacturing that these type of
14 maker movements can bring, but always am
15 cognizant of the business models that are out
16 there as well based on that type of work.

17 MS. MARTINEZ: Okay, thank you.

18 Anyone else? All right, if there are
19 no further discussion points -- thank you Dr.
20 Brewster.

21 I'd like to introduce Mr. Martinez --
22 Mr. Israel Martinez. He addressed us yesterday

1 on cyber. And I'd like to thank both him and Dr.
2 Brewster for their engaging conversation that we
3 had yesterday.

4 Mr. Martinez?

5 MR. MARTINEZ: Sure. Israel Martinez,
6 chairman of Axon Global. So I'd like to begin
7 with first thanking the council for the hard work
8 that you've done and continue to do. Some
9 difficult steps as it relates to cybersecurity,
10 just recognizing that it is a complex issue, but
11 it's something that has to be, even from a point
12 of control perspective, especially recently with
13 the costs associated with breaches and
14 compromises.

15 It takes strong leadership to even put
16 the issue on the table. And then to think about
17 solutions, right, it's always a conundrum that
18 when you are dealing with this kind of an issue,
19 you put it on the table without necessarily
20 having all the answers on what to resolve.

21 So a couple of things that come to
22 mind in terms of industry and impact for

1 manufacturing, it's clear to us, as we look at
2 terabytes of known infections and breaches and
3 compromises over time, that this will be a
4 persistent issue for us. Much of it ties back to
5 the infrastructure of how the Internet was first
6 designed; those are not problems we can
7 necessarily solve now.

8 But we can solve the risk of the
9 application and aspect of cybersecurity. So we
10 are seeing -- as an example, the insurance
11 industry is trying to help us in the risk
12 mitigation here in terms of cybersecurity
13 policies. It's a very young industry. So we're
14 seeing that exclusions and limits of payment for
15 breaches, especially when costs go -- are
16 overseen and go to very high levels that were
17 unexpected.

18 Corporations, industries, and even
19 society is picking up the cost of what happens
20 when there are breaches; so it's a difficult
21 circumstance. I think that, especially
22 manufacturing, as in healthcare, when you have a

1 per capita infection rate that's higher than the
2 norm for industries, the fact that you put this
3 on the table is going to be -- within 12 to 18
4 months, I think people, just by putting the focus
5 on it, will begin to resolve some of the problems
6 we're facing in terms of infection rates.

7 And more importantly for manufacturing
8 is how to think about these in terms of
9 resiliency and response. We're not necessarily
10 going to stop some of the threats and attacks
11 that are happening. But if we are prepared in
12 segmenting our business operations, we can
13 minimize the impact that threats are actually
14 having in our environment. So thank you for the
15 platform and being able to have that discussion.

16 The other is, as we see, insurance no
17 longer -- or not necessarily being a complete
18 risk mitigating factor that's viable for us --
19 most corporations. I have actually enjoyed
20 seeing how the FEC, DHS, FCC, and SEC are making
21 recommendations, sometimes in regulation that has
22 requirements around a more secure environment.

1 My belief, usually the private sector does not
2 react well to those recommendations, especially
3 regulations.

4 However, those recommendations that
5 apply to an industry and create a level playing
6 field are usually welcome. And it requires, in
7 some industries, as we know, the nuclear
8 industry, where you have to have a higher
9 standard. And it turns out that, just like
10 anywhere in industry, many companies are part of
11 a critical infrastructure in the fabric.

12 And one of the issues we need to face
13 together and determine how to move on is how to
14 help the small to medium sized businesses because
15 they're an important cog of this wheel that are
16 infecting, along with others, the entire
17 information supply chain, and that's a problem
18 that needs to be addressed all the way down to
19 the SMB level. I do believe that there are
20 viable solutions. And as we discuss those in
21 this forum and others, that we will be able to
22 get those tools on.

1 Congratulations to DHS and the White
2 House and the leadership; they've done the
3 Cybersecurity Act, a powerful tool in terms of
4 sharing threat information. We have seen that
5 now resolve issues that were extreme obstacles.
6 And just to give a clear example, we're involved
7 in a case where, the point (indiscernible)
8 started reconnaissance that is research about how
9 to conduct an attack to an arrest internationally
10 took four business days, and that was an
11 incredible turn around. And that was enabled by
12 the Cybersecurity Act.

13 I can't go into details on this more,
14 but those are examples of where I see the
15 government has done -- taken some big steps in
16 terms of positive work and then provided tools,
17 as I was mentioning, by DHS. I think gives us an
18 ability to have an assessment of where we are in
19 terms of the condition, rates of infection, or
20 potential breaches that are happening currently.

21 And I'll end with this, is it's
22 difficult sometimes to understand, you may not

1 see a lot of what's happening in cybersecurity so
2 why spend money. It looks like a cost center.
3 But I really believe that it's also a benefit
4 center, sort of like staying healthy. If you
5 don't want to have hypertension and high
6 cholesterol at the same time, and if we clean the
7 environment so to speak in terms of not only
8 defending attacks but cleaning those that have
9 been successful. It impacts evaluation. It
10 impacts your competitive position
11 internationally. It impacts reputation.

12 So these are value-added consequences
13 of having a good clean environment. And taking
14 these steps take some strong leadership. Ethan
15 and I have seen up the board room, these aren't
16 issues that necessarily want to be dealt with.
17 We are seeing a tight turn last year though
18 where, Boards especially, providing good, strong
19 leadership, and requiring more attention to the
20 cybersecurity as an enterprise risk management
21 issue.

22 So with that I'll go ahead and turn it

1 over for questions.

2 MS. MARTINEZ: Questions for Mr.
3 Martinez?

4 DR. SMYTH: Mr. Martinez, I have one.
5 We had some extensive discussion yesterday with
6 regard to networks, with regard to creating
7 teams. And if we're able to evolve and use this
8 approach, this can be a competitive advantage for
9 the United States.

10 So you mentioned something and used
11 the term "cyber neighborhood watch" yesterday. I
12 was wondering if you could expound upon that and
13 talk about perhaps that or some forums where
14 companies can get together and start forming
15 teams to address this issue.

16 MR. MARTINEZ: Sure, there are some
17 forums now that exist. They're know as
18 "Information Sharing and Analysis Centers," or
19 ISACs for short. Those were established in terms
20 of a model, as public/private partnerships, under
21 the executive order of the President.

22 More recently, there's a similar

1 organization, it's named "Information Sharing and
2 Analysis Organizations", ISAOs. And what these
3 are, are opportunities for us to share
4 information about how compromises have happened.
5 There are ways to do that where you're not airing
6 dirty laundry so to speak; so you're sharing
7 metadata. Those are extremely important because
8 the reality is that the private sector end user
9 in these front networks are the front of the
10 cyber war, so to speak, that's happening.

11 Clearly, we're being attacked
12 systematically and clearly the front line is on
13 our devices. What that means is that we expect
14 sometimes the government not only to be all
15 knowing but to be all powerful in stopping this.
16 But if they don't know what's happening real
17 time, if we are not reporting that in a
18 systematic way where there's a release of
19 liability, and the new Cybersecurity Act allows
20 for that. For example, some release of
21 liability, we're sharing privacy information with
22 the intent to resolve a cybersecurity issue.

1 If we don't have that platform of
2 communication then how do you begin to resolve
3 the issue, right? You don't know what's
4 happening. So we have seen other industries,
5 organized financial services; ISAC is extremely
6 organized in terms of how they share information.

7 It's my belief, based on data we've
8 seen, that they don't necessarily share enough of
9 it but the process has begun. And I would
10 encourage the manufacturing -- we've just begun
11 with the DHS establishing a manufacturing iCell
12 that will share some of this threatening
13 information, to make it available; especially to
14 small and medium sides businesses.

15 From a practical standpoint, what that
16 allows is for a small company, who doesn't
17 necessarily have the funds to defend itself, to
18 at least to know how they're being infected,
19 what's vulnerable today, and that we're meeting
20 just those issues as a point issue -- point
21 solution. And that's a beginning because right
22 now they're kind of in the dark in terms of

1 what's happening.

2 DR. SMYTH: Thank you, Mr. Martinez.

3 MR. YEARGIN: Thank you, Mr. Martinez

4 for that and Dr. Brewster, both. Really enjoyed

5 your presentations yesterday and learned a lot.

6 I had a couple of questions. First of all, you

7 had mentioned the issues related to original

8 development of the Internet and the structure of

9 the Internet. Is there a -- do we have an

10 ability to fix those initial -- those initial

11 deficiencies.

12 And then number two, and this might be

13 a silly question, but maybe not, is there some

14 tipping point that there -- the Internet is so

15 infected that it becomes almost unusable? Are we

16 concerned at all about some type of tipping

17 point? Because, you know, it really was -- it

18 rose my awareness significantly yesterday with

19 both your presentations. And I started thinking

20 is there some point where it's just there's so

21 many infections, so many viruses, so many

22 problems that there's -- we've reached a tipping

1 point that it just doesn't work.

2 MR. MARTINEZ: So I'll answer the
3 second question first. That's really a choice
4 that people make personally, as individuals or as
5 businesses, how dependent they're going to be on
6 the Internet. In terms of infrastructure, I
7 don't think we can go back to resolve necessarily
8 the nature of how the Internet was designed.
9 What we can do is, my opinion, spend a little bit
10 more time understanding how the network is
11 managed.

12 There are organizations like ICAN
13 that, to do an analogy, are sort of like the
14 title company for IP addresses. These are --
15 every device that's connected to the Internet
16 must have an address. And today, obviously
17 there's less than optimum environment for people
18 to apply for that IP address, right.

19 So if you go to buy a house, you want
20 to make sure the title is clean, the previous
21 owner was a real person, and that that person can
22 be identified; that is not happening today in

1 terms of governance, as it relates to -- and I
2 understand that there is issues in the privacy
3 around that that are to defend the individual in
4 terms of knowing who is where.

5 The however on that is when threats
6 evolve and when threats -- attackers execute,
7 when we finally forensically are able to find
8 those IP addresses or those domain names,
9 invariably what we find is that the person is --
10 doesn't exist, right. So the registration
11 process of the individual who went through and
12 applied doesn't exist; that makes it extremely
13 problematic for us in the U.S. and
14 internationally to determine how and who are
15 making things difficult, not just to the United
16 States but for others.

17 The reality is, in this global
18 economy, destabilization of commerce, much of it
19 happens -- or information -- so much happens on
20 the public Internet and even private networks
21 have to sometimes borrow that infrastructure that
22 this affects all of us.

1 So I do see though that international
2 governments are being much more cooperative,
3 especially as it relates to counterterrorism and
4 in being able to work around some of those
5 deficiencies; and that's been healthy to see,
6 especially in light of the recent attacks.

7 But the reality of the situation is
8 that the use of the Internet and social media
9 tools within the superstructure are going to
10 continue to make this an increasingly difficult
11 problem for us to resolve. I do think we will
12 solve it in forums like this.

13 In terms of going back to fix it,
14 cybersecurity -- what we're experiencing, really
15 is a symptom of a bigger issue and that is the
16 philosophy of innovation as it relates to cyber.
17 And as we -- as individuals and companies, we
18 need to realize that this transition we're going
19 through into the new cyber world is not only --
20 it's ubiquitous, it's compelling, it's going --
21 and the philosophy is going to increase.

22 So there are going to be unknowns that

1 we step into in terms of the impact on economies,
2 companies, and just competitiveness. So I believe
3 that innovation will also solve these problems,
4 but it'll take time and forums like this where we
5 can cooperate and decide how to resolve those
6 issues.

7 MR. YEARGIN: If I could just ask you
8 just briefly one follow-up question that directly
9 relates to the work that's being done on this
10 council. I'm co-chair of the Trade and Tax
11 Policy Council, and we've been working with the
12 IRD, the Innovation Committee, to look at ICAN
13 and the turnover that's getting ready to take
14 place in the next few months. There's some
15 concern among our two subcommittees related to
16 the turnover. And so my questions for you would
17 be: (1) are -- is there a concern -- do you have
18 any concern about that, and then (2) if you do,
19 what can we do about it at this point?

20 MR. MARTINEZ: Sure. So I'm an
21 advisory board member to several different
22 places. One is to the American University Cyber

1 Governance Center, and then also to the
2 Association of Corporate Growth, which represents
3 a large body of private equity companies.

4 In fact, 80 percent I'm told of all
5 MNAs that happen in the private sector are
6 through this organization. They say, gee, the
7 reason that's important is that I spoke to
8 leadership at both organizations last night about
9 this issue. And there are some concerns.

10 If you look at the history of ICAN and
11 what it does -- and this is, again, going back to
12 the title company idea -- these are the people
13 that go ahead and administer the domain names and
14 administer the addresses as it relates to the
15 Internet. The history of the Internet is that it
16 started with (indiscernible) and it was turned
17 over to the private sector and then over to
18 international communities.

19 It's -- I'm told that today, under
20 U.S. management, it's about half of all the
21 domains and addresses that are issued. I don't
22 know that number exactly, but it's a good

1 starting point in terms of concept. And where we
2 think there may be some issues in that is the
3 management of everything, from domain names to IP
4 addresses, is a complex issue to begin with. But
5 -- and I'm all for cooperating in an
6 international community and forum to be able to
7 have access to those.

8 We believe access to domain name
9 registration, for example, has not been limited
10 in any way. However, if we take the next step in
11 whoever we turn over more control of the
12 international organization, as it relates to the
13 registration process, we think that the issues
14 will become even more problematic and difficult
15 in terms of managing the quality and the problems
16 that come along, even when you have good quality
17 control processes, in terms of correct records of
18 the facts. Thank you.

19 MS. MARTINEZ: Thank you, everyone.
20 I really appreciate that. We could continue the
21 conversation but unfortunately we have to move on
22 due to time. So I'd like to now take this

1 opportunity to welcome Mr. Ethan Karp, the
2 President of MAGNET, the local network
3 manufacturing extension partnership. I had the
4 good fortune of speaking to you last evening and
5 preview your remarks. So you're all in for a
6 treat.

7 Thank you, welcome.

8 DR. KARP: Thank you, first of all, I
9 would love to extend a number of thank yous.
10 First for the invitation to be here from the
11 Department of Commerce, from Chair Smyth, from
12 Chair -- Vice Chair Martinez, and also on a sort
13 of more abstract level, all of you because the
14 MEP's exist for manufacturers and to advance
15 manufacturing. And on a more tactical level, we
16 have folks here that are big supporters in of
17 this room, both in terms of what you guys are
18 saying in this room and when you go back home,
19 but also a Board chair with Mr. Yeager, we have a
20 National Advisory Committee member with Mr.
21 Wilcox. So thank you guys very much for the
22 invitation. This is really impressive.

1 So yesterday, I had invited a number
2 of our Board members and a number of small
3 companies. And I must say, the feeling that they
4 had leaving was this is a direct line of
5 communication toward input into the government,
6 which is frankly very difficult to get, even when
7 you're talking to politicians, because every
8 single issue you guys put on the table, whether
9 they were aware of them or not, they could
10 directly see how it linked to their everyday
11 lives and that is exciting, and I'm glad this
12 council exists.

13 The importance to me and why I step --
14 my background is McKinsey and a PhD in chemistry,
15 now helping small companies innovate and grow, is
16 that we did some research, and this is probably
17 nationwide, but I know it most well for the
18 region that our MEP serves, northeast Ohio;
19 that's Akron, Youngstown, Cleveland, Canton. So
20 real manufacturing bases.

21 One fifth of the jobs are directly
22 manufacturing, but those drive half of the local

1 economy: the banks, the pizza parlors. Half of
2 all the jobs in northeast Ohio are related
3 directly or indirectly to manufacturing. So
4 anybody that looks at the economy and says
5 anything other than this place wouldn't exist
6 without manufacturing is kidding themselves. So
7 it is absolutely important that even small
8 changes in our manufacturing base here have
9 reverberating impacts on everything in our
10 community and in our ecosystem.

11 And as we heard, and will hear again
12 I imagine, 98 percent of them are small. So for
13 30 years MAGNET, Manufacturing Advocacy and
14 Growth Network, has existed. We were one of the
15 first couple of MEPS in the country. We have
16 about 50 people, so that's the base in which I'm
17 talking to, and hopefully I'll represent the
18 entire national system, although it's a very
19 highly varied place.

20 So fundamentally, our goal, and every
21 time we talk in a meeting, is to grow jobs. It's
22 to grow revenue. And to do that within the

1 supply chain, as many of these small companies
2 are, or with smaller OEMs that have their own
3 products in the market.

4 We see two big market gaps in all the
5 research. One is innovation, and innovation does
6 not have to be strictly defined, especially for a
7 supply chain company as innovation and a product;
8 that is obviously a poor thing that manufacturers
9 do, but it's also innovation in how they do their
10 operations, it's innovation in how they market,
11 it's innovation in the technology they use to
12 process their pieces and parts or their products.

13 And secondly, it's an innovation in
14 workforce: culture, retention; all those things
15 we hear every single day. It's not just the
16 supply side that we know there's a gap. It's
17 also within their companies, making them more
18 desirable places to be.

19 So I wanted to talk -- what I -- sort
20 of my view and sort of our organization's view on
21 the value adds of MEPS and why it's such a unique
22 system and how we drive that value. The theme

1 you're going to hear in all of this is network
2 and partnership.

3 So number one -- I'll go through them
4 real quick and then give some examples. So
5 number one is that we are and need to be trusted
6 advisors to small companies. This is huge. The
7 trust part is absolutely huge. The second part
8 is we need to partner a network to actually serve
9 those companies. I like to call this you bring
10 the power of region, you bring the power of the
11 nation, to small companies.

12 The third is we kind of look at
13 ourselves as a system --as a network of
14 incubators for helping small companies; not
15 actually creating small companies, although some
16 of us do, but all of these services that we say
17 how do we get to a small company, the MEPS are
18 out there trying to figure out and investing,
19 typically Department of Commerce dollars, to do
20 that.

21 So let me go into each one of those.
22 So the first one we are and need to be trusted

1 advisors. So this in itself has a huge
2 networking component. I don't go and knock on a
3 door of a manufacturer and say, "Hi, how are you,
4 please trust me with all of your secrets and the
5 things you're worrying about."

6 I talk to the CPAs, I talk to the
7 lawyers, I talk to the Chambers of Commerce who
8 have already established those relationships over
9 years and say, "Would you allow me to come in and
10 talk to" the business owner or the businesssee or
11 the decision maker. And then because of that
12 trust, we were able to talk about the strategic
13 things that that business needs.

14 So two examples. One, yesterday some
15 of you met Jay and Tracy Roberts, who own a 50-
16 person extrusion in a rural town called Parkman
17 about 40 minutes from here. And they bought
18 their business two years ago. And one of the
19 things -- I guess this isn't as exciting, but one
20 of the things they were considering was getting
21 into medical.

22 So we looked at their business, we

1 said this is interesting. You absolutely can do
2 that. Why don't you talk to -- and we introduced
3 them to another manufacturer, who had made the
4 transition from being a contract manufacturer to
5 a medical device manufacturer.

6 They talked to them. A few hours
7 later they came back and said, "Thank you. You
8 just saved us both years of our lives and
9 millions of dollars in investment because we are
10 not ready to do this and we need to focus on"
11 some of these other products that we've already
12 done some ideations around that were closer to
13 their core. Now, I'm not saying that's the path
14 for everyone, but they would not have had that
15 conversation and been willing to listen to us and
16 go introduce just to talk about it had we not
17 built the trust.

18 The second is an example of a network
19 introduction actually through the Minority
20 Business Development Association, which is I
21 believe another Department of Commerce funded
22 program. And they had introduced us to a smaller

1 minority owned company here in town that makes
2 crates and pallets. This is what they do.

3 And so this business owner is a very
4 entrepreneurial guy, and we met him, and we
5 started talking with him. He did not need lead.
6 He did not market research. He kind of needed
7 everything. And he needed little doses of it.
8 This is a 20-person company. So we developed the
9 trust with him over some interactions over many
10 months and said, "Hey, why don't we just come in
11 and help you." So we did.

12 So over about a two-month period we
13 went in and helped him just do a little bit in
14 operations, do a little bit in -- do a little bit
15 of marketing, and now -- this is the best part --
16 not only was his retention gone from like 30
17 percent to about five percent, but his -- he said
18 to us, "I've taken my first vacation in five
19 years." And this is huge because a person that
20 could take a vacation can also strategize about
21 their company. They can also plan what they're
22 going to do next.

1 These are examples of how trust is so
2 important. And you can also see that it's the
3 networks -- by the way, the first introduction
4 was through a Chamber of Commerce to the Roberts
5 that many of you met.

6 The second category is we partner to
7 bring the region and the power of all the
8 resources around to accomplish these things. So
9 we've spent probably three years putting into
10 place a series of MOUs with institutions across
11 northeast Ohio. And while we don't have MOUs
12 with them, by its nature the Ohio -- the MEP
13 system is a network, and conversations like this
14 bolster that network. So I'm going to run
15 through some examples.

16 So the MOUs with the universities,
17 talked about how they were committed to helping
18 and support small manufacturers. A lot of the
19 ways we end up using them is sometimes for
20 technical resources, but a lot of the times they
21 are speakers for us. So they bring the latest
22 technologies into the marketplace, and interns.

1 So you'll hear a lot about interns.
2 It's not just placing the interns, but it's
3 actually getting interns who have a desire to do
4 something for a company and feel the real impact
5 into our organization; and then working directly
6 on market research and engineering projects for
7 those companies. It's a huge resource that I
8 think many of the MEPS figure out how to tap
9 into.

10 A second example is NASA. So we were
11 at the White House a few months ago talking about
12 a four-year program. We met with NASA. Dr.
13 Helper also mentioned it yesterday. This was all
14 about bringing the brains of NASA scientists into
15 the hands of small manufacturers.

16 An example of this is a company that
17 has a -- they do some applications of their work.
18 It's a center technology, deep in the ground for
19 piles. So for testing when you put in basically
20 giant cement rods down into the ground to hold up
21 our bridges. They have the testing equipment.
22 They have all the patents on that. They had a

1 new sensor they wanted to put inside of these
2 piles. Well, they didn't know how to package it,
3 how to protect it from the elements deep down in
4 the ground with everything that was going on.

5 So we brought in a NASA scientist.

6 And specifically the problem is around water, and
7 water kept on eroding their -- so you talk to
8 these NASA scientists -- and this was an honest -
9 - it was an amazing conversation -- the NASA
10 scientist says, "Oh, yes, I get that." When
11 shovels go up and down, there's a huge amount of
12 moisture that condenses inside every shuttle, and
13 we have to coat every electronic piece inside our
14 equipment. So within about a four- or five-hour-
15 session, these guys had literally months at this
16 company of research time that they would have
17 needed completed and a product that's going
18 gangbusters for them.

19 Community colleges are huge. We don't
20 do any training. Three of their presidents are
21 on our Board. We leverage them for anything we
22 do in Workforce. And frankly -- this is a huge

1 role for an MEP, is we act on behalf of the small
2 -- it's pretty easy for a community college to
3 get in contact with the big companies.

4 The smaller companies, there's a
5 translation problem that often occurs -- not
6 always, but often. There's an academic calendar,
7 maybe it doesn't jive, there's requirements,
8 maybe it's not exactly what the company needs and
9 we can serve to interpret there.

10 We have suppliers. I already
11 mentioned that company who was in the medical
12 field. Well, we have other companies that are
13 actually working on technical projects to create
14 process equipment. In this case, it's piece of
15 food manufacturing equipment that requires a
16 specialized nozzle. Well, we went to a company
17 that wanted to get into the food industry with
18 our existing food customer who needed the
19 equipment, and they're working on the project
20 together; simple connection -- other MEPs.

21 So whether it's a supplier issue in
22 another state that needs to be handled and we

1 need to crossover boundaries that way, or it's a
2 technical service that an MEP has developed. I
3 will -- we've worked both with Catalyst
4 Connection on some of their things around sales
5 and marketing and helping companies with that.
6 And we've also worked, say -- Cincinnati has a
7 great specialty in digital manufacturing, and
8 they're trying to invest in that to bring it to
9 small manufacturers. So we can bring that to our
10 manufacturers.

11 Places like Fastlane in Dayton, they
12 have -- another Ohio MEP -- they have a
13 connection to the University of Dayton Research
14 Institute and, like NASA, all of those resources;
15 that's -- and then lastly, I will say NIST
16 itself. So we haven't cracked the code on this
17 but everything we're talking about cybersecurity
18 it gets me excited.

19 I had a number of my staff here
20 yesterday, they were excited. Having that
21 conversation with a small manufacturer, we're
22 going to provide real value in a way they

1 couldn't get it any other way by figuring out how
2 that service serves a small company.

3 And lastly, incubator for small
4 company innovation. So I just mentioned a few of
5 them, right: bringing the cybersecurity down to
6 that level, bringing in examples of digital
7 manufacturing. But I'm going to highlight here,
8 too, what we spent a lot of time on which is
9 workforce issues, and we do a lot of -- try and
10 do a lot of innovation, although it's a lot of
11 begging, borrowing, and stealing as well. But it
12 certainly is innovative to our region.

13 I'll highlight two things we're doing.
14 One is fast track training. There's a national
15 model, I think it's through NAM for Right Skills
16 Now. The whole idea is you've got underemployed
17 or unemployed adults who could get into
18 manufacturing with a 12-week curriculum, a 10-
19 week curriculum around welding, CNC, and a paid-
20 for internship, and company sign up at the end
21 beginning. They have their input on the
22 curricula. It's not rocket science to get this

1 down. Unlike the NASA stuff, it really isn't,
2 but it requires an intermediary that spends the
3 time to do it and that's the role that the MEP
4 plays.

5 We put these in place here. And to
6 give you a sense, one company -- it's a larger
7 company -- in the last two years it's placed 150
8 people that they couldn't fill in their CNC
9 operator jobs. Has reported that it's -- that's
10 equivalent to about \$50 million in sales that
11 they wouldn't have otherwise been able to capture
12 because they couldn't get the people.

13 And here's the really exciting part.
14 A program like this, compared to their
15 conventional way of hiring people -- there's
16 different skill levels of CNC operators, say one
17 through four. And typically -- they're always
18 hiring at one, including in this program. But
19 they said there's about a one in 20 conversion
20 rate of getting from a Level 2 to a Level 3, and
21 you need the Level 3s and 4s to coordinate
22 things. Every student that's come out of this,

1 it's been half of them have been able to go from
2 a two to a three.

3 So just very big impacts by linking --
4 again, community colleges do the training. The
5 job -- the state has a state-run -- the WIBs --
6 the Workforce Investment Board. They are
7 providing the students for this. The companies
8 are providing the training. We're providing the
9 connector role.

10 The last thing is -- the next frontier
11 -- some of you have them in your communities, not
12 exactly how we're looking -- we're looking at a
13 German apprenticeship model. So we're looking --
14 we call it Early College Early Career. This does
15 not have to be a decision between do you go to
16 college, do you not go to college? No, this is a
17 way for you to get college without all the debt.
18 And the whole idea is ninth grade through 12th
19 you start enrolling in programs, and then spend
20 time at a company that agrees to come onsite.

21 Again, it's not -- or come onsite or
22 you go to the company -- it's not rocket science

1 but it's pulling all the pieces. In this case,
2 community colleges to do training, high schools
3 to actually participate, and in the companies
4 themselves; that one in particular you're going
5 to see more about that. But that one, as we're
6 starting and planning, is really exciting for me
7 personally because most of what we do every
8 single day is agnostic to where the companies
9 are. We just want to grow jobs.

10 In this one instance, there's a -- we
11 all are aware of it, it just doesn't come up, we
12 have the issues of -- especially in Cleveland as
13 you're seen, we have urban poverty. And this,
14 more than any -- manufacturers are great jobs.
15 They've been the social elevator to get into
16 manufacture -- to get into the middle class for
17 100 years. This can reestablish that.

18 There's no reason why a student from
19 Cleveland Metropolitan School District cannot be
20 the prime target of a program like this with all
21 of the support structures together. And so
22 that's an added benefit if it were -- will of

1 sort of helping that -- break those cycles of
2 poverty that manufacturing can absolutely play a
3 role in.

4 So with that -- yesterday you -- Chair
5 Smyth, you gave a very inspirational speech about
6 team. And I like to think that our little role
7 as MEPS is to be a catalyst for the team that's
8 going to ensure that manufacturing is healthy for
9 the sake of the United States and for all of
10 those in the middle classes and beyond that could
11 have these new jobs.

12 DR. SMTH: Thank you very much.

13 DR. KARP: Thank you.

14 DR. SMYTH: Thank you, Dr. Karp. And
15 I think that's an example of -- powerful examples
16 of creating the networks and creating the teams
17 that we were talking about and making us face
18 reality. So thank you to you.

19 I would like to open to the floor for
20 any questions for Dr. Ethan Karp.

21 MS. WONG BARRETT: Thank you, Dr. Karp
22 for your great work at MAGNET. It's very in

1 inspirational to see all the leadership and the
2 transformation that's happening in the MEP
3 Center. I'm Christie Wong Barrett from the Mac
4 Arthur Corporation. I wanted to ask to what
5 degree are the new innovative practices and the
6 expansive networking, leveraging of assets beyond
7 MEP, how much is what you're doing being
8 translated and shared with other centers across
9 the United States?

10 DR. KARP: I'm going to answer that in
11 two parts. One, it is. Just the other day we
12 had somebody from GENEDGE, which is Virginia MEP,
13 come and actually spend a day with us and
14 learning how they can do what we're doing with
15 NASA. In fact, the Department of Commerce
16 brought us up to -- that thing at the White House
17 was with -- and I believe with OSTP and
18 Department of Energy, they brought us up to talk
19 to the other lab heads to figure out how that
20 sort of thing could work. A lot of this is word-
21 of-mouth. And frankly, I don't think it's as
22 fast as it could be.

1 So I guess the second part of how I'd
2 answer that is to say I was thinking how could
3 this council potentially benefit even more or
4 help the MEPs even more, and I think that one way
5 is by continuing to be sort of the drum to say do
6 it. It has a lot to do with the leadership of
7 the specific MEP, which is also the Board
8 leadership. Are they getting out and trying
9 these things? Everything that I just described
10 unfortunately was not the case for MAGNET five to
11 10 years ago, period. And all of that change,
12 through different Board leadership, through their
13 concerted effort to make these connections a
14 priority, and it works. So I suppose having this
15 council really message that back to me, I mean,
16 is a very powerful thing.

17 I would also say, just in terms of
18 thinking about the council, there's all these
19 Boards that are running these MEPs. And there's
20 a wonderful opportunity here to deputize them
21 basically because all of you are ostensibly doing
22 the same thing that they're doing except your

1 level is much closer to where the policy is being
2 made. So if there's some way over the -- over
3 time to have this Board have some sort of
4 connection to the MEP boards, it could be very
5 powerful; even if it's just here's what we're
6 doing. Do you guys want to send any feedback
7 back, so. Thank you.

8 DR. SMYTH: Okay, thank you very much.

9 I think we wanted a comment from Petra
10 Mitchell, was that correct?

11 MS. MITCHELL: I'm the MEP Center
12 director out of southwestern Pennsylvania so --

13 MS. MARTINEZ: I think Archana just
14 wanted to recognize that you were in the room and
15 thank you for your participation, ma'am.

16 MS. MITCHELL: Oh, yeah.

17 MS. MARTINEZ: Thank you so much for
18 being here. We appreciate it.

19 MS. MITCHELL: And I wanted to echo
20 Ethan's comment. I think he did an excellent job
21 describing the role of the MEP.

22 DR. KARP: And to give you one more

1 connection there -- so I was not here, but MAGNET
2 and Catalyst Connection, and with Petra's
3 leadership, were America Makes. We were both
4 members of a consortium across state lines in
5 this case, which, frankly, is often very
6 difficult, to say we would like America Makes in
7 the first NNMI here, so. You know, it comes out
8 in -- it comes out in the last glamorous grant
9 making as well but big things come out of those
10 collaborations.

11 DR. SMYTH: Thanks again, Dr. Karp and
12 Ms. Mitchell for making it real. Thank you.

13 So I would like to introduce Dr. Susan
14 Helper. Susan had spoke with us yesterday, and
15 she's going to give a quick synopsis on the
16 supply chain discussion. Thank you.

17 DR. HELPER: So what if it's easier,
18 we'll just start with a couple of the slides from
19 yesterday. If it's not, I don't -- it's not that
20 key.

21 DR. SMYTH: Susan, it's going to be
22 warming up for a second. So if you want to --

1 DR. HELPER: Okay. Well, let's not do
2 it. All I wanted to do was just to kind of -- a
3 lot's happened since yesterday and just to kind
4 of talk about what -- sort of the way the
5 administration is thinking about supply chains,
6 the problems and the solutions, and then get your
7 input.

8 And I guess there's three ways that
9 this input can be used. First, is the continued
10 work -- oh -- on the White House Supply Chain
11 Innovation Initiative. The second is the work of
12 MForesight, the think and do tank that Megan
13 mentioned. And then third, in terms of the hand-
14 off letter that this council provides to the next
15 council.

16 So there's all kinds of ways that this
17 input can be really useful. So I'm very grateful
18 to have this time. Is there a way of advancing?
19 I want to go to slide 12.

20 So last time we kind of -- or I
21 asserted that as a result of our work, both in
22 Commerce and in the White House, was to identify

1 kind of two problems: (1) this free rider
2 problem between firms, that sort of no one firm
3 has an incentive really to fully invest in the
4 capabilities of supply chains; and (2) some
5 problems of internal conflicts within firms; and
6 then two kinds of solutions.

7 So the next one -- was -- so on -- for
8 the government's part can we better leverage our
9 federal technology assets, thinking in particular
10 of the national labs and the MEP program to
11 promote innovation and supply chains, and
12 highlight some private sector models that
13 actually increases capability and improved
14 collaboration. So what I thought I would do now
15 is open it up. If there are thoughts about
16 either problems that we haven't addressed,
17 solutions that we haven't talked about that would
18 be -- the floor is open.

19 DR. SMYTH: Actually, Sue, can you
20 give us some examples of leveraging the federal
21 technology assets where you have seen it work
22 real time in developing the supply chain in terms

1 of innovation?

2 DR. HELPER: I think -- so I think two
3 -- one is -- and I guess so -- I think the key
4 assets that we're thinking of in this space are
5 the national labs: both Dewey, NASA, there's
6 other agencies that have national labs as well,
7 and then the MEP program. My sense -- I actually
8 -- me in Cleveland watched this collaboration
9 between MAGNET and NASA evolve and it took about
10 10 years. Because first -- I mean, it took -- so
11 partly is this brokering function. Do you
12 actually need to get people who can talk to the
13 rocket scientist and the rocket scientists, you
14 know, being able to speak in a language and
15 define common problems that they can work on.

16 And so I think the reason that the
17 NASA/MEP collaboration finally worked was a lot
18 of prep work that MEP did with the NASA
19 scientists. So there was a road show I guess
20 that they presented with -- through Power Points,
21 carefully worked on by the ME -- with the MEP
22 staff, that this is what we can do but explained

1 in terms of the problem that you can solve with
2 this technology. And then a little bit of money
3 that facilitated the NASA scientists actually
4 spending time. So that's I think one kind of
5 example.

6 A second kind of example is the work
7 -- I think that maybe GENEDGE in Virginia is a
8 real pioneer at, with actually being able to work
9 with entire supply chains. So not just one firm
10 at a time; here, let's make you lean, or here's,
11 let's make help you with a product. But overall
12 where's the waste in the supply chain? So I
13 talked a little about some of their work with
14 Volvo, of figuring out, for example, that, you
15 know, Volvo had two plants that released a
16 production schedule on different days, thus
17 causing all the common suppliers to have to
18 rerelease -- rerun their production scheduling.

19 There was another issue where Volvo
20 had a production crisis. So they had this edict
21 that all suppliers had to prioritize Volvo. And
22 what they didn't realize was that there was a

1 supplier that was both a first-tier to Volvo and
2 a second-tier to another first-tier Volvo
3 supplier. So when they, you know, told that
4 supplier to stop making for their second-tier --
5 in their second-tier role, they created an even
6 bigger bottleneck because they didn't understand.

7 And so MEP -- and this kind of role
8 where MEP convenes either sometimes directly just
9 with MEP or sometimes in conjunction with a
10 larger consulting firm. So Booz Allen, a ME --
11 McKinsey, to get this dialogue going about where
12 -- you know, where can we take out inventory,
13 where are their procedures that are adding waste
14 and rigidity to the supply chain. So I think
15 those are two examples. Yeah.

16 DR. SMYTH: Thank you. Questions from
17 the floor? Dr. Green?

18 DR. GREEN: Yeah, a quick question.
19 So just hearing some of the stuff that you were
20 talking about, Ethan, you know, being from
21 northeast Ohio and, you know, we've talked before
22 -- you know, I think -- you know, it's hard for

1 me to -- you know, if I'm thinking about a
2 manufacturing problem -- we do advanced
3 manufacturing in Canton.

4 You know, it would be -- it would be
5 a big jump for me to think that I would be able
6 to partner with NASA -- with NASA scientists.
7 You know, on the other hand, you know, as you
8 were talking, you know, there are topics that I
9 would see that it would be very easy for me to
10 partner with you on. I mean, a couple would be,
11 you know, ERP systems; that's one of my notes
12 here. You know, cybersecurity, which hit me
13 pretty hard yesterday.

14 And I'm just sort of curious as to,
15 you know, while the NASA example sounds
16 interesting, it would just -- it's just a
17 stretch, I mean, because I would think that, you
18 know, as an advanced manufacturer, I mean, I'd
19 spend a year teaching them stuff and then maybe
20 they could help a little bit, you know, so; that
21 was just my comments that I was thinking about.

22 DR. KARP: So it's a great comment.

1 And I should be clear and say there's a very
2 small subset of companies who have technical
3 problems. I would not dismiss it from the
4 standpoint of there is two ways you can approach
5 this.

6 Number one here, for the laboratory
7 assets, there's way you can think about it: (1)
8 it's the technologies that they have, and (2)
9 it's the brains that they have. So if you had a
10 technical problem that you were just having
11 difficulty with, you're basically getting
12 somebody that knows the field inside and out to
13 come talk to you about that problem, irrelevant
14 of whether it was something that had anything to
15 do with their NASA mission. So that's one piece.

16 And the other thing is, related to
17 Sue's second point, is highlighting private
18 sector models; that's a lot that has to do with
19 helping them with just those problems, the ERP
20 systems, whatever that smaller company has that's
21 feeding the larger company, helping them with
22 those issues, and using the sort of entrance

1 point -- and please, Dr. Helper, keep me honest
2 here -- using that as an entry point to say we're
3 going to help your suppliers and that's going to
4 make you stronger too. So please introduce us to
5 that and if it's not reducing our bottlenecks,
6 it's helping our companies improve.

7 Here in town, I work -- and you can do
8 this on a smaller scale. A company that has --
9 still a large company -- not a Volvo, but still a
10 large company here in town, we knew their senior
11 management and said would you introduce us to
12 some of your suppliers that are totally dependent
13 on you for work, because they did not want that
14 to happen in their supply chain.

15 So they said to their suppliers, we
16 want to continue using you, but you need to find
17 more business and grow so that you can be a
18 healthy supplier. Same idea here. It's pushing
19 -- that company is then pushing and, even in some
20 cases, investing in their own suppliers to make
21 them more diverse, et cetera, so.

22 DR. GREEN: Yeah, and I do think, you

1 know, the part that you started out with, which
2 was trust-based stuff -- and I think -- you know,
3 that's really strong here in northeast Ohio. I
4 mean, that, you know, the network of businesses,
5 and we have our own collection of advocacy
6 organizations. I think that's a big, big part of
7 it. I think it works actually here and it works
8 pretty well.

9 MS. MARTINEZ: I'd like to jump in as
10 well, just a related point to the first few
11 points that we had, as well as Susan's question,
12 and even Christie bringing up how can you emulate
13 what's done from one net to the other. I'd like
14 to share a success story that we have in New
15 Mexico because we're very fortunate to have two
16 national laboratories there, both Sandia and Los
17 Alamos. And so what we created is the Small
18 Business Authority -- New Mexico Small Business
19 Authority Program. It's a nonprofit
20 organization.

21 What they've done is they worked in
22 conjunction with our New Mexico legislature, and

1 they've been able to get tax abatements -- both
2 laboratories get tax abatements to a certain
3 amount of money. And as long as they get a tax
4 abatement for a certain amount, they give that
5 same amount of money to the small businesses in
6 the state. So what we're able to do is leverage.
7 So if you're within a rural community, it's up to
8 \$20,000 per rural community per year. If you're
9 inside the metropolitan area of Albuquerque, it's
10 \$10,000.

11 So what I was able to do was leverage
12 my own supply chain. So I got my entire supply
13 chain involved in a program, and the maximum you
14 can get is a \$100,000 on the program. So I got
15 10 of my suppliers, or something like that, to
16 equal out to the \$10,000 that was available, and
17 we went together to pitch a program to the NMSBA.

18 They then select the best programs,
19 and you were able to use the scientists at the
20 laboratories to accomplish certain discrete
21 tasks; and I won't get into to what those were
22 here. But I just wanted to give you the model

1 that can be emulated. And again, by reinventing
2 the wheel, if the next centers could work at the
3 federal level to try to disseminate this
4 information, through NIST and through our DC
5 office, we'd be very appreciative of that.

6 DR. SMYTH: Thank you, we have a
7 question from Mr. Israel Martinez.

8 MR. MARTINEZ: Sure, thank you.
9 Israel Martinez, chairman of Axon. Thank you Dr.
10 Helper and Dr. Karp. I'm real excited about the
11 programs you're working on. I've heard cyber
12 mentioned a couple times, and I'd like to offer
13 this.

14 A member of Pi-Tech, which is a top-
15 100 of top technologies -- technologists in the
16 United States including CIO, Facebook, AT&T, HP.
17 And I'll say this -- and the private sector
18 doesn't like to talk about it but the reality is
19 the data about infections, vulnerabilities,
20 breaches, much of that already is outside of
21 company walls, all right. And the tools by which
22 we procure those, that is to the device, knowing

1 what devices are infected, even social media
2 attacks that are happening, or reconnaissance and
3 conducting cyber espionage especially.

4 If we think in terms of compelling
5 event, in terms of the White House supply -- the
6 White House Supply Chain Innovation and
7 Initiative. What I'm thinking is if we were to
8 find -- to have a forum -- and I'm not sure if
9 this is the right one, but if we could provide
10 information back, all right, to the small
11 companies about problems we're having today, we
12 would save them not only an enormous amount of
13 money, but the espionage that's happening in the
14 industry is quite random; and I'm talking about
15 manufacturing in general.

16 Then I think what you would have is a
17 compelling event to get -- not only the small
18 companies but the large companies to the table
19 and provide some real actionable information,
20 methods, and processes to resolve what's on the
21 table, the issues. And stats yesterday that
22 Megan gave were quite compelling in terms of

1 being a lot of espionage is happening today.

2 And we also, I think, are not giving
3 this enough attention -- not just, you know,
4 manufacturing, but in Fortune 500, Fortune 1,000,
5 in a different way. And that is when
6 intellectual property is stolen, there's a
7 valuation in that -- on that company that is
8 delayed.

9 So what does that mean? So as an
10 example, if the core formula is stolen from a
11 company, three years from now there may be a
12 competitor that no one ever saw. If it's a
13 public company or a large private company, there
14 are institutional investors now who have money at
15 stake. So the economic multiplier fact of that
16 issue, right, continues and it's compelling.

17 So the earlier we can catch it,
18 especially in the small companies where
19 innovation is happening, and we know that the
20 espionage from a malware -- cyber malware
21 perspective is pervasive and aggressive and
22 persistent. There may be a platform here where

1 now they can make this, you know, a compelling
2 issue to bring to people to the table and solve a
3 very practicable problem we have today.

4 MS. MARTINEZ: Thank you. Any
5 comment?

6 MS. MARTINEZ: Christie?

7 MS. WONG BARRETT: Thank you, I'm just
8 -- Christie Barrett from the Mac Arthur
9 Corporation. One response and idea that from
10 your question, Dr. Helper, around leveraging
11 federal technology assets is for us to think even
12 more broadly about technology assets and
13 information and insight in particular is a huge
14 asset. The government produces white papers and
15 are trying to come together on technology
16 priorities. I heard Dr. Brewster mention that he
17 published, several years ago, the AMP Initiative,
18 also developed a set of technology priorities for
19 the manufacturing sector.

20 That's a huge asset. Just knowing and
21 being able to share broadly with industry in the
22 United States and with the supply chain what the

1 technology priorities are for the federal
2 government because that will identify
3 opportunities for the public/private sector to
4 dovetail their investments for you know, broader
5 benefit, broader gains with less risk; that
6 translates clearly to the supply chain in terms
7 of awareness around what's coming in the future
8 that can be relevant to your manufacturing center
9 or to your business as adjacent opportunities for
10 growth, adjacent opportunities for continuous
11 improvement, and innovation in your production
12 lines.

13 So I think there's a way that we can
14 think about this insight around technology
15 priorities using the MEP Centers, using federal
16 resources, communicating that out to the industry
17 associations because there is a Rosetta Stone
18 translation needed, you know, from something at a
19 high level of a technology priority to what does
20 it mean for Cleveland manufacturers or Ohio
21 manufacturers or Arizona manufacturers; that
22 translation needs to happen somewhere and the

1 intermediaries can be a good source of that.

2 But I think key is thinking about
3 assets being also this insight and information on
4 the direction. I hate to use a hockey analogy,
5 because I'm not a hockey player, but everyone
6 always talks about Wayne Gretzky being so
7 successful because he skated to where the puck
8 was going to be. And the federal government has
9 insight on where the puck is going to be. So
10 sharing that information with supply chains can
11 also create winners for the team.

12 DR. SMYTH: Thank you very much.

13 Anymore comments? Questions?

14 I have one thought. I'm not sure it's
15 a question or a comment. But, you know, we've
16 talked about face-to-face and direction and some
17 of the fabulous successes with the MEP, and
18 that's really enabling these discrete one-to-one
19 relationships that are happening between perhaps
20 a small business and a potential source. And we
21 can celebrate those.

22 But if we want to go viral, and viral

1 in a way that's not with our esteemed colleagues
2 from the cybersecurity bureau -- but we make
3 positive viral; and if we want to go viral in
4 terms of the success that we can propagate
5 through the state and then through the United
6 States, then we need to go virtual.

7 So I'm wondering, perhaps you can
8 share some information about what are the plans
9 in the virtual space, whether it's creating
10 interactive Share Points, creating virtual
11 forums, creating exactly what Christie Wong
12 Barrett mentioned in terms of a Rosetta Stone
13 that helps people translate the information, the
14 collection of best practices, lessons learned
15 that people can -- acquiring cafeteria style real
16 time and also leverage. So it's basically where
17 and how are we moving into a positive virtual
18 world to accelerate your successes in the MEP?
19 You have three seconds to answer that, Dr. Karp.
20 Just a thought.

21 DR. KARP: I don't normally get
22 stumped immediately. So I guess I would -- I

1 would put on my McKinsey hat and break down that
2 problem. So there's two pieces of it, which is -
3 - the first one which is the trust building,
4 which has to be -- there's no other way to do it
5 other than face-to-face. But that is a question
6 of how quickly can you translate that face-to-
7 face into accessing a virtual world of all of
8 these things that no one person could direct them
9 to, which is very much the bottleneck in this is
10 I can only talk to you about what I know about
11 and what I know about is only the things that I
12 talk to others about.

13 So there -- they -- I can see it
14 evolving in a couple places. One is actually in
15 the workforce area. So all of these activities -
16 - and I'm sure Ray will be talking about this --
17 but all these activities around PR and plant
18 tours and Manufacturing Day activities.

19 Obviously those are already being put on. But
20 imagine a system where -- you have a matchmaking
21 system and online training. So all my role had
22 to be is, oh, I know the manufacturer. Hey, go

1 on to this website. You can sign up and you can
2 -- and a certain amount of it happens already
3 today. But you can partner with a local school
4 and here's the 10 different activities you can do
5 over the course. So you can do that in any sort
6 of system that ties in with any sort of outreach
7 and connectivity.

8 When it comes to the national labs, I
9 do believe there is something that can be done
10 around the expertise, such that when Dr. Green
11 goes to the website he could peruse more easily,
12 see the expertise that there, and say, huh,
13 there's something about this expert that might
14 know something about my technology. I've
15 personally had experience trying to do this with
16 the current curations. We spent a while trying
17 to take the current catalogs that are out there
18 and, frankly, they're too much focused on
19 technologies. And if I was a technology-based
20 company I'd probably already know that the
21 technology was there.

22 It's the expansion from the

1 technologies, which is much more relevant when
2 you talk about areas and domain expertise that
3 could be queried intentionally. So those would
4 be -- those are pieces -- I think a third thing
5 you might think about virtually is -- I know this
6 seems silly, but it's success stories, and I
7 don't mean long success stories.

8 But what we do after we've built a
9 little bit of trust is we talk about what other
10 manufacturers do. And when other manufacturers
11 hear and see what other manufacturers do, then
12 they say, huh, that's interesting. I will
13 actually pick up a phone call -- the phone and
14 talk to you again about this. So some way to
15 show the range of things that a manufacturer can
16 immediately connect to and say, oh, these are 20
17 different things that -- I haven't thought of two
18 of those that maybe I should try. Let me now
19 contact the person. So that's another to get
20 inspiration virtually to access things that would
21 be a much more efficient way of doing it at
22 scale.

1 DR. SMYTH: Thank you very much. So
2 -- oh, we have one last question. Colonel Smith?

3 LTC SMITH: Not so much as a question
4 but a comment. And just the council know that
5 the Department of Commerce, in conjunction with
6 the Department of Energy, we have finalized a
7 Memorandum of Understanding which will allow the
8 collaboration between MEP and the national labs;
9 and this piece of paper is within a matter of
10 weeks of being signed.

11 Exactly how that is going to work in
12 terms of functionality, to Ethan's point, they're
13 going to have to boil it down such that Ethan can
14 know that what's available at each national lab,
15 such that he can direct his customers there. But
16 there's that direct coordination that's happening
17 at the top.

18 DR. SMYTH: Okay, that's really good
19 news. Dr. Helper?

20 DR. HELPER: Yeah, no, no, this is a
21 really helpful list of things. And there were a
22 couple of things that have come up, either

1 yesterday or in my informal discussions, that
2 just as possible things to kind of check as you
3 see of interest.

4 So one I guess was a question actually
5 raised by Nancy Freedman, who works for Ethan on,
6 you know, what is it that it would take -- what
7 are the barriers to having companies introduce
8 MEP to their supply chains? You can imagine, you
9 know, there's a feeling that the services aren't
10 quite right, there's a lack of familiarity,
11 there's -- you know. I'd be interested in -- you
12 know, if you haven't done, it why not? And that
13 would be -- so one question.

14 A second possibility is potentially
15 sort of further work with regional and trade
16 associations. So we've given talks -- so one
17 example, to the Aerospace Industries Association
18 that Jeff Wilcox facilitated. Is that further
19 kind of discussion useful?

20 I thought one of the things it showed
21 was there was a lot of disagreement about how
22 procurement actually worked in aerospace and that

1 kind of dialogue. You know, what were the
2 incentives that purchasing agents faced? What
3 were the incentives that small businesses felt?
4 There was, at the White House meeting, an offer
5 by some companies to provide webinars. Actually
6 Jeff Miller from Whirlpool was one of those
7 people.

8 MR. WILCOX: John Miller.

9 DR. HELPER: John Miller, yeah. So
10 you can imagine. I mean, it's a new area for the
11 Manufacturing Council. But, you know, there
12 could be sponsored webinars. So I guess those
13 are maybe three ideas that would be interesting
14 to kind of hear if any of those seem to resonate
15 or be useful or things that.

16 DR. SMYTH: Okay, so that's great.

17 Any further comments or questions before we close
18 this session?

19 Okay. Again, thank you Dr. Helper.
20 Thank you, Dr. Karp.

21 Okay. And we are going to segue to
22 the Workforce Development discussion, and I'm

1 going to reintroduce Colonel Smith and also Mr.
2 Yeager, who are going to present on the workforce
3 issues.

4 MR. YEAGER: Thank you, Susan and
5 Claudine, very much for giving me an opportunity.
6 We're going to maybe lighten it up a little bit.
7 Workforce is a very serious issue. But I'm going
8 to start, if it's acceptable to everybody, to
9 talk a manufacturing reception that we had back
10 in February at our MEP. I feel like we're on an
11 MEP role, so I'm going to continue with the MEP.

12 And so in February, we had about 500-
13 plus people at a reception. The theme was
14 "Explore the New Manufacturing", and it was
15 hosted by Catalyst Connection, our local MEP, of
16 which I am the chair. And here today is Petra
17 Mitchell, she's already been introduced. She is
18 the President and CEO. And she and her staff put
19 together a great program.

20 It was highlighted with a keynote
21 speaker, our very own Lieutenant Colonel Dana
22 Smith. He's going talk in a minute about it.

1 And it actually starred the western Pennsylvania
2 middle schoolers. So bear with me because we're
3 going to watch a movie. It's a short movie, I
4 promise, maybe two -- three to six minutes or so.
5 We're going to see that in a minute.

6 But so we're serious on the Workforce
7 Subcommittee. We're working hard to give
8 Secretary Pritzker some serious recommendations
9 to engage Labor, Education, and other
10 administration departments to improve the
11 manufacturing imagine.

12 Now, we're all passionate on the
13 subcommittee about this topic, as you can tell by
14 listening to Andra and myself yesterday, and a
15 number of us you will hear -- probably hear from
16 today. But we know that the federal government
17 can't do this alone. It really has to be done
18 with public/private partnerships. I say that
19 many times to try not to get it wrong because
20 public/private partnerships is hard to say.

21 But we're working together to get a
22 lofty goal -- this lofty goal of improving the

1 manufacturing imagine. So, you know, if you talk
2 to any of us on Workforce, I think you'll see
3 great examples of what I'm going to show you here
4 in a minute. Our example today, we're going to
5 show how Catalyst leverages the greater
6 Pittsburgh manufacturing community, students,
7 teachers, parents, economic, and workforce
8 development groups, and our private foundations
9 to bring this and other events together.

10 Ethan mentioned a couple of the events
11 that they do here. He gave us a big picture of
12 the MEPS, and he talked about specific things
13 that they do. And at Catalyst Connection, very
14 much the same. I will say to you that not --
15 Christie asked a question -- not all MEPS are
16 created equally.

17 We happen to have two of the best MEPS
18 I believe in the country here today; the people
19 who are running them. I will just mention very
20 briefly, I'm unashamed in showing our annual
21 report. We'll have a few of these around if you
22 want to see this and see what your MEP can be.

1 We -- I brought a couple copies for you.

2 But things like -- we do the middle
3 school Power Fluid Challenge, we do lots of IQ,
4 we do apprenticeships, and college internships as
5 well. And we engage about three hundred
6 employers in the western Pennsylvania area, with
7 about 100 schools participating. So we're
8 talking -- I'm basically focusing workforce today
9 on the schools; we'll be coming to why later.
10 But we offer teacher training and -- to help them
11 embed some of their project-based learning into
12 their curriculums.

13 So I mentioned a minute ago that the
14 reception was starring middle schoolers. And to
15 briefly explain, we had 10 schools who worked
16 with 10 manufacturers in the area. I'm only
17 going to show you two. But they created -- the
18 middle schoolers created the videos that we're
19 going to see now; the theme was "What's so Cool
20 About Manufacturing"; and they were excited about
21 it. They promoted this event and actually voted
22 for winners. They had 10s of thousands of votes

1 in the community, which is really pretty cool.

2 So without further delay, let's
3 explore the new manufacturing. We're going to
4 hope for this, okay, video, with Southband School
5 District showcasing Hörmann High Performance
6 Doors and the Avonworth School Distinct,
7 featuring ARDEX Engineered Cements. And they
8 were actually the winner of the best message and
9 people's choice. So if you can roll up our first
10 one, the Southband.

11 (Video played.)

12 MR. YEAGER: So that was some pretty
13 amazing middle schoolers to be able to produce
14 and create those. And Dana is going to talk a
15 little bit about the event itself as well. And
16 as I mentioned, he was our keynote speaker; so
17 Dana, fire away.

18 LTC SMITH: So thank you again. The
19 irony is not lost, I mean, that you have an Army
20 aviator here talking to you about manufacturing.
21 And I will lead off in saying that -- you may
22 have heard, but the Army does have a modest

1 workforce development program. So it's not a
2 foreign concept to me.

3 But the event at Catalyst Collection
4 -- Connection, it really highlighted some really
5 fine points that I wanted to convey to you, and
6 I'll start out with what I call the big picture
7 in terms of government policies.

8 There's two questions: are we doing
9 things right and are we doing the right things.
10 And it just so happened that Deloitte had a
11 survey that came out, I think last week, Global
12 Manufacturing Competitive Index, which in the
13 body of that report it basically said the United
14 States executives found that there were a number
15 of U.S. policies that they felt were going to
16 help them have a competitive advantage, to
17 include sustainability, technology transfer,
18 monetary control, science and innovation, foreign
19 direct investment, IP protection, safety, and
20 health and regulation.

21 There were a number of other policies
22 that they weren't so happy -- tax -- we won't go

1 into those. So for the -- the question, are we
2 doing the right things, it seems like there's a
3 sense from a policy standpoint that, yeah, we are
4 doing the right things. But are we doing things
5 right and how do you measure those impacts? In
6 my opinion, having worked with the NNMI and the
7 IMCP in trying to measure the impacts that those
8 programs have, not only can we not tell you today
9 if it's going to work, we're not going to be able
10 to tell you next year.

11 It's going to take years, if we can
12 ever tell you and quantify the results of those
13 programs. You know, we have a gut feeling -- we
14 all have a sense that they're going to work, but
15 to quantify the results that's a little more
16 difficult. So despite all the things that we are
17 doing right -- or rather doing the right things,
18 we still have the perceived we're going to have
19 this gap of 2.1 million jobs. So I kind of put
20 that out in perspective that, you know,
21 government, if it could cover that gap, they
22 would. But I think the reality is that's not

1 going to happen. It's just -- it's too much for
2 one institution to take on, and we shouldn't
3 expect them to do it.

4 So when I look back at the innovation
5 and the advanced manufacturing piece, you know,
6 that's only competitive advantage if you have the
7 career pathway system to support it with the
8 workforce to make it a reality. So you can have
9 all the greatest technology in the world, without
10 the people and the pathway to train those people
11 you don't have a business.

12 So going back to the Pittsburgh and
13 the community-based efforts, it's the local
14 talent. Ray's not looking for people from
15 Seattle. You're not recruiting out there. So it
16 is incumbent on the local manufacturers and their
17 local communities; it's a local problem.

18 And to talk about the career pathway
19 system a little bit and what I viewed, it all
20 starts at the requirement -- all wicked problems
21 start with the requirement and that's starts with
22 the manufacturer. No one knows your requirements

1 better than you. And the educators out there,
2 they would love to produce those people for you,
3 but you have to communicate those requirements to
4 the education system, such as so the education
5 system can produce them.

6 Again, this is like a supply chain,
7 without the raw materials; the people at the
8 front end, there's no one to educate, there's no
9 one to fill those jobs. So the community piece
10 and the career pathway kind of comes together.
11 Again, it's a community effort. And that was
12 really what the Pittsburgh thing was all about.

13 When you really looked at the audience
14 that was out there, you had the kid that you saw
15 in those videos, you saw how excited they were,
16 mom and dad was there, their educators were
17 there. I spoke to a number of school
18 superintendents after the -- so at the high
19 school level they were engaged. The tech schools
20 were there. The manufacturers were there. It
21 was a community-based effort.

22 Everybody in this career pathway

1 system was there for one single purpose, to get
2 those kids interested in manufacturing. And
3 that's really -- the fact that the video was what
4 was the catalyst that brought them all together,
5 that's great. But again, you can just see the
6 energy in those kids. They really liked what
7 they had seen.

8 And in terms of, you know, why today,
9 why now when we talk about the middle school
10 students, you start to do the math. You know, in
11 two years, these kids in the middle schools are
12 selecting their career pathways. Pretty much by
13 the time they're a sophomore or junior in high
14 school they pretty much know which direction
15 they're going to go.

16 That means by 2020, they're starting
17 to enter their technical follow on. So these
18 kids are going to enter the workforce starting in
19 2022, 2024; depending on what track they take
20 you're right up against that 2025. So kids that
21 are in that middle school today, that's the
22 target. And if you miss this opportunity today,

1 it's gone.

2 So and -- I'll end this comment with
3 something that I heard last week, which was
4 really profound, and there's two types of
5 companies. You know, the companies, well, I
6 can't find talent, I'm searching for talent.
7 Well, are you going to search for talent or are
8 you going to go make talent?

9 And that's kind of the difference
10 between the mentality I think going forward from
11 the manufacturing standpoint is those companies
12 that sit around and wait for the system to
13 produce something, they're going to miss out.
14 And again, going back to the community piece, it
15 was so well demonstrated in Pittsburgh, the fact
16 that everybody came together for the common
17 purpose.

18 Back to Ray.

19 MR. YEAGER: So back to me. Why? Why
20 did we show you this? Why did we talk to you
21 about this? We're working on our next letter.
22 It's actually almost done. And so I'm just going

1 to briefly talk a little bit about that. And
2 this is almost the why. You know, you see what
3 we're trying to do here in the Workforce
4 Development Committee. Yesterday I asked a
5 couple of rhetorical questions, right? I asked
6 who has candidates that are prepared right now
7 for entry level jobs, and, you know, 2 million
8 jobs are going to be unfilled in 2025.

9 So we're going to talk about how to
10 improve that -- improve our chances for success.
11 You know, there are a myriad of questionable
12 programs. Ethan talked about, I talked about
13 some of them. So our subcommittee, we talked
14 about them, talked about lots of programs that
15 are out there.

16 We looked at what the previous
17 councils did and the past work and
18 recommendations. After careful study and
19 analysis, we came to the conclusion that, yes,
20 some manufacturers are getting by right now, if
21 they're in a supported area. Clearly Cleveland,
22 Pittsburgh are supported areas, and there are a

1 number of others, you know, so.

2 But what about in five years, 10
3 years? So we would like to get the Secretary to
4 push for some policies, but really to work very
5 hard together with the Department of Education
6 and the Department of Labor, because oftentimes
7 there are barriers between the two.

8 So we're going to be submitting the
9 following three recommendations to Secretary
10 Pritzker. You -- we're hoping, I believe, that
11 we're going to approve this letter on -- the
12 whole council on May 18th. So that would be all
13 of us then submitting these to Secretary
14 Pritzker.

15 But recommendation number one is to
16 develop, or where existing improve,
17 internship/apprenticeship programs with the
18 Department of Labor. So we're going to be
19 talking about that in our letter. And certainly
20 when we go through our discussion we'll can have
21 more conversation about that, but I'm just giving
22 you the big overview.

1 We're going to push for the
2 reauthorization of the Carl D. Perkins Career and
3 Technical Education Act of 2006. It's a very
4 important act for schools -- high schools
5 primarily, for career technical education or
6 CTEs. We've briefly touched on that in this
7 council meeting before.

8 And our third recommendation is to
9 work with the Department of Education and the
10 Department of Labor to enhance middle school
11 curriculum -- what we're talking about here --
12 enhance high school curriculum and how the CTEs
13 work with high school curriculum, and potentially
14 adopt a National Career Readiness Certification.

15 So we strongly believe -- our
16 subcommittee strongly believes that the
17 recommendations will help marshal resources to
18 vitalize our nation's manufacturing talent
19 pipeline. And that's what we're working on to
20 improve our chances of filling those 2 million
21 spots in 2025. And we're going to do our part to
22 rally the manufacturing industry, through our

1 perception campaign and leaders, to improve and -
2 - improve our chances of these stated objectives.
3 And so now I end my presentation about our next
4 letter.

5 MS. MARTINEZ: Can everyone feel Ray's
6 passion here? It feels really good, doesn't it?
7 It's fantastic. And as well as the Colonel's.
8 Thank you so much for that overview. I
9 understand that for our discussion, before I
10 invite questions for both of you, I'd also like
11 to point out that Tim O'Meara, Craig Freedman,
12 and Sue Helper are all teed up also to respond to
13 any questions that you have on this topic area as
14 well. So I open up the floor for comments and
15 questions. Please.

16 MS. TAYLOR-KALE: Thank you. I know
17 I had side conversations yesterday with --

18 MS. MARTINEZ: Excuse me, ma'am. I
19 hate to interrupt you. Can you identify yourself
20 for the record?

21 MS. TAYLOR-KALE: Absolutely.

22 MS. MARTINEZ: Thank you.

1 MS. TAYLOR-KALE: Sorry about that.
2 Laura Taylor-Kale, deputy assistant secretary for
3 Manufacturing and Commerce. Following on our
4 conversations last night, and your wonderful
5 presentation just now, I'm very curious if you
6 all have found that there's some critical point
7 where you yield better results.

8 So for instance, if you target middle
9 schoolers, or if you target, you know, high
10 schoolers all -- throughout the sort of education
11 chain, it's very important. But is there a
12 critical point where if you reach kids you will
13 yield the -- you know, the workers actually going
14 into entry level points more -- you know, would
15 it be more likely?

16 MR. YAEGER: I'll probably.

17 MS. MARTINEZ: Tim?

18 MR. O'MEARA: This is Tim O'Meara,
19 president of GEMCITY Engineering. In the Dayton
20 area, we are very fortunate to have a very active
21 Regional Manufacturing Association. And so we
22 tried a number of years to do our own little

1 robotics exercise. And one of the things we
2 found there was direct -- it was a direct
3 correlation, but we could not track it due to
4 basically you're not able to track a student
5 through the system to find out if they actually
6 went to college, what college they go to, and did
7 they actually get into a manufacturing position.

8 So the one side is, yes, we found it
9 very successful. But at the same time there's no
10 direct data to support that they did go into an
11 engineering job. And just because of the Privacy
12 Act, we cannot ask the parents or ask the student
13 did they go down that path.

14 So -- but we did see a lot of
15 interest. And what I can say is through the
16 exercise with interns, we found out in the
17 summertime that they came back and asked for a
18 job. All right, but after they got to school,
19 after they graduated, that's when we lost track
20 of them.

21 DR. SMYTH: Colonel Smith?

22 LTC SMITH: And I would -- I agree

1 with Tim that there is no real evidence.

2 However, Deloitte did a perception survey after
3 the last Manufacturing Day event last year where
4 they asked students and teachers alike, you know,
5 how their perceptions had changed towards
6 manufacturing.

7 One of the questions I think was 81
8 percent of all the participants had said after
9 having been to the event, experienced it, and
10 done something like that, they would consider a
11 career in manufacturing. So it was kind of an
12 insight to show thinking about it.

13 MS. RUSH: Hi. Excuse me, I'm Andra
14 Rush. I can give you empirical data, just my gut
15 feel. I find that you really need to expose
16 young children at the first through fifth grade
17 to manufacturing, like field days or even science
18 centers, because people don't associate what an
19 engineer is or manufacturing. I can tell from my
20 own experience, about 15 now young adults are in
21 manufacturing because they were on field trips
22 with me when they were little five and six-year-

1 olds. But they -- that exposure opens the mind
2 of imagination. And high school is really too
3 late in some cases.

4 One other example that I think will
5 become a best practice is our mayor in Detroit
6 has a program called "Grow Detroit's Young
7 Talent". And what they do with some employers is
8 they match 20 hours a week employment for six
9 weeks. We -- last year had a goal of hiring 100,
10 we hired 70 for the six weeks, and this year our
11 goal is 150.

12 But two things came out of it. I was
13 able to hire three people full time from that
14 experience. I drove 10 percent -- 10 people
15 right back to school because they didn't want to
16 go in manufacturing. So knowing what you don't
17 want to do is key.

18 But an interesting thing that the
19 mayor shared was that the crime went down
20 dramatically, dramatically in our city for those
21 six weeks and that was because kids were working.
22 We targeted 16 through 24-year-olds that

1 typically never had a job. And it is -- it's a
2 phenomenal way for a pipeline for workforce and
3 exposure as well.

4 MS. MARTINEZ: That is excellent. Ms.
5 Mitchell, did you have a comment?

6 MS. MITCHELL: I did have a comment.

7 MS. MARTINEZ: Please, could you come
8 to a microphone if you wouldn't mind. You can
9 share right here.

10 MS. MITCHELL: Yes, thank you. I just
11 wanted to comment. The program that Ray
12 described, of course, we were so excited and very
13 proud of. But it is part of a much larger
14 program, as Ray described, "Explore the New
15 Manufacturing", which offers a number of
16 opportunities for employers and students to
17 become engaged.

18 So I think the answer to your question
19 is, no, we haven't found one single program.
20 What we have found is that it is not a one size
21 fits all solution and that there have to be --
22 has to be many opportunities for employers to get

1 engaged because not all employers want to open
2 their doors up for students to come in and take
3 videos, not all employers can, you know, support
4 an intern or whatever the program is. So that
5 there has to be many options.

6 And we are really trying to build
7 those options, not only in our own center, but
8 with all of the partners in the greater
9 Pittsburgh community. And just as an example, I
10 believe yesterday there was a discussion about
11 the Maker Movement; that is an excellent way for
12 some students to become introduced to
13 manufacturing.

14 And we have summer camps where we
15 partner with Tech Shop. And so we are able to
16 bring in students from the urban community: come
17 to a camp, one to two weeks at Tech Shop, make
18 things, become introduced to manufacturing in
19 that manner. So I think, again -- and, you know,
20 we're open to lots of ideas of different ways
21 that we can bring that to the table to provide
22 that opportunity.

1 MS. MARTINEZ: Thank you Ms. Mitchell
2 for that comment. Hiro?

3 DR. FUJITA: Hiro Fujita, the Energy
4 Subcommittee co-chair. It's a wonderful
5 discussion. And indeed as a medical device, my
6 personal company, we also have these challenges
7 and issues when it comes to finding people. And
8 my comment would be -- this could be a question -
9 - but, you know, you did talk about the employer
10 side, and also students and community.

11 But at the same time I think we have
12 to talk about the teachers' quality in the middle
13 school because they are going to make such a big
14 impact to these young students. So my question
15 is, do we have, you know -- are there any, let's
16 say, awareness or training programs for the
17 teachers -- middle school teachers who will be
18 engaged in, let's say, educating these young
19 minds? Thank you.

20 LTC SMITH: So from a national
21 perspective, I don't think there's an answer to
22 that. I do know that last year the NNMI

1 Institute in Tennessee did do a program like
2 that, where they brought in a whole host of high
3 school teachers and they ran a-week long camp to
4 introduce them to some of the manufacturing
5 concepts. As you know, NNMI has a workforce
6 development component to it and that was one of
7 the things that they were really proud of in last
8 year's efforts to address that exact answer.

9 MS. MARTINEZ: Please, Ray.

10 MR. YEAGER: Craig, do you want -- I'm
11 sorry.

12 MS. MARTINEZ: I'm sorry, I didn't
13 see.

14 MR. FREEDMAN: I was just going to --
15 Craig Freedman, Freedman Seating Company. I'm
16 also on the Workforce Development Committee. And
17 while those videos seem -- you know, it's just
18 one small element of the increasing the
19 perception of manufacturing. And we have 2
20 million jobs to fill, as Dana had mentioned, and
21 it's going to take the teachers, the
22 manufacturers, the students themselves. But just

1 as important are the parents. And that needs to
2 be emphasized as well because they have a -- they
3 are a key part of the decision-making process for
4 the young middle schoolers and high schoolers in
5 where they take their careers.

6 And, you know, my parents and
7 grandparents, I mean, they all -- the perception
8 is is that manufacturing is a dark and dirty
9 place, and that couldn't be further from the
10 truth. And that's part of what our committee
11 with the perception letter, that we've all seen,
12 is trying to combat. And so I just want to , you
13 know, clarify or point out that getting the
14 parents involved in this decision, while we don't
15 have statistics on how that will help the
16 situation anecdotally, there's no doubt about it.
17 We've brought parents in before we hired students
18 from local high schools and that seems to have
19 helped the retention and increase the interest of
20 the students themselves, so.

21 MS. MARTINEZ: Excellent, that's a key
22 point, Craig. Thank you very, very much for

1 that.

2 Anyone else before I call on Ray to --
3 Rob?

4 MR. FRIEDLAND: Thanks, Rob Friedland
5 from Proton OnSite. Just -- Ray, you mentioned
6 something when you were talking about your three
7 points that maybe you could elaborate a little
8 bit on. You said the third point was potentially
9 some form of accreditation, if I heard you right.
10 And I think that both sends fear to me -- I'm
11 kind of afraid of that, as well as intrigued by
12 that because I think in manufacturing -- I work
13 in the energy sector, and manufacturing for us is
14 defined as the ultimate in flexibility.

15 In other words, by the time the
16 community colleges have put a program in place --
17 you know, I'm three generations past that, so I
18 work with them to not do that. You know, give me
19 the basic skills, give me what I need, and I'm
20 going to train them to do -- through
21 apprenticeship programs and a lot of the kinds of
22 things that are available. So I'm just curious

1 where -- what the -- a little bit more of an
2 elaboration on what you were thinking with that -
3 - or the team was thinking with accreditation?

4 MR. YEAGER: So I said "potentially"
5 and the reason I said potentially is because as
6 we sat down and we're discussing the final parts
7 of our letter yesterday, from information I
8 believe we received from the Department of
9 Education, there is some -- or maybe it was the
10 Department of Labor -- there is some question as
11 to how far they can go.

12 And so our recommendation -- remember,
13 we're going to make a recommendation to Secretary
14 Pritzker, was to work with Labor and Education to
15 try and see if there is a way to develop some
16 readiness certifications and stacked
17 accreditations to be able to come to that. And
18 if -- one of the possibilities we kicked around
19 was whether or not NIST, who that's their world,
20 if it in fact that's the right place to house
21 what type of technical requirements are needed.

22 So we have a ways to go related to

1 that, but it is something that on the Workforce
2 Subcommittee we felt pretty passionate about was
3 stacked accreditation would be a really, really
4 nice thing to help the flexibility of young men
5 and women find jobs in manufacturing.

6 MS. MARTINEZ: Excellent. Bill?

7 MR. YEARGIN: If I understand the 2
8 million job shortfall by 2025, it's a way bigger
9 issue then just for manufacturing; it's a
10 national issue that cuts across many, many
11 different segments. So I know this is a
12 political hot potato right now, but I can't help
13 but wonder if there's not partially an
14 immigration solution. In other words, are there
15 just -- are there even going to be enough people
16 working age by 2025 to fill not just
17 manufacturing jobs but across all the jobs. And
18 if there is a potential immigration solution, is
19 the timing right for us as a council, and
20 specifically the Workforce Development Committee,
21 to start bringing that up.

22 MS. RUSH: I think we did talk about

1 immigration and that is a hot topic I know in
2 Michigan. Our Governor's going for 15,000 H1B
3 visas, I believe they are, and immigration is
4 needed everywhere. Also, when we do educate
5 foreign students, we want to have a retention
6 program for all that wonderful knowledge that
7 really made America the country it is. So that
8 is a big policy. I don't know if we're going to
9 get to it. I hope we do.

10 For me, I'd just like to pick up the
11 phone and say, make an executive order, but I
12 guess that's not popular. Because really, let's
13 face it, immigration is what's made our nation,
14 and we do need the pipeline of people and their
15 creativity and diversity from all over, as well
16 as in employing our American citizens as well.

17 So I don't know how to kind of
18 influence that, but I think if we did bring
19 awareness that's helpful. Maybe Dana, you know
20 what Secretary Pritzker's involvement is on
21 immigration.

22 LTC SMITH: I would venture a guess

1 that it is very limited in her sphere of
2 influence on that topic. But I have seen her
3 personally take recommendations from
4 organizations, and although they were not -- or
5 they were hot button issues, and we're not going
6 to go into the details of them -- but she feels
7 adamantly if that's the recommendation that you
8 want to make, she considers it, and acts
9 accordingly.

10 So -- and to the exact point of I've
11 had this conversation with the President. We
12 have an understanding, but I'll raise it again.
13 So that -- it's certainly something to consider.
14 And I don't know that the math has actually been
15 done to figure out do we actually have enough
16 people. It would be an interesting equation to
17 solve.

18 DR. SMYTH: So it's a good point, but
19 I want to expound on it a little, and thanks for
20 bringing it up, Bill. So one of the things that
21 we're driving in each one of the individual four
22 subcommittees is for closure on actionable

1 recommendations in the short timeframe. But it
2 is critical that we take issues like that, and if
3 we decide they're not going into an actual
4 recommendation that we tee them up for the next
5 council. And that needs to go into our overall
6 closure meeting and archive. So I want to thank
7 Bill for putting that on the table. Thank you.

8 MS. MARTINEZ: Excellent -- that's an
9 excellent segue. If you can give your comment in
10 30 seconds or less, Dr. Green, I'm happy to
11 entertain you.

12 DR. GREEN: I was just --

13 MS. MARTINEZ: Were you going to say
14 the same thing? Excellent, we're on a tight
15 timeframe and my boss over here to my right is
16 making sure that I stay on track.

17 So to keep Archana going and all of us
18 going, I think I'll turn it back over to Susan
19 after I thank the team here that just responded
20 to the robust discussion. Lieutenant Colonel
21 Smith, as well as Ray and your whole team, Dr.
22 Cristobal, and Andra, Tim, Craig --

1 DR. HELPER: Could you just say one
2 second thought?

3 MS. MARTINEZ: Sue, yes.

4 DR. HELPER: So one of the things that
5 we're working on in the Department of Commerce is
6 a study on the return on investment to having
7 apprenticeships. And so we are looking for
8 companies that have apprenticeships. Ideally,
9 they also have some kind of counterfactual;
10 either they have data from before they started
11 the apprenticeship program or they have another
12 way that they bring people in but that allows us
13 to do a comparison. And so in return for the
14 data, we would sort of offer some free consulting
15 about how to think about what this return on
16 investment is, how to increase it, et cetera. So
17 it would be really great if people that are
18 interested would contact me offline.

19 MS. MARTINEZ: Thank you for that,
20 Sue. Susan?

21 DR. SMYTH: Okay, thank you, Sue.
22 Okay, so we are going to segue to the

1 subcommittee reports on the 2015-2016
2 deliverables.

3 So when we were in discussion with the
4 Secretary, and it was April last year -- it's
5 amazing to think it's only been a year, we've all
6 aged visibly -- she provided us with a clear and
7 concise description of the deliverables that she
8 expected from the council. And each one of the
9 subcommittees has done a fantastic job in keeping
10 this charter and focus, and preventing scope,
11 (indiscernible), and course connections. I want
12 to thank you for doing that and congratulate you.

13 So in our co-chair meeting last week,
14 we discussed a template that would allow us to
15 visit the expectations of the Secretary. So
16 subcommittee by subcommittee, we're going to look
17 at what the Secretary specifically asked you. I
18 want to you to do X, Y, Z; and we need to match
19 to the output of the council on what we have
20 delivered.

21 So I'm now going to call on each one
22 of the co-chairs to report out briefly what those

1 deliverables are, and if they can do them in the
2 context of what the charter was, that would be
3 much appreciated. Thank you.

4 And I think we go to --

5 MS. MARTINEZ: Bill.

6 DR. SMYTH: -- the ageless Mr. Bill
7 Yeargin from TTP.

8 MR. YEARGIN: I'm Bill Yeargin. I'm
9 chair -- co-chair of the Trade Tax Policy and
10 Export Growth Committee. We were give two
11 directives by Secretary Pritzker. One was to
12 identify mechanisms and processes which enhance
13 or impede exports, and then secondly give input
14 on the top market reports. We've issued three
15 letters so far covering four topics.

16 I'm happy to report that of the four
17 topics in our three letters, two of them actually
18 we have positive closure on. So that -- we're
19 happy about that. We have two more letters in
20 the works. We have a trade letter and a tax
21 letter. We pretty much finalized them this
22 morning. We've got to get them through the rest

1 of our committee that wasn't here today over the
2 next few days, and we hope to have them to the
3 full council for your consideration and hopefully
4 ultimate approval in our call on May 18th.

5 Related to the first directive by the
6 Secretary, that's really where -- which is
7 identifying processes which enhance or impede
8 exports; that's where we really spent most of our
9 attention and -- for our previous letters and
10 then focused on. As I said, we have another
11 letter coming out on that in the next few days.

12 And the second directive related to
13 the top market reports, we do -- we have
14 accumulated a number of comments on those
15 reports. Some of those comments will be included
16 in our letter that will also be coming out in the
17 next few days. But really, the bigger issue that
18 we found was that it comes back to, you know, are
19 you doing things right or are you doing the right
20 things.

21 What we found was that most people
22 just don't know about what the Department of

1 Commerce offers. And we did a number -- we did a
2 survey. All of our committee went out. We had
3 regional forums and a lot of people just weren't
4 aware.

5 So one of our -- I think the most
6 important recommendations is that the Department
7 of Commerce focus on marketing of what is out
8 there because there's a lot of valuable resources
9 the Department of Commerce does that businesses
10 just aren't aware of. I know I wasn't before I
11 got involved in this council four years ago, and
12 others on our committee mentioned the same thing.
13 So I think we made good progress, still got some
14 more work to do. And thank you for giving me the
15 opportunity to share that.

16 DR. SMYTH: Thank you very much, Bill.
17 Excellent summary.

18 I'd like to move now to Dr. Hiro
19 Fujita and Dr. Cody Friesen for the Energy report
20 out.

21 DR. FUIJITA: Thank you very much
22 Chair Smyth. So on behalf of the Energy

1 Subcommittee and my co-chair, Dr. Cody Friesen, I
2 would like to give you the update of our
3 activity.

4 Originally when we had, you know, this
5 council meeting, we were charged by, you know,
6 Secretary Pritzker to, you know, basically come
7 up with a plan -- proposal that would promote
8 trade relationships and create energy while
9 simultaneously increasing domestic production and
10 export activity.

11 So our subcommittee has spent, you
12 know, a lot of time to do brainstorming, and we
13 have a -- proposed a -- this letter which is
14 entitled, "Renewable Energy Trade Missions." And
15 basically what is that there are many committees
16 and groups who is in the Commerce Department and
17 elsewhere in the federal sector.

18 So we proposed that the Trade
19 Promotion Coordinating Committee, TPCC; and
20 International Trade Administration, ITA; and
21 Department of Energy, DOE; and also the Energy
22 Agency and Renewal Energy, EARE; and then also

1 Office of Energy and Environmental Industries,
2 OEEI, to create a working group to address these,
3 you know, issues, in particular this trade
4 missions.

5 There are two types of trade missions:
6 one -- number one, foreign trade missions; that's
7 where, you know, often government comes up, you
8 know, with a program to go to other countries
9 where, you know, opportunities are. And we have
10 participated in those trade missions before.

11 But what may be new here is that we
12 are also talking about the (indiscernible) trade
13 missions; that is, you know, perhaps very
14 beneficial for small/medium enterprises because
15 they may not have resources to, you know,
16 participate in these trade missions to other
17 countries.

18 So, you know, having a theme and a
19 mission, we could invite, together with the
20 government -- invite these private sectors and
21 then government sectors to these cities in the
22 country to promote, you know, job creation and

1 also business opportunities. So that was our
2 main idea.

3 But I must also, you know, offer this
4 very important comment, which we received from
5 Deputy Assistant Secretary Ms. Laura Taylor-Kale.

6 MS. TAYLOR-KALE: Taylor-Kale.

7 DR. FUIJITA: And she gave us the, you
8 know, advice yesterday to also include those
9 agencies which are responsible for financial
10 resources. So, you know, that was a wonderful
11 comment.

12 So our activity will be including --
13 you know, will include integration of this very
14 important piece of the picture into our letter.
15 So it's going to be, you know, a revision to or
16 other form. We have to decide as a subcommittee,
17 but that's what we are going to do.

18 And we also, for the remaining few
19 months, what we want to do is to compile all the
20 data that we have collected, you know, during
21 this council time to -- you know, such as contact
22 information, committee information, who have, you

1 know, let's say same goals and objectives for
2 this renewable energy sector. So we are going to
3 compile that data to pass on to the next council.
4 Thank you.

5 DR. SMYTH: Okay, thank you very much.
6 And before I move to the Innovation, Research,
7 and Development, I would like to touch base with
8 Ms. Andra Rush and Mr. Ray Yeager from Workforce
9 and see if they have any further comments with
10 regard to their deliverables.

11 MS. RUSH: Thank you, Susan. As we
12 spoke today, we did submit a -- we had two
13 missions: Imagine and Education, and we've
14 submitted our letter and it's been approved for
15 education in the workforce training.

16 On the Imagine, we hope to submit that
17 by May 18th. And we are also making a list of
18 best practices, contacts, and depending on our
19 timing maybe we will address immigration. But we
20 are progressing well, thank you.

21 DR. SMYTH: Okay, I would like to call
22 on Ms. Christie Wong Barrett and Mr. Jeff Wilcox,

1 representing Innovation, Research, and
2 Development for comments.

3 MS. WONG BARRETT: Thank you, Chair
4 Smyth. It's Christie Wong Barrett on behalf of
5 the IRD Subcommittee and my co-chair Jeff Wilcox.
6 We were charged by the Secretary at the beginning
7 of this term to review two central priorities and
8 topics for DOC. The first was around NNMI, and
9 specifically we were asked to help advise on a
10 process to select the two Commerce led national
11 institutes. And specifically also providing
12 input on how to attract top level priority -- top
13 level private sector experts to lead that
14 process.

15 I'm pleased to say we did submit a
16 letter of recommendation in January that was
17 approved by full council. So thank you for your
18 review and support of that. And per Lieutenant
19 Colonel Smith, we've obviously learned that the
20 call for those -- the open-call is active right
21 now, so that process is in play. And so we're
22 happy to have achieved that goal for the

1 Secretary.

2 The second topic we were asked to look
3 at was supply chain, in particular supporting
4 Commerce in their role of helping shape the White
5 House Supply Chain Innovation Roundtable that was
6 held last year, and providing, from our
7 subcommittee, inputs on potential gaps in
8 information flow into the supply chain, as well
9 as ideas on suggestions to help manufacturers
10 both adopt new technologies and upgrade their
11 capabilities.

12 Members of our subcommittee on this
13 topic have actively participate in the White
14 House Supply Chain Initiative that was held last
15 fall in DC to share best practices, to share in
16 insights, representing the manufacturing
17 community, and also hear from other manufacturers
18 what they're doing. We've also participated,
19 over the past 18 months, in community located
20 roundtable discussions around this specific topic
21 for supply chain innovation and scaling new
22 technologies; and the locations were Atlanta,

1 Georgia; Cleveland -- this was about a year ago;
2 Chicago, where we hosted a group at the DNDII on
3 this topic; and also in Detroit.

4 So a collective of information has
5 been gathered and shared back real time to this
6 initiative on the supply chain questions that the
7 Secretary has asked. Our remaining open item is
8 providing a summary document, highlighting our
9 findings that have already been shared back
10 verbally, but making sure that there's a document
11 that the group can utilize going forward as a
12 location of the insights that we gathered over
13 the past 12 to 18 months on this topic.

14 The additional areas of focus that our
15 subcommittee have looked at, we have put together
16 a letter on patent reform, focusing on patent
17 quality. Again, thank you for your support, full
18 council, in reviewing that in detail and helping
19 us move that forward with the Secretary.

20 And then we have three additional
21 letters of recommendation that are in the hopper
22 still. One is on NNMI, we're trying to take it a

1 step further with the maturation of several
2 institutes and the involvement of many of our
3 council members in institutes. We are putting
4 together some best practices for the network that
5 we feel would be helpful to share as the network
6 continues to grow, expand, and collaborate
7 amongst itself. So that will be coming up.

8 And we do have to ask for council
9 members that are members of the NNMI. We will
10 work with Archana to find out who you are, but
11 we'd like the ability to interview you on your
12 experiences with the NNMI and help identify other
13 best practices that could be shared more broadly.
14 So we'll be asking for that as part of that
15 upcoming deliverable.

16 Secondly we are -- obviously, as I
17 mentioned, will close out the supply chain topic
18 by documenting what we've learned and making sure
19 there's a good hand-off to DoC and White House
20 and to the future councils on what we've learned
21 and what we've shared already.

22 And thirdly, we do have a letter in

1 process on the topic of the IANA Function
2 Transition from Government Oversight. As we
3 talked about yesterday, the Department of
4 Commerce and administration are taking actions
5 towards future transition of the oversight of
6 IANA functions to a multi-stakeholder model, away
7 from U.S. government oversight.

8 So through our Manufacturing Council
9 deliberation over the past nine months, we've
10 identified that there are several risks to the
11 U.S. manufacturing industry and sector that could
12 immerge with lack of government -- U.S.
13 government oversight. So we are putting together
14 -- reformulating a letter to identify those
15 risks, potential mitigation strategies that DoC
16 can consider as they continue their activity
17 towards this transition, making sure that we
18 highlight steps that could be taken to mitigate
19 those risks for the manufacturing sector.

20 DR. SMYTH: Okay, thank you. Before
21 I open the floor for comment, I want to segue
22 from one comment that Ms. Wong Barrett made, and

1 it was with regard to one of the initiatives
2 already being implemented.

3 So I would like to call on Archana
4 Sahgal from the Department of Commerce for input
5 on this real time implementation of the
6 recommendations to the Secretary.

7 MS. SAHGAL: Thank you. So because of
8 the incredible work that the entire council has
9 put forth through the subcommittees -- oh,
10 absolutely. Thank you.

11 Because of the incredible work that
12 the council has done through each of the four
13 subcommittees, the letters that you have created
14 have been not only transmitted to both the
15 Secretary, but to also the relevant stakeholders
16 that have equities within the issues that you
17 have focused on, whether that's through -- to
18 NIST or whether it's through U.S. -- the Patent
19 Trade Office, or to our colleagues at the
20 Department of Labor or the Department of
21 Education.

22 So specifically, as Christie and Jeff

1 had mentioned, in the winter of 2016, the IRD
2 Subcommittee, you all had delivered in the letter
3 focused on both the patent requirement and
4 (indiscernible). I know that through my
5 conversations with U.S. PTO office, the patent
6 reform work is incredibly -- it's just to know
7 exactly what your recommendations are, given your
8 experience, is moving. And I'm hoping at that
9 the final meeting we'll have an update
10 specifically from either the Assistant Secretary
11 or the Chief of Staff that will allow us to share
12 with us how those recommendations are being
13 integrated into U.S. PTO.

14 Around NNMI work, you heard directly
15 from Phil Zimmerman himself. The -- I believe
16 the February phone call, our colleague from NIST,
17 who had shared that, not only were his
18 recommendations so helpful but the timing -- and
19 I know that Jeff, you had mentioned this
20 yesterday -- the timing was impeccable; knowing
21 that the due diligence is happening at -- was at
22 the same time. And so I'm hoping and I know that

1 there is continuing dialogue that's happening.

2 One of the things I was flagging for
3 the Workforce Subcommittee in the co-chair
4 session yesterday is that so often you can
5 deliberate and adopt a letter, and it'll get
6 transmitted. But for me, one of the best
7 practices is knowing that the deliberations and
8 the discussion and the clarifying questions
9 between the subcommittee members and between the
10 Manufacturing Council and amongst the interagency
11 folks. And so just knowing that the Department
12 of Ed and Department of Labor are engaged in the
13 act of letter writing is actually what is
14 creating the change in the administration.

15 So thank you, and I'm looking at the
16 Workforce Subcommittee knowing how much work you
17 put on it, because our most recent letter that
18 was transmitted was around Manufacturing Day, and
19 luckily we were able to have Dana Smith here from
20 Secretary Pritzker's office, who is just really
21 ingrained in the work in the Secretary's front
22 office around this work. And I really think that

1 the work around the letter, you'll start to see
2 that in the planning; that's happening already,
3 that's started leading up to both October 2016
4 and beyond, as part of both this President and
5 the Secretary's legacy around Manufacturing Day.
6 So thank you.

7 I know that Andra, as the co-chair,
8 you had mentioned that the Workforce
9 Subcommittee's letter on the schools, even though
10 it has not with about transmitted yet and you
11 have not deliberated or adopted it, already that
12 work is being held very closely by our Department
13 of Education colleagues. Robin Utz -- Ms. Robin
14 Utz, who you know I met with in July of 2015,
15 continues to talk about the power of this
16 specific council and the power of the consensus
17 decision making that you're all making. So I'm
18 looking forward to an update around both the
19 Department of Education, the Department of Labor,
20 and Commerce around this issue. So thank you.

21 With regard to the Energy
22 Subcommittee, we're so lucky to have Deputy

1 Assistant Secretary Laura Taylor-Kale here
2 because, some of you were not in the co-chair
3 session yesterday, but already we're engaging in
4 a deep conversation about our trade promotions
5 office working very closely, along with the
6 Department -- actually DAS Laura Taylor-Kale's
7 office of Energy to ensure that the trade
8 promotions work is integrating the work of the
9 Energy Subcommittee. And in fact, even those the
10 letter has been transmitted up to the Secretary
11 and back around -- across and around, again,
12 because that's how we do things in the government
13 -- that letter still continues to have legs.
14 Knowing that the conversation specifically with
15 DAS Taylor-Kale will continue to help and so.

16 And then I'll end with the incredible
17 work that the Trade Tax Policy and Export Growth
18 Subcommittee, led by co-chairs Bill Yeargin and
19 Jan Allman. You all were the first ones out the
20 gate because there was some incredible
21 legislation that was happening in the fall of
22 2015, and I -- when I speak publicly,

1 specifically around XM Authorization Work, I say
2 that the Manufacturing Council is what tipped it
3 over.

4 And I joke, but the reality is that it
5 really take a confirmed background so it really
6 takes on movement of voices, and specifically
7 those that are weighted from the private sector
8 to really ensure to -- that this work is held,
9 and specifically by the Secretary who is -- she
10 says that she is the -- she is one of you, and
11 she really carries the voice of the private
12 sector in her office. And so knowing that each
13 of the private sector members in this council, it
14 makes a difference.

15 It really does, specifically around
16 the conversation around I believe with the XM
17 Bank Work, and I know that obviously around the
18 miscellaneous tariff bill as well, and the work
19 that was around the higher Transportation Bill.
20 All of those were successful.

21 But as you know it's a very
22 complicated public policy landscape. And I think

1 -- who mentioned it before -- one of you
2 brilliant thinkers had talked about the role of
3 the advisory committees. I am hoping that it's
4 not a best kept secret. I'm hoping it's just not
5 a secret, which is why we have public -- public
6 meetings that are on the record. Thank you, Ms.
7 Elegra.

8 But really knowing that your -- the
9 voices specifically of you and specifically of
10 this council go forward, and not just because of
11 this council, but we have very active folks that
12 get on planes to come meet in Cleveland.

13 So I also want to take a moment to
14 thank my colleagues from the U.S. government.
15 Even though Sue Helper is local, as many of you
16 know, we spent hours on the phone together
17 getting ready for this meeting. And then
18 obviously DAS Taylor-Kale who's here, just
19 committed to -- as the Secretary calls it,
20 "running through the tape" to January 20, 2016.

21 And then obviously my colleagues that
22 are here from OCP. Thank you Dr. Brewster, as

1 well as Lieutenant Colonel Smith. And then
2 thinking through as well, Petra, thank you for
3 coming all the way from Pittsburgh. I hear it's
4 not too far of a drive but that sounds really far
5 to me. As well as Dr. Karp as well because it
6 really is the network of folks: private sector,
7 EDOs, government folks, and just larger community
8 members that make these letters move forward.

9 And you've heard me discuss this
10 before, I know that DAS Taylor-Kale has also
11 referred to the fact that this is a unique time
12 in the administration because the end of your
13 term corresponds to the end of this
14 administration.

15 And so I wanted to also remind folks
16 that that final meeting -- we should be able to
17 announce the final meeting -- summer -- August
18 2016. I don't know why I'm whispering because
19 it's all on record, but we're hoping to announce
20 that. And that'll be really important around the
21 hand-off letter, both ensuring your legacy
22 serving the Secretary and serving this President

1 moves forward, as we transition into the next
2 administration.

3 So with that, thank you, and I turn it
4 back to Vice Chair Martinez and Chair Smyth.

5 MS. MARTINEZ: Thank you so much. I
6 just want you all to know that was not part of
7 our scripted agenda that she is so brilliantly
8 conducted that we actually find ourselves with
9 about 20 minutes of time, which is what we were
10 hoping to have at the very end.

11 I know that we all feel that these
12 meetings go by way too quickly and there's so
13 much substance we could really discuss. But
14 before I invite comment on just the last panel
15 and then for those of you, you can have it in the
16 back of your mind, I'm going to open it up for
17 general comment because we have a little bit more
18 time. If you can be thinking about issues you'd
19 like to tee up before we conduct the conclusion
20 of the meeting.

21 I would really like to make sure that
22 I highlight that since we met last time, this

1 lovely lady, Ms. Sahgal, has been promoted to the
2 head of her office. And she could have delegated
3 this meeting to someone else, the lovely Li, who
4 is now joining us as well, that we're very, very
5 proud and honored to have you as well with your
6 area of expertise and everyone else on your team
7 that I'm not mentioning, forgive me. It takes a
8 village, especially to get this whole council
9 going.

10 What I really want to say that it is
11 really exceptional leadership on her part not to
12 have delegated this. There are 67 committees, as
13 I understand it, under Secretary Pritzker's
14 purview, and it is amazing what they do. And in
15 her time there, she's already included another
16 council to add to her duties. So I think that we
17 should give special recognition to Archana right
18 now and thank her for everything.

19 And I wanted to say -- like my comment
20 earlier about scripted, those comments that she
21 just gave, I just thought of it because we were
22 ahead on time and we did get two questions by two

1 different members asking us where exactly are the
2 council recommendations and where are we going
3 with those. So while Susan was speaking and
4 Christie was giving the final read out, she put
5 that whole briefing together in about 30 seconds.
6 So, you're an amazing professional. So thank you
7 so much.

8 Do we have comments, questions?

9 Please. Bill?

10 MR. YEARGIN: I've got two things,
11 just very briefly. First, I know we've spoken a
12 few times about when we're our meeting, in August
13 or September. If I could just strongly encourage
14 us to get some dates as soon as possible. It's
15 just so hard with everybody's schedule and travel
16 schedules. If we can get that in the next week
17 or two it would be really, really helpful.

18 MS. MARTINEZ: If I could speak to
19 that Bill, and I just want everyone to know the
20 issues. What we're really trying to do is make
21 it a very special meeting for the last meeting of
22 the council. We have some very special surprises

1 that I cannot tell you, especially on the record.
2 But there are some scheduling issues that we're
3 trying to secure in DC, and we will let you know
4 just as soon as we possibly can.

5 DR. SMYTH: I think we can say --

6 MS. MARTINEZ: We are targeting,
7 however --

8 DR. SMYTH: -- it's a high percent
9 chance of it being the first week of August so if
10 you block all that.

11 MR. YEARGIN: The first week of August?

12 DR. SMYTH: Yeah, first week of August.

13 MS. MARTINEZ: Correct, that's what I
14 was just about to say. If you all could just put
15 a calendar hold for right now, knowing that it is
16 tentative, we would really appreciate that.

17 MR. YEARGIN: And that's the first
18 week of August, not September?

19 DR. SMYTH: August.

20 MR. YEARGIN: And then I'd just like
21 to second your comments related to Archana. On
22 my four years on the council, I think we've had

1 three or four different people in Archana's role,
2 and no disrespect to anyone else, but Archana,
3 you're definitely the top and really appreciate -
4 - you've been -- you've helped our committee in
5 everything we do. We really appreciate you a
6 lot. Thank you.

7 MS. MARTINEZ: Who else would like to
8 comment? Hi, Ray.

9 Please, could you all identify
10 yourselves? Once again, I'm sorry to keep
11 harping on that, but my colleague over here wants
12 a clean record, so.

13 MR. YEAGER: Yes, indeed. My name is
14 Ray Yeager, DMI Companies. And I wanted to just
15 make mention -- Christie asked Ethan earlier
16 about whether or not the MEPs shared best
17 practices. And, Ethan talked a little bit about
18 that. And as you can tell by this particular
19 meeting today, the MEPs play a pretty important
20 role in a number of places around the United
21 States.

22 I'm going to put in another plug,

1 again. If your MEP doesn't participate in the
2 areas that you believe that you've heard from
3 Ethan and Petra and myself today, do me a favor
4 if you would and just grab one of these from me,
5 and this will tell you -- you can take this back
6 to your MEP. If I may be so bold as to say, you
7 can take it back to your MEP and say, we would
8 like to work on some of these kinds of programs.
9 So I mean just plugging the MEPs again.

10 MS. MARTINEZ: Excellent. Excellent.

11 MR. YEAGER: And that's all I wanted
12 to mention.

13 DR. SMYTH: Great job, Ray.

14 MS. MARTINEZ: Great. Please, Dr.
15 Green.

16 DR. GREEN: It's Albert Green, Kent
17 Displays. So I believe I mentioned this to you
18 in a phone call. I think, you know, one of the
19 things that I would encourage us to do, and even
20 for the next council is, you know, the time that
21 we've had for full council deliberation and
22 discussion -- not deliberation, but discussion, I

1 think has been especially helpful. And, you
2 know, I would certainly -- I really credit this
3 as being on with Bill for four -- this is my
4 fourth year, and I think this council was good
5 with giving us time for full council discussion.

6 I think it's important because there
7 are some topics that, you know, even in our IRD
8 Subcommittee that were, you know, challenges.

9 And we were anxious to try to find a forum to
10 actually, for lack of a better word, bounce it
11 off of the rest of the council because it was,
12 you know, building consensus and understanding
13 would have been -- was -- is very helpful. And
14 so I would just encourage that if there is time
15 for open full council discussion outside of the
16 subcommittees, that would be very helpful in the
17 future.

18 MS. MARTINEZ: I'd like to just
19 comment on that very quickly and tee up the last
20 part of what Susan was saying is the deliverable
21 going out of the council and that is the hand-off
22 letter -- we're referring to it as a "hand-off

1 letter". There needs to be a lot cross-
2 pollination around the entire council to try to
3 disseminate exactly what we are putting forward,
4 not just in the specific topic areas that we've
5 assigned to in our four subcommittees, but in
6 other areas that you think that the council
7 should be focusing in on.

8 So I think that that discussion we're
9 going to have, the calls that we have coming up
10 in between our next in-person meeting will be
11 very, very key, not only in the pass -- probably
12 at least three letters in May, but also to really
13 talk about this robust archive library that we
14 want to leave as our legacy. So thank you, Dr.
15 Green.

16 MR. YEARGIN: For clarity, you expect
17 one hand-off letter or each committee --
18 subcommittee to have a hand-off letter?

19 MS. MARTINEZ: Susan, do you want to
20 take that? Yeah, what we're going to do is Susan
21 and I are going to create a rubric, so to speak;
22 a template. And so all of the key issues, which

1 are going to include your hand-off letters, your
2 recommendation letters that have been formally
3 adopted; that would be obviously number one of
4 your deliverable set.

5 Then number two is what you didn't get
6 to, right. If you had had more time -- we all
7 know that we're on very abbreviated schedule, had
8 you had more time, you would have delivered
9 recommendations on the following areas, and it
10 may not be fully flushed out, but you would have
11 liked to have gotten to X, Y, Z. And to that
12 end, you have already consulted with experts one
13 through 10, right.

14 So what we're going to do is we're
15 going to do an executive summary because Archana
16 brought up a very good example that whoever takes
17 over her position in the next administration --
18 and again, it's not a foregone conclusion that
19 the Manufacturing Council will continue to exist.
20 However, it's been bipartisan in nature; two
21 different administrations, two different parties
22 in the past have continued it, so we're very

1 optimistic given the fact that manufacturing is
2 so apple pie, right, to American -- Americans. I
3 think it will continue.

4 And so all we can do to make sure that
5 legacy does continue is to give the most robust
6 archive that we can. However, not everyone is
7 going to be able to read everything that we've
8 done. So to your point, we're going to ask for
9 executive summaries from each of the
10 subcommittees that are going to highlight what
11 did you do in terms of recommendations that have
12 already been enacted, what would you have liked
13 to have done, and then what are you leaving
14 behind as far as suggestions for the next
15 council. And in that, you can have appendices or
16 a little library attachment on a flash drive that
17 we'll give to them or some type of archiving
18 mechanism. We don't know if it's Share Point at
19 this point or how we're going to do it.

20 But that will give them a springboard
21 to just take off on for the next council and food
22 for thought. They may choose to create different

1 subcommittees. For example, they may choose to
2 structure themselves differently. But we will
3 give them tools and the data to do that.

4 So that third point I really want to
5 highlight, it's very unstructured on purpose. We
6 don't want to limit you to particular areas. So
7 back to Dr. Green's point, there needs to be a
8 lot of cross-pollination to see, hey, are you
9 interested in cyber.

10 Susan and I did that with supply chain
11 and cyber this go around, and it sounds like the
12 resounding answer is yes. So supply chain and
13 cyber will be a part of our hand-off letter, so
14 to speak. Does that answer your question?

15 DR. SMYTH: I have one comment to add
16 to that. I think that was excellently
17 articulated. I think in addition to these
18 executive summaries from each one of the
19 subcommittees, what we're also going to do -- and
20 I think in compelling it together, so it's easy
21 and readable, is to give advice on on-boarding.
22 I think we've had a lot of dialogue and we have a

1 lot of lessons that we can share with regard to
2 the next committee in terms of on-boarding
3 processes and procedures that will allow people
4 to start right out of the gate.

5 And I also think from standard
6 operating procedures, standardized work. We are
7 manufacturing; that's how you bring them on
8 board, that's what you do, that's how you get it
9 out of them, that's how you get rid of them.

10 And so we'll bring that together and
11 we'll give them the long version and the short
12 version. And as Claudine said, we will be
13 reaching out to you and asking for your time and
14 cooperation to achieve that and synthesize it
15 into something that's meaningful but as concise
16 as we can be, so.

17 MS. MARTINEZ: We have about 10 more
18 minutes for open discussion. Andra, are you
19 about to --

20 MS. RUSH: Yes, hi, I'm Andra Rush
21 with many companies, but the Rush Group. So
22 first of all I want to thank Claudine and Susan

1 for your leadership. It's been really a pleasure
2 and to get to know everyone. I'm among the four
3 -- fourth year, maybe three-and-a-half -- I'm as
4 long as Secretary Pritzker. We came on together.
5 And it was really nice to have the ability to on-
6 board our new members in a way, we didn't know
7 for about eight months what the drill was.

8 And Archana, you've done just a great,
9 great job. And I don't know how -- 67 councils,
10 it amazes me. But I'm not sure where we were on
11 the small business tax. I know that that's been
12 a big issue with a lot of our members and LLCs.
13 And I'm really hoping there is a strategy where
14 we can have a spear of influence because it's
15 almost horrendous.

16 And I have been encouraged by people
17 to say, well, why don't you just go to Ireland,
18 before they made the law. And I'm like, why
19 would I do that. I'm American. But, you know,
20 the millions and millions you would save by this
21 tax loophole; I'm seeing too many people take
22 advantage of it. And we should have some kind of

1 incentives when we have apprenticeship programs
2 or we do workforce training in the sense that if
3 your company invests, maybe that's deducted off
4 your total taxation and that's exempt, something
5 like that.

6 And thirdly I wanted to talk about
7 returning citizens. It's a very important topic
8 and one that a lot of people aren't aware of.

9 But I can tell you in our own company we use the
10 American Jobs Act pipeline to screen and train
11 our employees. So when I did a survey and said
12 how many people were returning citizens or had a
13 felony that worked for our company, I knew before
14 I personally shepherd through the drill; but I
15 have 84. And then they said what's their
16 attendance, and it's perfect. And how have they
17 been in terms of work quality and leadership and
18 responsibility, and it's been phenomenal.

19 And I just encourage you to consider
20 taking that "Have you had a felony", off your
21 resumes or your applications because they are
22 some of our most wonderful citizens. They have

1 made a mistake, paid their price for it, and the
2 opportunity. And the sad case is 33 to 40
3 percent end up back in the criminal justice
4 system because they can't find work. But it's
5 been a lift for our company. So thank you.

6 MS. MARTINEZ: Excellent. With
7 respect to your first point Andra, Bill, would
8 you like to respond at all on the efforts on
9 small business?

10 MR. YEARGIN: The last council,
11 previous to us, spent most of their time focused
12 on tax. I was actually involved in that a little
13 bit and had some good recommendations. So just
14 in terms of managing the wide range of topics,
15 tax, and trade, we made a decision early on to
16 focus primarily on trade. However, we have
17 focused some on the tax issues, and we will in
18 the next week or two, you as a council should be
19 getting our tax recommendation letter that do
20 address some of those issues you mentioned in it.

21 MS. MARTINEZ: Who else would like to
22 comment? Anyone else? Please.

1 MR. MARTINEZ: Sure, Israel Martinez,
2 Axon Global. First of all, I sit on a few other
3 advisory boards or boards including -- I won't
4 name them to protect the innocent at this point.
5 There are -- I'm impressed with what I've seen.

6 I think I'm probably one of the newest
7 people at the table in terms of the committees
8 and hard work, and I think the platform by which
9 you communicate the new issues, and cybersecurity
10 will be a difficult one. There are sometimes
11 unintended consequences, and you get through them
12 with good people. And I think if you can
13 identify, to keep it simple, the top 10 issues as
14 it relates to legal, finance, board issues, and
15 technology issues finally to start, right, you
16 begin to solve the issue.

17 So thank you for having the
18 opportunity to be here and congratulations on
19 what you've done in this area. Really good
20 platform based on other industries and other
21 committees that I sit on, I think this is one of
22 the best I've seen yet.

1 MS. MARTINEZ: Thank you very much.
2 We appreciate that, Mr. Martinez. Christie?

3 MS. WONG BARRETT: This is Christie
4 Wong Barrett from Mac Arthur Corporation and the
5 IRD Subcommittee co-chair. With respect to
6 future topics for council, I just would encourage
7 us, given that there is some new research from
8 Deloitte and several other companies out there,
9 that's fairly recent on U.S. manufacturing
10 competitiveness -- that is our charge to improve
11 that -- we may want to take a look at that report
12 because it also has a projection on future
13 positioning of U.S. competitiveness in I think
14 2020 or 2025.

15 Because as Susan mentioned before,
16 it's time based what we're doing in the United
17 States to improve our competitiveness will change
18 -- will have impacts on what the gap is in the
19 future. But also other governments and other
20 countries are making steps to improve their
21 manufacturing competitiveness.

22 So we need to understand our position

1 as a country, relative to other countries, not
2 just the local opportunities we're identifying
3 because we may be solving for some issues that
4 we're finding regionally or in our particular
5 industry that we think are big issues, but when
6 we look at the bigger context there may be things
7 that we're missing.

8 So I just would encourage us as we're
9 going into recommendations for future council
10 that we take a look at some of that macro data to
11 help us with our list of topics.

12 MS. MARTINEZ: All right. To your
13 point, we just learned from Archana that she's
14 going to disseminate that report to the council.
15 So if the council members could take a look at
16 that and that might help our hand-off letter that
17 we were discussing earlier.

18 Who else? Anyone else? Final
19 thoughts? Our gracious host.

20 DR. FUIJITA: Hiro Fuijita. I
21 actually would like to make a comment because
22 there are many, many useful topics today. And,

1 you know, Dr. Karp talked about MEP and then, you
2 know, you also mentioned that this council is
3 maybe bridge between the private sectors and the
4 government. To that end, I think that, you know,
5 I just want to spend a minute to talk about the
6 (indiscernible) industry which is -- as many
7 people know, it's a health care industry, medical
8 imagining industry, which is a major industry
9 here.

10 Actually, you know, due to, for
11 example, FDA inspection, people may not know that
12 many big companies, including and Phillips and
13 (indiscernible), they were shut down. And
14 because of that, thousands of jobs were
15 transferred to, for example, Netherland and
16 China. So my point is that the medical issue is
17 very important, but it has to be implemented with
18 a sense of abundance.

19 To that end, you know, we talk about
20 the MEP and we talk about supply chain, all these
21 things. I would like to see some kind of effort
22 where, you know, we talk about, let's say, if the

1 process of, you know, inspection is fair or --
2 because there is always two sides of a coin --
3 and what I'm -- you know, what I also know is
4 that every medical device company --
5 manufacturing company -- is standardized to ISO
6 13485, and they are audited by that auditing
7 body, such as BSI.

8 So, you know, we have so many auditing
9 bodies and the audits every month, and then we
10 have another inspection due to -- you know, by
11 FDA, and we just want to have the consistency
12 otherwise it's going to cost us more. At the end
13 of the day, it's too costly for these American
14 companies to, you know, do the manufacturing jobs
15 here. So they, you know, export manufacturing
16 jobs to other countries.

17 So I hope that we can have a dialogue
18 and discussions in that area because it impacts
19 supply chain, and it impacts, you know,
20 manufacturing in America, and it impacts also
21 exporting. So I just want to, you know, leave
22 this subject at the table. Thank you.

1 MS. MARTINEZ: Any final comments?

2 Well, with that, I think I'll go ahead
3 and give my final reflections of the day. And I
4 just want to let you all know that I know that I
5 learned so much from each and every one of you.
6 I think your collaboration, your work ethic, and
7 your passion really is what congeals us.

8 I think some of the new members, Laura
9 and other people that came to the reception last
10 night said, "What's the secret sauce in the
11 Manufacturing Council", "How do you all work so
12 well together." And I think it's really the very
13 healthy respect that we have for one another, and
14 we take our charge as advising policy on
15 manufacturing to heart very seriously.

16 We live it every day. You can see
17 that with the leadership that you all exude every
18 single time we meet. And I just want to tell you
19 it's a privilege and honor to serve in this way,
20 and I thank you.

21 DR. SMYTH: Thank you. So as we close
22 this meeting, I think we need to celebrate the

1 fact that the 2015-2016 Manufacturing Council has
2 succeeded in multiple facets of our charter.

3 We have produced letters of
4 recommendation which are actionable and focused.
5 In fact, some are already in play as we have
6 heard. And we have the distinction of producing
7 about twice as many letters of recommendation in
8 half the typical time due to our accelerated
9 mindset and motivation. So in manufacturing
10 terms, "Our quality is perfect, we increased
11 productivity, and we're fast to market."

12 So thank you all for attending. I'd
13 like to thank our council members, our guest
14 speakers, our colleagues, you, and -- I was going
15 to say all of us, I caught myself there -- our
16 colleagues from the Department of Commerce. And
17 finally I'd like to thank the staff of the Union
18 Club of Cleveland for their support and for their
19 service and for the use of this fabulous historic
20 facility.

21 The meeting is closed.

22 (Off the record at 12:00 p.m.)

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