Grant Proposal Resources, Roadmaps and Timelines
March 8, 2018

Ann Beheler - My name is Ann Beheler I am the principal investigator on the Center's Collaborative for Technical Assistance grant that is funded by the National Science Foundation and is producing this session. Today throughout the session you will be in you will be muted because we you will be listening to the presenter until the very end and at the very end we will open microphones up for you to ask questions live as we promised and in addition we will be recording this session it will be up on the CCTA website within a week or ten days at least and so you'll be able to refer to this after the fact so that you can have it as a resource as you write your proposals. Okay.

Webinar Details
Ann Beheler - Our webinar as I said you'll be in listen-only mode starting at the end you can ask questions in the question window or you can wait and ask questions live if you'd like that.

The CCTA is led by
Ann Beheler - The CCTA is led by at this point four major centers of the National Science Foundation ATE program the National Center for Convergence Technology focuses on IT and communication and that happens to be the one that I'm leading. Then Elaine Craft who is presenting today is the PI for the South Carolina ATE National Resource Center; the Florida regional center is also one of the producers of this event however Marilyn Barger who's the lead there will not be presenting today; nor will Elaine Johnson who is the lead for the Bio-Link Center, but the work is actually produced by all of these centers as well as our partners and our program officers that work with us integrally.

CCTA Purpose
Ann Beheler - Our purpose we were originally set up to respond to a request from the Department of Labor to the National Science Foundation to have the ATE centers provide technical assistance to DOL TAACCCT grantees. At the time that TAACCCT began we had about 20 years of experience in the ATE program and it was brand-new as a community college program within the DOL but what they realized and what we know is that good grant management, good grant leadership is the same for all grants however the specifics about the individual programs are different in this year in 2018 we have switched to delivering more webinars that are relevant to the National Science Foundation community because the TAACCCT grantees are about to expire. We also have best practices and we have convenings we'll talk about those a little bit as we go a little further along.

Poll #1: Your Affiliation
Ann Beheler - Now we go to a poll. Christina can you help us and put up the poll? Would you all please answer the poll, let us know whether you have an NSF grant; a TAACCCT grant or both or neither and we're delighted regardless of which one's of these you actually choose. So I'll give you a couple of seconds to answer 5, 4, 3, 2, 1 we're closing the poll and it will take a few moments for the poll to come up. It's very important for us to know in fact that you are your affiliation because we do have an evaluative component for our grant and it's important for us to be able to provide that. I'm not seeing the poll on my screen but it may very well be there.

Christina Titus - Ann you have 48% NSF, 4% TAACCCT, 24% both and 24% neither.

Ann Beheler – Ok, all right, thank you very much on the next slide.

Poll: How many people are listening with you?
Ann Beheler - We need to know if there are people listening with you, we had registrations from a lot of folks who sometimes they sit together with other people from their institution to answer to listen and answer these polls. So if you would please answer this poll then we will move on. Once again five, four, three, two, one and we'll wait a couple of seconds because eventually the polls did come up on my screen. Well there we go okay so how many people are listening with you none for the most part although we have a couple that have one or two extra people in their group thank you very much for doing that for us.

Poll #3: Viewing History
Ann Beheler - And then finally your history these are repeat sessions from last year with updated information and if you have not already reviewed the presentations from last year the slides, the transcripts, the resources that are provided you may want to go ahead and do that. But we did have a new solicitation come out last year and in that solicitation there were a few new changes that we needed to pay attention to and that's why we are repeating the series. So if you'll answer whether or not you were here last year for this presentation or not or if you reviewed the webinar prior to coming today that'd be nice to know and have you attended other CCTA webinars but not this one or have you not attended or watched any of the webinars on today's topic. Once again five, four, three, two, one and we'll wait a couple of seconds and again I highly encourage you to go back and listen to the webinars from last year at least go through the transcripts that are provided so that you see anything that perhaps we're not emphasizing heavily during this year's webinar. We do have people who were here last year 8 people out of the 25 respondents and they've attended other webinars nine people have and there are about a third of us that have not attended these webinars. Okay thank you.

Today's Presenters
Ann Beheler – Okay, all right we're going to get on without further ado with the presentation today and I would like to first introduce Elaine Craft, I've known Elaine for many, many years she is the Co-PI on the CCTA grants but she is a PI on two very important grants in the NSF ATE community. One is the Mentor-Connect Leadership Development and Outreach grant which helps people to learn to write their proposals and develops people into leaders. Then she also is the PI for the South Carolina ATE Resource Center as well. Elaine welcome today and I'll let you introduce Dr. Teles.

Elaine Craft -Thanks Ann, I'm delighted to introduce as my co-presenter today Dr. Elizabeth Teles a program officer from the National Science Foundation, who was heavily involved in the design and launch of the ATE program when it started. Dr. Teles works in multiple funding programs at NSF but primarily the ATE program and the scholarships and science technology engineering and mathematics or the S-STEM program. She is a mathematician and her professional experience includes community college teaching, we always consider her one of our own, next slide please.

Agenda

Elaine Craft - Today's agenda does build on what we did last year and we will give you multiple opportunities to ask questions. The first part is where I will revisit some unique characteristics of NSF grant funding that really make it a desirable program in which to be a grantee. In part two Dr. Teles and I will point out some changes in the ATE funding opportunities that were made with the release of the new program solicitation last June that Ann mentioned. In part three Dr. Teles will review some helpful hints for preparing a successful proposal and then we'll wrap it up in part four by highlighting a few resources to help you on your journey to becoming an ATE grantee.

Why Pursue NSF Grant Funding?

Elaine Craft - Now let's start with what makes NSF funding unique. Why should you pursue NSF grant funding? Well first the NSF Division of Undergraduate Education offers several ongoing opportunities that are open to community colleges and they would like to receive more proposals from community colleges. The ATE program in particular actually focuses on two year technical and community colleges and their advanced technology programs. The ATE program strongly emphasizes partnerships with industry to align technician education with workforce needs and encourages collaboration with other two-year colleges and secondary school educators. Pathways for students to continue their higher education at four-year colleges and universities is also important of course, the college transfer is not focus of the ATE program that it can be a focus in other NSF program. The other NSF graduate education, undergraduate education funding programs that are available to community college applicants such as S-STEM and the acronym IUSE focus on different aspects of STEM education. A college can be awarded grants from different NSF funding programs simultaneously and different grants can work together synergistically to improve STEM education. For example the NSF S-STEM program provides funding for scholarships; the ATE program does not fund student scholarships. If a college receives funding or awards from both programs, students can simultaneously receive scholarships while their technician education program is being improved. We encourage you to look at and pursue a number of the available programs from NSF, however be aware that the funding rates vary by program, most two-year colleges experience greater success if their first proposal is submitted to the ATE program. This is especially true if a college applies for a small grant for institutions new to ATE, where the funding rate is much higher than the ATE program overall. The overall ATE funding rate it varies from year to year but is usually in the 20 to 30 percent range whereas the funding rate for the small grants track is typically in the 60 to 70 percent range, it's pretty easy to see where the odds are in your favor. In addition the Mentor-Connect project offers mentoring and technical assistance for those pursuing small grants for institutions new to ATE; remember that even if you have had other funding from NSF such as S-STEM you are still eligible for the small new to ATE grants, next slide please.

Why Pursue NSF Grant Funding?

Elaine Craft - Another attribute of NSF funding is that proposal requirements lead to the development of a very thorough plan and a strong project design with a completed proposal in hand even if that proposal is not funded you will have a well-developed rationale and project plan that can be implemented any way or that may be funded by your college or another funding source. The proposal that you submit to NSF will be peer reviewed with subject matter experts on the panel. Reviews are typically conducted by a five to seven member panel and they apply

the NSF intellectual merit and broader impacts criteria. The NSF proposal review process has long been referred to as the gold standard among federal agencies to award grants. Another nice practice at NSF is that they publish multi-year solicitations this gives you extended advance notice of grant application deadlines. NSF also funds grants that enable a peer to peer assistance to be provided to potential and existing grantees examples include Mentor-Connect help with grant writing, EvaluATE help with project evaluation and ATE Central for just about anything else you might need, next slide please.

No Cost Sharing
Elaine Craft - One very important distinguishing characteristic of NSF friends is no cost sharing in fact for most NSF programs including ATE cost sharing is expressly prohibited. Now how great is that NSF does however expect potential grantees to take advantage of work that has been previously funded. Partnerships are also a hallmark of the ATE program, partnerships with industry and other educators can be considered the common DNA across all successful ATE funded projects and centers, next slide please.

Happy and Connected Grantees
Elaine Craft - One really cool thing about the ATE program and many other programs at NSF is that the program officers are user-friendly and they are all STEM professionals, they actually like to hear from you. Another unique attribute of NSF that I particularly appreciate is that principal investigators have the latitude to behave like scientists, potential PIs and grantee colleges are thoroughly vetted at the time a grant is made after that NSF expects the PI to conduct the funded project as he or she would conduct a scientific experiment test, evaluate, adjust and test again to maximize results. With very few extractions NSF gives you and your college the authority to adjust your work plan and move money around in the budget throughout the project to achieve project goals. NSF program officers are there to help you and should always be consulted about major changes but they won't be micromanaging your project or your budget unless of course you fail to do your job. Longevity helps the ATE program was mandated by Congress in 1992, so the ATE program is in its 26th year. As a result you will find that many ATE grantees have received multiple ATE awards. Ann Beheler and I are examples of that, it is very gratifying to work with a program that sticks with those who do good work long enough to make a difference. Another big time-saver is that NSF only requires annual reporting from grantees, for those of you who had TAACCCT grants I know you can appreciate that. The last point I would like to make about why you should actively pursue NSF ATE funding is that it connects you to a community of like-minded dedicated educators who share a passion for student success and rigorous relevant technician education across STEM fields. We often say that as a grantee you become part of the ATE family which is a community that shares freely and supports one another in a myriad of ways. Now for those of you who already know this because you are or have been ATE grantees or perhaps you listened to last year's webinar on this topic we will you know that we're going to try to give you some updates now on things that have changed since last year, next slide please.

Part II: Changes in the 2017 NSF ATE Program Solicitation
Elaine Craft - We're going to talk about both new and returning funding opportunities, next slide please.

ATE Program
Elaine Craft - On this slide you can see a schematic of a key funding program opportunities there are three big buckets into which all their awards fall. On one side you see targeted research and technician education that areas that go straight down are for ATE centers, there one of the changes is last years they went from three types of centers there were regional centers now we only have national centers and resource centers going forward. But neither of those are our focus today we're going to be on the left-hand side of this slide which is ATE projects as you can see there award's up to $600,000 for up to 3 years with some exceptions in the dollar amount one is the small new to ATE which is capped at $225,000 and the two new things that we're going to highlight today the two new programs which we'll talk about in just a minute but you'll see those opportunities there as well. Notice at the bottom in red the deadline for the October ATE proposal submissions will have that date for you again on one of the last slides in the show today, next slide please.

New: Adapt & Implement
Elaine Craft- So adapt and implement this is a new opportunity with the program solicitation that came out last summer and it really is designed to encourage the pace of innovation diffusion. So what do they mean by that? Means that there's a lot of good work going on in the ATE program and some of these projects are achieving amazing results, those innovations, those new curricular programs strategies really need to be used in other colleges and so we want to work against reinventing the wheel so NSF has put this track in there to encourage you to check out what's going on it with ATE grantees whatever the issue is that your college, a challenge that you want to solve I guarantee you there's somebody in the country at another two-year college that's working on this and later in the program today Dr. Teles and Ann are going to show you how to search the ATE website database to find where some of those particular grantees are and what they're doing. To be eligible for the adapt and implement or to put in a competitive proposal the first thing you need to do is find something somebody's doing that you want to do at your institution you need to explore that other project that other innovation to the extent that you can actually make some statements about the evidence that the materials or practices work to elsewhere, you may have to actually talk to the principal investigators of those projects to get that information. You need a realistic plan for adaptation and use, so you to be very explicit about how you're going to take this innovation of these materials from somewhere else and how you're going to make them your own at your institution, any changes that you might may need to make to adapt them to meet your industry needs or the characteristics of your student populations. You need to explain why the materials and practices are anticipated to work in your institution, you know why did you pick this for you and why do you think it's going to work and they point out that you this can be for an individual course or laboratory improvement or for an entire curricula or programs, so there's a lot of latitude and you'll notice there's a server price range there on the maximum dollar amount too. So obviously if you're only working on one course or one laboratory you would not be expected a as for as much money as if you're working on a whole program our whole curriculum. Okay, next slide and Dr. Teles will tell you about another opportunity.

New: Instrumentation
Dr. Elizabeth Teles - Thank you Elaine and Ann to for hosting this today and I want to just encourage all of you to apply for ATE grants. It's a long running program about 27 years now but

sometimes we still say it's one of the best held secrets around so we really do want to encourage you. And just two little extra things to add to the adaption it doesn't have to be an ATE project it has to be related to technician education it can combine two ideas together to into that and you might even put some of the people who have been running those projects on as consultants to come give workshops and help you in feedback. But my emphasis on this new opportunity is called instrumentation with curricular modifications and I want to emphasize that this is for an existing program this is not for developing a new program it's for one that you've got going but because of different things the instrumentation may be that you've got running is outdated and it's not matching what industry uses these days. So this is a program to help get that new instrumentation into your existing programs to modify it and make it serve industry better. So two things it has to be an existing program, if it's a new one that's coming into one of the other tracks okay. And industry has to identify the need here in the proposal, you have to discuss the instrument and you have to discuss why it's needed and you have to talk about what curriculum changes you're going to make due to acquiring that new instrumentation. This is really new and ATE's kind of been limited to the amount equipment they've been willing to support before, but this one can go up to four or five hundred thousand dollars if that's what the instrument cost and you can justify it. You must include industry working with the faculty to make these curriculum changes; you can't just be doing it by yourself. But you shouldn't ask for just the instrument without putting something on it, so we say you should include some faculty time in this so they can learn the new technology, this may be an instrument that you've got to go get some industry training for the faculty to learn how to use it put some time in there for that. These faculty members can actually go work with industry to find out the needed changes and then you need to test and modify them based on what you've learned the first time. So you're going to need to put some faculty time in there and these go up to four or five hundred thousand dollars, but I think this is we didn't get many of this last year we thought we'd get more than we did, so I'd encourage you to look at this as an additional opportunity, next slide.

Returning Project Opportunities
Dr. Elizabeth Teles - But don't forget the ones that have been around for a long time, these can go up to six hundred thousand dollars for three years. The first three and the fifth one have been there since the program started. Program development, improvement curriculum and education materials development, professional development for educators and teacher preparation have always been there. Leadership capacity building we actually always have considered the ATE program really those leaders in the colleges and in the community. Another underutilized one that I've highlighted and read down there is called the ATE Coordination Networks this is not to develop these new programs or even to bring two institutions together to do it. It's really to build new networks of people that maybe haven't worked together before. So there are all kind of things it could be, I'd eventually lead to another proposal to develop this but this is designed to impact and grow the community of ATE. So perhaps you could be working with around a state to build a network of people who want to all of a sudden emphasize some new thing in the state and so what you're going to be doing in the first step might be building a network of colleges who want to meet and learn from each other of what they're doing and bring in things like industries or different things like that to learn from each other and to just build a new network, next slide.

Questions

Ann Beheler - Okay I'm going to come off mute here and ask a couple of questions that either of you may choose to answer. Why do I need to know who else is doing what I want to do, when I know my college needs it and you're now supporting adaptation?

Dr. Elizabeth Teles – Elaine, you want to take that one?

Elaine Craft - Well I think what happens and I know program officers have commented to me that they will get a call from somebody who's interested in putting in an apt proposal and they'll say we have this great idea, industries come to us and we need to enhance our IT program by adding cybersecurity let's say and they are completely unaware that there are some fabulous cybersecurity programs and technical colleges across the United States many of them who have had ATE funding and are exemplary. And so I think the message here is that we need to be learning from one another, first of all we really just don't have time to develop materials that are readily available sometimes they were very good, I have worked with a couple of projects for instance that have gotten some very high in visualizations done virtual reality and simulations that can be inserted into other programs. You really can't afford to do I mean you know everybody can't afford to develop these and some people have developed excellent ones that are available because they were grant funded and so we if you did some research and find out and talk to people, I think you'll find and you'll come up with ideas the main thing is you'll get some great ideas that you would have come up with on your own.

Ann Beheler - Okay and one other question, I want to develop a brand new program but I'm going to need some instrumentation or maybe I might want to call it equipment, how much of that can I get on a brand new program type of ATE grant?

Dr. Elizabeth Teles - Well if it's not one of the instrumentation ones the maximum is $200,000 usually that's a lot okay because if you're going to ask for an instrument you've got to have faculty time to develop it and use it and there are other sources for instrumentation and things like that. So the maximum in one that's not an instrument acquisition, one for the existing programs is $200,000. This is just me I would say the most competitive proposals that I've seen the instrumentation is usually no more than a third of the funds requested, because if you develop a new program you better have some time to go out and work with industry to do this. Remember NSF doesn't it allow cost-sharing so that you can't say well the college is giving me all this time, you need to ask NSF for it. I hope that answers your question a little bit.

Ann Beheler - I think so if not, I presume that someone will ask another question. Okay let's move on for now.

Part III: 15 Helpful Tips for Developing ATE Project Proposals
Ann Beheler - Dr. Teles.

Dr. Elizabeth Teles - Okay well last year we went into this part of the program more than we're going to be able to do today because we put some new things in here but I want to emphasize a few of the things from last year's program that we think are really important to add a few things we did and I also encourage you to some of this helpful hints have been whole webinars on some

of these hats and I understand from Ann did, some of these helpful hints she's going to refer to some webinars that you can go and get a whole lot more information about certain ones. But I see only 8 of the 25 people who responded or about a third actually looked at last year. So let's go and chat about a few of these a little bit, next slide.

Tips 1-3
Dr. Elizabeth Teles - I'm going to actually spend more time on the first five and the 10th and 11th than the others, but I'll try to mention them. First of all I want to really emphasize that this can't look like something that just came out of nothing, so if you're coming in for a subsequent award you can talk about what results you've had before. If you can't talk about what results you've had from a prior ATE program you better be showing something about how you've been preparing to this, if you can show that you've done a small pilot effort on one of these then that will help too but you have to make the case that this isn't just a dream, you've actually either tried something or done something or have continued to work on these things. So if you do, you need to answer some questions like what did you learn when you were doing it, how do you know that this worked, what did you accomplish, why do you need money, okay you know maybe it's work without this how will these newer additional funds make you be able to do something better faster quicker or something like that. But you should definitely talk something about what you've done to prepare to have this program, something that's not competitive is to say well we think in industry in six years the Chamber of Commerce has been talking about bringing oh let's take your topic nanotechnology to a community, we don't have any companies here, we don't have anything like that, that's not going to be competitive okay. You need to have something to show that you're prepared to implement this project because you're only going to have two to three years to do it. The second one is the most important thing and I think you need to read the most current program solicitation three times. So the first time you go overview, the second time you're actually trying to look at what's needed. The 17-568 is the most current one its a 3-year solicitation we had last year, it's good for this year and the following year so you have a couple years to do it but it does look like we're going to put out an update this summer so I would urge you to stay tuned to see if there anything updated about the program. But it is important to make sure you're aligning with it. For example this week I got a an email asking me about program solicitation that was NSF 14 – whatever which was five years ago and so continue to read it. The principle investigator may not need to know all the details that are in the proposal and award policy guide but this continues to be updated it's called us PAPPG, but certainly though the grants people at the college need to learn this and to pay very good attention to things about submission, it's going to be increasingly things that won't even come to the program officers so it's very important you know deadlines and font sizes and these kinds of things, so next slide.

Tips 4-6
Dr. Elizabeth Teles - The next thing is to make sure this is a little bit like reading the program and add to it and making sure you know what's allowed and supplementary documents, one thing I want to emphasize again a little bit here is that the PAPPG talks about what kind of commitment letters or support letters you're allowed to put in a proposal but the ATE program talks differently about that and that the ATE wants commitment letters that actually describes something that's going to happen so for example the ATE would expect an industry partner to say signed by someone that we will agree to work with this project and we'll provide two internships and work on the advisory board and review curriculum and you know participate in

outreach activities or some thinking that's a community. The PAPPG says those kind of letters aren't allowed so what you need to do is to read the current program solicitation to talk about what supplementary materials are allowed and remember that the program solicitation takes precedent over the PAPPG if they differ. On the other hand don't send too much, I mean on a proposal reviewers are not required to read the supplementary document, so make sure you want them to read them, so for example, you would do these letters of commitment maybe your three industry partners of them is showing there are some real jobs out in that area, so I encourage you to submit those but hold it to a reasonable amount sometimes having your advisory committee meet and having them sign a document together saying they understand the program and will provide you know internships and advisory committees something like that is powerful, but I would limit it to no more than 30 pages. I got one last year with 150 pages and we couldn't even pick the proposal up, so just to be sure you follow those instructions and also don't put something in the supplementary documents that belongs in the proposal itself. A good example of this is an evaluation plan usually about two pages of your 15 belongs in the proposal itself. A supplementary document that you might put is an evaluation form that maybe you're going to use to evaluate student learning or something like that. Number five I think is also important and that is you can share up to a one-page summary with any of the program officers, give us a little bit of time to get back to you. We can't get something two days before the deadline and give you feedback on what it's supposed to be, but I'm always willing to look at and read a one-page summary of what your project, I can't predict success but I'm a pretty good judge of predicting failure if it just doesn't fit the goals of the ATE or I may suggest another program that might be more appropriate to you. But give us a couple weeks to get back with you on these kinds of things. So I hope that helps, but we do feel like we're friendly, we try to make sure you understand what the projects are doing. Six we just say call up some people who have had some grant funding and ask them and get some feedback from them about some things that might work and some problems they may have had this again help you avoid things so just get advice, next slide.

Tips 7-9
Dr. Elizabeth Teles - There's been a whole webinar one of the Mentor-Connects making sure your budget request matches the project scope, so that makes sense. So don't ask for too little money and you know or not enough money you're going to have a limit, but you're probably better off with a focus proposal when your budget you can describe exactly what the budgets going to do there. I do want to spend a little bit of time on eight and that is you have to show you're the community college that's serving a community and so you have to show that there's going to be some local employee need for these technicians that you're preparing for the ATE program. It's fine to say that looking glass has projected that we need 200,000 new bio technicians in the country but if your community you're serving doesn't have any jobs in biotechnology that's not going to be something that's worth you're developing a program for. So you can put it in a broader context of the country but make sure you bring it down, again this could be something that's in some of those letters that the industry people put in to. You do need to build an effective project team and partnerships but I think this has been covered in another webinar. Programs that have multiple people working on it to better it for the whole thing works a whole lot better than a single person who's out there time to change things up themselves, so it's more fun to work on a project team, so next slide.

<u>Tips 10 -12</u>
Dr. Elizabeth Teles - You need to build effective partnerships, but there was whole webinar last year that Ann and Marilyn Barger and Elaine Johnson did on developing these effective partnerships and so I think Ann will send you to that it has lots and lots of good advice and things that they've actually done. But again it is a partnership program is not something you should be doing by yourself. I'm going to spend a little more time on focus on the institution and the partner strategic plans and capabilities; this is actually where it does a little differently than it was last year if you can show that developing STEM education technology programs is part of your college's strategic plans. We found effective commitment letters say from the college from your Dean or your President or something talking about how this is part of the broader strategic plan for the institution to do this and then if you can show that the reason has begun to do this may be advanced manufacturing is a focus of your region and if you can show that this is important the region has recently brought in let's go back to biotechnology that they now have four new companies that have moved into the area not that are coming in five years but are moved into the area or are changing what they do, maybe these are manufacturing companies that are revising everything they've done to make it more automated and if you can show then the college program needs to change and become where students learn how to use these robots and a little more effective ways and affect that. So that would be a strategic plan of the institution or the community and your industry partners. Twelve you don't have to have all the expertise you can hire consultants, I mean if you're adapting and implementing this maybe you want to hire a consultant from one of the ATE projects or somewhere else to come in and give some workshops to your faculty on pick something in effective practices for preparing more women to enter non-traditional fields and they come in and give a workshop for that. Maybe they've got a new program in nanotechnology now your companies in your region are incorporating that in and so you get one of these consultants to come in and share what they've done. Most of the evaluations you do will probably be using some kind of a consultant too, next slide.

<u>Tips 13-15</u>
Dr. Elizabeth Teles - You should use Mentor-Connect resources and other resources from NSF funds, Elaine and I are going to spend quite a bit of time with this. You need to work with your evaluator from the beginning and so a very effective evaluation plan, where the evaluation is clearly tied to your goals and objectives is going to go a long way. But there have been several webinars on evaluation and we'll send you some links to that. Then I'd say while you're doing this think about how you're going to implement the project if you get funded and if you build that into your proposal this plan to actually implement it, it's going to go a long way to making it look like it's going to happen. So again usually things that are more focused particularly smaller ones you know you have two or three strategic goals and objectives that your planning and your project plan includes how you're going to do that, next slide.

<u>Part IV: Resources specific to preparing a competitive NSF ATE grant proposal</u>
Dr. Elizabeth Teles – Elaine, I think it's back to you.

Elaine Craft - Okay thanks Liz, next slide please.

Mentor-Connect Resources
Elaine Craft - Some of the Mentor-Connect resources I wanted to point out to you are that we provide technical assistance webinars and we provide tutorials that go along with those so that after the webinar you can go and like with the CCTA webinars there's a transcript available of a webinar with our Mentor-Connect webinars we actually have a tutorial that goes with the slide with the content that we covered, beside the slide so with their nice little tutorials um we have them on the budgets and budget justifications and on all those forms you have to fill out. We have frequently asked questions well over 100 of them Dr. Teles answers questions occasionally we put those in there and have some from other program officers as well as some that I've answered. We have a searchable library of resources for grant writing, selected NSF publications but more importantly we exert from those publications the content that's really applicable to either the ATE program or to two-year colleges or something so that the commenter's publications are designed to address the needs of a lot of educational institutions and so we try to focus things on it will help the two-year colleges. We've got sample proposals, those are a little hard to get your hands on some too empty but these are actually funded proposals in the small new to ATE category that we have some samples that you can look at. And we provide some checklists and guidelines to show you good processes to follow and timelines for getting an ATE proposal completed and completed on time. And we have a help desk so if you can't find what you need or have other needs and we also provide some support to our new to ATE folks who have put proposals in and then are being recommended for funding, there a number of steps you have to go through in the funding process and we actually help folks through that what we call the tunnel to, next slide please.

Sample Resources
Elaine Craft - So the webinars and tutorials I mentioned to you, we have one on budget and budget justification we've actually just finished that one up for this year it was last week. The forms webinar will be in early May. The evaluation for small projects is next week and you can get a link to sign up for these webinars on the mentor-connect.org website. In our archive we have an NSF advice on financial management of NSF ATE grants, we actually had Rashawn Farrior from the NSF Division of Grants and Agreements DGA to do that one for us and it's excellent advice and information particularly for the people in your business office who manage these grants once you get your award and again you can find all this at the Mentor-Connect website.

Mentor-Connect Library- Sample Proposal
Elaine Craft - Here's sample proposals just the cover pages of a couple of the small new to ATEs, next slide.

Sample Roadmap- Project Development
Elaine Craft - Here's a sample roadmap that you can find we've got several documents like this this print small but it's got every single thing you've got to have included in an ATE proposal on the left and columns where you can keep up with who've you have assigned things to, when it's going to be done and due dates that sort of thing. So it's a nice little planning guide or roadmap for finishing up a proposal. Now for one of the best resource this is actually the NSF website.

NSF Award Search -Examples
Elaine Craft - So I'm going to turn it back over to Dr. Teles and Ann who are going to give you some tips for finding those already funded projects that may be of help to you.

Dr. Elizabeth Teles - Thank you Elaine. So we already talked about using and talking to program offices you can find our names up on the DUE website that you can search you know go into the NSF thing and find the ATE program solicitation with names, it's a little outdated so I've asked them to try to update those program officers but again you can contact those at least three long-term people that have been there Celeste Carter who's ATE leader and David Campbell who's the other ATE lead has been there a long time. Celeste is VCCarter @nsf.gov and mine is EJTeles@nsf.gov and sometime we can show you other people who maybe it's more appropriate so, again urge you to prepare those one-page summaries and do them in sufficient time that any advice we give you can go back. I noticed we're having a few technical difficulties here a little bit and now we're going to give you some examples of how you can actually go into the NSF search engine and maybe find some things that will help you if you are looking for adaptation or implementation now. (Showing NSF website) So there's two kinds of searches you can do you can do a simple search or you can do one called a more advanced search and I'm going to recommend that you always use the advanced search because in the simple search all you can put in is one word and so if in the simple search if you put in something like biotechnology you would bring up everything that NSF anywhere in the foundation was supporting in biotechnology and if you put in biotechnology and nanotechnology you would it's an or even though if you write in and whatever so I'm going to suggest you always go to the to the advanced search. So this is what the page looks like so there's two kind of things you should know can you see the element down there maybe Ann you can go down to it called the element code so that's actually non-trivial some time to find but the ATE element code is 7412 and if all you did was search on 7412 you would bring up every single award that NSF is supporting currently supporting and if you see there 329 ATE projects that NSF is currently supporting in ATE. There's a place way down at the bottom you can also tell it to search for expired awards and if you did that you would bring up maybe 1500 or something like that. But let's go back to the thing and decide that's probably more than we want to try to look at so go back and put 7412 in there again for the ATE code and let's go down to the keyword and we want to bring up things in biotechnology so this may be even more helpful so if we write biotechnology there and notice in here we've only got the active award checked, if you wanted also the expired ones because you wanted to know maybe what happened with some that was finished five years ago you would do that but we're going to concentrate right now in the active awards but can you see the two boxes and so if you click on that you bring up the 24 active awards that ATE is now supporting in biotechnology. So you could enter any keyword there that you would like to do, let's go look at like maybe two more examples. Let's go put in ATE 7412 again and go put biotechnology back in the keywords but now let's go up a little bit more to the state, can you see the state up there there's a pulldown menu so maybe you live in California and you're just looking to see if anything in California has been supported in biotechnology and now if we do a search, you'll see there are five awards and biotechnology now being supported in ATE and that may be one. Let's look at one of these now and if you would click on one of these I think it's worth seeing what kind of information you would get if you did one of these, you've got the program title go down there you know when it was active, you'll see the program manager that's like me, I mean if you put Teles under program manager you would get everything I'm the program officer on. Notice

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that there's the principal investigator, there's an email for the person who's leading the grant so that means it's a contact that you can contact these people if this is appealing to you and then go back and go on down to the bottom and you will see a summary of what the project is so this will give you an idea this is something that's worth your going and exploring. So there are several pulldown menus that work on that. Let me give one more example and then maybe we'll let this part be over but it gives you a little bit of an idea. Suppose you've already got an ATE grant and now you're interested in the scholarship program this one you have to either ask a program officer or be creative in it but the element code for the scholarship program is 1536 so you kind of have to know that. Although if you see there's a little question mark beside it you can actually go search for program codes but probably easier to ask somebody. Let's leave that part out, let's go search a different state, maybe under it's not the country go up a little bit to the state, why don't we pull down South Carolina and see what kind of ones that the scholarship program is currently supporting in South Carolina if you wanted to know current ones and prior ones then you would, well maybe check these, well that's fine so right now the scholarship program is supporting 11 ones in South Carolina and so if you live in South Carolina maybe those are the ones you want to contact and ask about what kinds of things have been affected. So I hope this gives you a little bit of an idea of how to use the website it takes a little bit of work but pull up one more of these, so let me just show you one thing on it, if you ever find it then down there, as you can see the program element codes if you ever found one of them, then you would find the program element code for all of those things. Okay back to you Ann.

Ann Beheler - Okay let me switch back over here I guess I was a little bit slow on getting the switch to go last time and we will continue on. Are you all seeing the PowerPoint at this point?

Elaine Craft – Yes.

NSF encourages your participation
Ann Beheler - Okay good, all right I guess I can cover this as well as any but the deadline is real its October 4, 2018 and it is 5:00 o'clock your local time. I know that I happened to be out of town one time when one of these was due and nearly had a heart attack because I'm in Texas and I happen to be in California at the time well I did not get 5 o'clock California time it was five o'clock Texas time. So you have to be careful about that.

Dr. Elizabeth Teles - Can I say something here? There's nothing to say that's a deadline it's not the first day you can submit it, so I encourage you to start trying to submit you know maybe even up to a week ahead of time.

Ann Beheler - Oh yeah we do that now I learned that because it was a little scary.

Dr. Elizabeth Teles - I would say certainly at least a day before because you can then run it off and then look at it and if you forgot that most important commitment letter you can do a file update and do it if you're past at five o'clock you're 365 days early for next year. So it is really, really strict about that, but I've always kind of gotten a feeling that those that submit a few days early may actually do better because it means they really prepared for this kind of thing.

Ann Beheler -Also to another approach that we use, is that as we get some of the various pieces and parts of the grant completed we go ahead and submit those because the biosketches and the letters of commitment that sort of thing, once we have them we may as well go ahead and get them up there and not be worrying about submitting those at the last minute either.

Person month, calendar month, academic month they want to understand why we're doing it and how to do it.

Dr. Elizabeth Teles - I'll take a little bit of that I would say Elaine can answer, Elaine is given a whole webinar on this. It's one of the most confusing things but you would never use academic much and calendar month. Annual months are people who work on a 11 or 12 month contract and they don't get paid more if they work in the summer, so you would use that if I don't know a lot of technical faculty who are the leads on programs work on a 12 month contract but the amount you put there we know you're going to work a little bit over the year, but the amount you put there is the amount that you're asking NSF to pay for so if it's 5% of you know someone's 12 months contract that would be 5% of 12 which is 0.6 I think, so it would be 0.6 calendar months. Now if you're a faculty member who works on a nine or ten months contract and gets paid extra in the summer then instead of that you would use the academic year and the other and again it's the amount of month you're asking NSF to provide funds to pay for not that we know you're going to be working on this some of the time over there so if you're getting a one course release time suppose its 10 months you're getting a one course release time a semester you normally teach five courses that's 20% of your time so 20% of ten is two and then you can get an extra month in the summer. ATE does not say that you are limited to two months of time you just have to totally justify, so if they're 20% during the year of release time plus at one month in the summer then it would be two in the academic year one in the summer but you have to totally justify that you're going to spend that time on the project. A little thing I'd add here to is if it's part of the college policy if it's a written part of the college policy if you can be paid, it doesn't have to be just release time it can be additional so if you normally teach one extra course that's part of the college policy you get paid that you can put that one extra course in is something and NSF paying for but you have to totally justified and if you have to show that it's part of the written college policy that this is allowed.

Elaine Craft – Liz, you also brought up a point that I thought we you might want to emphasize about the when there appears to be a conflict or a disagreement between the program solicitation and the PAPPG about things like being limited to two months time.

Dr. Elizabeth Teles - Yeah that's when I would say that its important, if you want to ask that question you know program officers could at least let you know show you that part of the program to look at. But again it just has to be really justified and I could see you know one course release time a semester or a one course overload a semester right which would be maybe two months but again that can't be something you've just made up for this grant that has to be part of the college policy. But most community colleges I know do let people you know occasionally teach overloads or yes you know do things like that but read the program solicitation and that always takes precedence over the PAPPG.

Ann Beheler - Let's switch right now to the CCTA website so I can show people that are not familiar with it (Showing CCTA website) what we have available it is at ATECenters.org/CCTA

and you will notice on the bar on the left we have recorded webinars from all the way back to 2015 only a few there and then we have a list of the upcoming of webinars as well. So let's look in 2017 for example and I'm going to have to close a few things that are sitting on top of this okay end of 2017 we had something on advisors and career coaches something on career exploration on October 19th, preparing for the future succession planning on September 21st, how to mine job listings to parse employers needs, using prior learning assessments, creating dashboards and it's actually in reverse order with the most recent first but now we're going to get into the four proposal preparation webinars from last year, I'll start back here a little further back okay so last year we did *Grants and Innovations- A Great Match* this year I did it again with Dr. Campbell so you're going to find that under the 2018 webinars. We did separate Q&A last year; we decided they were not terribly well attended so we probably did not need to do that this year. *Grant Proposal Resources, Roadmaps and Timelines* that's the same presentation or similar topic to what we just covered, but we have updated information in what we did and then the next one is going to be a repeat on developing partnerships and how to do that and it's actually the same presenters will try to cover anything that we see new and have plenty of time for questions and then *Final Tips for a Competitive Proposal* we'll be doing that again this year the dates these are 2017 dates but we have 2018 dates that you can find if you go look on the upcoming webinars. Here's the one we are just about to finish up and there's a place to register here's also a place for the one on stakeholder partnerships and the tips for the final competitive proposal let me go back once and show you one the other recorded webinars again and point out that just go down a little bit okay after each one you get to see the slides, you can view the recording listen to the recording, you can also view a transcript. I would suggest personally if you want to know what's going on in one of these previous webinars and see if it's worth your time to listen to it I would look at the transcript and the slides first and then look at the recording because the recording is going to take as much time as it would had you actually listen to it in the first place. Any questions about that? Okay so Christina would you please get on the line and tell people how to ask live questions and I'll go back to the entered questions if we don't have people wanting to ask live questions.

Christina Titus - Okay so at this time if you have a question that you would like to ask live just raise your hand and I will unmute you so that you can ask your question to the presenters.

How big is the update going to be for 2018 or do you have any idea about that? I'm concerned about starting using the current solicitation if in fact it's going to change.
Dr. Elizabeth Teles - I haven't heard about anything that's being changed in the project area this is Liz. I think the center's part is a part that t may get some updating of about that. Elaine have you heard? That's of what I've heard, but I think anything in the project section you could go ahead and start working on now without running into any difficulties.

Elaine Craft - Yeah that's my understanding as well.

On results of prior support, is it sufficient if I lift the intellectual merit statement and the broader impact statement from the proposal or do I have to get down into providing evidence of impact?
Dr. Elizabeth Teles - You need to provide evidence of impact or you need at least discusses it you know whatever and you can also make changes you know these two things work really well

you know we now have we've gone from five students in the program to twenty students in the program and our industry partners have worked with us to and they've made six more internships available as a result of the last one, however it's a part of the thing for the new project is that in spite of our efforts last year we still don't have diversity that matches the college numbers so in this proposal in addition to continuing and building on what we've done to add even more impact and add these new instruments that are needed by industry we're also going to focus on increasing the numbers of women and Hispanics in the program for example and here are the strategies we're going to use. But you need to not just repeat this is what we wanted to do you need to actually talk about but you did and what you accomplished.

Elaine Craft - Yeah that's those are excellent points and I'd like to put in a little plug for the webinar next week that's on evaluation for small grants Lori Wingate from the EvaluATE Center has a section of that webinar that talks specifically about that in fact she puts up three great examples of evidence of prior support, or outcomes you know from previous grants and shows you how to go from one that's a weak statement to a strong statement. So I would encourage our audience to take advantage of that webinar and that's another one that will be recorded and the slides and so forth will be available to participants.

Is this webinar going to be available for me to watch as recorded?
Ann Beheler – Yes, oh yes all CCTA webinars are recorded where I was showing you the website right below it will have the slides, the transcript and the recording.

I have an idea for a program and I do have some partners in mind but it's really around building math literacy and it seems like this is really about getting students ready to go into a particular industry and my argument is if we help students with math literacy they can actually go into any particular industry, do I need to have some industry in mind some specific subject matter, that's a part of the proposal?
Dr. Elizabeth Teles - We've been emphasizing ATE in this which is the workforce program is not the only NSF program that you could do it in but it's clearly the one community colleges are the most competitive in but as a former math teacher the community college which was my life I know that to be able to do these technical careers you have to have mathematics which serves a whole group of programs. But if you're going to come into the ATE program you're going to have to show that that the math that those courses are actually going to produce technicians that that need to go to these jobs otherwise you probably want to go to the IUSE program and that is a more competitive program but they have a smaller one and that too that can adapt and implement something. So I probably suggest try to put your ideas together and maybe send me a one-page one and maybe I can see if I can either give you some advice how to make it more competitive in ATE or if there's a different program that would work better. Recently and I'll send Ann the connection to this the ATE program did sponsor a workshop about you know the mathematics needs reduce technical program and they will be putting out a report soon and it might be worth you're looking at that.

I'm hearing that it needs to be more geared towards a specific workforce industry?
Dr. Elizabeth Teles - Well there was actually a very good one in ATE this year was actually geared toward English okay but instead of and in that proposal they were doing career explorations connected to specific technical jobs and I could see doing and mathematics trying to

attract students to these by you know perhaps having some modules or industry people where some of these were specifically designed to that and you worked with a couple of these the programs for example you know there was one of making sure biotech students had them a bright mathematical background. It's not going to be so much for just the general math courses of it because ATE is clearly a workforce program but if students don't have a good math background they're not going to succeed in these programs.

Okay so I can actually send you a one-page and get some advice on what would be more appropriate for me to after.
Dr. Elizabeth Teles - If you wait till after April 5th which is for us a deadline you probably get a little quicker response from me.

Ann Beheler - I hate to cut this off but we're going to need to move on because I want to tell you about a few other things that are coming up that are opportunities for you.

Join Us – All Webinars 3 pm Eastern
Ann Beheler - We have a webinar on stakeholder and partnership development coming up on March 29th the information on this is on both on the CCTA website and you'll look at the bottom of this slides that's where you're going to find the upcoming and the recorded webinars.

Join us in National Harbor!
Ann Beheler - And then we have a very exciting opportunity at the Innovations conference if you're going to the League for Innovations conference we're going to have a whole afternoon workshop on Monday from 1:30 to 5. We will have Dr. Celeste Carter with me with us actually not me with all of us and she will be presenting on the various ATE programs, the different kinds of ATE programs not ATE NSF programs that are out there and in addition we're going to have a panel of experience PIs that from whom we will ask questions and then we're going to take a proposal and pull it part and piece by piece talk about what you learn from reading each section of the proposal and your comments about how you might improve that particular proposal. It is a funded proposal but even funded proposals can sometimes be made more clear that's a very valuable exercise because you will be able to see how other people might read your information sometimes I find that I get so involved in writing the proposal I just by the end of it think everybody ought to know everything I'm talking about if it never works that way.

Join us in Miami!
Ann Beheler - Then join us in Miami the HI-TEC conference is occurring July 23th through the 26th but then on the 27th in the morning there is a free session very similar to the workshops that we're going to be having at the Innovations conference you're welcome to come to that Celeste Carter program officer will be there, lead PIs will be there there'll be a lot of resources to work with you.

Register for HI-TEC and DOL and NSF Workforce Convening
Ann Beheler - Now be sure to register for HI-TEC here is the link you would register for that and then the registration for the DOL and NSF workshop convening which is our workshop after it is actually at the same registration page. So I think this is it and I appreciate so much having Dr.

Teles and Elaine Craft help us today they are a wealth of knowledge and I know that they don't mind being contacted afterwards.

<u>Contacts</u>
Ann Beheler - So I'm going to show you one other thing here which gives their email addresses so I know that they are willing to answer emails as am I and I'm not giving you my email that you can probably find it on one of the other presentations. So without further ado we will call this webinar to a close and we will ask you please to fill out the survey on your way out and thank you so much for attending have a great afternoon bye.