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**CCAM**  
**COMMONWEALTH CENTER FOR ADVANCED MANUFACTURING**  
**WORKFORCE STUDY - CURRICULUM MEETING**

Thursday, August 8, 2013  
10:00 o'clock a.m.

Southern Virginia Higher Education Center  
South Boston, Virginia

**CRANE-SNEAD & ASSOCIATES, INC.**  
4914 Fitzhugh Avenue, Suite 203  
Richmond, Virginia 23230  
Tel. No. (804) 355-4335  
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1     CURRICULUM COMMITTEE:

2     Ms. Julie Brown - Dan River Region Collaborative

3     Dr. Ron Proffitt - Virginia Highlands Community College

4     Mr. Craig Herndon - Virginia Community College System  
5         Workforce Development

6     Mr. William Wampler, Jr. - New College Institute

7     Dr. John Cavan - Southside Virginia Community College

8     Mr. Gary Walker - Tobacco Commission

9     Ms. Wanda Blythe - ABB, Incorporated

10    Mr. Thomas O. Loehr - Crosspointe, Rolls-Royce North America

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14    COMMISSION STAFF:

15    Mr. Neal Noyes, Executive Director

16    Ms. Stacey Richardson, Executive Assistant

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1 August 8, 2013

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MR. NOYES: I thank you all for taking time out of your busy schedules to participate today. We're going to talk today about the curriculum, equipment, and K through 12 involvement.

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For folks that don't know me, I'm Neal Noyes, soon to be former executive director of the Virginia Tobacco Commission. The Governor will have an announcement tomorrow on my successor. I will be staying with the Tobacco Commission for some indefinite period on a part-time basis because principally working with this group and the other two groups and the Spirit Committee to stand up the Advanced Manufacturing Workforce Program. So stay tuned tomorrow and learn who's going to have the chair.

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For seven years at every meeting I've been at, there's always been an agenda. And if you'll look in front of you, there is no agenda today because I didn't know what's going to happen here today. We have the Boston Consulting Group report. It's not the Commission meeting, it's your meeting. What I'm hoping for is a roundtable discussion around those curriculum issues that are outlined in the report, instructions on next step needs that the Commission staff needs to do and what needs not to do.

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25

We're not here to discuss project applications. That's not something we're going to be resolving or our purpose now.

1 I'll let you know that I, along with some others, I think, Julie,  
2 you've interviewed Workforce candidates.

3 And, Tom, were you involved in the interview of the  
4 two Workforce Development, I think I saw you at the meeting.  
5 You'll find this at your place which is a position description, UVA's  
6 Executive Search firm completed its work, and there were two  
7 finalists. I, along with a dozen or 18 other people, interviewed  
8 the two finalists and we expect there will be a hire in the  
9 relatively near future, so in the meantime, I'm sort of filling in,  
10 although I must tell you I'm not qualified at all as a Workforce  
11 specialist, I'm a math guy, economic development guy.

12 What I would like to do is to nominate somebody  
13 who'll report the recommendations of this subcommittee to the  
14 Education Committee. We're not going not to be making  
15 decisions here on what gets bought and that sort of thing, we're  
16 going to be making recommendations to the Education  
17 Committee.

18 I'll tell you, if you all don't already know, \$10 million  
19 has been set aside in the current fiscal year, and \$10 million is  
20 planned to be budgeted for the next fiscal year. The program is  
21 a matching program, dollar-for-dollar match, in kind consistent  
22 with objectives of the program is certainly eligible -- is always  
23 an important match to the director of Workforce Development, a  
24 CCAM employee, or contract employee.

25 Tom, do you know how they're going to do that?

1 MR. LOEHR: Contract.

2 MR. NOYES: That decision will be forthcoming, and I  
3 think there's a meeting tomorrow actually to begin that process  
4 and the selection.

5 Now, if you look on page 42. Page 42, at the very  
6 top, in reference to the Steering Committee. There's a lot of  
7 discussion about the Steering Team distinct from the Curriculum  
8 Committee or Resources Committee or a Marketing Committee,  
9 and a lot of discussion around that issue with our friends at  
10 CCAM. The position we're talking now is that the Board of CCAM  
11 with Rolls-Royce, Seamans, and representatives on that board  
12 will act as the Steering Committee. They've already set up a  
13 subcommittee around Workforce issues, and I don't know who's  
14 on that committee, but I think UVA is certainly, Virginia State  
15 University, Virginia Tech at this point on the subcommittee, but  
16 the Steering Committee looks like, unless there's a change, will  
17 be the Board of CCAM and major industrial companies.

18 I have recommended to members of that board the  
19 chief executive officer of each of the three Centers of Excellence  
20 be added to the subcommittee and not to the Board, but to the  
21 subcommittee so that there can be real interaction with the folks  
22 that are going to be delivering, presumably and hopefully, 75  
23 folks trained as welders, machine operators, machine techs at  
24 each of the three centers.

25 The target is set for the Boston Consulting Group

1 Study, and we all hope we see that expansion.

2 Someone needs to report to the Education Committee.

3 Craig, would you like to report to the Education  
4 Committee, or somebody step up here and report to the  
5 Education Committee.

6 MR. HERNDON: I'll be happy to, if someone is  
7 interested, pass that baton.

8 MR. NOYES: I don't know that the date has been set  
9 for that, but there is a meeting of the Education Committee in  
10 September. We have an application round for the competitive  
11 grants, not for the \$10 million, but for roughly \$3 million or  
12 \$4 million in the competitive round. So that'll be an opportunity  
13 or one opportunity anyway to have a report.

14 MR. WAMPLER: Neal, being the most immediate  
15 former member of your committee of the Commission in that  
16 regard and I'll second that because the reporter would tell me  
17 that action would be incomplete.

18 MR. NOYES: Okay. Well, let me back up and ask the  
19 question why are we even here? Somebody asked me why are  
20 we here, I had expected the Boston Consulting Group as part of  
21 its contract would sit down to actually recommend a curriculum  
22 for each of three focus areas. No, we're not going to do that.

23 What is most important is that within the Tobacco  
24 Commission footprint, the consensus around what that  
25 curriculum is and engaging the private sector so that their input

1 is driving the curriculum looks like in cooperation with our  
2 educational institutions. We're here because the Boston  
3 Consulting Group couldn't do what I wanted them to do, was to  
4 tell us at least what it ought to look like. I was kind of used to  
5 having my own way and I didn't get it though. That's why we're  
6 here. You all now get to make recommendations. I don't think  
7 we want to be voting on issues, do we?

8 MR. WAMPLER: I think we'll withdraw.

9 MR. NOYES: Thank you, Senator. That's the only  
10 time he's ever done that in seven years, so we'll rely on Craig to  
11 let the Education Committee know in September what we've  
12 done thus far. If we need to have other meetings, I'll be happy  
13 to serve as a resource while I'm still around and then be turning  
14 this over to the CCAM contract employee responsibility for  
15 sustained involvement and setting up the program and working  
16 with the Committee.

17 MS. BROWN: Is it our goal to get recommendations  
18 today?

19 MR. NOYES: Not necessarily today, but if we have  
20 them, Craig will report what those recommendations are, there  
21 may be next steps that are next and not today.

22 Aligned with industry on credentials and curriculum.  
23 Who wants to address this? Remember, we're looking at three  
24 areas, which are welding, machine operators, and these are  
25 broad categories, welding and machine operations and what is it

1 that you need to decide on how to structure a curriculum, what  
2 are the important features of it?

3 MS. BLYTHE: You and I know most of the people in  
4 the room, but I don't know most of the people that are here.

5 MR. NOYES: Let's go around and introduce ourselves.  
6 Medford is the court reporter.

7

8 NOTE: At this time, the panel introduce themselves.

9 Mr. Craig Herndon.

10 Mr. Gary Walker.

11 Dr. John Cavan.

12 Mr. Thomas O. Loehr.

13 Ms. Wanda Blythe.

14 Mr. William Wampler.

15 Ms. Julie Brown.

16 Dr. Ron Proffitt.

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18 MR. NOYES: The question is on the table. What do  
19 we want to say about credentials and curriculum?

20 MR. HERNDON: I'd offer this if you think making the  
21 recommendation is necessary. Julie, your question about when  
22 you would provide recommendations is important. I don't know  
23 if you have a sense as to when the other groups are coming  
24 together.

25 MR. NOYES: Next week, the other two are next week.

1           MR. HERNDON: Is there an expectation from CCAM  
2 and Tobacco Commission as to when something back from the  
3 selection of the three centers or something is to take place?  
4 What I'm saying is there a deadline expected?

5           MR. NOYES: The letters you got indicated that it is  
6 Chairman Kilgore's expectation that decisions on the Centers of  
7 Excellence, Equipment, Operational Assistance, those sorts of  
8 things were planned for January. That's exactly a year after the  
9 report was delivered, but with Tobacco Commission Board, you  
10 can't get anything done during the session, so nothing happens  
11 during session. We're actually not far off the schedule the  
12 Boston Consulting Group reported. So, yes, funding decisions,  
13 \$10 million, and the \$10 million is focused on the three Centers  
14 of Excellence, and this group extends beyond that, because  
15 obviously some of the expectations, but some of the training  
16 prior to someone going to Center of Excellence would be  
17 provided on a distance basis, community colleges, or other  
18 training providers. So we have to be able to tell those people,  
19 what it is that the curriculum needs to look like so we can then  
20 move and advance the program so we can populate these  
21 Centers of Excellence for a year from now or 18 months from  
22 now.

23           The curriculum goes beyond what happens at the  
24 Centers of Excellence. Does that answer your question? January  
25 is the timeframe, and we're not in a rush to come up with

1 recommendations at the Education Committee September  
2 meeting, and I merely mention it because there is going to be  
3 that meeting. Senator Ruff chairs that Education Committee.  
4 He'll call a meeting when there are recommendations.

5 DR. CAVAN: We've been involved in Workforce  
6 Development, and we can provide, and I think each community  
7 college can find some duplication across Southside and  
8 Southwest. We do have some expertise to work with those  
9 people.

10 Southside has welding programs at both our  
11 campuses. One is here and one in South Hill. So what we would  
12 be attempting to do, we do have leadership in that area, and that  
13 would be something that we would have a lot of expertise in, and  
14 I'm sure Ron can tell you that his college has lined up people,  
15 too. There's a lot of expertise, just so we don't have duplication  
16 of efforts in getting most out of the resources from Southside  
17 and Southwest.

18 MR. NOYES: Do I understand correctly you're  
19 suggesting that, there isn't enough money on the planet to  
20 duplicate all the equipment and things like that at all eight  
21 community colleges? The competitive round, which is \$3 million  
22 or something like that, but the \$10 million will be for equipment  
23 for the Centers of Excellence.

24 Getting students ready to be at the Centers of  
25 Excellence, that is what the curriculum is outside, and that

1 probably could be done at all eight community colleges.

2 DR. CAVAN: Right, but not duplicated, we're already  
3 set up to do welding, and there'll be some influx of resources, not  
4 to the same degree if you start from scratch. I would think that's  
5 the most economical in getting this expertise across the region,  
6 though I'm not sure where you're locating these Centers of  
7 Excellence in the Tobacco Region.

8 MR. NOYES: So you've got a curriculum that says X  
9 number of hours for classroom and already set up for welding?

10 DR. CAVAN: Yes, and at a number of different  
11 locations.

12 MR. NOYES: Is the curriculum the same at every  
13 location?

14 DR. CAVAN: Yes. We can adjust the curriculum to  
15 what the specific needs are.

16 MR. HERNDON: I'd offer that maybe a place to begin  
17 and perhaps it can be hatched out today the stuff for the next  
18 report on say the 26<sup>th</sup> and identify the resources that exist in the  
19 curriculum, the standards in this region, and I'd offer it for  
20 consideration of the room. Right now, there are eight community  
21 colleges, and there are providers in the region and public and  
22 private and useful to identify the curriculum employed right now  
23 and standards being employed right now. Along with that, I'd  
24 offer that the rationale for utilization of the standards. I know  
25 Julie has a strong background and William has a strong

1 background coming from your experience in government.

2 I hear frequently that existing businesses as critical to  
3 our economic health recruiting new businesses and selecting  
4 standards for the curriculum, and we want to make sure we  
5 maintain the standards that are currently consumed by  
6 employers. I'd offer that we might or we might find nationally  
7 some wonderful certifications and curriculum out there, and we  
8 want to make sure they're coherent with our existing employer  
9 structure.

10 My simple ask is we move first to set what's currently  
11 being delivered and why we might identify, as John pointed out,  
12 some commonality. We might also point out there is diversity  
13 with purposes. Without the information in front of us to know  
14 what exists across hundreds of thousands of acres, we'd be  
15 guessing at this point.

16 MR. LOEHR: I might just add that as a comment that  
17 I thought the letter sent out sums it up quite well. In discussing  
18 credentials, it's not bad, but I think that, and I don't know about  
19 the curriculum, but it certainly sets the stage for a broader cut on  
20 the curriculum. I'm glad that we're considering credentials that's  
21 helpful.

22 MR. NOYES: What's the Boston Consulting Group  
23 report is looking for or suggesting is not celebrating diversity,  
24 celebrating having a standard credential so that we can tell  
25 businesses whether they are existing businesses or not. That

1 does not preclude customized training at all. This is what we're  
2 providing. This is what will come out the Centers of Excellence is  
3 that credential that is nationally and internationally recognized  
4 industry.

5 MR. LOEHER: Within the credential, plenty of room  
6 for diversity. I'd just make a comment for a few moments if I  
7 may. Sort of a broader, and you referenced the National  
8 Institute of Credential, which is NIMS, which is the National  
9 Institute for Metalworking Skills. That is widely recognized. So  
10 within the shipyard, if you're trying to attract foreign investment,  
11 they're trying to understand what the capabilities are around the  
12 workforce. If it has a NIMS credential, you have a very quick  
13 assessment and understanding of what that means. I think  
14 that's important. It's also important because it's nationally and  
15 internationally recognized. It also sets up what I would call  
16 broad-based capability and transferability of skills. It's important  
17 and it's transferable and broad-based.

18 I have gone through and detailed the NIMS credentials  
19 and other aspects related to what study of reference. And that  
20 not only involve metal machining and machinist and also offers  
21 credentials in machine maintenance and repair. So that  
22 credential, I think takes on about two-thirds of the skill areas  
23 that is referenced, as well.

24 Furthermore, I think that we recommend and we  
25 attach ourselves to Level 1 and Level 2, the machine credential.

1 Because Level 1 is where you're able to perform more of a joint  
2 partnership with the school systems in terms of high schools.  
3 It's more integrated and combined. I think it's important to  
4 incorporate Levels 1 and 2 of that national credential. The other  
5 notes I had on this that falls under the machinist and machine  
6 operator, and consider also a metal forming as an aspiration, as  
7 well.

8 There's really interesting things going on in metal  
9 forming. When you think about machines and things starting  
10 with a larger piece of metal and there are ways to remove things.  
11 Metal forming has come to the point that they're able to control  
12 the tolerances without all that waste. Metal forming is going to  
13 be much, much more, given the tolerances and technology in  
14 forming.

15 MR. NOYES: Is there a credential for metal forming?

16 MR. LOEHR: Yes, metal forming has been added to  
17 the NIMS credential, and this is something we have to consider in  
18 the supply chain and using precise machines with forming and  
19 with precise machines.

20 The last point I'll make about credentials, that's the  
21 nondestructive testing aspects of metal machining. Before we  
22 machine apart, we do something called ultrasonic. This is a  
23 means of looking inside the part to see the grain structure of the  
24 metal inside of it, because before we put out \$100,000 worth of  
25 technology, we want to know if it has an internal structured flaw,

1 and that's very important. Once we have a machine and we put  
2 it on a magnum machine to take thousands of pinpoint  
3 measurements, calculate the dimensional integrity, we can do it.

4 So after we machine that and subject the parts to  
5 pressure from the machine activity itself, we do something called  
6 forensic penitent structure, and that's basically stress fracture  
7 the surface. All of these are from very common nondestructive  
8 testing activities, and that goes along with metalworking.

9 Having said that, these technicians are the hardest  
10 ones to find. That suggests enormous market opportunities.  
11 And the last point and the last part of that is to have the  
12 nondestructive testing.

13 MR. NOYES: NIMS has a credential for nondestructive  
14 testing?

15 MR. LOEHR: I'm not certain on that, but I believe  
16 they do, but I'd have to double-check that.

17 MR. NOYES: You're thinking about the machine  
18 maintenance. NIMS offers credentials in welding nondestructive  
19 testing, and that's considered vital for welding programs,  
20 particularly at the mid-skill level and higher, I guess, when  
21 you're doing nuclear containment vessels making sure they don't  
22 have any fractures and cracks.

23 John, do you have machine-operator programs?

24 DR. CAVAN: John Tyler.

25 DR. PROFFITT: I'm not clear, I guess, when we see a

1 partnership and how it's unfolding. It sounds to me like we're  
2 talking about particularly bringing in public school and you're  
3 talking about certain credentials and certain skills they would  
4 have, and then the community college certainly couldn't do the  
5 noncritical testing at this moment. It sounds to me like the  
6 Centers of Excellence is something if we work our way through  
7 the system and prepare students for these skills at the Center of  
8 Excellence. Am I thinking correctly here?

9 MR. NOYES: I think that's right.

10 DR. PROFFITT: If that's the case, then it almost  
11 sounds to me like if you work backwards, the credentials will set  
12 the curriculum. In all of my experience when you say here are  
13 the credentials, there's a curriculum now that is set and these  
14 are the objectives and outcomes that have to be met for you to  
15 be credentialed. It almost looks like we're working backwards.  
16 We know what the credential is and we develop the curriculum  
17 based on it.

18 MR. NOYES: It makes sense to me, and that's how I  
19 see things. If we get to the delivery plan portion of this and we  
20 find out what's in that curriculum, it gets delivered immediately  
21 and on campuses and at community colleges and other trainers.  
22 The Centers of Excellence is where the hands-on work or  
23 nondestructive testing or metal form and that's where the  
24 equipment would be for that purpose.

25 MR. LOEHR: It opens at NIMS and opens opportunity

1 or more opportunities, perhaps we can zero in on a discussion  
2 with representatives from MAZCK and others. Just briefly, you  
3 say in the last 30 days, there were Centers of Excellence within  
4 the community college and they aggregated their interest  
5 together at the university and would tack on the centers to help  
6 train your customers to procure equipment. In other words, they  
7 would bring people out and they would fill out these classes with  
8 employees from their customers, so that's powerful if you have  
9 internationally recognized people working with these credentials  
10 and highly accepted all the way through machine tooling, you'll  
11 see one, two, three suppliers, whether you're talking about  
12 aerospace or automotive and ship building, there's a lot of others  
13 in these industries, as well.

14 MR. WAMPLER: I asked a question 15 minutes ago in  
15 terms from these industries and what it would do to the  
16 education and what the Education Committee ought to hear, and  
17 this is overwhelmingly the reason why we're here. I think the  
18 needs for the far Southwest and Southside are different and just  
19 complimentary to the end of creating a workforce that's trained.

20 My point would be that if it's important to ABB, we  
21 need to hear that and make sure that we are all aligned with  
22 what the existing industries need to the point of what Dr. Proffitt  
23 speaks, what is the specific goal that we seek, let's build the  
24 curriculum around that. And then to Tom's point, at a facility in  
25 Martinsville, we have the MAZCK, CMC, and from that, MAZCK

1 and the adjunct faculty need to come to Martinsville to train up  
2 the BCC and the faculty may not be as familiar and we'll find the  
3 adjunct faculty, deliver, whether it's Skills Levels 1 through 4,  
4 and certificates that enable the operators to perform the various  
5 functions, that is to pick on MAZCK

6           There are in-training programs to be exported to the  
7 Centers of Excellence, where I think we are, we've got with the  
8 exception of two, we're talking about heads of academia, we  
9 ought to have enough input from the advanced manufacturers,  
10 and that's my question. How long do we have to, we need to  
11 hear from our existing, and then someone has got to take the  
12 crystal ball and work on the supply chain.

13           MR. HERNDON: Had the opportunity to visit a couple  
14 of locations and to hear from regional employers, and, two, if the  
15 purpose of the discussions is to, and looking back at the  
16 community colleges' offer and NIMS reoccurs along with the  
17 community college when doing machining, welding, AWS, not  
18 totally consistent and appears many times from. It would be  
19 useful to engage employers locally. I'm not suggesting this is  
20 the direction we should go, but there is a standard to rally behind  
21 in far Southwest because of the industries that are serviced out  
22 West are a different standard in the Eastern side of Virginia,  
23 that's within the context of this study. Is that out of bounds?

24           MR. NOYES: It's not out of bounds. What we don't  
25 want is to have or what I'm saying is there needs to be a core

1 around three areas that are emphasized. It may be in Southside  
2 that NIMS, the AWS credentials, or certifications cover that gap  
3 and we can discover what the curriculum applies to the different  
4 levels is to look like. That doesn't preclude customizing the  
5 training, it may be different in Southwest Virginia, Eastern, or  
6 Southern Virginia, but we need to have a core, come to some  
7 kind of agreement on what the credentials need to be for the  
8 program that's going to supported by the Tobacco Commission.  
9 Not 50 different versions of that, but NIMS and AWS, were those  
10 three groups, those three, and this group can make that  
11 recommendation. That will then be the standard that will guide  
12 the Education Committee when it allocates resources.

13 If individual members want to travel to multiple  
14 locations and meet with people or multiple employers, that's fine.  
15 We can decide Levels 1, 2, and 3 of NIMS, and we want to focus  
16 on nondestructive testing, metalworking Levels 1 and 2, and  
17 metal forming. And I assume there's levels in level forming, I  
18 don't know. But we can say it's Levels 1 and 2, each of these  
19 three areas. And Levels 1 and 2 if it's equivalent of the AWS.  
20 That's what it is that we're going to be able to tell industry is the  
21 core for this 75 each Center of Excellence.

22 MR. HERNDON: That's the part that it'll be us telling  
23 industry as opposed to industry telling us. I want to be cautious  
24 about that and about the outflow as opposed to the collection of  
25 guidance.

1                   MR. WAMPLER: One commonality in Southwest and  
2 Southside is Eastman Chemical. So Eastman is one of Dr.  
3 Proffitt's paid customers employing about 13,000 people and in  
4 Martinsville and Henry County, there's about close to 600  
5 employees that go to work at the Eastman facility there. When  
6 you combine the other clusters and have close to a thousand  
7 people employed in the film manufacturing business, you need to  
8 hear from them. I'll even go so far as take a step further into  
9 the equipment side, and I realize that's not exactly what we're  
10 charged with here. In the Army, I was trained on a piece of  
11 equipment and that gave you the skill set to do what my mission  
12 was.

13                   I think we need to look at the equipment sector that's  
14 going to go into these centers, because that'll drive the  
15 certifications that I think hopefully will match what our employers  
16 will need people to be competent on. I'm not sure how to work  
17 that out, but if we don't hear from our existing and perspective  
18 businesses, I'm afraid we'll be mismatched with the financial  
19 resources. I think that's friendly to the BCCS, because it's good  
20 to align your faculty with the equipment that will be placed on  
21 the floors of these Centers of Excellence.

22                   With the credentials, you want to be in line with all the  
23 others, the same factors, because the technology that's involved,  
24 you want that credential. A 50-year-old machine, you can have  
25 real technology and pay for instructions and servers, instruction

1 machine, and when you get into these measurements and that  
2 type of thing. So the credentials of the technology, equipment,  
3 and supply, that can empower you.

4 MR. NOYES: I'll point out that one of the tasks  
5 developing that equipment list is part of what this group is  
6 charged with. Yes, you're going to be making recommendations  
7 on the equipment and does this group need to go visit Eastman  
8 Kodak, I think I had envisioned that.

9 MR. WAMPLER: My point would be that whatever  
10 form or fashion that fits this group, but I think we need to hear  
11 from a broad range of industry and what certificate we should be  
12 planning our resources for.

13 MR. NOYES: You just heard from industry, the NIMS  
14 program widely accepted by certainly in aerospace, but likely in  
15 automotive heavy equipment, and then the particular equipment  
16 within that center, we're going to hear what it is that existing  
17 employers think the standard ought to be and rely on ABB to tell  
18 us what it is they would like to see in these Centers of  
19 Excellence.

20 MS. BLYTHE: In speaking for ABB, we have a lot of  
21 welding going on, and the AWI. Also, I think one of the key  
22 areas, and I can only speak for local industry, and one of the  
23 biggest things we need in this area are people that are trained in  
24 industrial maintenance, electrical, electronics, and maybe  
25 computer programs that were, high powered testing, substation,

1 transformers. Those are the areas that we have a hard time  
2 recruiting for, and electronics, maintenance. We do some  
3 training, and we're working with the Higher Education Center, the  
4 welding program. But certainly if we had local people that could  
5 be training in these programs in the type of welding we do, that  
6 would be very helpful. But I think these centers need to have  
7 some type of maintenance component.

8           When you look in the paper and advertise, but most of  
9 them we're looking for have some maintenance experience. And  
10 when they come to the plant, we want to make it clear that's  
11 what we need. Whatever curriculum or the credentials for it, I  
12 think it's very important.

13           MR. NOYES: For the Commission to use its resources  
14 to support this type of effort, the Commission has already made  
15 a decision there must be a nationally recognized credential, and  
16 that's sort of off the table. There's going to be a credential  
17 nationally recognized.

18           Machine maintenance, and that sort of thing, and  
19 that's one of the three areas that the Boston Consulting Group  
20 said we needed. I don't know the NIMS criteria or maintenance,  
21 and one of the things they do have is a Level 1 and Level 2. If  
22 that's the credential this group recommends, then the Education  
23 Committee agrees to, then that will drive that curriculum, just  
24 like your Welding Society credential.

25           We're not going to fund programs that don't produce

1 credentials from whatever it is the Education Committee  
2 ultimately decides upon your recommendation.

3 MS. BROWN: A good place to start is the National  
4 Association of Manufacturers and their credentialing system  
5 because they've been behind all of these verifications, and that's  
6 something we've been talking to employers about. Some haven't  
7 been exposed to certification, so just education that is available  
8 that these are out there. When you tell employers, they say, oh,  
9 that sounds good, and you have to meet their needs. Things like  
10 NIMS, AWS, and I don't need a good cross-trained person, I need  
11 four areas, not just one particular area, all four. So I think it's  
12 difficult for them to translate what they need when it comes to  
13 certification.

14 I think that the National Association of Manufacturers  
15 is a good place to start. I think some of the community colleges  
16 are already starting to transition and incorporate specifications to  
17 their existing training. Community colleges are transitioning and  
18 doing some cross-training and these certifications into their  
19 existing training.

20 Danville Community College is a good example, and  
21 they have an eight-week program, and they cross-walk that to  
22 certified production training. That's an MMSE credential. Then  
23 there's an entry level, and I think there's enough levels in certain  
24 areas. You've got your die casting and fabrication other than just  
25 the few we've discussed. They all lead to industry credentials

1 and a need to follow that pathway. It doesn't always offer  
2 flexibility. There are some additional sources that form up  
3 through local industry. You can still say we cross-walked this at  
4 the end of the day and you're going to be prepared to take your  
5 certification.

6 Now, certainly ABB is looking for what RTI is looking  
7 for. What I'm saying is I support the certification pathway, I  
8 think that's a good place for us to start. What I take away from  
9 that is we build critical mass and align the curriculum and there's  
10 room for diversity and customization at the end of the day, and  
11 there's an opportunity for the Tobacco Commission Region at the  
12 end of the day to say we're producing a thousand of this or we're  
13 producing four hundred of this across the region. The programs  
14 may have a little bit of different flavor whether it's online, maybe  
15 the gearing is towards the incumbent workforce, and that's  
16 something else to consider, not just the pipeline that we're  
17 talking about for tailoring some of the training opportunities.

18 There's the incumbent workers that's certainly, that's  
19 a tremendous need in our region, and the incumbents need the  
20 training. As far as certification, there's a fabrication. You talked  
21 about metal forming, and there's one out there, not under NIMS,  
22 but it's internationally recognized for metal fabrication.

23 MR. NOYES: That information is in your packet.

24 MS. BROWN: I'll be glad to send a list and it's on the  
25 website, NCCR for construction industry, and that's one of the

1 certifications under the National Association. Let me pull it up  
2 here, I think it's offered in the region through DCC. It's in the  
3 construction industry. It's an industry-recognized credential.

4 MR. NOYES: You want more of the Boston Consulting  
5 Group, you want to add things outside of these three areas?

6 MS. BROWN: Not necessarily more, the two we talked  
7 about are within the NAM pathway, the foundation of this  
8 pathway starting with National Career Readiness. We're looking  
9 at cross sector, but that's the foundational piece, the NAM  
10 credential pathway.

11 And then the next one is under General Production  
12 Worker, certified production. So the employers that are currently  
13 in our region, they might want a certified, I need a W-S certified,  
14 and they're not demanding that right now. They're probably  
15 scared they wouldn't get it, and there's not enough of those folks  
16 out there for certification. We're trying to start on that pathway  
17 and adapting the NAM pathway.

18 Then the idea of the National Certification supported  
19 nationally, we recruit companies from economic development  
20 perspective, but they've heard of NAM or higher, and they align  
21 with those from an economic development perspective. And that  
22 gives the workforce, they might have heard of that credential  
23 certification.

24 The NAM pathway, and we're going to take a look at  
25 what's included in that pathway. It's a good start.

1 MR. NOYES: The equipment, would that work for the  
2 construction industry, the equipment that work for aerospace?

3 MS. BROWN: That's out of my expertise.

4 MR. NOYES: What I'm hearing is that it's a whole lot  
5 of needs from existing industry and everything else and what you  
6 would like is to have that flexibility, use Commission funds to  
7 meet the needs of non-aerospace, non-automotive, non-heavy  
8 equipment, which is not what the study says. If that's the case,  
9 then that's not a path that we're heading to. We need to focus  
10 on those three industry sectors.

11 MS. BROWN: I'm not asking to go outside of these  
12 three areas, but there are some other certifications that are  
13 forming, and one of these that NIMS may have one, but there's  
14 others also that, Mr. Noyes, what's needed is some type of  
15 assessment in the alternatives.

16 MS. BROWN: Correct, but there are other, and I'm  
17 pointing out there's a listing and there's a good listing there, and  
18 the two we talked about are within that.

19 MR. LOEHR: I would say going back to Senator  
20 Wampler's point about Balloting Industry to determine the area  
21 and choosing between this particular machine or credentials  
22 versus that one. This one can incorporate major industries, this  
23 one incorporates major players in the area, one versus the other.

24 MR. WAMPLER: What Tom says, and I can't  
25 remember which page in the BCG Study, but whatever skill sets

1 we have must be easily transferrable and that should be the  
2 common theme. If you build an AMRC, we can retain 40 percent  
3 of the apprenticeships, because we've done a good job, that's the  
4 model that works.

5 Let's figure out what the equipment fits and the  
6 curriculum or the standard to the extent we have it, so it's easily  
7 transferrable in the region.

8 MR. NOYES: This is a tough policy, what we're doing  
9 here, and let's start by talking about the curriculum, and then  
10 Tom, I think, correctly points out we need to decide what it is at  
11 the end of the day that is widely recognized by industry as the  
12 credentials. Now, we're down already to say, no, the equipment  
13 should drive the credentials. We're never going to get to the  
14 point where we can report to the Education Committee what the  
15 specific recommendations are. I think ABB probably has  
16 equipment that it uses to do the testing. Is that the equipment  
17 that works within welding, it may, and we don't know at this  
18 point. Welding or machine operators are something.

19 The same equipment is going in each of the three  
20 Centers of Excellence, so it seems to me we need to identify that  
21 it is credentialed, then we'll know what the curriculum needs to  
22 look like. Then there's measureable equipment that satisfies  
23 local prospective Rolls-Royce supply chain and employers. Once  
24 we know what their credentials are going to be, we'll know what  
25 the curriculum is and then we can decide what equipment makes

1 the most sense for the most people rather than starting with  
2 equipment.

3 While we are talking about equipment, we have not  
4 come to any kind of conclusion on the credentials.

5 MR. HERNDON: I'm with you, Neal, but let me try  
6 to --

7 MR. NOYES: In a perfect world.

8 MR. HERNDON: It would be useful to review the  
9 existing credentials, and we've heard about a few, and probably  
10 there are ones that are readily recognized, but if we begin with a  
11 comprehensive review of those that are in space, like machining  
12 and welding and industrial mechanics, then we validate those  
13 across the region and we move then to a limited set of  
14 credentials. We're not talking about the broad levels, and  
15 whatever that number is, we agree that it's going to be this  
16 many as opposed to this many universally accepted.

17 Once we move to the credentials, we're making sure  
18 we're focusing on applicable credentials. I've heard at least  
19 directly from Julie and others about the mobility of the workforce.  
20 And we should be working towards the credentials terminated, to  
21 which there is a dead-end position.

22 We're also looking at these applicable credentials and  
23 also then zeroing in on the curriculum. Once the applicable  
24 credentials or maybe diversing the curriculum by which it's  
25 delivered and where it's delivered, but ultimately there's a

1 curriculum that supports the credential.

2 Finally, based on the credential of the curriculum and  
3 the need to hear from industry, settling on equipment.

4 MR. NOYES: I pretty much agree with what you said,  
5 but you said it better.

6 MR. HERNDON: So is that the direction that you  
7 folks --

8 MR. WAMPLER: -- The only point I would make and I  
9 wish you well with that subcommittee report, and you have 30  
10 folks that have to vote on this, and like Mr. Walker, who very  
11 well knows, and we know how neurotic the entire or the full  
12 Commission is and can be. The reason I talk about the  
13 inclusiveness and being a hundred percent consistent with the  
14 BCG Study, and there's many questions about where are we, and  
15 that's not to say we have to take six months to assess the needs  
16 from the Cumberland Gap to Emporia. We ought to take a pretty  
17 good pass at from getting together and getting input on buy-in  
18 from industry that would support your recommendation.

19 MR. NOYES: If I was sitting here at this table and  
20 only had industry representatives, John would put a contract out  
21 on me, and Ron would take the contract. It just doesn't work  
22 that way. Yes, we have to engage industry, but we can't go to  
23 every single one.

24 MS. BROWN: What I can offer and our regional  
25 meeting is August 28<sup>th</sup> in Martinsville, and I'm happy to try to get

1 some input at that meeting from the manufacturers that show up  
2 to try to encourage them to come, what certification do you  
3 require and what are you looking for in these particular areas.  
4 So I'll be happy to offer to do that, and I'll probably get about  
5 eight companies represented in the meeting.

6 This is something you mentioned in a previous  
7 meeting. I think the balance of what we're hearing from industry  
8 where you kind of envision a different workforce from the current  
9 needs versus future where we want to go. We need to have  
10 some of that balance as far as the future and where we want to  
11 go and also making sure we're hearing from as many people as  
12 we can, but I'll be happy to do that at the August 28<sup>th</sup> meeting  
13 and get what information I can gather.

14 DR. CAVAN: My concern here is sometimes we're  
15 miles away, it's far too populated. We're talking about jobs and  
16 certifications, we can do that. That will happen. The community  
17 colleges can do it, and we're willing to do it, and that's our  
18 mission. We have no centers of population here really when you  
19 think about it, real population, but we do have people that are  
20 spread out from Southside to Southwest that need jobs. They're  
21 not going to come to a Center of Excellence. People in Greenville  
22 County will not come to Danville to be trained. So I see a big  
23 difference. I see the Centers of Excellence being a broker and  
24 spreading it out in their area to provide an opportunity for jobs  
25 where they're located.

1 MR. NOYES: What is a broker's role?

2 DR. CAVAN: Identifying areas and colleges that have  
3 expertise that can put programs in without a lot of resources  
4 going forward and have certified programs, and they're  
5 throughout Southwest and Southside. You'll be getting students  
6 there. If you have three or four Centers of Excellence and in  
7 Southwest and Southside, a lot of people are going to be left out,  
8 an opportunity to be trained and bringing industries into those  
9 areas is like the chicken or the egg, and then maybe they'll have  
10 trained people in those areas and industries will come. I thought  
11 that was the whole concept of this, developing these places  
12 where industries will come to see Rolls-Royce and others. I'm  
13 concerned about the effect it's going to have on jobs because  
14 there are no real centers of population throughout Southside and  
15 Southwest. There are some cities on here, and probably  
16 Danville, still not a real population center.

17 MR. LOEHR: When I came to this region, chief  
18 financial officer, and we had somewhere between four and five  
19 thousand people, and when Ernest & Young studied the impact in  
20 the state, and that was in Indiana, there was no town that could  
21 withstand the impact, so these centers don't have to be in the  
22 community and have to have an impact, particularly in the area  
23 of advanced manufacturing.

24 When we talk about where the risk is, where the risk  
25 is associated with building a manufacturer, there's one risk at the

1 very top that stands out over any other risk and the pipeline and  
2 if we're looking at spending \$200 million, we'll put it down and  
3 thinking of what our biggest risk factor is, you look at where the  
4 center would be, it has to be in the neighborhood. It just has to  
5 be reasonable, so I would say look at sparsely populated areas  
6 today, it's a very difficult question and in a very short period of  
7 time.

8 MR. NOYES: Would you say that again, Tom? It was  
9 difficult to hear.

10 MR. LOEHR: A very different situation, jobs and  
11 population in a very short period of time. One question that the  
12 executives at Rolls-Royce asked me in considering to build a  
13 factor is what gives you confidence that you can sustain the  
14 benefits of this \$200 million investment? And that brings us right  
15 to the heart of workforce.

16 MS. BROWN: Build it and they will come.

17 MR. LOEHR: Yes, most definitely. If you don't have  
18 it, you won't be on the short list to come to the table.

19 MS. BROWN: We go back and forth with that all the  
20 time. If we build it, they will come, and that's what we hear all  
21 the time.

22 MR. NOYES: The Commission has made a  
23 decision. We're going to support three Centers of Excellence with  
24 \$20 million of Commission money. It's not a distributed model,  
25 which is what I'm hearing from John. There's plenty of

1 opportunities, as you pointed out earlier, to have a welding  
2 program that provides certain credentials in South Hill, in South  
3 Boston, in a different campus, or a machine operator program  
4 that a single focus program may and may arrange the credentials  
5 in Southwest or Cumberland. There can be many of these  
6 satellite operations.

7 I don't think it's in the interest of the Commission,  
8 and I don't think the Commission intends to simply divvy up  
9 these resources between eight community colleges and say go  
10 for it. We've been doing that for over a decade. These Centers  
11 of Excellence are going to teach to a certain standard using  
12 certain credentials and using certain equipment at three  
13 locations, and then there will be satellite locations. There's funds  
14 in the competitive program, which is an annual program to do  
15 that and, John, you just got some for welding, and you're getting  
16 something for welding. I believe there's a pending application  
17 and you're having your cake and eating it, too.

18 While all the community colleges are excellent, this is  
19 a new thing the Commission is doing, is establishing these three  
20 Centers of Excellence and inviting the community colleges to  
21 come in, not only training the trainers, but to bring those  
22 students for that final piece of that education that uses the  
23 sophisticated equipment.

24 Tom, you were telling me today that one piece of  
25 equipment that you were looking at with the cost of \$8 million,

1 one piece of equipment is \$8 million.

2 MR. LOEHR: When you make that kind of investment,  
3 very expensive technology, and it demands that you don't  
4 duplicate it. It demands that you find reasonable alliances and  
5 perhaps two or more community colleges to operate on one  
6 center, to share that resource through each of the programs,  
7 because this technology is very expensive. And if you try to  
8 duplicate it, it will fail, and you won't be able to sustain it and  
9 afford it.

10 MR. WALKER: Neal, do you see this process that Tom  
11 mentioned earlier about incorporating the high school students  
12 and the community colleges and then the centers and this is a  
13 process you could use to follow up or weed out potential  
14 students. They'd learn step one at the high school level and then  
15 go on to the community college as the next step in the process.  
16 And then you'd have your centers where you would really do the  
17 technical learning.

18 MR. NOYES: That's the model and the Boston  
19 Consulting Group report is very specific on the importance of  
20 encouraging from the high school level and then progressing, and  
21 there may be some of these people start in high school and do  
22 the community college, and then go on for a four-year degree.  
23 But at the end of the day, we need to have a thousand welders,  
24 machine operators, machine mechanics in the next three or four  
25 years so we can work with our existing industries, upgrade skill

1 sets there in those three areas, and that's the model.

2 MS. BLYTHE: The credentials that will be decided  
3 upon and the curriculums in the community colleges, the  
4 credentials that are decided and then report those credentials to,  
5 and people would be seeking those credentials?

6 MR. NOYES: That is the expectation.

7 MR. BLYTHE: So the credentials we have today --

8 MR. NOYES: May or may not suit the credential that  
9 this group recommends to the Tobacco Commission, the Tobacco  
10 Commission decides it will support.

11 MS. BLYTHE: Will they be allowed to change their  
12 curriculum to support --

13 MR. NOYES: Of course, of course. The Commission  
14 will be supportive of that. It's a feeder system, so, absolutely.

15 MS. BROWN: The community colleges, they need an  
16 education provider to teach and if you're going to pass a  
17 certification to be aligned and if you show a 90 or 99 percent  
18 pass rate, whatever the curricula or training looks like, and  
19 there's a third party validated assessment and there's an  
20 opportunity to engage multiple times.

21 MR. NOYES: At the end of the day, if the American  
22 Welding Society credential is the one this group recommends, the  
23 Commission and the Education Committee says, yes, that's what  
24 we're going to go with, I wouldn't think they would fund say  
25 welding that didn't conform with that credential. It's the same

1 with the machine operators and the same with the machine  
2 mechanics. We won't continue to support say nursing programs  
3 that from all the other things we've been doing, in these three  
4 areas, the credentials we decide will drive the curriculum, which  
5 is what will have to be used in order to access Commission  
6 money.

7 If Commission money wasn't involved, we obviously  
8 would have no standing to say anything to anyone, to any trade.

9 MS. BROWN: So is there some type of credential  
10 that'll be decided upon at the community college? Let's say that  
11 ABB said we want some type of electrical testing geared toward  
12 high power so that the community college then could incorporate  
13 that into the curriculum in order to get those certificates  
14 credentialed that graduate.

15 MR. NOYES: Yes. The Commission would be  
16 supportive of that.

17 MR. LOEHR: If the employees come and have a, I  
18 think what maybe we don't understand then is when the  
19 employer through discussion or if there's a NIMS-certified  
20 machinist, you can rubber stamp it. The certification will count  
21 heavily.

22 MR. NOYES: I would say that the idea of doing  
23 customized training, I've had discussions with Senator Wampler  
24 about this, about needs in the service area, and the Commission  
25 has always been open to supporting customized training

1 programs, but what the Centers of Excellence are about, it's not  
2 that the customization, it's finding out how we're going to get to  
3 225 graduates in three particular skill sets on an annual basis.  
4 Over and above that, New College Institute, I'm sure will look to  
5 the Commission and look to the Harvest Foundation and Federal  
6 resources to set up the highly customized training program that  
7 may require equipment that's outside of what this group is going  
8 to recommend.

9 Danville Community College and Virginia Highlands  
10 will be doing the same thing. This is about executing a plan  
11 that's put out through the Boston Consulting Group and not  
12 meeting every need because we can't anticipate everything, but  
13 it will evolve over time, it'll change over time. We're trying to  
14 make a start, and that's what we're here today about, give us a  
15 starting point.

16 MR. LOEHR: There are so many opportunities. As an  
17 example, looking at MAZCK, before we went out and making a  
18 procurement decision, we went through all these areas and the  
19 skill sets, and what we found was much commonality we could  
20 possibly find with in the region. And then we basically said that  
21 it encompassed a broad commonality among people in the area,  
22 so that's the way to go. Having robust, well understood  
23 credentials, it's very relevant to everyone in the area.

24 MR. WAMPLER: I agree with Tom, with what he's  
25 mentioned. I think we've realigned with industry and credentials.

1 I think what we've got to do is figure out how we close the gaps  
2 in uncertain areas, because the charge to us, as I understand it,  
3 is to try to figure out how you use distance learning, since  
4 learning, which I don't think is strange to any of us and we've  
5 used it every day.

6 The point that Gary brought up that we really didn't  
7 go into it is who would coordinate K-12 and who would run it,  
8 and that is one I think is very important, whether it's dual  
9 enrollment, apprenticeship, or something we haven't thought  
10 about before. I'm not sure, Neal, if we're ready to, but I think  
11 that's an area we need to flush out a little bit on this issue and  
12 whether this is a ten-year goal or it's something we can do in  
13 three years. The apprenticeship model is something that really,  
14 that if you really want to do it, we need to pay attention to, I'm  
15 not really to brief that one.

16 MR. NOYES: Well, we need to hear what some of the  
17 experiences are and what is expected.

18 Julie, you have some experience, what some of the  
19 experiences are and what things we need to talk about. Julie, I  
20 think you have some experience in that.

21 By the way, do you want to take a, we've been going  
22 for about an hour, do you want to take a ten-minute break?

23 MR. HERNDON: I do look forward to a ten-minute  
24 break. Bruce Scism is the new college president, Danville  
25 Community College, and he's joined us. Nothing bad has been

1 said about Danville Community College.

2 MR. NOYES: Those from Danville Community College,  
3 would you raise your hands. Is anybody left in Danville?  
4 (Laughter).

5 All right, we've been at it for a while, let's take a ten-  
6 minute break.

7

8 NOTE: And thereupon, the meeting continues, viz:

9

10 MR. NOYES: Before we go to the dual enrollment,  
11 there was something I had intended to raise with the group, and  
12 that's the importance of those folks that provide the instruction,  
13 who are young people or to people that need to upgrade their  
14 skills, and this is really a high level problem, and there's at least  
15 one experience I'm familiar with where what was provided, the  
16 instructors were able to deliver instruction only on about 25  
17 percent of that equipment's capability.

18 I think this group needs to make clear in its  
19 recommendations that the instructors are going to have to be  
20 certified to teach whatever that equipment is that we are using,  
21 and I can't imagine anything less efficient, particularly if industry  
22 is participating in a donation of the equipment, of having  
23 instructors not being able to teach the level of the equipment.  
24 So I would urge this group to incorporate that and whatever the  
25 recommendation is will be a requirement that the instructors be

1 knowledgeable of the equipment that the Commission is going to  
2 be financing.

3           With that said, I'd welcome any push-back on that,  
4 that seems pretty clear to me that that's something we have to  
5 address. When we receive applications, we'll have to address  
6 that, too, the Commission will have to address it.

7           Dual enrollment, apprenticeships, and internships, the  
8 Boston Consulting Group report emphasizes that this is  
9 something that's crucial. Want to get in so much into marketing,  
10 that is to say the other group is going to say how are we going to  
11 get the information about what it is we're doing out into the high  
12 schools and other training providers and into the business world?

13           I've had the privilege of visiting with the academy in  
14 Darby, England, Rolls-Royce, along with, I guess, Toyota, who  
15 else is involved? I know you've got, maybe they make other  
16 things, but the only thing I know is they've got an apprenticeship  
17 academy, and on my last visit there, I was astonished to meet a  
18 fellow that's an apprentice, and I think he had a blue shirt on and  
19 I think the high schoolers have white shirts. This fellow was an  
20 M.D., a trained medical doctor, and he went to the Rolls-Royce  
21 Apprenticeship Academy designing the next generation of  
22 automotive design, and they work as a team, and it's four total  
23 on that team. It's not operational, but I think that was to be  
24 shown off as a concept piece at the Paris Air Show. I didn't go  
25 and see it, but it was made over there. This guy was a practicing

1 doctor, and he said, no, it's not as exciting as being a part of this  
2 advanced manufacturing and designing new propulsion systems.  
3 You would think that somebody with that amount of education  
4 had had enough.

5 Then there was a woman, and I didn't  
6 understand the system very well, but she had graduated at the  
7 university level, this person had three or four As. One A is  
8 considered exceptional. Nobody has three or four. And they go  
9 into mathematics and physics. Anyway, dual enrollment, and in  
10 talking with industry, you've got to get started with these new  
11 folks early, even before high school, and we'll set that aside,  
12 being a developed plan for gauging our high school students. If  
13 that makes sense, we'll approach it, but this is one of your  
14 breaks.

15 MS. BROWN: Is the time right for that in Virginia with  
16 the new requirements, that anyone that graduates with a  
17 standard diploma also has to have a credential? We convened  
18 the six school divisions in our region, and they're looking for the  
19 cheapest thing out there to meet that requirement and rightfully  
20 and when times are right. We talked to them about the national  
21 career and with the foundational certification and meeting the  
22 requirements under current technical education. Identifying  
23 some training at least to an industry credential and help the K  
24 through 12 meet that requirement, so there's an opportunity out  
25 there.

1 MR. HERNDON: I would agree, Julie. I agree with  
2 Julie, and I've heard that some don't have the funds to support it  
3 and wind up with the least common denominator in credentials.  
4 One may or may not have a value in the marketplace, and this is  
5 a chance to reinforce those drives across Virginia and Southwest  
6 towards the credentials that you have identified.

7 MR. WAMPLER: Just to take a little more time than  
8 maybe I should. There has to be a partnership with the K-12  
9 system, and if you don't have that partnership, it won't work.  
10 That means you must start in the eighth grade to make sure  
11 they're taking the appropriate courses at their junior and senior  
12 years in high school. They are not unnecessarily disenfranchised  
13 from taking the courses they need to get the degree and  
14 continue.

15 So if you think of the basic skill sets in a pyramid at  
16 third of the bottom of the pyramid up to, and let's aim high, and  
17 start at the grade level and you can start at the eighth grade  
18 level, and not only will Rolls-Royce or the competitors tell you,  
19 they look for the students with math skills so they can  
20 understand complex automation of machines we ought to be  
21 talking about this morning. It doesn't matter if VCCS or the New  
22 College or Debbie or Julie's group, it doesn't matter. Unless  
23 you've got the buy-in from K-12, it doesn't work because taking  
24 a high school student and giving them college credit or a  
25 certificate or a credit course generates a certificate, very

1 complicated, and I can tell you firsthand. At the end of the day,  
2 the employers will say these are the students we like the most  
3 and we'll hire every one of those that you send through the  
4 internship or apprenticeship with some kind of certificate.

5 That's not the magic ingredient to solve all the  
6 problems, but very complicated and very complex to build a  
7 system that addresses the production that I think this report  
8 expects from us. To try to summarize that, what we do is place  
9 the internship and a learning piece where those students go into  
10 the workplace and they actually are able for the employer to  
11 check them out. And if the prospective employee checks out or  
12 at a place where he wants to work, I think that's the model no  
13 matter where our touch is, ability or inclination, that's something  
14 that can set the Southern Virginia Region apart and where we  
15 could probably be able to show where we could produce 50 or 75  
16 in year two or three in the supply chain to make a difference and  
17 help expand existing businesses.

18 I could go on for an hour, and I promise I won't, but  
19 what's complicated is the coordination with the K-12 system.

20 MR. NOYES: I was asked a question. Yes, all this  
21 requires a lot of coordination with the Tobacco Commission, and  
22 we try to work on that coordination, and our community colleges  
23 have long experience with dual enrollment. The Tobacco  
24 Commission in the report to the Education Committee, that's  
25 your audience at the end of the day for this, because they'll be

1 making the decisions. Shall this group say to the Education  
2 Committee that the financial aid package provided to the  
3 community colleges by the Tobacco Commission is to include  
4 funding for those college credits earned by students in the high  
5 schools? That's a decision point for the Education Committee.  
6 To date, we have been exceedingly reluctant to do that. I  
7 remember you voting against it a few years ago because it was  
8 Pandora's box, and you'd end up underwriting every high  
9 school. But what I'm hearing now is give me something that's  
10 actionable.

11 MR. WAMPLER: We've often been lectured by the will  
12 powers, but the question is I think this Committee ought to say  
13 what is a reasonable expectation and how many interns, and I'm  
14 not sure if they're on apprenticeships yet, but what is it that we  
15 think has to exist within the footprint and what is the goal that  
16 you the Commission has set or institutions of higher education to  
17 deliver, and I think we can do that. Tell us what it is, and we'll  
18 sign a performance agreement and we'll produce.

19 MR. NOYES: We need to go back to your point earlier,  
20 shall we hear from industry, how many do they want, how many  
21 do they want in existing industry, and considering the CCAM  
22 members, how many do they want us to do? Obviously, it's  
23 something that could be wrapped up over time, but at least on a  
24 pilot basis, we can hear from Dr. Proffitt or Dr. Cavan, how many  
25 could you do?

1 DR. CAVAN: Is that a question?

2 MR. NOYES: Yes, that's a question. If the  
3 Commission says two community colleges of the financial aid  
4 program and it's open for folks taking for credit or noncredit  
5 courses at community colleges that are part of this effort.

6 DR. CAVAN: We have to find out what the industry  
7 needs are and jobs at the end.

8 MR. NOYES: Except we're not anticipating or I should  
9 say we are anticipating or this program anticipates there will be  
10 an expanded need from supply chain companies.

11 DR. PROFFITT: I think together we have the same  
12 requirement, give us the need and we'll meet it, or we would  
13 need to meet that need, but give us the challenge.

14 MR. NOYES: The recommendations to the Education  
15 Committee might be \$50,000 of the amount that we provide just  
16 to be used in relation to this particular program for the work that  
17 is done in the community colleges and gets us to the Centers of  
18 Excellence. I repeat that I don't know if 50 is the right number  
19 or not. Somebody tell me what they think. Tom, you started to  
20 raise your hand, and it may be more than 50. We have  
21 provided, I think it's this year, 420 to each of the community  
22 colleges.

23 MR. LOEHR: I think the numbers could be different  
24 based on disciplines, but I know in two community colleges, and  
25 I know in Danville and John Tyler, the freshmen are employed a

1 hundred percent freshman year. What that says is that market  
2 demand is way in excess of the pipeline. How far up, that's hard  
3 to say. If you look at all the operations, initially hiring 600  
4 people, and we can do that with the first 60 to, or 1,000. The  
5 scale of how big or how small the pipeline, the pipeline will tell us  
6 how much or how little, not the other way around. So it's hard  
7 to answer that question.

8 I would like to take the discussion in a little bit  
9 different way because I'm very much enamored and the company  
10 is very much enamored with dual enrollment, and I'll tell you  
11 what I think the challenges are. We're very enamored with them  
12 because we believe that this is pragmatic application math skills  
13 that come back into the K-12 system. When you put pragmatism  
14 in with something very theoretical like math, it becomes real and  
15 captivates students and they understand this.

16 When you see a mathematical concept, how pragmatic  
17 and how real, so math can captivate the hearts and souls with  
18 math by showing the pragmatism, and we're enamored with dual  
19 enrollment. What I believe the challenges are, and I, and in  
20 talking with various people, I believe it boils down to two things,  
21 scheduling, and that's scheduling and funding.

22 So the areas that have managed to feed this have not  
23 taken on the schedule like it should. Maybe two or three people  
24 or a dozen people, and they customize the schedule for them  
25 according to the school standards. Here's food for thought, and

1 you can continue to work with them, but it's hard to overcome. I  
2 can imagine a school schedule would isolate a certain group and  
3 you can accommodate them. They already have these forces in  
4 a shop. What you're doing is replacing shop with another  
5 program, but if you determine that shop, and that could  
6 accommodate and integrate and in the end everything falls into  
7 line as far as scheduling. Right now, it's one ad hoc centered  
8 around students that have elected to go to this type of dual  
9 enrollment.

10 But I think that if you open the lid, and I think dual  
11 enrollment, like for ABB or any other employer in the state, and I  
12 think having a conducive academic schedule, K through 12, is  
13 very, very important.

14 MR. WAMPLER: It's either the friend or the beast,  
15 and hopefully you'll find it to be friendly and you might have to  
16 project out semesters for the next academic year, but I think  
17 Tom is 110 percent correct. You can correct me if I'm wrong,  
18 but I believe in the last Governor's Report there were 32,486  
19 dual-enrolled students in the Commonwealth of Virginia, and  
20 28,000 or 29,000 are enrolled through the VCCS, if memory  
21 serves me correct. And I know because I served on that  
22 commission.

23 The point is there's probably five or ten percent that  
24 are not dual-enrolled through the community college system.  
25 And some of that is online courses, and some is under colleges

1 and universities, but I think the best practice is from everything  
2 that Tom has suggested wraps around what works.

3 John, you said what are the challenges and let us tell  
4 you how we can address those needs. I would say let us be  
5 creative and show you what we can do.

6 MS. BROWN: The Governor's School, I know, has  
7 done that, and as far as dual enrollment, they took the whole day  
8 and made it a college day and have Monday, Wednesday classes,  
9 and Thursday, or Friday is the day you can do lab and things that  
10 require longer than the block. There's a way to do that if you  
11 start with that group and all the kids would be on that college-  
12 level schedule, there's dual enrollment. But there are ways to  
13 accommodate that.

14 MR. LOEHR: In discussing it with a number of other  
15 industries in the Commonwealth and leaders, and they all  
16 contribute money K through 12, and they know it's the right  
17 thing to do, and it costs under the stress test, they're corporate  
18 people. If you can find a point of relevance where companies  
19 can donate money to something relevant to them in the K  
20 through 12, I think you'll find that you'd be much more  
21 successful with the input of corporate money into a funding  
22 mechanism around this, because now the main thing is this thing  
23 is pertinent and relevant. So this is drawing more corporate  
24 money into public education.

25 DR. CAVAN: I can tell you about the dual enrollment

1 program that we have. I believe in May that we had 411 high  
2 school students graduate from the community college who did  
3 not graduate from high school. In terms of the occupational  
4 programs, our school division really can't afford to have  
5 equipment needed in the tech program.

6 What happened in Southside, Halifax County bused  
7 students here for advanced manufacturing art design.  
8 Greenville County and Lunenburg County, Brunswick County,  
9 Mecklenburg County, bus their students to the Advanced Center  
10 in South Hill for advanced manufacturing. Next spring,  
11 Mecklenburg County and Charlotte County will join Halifax  
12 County to send these students here, and we use our Keysville  
13 campus for occupational technical programs for high school  
14 students. The majority of our dual-enrollment graduates are  
15 university parallel students. We go through Halifax County and  
16 do auto tech at their site, also.

17 So there is a model that works, even though it's a big  
18 problem. Superintendents have really bought into this, and it's  
19 happening, and it's a good opportunity. And I'm sure we'd like to  
20 have more funds, but we're doing it with what we have.

21 MR. NOYES: What do you hear?

22 MR. WAMPLER: I have to say that what Tom says,  
23 you have to tie it in with or to the point what is the test for  
24 industry in supporting what you're doing or whether the  
25 Commission would do that. But again, to the point of what is the

1 test when industry says you're doing a good job and when they  
2 start writing checks to support what you're doing and whether  
3 the Commission would do that as in kind or cash or that's a  
4 discussion for another day.

5 For instance, RTI give us double amount of interns  
6 you sent us next year and they write a six-figure check to  
7 support an internship and they said we'll hire every one that you  
8 send and whether they're high school graduates or college level.

9 MR. NOYES: Who's providing the training for the  
10 Eastman program or who's doing the training?

11 MR. WAMPLER: You have the faculty from K-12 that  
12 must be recognized first. If we don't get it right, that's really  
13 beyond the curriculum committee, but you if don't get your high  
14 school piece right, including the middle school, it's not going to  
15 have a solid pipeline.

16 Next would be the community college system and  
17 then the four-year institutions that provide the faculty and  
18 support all of this. It's just continuously. They can figure out in  
19 15 minutes what it takes us days to do. And when you're talking  
20 about high level math, Julie and I have talked about this before.

21 MS. BROWN: You're talking about 25 percent --

22 MR. WAMPLER: You know you've got it right when  
23 industry starts supporting you.

24 MR. NOYES: It sounds like Virginia Highlands and  
25 Southside have got a lot a buy-in with the local school districts,

1 and if industry buys in. As a result of all of this, give me a policy  
2 recommendation for the Committee that drives the decision --

3 MR. WAMPLER: The Committee recognizes that we  
4 recognize dual enrollment as a critical piece to the pipeline and  
5 we challenge the regions to present a plan.

6 DR. PROFFITT: I don't think we'd have to buy in as  
7 John says, we're working in that direction, but we would have the  
8 same buy-in from the public school system and from what John  
9 is experiencing here. We have a good dual enrollment program,  
10 very, very little occupational center because the public schools,  
11 they just don't have the dollars, and we don't have an entity like  
12 this that we can use, so we're behind in that respect.

13 As a matter of fact, that's been one of my big  
14 objectives. There's very little for the occupational technical area.  
15 We're way behind on that. That's a key, and what we're doing is  
16 on the side. If we had a grant from the United Way for beginning  
17 a pilot project in one of our middle schools where we're starting  
18 to work with seventh and eighth graders to get them involved in  
19 the occupational and technical programs, to take them on visits  
20 during the school day to see some of these things that are  
21 happening at companies to utilize manufacturing. It's a big  
22 problem for us, and it's like distance learning. We have markers  
23 and we have outcome measures in this United Way project, and  
24 outcomes that we have to show for a three-to-five year period.

25 But the key is that we have to get dual credit in the

1 mix for sure because that's how we get students. We've been  
2 saying what you've been saying for a long time, Tom. You can  
3 show a student this is what math really means, this is how you're  
4 going to use it and understand it, and if they understand it,  
5 they'll buy in. If you put in \$40,000 to \$50,000 into your dual  
6 enrollment program for a similar amount, it would be a good  
7 investment.

8 MR. NOYES: So the dual enrollment --

9 MR. LOEHR: It's so frustrating that half of the  
10 industrials that you get in a conversation with dropped out.

11 MR. NOYES: Dual enrollment for occupational and  
12 technical programs should be eligible for Tobacco Commission  
13 reimbursement.

14 MS. BROWN: Does that include certification costs  
15 because that's something that weighs heavily --

16 MR. WAMPLER: I assume that in the cost structure if  
17 there's a certificate and the student is eligible --

18 MR. NOYES: We've always reimbursed for that.

19 MS. BROWN: That reflects the cost of the  
20 certification.

21 MR. HERNDON: These are focused on or what we're  
22 arriving at to be the certification that we identified. These  
23 support the certifications, these are the three that we've talked  
24 about as far as certification.

25 MR. NOYES: That's correct, it's not for basket

1 weaving, it's only for or in relation to whether it's the NIMS or  
2 the AWS, whatever the level is that we recommend shall be  
3 eligible. This is what the Education Committee does, and they  
4 act on a motion and a second, and that's the level of specificity  
5 that this group needs to take to the Education Committee.

6 MR. HERNDON: I further recommend that we preface  
7 it with the importance of dual enrollment, apprenticeships, and  
8 internships, the success that Tom has identified and this is  
9 critical to the pipeline.

10 MR. NOYES: I'll frame the motion at the appropriate  
11 time. We accept that argument that Tom made, and it's the  
12 same argument that's in this report from the Boston Consulting  
13 Group, and we'll stipulate.

14 MR. LOEHR: You can have high school graduates  
15 come out and it's not years away or months away from  
16 employment, it's a month away, and potentially the remainder of  
17 their certificate is funded through or by us.

18 MR. NOYES: I want to make sure we understand the  
19 cost of the training, not using this as a back door, put million  
20 dollar pieces of equipment in 111 high schools for eight  
21 community colleges. This is tuition, and this is what goes for  
22 teaching. Does anybody understand that? I just want to be  
23 clear. The next step after high school or even during high school  
24 might be participating in a program at one of the Centers of  
25 Excellence and on the equipment.

1 All right, we're making some progress.

2 DR. CAVAN: We have some students that are bused  
3 in within a 50-mile radius, our tech programs and these Centers  
4 of Excellence. The superintendents realize that the important  
5 thing is that they, they don't have the resources to have this kind  
6 of equipment. When you have four or five school divisions and  
7 we have the equipment, it works.

8 MR. LOEHR: This is a point of passion for me, so let  
9 me, I don't want to get carried away, but imagine that one of  
10 these centers, suppose they change their schedule, so each half-  
11 a-day period and also a period designated for this type of thing,  
12 but it's different days. Imagine on that day, in that county, and  
13 taking 50 students in the morning and afternoon, and those  
14 courses count towards high school, these are monies that the  
15 high schools don't have to put in to arrange these courses, so the  
16 rest of their courses that they're offering can be richer. They're  
17 actually having to do less with the same amount of money. It's  
18 just a smart play overall.

19 MR. NOYES: Well, are we done for today?

20 MR. HERNDON: I think we talked about conducting  
21 interviews. I believe we're next going to conduct a review of  
22 credentials using NIMS, AWS to go to, and also as Julie suggests,  
23 NAM, for guidance on what else is out there and validate those  
24 with relevant industries from across our region. We want to  
25 make sure we get the proper feedback from Eastman and the

1 others across our Tobacco Region. If the group agrees, we have  
2 a few people working where we can try to convene the entire  
3 region, including the far Southwest, sort of the Martinsville area,  
4 and then points east, the three I have in mind. Try to get  
5 together with a few major businesses in each area, and as Julie  
6 suggested, maybe meet together on August 28<sup>th</sup> and perhaps a  
7 few of us try to reach out.

8 MR. NOYES: That's a start. Nine businesses, and  
9 there are three on each of the three panels, and we could look to  
10 those for some type of leadership. We could ask ABB to consult  
11 with some other businesses as part of their supply chain, and I  
12 think Rolls would be happy to do that. General Dynamics, Larry  
13 couldn't be here today, but, and I have met with him in the past.  
14 We're not going to get every business of every type as far as  
15 advanced manufacturing businesses.

16 MR. HERNDON: Utilizing welding and machining and  
17 machine maintenance.

18 MR. NOYES: The folks at RTI, I'm sure one of those  
19 companies will be happy, of course, some suppliers of Rolls-  
20 Royce, I don't want to delay the process of getting our work done  
21 by endlessly reaching out to everyone, but I agree with some.

22 MR. HERNDON: From what we validate from industry.

23 MR. NOYES: You can hear from industry at that point  
24 in time as their specific equipment that they would require in  
25 relation to a curriculum that is developed to get the certification.

1 We will plan to meet again next month, we need to hash out, so  
2 we'll at least know or, and on certification and find out what the  
3 curriculum is related to certification.

4 MS. BLYTHE: We could meet in South Hill if you'd, or  
5 down at our place.

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**PROCEEDINGS CONCLUDED.**

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**CERTIFICATE OF THE COURT REPORTER**

I, Medford W. Howard, Registered Professional Reporter and Notary Public for the State of Virginia at Large, do hereby certify that I was the Court Reporter who took down and transcribed the proceedings of the **Virginia Tobacco Indemnification and Community Revitalization Commission, Workforce Study - Curriculum Meeting**, when held on Thursday, August 8, 2013, at 10:00 o'clock a.m., at the Southern Virginia Higher Education Center, South Boston, Virginia.

I further certify this is a true and accurate transcript, to the best of my ability to hear and understand the proceedings.

Given under my hand this 13<sup>th</sup> day of August, 2013.

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Medford W. Howard

Registered Professional Reporter

Notary Public for the State of Virginia at Large

MY COMMISSION EXPIRES: October 31, 2014.