

**United States Election Assistance Commission  
Roundtable Discussion**

**EAC Grants: Expanding the Body of Knowledge of Election  
Administration – Reflections and Future Directions**

EAC Offices

1335 East West Highway

First Floor Conference Room

Silver Spring, Maryland 20910

Held on

Wednesday, September 3, 2014

at 1:00 p.m.

VERBATIM TRANSCRIPT

The following is the verbatim transcript of the United States Election Assistance Commission (EAC) Roundtable Discussion “EAC Grants: Expanding the Body of Knowledge of Election Administration – Reflections and Future Directions” was held on Wednesday, September 3, 2014. The meeting convened at 1:00 p.m., EDT. The meeting was adjourned at 3:59 p.m., EDT.

### **ROUNDTABLE DISCUSSION**

MS. MILLER:

I’m Alice Miller and this is the third in a series of three scheduled roundtables for this year. We’re again happy to have this roundtable Webcast live with a Twitterfall. Questions and comments can be sent to #EACvote during this Webcast. We’re starting at one o’clock East Coast time, obviously, in an effort to accommodate some of our West Coast stakeholders.

Before we get started with today’s all important topic, “EAC Grants: Expanding the Body of Knowledge of Election Administration – Reflections and Future Directions”, I just want to take a moment to provide an update on the past two roundtable discussions from earlier this year. We’ve done these roundtables, we did one in March and one in June, and I think we need to come full circle just to bring everybody up-to-date with what we’ve done with the information and the comments that we’ve received and kind of as our moderator always says at the roundtables, “What are our takeaways?” So having said that, we did one March 13<sup>th</sup>. The topic was “Managing the Polling Place – Lines, Logic and Logistics.” We had a distinguished panel here that included election officials, former members of the Presidential Commission and individuals that work on the state and local level. As we analyze the March roundtable, a majority of the topics covered, of

which there were many, resulted in the development of EAC's new Quick Starts, which have evolved into Quick Tip Points. The topics that we've covered, and are currently available on our Website for our review are: Nine Tips to Manage the Voting Process Better; Seven Tips to Strengthen Voter Education Programs; Six Tips to Employ Effective Poll Workers; Four Tips for Making Election Data Pay Off. We also have Ten Tips to Enhance Your Voting Experience, and 14 Facts about Voting in Federal Elections, which is EAC's Election Guide for Federal Election Process. We're continuing to develop the Quick Tips and to have those available on the Website. We're not going to have hardcopies available, but they can be downloaded from our Website. And available soon, hopefully by the end of September, we hope to have Tips For Educating Poll Workers, Managing Alternative Methods of Voting, Conducting Election Audits, Managing Provisional Ballots and Managing Change and Tips for Contingency and Disaster Planning. Those are results of the March roundtable. So, you know, that came in conjunction with discussions from both the individuals at that roundtable and ongoing conversations with election officials throughout the country, both state and local. So we'll continue to develop those things and to hopefully assist with the election process in the ultimate success of each election.

Our second roundtable we held in June, which was June 12<sup>th</sup>, it was titled, "Reforming the Testing and Certification Process." Again, a learning experience for all of us and one in which we attempted to develop an action plan. We requested the participants to assist us with that. The suggestions were varied, yet consistent,

if there is such a thing, and at the end everyone provided substantive advice including tackling short- and long-term tangible expectations of what the expectations are from testing and certification program, certifying what's necessary, preparing for software. There was a large discussion about how the certification process is going to be a software-driven process only versus that of hardware. So we had a lot of discussion around that and one of the suggestions was for the EAC to begin to prepare for the software coming event. Taking on the engagement with states that provides for pilot programs, adopting innovation and one participant, whose name I won't mention, but I will say she was a member of the PCA, forced us to basically take a bold process and just do what we wanted to do, just be bold about it, you know, and figure out to take action and concentrate on what we can do and what we do well. Again, this was a lot of direction given from advice of a highly respected group of election officials and the former Commissioners and manufacturers.

What we have done with all of these suggestions, we've taken those discussions and we have begun to form a group with the election community to help us have a working group on how the future of the voluntary voting system guidelines document, how it should be developed and structured. So we've extended invitations to a number of individuals involved in the process to work with EAC on the future of the VVSG. Let me be clear, they will not be writing the guidelines. Obviously, that job is directed by statute under HAVA. We hope to get the group in a final place and the primary job of the working group will be to provide feedback to the EAC on

a high level direction for the next voting system standards in the development of that effort. There are two high-level goals that we have for that group: exploring how the future VVSG efforts can support innovation and allow for flexible solutions while maintaining clear and testable standards; and to define a strategy and priorities for developing an effective VVSG document in order to ensure that future VVSGs consider the needs of all stakeholders, as well as the real-time operational needs of election officials. We'll keep you posted on that. Again, that's from the outcome of our June 13<sup>th</sup> roundtable.

I just want to say many of the challenges that we took on this year came as a result of the PCA report, and for that we would like to thank the members and the staff of the Commission for working with us and being a part of our roundtables and they've presented during these roundtables, along with the many other election officials with whom we could not have these successful meetings, such as the one we're about to have today.

So with that, as I mentioned, the topic is on our grants process, "Expanding the Body of Knowledge in Election Administration, the future of the grants process." With us today we have, again, another distinguished panel consisting of the former Research Director for the Presidential Commission and Professor of Law at Stanford University, that's Nate Persily; Distinguished Professor of Political Science at MIT Dr. Charles Stewart; Director for the Center of Civic Design, Dana Chisnell; Director of Research in Science Division in the Department of Education, NIDRR, Ruth Brannon; from UC Berkeley Chair of the Department of Statistics,

Philip Stark, and without question our election officials from LA County, the Registrar of Voters, Dean Logan, and from Montana Secretary of State's Office HAVA specialist, Casey Sjolund. Did I get it all? Okay.

All of that said, we're nothing without our most dedicated and I would highly committed and supported individual, Merle King, our moderator, who once again joins us in that capacity. I have been requested by Merle to keep his intro short. As humble as he is, we all know that he's a wonderful person. He's well respected in this industry and has been with us for a number of years to help us get through some very rough times, and of that we're very appreciative. I'm going to turn it over to Merle and let him provide us with guidance for how we will proceed from this point. And again thank you Merle.

DR. KING:

Thank you, Alice. And to the panel, thank you all for traveling here today. Looking forward to your comments and your insights on both your experience with grants and research, but also helping the EAC identify future directions and future ways in which collaboration can help disseminate the results of research in election administration.

Just a couple of housekeeping issues, the mikes are all live. The mikes are controlled from the back of the room so need to turn them on before you speak. And we'll be taking a hard break right at 2:30 today, and that's an opportunity for the transcription people to kind of reload. So that's two things I will enforce. We are going to

be finished at four and we will take a hard break at 2:30, and I guarantee both of those things.

The importance of this topic that kind of belies the attention that it gets really in the big scope of research, the gap between what election officials need to know and what they have access to to solve the ever-growing and increasingly complex collection of problems that are placed on their doorstep at every election. Closing that gap is difficult and it's difficult because of the difference in election administration across the county. It's different in terms of who does research on election administration; what are the venues for publication; can you build an academic career out of research on election administration? And the academics at the table you can kill a career with...

[Laughter]

DR. KING:

...research on election administration. So we want to talk about the successes that we've had. That's important because that enables other people who are considering moving into the space that you can succeed. But more importantly we want to help identify some best practices for going forward, particularly for making the research that's done in this area practical for helping election officials translate it into policy.

So with that, I'd like to introduce Monica. Monica is the Director of the grants program here at the EAC and she's going to provide kind of a capstone of where we've been and what we're doing.

Monica.

MS. EVANS:

Thank you, Merle, and good afternoon. Since the passage of the Help America Vote Act Congress has appropriated almost \$3.3 billion to states to improve their administration of federal elections. In addition to that, we have also received money to fund a competitive grants program through our discretionary grants process. And to date we have awarded about 3.2 million under our College Poll Worker Grant Program, \$800,000 under our Mock Election Grant Program, \$500,000 under our Military Heroes Initiative, \$7 million under our Accessible Voting Technology Initiative, \$1.46 million under our Pre-Election Logic and Accuracy Testing and Post-Election Audit Initiative, which I think is our longest named grant program, and so I'll refer to that as L&A or logic and accuracy, and then \$10 million under our Election Data Collection Grant Program.

And just very briefly, our College Poll Worker Program allows college students to participate as non-partisan poll workers and assistants. Our Mock Election Program provided education activities for parents and students and it really got them involved in civic engagement. Our Military Heroes Initiative awarded a two-year grant to improve voting technology for recently injured military personnel and our Accessible Voting Technology Initiative supported research to ensure that all citizens could vote privately and independently. Our Pre-Election Logic and Accuracy Program was responsible for managing and conducting high-quality L&A testing and post-election audit initiatives and then our Election Data Collection Program enhanced the capacity of states and their



jurisdictions to collect accurate data. And these practices have been replicated by other states.

And while we do not currently have any funding available, I'm going to just briefly describe the process for making these awards. And this same process will be implemented with any future funding opportunities we may have available. And we generally begin by publishing a Notice of Funding Availability, or NOFA, and that's available on our Website. And that will essentially give an overview of the grants program, submission requirements and the selection criteria for that particular grant program. And, as I said, you can either contact the grants office directly or go to the EAC Website to get that information.

The process begins with a Notice of Intent to Apply and that notice is submitted by any potential applicants. While not required, that notice will allow our office to appropriately plan for the number of applications we're likely to receive. We also look at certain things with all applications we receive at EAC. Some of the common threads will be well defined partnerships, cost effectiveness, sustainability and then, of course, a focus on EAC priorities. And before applying just some good practical tips, visit the EAC Website because we do have prior NOFAs there. Look at the profiles of successful grant applicants, and those profiles are also available on the EAC Website. And then we also post frequently asked questions and we will typically hold a technical assistance phone call for any potential applicants.

Our selection criteria is divided 50 percent program design, 35 percent organizational capacity and 15 percent budget and cost

effectiveness. And once applications are received, we convene an external peer review panel of experts and those peer reviewers are responsible for scoring, making recommendations and meeting together to provide an ultimate recommendation to EAC for funding. We also convene a staff panel and the staff panel will ensure compliance and also review the applications from the external peer review panel and then those recommendations will ultimately go to Commissioners for approval. Once decisions are made, award recipients are responsible for adhering to grant terms and conditions, OMB circulars, submitting timely progress and financial reports, and then, of course, adhering to other grants principles. And some of those principles would include maintaining documentation, ensuring that all expenses are supported by adequate documentation, record retention policies in place and then also adhering to the approved grant application.

To date, we have awarded 89 College Poll Worker grants, 25 Mock Election grants, one Military Heroes grant, two Accessible Voting Technology grants, 12 Logic and Accuracy grants and five Election Data Collection grants. And just briefly some of the results of those efforts include, under our College Poll Worker Program we were able to diversity the college poll worker population. Under the Mock Election Program they were able to prepare educational and engaging election materials. Our Military Heroes Initiative identified the need to have policies and processes in place to support returning injured military personnel. And the Accessible Voting Technology Grant recipients worked with sub-grantees to develop 45 research initiatives for people with disabilities and language

access issues. Our L&A Program identified short and long-term solutions to assist election communities. And finally, our Election Data Collection Program made improvements in data collection systems to allow jurisdictions to better analyze and report more data. So over the past 12 plus years we've been pretty busy with funding opportunities and then also as a result of those grants that have been awarded.

But now we will hear directly from one of our grant recipients. Sue Leister from Alverno College, and that was one of our College Poll Worker Grant recipients, submitted a video and so we're going to view that video now.

VIDEO:

Hi, I'm Sue Leister, Director of the Internship Program at Alverno College in Milwaukee, Wisconsin. I'm also the project director for the Alverno College Poll Worker Project here in Milwaukee. And we have been supported by the U.S. Election Assistance Commission grant for the years 2010 to 2013.

Alverno College is a small women's liberal arts college in Milwaukee. We have approximately 2,400 students who are enrolled in our undergraduate and graduate programs. And our curriculum is an ability-based curriculum. We have eight core abilities and students, besides studying their disciplines, have to demonstrate their knowledge through a variety of experiential activities. And one of the abilities that they have to practice is effective citizenship. So they really have to be able to show their ability, show an awareness of the issues and their ability to

participate in civic life through community involvement. And this community involvement does happen on campus and off campus.

Our poll worker project began in 2008 and at that time our new president, Mary Meehan, had decided that on Presidential Election Days the college would be closed so that students, faculty and staff could participate in the election process. And at that time I was an election inspector for the City of Milwaukee Election Commission and I knew that there was a real need for poll workers, especially for the 2008 Presidential election, and so a partnership was born. And during that year the Election Commission we held 10 training sessions here on campus to train poll workers and that first year we had 80 students and some faculty and staff who did work the elections for that year. In 2010 it was a mid-term election and that was the year that we got the U.S. Election Assistance Commission grant and we were able to develop marketing materials for that, a logo which you see right behind me here and also really systematize our recruiting strategy for students. And that year we had 102 students who did work the polls through our training program, and of those, 25 of those students were bilingual because Milwaukee really needed bilingual poll workers. And that year we had met our goal and had 25 poll workers. Several faculty also incorporated the opportunity into their courses through service learning opportunities.

So fast-forward to 2012, another Presidential Election Day, and we were able to update our marketing materials that we had developed from the grant from 2010 and that year we had 168 students work the polls on that day, including 25 bilingual students.

So with the help of the grant we were able to double the number of students who worked the polls between those two Presidential election years.

So for this year, it's 2014, we're going to be running the project again for the midterms. Again it will be a day where the students do not have off. However we have a lot of faculty support for this and students will again be able to negotiate a day off so that they can work the polls.

During the 2010 and 2012 cycles we held follow-up reflection sessions with the students about the day of the polls and they told wonderful stories about their experience. We also surveyed them and there were several themes that came out from the survey. First of all, the students expressed that they really came to trust the process, the election process, because they noted how hard poll workers worked to make sure that the process was communicated to the voters that they were really -- attention to detail was very important and that the poll workers worked as teams at their polls. So the students noted that because they noted that people really wanted these elections to be fair. Also, they were impressed by the generational voters, the seniors that came out and the effort it took for them to come, also voters with disabilities and the effort it took them to and the time it took them to come to the polls, and as well as the young brand new voters that were usually celebrated by the poll workers at the site. So this was something that impressed the students. And finally the students really came to recognize the importance of their own responsibility to vote. They saw it as a community engagement and they really -- I had a couple who even

admitted that they hadn't voted during that election and after seeing the process and seeing how hard some people worked to get to the polls, they realized that they had a responsibility and a right to vote and planned to vote in the future.

So as we move into this next cycle one of the things that we do know is that in Milwaukee, at least, the city's poll workers are getting older and there really is a need for bright, detail-oriented people to get involved. Our project was cited through various media outlets, and the mayor even mentioned us in the State of the City address as far as our efforts were concerned. And Neil Albrecht, who is the Executive Director of the Milwaukee Election Commission, really applauded the project and also applauded the U.S. Election Assistance Commission for giving us this opportunity to really creatively address the need for poll workers during Election Days.

So this opportunity has been very important to our students. Their energy with it is very infectious. One of our students actually wrote and talked about when she was working at the polls one day her first time, one of the voters came up and asked her if this was a fun job and the student said I could honestly say it was fun. And so that person she spoke to turned around and checked off the box that asked for interest in being a future poll worker. So I'd really say this is a very great way to recruit future election workers.

So I'd really like to thank the U.S. Election Assistance Commission for their support of our project through their grant. And I wish you all a creative and fruitful roundtable discussion today. Thank you.

END OF VIDEO

DR. KING:

That was a great intro for the roundtable and really a testimony to how impactful research can be. And certainly appreciate the effort that went into the production of that video.

Before we actually begin with some overviews of some projects that were funded by the EAC, I want to pause for just a moment and talk a little bit about the Presidential Commission on Election Administration's Report, The American Voting Experience. And we have one Commissioner and one research director here with us today, so it's appropriate that we mention that report and as a researcher how important it is that you see collaboration and you see validation in the areas that you're exploring. And I think one of the most reassuring things that came out of the Commission's report was a validation that these issues are really shared across all jurisdictions in the United States and they create reinforcement for the perceptions of local election officials, but also of researchers who are engaged in this very unique space. Some of the recommendations of the PCEA report that intersect with the EAC's programs and with existing grants:

Jurisdictions should recruit public and private sector employees as well as high school and college students to become poll workers. We just saw that in the video.

Election authorities should establish advisory groups for voters with disabilities and for those with limited English proficiency. States and localities must adopt comprehensive management practices to assure accessible polling places.

States should provide ballots and registration materials to military and overseas voters via their Websites.

Audits of voting equipment must be conducted after each election as part of a comprehensive audit program and data concerning machine performance must be publicly disclosed in a common data format.

So it was very invigorating and reassuring to see the PCEA report kind of validating some of the same issues that the EAC has looked at. And we certainly thank the Commission for that report and for the staff's support also on that, Nate.

What I'd like to do now is to move to this end of the table. And I don't know if it was spaced this way intentionally, but to my immediate left I'd like to begin by asking first, Dean, and then we'll kind of move down the line to talk about the research projects that you have conducted associated with election administration in your jurisdiction. And realizing that each of these projects are different and that you may have come into these projects; you may inherited them, may not have been the principal investigator of the project, but talk about the project, its purpose, how the need was identified for the research, how the research was assimilated into practice and the impact, if you're far enough down the line in the implementation, the impact that that research has had on election administration in your jurisdiction.

So with that, Dean, I'll ask you and then we'll work down the line.

MR. LOGAN:



Great. Well good afternoon, thank you for the opportunity to be here today and to talk about this important work.

I think probably the best place for me to start as an election administrator is just to talk about the way in which our office in LA County has intersected with some of the research and grant opportunities that have come from the EAC as well as from other sources.

Probably the most significant and perhaps best known project that we've undertaken in LA County is an ongoing project that we have to modernize our voting systems in LA County. And that's a huge project and it recognizes that we're a unique jurisdiction and we have unique needs and there's not currently a voting system out there and available today that will meet our purposes. So we actually took a research and development approach to this project and are midway through that process right now. But where that intersects with the grant making that has come from the Election Assistance Commission and other sources is it's enabled us to leverage existing research that's out there that we believe will lead us to a formidable solution and a sustainable solution but also to be able to creatively tap into sources of funding for research and development that haven't traditionally been available to election administrators. Even the money that was allocated by Congress under the Help America Vote Act for the replacement of voting equipment really was not contemplated for research and development of voting systems. It was contemplated for the replacement of voting systems. And because there's not a

system to replace what we have in LA County, we've had to really get creative about how to leverage the funding for those issues.

So I guess a couple of examples that I can talk about, and they'll probably come up from other speakers and we can circle back on, but I really look at research in elections administration in the last 10 plus years kind of on two paths. One path has been evaluating and looking back at past elections and even current election practices and evaluating how successful they are, what are the results of that and whether or not we're meeting the fundamental requirements of an election system in the country, not just technology but just the overall delivery of the elections process. The other side, which I think has had less emphasis, and my bias hopefully will get more emphasis moving forward, is to look futuristically on how do we sustain the elections process in this country or how do we build onto the elections process in this country in a way that will continue to make elections viable, that will increase turnout and participation and that will be relevant and meaningful to the eligible electorate in the future.

Two things that I'd like to highlight that have been critical in our project because we are -- our project is about a future focus. Two things that stand out I think as great examples, and again I'm sure you're going to hear more about them, are the work that has been done out of Berkeley in California, the grant that was used to look at risk limiting auditing functions and ballot level auditing. That is something that California has taken a lead on, but in our particular project is very meaningful. And, in fact, we use language and data that came out of that project in drafting legislation last

year, Senate Bill 360 in the State of California, that fundamentally changes the way voting systems and voting technology are tested and certified in California. And we make specific reference to that work and to that capability and I think that's the first place where that's been codified in the country.

The second example would be the work that Dana and the Center for Civic Design have done on ballot layout and their software and their open-source approach to the Anywhere Ballot project. And, again, we've been able to leverage that and incorporate it into our overall project document and in fact is now referenced in the Statement of Work for the next major milestone in our voting systems assessment project where we will actually be developing manufacturing specifications for a ballot marking device.

So those are things that we could not have done on our own. We didn't have the resources as a governmental entity to do that and they're future focused. So for me they stand out as great examples and things that I think -- an approach that we need to look at moving forward.

DR. KING:

Dean, I'd like to follow up with you on a question and it's something you said and it was actually in the video, and it has to do with the sustainability not of our voting system technology, which is in itself a thorny issue, but your reference to the sustainability of the behavior of voters that the -- I've often heard that the generation -- the older generation now, the baby boomer plus, we're good voters. We're good voters in the sense that we know how to vote, we show up to vote, we're engaged in it. But you mentioned the challenges

of sustaining that behavior and I wonder if you could speak for just a moment on what you see is the potential consequences if that behavior is eroded, isn't sustained, and how that impacts how you look at election administration.

MR. LOGAN:

Yeah, again this is -- I should preface this by saying this is a strong bias on my part and it's not necessarily shared amongst all election administrators, but I think -- I would argue that we're already seeing the consequences of that. I mean we're looking at historically low turnout in most recent elections. And from my standpoint, and really this came from being in a position of having to ensure that we have the infrastructure deliver elections in the largest jurisdiction in the country and recognizing that that's a sizeable public investment, and if we're going to make a sizeable public investment in the future of elections the fact that people show up or don't show up is pretty critical to that. So I think that for me that's been a fundamental shift in thinking in terms of research and data on behavioral science, if you will, and I think you reference that in the question. So I think we have to ask the questions of, you know, we can have a well run polling place, we can have great voting technology that counts really accurately, but if only a few people show up and participate, then we still haven't met the ultimate need and the ultimate desire of a participatory election system. And I think those challenges are going to grow as we move forward. In fact, I would argue we're behind the curve on that. So I think there's great opportunity there.

There are questions – we’ve got really good data and real good documented research now on what we’ve done and what the results of that have been, but a lot of that also has brought up issues. So there are questions under vote-by-mail systems about, you know, what about voter coercion within a household. There are questions about how things are presented on the ballot and whether that influences how somebody feels about the instructions or about the order of the ballot. What we have less of is direct behavioral data on whether or not the assumptions that we’ve made out of that data are correct, and whether or not there are things that we could do to change those assumptions. So yes there’s a perception of coercion but do we know that that in fact happens or is it just a perception or a fear that it happens and how do we weight that against issues of accessibility and convenience and how does that overlay onto rates of participation and that type of thing?

We know that people’s behavior, our public behavior has changed over time; that the way they conduct business in their day-to-day lives is constantly changing in an area where information comes and goes quicker than any of us can imagine. Yet on the election side we’re still, by and large, doing things the way we’ve done them for the past decades. And I think there’s going to be a growing expectation. I share this story often as a joke, but I think it’s very relevant. In the June 3<sup>rd</sup> state primary election in California through our social media activity at 8:30 -- our polls closed at eight o’clock, we’re a huge county, we have central count system and at 8:30 somebody tweeted directly to me that I should be fired

because it's 8:30 and we don't have election results yet. It would be very easy to get defensive about that and there are lots of good reasons not to have election results at 8:30, especially if they wouldn't be accurate and complete.

[Laughter]

MR. LOGAN:

But I think that's an illustration of the expectation of the public. And I'm not even arguing that we should meet that expectation. I'm arguing that we ought to be paying attention to that perception; that we have an electorate and a voting public that expects something from that process. They expect it to be relevant. They expect to know that their vote had meaning and they expect that to happen fairly quickly. In California we had a very close statewide contest in that election and that wasn't certified until 28 days after the election and it was for, arguably, an obscure state office, state comptroller. I would argue that 28 days after the election many people don't even remember who they voted for for state comptroller. So we've lost something in that mix. And I think those are the kind of behavioral issues that we need to look at as we design the future voting process.

DR. KING:

I think you make excellent points. And I know when election officials, you know, gather around the table to talk about the future of elections in their jurisdiction there's a lot of speculation about the behaviors of the younger voter often comes up. There's not a lot of data about it. There's not a lot that really helps guide us through policy formulation. So I think you've really highlighted an additional

area of research that's needed, but I think it also helps set the tone for Dana in talking about her research and the issues that she's addressed, but also how it's been disseminated and how impactful it's been.

MS. CHISNELL:

Thanks for setting me up, Dean. So at the Center for Civic Design our agenda is really around two central missions. One is about ensuring the voter intent, and the other one is making sure that every interaction that a person has with their government is efficient and pleasurable. So it's pretty easy to come up with a research agenda from all those things. There's lots of potential there. And we do our research -- it's behavioral research. It's direct observation, watching people interact with the artifacts that they encounter in voting in elections.

The project that Merle and Dean are talking about was a sub grant of the Accessible Voting Technology Initiative that we received through the -- through ITIF and my research partners. The project was based at the University of Baltimore. Kathryn Summers is a professor there, an expert on low literacy, and this was a big emphasis on our particular project, which was to try to answer the question if anyone could vote on any device how would you do that? The main point was how do you make voting accessible to everyone? And so we took that question a little further and said, okay, what's the nearest future that we could possibly address. We didn't want to go down the road of Internet voting. We certainly didn't want to talk about anything that was going to be online on the Web, but it seemed like one of the best

vehicles that we could look at was anything that had a browser on it. Almost everybody has a device that has a browser on it. So we, in our research, developed a digital ballot marking user interface. It's a prototype now and basically a template for how to do this on any screen.

We did this by doing the kind of design research that happens in commercial entities all the time to develop Websites and other kinds of technology. We started with a prototype that we printed out on paper. It's called paper prototyping, it's a pretty simple thing, and that was based on two research projects that the Election Assistance Commission had sponsored many years before. One came out of a document called "Effective Designs for the Administration of Federal Elections." And this was a project done by AAGA with the EAC that basically specified down to the point, down to the typeface, down to the weight of every single line what optical scan ballots should look like. But one of the little secrets of that report was that there was a preliminary kind of design for what was then called a rolling DRE user interface should look like. One of the awesome things about that was that design predated the IOS, all of the Apple devices that we have, but it looks remarkably like many of those pieces. So we took that basic design, cleaned it up a bit and pared it with some research that I did with Ginny Reddish and Sharon Laskowski and a couple of other people at NIST on the language of instructions on ballots. We compared two ballots with the design constant. The only differences were the language of the instructions, literally. And one was conventional wording that we found out in the wild from real



ballots and the other was instructions that we wrote based on plain language principles, put all that together in our first prototype and invited individuals one-at-a-time into the lab at the University of Baltimore to basically vote a slate. We used the same protocol that we used for the ballot language research and watched as they did this. The way the paper prototyping worked was we had printouts of every single page of the ballot in every possible state it could exist in, and one of the grad students, who was working with Kathryn at the University of Baltimore at the time, played the computer. She was literally our server. And every time the participant did something, you know, pointed at something on this paper prototype she would serve a new page. Through this we learned a lot about the task flow, the navigation, the language of buttons, headings, links. But there were a few things that we couldn't answer.

So after we went through 18 individual sessions like that we created a digital prototype. It's based on a Wordpress template and then brought in 15 more people, one person at a time, watched them interact, listened to what they had to say, noted where they encountered issues and iterated the design between every session which was challenging for me as the moderator, because I didn't always know what I was going to be testing from one session to the next. It was highly exploratory. It was incredibly energizing and we got to excellent results I think very quickly.

So we end up with this digital prototype. You can try it out for yourself now. It's [anywhereballot.com](http://anywhereballot.com) and it uses the NIST

medium length ballot, I think there are 18 pages with fictional names, but realistic ones, so you get the whole idea of the thing.

And so over time, now that this project has matured, a lot of what we've done to promote it is things like this: We talk about it at conferences and workshops. We've developed best practices and a pattern library that goes with the prototype that is downloadable and implementable. We also have a little newsletter that we send to election officials where we talk about the design principles behind the Anywhere Ballot and other work that we do.

So the impact really is yet to be seen. There's a lot of potential for this. This seems like a thing that election officials have desperately wanted. And I will say after I presented about this the first time the vendors were pretty darn interested, too. We made it available through Creative Commons license. So the design is completely available to anybody who wants to implement it. We're excited that LA County has signed up to commit to implementing that design and we are looking forward to how that turns out.

DR. KING:

Well thank you. And Dana, one of the areas that I know your work has been disseminated is in the legislative process where jurisdictions that specify ballot style in statute. Could you comment about that a little bit? Because normally when we talk about doing research we think about the recipients being either other researchers or developers or implementers, but yours has an unusual target.

MS. CHISNELL:

Well our target for this particular project was to make ballot marking accessible for people with low literacy. We were floored to learn that the latest statistics show that at least 44 percent of American adults read at a sixth grade level or below. This is a huge implication for voting. Pair this with all of the things that are imbedded in legislation at the state and county level about what instructions say on ballots, what the format of the ballots are, any number of what we call mental models. But basically they're ways of voting within a ballot, so you know, straight party voting, vote for one, vote for "N," rank choice voting, judge retention contests, measures, propositions and referenda, all of these have implications for people who have disabilities, who don't read well or who have cognitive issues. And it was hugely challenging to work with these people in some ways. In a typical usability test we'd hand the person a task and say, "Read the task and do what it says." That was not going to work in this situation and so we had to adopt our protocol to make sure that we were getting the data that we needed. We know that at least two-thirds of the participants who were in our study were low literacy. We assessed them using a tool called REALM which Kathryn has been using for years on information about medical terminology. So the way this works is there are there 66 words in the list. They go from easier to harder and we just ask the participants before the session to read the list out loud and skip anything that they didn't know, sound out things that they felt like they were comfortable with. And this gave us a very reliable measure of their reading ability.

And so we ended up with a couple of, well, I'm going to say eureka moments. There were some revelations. I've been working in plain language for a long time. I thought that we had the language and the instructions nailed when we walked into the lab. And we got in there and of course there were things that we needed to change about the design, we expected that, but as we went through a few sessions, we encountered this place, well you go through the ballot page-by-page. There's one contest per page and you end up at a summary screen that lists of all the things that you have voted for and shows a message for under voted contests as well. The heading on the page was, Review Your Choices. It seems like a really simple telegraphic heading, clear and plain. But after we'd removed a lot of the obstacles in the rest of the ballot finally one of the participants said, "Why are you showing me more choices? I thought I was done voting and these names look like all the same names I've already seen. I thought I picked these people." This was a huge revelation. This simple word, 'choice', is modal. So when you're in the ballot, you're making decisions. When you get to the end, you're done making decisions. And I'm not kidding, when I came back into the observation room after that session, people were doing happy dances because we finally unlocked this thing. And when we changed the heading to, Review What You're Voting For, everything became clearer. Nobody had issues with that again. And so that was one of the highlights of this study, and I think speaks to the value of observing people directly, observing people with different levels of ability and disability, and

we would not be at the smart, elegant design that we have if we hadn't done that.

DR. KING:

Well that's great. And you make an additional important point, which is the research on ballot design has also informed better work on voter information, the materials that go to the voter because those same clarity issues exist within the voter information packets as they do on the ballots.

Casey, if you could tell us about your project.

MR. SJOLUND:

Thank you very much for having me. Montana has held mock elections for over 25 years with the desired goal of increasing student involvement. In the past, due to Montana's geographic size and mock election budget, it had been difficult to get the mock election program out to all areas of the state. The state primarily relied on the school districts, local businesses and individuals donating time, money and space. The grants that Montana received from the EAC in 2008 and 2010, thank you by the way, helped shrink the distance of our state and made the program more accessible to all Montana schools. The basic premise of the student mock election has remained the same over time, to increase students' awareness and participation in the electoral process, but the method and scope were expanded in 2008 and then again in 2010.

One of the nice things about receiving grants two years apart is you have the ability to look at what worked well and what might need some alterations. When our office applied for the grant in

2010, we took a lot of feedback and learning experiences from the 2008 mock election. The program was tailored to meet the requirements of the grant and to factor in some past findings from feedback and experience. Some of the changes included the goal of increasing participation of Montana high schools, including those on American Indian reservations, enhancement to the online voter portal, tiered ballots, developing state specific education resources and utilizing voting technology of the same style that was actually used in elections. When the 2008 election cycle finished up, we noticed that a large amount of the ballots cast were from the middle school students, so in response we focused on increasing high school participation in 2010. Utilizing EAC grant funds, we worked with the Office of Public Instruction and school administrators in Montana, specifically targeting the 170 public high schools in Montana, and had 110 high schools registered to participate in the 2010 mock election. This increased previous high school participation by nearly one third. 13 of these schools included predominantly tribal student populations which registered 750 students to participate. We considered this increase in participation a huge success and attributed it mainly to use of the EAC grant funds to do targeted outreach and to create a robust online voting process.

The online voting portal was first used in 2008 and proved to be a popular method of participation. One area of enhancement to the portal for 2010 was the ability for schools to self-register online. Prior to this, state program administrators had to manually enter school participation information into the application, which proved to

be a hectic process during the busy weeks before the Election Day. Feedback that came out of the 2008 mock election suggested that a ballot that is created for high-school age students may not be appropriate for the younger age groups. So we decided to design three levels of ballots. Elementary schools received candidates on a basic state poll question. Middle schools received a ballot that included candidates and an abbreviated text of state and national poll questions. And high school students received the full ballot. We created a link in our online voter portal that associated schools with a certain ballot style. We also designed and created paper ballot styles for these tiers as well as a specific tabulator and voter assist terminal programming. This allowed schools to offer the full voting experience included in voting using an optical scan tabulator and/or accessible voting equipment similar to the poll voting experience.

Another piece of feedback we received from 2008 was some educators felt that they needed more educational resources and did not have the time to create them themselves or have the time to track down the trainings. In response to this, our office contracted with an educator who designed state specific education materials. The education materials focused on voting, candidates and the media's involvement in the election process. We provided each school that registered with an information packet that we included in this educational material. For schools that wanted the more traditional model of voting, we provided paper ballots. This turned out to be the most popular method of voting with over 9,000 ballots being cast this way. We also provided a mock election tabulator

and VAT program to media that we were able to download to the Montana Student Council Convention and the Montana Youth Independent Living Symposium. We also provided program media to local election offices who could provide tabulation equipment to interested schools. The schools that took advantage of using tabulators found this process to be quick, accurate and provided a more hands-on understanding of our post-election audits and its benefits.

The resulting impact of the mock elections and whether or not it met our goal of increased participation is a hard thing to gauge because so much of the participation is based on the election cycle itself and what is on the Montana ballot. The level of participation in the mock election process from a Presidential year, 2008, to an off election year in 2010 was impressive. Actual voter registration seemed to increase slightly between 2010 and 2012 as well, but they were less than the numbers we saw in 2008. In 2012 the number of registered 18 to 20 year olds accounted for 2.27 percent of the total registered voters compared to the 1.34 percent in 2010. In 2008 we all know was a different year and our numbers also showed the highest percentage of 18 to 20 year olds at 2.77 percent. We believe that the increased outreach and increased access to Montana schools to the mock election program helps increase student participation to the electoral process. We also augment the student mock election with a program called the 18 and Ready to Vote. These two programs combined to close previous gaps in reaching and inspiring students to become involved in the electoral process.



DR. KING:

Okay, thank you. As a result of this research project, have you identified any follow-on research? I mean you've indicated the participation, you think, may be up. Has there been an increase in the availability of poll workers coming out of this age group? Are there other things that this research has kind of suggested that you explore?

MR. SJOLUND:

Absolutely, I mean in Montana we, like most other jurisdictions, have an aging poll working workforce. So I mean that is definitely something that we would like, you know, to address and focus on in the future.

DR. KING:

Okay great, well thank you. Philip.

DR. STARK:

Thank you. I want to thank the EAC for inviting me to be here and also for the funding for the States of California and Colorado and the grants that I participated in.

In part to try to be responsive to some of the issues you raised before, I thought it might be helpful to tell a little bit of the pre-history of the grant applications because it speaks to this interplay between academic research, public policy and on-the-ground work with local election officials. Both of the California and Colorado grants were for risk audit pilot projects. The way that whole direction of research came about was California Secretary of State, Debra Bowen, put together a post-election audit standards working group in 2007. I participated in that working group. Part of

that was looking at what was out there for methods and models for auditing elections. And ultimately I was unhappy with how it all fit. I was troubled, in some sense, by the end of the story. So after the working group finished, I kept thinking about the problem and ended up writing a couple of academic papers on what I thought was a better -- a different approach to auditing; that instead of amounting to a spot check of whether the election equipment functioned correctly was a rigorous statistical check of whether the outcome of the election in fact reflected how voters voted. So the model shifted from checking the equipment to checking election outcomes. That approach was called a risk-limiting audit. It has other properties. The way that it functions is it's a method or a collection of methods that give you a guaranteed large chance of correcting the outcome if the machines gave you the wrong answer in the first place. That very quickly became part of Colorado law. Colorado passed a statute that was going to require risk limiting audits to be in place starting in 2014. The implementation of that has been delayed. I think it's now for 2017 if I'm recalling correctly.

But partly through my collaboration with my work for the Secretary of State I was able to become friendly with a number of local elections officials who were willing to pilot these methods and they were tried in 2008 in three California counties. Things went relatively smoothly on that basis. The California Secretary of State's Office applied for one of the EAC grants and indeed passed legislation in California, A.B. 2023, to pilot these risk limiting audits. So this went from working for the Secretary of State, to academic work, to then on the ground trying this on an informal pilot basis to

a more formal pilot that was mandated by statute, or at least authorized by state.

We ended up auditing in, I think, a dozen California counties in the course of that. Colorado things were delayed by a variety of legislative legal issues including issues of whether ballots would be subject to the Colorado Open Records Act. But ultimately we did have a pilot audit in Arapaho County last fall under the EAC grant. Part of the outcome of this has been reports to the California Legislature. Another outcome was S.B. 360, that Dean spoke about, which allowed for if you like use of equipment that has not been federally certified provided it's audited to a higher standard, these risk limiting audits.

The whole framing for this, in my point of view, is trying to take a different view of elections. Rather than elections being inherently procedural, you do this, you do that, you use equipment that's been certified, so forth and so on, instead of that, looking at elections as a process of generating convincing evidence of who won. And so I see in an ideal world it's the local election officials' responsibility to provide convincing evidence that the winners, as announced, indeed really did win. And the question then is well how do you generate such evidence? What's the best way to do it? How do you do it efficiently, economically? And what does that do for everything from the certification of equipment to the conduct of elections? One of the ingredients that you absolutely need is an audit trail. You have to have something you can go back to to check the outcome against. That audit trail needs to be curated adequately and it needs to be verified to have been curated

adequately. There needs to be some affirmative generation of evidence that the audit trail is reliable. Right now the best audit trail that we have is paper and I think ideally it's voter-marked paper although it at least needs to be voter-verifiable paper on preferably voter verified paper which is a little bit harder. And then if you have such an audit trail and you've curated it well, you can go back and strategically, scientifically look at portions of it to check whether the machines got the right answer, whether the rest of the process functioned adequately at the end of the day, and also if it didn't, to correct the result or at least have a big chance of catching the mistakes and correcting them.

So in addition to these legislative outcomes and the fact that the jurisdictions that participated in the pilot audits I think uniformly were happy with the outcome and interested in trying it again. One of the outcomes of this research is what direction voting systems should take in the future in order to be more auditable, more efficient, so forth and so on. And that's one of the things that Dean and the LA County project are involved in, Travis County, Texas and the START Vote project. And in particular the current certification regime, the way that the VVSG is being interpreted or implemented by various vendors makes it unnecessarily difficult to audit elections to confirm that the outcomes are indeed correct. One of the ingredients that many of us think future voting systems should have is that the voting system should commit to how it interpreted each piece of paper; there should be a cast vote record that can be linked to the particular ballot that it purports to represent so that you can check it. And right now the VVSG, perhaps not

explicitly but at least the way it's being interpreted, is precluding that and voting system vendors are designing systems that are unnecessarily difficult to audit because of that.

DR. KING:

Okay, let me follow up with a question. You did a great job of describing kind of the genesis of your project, how it began in the Secretary of State's Office, then led to an academic research project, then that kind of folded back into applied. In terms of your next projects, now that you've got more experience in the elections sphere, how do you see your approaches to the next challenges? And I think the risk limiting audit model is an excellent model, but it really just focuses on vote capture and vote tabulation where there are many, many other systems that are kind of swirling around elections that are risk factors into elections. Can you kind of capsule what you learned from your project and what you might carry forward into the design of your next project?

DR. STARK:

One of the things I learned is that it's very difficult to run elections and local election officials have very difficult jobs and are incredibly hard working and competent. And I keep -- every time I see Dean I tell him how grateful I am that I don't have his job. I just can't imagine running elections in LA County.

I'm going to answer a slightly different question which is what I see the pressing issues to be right now around election integrity. The first is we need paper. We need paper uniformly throughout the country. We have to have paper. Without that, we just don't have a reliable evidence chain to check. We need better

rules, regulations, procedures around curating the paper to make sure that we have all of it, that it hasn't been adulterated, that no ballots fell off a truck, that no ballots fell on a truck, et cetera. And then we need robust methods for auditing it and we need equipment that supports efficient audits.

My personal belief and a pet project of mine right now which isn't really an academic project is to try to build a transparent, auditable, open-source vote tabulation system that could be using commercial off-the-shelf scanners that you buy at Costco or Walmart or Best -- you know, just absolutely commodity stuff, commodity computers and open source software so that it can tabulate votes from any ballot whatsoever. Such a system would allow this association between the individual piece of paper and the system's interpretation of that piece of paper which then makes auditing extremely efficient. Literally it would, you know, one could audit a statewide contest of any size by looking at a number of ballots that's roughly five divided by the margin. So, for example, if you had a 10 percent margin in a contest, looking at something like 50 ballots would give you 90 percent confidence in the outcome of the election no matter how big the election was. So 50 ballots from the State of California, for example, is not a large number to look at. And even if you get down to a margin of a tiny fraction of a percent, say a quarter of a percent, we're looking at, you know, five divided by a quarter percent which is not a huge number. I'm not going to try to do the math off the top of my head while I'm talking.

So the auditing portion, the next phase of a project like this beyond the tabulation system would be accessible ballot marking

devices, perhaps building on this Anywhere Ballot in order to be able to get away from the current crop of DREs, et cetera, all of which are aging out. Things have gone past their date of obsolescence. Many of the systems were -- a lot of the hardware components were obsolete by the time they were deployed. We have systems in many jurisdictions that are relying on things like zip drives which the jurisdictions are now forced to try to find used on eBay in order to keep their voting systems limping along. So there's a real issue with the obsolescence of equipment that's currently deployed and trying to replace that with things that are modular, that are open, that are commercial off-the-shelf. We should be voting on office equipment, not on voting equipment is sort of the thesis. So an accessible ballot marking device might be based on a commodity tablet computer, something like that, attached to a commodity printer.

The next step would be to move upstream even further so that instead of using any of the vendors' current ballot layouts we are using a ballot that is designed specifically to be easy to scan, easy to read, incorporating proper usability principles. I think that's an absolutely huge thing, available in any language, so forth and so on.

Moving upstream from that we need the integration into the voter registration systems and the ability to layout ballots with the appropriate contest, sort of knowing what the ballot styles ought to be, implementing good principles in software and making these things scannable by commodity hardware, open source software doing something to build a robust support community around this. I

think that with an open source and commercial off-the-shelf system you could then have a competitive market for support rather than the current vendor lock-in market for support that we have, which is quite expensive for individual jurisdictions.

I think that one of the -- the big obstacles to moving in this direction one is something that the EAC can absolutely help us with which is part -- I think was mentioned earlier by Alice in the introduction, that we should be thinking about certifying software rather than hardware, we should be thinking about what portions of the system really do need to be certified, and to what end, and what portions of the election can be checked after-the-fact on Election Day rather than relying on something that happened months, years, a decade ago on a laboratory bench in a universe far, far away.

[Laughter]

DR. STARK:

So I've just lost my own train of thought. I think the obstacles, so first the certification, legislation in individual states that would make it possible to field such systems. S.B. 360, which Dean played a big role in would make it possible to try something like this in California. Colorado has a provision that would make it possible to try there, but looking further to the rest of the country to see what we could to make it possible to field it elsewhere. And then finally, I think that having a support network in place before any of this gets off the ground is going to be incredibly important to reassure local elections officials that they have -- that somebody is holding their hand; that somebody is there with them.

DR. KING:



That's great. Well you've laid out a very aggressive research agenda that will keep us busy for the next couple of decades.

[Laughter]

DR. STARK:

We could do it in a couple of years if we had to.

DR KING:

For the academics at the table, every academic has a list of those that they carry for the elevator ride with the provost when the provost says, you know, "What's going on in the shop?"

DR. STARK:

Merle if I could just talk on top of you for a second. The problem is that's not a research agenda. That's not something for which academia would give me any credit whatsoever. The problem is that that's a project that really does intersect the real world in a meaningful way. And it's not the kind of thing I'm equipped to be a project manager of or run or whatever. All I can do is talk at places like this to try to get people enthusiastic about it and then maybe be involved in solving some of the technical issues.

DR. KING:

Well that's a good point, thank you. I want to now shift to this side of the table. And one of the things that every organization looks for what are best practices that exists in comparable organizations. And the National Institute of Disability and Rehabilitation Research funds research, and I'm going to direct this question to Ruth. If you could talk about how your organization assists researchers in identifying research agenda, how you may help them improve their proposals so if they're submitting how they can strengthen, and any

broad observations that you might have regarding supporting research in this area of particularly accessibility how it intersects voting technology.

MS. BRANNON:

I'm going to try to answer that, but I have a couple of comments because it's been amazing to listen to all of you and I just can't help myself. I think that really I can talk about research, but what I'd like to do is talk a little bit about disability. There are roughly 35 million, depending on what survey you look at, people with disabilities in this country, but we're increasing disability as we age into disability and a great percentage of those people are not active voters. So it's a major issue to us in the disability world because we believe in participation, and it ties back to our organization because we have three major outcome domains but one of them is participation in community living. And we have always considered civic responsibility and civic participation to be a critical part of that, because if you want to influence policy, you need to be able to vote. And that's been recognized in the disability community, but I think from a research perspective it's been a fairly small part of the research agenda. NIDRR has been at the department -- first HEW and the Department of Education going on 40 years. We just, on July 22<sup>nd</sup>, the President signed a bill that moves us to HHS. We're going to be in the Agency for Community Living where there are also people interested in voting participation. And we are funded between about 100 and \$115 million which as you know is nothing in the research world. And that funding covers all people with disabilities from birth to death and all types of disability. And we

think of disability in major categories; sensory disability, physical disability, psychological and developmental/intellectual, and of course many people have multiple disabilities. And the reason I bring that up is I think it ties back to some of the things I heard you all talking about, which is to the extent that you consider disability as an underserved population, and some of you mentioned it, it's not a monolithic concept. There have to be solutions that fit the needs of the individuals and one size does not fit all. I've supervised, for instance, many people with hearing disabilities and there are incredible differences in the accommodations that have to be made even within a group of three and four people. So there's a great concern as I listen to you about the fact that as you are developing things the -- you know, I would ask the question is the accessibility feature or features a part of the basic core development? Because if it's not, retrofitting it becomes extremely difficult, if not impossible. So I think there has to be a sort of fundamental reordering of what the concept of inclusion is so that we're not just including -- for instance if you look at literacy issues and education issues and you put disability on top of it, your rates of difficulty double. And that's proven. That's in the data. So I think that -- so I had to give that sort of programmatic pitch.

But the other thing I'd like to say is, you know, NIDRR has -- it's a discretionary grant program. We have between two and 250 programs. They range in size from 65,000 a year to 1 million a year depending on what they are. There are a number of engineering centers. We have a national rehab engineering research center program and in that program we have developed

accessible voting booths. One of our booths was in the Clinton Whitehouse. It was, you know -- so we have been doing this quite awhile. And we're also now heavily invested and looking at Cloud as a potential tool for helping individuals with disabilities perhaps vote. I'd like to introduce Dr. Kathy McCoy. Wave your hand. Kathy is on sabbatical with us this year and she's doing work with NIST and with Sharon Laskowski and Bob Boehm and they're looking at ways in which the Cloud personal accessibility features at projects such as being examined in Europe and the global public infrastructure project that Greg Vanderheiden is running, which started with NIDRR funding in the United States. It was called Raising the Floor, and the idea is to increase accessibility. So we're talking about and have funded several voting participation projects over the years. And I brought along -- we run AbleData. This is a listing of 50 entries in AbleData, all of them having to do with voting accessibility ranging from voting booths, to aids, all kind of things for people with disabilities, a variety of disabilities.

But to answer a little bit your question Merle, I think that when you want to improve both the interest in a research program, the quality of the research program, you have to look at capacity building. You have to look at who you're raising up in your field who can do this kind of research. I recently met, through Kathy, Juan Gilbert who is now at the University of Florida. And some of his graduate students, one of whom is working with Sharon Laskowski and Bob Boehm, you know, they are extremely interested in topics that relate to what you all are talking about. I mean they're looking at facial recognition. They're looking at

verification. They're looking at technological innovations that may some day, and I was very struck by everything you said Mr. Stark, but you know, as we look at the future we're thinking, you know, how many years down the road will we have technology that's safe enough. And so Juan Gilbert and other people we work with are looking at the very far end kinds of things. The shorter end are these things which are already in existence and people can purchase and use.

I like to use the term knowledge translation. Somebody used the term end user, I think, and I think a good rigorous research program or project has to start off with the end user in mind, not just what you're trying to do but who you're trying to do it for. And so the design process has to include accommodating that end user. And I would ask is the end user the voter? Is the end user the voting official? And how do you merge those interests? So I think looking at the end user, but combining that with concepts of rigor so that you can answer people's questions about why something works and why it's not your finding is an appropriate one for the setting. I think those are really important. I think that we at NIDRR have moved from doing almost everything agency directed to a recognition that our field has grown tremendously and the capability has, so we're doing more field initiated work. As a consequence, the competition for our grants has increased in some areas dramatically because when you do agency directed, you're telling people what you want, what you think is the right thing based upon a good faith effort. But when you have an open grant call, the researchers are sitting there waiting there to see if you have

something that's close to them they apply. So we have really been impressed with the quality and the numbers and the increase. So I think looking at that, looking at funding capacity building to create that second or third or fourth generation of researchers, keeping the end user in mind and thinking about the deployment and the barriers to deployment and finding that appropriate mix for things that are quick fix, things we need to do now with where the technology and knowledge is leading us, because research creates evidence, but evidence informs research. So evidence-based research is why is what you're proposing to do the right thing to do now, and at what stage are you, and how to you carry it forward.

So I do have to disclose my daughter is a national program director of a voting rights organization and when I told her about this she said, Mom, you know these people out there. They're not worried about what you're talking about, they just can't get it done, you know. They don't have the money to buy these new machines. They are worried about getting through this election. The gap between the theory and the reality is huge. And I see a lot of nodding and I think that's another thing to keep in mind. We have to plan for the future, but we have to do as much as people are doing now to move things along.

So I'll stop.

DR. KING:

You make really excellent points, Ruth, and I think the one thing that I just wanted to comment on was the transition between accessibility as a design consideration and accessibility as a testable component of the voting system. And even as somebody

who tests voting systems, we almost exclusively think in terms of functionality and that's what we test. And I will say that because of folks like Dana and you there's a growing awareness within the testing and certification community that we have to move beyond looking for accessibility as a design consideration to now testing for its presence and its performance and how it collaborates with the other dimensions of the voting system. So thank you for your comments.

I want to make sure that we stay on schedule and my challenge, I'm going to try to give Charles Stewart a short question to begin with and then we're going to take our hard break and come back at 2:45. But one of the -- I'm not going to give Nate a short question...

[Laughter]

DR. KING:

...I know that. One of the things that really distinguishes or defines the research in election administration is its multidisciplinary approach; that it is barely its own animal. It's a conglomeration of a bunch of different things. And we heard some of them this morning; behavioral research, statistics, operational issues, accessibility. And one of the things certainly, Charles, that I think everybody has seen, I can't remember if it's the MIT/Caltech or Caltech/MIT, but since you're here it's the MIT...

DR. STEWART:

MIT/Caltech, yes.

DR. KING:

...is how you approach this kind of multidisciplinary approach. And I wonder if just in a few moments that you could talk about what you've learned about the need for multidisciplinary research in this area and how you go about ensuring that in your project.

DR. STEWART:

Sure, in the short amount of time we have I guess I'll emphasize the good. There's also the bad and the ugly. But the good -- the interesting thing about the project which really is called the Caltech/MIT Voting Technology Project,, I'm afraid, is that it was interdisciplinary and it was created to be interdisciplinary from the beginning. And it's also the case I think it was a unique thing within universities. And this is the flipside, I think, of what Phil Stark was talking about. So I have a story about when the stars align, this is what happens, and then we can talk about when the stars start moving apart. But when the stars align, this is the story and the story -- so let me just tell the story of how the VTP came about and then we can...

DR. KING:

A five minute story.

DR. STEWART:

I can make it a three-minute story, okay? And the short version is that, you know, in the aftermath of the 2000 election the presidents of MIT and Caltech, particularly David Baltimore at Caltech, concluded that the story, the bottom line was a massive failure of technology and it was the duty of the nation's two great technological institutes to do something about this. And the presidents, the presidents decided that they would both assemble



research teams and assemble money. And they put the prestige of their offices behind that in going to major foundations and in going to major university leaders of their two places. At MIT it was faculty from the business school, from humanities, arts and social sciences, from the media lab, and from engineering, from every school at the institute. And at Caltech it included people, not only economists and political scientists, but the director of science for the jet propulsion laboratory, so real rocket scientists working on projects like this. And I think it was a very useful team at the very beginning because, if nothing else, it disabused us of the notion that we could do the thing we were set out to do which was to build the perfect voting machine because once you get a group like that together you realize very quickly everybody's faults and you can begin to kind of really understand what the nature of the problem is.

So I would say that what's unique here was, you know, the founding and the understanding that the nature of the problem really is interdisciplinary, and early on we had a lot of successes in terms of both legislation and policy prescription because of the different perspectives brought to bear. And I'll just end at this point, and we can maybe pick it up after the break, after the founding moment though, you know, we kind of returned to the state of nature and, you know, we like others have had to struggle with the challenges of how within kind of the fancy universities we're part of how do you continue cutting edge fundamental science or fundamental research in design or whatever we're doing in a field that, quite frankly, doesn't need fundamental research in order to make things better. Sometimes -- actually some of the work that

Phil does is getting close to fundamental work in that area, but most other areas it's not fundamental research. It's application in a very hard area and how to make that work. And I think -- so you know maybe after the break we can talk about some of our thoughts and maybe sometimes our actions to try to bridge the needs of universities with the need of the elections community, which I think in some cases are very different, but is nonetheless a necessary partnership to make elections better. So I'll stop there.

DR. KING:

That's an excellent point to stop on. But I do think we should come back and then also, Nate, we want to hear your perspective on research as a member of that Commission.

And with that let's break for 15 minutes. For those of you who are joining us on the Web, we'll return at 2:45 Eastern Time. So let's take 15 minutes. Thank you.

\*\*\*

[The EAC roundtable recessed at 2:30 p.m. and reconvened at 2:45 p.m.]

\*\*\*

DR. KING:

Thank you for rejoining us here at Silver Spring, the EAC, where we're discussing research grants, but also in a broad sense the research that supports election administration and some of the innovations that are occurring.

Right before we took a break I asked Charles to talk about interdisciplinary, multidisciplinary approaches to research and how difficult it is to sustain that in an academic environment. Academics come from their own individual cultures and getting them -- they're

like oil and water, you just got to keep shaking them to keep them mixed together.

[Laughter]

DR. KING:

When you stop shaking, they spread apart. So I wanted to give you a moment to kind of summarize your thoughts on that and then I have some questions for Nate.

DR. STEWART:

Okay, well, I'd better go before I start un-emulsifying.

So where we were before -- so the question is about how to get oil and water to mix, and so from what I've seen and what I've thought about, I mean, here's some thoughts. I mean the one is I think in the DNA of whatever institutions or collaborations that get formed, you know, the nature -- I mean the need to collaborate needs to be hard baked into it. In the -- again the charge of the Caltech/MIT Voting Technology Project, I mean, we were told, you know, reach out to election officials. I mean it was easy at our institution because, you know, we -- I mean I think among the national universities MIT is recognized as being the most active in actively engaging the private sector and in not being afraid to privatize and commercialize ideas and -- I wouldn't say privatize but certainly commercialize ideas and so there was a bit of an ethos that way. But I think that going into, you know, going into the game understanding you need to collaborate is absolutely necessary.

Another good goal in the last -- I mean another good model in the last decade was the original structure of the PEW Charitable Trust "Make Voting Work" initiative, their very first entrée into this,

where those of us who receive grants from them were told that we had to bring along some election officials to be friends and collaborators which many of us thought was just a horrible idea as an idea because, you know, academics we know what we're doing. But, you know, a decade later I recognize the power of that because it helped both in making the design relevant, but also for the dissemination, and then finally kind of the street cred for the researchers when, you know, we were trying in a very retail way to disseminate some things. So I think number one in building institutions to hard bake in some sort of collaboration is really important.

Moving ahead, again, I think that we are in a difficult place because very little of what -- it seems to me very little of what's most important in the election administration challenges is really at the cutting edge of fundamental science, and by which I mean that it's really scientific or engineering that would be recognized not only in elections but in a wide variety of applications and really move a large number of areas. And so -- although like in cryptography, and a few other areas, I think because the nature of the election problem; that is, trying to convince people that something has happened without kind of physical evidence that something has happened, is a tough thing.

But beyond that I would say there's another level of research that also is recognized in universities and that is applied research. Now oftentimes it's not in political science departments or economics departments or math departments, but in schools of public policy or schools of management and the rest and similar

schools. And it seems to me that this is one area of higher education that we haven't necessarily reached out to, although again there are some exceptions to that. So that's one idea.

And then one other thing that I've never -- well I want to say within that model there's a variant which I'm very happy to talk about and that is, you know, universities there are models already such as agricultural extension which is a century old. It's, you know, a program that brings together practitioners, farmers and academics together working on mutual problems; the academics having to live to the standard of general scientific principles, the farmers having to, you know, plant the seeds and raise the corn. And that's an interesting model that has worked in this country and whether there are similar model in the elections field I wouldn't say every state, but maybe a few places there could be election extension services or maybe in every state. And so then this gets to the maybe a universal model that I like to get people thinking about, and that is, you know, the land grant universities. There are land grant colleges in every state. Their missions are to disseminate science and -- scientific and engineering findings to the general good of the residents of that state. And so it seems to me that there are things that happen within universities already that are highly applied, that are disciplined by scientific and engineering principles that we might be able to learn from. But I think it would require leadership from presidents of universities or from peak associations to make those sorts of things happen.

Finally, I've never said this before publicly, I was mentioning it during the break, it might be that the best model is to figure out

ways -- basically a consulting model, you know. Maybe we need to brush up on Bayh Dole and figure out ways to move some of these ideas from the university into the private sector among the academics who are working on them. Maybe that's just the way to do it. And I know nothing more about that other than just to say I would love for universities to be involved in this. I think they have a fundamental something to contribute, but maybe there are different ways also of building the private sector and diffusing information into the private sector.

The final thing I'll say, this is truly the final thing I'll say, I think one of the tricks is recognizing the federal nature of elections and making this dissemination work within that context. And that's one of the reasons I think that models that focus on things like the agricultural extension service's models or relying on the land grant colleges are useful models because all of those are fundamentally state centered, scientific idea dissemination institutions. And, you know, if in every state you could have a couple of folks who just kind of worried about intersection of science, technology and elections I think that we would make huge gains and in the scheme of things that wouldn't cost a whole lot of money as a start.

DR. KING:

That's good. I do want to come back and talk about dissemination strategies and the importance of moving either fundamental or basic research into applied and practicable research is really the art of election administration research. It's challenging and part of it, Charles, you hit the nail on the head, it's very state centric and yet you bring, I think, up an excellent point of the importance of

persistence. And that's one thing that universities certainly bring to this equation is that your institution and your institution and mine will be there tomorrow, the day after tomorrow. And so making these organizations repositories of research and not only of the research data but of the art of research, I think, builds an infrastructure that has a lot of pient potential.

Nate, as Director of Research for the Presidential Commission on Election Administration, you had a unique opportunity, and I got to see you at a couple of the hearings that were conducted around the country, of hearing from election officials, hearing from academic researchers, hearing from various stakeholders in the election community about what was needed to improve elections. And certainly I know you heard the monetary resources more than once, but I also know that beyond that you heard lots of discussion about the kinds of information that election officials need, the kinds of resources that they need to make informed decisions. And I wonder if you could take just a moment to give your perspective on what you saw from that kind of 10,000 foot view of election administration issues.

DR. PERSILY:

Thank you, let me answer that indirectly by starting with just how the challenges and the crafting of the report given the limitations that you're describing. And I often say that there were three or four challenges that the Commission faced in trying to write a report on the American voting experience. The first one is one that you all were just discussing, which is if you're going to have a set of national best practices and recommendations how do you deal with

the one size fits all or does not fit all problem, right, given the federal nature of the -- and the decentralization of the -- of election administration in the U.S. And so, you know, at every hearing that the Commission had someone used the phrase "one size doesn't fit all." Sometimes it was used in -- defensively by people saying, be careful what you recommend because one size doesn't fit all because, you know, each jurisdiction is special. But since we had seasoned election officials who were on the Commission, everyone recognized, yes, of course there's differences, you can't have the same set of constraints in LA that you would have in Topeka, but fundamentally everyone is moving voters through the process, they are counting votes, right, they have to register voters and the like. And so one of the challenges is to -- in the report, and this applies to what research is relevant, is to identify areas where there is commonality and where there is difference and then to try to isolate the, you know -- you tailor the recommendations to the most widely shared problems, okay?

Secondly, you mentioned resource constraints, right, and so that is obviously the -- whenever election officials would testify, that was something that we heard and it's highlighted in the report that this is something that states have to take seriously, the Federal Government needs to take seriously, and for that matter academics need to take seriously. So the research is very costly, time consuming and the like and so while concerns that are expressed in the report about getting funding for election officials also applies to research as well.



Third and this is something the Commission wrestled with for some time, which is at what level of generality do you make recommendations in this area? Because the charge of the Commission was to deal with everything from the voter registration system on the one hand to ballot font size on the other. And so to hit the sweet spot of generality was a really difficult question for the Commission because you didn't want to have a 50,000 page report, though there is a -- maybe it's 50,000 pages, maybe 30,000 pages, appendix that's on the Web that I encourage everyone to...

[Laughter]

DR. PERSILY:

...read. I should say we reproduce almost all the EAC materials there just so that everyone knows what's there. And so -- and again it applies to our earlier discussion about research, which is what are the central questions that will give us the best bang for our buck, right, and at what level of generality should we be pitching these kinds of research questions because there are some, you know -- you take something like the question of long lines on Election Day. We, you know, we know from Charles' research that they were focused in particular states, and so in thinking about how to assess national problems, you know, how should -- how micro should we get in our assessment of the relationship between, you know, certain variables and certain outcomes like long lines and other metrics of election dysfunction.

Finally, the relationship between the Commission and other institutions -- since we're at the EAC, I'll highlight it -- but we were, you know, acutely aware of all the research --there is a lot of

research that is out there and you're talking about dissemination before, whether it's the Election Center, NASED, or these other organizations, governmental or quasi-governmental, there is, you know, a large repository. We tried to put a lot of that on the Website, but it is still the case I think, and even as a consumer of this, that it is very difficult to, you know, if you have a research question to look in one location to figure out whether someone has answered it already. And so the, you know, the Commission sort of wrestled with trying to figure out how to present all the information that had already been gathered by so many other organizations.

I'll say just in terms of the research product of the Commission, Bob Bauer and Ben Ginsberg, the co-chairs of the Commission, were fond of saying this was more than just a report, this was a project. And so the report, you know, a hundred-odd-page report plus the tens of thousands of pages on the Website is just the beginning of what the Commission did. Also as Charles, I think, hinted at, there were tools that we put on the Website themselves developed by academics, some developed by academics, some developed by Rock the Vote when it came to online voter registration, but the tools to deal with polling place resource allocation were ones that were mainly developed by academics and are now also improved and at the Caltech/MIT Voting Technology Website. But beyond the tools we also have on the Website the data from the survey that was run by academics. And so, you know, one of the absolutely critical functions that the EAC plays is that it does the one to three surveys, however you count, of the performance and after each election, right, whether it's

military voting, NVRA and the EAVS survey. So -- and we would be absolutely lost without those data, right? I mean it's improved every year and it's absolutely critical that we have that going further.

So the Commission was fortunate that the academics who were working with -- or presenting data to the Commission also got funding for a survey of election officials which had a pretty high response rate as these things go. 40 to 45 percent I think of local election officials responded, so that was about 4,000 different election officials. But -- and this survey was to supplement the EAVS and other EAC surveys because it was asking questions like -- about funding, you know. What was -- that's something we don't really know about how much -- where the money is coming or how much money these different county offices and municipal offices are spending, as well as more focused questions on lines and resources. Those data are also on the Web at I think both of our locations support -- by the way lest you forget because it's now point of nostalgia the Presidential Commission Website is [www.supportthevoter.gov](http://www.supportthevoter.gov). We don't have as many hits now as we did, you know, six months ago but, you know, you can see all of this material there and it's also archived on the Caltech Website since now the Commission is dissolved. So the survey I thought was absolutely critical.

Now to talk about the research effort and the sort of architecture of it for the Commission, so while I was the research director and worked closely with the Commission Charles Stewart over here, Steve Ansolabehere, and Daron Shaw from the

University of Texas, Steve is at Harvard, assembled a team of academics who were presenting information to the Commission. Fortunately Charles and a co-author were actually writing a book also on election administration, so they had a head start on some of this.

DR. STEWART:

It's available now.

DR. PERSILY:

Oh is it out?

DR. STEWART:

It's out now.

DR. PERSILY:

So don't wait for the movie.

[Laughter]

DR. PERSILY:

And so at every hearing that the Commission had there were election officials, academics and then the general public who testified. And the academic research was presented in that way and it ran the gamut. We tried to get research on every aspect of the issues in the Executive Order. Some of it was very difficult, such as things like preparing for natural disasters in voting where there really hadn't been a whole lot of academic research. In other areas, like early voting or mail balloting, or voting technology there was much more out there. And so we tried to assemble all of that and that's why we have so many footnotes in this -- in the report.

Let me just embarrass my colleague to the right here for a second which is to say I don't think there's, in any field of political

science or public administration, there is someone who is as nationally indispensable as Charles Stewart is. I worry about what happens if he decides that he doesn't want to do this research anymore and just decides to, you know, go and study, you know, statistics in sports or something like that. So Charles, the nation needs you and appreciates you. And so we were absolutely thrilled that he was willing to dedicate so much time to the Commission and we -- and you know if -- stay healthy Charles, you know. We need you.

[Laughter]

DR. PERSILY:

And so let me just talk a little bit about I think just the research going forward, and I'll just end with that, because I thought Dean hit on something which is that, you know, there's a sense in which we're very good at crunching the numbers from what's available and what was in the past, but it's really important to think about the different changes going forward and I'll sort of put them into the who, where, when and how questions of voting.

The who questions, which were described a little bit, that the voting population is changing. The population is changing. Rising rates of people with disabilities, rising rates of people who speak languages -- first languages other than English and young people and their facility with technology is something Dean talks about often are a different voting population than historically was the case. And we need to think about how those -- the changes in the population are going to affect voting. I should say there's a flipside on the younger voters who have greater facility with technology.

Dean, also I know has enlightened the Commission on the fact that younger voters also don't know how to write their signature anymore, right? And so that if you continue to base a voter registration system on signature capture, well, you know, these are people who -- I know because I teach them, you know, when you give them a pen they look at it with some curiosity, right?

[Laughter]

DR. PERSILY:

Second -- so that's the who question.

The where question. It's clear from -- so one of the issues that's highlighted in the report is the disappearance of polling places, right? There's been mass consolidation of polling places for various reasons. One of them, and this is something we do not have good data on. We really just have a series of anecdotes from the states, is the disappearance of schools due to security concerns. And so just for background for those who don't know, one of the issues that the Commission identified was that several schools or school boards are refusing to have voters who are obviously not members of the school community come in on Election Day because of concerns about security. And after the rash of school shootings this is something that we heard time and time again. It's unclear as to what the effect of that actually is, but we certainly know that there has been a consolidation in polling places. And so the traditional way -- the where of where we vote, right, are changing. So there's certainly a decline in polling place voting, consolidation of polling place, a rise of things like voting

centers. And the Commission report describes that and we need to think about those where questions.

And then there's the when question, you know. The model of a single day of voting is simply disappearing and so that has broad implications for the election system. And like I said we -- there's good research on this. We've been studying early and absent and mail voting for awhile now but, you know, the paradigm that we've brought to elections, which is that you have a single day of voting, the campaign ends the day before and then you vote, is just very different than what even the present is, let alone the future, where within 10 years at least half of Americans will be voting before Election Day.

Finally, the how of voting, and this is something that you all were discussing before, which is not only is the place that you're voting and the time you're voting or maybe who is voting going to change but also how we vote. And so the -- Dean's really path-breaking work on thinking about the voting technology challenges for his county is going to set a standard for the country I think. And as is clear from the proceedings of the VSAP -- isn't that what it's called -- that project, the conception of how we vote, and Dana mentioned this as well, is going to change, whether people are going to be voting beforehand on other devices, like cell phones, and then basically going to a polling place or some other area in order to capture the vote and verify it I think that, you know, we will be voting -- the changes in how we vote are going to be similar to the changes in how we do all kinds of other things with apps and the like. And so we really don't have a good sense of what the

move, for example, to commercial off-the-shelf devices is going to look like and how we're going to measure progress in that area.

Let me just end with an admonition from the Commission report which is about -- this is the 20,000 foot perspective about what we need more than anything else which captures a lot of these issues. And that is the Commission recommends gathering election data. And what does that mean? What kind of data do we need most of all? And here's the way the report puts it. "Whenever a voter interacts with an election office, there is or should be a trace left of that transaction whether it be registering to vote, requesting an absentee ballot, checking in at a polling place or casting a ballot. The trace we're talking about is not who the voter voted for," obviously, because we don't want to destroy anonymity in voting, "but a series of hows, whens and whys," as I was describing before. "How did the voter register? When did the voter check in at the precinct? How was an absentee ballot rejected? Information like this, the auxiliary data associated with elections should be an indispensable tool for making elections better." That data infrastructure is something we don't have right now. The EAC survey is the best that we have and we need a lot more in order to get systematic information about the variation in these different processes.

DR. KING:

That's good. I want to follow-up with one question, Nate. You mentioned the abundance of anecdotal information that exists in the election community. And in some aspects that's very positive because so much of the conduct of elections is made of up lots of



one-off experiences and not everything is codified in elections. But there are also risks associated with making decisions based upon anecdotal information. And you've mentioned the tension in your project between finding those things that are common to the broadest number of jurisdictions as an efficient and effective way for the Commission to focus on. Could you talk a little bit about how you manage that decision between certainly looking at anecdotal information, because there is a lot of it to be provided, but then distilling out of it those generalized recommendations?

DR. PERSILY:

Well, so one of the great things about how this Commission was organized is that you had people on the Commission with broad expertise in this area. And so while, you know, it's often said the plural of anecdote is data, we had confirming -- even if you disagree with it that, it's often said, right -- that you know having someone like Tammy Patrick on the Commission to bring her perspective from Maricopa County and all the national organizations that she's a part of, Chris Thomas, who directs elections for Michigan, and who's head of the NASED, Larry Lomax, who was from Las Vegas, right, brought his anecdotes, right, Ann McGeehan, from Texas, and am I missing one other election -- oh and Trey Grayson from Kentucky. So we had -- we could take a survey -- or a survey could be taken around the table as to commonly shared issues.

I think that -- so the repositories of systematic evidence did come from either the political scientists, right, or the repository included the information provided by the political scientists as well

as studies from the EAC, the Election Center. So we did have some national information in that regard. Then in sort of gut-checking on the anecdote point take something like the schools issue is the one that jumps out because of what I was saying before. In the survey that Charles, Steve and Daron ran it doesn't really come in a systematic way I don't think. And so what do you do with this problem? So you have this question as to whether the decline in school -- whether there is a systematic decline in the use of schools. We had -- I remember Brian Newby testified at the Commission saying, "We've never had long lines in Kansas." We will have long lines in Kansas in the next election because schools are not allowing outsiders in, all right? And we, you know, heard this time and again from the election official's member in -- I believe it was in Delaware where they said, look we don't have the same advocacy abilities as those in the teachers unions or something like that. They have a lobby, we don't." And so the Commission knows that there's a problem there. The elections officials think there's a problem. We don't know how big the problem is, and so the Commission makes a recommendation which in the places where it has been in effect the election officials say it has worked well which is to have teacher work days, right, on those days with -- when there are elections. Now we know that -- everyone knows that that's depending on the politics of a particular state. That's either feasible or not. And it's going to -- but in order to craft the solution, which would mitigate this potential problem, even if we don't know the scale, the Commission came up with that recommendation after really sort of hearing from the election officials in that way.

And there are several other areas where, you know, we're just at the beginning of data collection, something like online voter registration. How do you -- I think it's fair to say, and Tammy Patrick can correct me if I'm wrong, everyone who's got it loves it, right? And that it's -- so we hear from those administrators about the advantages of online voter registration. We hear about cost savings in those particular areas. We don't know how generalizable that's going to be, but this is one of the-- it's clearly the trajectory that the nation is going to be going down, and so the Commission put its sort of thumb on the scales or pushed from behind in order to recommend that states move in that direction. There is -- I actually think the research, and Charles can correct me if I'm wrong, the research on online voter registration is still in its infancy because we don't have enough time where we've really assessed its benefits. But everyone who is looking at it is coming to the same conclusion.

DR. KING:

Thank you. I want to shift now the questioning. I want to come back to Dean and Casey who are practitioners. And one of the things that I heard Charles say was that there's certainly a model within land grant universities of county extension offices some way in which to take the research and apply it not only through kind of a straightforward dissemination but really through mentoring and coaching. The county extension agents will go to the farm and they will show and there's a much deeper relationship. So here's the question for the panel, but I'd like to start with you two, is to talk about how do we improve the infrastructure for research. And that

infrastructure is not only researchers or the students that we're mentoring, but it's also strategies for dissemination, preparing election officials to use research data, not only making it available to them, but coaching them through how to apply it, first how to find it, how to apply it.

So if I could, I'd like to start with the two practitioners and then kind of expand this question out to the larger group about how do we build the infrastructure, invest in it, amplify it and move the research to practicable art. Dean?

MR. LOGAN:

Well I guess a couple things come to mind. I think first we're at a stage where it probably makes sense to try and define what the elections community really is. I mean I think there's multiple definitions out there. There's the election administrators, there's academics, there's researchers, there advocacy. But I think for -- I think this goes back to something that's been fundamental to our project, and was referenced in Ruth's comments, and that is you got to start that conversation by who's the end user. And we also have to recognize that historically we haven't designed voting systems and voting processes or even voting regulations around the voter. Until recently that hasn't been a discussion point. And I think we've moved that needle a little bit and I think we need to continue to move it. But I think for me you first have to define what is that community. If we're going to look at it as a field, then it has to include all of those disciplines. And so we've had a lot of discussion today about it being multidisciplinary and we've had this great partnership that's formed over the past 10 years between

academics and election officials and more recently voter advocacy groups and I think that needs to continue. I think there's some great examples of it. I think the -- again I have to say as an election administrator I think that the mentorship relationship has to be a two-way street and I think you've heard some good examples of that on the panel. Certainly working with Philip on the risk limiting auditing stuff and working with Charles and others on the election performance index that PEW put together I think we've seen how when those two groups can come tighter and learn from each other there's some real benefit of that.

But I think you hit on something real critical Merle. Is right -- as an elections administrator what I've learned is there's a lot of research and a lot of data out there that's already available. What's not known in the elections administration field is how to apply that. How do we use it? How do we access it? How do we make it meaningful? And how do we use it to influence our authorizing environment? So our legislative bodies. And, you know, and the reality is as election administrators I think my experience is regardless of the size of jurisdiction and time doing this, I think election administrators do very much care about things like access and ensuring that the process works. But the reality is, as was mentioned earlier, is we still have that next election that we're up against. And what I think has kind of come to the surface through all this is that's a difficult wall to get over. It's a difficult wall to get over from the regulatory environment. It's a difficult wall to get over in terms of the economics of, you know, people want to pour money into elections when we've had a bad election, when we've had a

bad elections experience. If you have a track of good elections, people satisfied with the outcomes then, you know, then you're competing at budget time with other important public services. And those are the areas where I think -- so to get real tangible I think one of the things the EAC could consider maybe is doing some field guides or best practices on how to incorporate the use of data and research on one hand and then another one on training, you know, to be a participant in that process. How can you be an elections administrator and be an evaluator on a grant that's been issued on elections related topics? I think that's just something that hasn't existed before. I think there's an eagerness out there to participate in that. I just don't think that there's a lot of experience with it.

And then the other thing that I think is always hard from an elections administration point from a practical standpoint is where there is a difference in the field is, you know, there was reference made earlier to Philip's comments in saying, well, that's two decades worth of potential research projects. Well the reality is we don't have two decades to wait for that research to act on it. I'm operating on a voting system that was first introduced in the 1968 election. It's still from a user perspective, from the end user perspective of the voter it's still very much the same experience that it was when it was introduced in 1968. Yeah some things have changed behind the scenes, but from the voter perspective still on a Tuesday between the hours of seven and eight p.m. it's still in a voter recorder device and they still have to wait obviously until after 8:30 to have...

[Laughter]

MR. LOGAN:

...election results. So we have to -- you know we have to move forward based on what's available today. That's why again earlier I talked about my bias is I'd rather see the longer term research projects that are funded be those that are looking at the future because we can't wait for the research to be done to change how we're running elections today. We got to figure out how to get it done today in a meaningful way, keep it relevant, but we need to be ready for tomorrow. And that's where I think we've always historically been behind the ball in the elections field in the country. And I think the path has been there's direction there now and there's interest, there's common players. California has, with the support of the Irvine Foundation, has created a group called The Future of California Elections. It's a collaborative that includes all those disciplines that I just mentioned. And I'm optimistic about that because that's where you have election officials at the table, academics and advocates and we can figure out who can move which part of the project forward. We can go to the advocacy groups and they can get funding and go out and do the voter experience type of stuff that Dana is doing, and they can do focus groups and demonstration projects on the prototype that our office is creating for the future voting process. But they also can go to the legislature and advocate for changes in the regulatory environment in a totally different way than we can as election administrators. And those are the kind of things that I think have to be leveraged if we're going to move forward. So the research part of it is absolutely important, but the research candidly won't have the

same significance if we don't build the infrastructure of the partners on how to leverage that research and use it in a way that actually changes things rather than just becomes interesting data that's been crunched.

DR. PERSILY:

Can I?

DR. KING:

Sure.

DR. PERSILY:

Charles and Philip sort of hit on this a little bit which -- and this is by way of revealing a little about the progress -- or the process of advancement in academia and its relevance to election administration.

Studying -- it is fair to say at least in the political science area that if you were to make your mark in election administration right now, that is not of the potential disciplines that you could choose in political science. That is not where you're going to advance. Yeah I'm putting maybe too soft a touch on it.

[Laughter]

DR. PERSILY:

That is -- so we have to understand that at the frontend, right, that it's not something where people -- one of the recommendations implicit in the report is that we need, you know, sort of formalized schools of election administration, to treat it as a field of public administration and universities need to commit to that. And that's sort of a subset of either public administration or public policy. But we should -- the universe of people who are working in this area is



not expanding dramatically. I mean we see the same people at these conferences. To be sure, Charles has graduate students and so, you know, there will be people in the pipeline. But it's going to be hard to find people who -- where this is their primary area of interest.

The second point on this, there are however really good examples of collaboration where either academics who do a broad range of things and then focus on this in particular instances or the -- have friendships with the election official get involved. So the Voting Technology Project is unique for reasons that Charles expressed, not the least of it is we had an actual crisis and so that focused people's attention, but it is a model on which some, I think, other collaborations could be based. But there are several others. Now the VSAP project and the way that they have brought academics in I think is another model for it. The way -- in Bernalillo County, and we highlight this in the report, Lana Atkinson and her relationship with Maggie Toulouse Oliver, the report that they did is fantastic and is an example of how you can get academics to work with election officials.

And so there -- it would be nice to get sort of a list of those kinds of products that academics have been able to push out either at the behest of these election officials or sort of in collaboration with them.

DR. KING:

Go ahead Phil.

DR. STARK:

An anecdote of someone else will tell one and then we'll have data.

DR. PERSILY:

Yeah, yeah.

DR. STARK:

Roughly 85 percent of my effort in -- on elections and election integrity is not stuff I get any direct academic credit for. It is sitting shoulder to shoulder with local election officials, legislators, so forth and so on. You know one of the ways that I've been able to actually have an effect is because people, you know, like Dean invited me to participate in the California Association of Clerks and Election Officials conference and I was invited to participate in IACREOT and, you know, so forth and so on. So actually talking to people really trying to understand what are the problems on the ground in a local election official's office and trying to implement any of this stuff and really understanding the constraints. That doesn't get me any -- you know this may be an argument for why tenure is a good thing. I can afford to do that. I still get a paycheck even though I don't get directly get -- the academic papers, the other stuff that's great. And I have had some professional recognition for my work in elections and that's been really wonderful and I'm very grateful for it. But it's a lot of work that as an academic you don't get a lot of credit for and I think it's a fundamental problem.

DR. KING:

It certainly is. I think two things that I wanted to follow-up on both Nate and Philip's comments. First, the creation of infrastructure by accident, although valued, it's not a good strategy. And what I think

we're really talking about is can we take a more intentional approach to this.

The second is that for young faculty particularly, the absence of venues at which to present their research there are no journals of -- directly related to election administration and so a part of the responsibility of senior academics is trying to create those venues that give younger faculty opportunities to publish their research, get credit for it, and then try to convince the T&P committees it really has value and take a look at it.

DR. STARK:

We're on the Editorial Board of the Journal of Election Technology and Systems, which is a relatively new journal, two years old, that's publishing things related to election administration, auditing. Are you on it as well?

MS. CHISNELL:

I'm not on the committee yet.

DR. PERSILY:

Be careful.

[Laughter]

DR. STARK:

Yeah.

MS. CHISNELL:

I keep trying to get published.

DR. STARK:

The same with the Election Law Journal which is obviously about election law...

DR. PERSILY:

Yeah.

DR. STARK:

...but it has -- it ends up having plenty of stuff on some of these areas of interest, where I'm a Board member I guess as well.

DR. STEWART:

But the reason why I think it's -- there are a number of models of having, you know, the farmer and the cowmen being friends here is having the election official and the academic coming together. And I think we need to try all of them. The reason why it strikes me that some of these standard academic models are useful is that there are cases. Again they're usually not in schools of arts and sciences. They're usually in schools of agriculture or education or business where it is valued to have faculty and students and practitioners together working on mutual problems whether they be research, whether they be internships or externships and those sorts of things. And so the reason why I'm somebody who thinks that we need to think about things like certification programs, maybe degrees is that then sets up an infrastructure at a university where, you know, you have a faculty member or a paid educator who's a staff member who worries about, ah, here's an election official who's good to work with who wants to work with our students and we can develop a relationship and understand each other, here's an interesting problem we can try to solve that. Every now and then that turns into something publishable in some venue and you can kind of get these little kind of ecosystems of collaboration and research and actually solving problems that are in the real world. They do exist.

I wonder whether -- and this to some case, you know, kind of cuts my own throat, but I wonder whether focusing on those of us in say colleges of arts and sciences has always been the right place to do it and maybe broadening out academically to spread the love into other areas of academic consideration, and then to really be concerned about being able to reach out to every election administrator in America, right, and what would that look like? Because, you know, there are law offices around the country and accounting firms around the country who bring in interns, and you know, work -- and sometimes that's how the new thinking is disseminated into, you know, into businesses across the country. And that's happening not just because MIT and Stanford and Berkeley is doing this, it's because everybody is doing it. And so I just think we need some other models of dissemination.

DR. KING:

Let me get to Casey and then to Dana, your insights in terms of how to expand the infrastructure that would be beneficial to your jurisdiction, a way that you could better engage.

MR. SJOLUND:

Well I think everybody here is pretty much keyed in on the fact. I mean it's nice to have some kind of collaboration between, you know, academia and also the election field out there as itself. As we all know, the field of elections can also -- can always thrive under some fresh ideas.

Since HAVA passed, there have been amazing new technology that would have been impossible to foresee back in 2002 that would make election administration, you know, much

more tech friendly I guess is to say. The one potential problem that is unique to election administration though is that the research -- election administration research there's a propensity for partisanship to come into play when outside groups have partisan goals who are also involved in the process, which kind of makes it difficult sometimes.

DR. KING:

You know one of the things that Dean mentioned about do we know, as a community, how to be effective partners? Do practitioners understand the academic perspective, for example, the challenges with institutional review boards on getting research approved for human subjects type things? And do we as academics fully understand? And I'm just wondering if that is an action item for state election official associations to put in into their training that kind of collaborative how to be an effective partner.

DR. PERSILY:

If I can say one thing on this which is -- and this came up a little bit in the last year which is that just as I think as Casey said there's a fear of advocacy-inspired research, maybe this is related, which is that jurisdictions are also reluctant to release information because they're afraid of being sued, right, across a range of election administration issues. And it is one of these things where, you know, fortunately I wear different hats, so I'm a law professor and a political scientist, and so when I hear these I want to turn on my law professor side to convince some of the jurisdictions look, you know you're not going to -- this particular information is not going -- but they've been told by nervous lawyers that, you know, whatever you

release it's going to come back to haunt you. And I think that that's a pervasive -- you're nodding. I gather maybe this -- what did you say?

MS. CHISNELL:

And they already get sued all the time anyway..

DR. PERSILY:

Right, well that's the point. It's look you may get sued. It's not because of this but, you know, you -- and we confronted that in some of the data gathering that was -- that some of the witnesses brought for the Commission and it's something that I think they need to be reassured of.

You know I think there's a point at which you -- a lot of this is going to be based on trust between individual academics and the election officials and the more forums we have -- what's sort of interesting it's only really in the last decade I think, maybe even a shorter time period, where you've now had this real integration I think of the election official community and the academics, right? I think it's -- I don't know pre-Busch vs. Gore I don't know whether we saw it as much, but we certainly saw it a lot with the Commission.

DR. KING:

I know that we're starting to get to close to time. I know Dana wants to make a comment and then Ruth and then I still need a couple more points of input, so Dana and then Ruth.

MS. CHISNELL:

As long as we're are on the farming analogy, you can publish academic papers until the cows come home...

[Laughter]

MS. CHISNELL:

...and the EAC has a similar problem and that is disseminating the information that comes out of research projects. This has been a continuing problem, a known problem for a long time. The trick is getting tools into the hands of people who are on the ground running elections. That's really hard and that's not going to happen only by attending national conferences like IACREOT and NASED because those are so few of the people who are doing the work. What we try to do in our research projects is to invite and really be in the polling places, be in the election administration places when we are doing our research. So for the Anywhere Ballot, for example, we brought -- we live streamed our sessions and invited everybody we could think of to tune in and watch those sessions and give us comments, and if they wanted to ask questions.

As we approach follow-up research about the Anywhere Ballot we're using some money from the MacArthur Foundation in a sustaining grant about language access and results only ballots. We are going to send out an e-mail to all of the election officials we know about inviting them to put questions into our research design and then we'll make a pact to give that data back to them, to give the insights back to them when we've completed the research. It takes a combining the forces as opposed to an academic exercise that is reported out and then maybe someday it reaches people who can actually use it.

DR. KING:



Dana, I think one of the things you said earlier really impressed me from a researcher's perspective and that is your willingness to change your instrument on the fly in iterations...

MS. CHISNELL:

This is heresy by the way.

DR. KING:

Well I was going to say it was unusual...

[Laughter]

DR. KING:

...but what I think is important is it demonstrates how unique this field is in that there is not a great deal of prior research to inform us as we're designing new research agendas. And I think that's an important takeaway for other researchers looking at this space to participate in that you may need greater flexibility than you might anticipate.

Ruth.

MS. BRANNON:

Yeah, actually Dana started this so I will just add a little bit to it. I think the idea of research to practice is itself a whole field of study. And we put millions and millions into it in the Department of Education and many other areas because the translational aspect of taking that research and creating something that's usable on the ground is undervalued in the research world. And it costs almost as much money as the original research did. So I have a structural recommendation to the Commission, which is, when you put procurements for research out there adding into it either a requirement for some addressing of how it's going to be -- and

disseminated is actually not a word I like very much because if I put that there I've disseminated it but that doesn't mean he's going to use it. So it's...

[Laughter]

MS. BRANNON:

...about uptake. It's about creating the practical hands-on guideline using language and levels of language that are appropriate to the end user. So it is actually a conceptual process that requires a lot of thinking and information and investment. So you might think of doing that. But then you've got the problem of which research and when is research really ready for that kind of deployment?

Because I come myself from a sort of semi-medical background and I can tell you nothing is ever really proven because the next piece of information changes it. So the question is how do you create a threshold to determine what you would put money into if you were going to spend some money on that deployment? And I think the way to answer that has to be to look at elements of promising practices rather than proven, because I would challenge how much is really proven, and some guidelines around promising that then you might use to make those allocation decisions. And getting things into the hands of the end users and getting them involved earlier will also really help that process along.

DR. PERSILY:

I realize we haven't talked a little bit about what's going on in the foundation community with this. I might -- since I advise the Hewlett Foundation I thought I might just tell people a little bit what's going on. So less people -- if people don't know, the

personality of the Commission is being replicated at the Bipartisan Policy Center as led by a project with -- by Tammy Patrick and Don Palmer. And so the work of the Commission, including facilitating in some respects research and interaction at least between election officials and academics as well as sort of pushing the Commission's recommendations, is still going on.

So the major players in the foundation area, Charles mentioned the PEW Charitable Trust and their Democracy project, they've really been revolutionary in the way that they've gone about this because they brought everything in-house, to some extent bring Charles in-house there too, and have really on the issues of voter registration, data provision, election technology, and there's one other project that's escaping me, they've been funding a lot of research in this area.

The Omidyar Foundation, now the Democracy Fund, is really making an entry in this area and funding research, particularly I think future looking research. And then to a lesser extent some of the established funders like MacArthur and Rockefeller Brothers Fund are funding research in this area. A lot of the old style foundations, I think, have curtailed some of their spending in the Democracy area, but that's -- these are the players in who is funding a lot of the research.

DR. KING:

Well I want to hear from Philip and Charles and then we need to begin to think about the wrap-up. So Philip?

DR. STARK:

Again on this topic of outreach or collaboration, I've spent from hours to days in probably more than 25 counties in California and Colorado now. I've been allowed to -- I mean it's one thing to prove a theorem that says the following method has the following statistical properties. And it's another to try to get people to understand why it might be a good idea to try it. And it's a very different thing from that to actually do it and make it work within the logistical constraints of a functioning local election officials attempt to run an election well, right? And in every instance that we've gone and tried to do these audits, and now we've done them in I think about 18 different counties and in some of them several times and in some instances the counties have audited on their own using Web-based tools that we've built to help support the audits, that there's always something new to learn. Everybody has got their own quirks in how they run the elections and the methods have to be -- we've done this in large urban counties, small rural counties, every one of the major vendors of election equipment. Everything is a special case, right? And if you don't adapt to that and you don't, you know, actually sit down and watch what people are having to go through to do this, it's not going to catch on, it's not going to be effective, it's not going to be useful. So I think that sort of, you know, face-to-face, shoulder-to-shoulder working on things together is the only way we're going to change anything.

And the other thing is it actually in at least one instance suggested a completely different approach to the problem which resulted in another couple of new academic papers. So kind of addressing the on-the-ground problems can then lead to more, you

know, fundamental -- almost fundamental research. So it is absolutely a feedback but it's a lot of work.

DR. KING:

It definitely is. Good point. Charles -- well I let me -- I do want to say something about Charles' project and really about what Nate mentioned that there are many things that make the Caltech/MIT project unique. But for an election official, chief among them is the trust in working with Charles and the confidence that he builds in that process. And when I talk to other academics about if you want to get into this space and work, that is a model of your persistence that you have worked with election officials now all over the country. And I think the trust and the confidence that election officials have in your work, in the outcome, in the usability of it is really what makes your project so distinctive.

DR. STEWART:

That's very kind. I think though we need to remember that there are 8,000 jurisdictions in America running elections and there's one of me and there's -- you know there's Lana and -- I don't want to name all the names. There's more than me and there's more than Phil. But it is a small group and how do we make it closer to 8,000 than it is to 10 or 20 even? I mean that's the trick.

DR. KING:

And I think you are right on the money, in that what we all know is that elections have to be run well in every jurisdiction, every sub-unit of the jurisdiction in order for it to work and that only focusing on the jurisdictions that have revenue streams that can support sophisticated solutions really isn't solving the problem.

All right, thank you for your insights. Thank you for your preparation for the workshop. But what I would like to do next is to really go around the table in the few minutes we have remaining and I'm always curious about what people take away from these. And you've heard a couple of hours' discussions about the progress that we've made in research but really the challenges that are still out there for us. And if you could, take about a minute, or less, so we can finish by four...

[Laughter]

DR. KING:

...and share with us what you think are the most significant takeaways today and I'm going to start, if we could, Philip, with you and then work around the table and then, as always, we'll finish with Alice.

DR. STARK:

I think Nate made it clear that the fundamental problem in this area of research is how to clone Charles.

[Laughter]

DR. STARK:

I mean I think the perspectives are all very interesting. I mean my take homes are I think mostly around usability issues and accessibility issues and thinking about how to integrate them into, you know, my grand plan to poke my finger in the eye of the voting systems vendors by building something cheap and auditable and affordable. So I think that that's my main takeaway .

DR. KING:

Thank you, Philip. Casey.

MR. SJOLUND:

Some of my main takeaways is just basically how the academic community and state and local government officials who run elections kind of interact with each other and basically the levels of research that is thought up and kind of disseminated down to our neck of the, you know, our neck of the woods if you will. And I'm also fascinated by what Dana is working on here as well and just kind of interesting to see how much, you know, wordplay actually kind of changes everything and people's interpretation when they're looking at ballots and things of that nature.

MS. CHISNELL:

We'll talk.

[Laughter]

DR. KING:

Thank you, Casey. Dana.

MS. CHISNELL:

So for me one of the takeaways from today is that it's pretty clear that the interesting academic questions are not always the same questions the people on the ground have and the then diagram crossover is pretty thin at the moment partly because of how people in the academy are rewarded. And that's a big difference from how people on the ground running elections are rewarded.

The other thing is that we haven't talked about this really at all, but it's not just people doing research in the academy and people trying to get their questions answered on the ground. There are a whole bunch of people working on stuff besides the Center for Civic Design who are advocates. Some of them do have political

agendas, but lots of them don't. And they have huge knowledge about what happens in their field in every meaning of that word "field."

DR. KING:

So broaden the perspective.

MS. CHISNELL:

We should tap them.

DR. KING:

Yeah, good point. Dean.

MR. LOGAN:

I think for me, I mean, my most common theme is just to remember that fundamentally elections are about voters and we have to focus on that user experience in voting if we want to sustain a functional elections process. And I think -- great discussion here. What I would say is I think we also want to be cautious that as we move this forward that we don't shrink the field of elections; that actually we need to be broadening it. And what I mean by that is that from my perspective I don't necessarily think we need to have Philip as a Professor of Elections Administration. I need -- as an elections administrator I need to know that there's a professor of statistics available that has relevant information that can help me do my job and move us forward, same thing with Dana on the user experience, same thing with Rick Hasen in terms of election law. We need those specialists. What we need to do is broaden the field and broaden the opportunities to get those experts to come to the table and to teach those of us who are in the elections practitioner role to know how to leverage that information to be



more successful at our jobs and then -- and how to be, in return, a better partner to the people doing those areas of expertise.

DR. KING:

Good, thank you, Dean. I'm going to start with Ruth and then work down and then I'm going to let Monica also share her perspectives.

MS. BRANNON:

I actually jotted down three things. First of all I want to say it's like having a veil removed for me to get a little more insight into what you all are spending your time. People like me in a different world don't know this and it's very inspirational.

Secondly, it's interesting that the research to practice problem is so ubiquitous. I've been involved in several areas of much more sort of practical clinical research. The same issue dominates the life that we all live and nobody has really solved it yet, though we know a lot about it.

And the third thing is that I hope that I've helped you all think about the fact that there's a very large population that is reasonably disenfranchised because of accessibility problems and if we want this country to be really representative, we've got to figure that in earlier in the process, not later.

DR. KING:

Thank you, Ruth. Charles.

DR. STEWART:

Well the question was the takeaways from the discussion and I think that Ruth hits on something that I continue to be convinced of and that is that we need to learn from other areas that have the same problems whether it be in this case moving from, as you said,

research to practice, what we are calling dissemination at times. We're not alone in the same way that, you know, moving election administration from being a thing on its own to being a field of public administration in which there are known arts in a lot of the things we -- and known ways of dissemination and known ways to do things. How do we generalize election administration into other things maybe to piggyback on other professions and other practices. I mean, that's a theme that's come up today.

And then finally we've touched on, I don't think we made progress on, but I hope the EAC continues to think about institutionalizing both discovery and communication because doing it one at a time is highly inefficient and ultimately ineffective in a continental nation and we need ways of building institutions that outlast all of our lives and that eventually disseminate into, you know, generations that flow us and we're not quite there yet.

DR. KING:

Excellent point. Nate.

DR. PERSILY:

Let me echo something -- or amplify something that Charles said earlier about moving to a consultant model in this area. I think that there are obviously consultant groups that end up being hired by election administrators, but to think of ways to then get the academics who are working in this area and maybe former election officials to get together to provide essentially a taskforce to deal with a range of problems. And most importantly to be future focused in the way that Dean suggested because it is going to be very difficult for academics who are -- the time for publication will take

two years on any academic paper and it's naturally going to be retrospective in the way that it analyzes things, but to tackle ongoing problems I think is going to require them stepping out of their comfort space and to do it in a different way whether it's through consultancy or something else.

And I'll just highlight that, you know, now having moved from New York to Silicon Valley that is -- there is this sense in which well, you know, in Silicon Valley there are all kinds of different groups that then form together. There is voting technology group I think that Philip's a part of that's involved there and I think that there are some innovative approaches that we can look to there and in the private industries there as models for reform.

DR. KING:

Thank you. Monica.

MS. EVANS:

I guess my takeaway is around best practices because as we continue to fund these initiatives and this research we're not done when we have models that can be replicated because, as we've mentioned, one size really does not fit all. So we need to continue in this area.

DR. KING:

Okay, thank you, and Alice the last word.

MS. MILLER:

The last word. I probably don't have time for all I want to say but I do want to just kind of bring this full circle and let everyone know whenever we have these roundtable discussions we kind of start with an idea, we develop it into a topic which we think will be

substantive for our stakeholders to take away and to gain something from. And it starts with many, many, you know, phone calls, conversations, conference calls before we develop it. And then, of course, we go to the challenging decision of the who. And I've got to say this is one of the more expert panels that we've had this year, and we've had quite a few panels, all of which have been one level higher than the other, the other level higher than the other. And certainly, you know, I think we've reached it with this panel as well. And we are very, very appreciative of you all taking the time to come here and be here with us and discuss this. I do want to say I know that Nate took the redeye here last night to get here this morning and I also know that he has just come from a trip from Australia, so I know he doesn't know what time it is, where he is or what day of the week it is. It really doesn't matter. We're just glad you came and were able to be here with us.

I want to also take a moment to thank the staff obviously who puts this together who this could not be done including the travel arrangements, the logistics tied to this; Burt, Shirley, Mohammad, Brian, Deanna, Low, Pat all of you, Henry, anyone who I left off it's not intentional. I'm trying to hurry up for time, it is four o'clock.

We will take what we have and we'll try to process it as we did at the beginning of this one and come full circle and see what we can do to address the issues that have been raised and follow through on implementation of your suggestions and your ideas which we sincerely appreciate.

And Merle, once again thank you always. We could not do this without you. He is so willing of his time to come. And I've said it before and I'll say it again, he requests nothing in terms of expenses for us, and we're just appreciative of that. So thank you.

DR. KING:

Well thank you. And to everybody who attended, everybody who joined us on the Webcast thank you. And with that, we'll adjourn.

\*\*\*

[Whereupon, the EAC roundtable "EAC Grants: Expanding the Body of Knowledge of Election Administration – Reflections and Future Directions" adjourned at 3:59 p.m. EDT]

bw/add:g