PROJECT VISION
NSF GRANT No. 2018198

PROJECT DESCRIPTION
&
OPERATIONAL GUIDELINE

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3209 Virginia Avenue Fort Pierce, FL 34981 I 772-462-7546 I www.projectvis.org

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Introduction

Project Vision is a National Science Foundation (NSF)-funded initiative to collaborate with two-year colleges to uncover innovative ideas and align them with NSF funding opportunities. Project Vision's mission is to:

- Provide two-year diverse, small, rural colleges, and/or colleges with newer Presidents the expertise to generate innovative ideas that produce award-worthy NSF proposals.
- Offer support at all levels of a college ecosystem including Board of Trustees, president, administrators, faculty and staff.
- Provide professional development activities for BOT, presidents, administrators, faculty, and staff by working with these entities to embrace the merits of the NSF Advanced Technological Education (ATE) Program and other Division of Undergraduate Education (DUE) programs.
- Provide each college the support needed to build up their capacity and to regularly submit proposals, as deemed appropriate, to the ATE Program and other DUE Programs.
- This initiative is led by a seasoned team of ATE experts, a former college president/CEOs, senior college administrators, and former NSF program officers who couple on-site analysis with follow-up services to help each college build STEM and grant capacity.

This document serves two purposes:

1. To provide the Project Leadership Team, Project Manager/Coordinator, Project Evaluator, Subject Matter Experts, and the Mentee College Team with their respective role and responsibilities.
2. To serve as a road map for successful launch and implementation of Project Vision mission, goals, and objectives that ultimately furthers capacity building and increases the number of award worthy ATE grant proposal submissions and other DUE Programs.

Sense of Urgency

Over three decades, the NSF DUE has supported many of the United States' 1050+ community colleges to transform into the world's best technician education platform. While the impact and value of NSF support has been documented, recent trends indicate a decrease in the number of two-year colleges submitting proposals to DUE.

Workforce education in STEM disciplines is and will continue to fuel technology advancements and economic development and promote the U.S. competitive edge. College workforce programs (Career and Technical Education) across the nation are stagnant in both enrollment and innovation. NSF DUE programs have been key drivers in changing this trend and educating the next generation of technicians, while helping colleges innovate.

In a time of declining community college STEM enrollment, decreased state funding, and high attrition rates, additional revenue streams such as NSF DUE funding are critical for nation's two-year colleges to remain dynamic, competitive, and relevant, and for STEM programs to grow.

To address this decline, NSF currently supports a number of programs such as MentorLinks, Mentor-Connect, ATE-2YC, and PSEY2C, along with supplemental funding for various ATE Centers across the U.S. to support proposal writing with interested two-year colleges. These programs have been very successful in taking a college's idea and transforming it into a funded proposal; however, there is room for major improvement. For example, many two-year colleges

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lack general knowledge about NSF or a particular NSF program and funding stream that can align with and fulfill their institution's mission and strategic priorities; especially, smaller two-year colleges or those with newer college presidents. These institutions would immensely benefit from guidance in developing and generating innovative ideas that produce an award-worthy DUE proposal(s).

Measuring Success

Project Vision initiative success can be measured by:

- Introducing colleges not traditionally involved in ATE and other DUE programs, including smaller colleges and colleges with new presidents.
- Growing STEM programs in areas identified by a group of Project Vision experts.
- Supporting innovation and technology growth in areas of STEM that support the institution's strategic plan and priorities.
- Providing two-year colleges with expertise to generate ideas worthy of applying for ATE grant proposals.
- Supporting capacity building at each participating college, so that these colleges can regularly submit proposals when appropriate to ATE or other DUE programs.
- Networking by introducing colleges to a wide breadth of academic partners to support their continued growth.
- Catalyzing submissions of proposals from 45 two-year colleges not previously associated with ATE or other DUE programs, specifically smaller two-year colleges (with focus on rural colleges) or colleges with newer presidents.

Project Vision Objectives and Goals

Project Vision is comprised of six objectives. These objectives are:

- *Objective 1*: Identify and collaborate with 45 new two-year colleges, specifically smaller two-year colleges (with focus on rural colleges) or colleges with newer presidents.
- *Objective 2:* Evaluate each college; audit and provide a recommendation report identifying strengths, areas of concern, and applicable DUE program opportunities; and collaborate on formulating an initial innovative idea.
- *Objective 3:* Support college personnel in the grant writing process through the submission of their first DUE proposal.
- *Objective 4:* Mentor and network college presidents, administrators, faculty, and staff to grow their internal capabilities of regularly generating original ideas and converting them into fundable proposals.
- *Objective 5:* Mentor college Board of Trustees on the nature and impact of DUE programs, why to discuss DUE in presidential searches, and how to support college presidents during the first-year transition and beyond in incorporating DUE opportunities to strategic plans.
- *Objective 6:* Evaluate the effects of these interventions and publish case studies and academic research on the value of idea formulation, president and personnel mentorship and networking, Board of Trustee support, DUE and developing the next generation of leaders, and from ideation to full DUE proposal submission.

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Communication

The section that follows next will expand on effective and timely communication, tips/hints for and communication protocol between Project Vision team and the College Mentee Team and mentee institutions.

Effective and timely communication

Effective and timely communication is essential to success of Project Vision, major goals and objectives outlined. Communication skills include but are not limited to effectively communicating ideas to others, actively listening in conversations, observing and empathizing, giving and receiving critical feedback and public speaking. As we collectively work toward advancing Project Vision, we must be mindful that there are major differences in how to communicate through face-to-face interactions, phone conversations and digital communications, such as email and social media. What follows next are essential tips that garner effective communication as we embark upon advancing Project Vision.

Hints/tips for effective communication

- Active listening
- Adapting appropriate communication style to different audience
- Friendliness and approachability
- Confidence
- Giving and receiving appropriate feedback
- Volume and clarity
- Empathy
- Respect
- Understanding nonverbal cues
- Responsiveness
- Be clear and concise
- Assert yourself
- Be calm and consistent
- Open-mindedness
- Picking the right medium

Organizational Charts and Communication Protocol with the Mentee Institutions

An organization chart and a flow chart depicting communication protocol with the mentee institutions are included in this section. Communication follows the flow with the organization chart with leadership communication going through the PI. STEM team communication will go through subject-matter experts, and administrative communication will go through the Project Coordinator/Manager.

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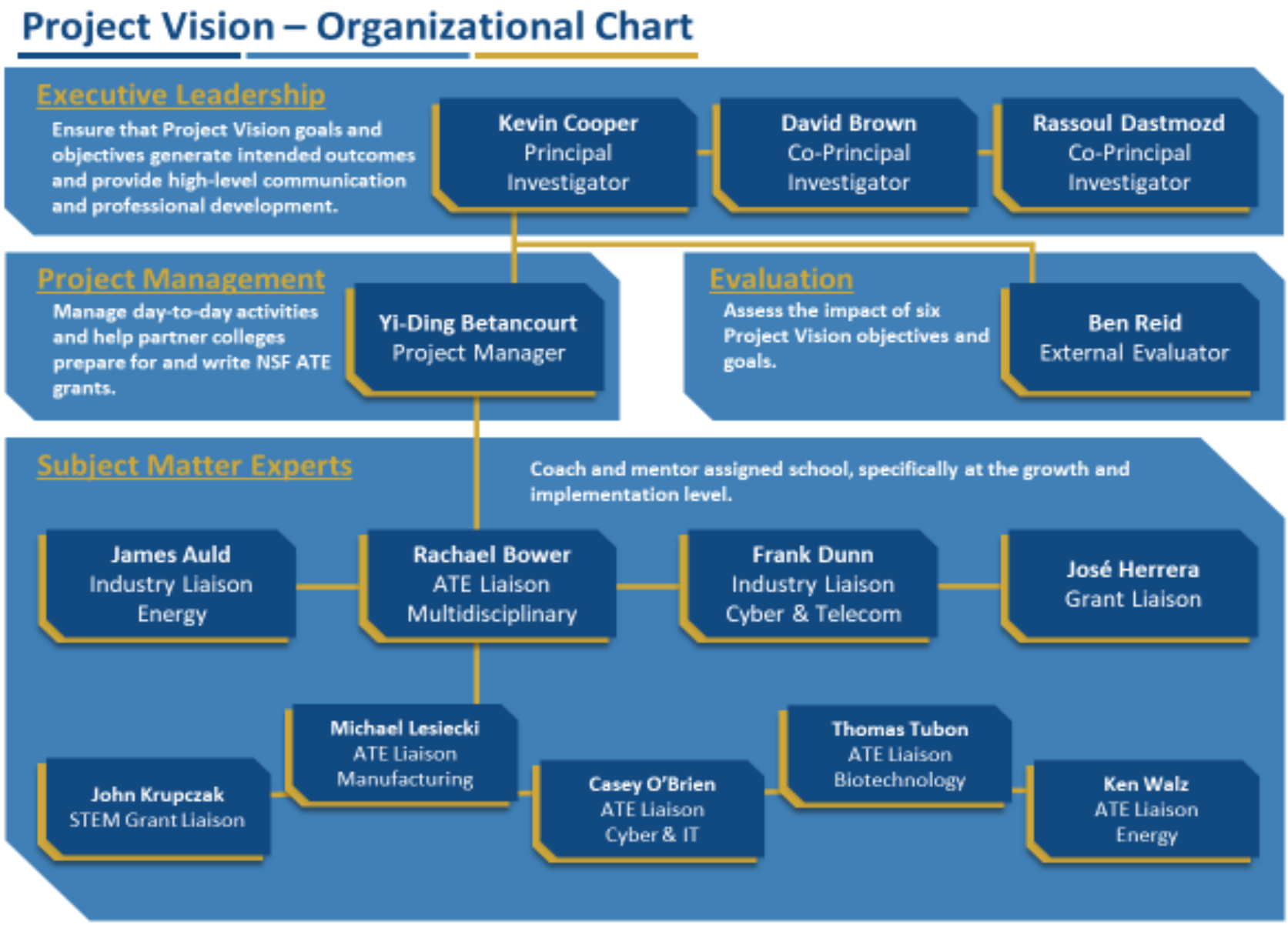

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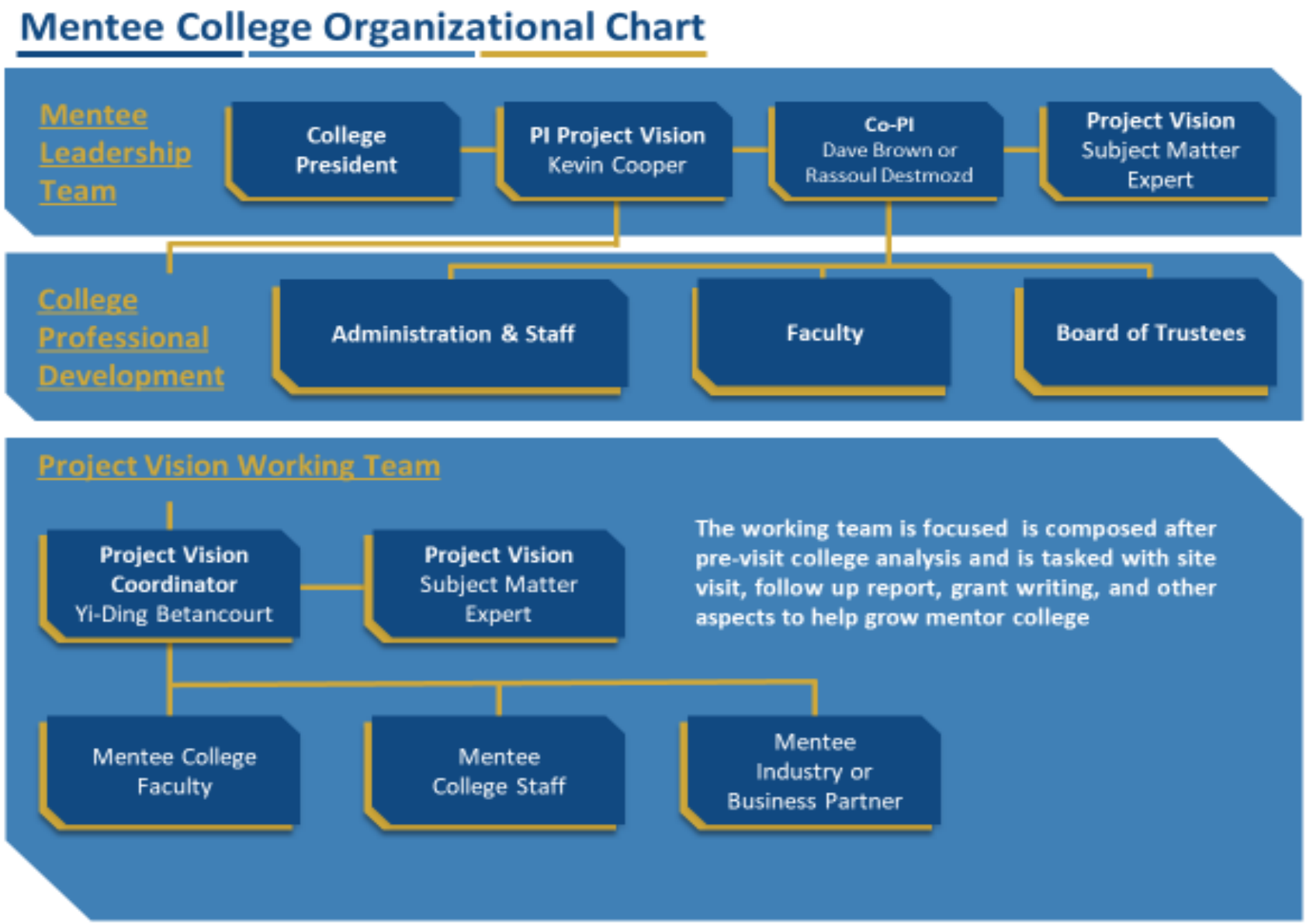

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Challenges/Opportunities

The section that follows next will elaborate on challenges and opportunities associated with the Project Vision.

The current operational modality across U.S. institutions of higher education, more specifically across 5 mentee colleges amid COVID-19 and post-COVID-19 during the first year and 10 colleges in each of years 2-5, presents a challenge that warrants careful consideration. Presently, all five mentee colleges from the first year are situated in various geographical locations across the U.S.

The Project Vision team will remain nimble and pivot towards the most effective and efficient mode of implementing the major goals and objective of this project.

This means that we may have to modify research, development, educational, student support, and other project activities, if necessary; yet, we seek to maintain the full integrity of goals and objectives of Project Vision to ensure optimum outcomes. Examples of activities that may be affected include recruitment of participants, implementation of educational interventions, advising and mentoring, data collection and analysis, and in-person courses and laboratories.

To advance the goals and objectives of Project Vision, the efforts of the leadership team will involve numerous meetings and discussions, along with generating reports and connecting mentee team members to resources (i.e., curricular, programmatic and human resources, etc.) Beyond meetings, the Project Vision team will explore the use of technology for virtual tours of facilities, demonstrations of technology, and other activities that could be done remotely.

These efforts will entail both the use of synchronous and asynchronous content delivery and modalities. The Project Vision team will strive to coordinate schedule of attendance and delivery of content that produces optimal outcomes related to Project Vision goals and objectives.

Most importantly, the Project Vision team is committed to ensure the health, safety, and well-being of all team members including the mentee college team members who are engaged in this project. Project Vision team will adhere to recommendations and guidance of the CDC and the Federal Department of Health and Human Services, as well as the policies from each respective state government and state department of health amid COVID-19 and transitioning to post-COVID-19 recovery.

Continuity of Operation

The Project Vision team will develop a Contingency Plan related to potential effects of the COVID-19 Pandemic. A critical component of this plan is a continuity of operation plan (Business Continuity Plan) that is comprised of four distinct components: (a) plan development, (b) testing and maintenance, (c) impact analysis, and (d) recovery strategies. This plan will ensure and mitigate potential disruptions, which ultimately promotes proposal's success.

The development of this plan will take into consideration and align with the continuity of operation for each of participating Mentee Colleges. Components of this plan will address access, recruitment, delivery of services and content, progress monitoring, evaluation of project's progress, and recovery over a period of specifically determined and mutually agreed upon timeline between the Project Vision team and the mentee institutions.

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In the long term, the Business Continuity Plan for Project Vision will be informed by the recovery plan/strategies of the mentee colleges. This phase will be comprised of transitioning as much of the virtual modes of access, recruitment, delivery and impact analysis, which will take on an in-person format.

Continuity of staffing and expertise
The Project Vision team recognizes that personnel turnover is a natural phenomenon throughout the operation and maturity of any grant-funded initiative. The Project Vision team will develop a rubric that will be employed to recruit prospective potential team members (Subject Matter Experts) with the right skillset and expertise that would facilitate their onboarding in case of staff turnover and ensure continuity of staffing and expertise.

Project Leadership, Management, Roles and Responsibilities (who, what, how, and when)

PI
- Lead and manage Co-PIs, Project Manager/Coordinator, and SMEs to ensure that Project
- Vision's goals and objectives generate intended optimum outcomes
- Monitor the progress associated with addressing the goals and objectives of Project Vision
- Build the Project Vision network
- Audit the mentee colleges
- Write report on audit trip(s)
- Interact with various partners
- Complete all grant reporting
- Serve as the single point of contact for the Project Vision grant with the National Science Foundation

Co-PI
- Engage mentor/coach new college presidents
- Promote capacity building for innovation and sustainability related to ATE and other DUE programs
- Develop Professional Development activities for new presidents as well as Board of Trustees of each respective mentee institution
- Collaborate with the Project Vision team to make presentations at the national conferences to promote ATE or other DUE funding opportunities
- Collaborate with the Project Vision team to recruit new mentee colleges and Subject Matter Experts
- Engage mentee presidents to serve as ambassadors to recruit new presidents for Project Vision beyond year 1, leading through years 2-5 of the grant
- Participate in regularly scheduled audit team calls

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- Participate in the visioning and ideation phase of team meetings with the Mentee College Team
- Mentor division administrators, faculty, and staff relating to visioning and ideation and grant development proposal
- Develop a repository of information related to ATE grant funding for mentee colleges administrators, faculty, and staff
- Prepare "New to DUE" colleges to seek grant funding
- Provide guidance and insights to individuals eager to build their personal capacities in proposal development and grant management, establish undergraduate research capabilities, and build workforce programs
- Help mentee colleges to fortify institutional obstacles such as accounting, data management, and indirect rate challenges
- Promote active engagement of mentee college's administrators, faculty, and staff by networking with ATE or other DUE communities

Project Evaluator

- Survey nation's two-year community colleges to assess and develop a composite picture of current perspectives and trends for seeking grants
- Investigate theory of change and develop evaluation tools
- Provide leadership insights and tools needed to prove impact
- Develop evaluation methods and tool to assess the impact of six Project Vision objectives and goals
- Determine the extent to which the project has met all six objectives
- Measure the impact and essentially calculate change
- Provide informative data to leadership
- Help Project Vision improve decision-making regarding its planning, goals/objectives, activities and outputs through data and thoughtful analysis and recommendations
- Measure the impact of the Project Vision work upon multiple stakeholders including the college presidents, administration and faculty; the colleges' STEM and grant departments; the colleges' industry, economic, and educational communities; and the college boards of trustees and DUE itself
- Lead the development of case studies associated with Project Vision

Project Manager/Coordinator

- Manage day-to-day activities of Project Vision
- Help partner colleges prepare for and write NSF grants
- Coordinating, managing, and reporting as related to the ATE grants
- Oversee and coordinate meetings, functions, and activities
- Project management of the ATE grants
- Collaborate with partner colleges in facilitating the process to submit an NSF grant
- Facilitate writing NSF grants with partner colleges
- Create and produce NSF reports, specifically ATE yearly report and audit reports associated with each partner college
- Manage and coordinate a team of consultants and subject matter experts including entering Workday tasks for said group
- Oversee, develop, and maintain project management plans for Project Vision and projects with

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partner colleges
- Assist in grant writing and surveying associated with Project Vision
- Communicate verbally and in writing with a variety of individuals and constituencies, which may require completion upon immediate notice
- Draft and finalize formal correspondence for the project

Subject Matter Experts

- As a Subject Matter Expert (SME), you are the professional who possesses a deep understanding of specific areas. More specifically, your areas of expertise are aligned with the objectives of Project Vision and ATE knowledge clusters. SMEs have been selected not only for their expertise but also their lifetime of creative achievements, commitment, and generosity by offering their talents and growing their industry and the ATE community. The Project Vision team firmly believes that this newly funded initiative provides an opportunity to engage in a creative growth mindset way that will help other colleges and regions that really need this type of thinking support. In essence, it is a way to give back and pay forward. We are honored that you will be engaged in this endeavor with the Project Vision leadership team.

- A SME usually has at least one area in which he or she excels-such as a certain technology cluster (i.e. Business, IT, Construction, Health, Manufacturing, Science, and Transportation). SMEs typically have proven knowledge and backgrounds in their respective areas of interest. SMEs tend to be lifelong learners who keep up with the latest trends and tested practices or writing and peer-reviewing articles related to their areas of focus. Project Vision SMEs receive a one-day stipend of $1000 to attend the Project Vision orientation (program launch workshop) in addition to a $5,000 stipend for their one year of service, plus expenses incurred for travel, food, and hotel stay for their respective mentee college.

- SME list of duties and functions
  - Attend Project Vision launch meeting and contribute to the development of processes and materials including pre-site evaluation, audit trip assessment, audit report, and code of ethics, confidentiality and conflict of interest statements
  - Participate in Project Vision audit team calls
  - Review the pre-site evaluations yearly from each cohort of the mentee colleges
  - For each agreed and assigned mentee college:
    - Participate in routinely scheduled calls with the targeted college prior to each visit
    - Attend the audit trip as described in the Project Vision packet
    - Contribute to the assessment and recommendations in audit report
    - Participate in the visioning and ideation phase team meetings with the Mentee College Team
    - Identify and connect the mentee college to current discipline-specific resources and networks
    - Work with Project Vision PI team (PI and Co-PIs) and Project Vision Manager/ Coordinator to ensure the mentee college is sent to the grant-writing team with comprehensive background and recommendations for how to move forward
  - Participate in the audit team group review and brainstorming discussions of all the colleges in each cohort
  - Keep the Project Vision team informed of communication with the Mentee College Team. The PI or his or her designee is the main contact person with the mentee colleges.

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- Tips for being an Effective SME [1]
  - Possess and exhibit high emotional intelligence and patience
  - Demonstrate tolerance for ambiguity and abstraction
  - Use your StrengthsFinder and the StrengthsFinder results of the mentee college team members for your mutual benefit and advantage to support and advance Project Vision's objectives, from ideation to proposal development to submission of grant proposal
  - Understand your mentee college team members
  - Do not come across adversarial
  - Pay close attention to institutional culture and context of the mentee college
  - Celebrate the mentee college's history and accomplishment, acknowledge the present, mutually engage the mentee college team in terms of its vision and promote its aspirations
  - Develop a basic understanding of system's thinking within the context of mentee college
  - Serve as a facilitator and try to navigate institutional barriers of mentee college by being genuine, realistic, and politically savvy
  - Act as a coach/mentor, a guide by the side
  - Pay close attention to all stakeholders
  - Do not assume that as the SME, you have all the answers
  - Be empathetic to mentee college team members as they start their Project Vision journey
  - Have the right mindset by encouraging the Mentee College Team to bounce off ideas and engage them in brain-storming activities
  - Understand your learning style and the learning style of mentee college team members
  - Do your research about the mentee college. Conduct an in-depth study of the institution, where it has been and where it is headed.
  - Make every attempt to understand where the Mentee College Team is coming from in terms of its project and idea for the ATE grant proposal that it is trying to develop
  - Examine the Mentee College Team members' ideas and concepts by breaking down each concept into smaller ones
  - Demonstrate mastery of deconstructive thinking and rewriting (for more information, see: https://en.wikipedia.org/wiki/Deconstruction)
  - Avoid using too many acronyms and technical jargon
  - Write with concision
  - Do not frequently point out to problems and challenges; try to exhibit a solution-focused approach rather than being problem-centered in your interactions with the Mentee College Team
  - Employ constructive criticism and offer alternatives by working closely with the Mentee College Team members
  - Explain complex concepts in simple language that requires more than a deep understanding of the topic
  - Communicate with other SMEs by sharing ideas and seek their advice as needed
  - Monitor communications on the subject and use appropriate communication medium when communicating with the Mentee College Team
  - Put yourself in the place of the Mentee College Team by understanding institutional context
  - Try to remain flexible and accommodate the needs of Mentee College Team members

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Coaching/Mentoring[1]

Throughout the life span of Project Vision, there will be times that Project Vision team and each SME will wear several hats, such as being a coach and mentor with the Mentee College Team members. The section that follows next will expand on OUR role as the Project Vision team or SME as a Mentor/Coach (General Guidelines) and provides some helpful hints and tips.

The purpose of this section is to identify the various functions we will collectively perform for Project Vision: Advancing Technological Education program and growing colleges to InnovATE.

A. Understand the mentoring/coaching role: See ourselves as part of the larger whole. We will serve the project both as an individual and as part of the Project Vision-NSF funded grant.
B. Coaches/mentors fill a variety of roles. Primarily, we are a facilitator of learning. Our job is to help people learn from their day-to-day experiences, including their successes and lessons learned. We may, at different points, be asked to take on such concretely defined roles:

EXPERT	FACILITATOR	CHANGE AGENT	LEARNER

Who or what determines the role we will play at any given moment? The most obvious answer is the need of the mentee college. These needs include those of the Mentee College Team, as well as other identified key players in the larger project (administrative leaders, student leaders, students, faculty, mentee college advisory panel, business/industry and community members, key partners, etc.). We will need to get to know the pulse of the project and be able to provide appropriate support. Also, appreciate the change process and know that the needs identified in the early stage of the institution's journey, as a mentee college will not necessarily be the same throughout the maturity of your relationship with the Mentee College Team. Be prepared to change hats as needed!

Our role as ***experts*** will require us to communicate our expertise through direct (instruction, technical assistance) and indirect (storytelling and/or offering case studies and other relevant research) means. Moreover, we see ourselves as part of a team of experts. No one person can have all of the answers, yet a great deal of wisdom can be found in a team. We should give freely of our experience and encourage project personnel to consult with other mentors as necessary. To be helpful, let others know our areas of expertise and interest and try to learn the same about them. Recognize that often our expertise will lie in the area of resources-we can help our mentee college to connect with other "experts." We should not overwhelm the Mentee College Team.

As ***facilitators,*** we will assist the Mentee College Team and key players manage the process of change. We help to set a tone of safety and manageability for the project. We help people manage their differences and make decisions in a way that allows the project to progress. We coach the Mentee College Team leader in leadership skills. We can start the dialogue, be a gentle devil's advocate, and help build consensus.

As ***change agents***, we bring visibility and credibility to the project. Be sure to meet with key players when we conduct a site visit (these could include presidents, trustees, department chairs, or business/industry/community members). Be the motivator, cheerleader, carrier of hope, and the person who connects the project endeavors to a larger picture. Never forget that change-even change that is perceived as good and is welcomed-is stressful. People in the midst of change often appreciate your support.

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Finally, we will also be ***learners.*** Most mentors/coaches find they learn just as much, if not more, from their mentees than they contributed or imparted. Take back to our own institution(s) or organizations the lessons learned from our mentee college team.

The ability to identify, perform, and move among the different roles is at the heart of mentoring/ effective coaching. The complexity of being a mentor/coach of the change process goes beyond playing a most complex, strategic game. Mentoring/coaching not only has a multitude of variables, but also involvement in the lives of colleagues and students. It brings us face to face with the mission of the institution. Remember that we are a part of a larger support team for the Project Vision.

In brief, our collective role should help each mentee college see itself as part of an ATE Community and national project by

- Promoting the Mentoring/Coaching/SME roles, concepts, and functions with the Mentee College Team.
- Avoid creating a hierarchy of power and authority with the Mentee College Team.
- Helping each of the Mentee College Teams to think through the objectives identified in its proposal.
- Asking about the needs the project will address, but focus on assets that the community, the college, and its team bring to the project.
- Discussing other issues that might concern the science, technology, engineering, and/or mathematics staff and faculty.
- Exploring with the Mentee College Team the college's environment for faculty/staff development, student support services, and community relations.
- Identifying where there are genuine needs; consider the following questions with your Mentee College Team
    - Have the goals and objectives been completely and correctly identified and succinctly stated?
    - Do they relate directly to the mission statement?
    - Is there clarity of goals and objectives—a crucial element--that supports and advances the Mentee College Team's mission and strategic priorities?
    - Does the action plan address the objectives?
    - Are there alternatives that should be considered?
    - Is the plan feasible?
    - What resources will be required?
    - Guide the teams away from making their plans entirely grant dependent beyond the lifetime of the grant (sustainability). Focus on exploring,
        - The level of institutional commitment, support, and resource allocation (talent, budgetary, equipment, space, and professional development) beyond the grant funding cycle
        - History behind this college's initiative
        - Impact the plan realistically can be expected to make
        - Clarify the steps necessary to advance the project
        - Consider the state of science, technology, engineering, and mathematics programming at the college and the problems and opportunities before the faculty and administration
    - Put the plan in context and consider alternatives

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- Develop support from groups and individuals; prepare the climate for change
- Develop a specific action plan that details activities, timelines, products, and outcomes
- Attend to those processes that make an action plan successful
- Serve as an advocate for the Project Vision's goals and objectives

Essentially, we should see ourselves as offering the following services:

- Coaching the discussion and planning process for the Mentee College Team during throughout the lifetime of proposal development
- Providing encouragement to the Mentee College Team and others involved in the Project Vision throughout the length of mentoring and coaching the Mentee College Team
- Advocating for the advancement of technological education and training during the campus site visits
- Networking with other colleges and organizations that support the advancement of technological education
- Helping collect information that will assess the institutional climate for advancing technological education on your designated campuses
- Providing the teams with resources such as information, suggestions, and exposure to other advanced technology programs, faculty staff development, workforce development, or business/industry partnership programs on a regular basis
- Listening to Mentee College Team's concerns and challenges, and facilitating progress at their colleges

Effective Mentoring/Coaching tips for interactions w/the Mentee Colleges [2]

This section that follows next will elaborate on a summary of useful hints for effective Mentoring/Coaching that Project Vision team and the SMEs can use in their interactions with the Mentee College Team

MENTORING/COACHING [1]
HINTS FOR A SUCCESSFUL MENTORING RELATIONSHIP

- **Communication.** Contact the assigned Mentee College Team leader before the initial project meeting to begin some of the tasks listed earlier in these guidelines.
- **Care.** Demonstrate concern for the Mentee College Teams and their projects. A caring attitude is essential for developing rapport and confidence.
- **Balance.** Listen, question, and respond. Too much passivity is as ineffectual as too much direction. Seek a balance that is acceptable to you and the project directors.
- **Universality.** Get beyond your own situation and experiences by taking a larger point of view. Refer to the expertise and experiences of other mentors. Share what is pertinent from your experience but be sensitive about over-relating what you have done at your college. Be aware of the significant differences in types of institutions, resources, or maturity of programs involved in the Project Vision.
- **Optimism.** Beware of taking on the mentee's institutional problems. Remind the project team that it is responsible for change and/or innovation. If faced by persistent complaints about lack

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of progress, have the team list those issues that can contribute to change. Do not reinforce their frustration.

- **Flexibility.** Be systematic but not rigid. Use these guidelines as points for consideration but not as a prescriptive instructional manual. Have a general plan of what you want to see happen at each stage but be adaptable.
- **Politics.** Remember that nearly every innovative project may be political. History, factions, people, and power relations have more influence on new and innovative programming than reason, merit, or justification. Consideration of real politics is unavoidable and should not be treated as irrelevant gossip.
- **Process.** Help your college teams consider not only the "what" of their activities, but also the "how." Think about building a community, forging relationships, and making everyone a stakeholder within the community.
- **Content.** Although negotiating the process of institutional innovation and implementation is important, keep the content objective in view. Your knowledge will remind everyone of the reason for all the project activities. Remember the overriding Project Vision objectives: to help colleges develop or strengthen technician-training programs in science, technology, engineering, and mathematics field by securing funding sources from NSF.

Appendix A includes additional details and useful information about Mentoring and productive/constructive Mentor/Mentee relationship. Information in Appendix A was copied from:
https://www.skillsyouneed.com/learn/mentoring.html
https://artofmentoring.net/what-is-mentoring/
https://www.togetherplatform.com/blog/what-is-the-purpose-of-mentoring
https://www.joe.org/joe/2010december/tt8.php
https://www.amtamassage.org/find-mentor/ten-tips-for-successful-mentor-mentee-relationship/

Project Deliverables and Levels of Responsibility

Table below highlights Project Vision's objectives, deliverables, and level of responsibility within the Project Vision team, SMEs, and the Mentee College Team.

Objectives	Involvement	Ownership and Engagement
Recruit and Formalize College Cohorts	PI, Co-PIs, PM	PI
Pre-Audit Onboarding and Preparations	PM	PM
Collaborate on Idea Formulation for Proposals	PI, Co-PIs, & SMEs	SMEs
Audit Colleges and Provide Reports	PI, Co-PIs, & SMEs	SMEs
Connecting to Existing DUE work and Awardees	PI, Co-PIs, & SMEs	SMEs
Conference Presentation and Outreach	PI and Co-PIs	PI
Support College in Writing First Grant	SME & PM	SME
Train and Build Capacity of College to Develop Ideas and Write Proposals	PI and Co-PIs	PI or Co-PIs
Mentor College Presidents and Executive Administrators by College	PI and Co-PI	PI or Co-PIs

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Mentor and Network College Presidents and Executive Administrators as a Cohort	PI and Co-PIs	PI or Co-PIs
Network College Presidents, Administrators, Faculty, and Staff of DUE Community	PI and Co-PIs	PI or Co-PIs
Conduct Professional Development for DAFS	PI and Co-PIs	PI or Co-PIs
Conduct Pre-Milestone Follow Up for DAFS	PI and Co-PIs	PI or Co-PIs
Research and Create Multi-Media for BOT	PI and Co-PI	PI or Co-PIs
Conduct one-on-one Consultations to BOT	PI and Co-PI	PI or Co-PIs
Conduct Assessment of Change in Institution	Evaluator	Evaluator
Package Data and Stories of Change due Project Vision and DUE	Evaluator	Evaluator
Publish and Distribute Case Studies and Academic Research	PI, Co-PIs, PM & Evaluator	PM

Useful Mentor/Mentee to-do-list that promote solid Mentor/Mentee Relationship[1]

This section that follows next will expand upon the art of successful mentoring and mentee relationship. To promote and advance Project Vision objectives, it will be imperative for the Project Vision team and SMEs that play mentoring/coaching/facilitating roles to promote solid working relationship with the Mentee College Team as well as the President/CEO and Board members of the mentee college throughout the maturity of Project Vision. A successful mentoring experience relies on a reciprocal relationship. It is grounded in building constructive and productive relationship with the Mentee College team.

As noted earlier, Project Vision team and the SMEs, as mentors, coaches, and facilitators, should have the best interest of mentee college team members in mind by advancing their project from ideation to fully developing the ATE grant proposal and submission.

- The project's mentoring process relies on a clear understanding of roles and responsibilities, including information-sharing and conscientious follow-up. Additionally, the Project Vision team and SME's interaction with the Mentee College Team should help each Mentee College Team see itself as part of a whole and a part of a national project. Most importantly, it is critical for the Project Vision team and SMEs to work as a cohesive team. These individuals should
  - Help each mentee team to think through the objectives identified in its proposal.
  - Jointly (with mentee college team) identify goals and objectives that are completely, correctly, and succinctly stated. Moreover, relate directly to institution's mission statement (search for alignment).
  - Jointly (with mentee college team) develop action plans that address the objectives.
  - Together seek for alternatives that should be considered.
  - Assess the feasibility of mentee college plan.
  - Jointly (with mentee college team) identify resources that will be required.
  - Guide the Mentee College Teams away from making their plans entirely grant dependent.
  - Assess the institutional support that the Mentee College team has.
  - Assess the community support does the Mentee College has.
  - Understand the history behind this college's initiative.
  - Assess the impact can the plan realistically be expected to make and under what time frame.

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- Clarify the steps necessary to advance the project.
- Consider the state of science, technology, engineering, and mathematics programming at the mentee college and the problems and opportunities before the faculty & administration.
- Put the plan in context and consider alternatives.
- Develop support from groups and individuals; prepare the climate for change.
- Develop a specific action plan that details activities, timelines, products, and outcomes.
- Attend to those processes that make an action plan successful.
- Serve as an advocate for the Project Vision goals and objectives.

Essentially, the Project Vision team and SMEs should be offering the following services to the Mentee College Team:

- Coaching the discussion and planning process of the Mentee Team during the project conference (Pre-Visit, Visit, and Post-Visit conversations*)
- Providing encouragement to the teams and others involved in the Project Vision throughout the time of engagement of the Mentee College Team
- Advocating for the advancement of technological education and training during the campus site visits
- Networking with other colleges and organizations that support the advancement of technological education
- Helping collect information that will assess the institutional climate for advancing technological education on your designated campuses
- Providing the Mentee College Teams with resources such as information, suggestions, and exposure to other advanced technology programs, faculty/staff development, workforce development, or key business/industry partnership programs on a regular basis
- Listening and providing potential solutions to mentee college team concerns, challenges and barriers, and facilitating progress with the proposal development at the mentee college.

A separate document packet titled, "Pre-Visit, Visit, and Post-Visit, lays out in full detail a roadmap that Project Vision team will employ in collaboration with the Mentee College Team to (a) identify challenges and opportunities, (b) develop strategies to address C&O, and (c) create strategies to advance mentee college's aspiration in their journey to seek ATE or other DUE funding and beyond. Diagram included on page 27 of Project Vision Handbook. The Visit and Post-Visit portions of this packet are currently under construction.

Helpful hints for Mentee College Team [1]

Common characteristic of helpful hints for Mentee College Team follows next.

- See your team as part of a whole.
- Consider your advisory panel as part of your team.
- Project Vision team and SMEs are part of a team that is trying to assist you with your innovative idea, various phases of proposal development and submission of your proposal to ATE.
- Think through the objectives identified in your ATE proposal.

If there are genuine problems or potential roadblocks, consider the following questions with the Project Vision team or SME.

- Have the goals and objectives been completely and correctly identified and succinctly stated?
- Do they relate directly to the institution's mission statement?

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- Does the plan address the objectives?
- Are there alternatives that should be considered?
- What is the feasibility of the plan?
- What resources will be required? Plan on how to make your plans entirely grant independent. If everything you expect to do requires outside funding, sustaining the activities may be difficult. Think about blending activities that depend on institutional as well as outside funding.
- How much institutional support do you have?
- How much community support do you have?
- What is the history behind this initiative?
- Are there other important efforts or directions currently underway or being planned?
- What impact can the plan realistically be expected to make? Speculate on the outcomes and the challenges that could come from the project.
- What are the steps necessary to advance the project?
- What is the state of advanced technology programming at the college? What are the problems and opportunities before the faculty and administration?
- What is the plan's context and the alternatives?
- How will you develop support from groups and individuals and prepare the climate for change?
- How will you develop a specific action plan that details activities, timelines, products, and outcomes?
- How will you attend to processes that make an action plan successful?
- How will you see the Project Vision team and the SMEs as an advocate for advancing technological education and training? The Project Vision team can be your advocate to promote buy-in and advocacy from administration of your institution if needed.

MENTEE COLLEGE TEAM [1]
HINTS FOR A SUCCESSFUL PROJECT VISION TEAM and SME(s) RELATIONSHIP

- **Communication.** Talk with your Projection Vision Team and SME prior to the project-planning meeting (Pre-Visit) and regularly thereafter.
- **Respect.** Show appreciation for Project Vision Team and SME's expertise and experience and get an understanding of ATE and other DUE funding.
- **Preparation.** Be prepared for each meeting with the Project Vision Team and SME.
- **Universality.** Be open to the other points-of-view and appreciate the "big picture" of the ATE program nationally. Since every college is different, there will be no single perfect model.
- **Optimism.** Do not expect the Project Vision Team and SME to know how to fix every problem for you. Be open to change or innovation and to new strategies, if necessary. Look for solutions.
- **Flexibility.** Have a general plan of what you want to see happen at each stage but be adaptable. Change is inevitable.
- **Politics.** Be realistic about history, factions, people, and power relations that can affect your project positively or negatively.

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- **Process.** Think about community building as you develop and implement your project and funding proposal. Relationships are important to its longevity and sustainability. Make everyone a stakeholder.
- **Content.** Remember the overriding National Science Foundation project goals: to help colleges develop or strengthen technician-training programs in science, technology, engineering, and mathematics fields.

1. **Reference Cited:** Mentoring Guidelines: AACC/NSF MentorLinks Program

Suggested Roadmap for Project Vision Team and SMEs

Adequate, carefully designed, implemented planning is paramount and critical to success of ATE/DUE grant development proposal, ultimately leading to success of Project Vision. It is important that the Project Vision team, SMEs, and the Mentee College Team members work efficiently and effectively throughout the life cycle of this newly funded ATE grant. Before expanding on defining this roadmap, refer to Project Vision's "Pre-Visit, Visit, and Post-Visit" document, which informs the processes that Project Vision will use to promote active engagement of mentee college in joint strategy development for advancing the goals and objectives of Project Vision. The following road map should help the Project Vision team and SMEs to plan our work and advance Project Vision priorities:

1. Within the first quarter, an initial meeting will be held with the PI/Co-PIs, audit team members, and evaluator to align interest with the five participating schools and design initial forms, processes, and statements (e.g. Conflict of Interests; Confidentiality). A point of contact will be identified at each school and within the Project Vision team.
2. Monthly office hours will be held with the site team to discuss updates and concerns. This will not be an obligation and may vary in frequency across the lifetime of the project but should target some level of regularity as to maintain momentum.
3. Project Vision team plans to
   a. Develop a web portal with an application for interested colleges, success stories, and a mechanism for audit team members to sign up and discuss audit visits.
   b. Co-present yearly at presidential conferences with ambassador presidents.
   c. Provide guidelines and material to mentor college presidents to invite the next generation of presidents into the Project Vision pipeline.

Working with Presidents/Boards, Mentee Colleges, and Admin/Faculty Engagement

To provide DUE expertise to the participating colleges, Project Vision will send a team on an audit visit to each college. Specifically, each visit will consist of at least one PI/Co-PI, a discipline expert from the DUE community, and the staff grant writer. Audit visits will be 2-3 days and include the following:

- Meetings - Pre-Meeting: Homework for Colleges - must complete Project Vision designed packet and arrange requested meetings - reviewed by Project Vision team.
  - Day 1: College Senior Administration, STEM program deans, finance, grants office, and member BOT.

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- Day(s) 2 (and 3): Industry leaders and members of regional Economic Development Organizations, key faculty, and department chairs. Tours of facilities and regional opportunities (such as key industry partners).

- Post-Meeting Deliverables
  - Report to College - Project Vision team will develop a formative detailed report on innovation opportunities matching each college's strategic plan and strengths to emerging technology and possible DUE funding. The report will include a recommendation of the college's specific STEM program and suggested topics to focus on correlating to specific ATE and/or DUE program funding, identified institutional gaps that would prevent funding, a step-by- step project plan, and a personalized list of resources and contacts for college administrators and faculty (i.e. prospective Principal Investigators) to further their learning and ability to formulate fundable ideas and convert those into proposals.

- Formulation of innovative idea - The Project Vision team will not prescribe an idea for a proposal, as that would be counterproductive to the input effort needed by college personnel to build their own mentality and capacity to continually generate fundable ideas and convert those into proposals and it would take away the "ownership" aspect needed of committed PIs. Project Vision, however, will collaborate with each college and guide the idea generation and assessment process until all parties are in agreement on the formulated idea which will be converted into a full DUE proposal.

- Identification and connection to current discipline-specific DUE work - Once the idea is formulated, the next step of the plan towards a complete proposal is to make the new prospective PIs aware of existing DUE awardee work related to their idea from which they can build. Project Vision will coach the aspirational PIs in how to search the current DUE awards, then will act as the conduit in connecting the identified DUE awardees to encourage sharing and collaboration.

- Support grant writing - At the launch of Project Vision, the team (PI, Co-PIs, discipline experts, staff grant writer, and external evaluator) will meet for two days to develop the pre-meeting assessment packet, the run-of-show and checklists for the site visits, and the recommendation report template, along with a Code of Ethics (including confidentially) and Conflict of Interest statements for the audit team.

- Developing the Grant Proposal - Project Vision (and/or above identified SME/Mentor) will support college personnel in the grant-writing process through the submission of their first DUE proposal. The aim of Project Vision is to build colleges' internal capacities to continually submit DUE proposals, and a very big milestone is the first proposal submitted. Project Vision will employ a seasoned grant writer/administrator responsible for both outcomes. This person will coach and help develop the individual and collective capabilities of college personnel to communicate the value of a formulated idea, onboard necessary partners, dissect a DUE proposal into manageable sections, create action plans, and ultimately complete a competitive DUE proposal.

  During the audit visit, this person will review the college's readiness for DUE funding, identifying any gaps while building rapport with the college's personnel. This will not only help ensure the first proposal submission to DUE but that colleges build the internal capacity

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to continually submit. An additional benefit of having a dedicated staff grant writer/administrator, besides supporting colleges' capacity building and ensuring the mission does not disintegrate during this often daunting stage, is to help quickly validate the Project Vision and establish success stories, which will help garner additional presidential support and confidence by college personnel that following the process will lead to positive outcomes.

- Growing the internal capabilities of Mentee College Team - Project Vision team will mentor and network college presidents, administrators, faculty, and staff to grow their internal capabilities of regularly generating original ideas and converting them into fundable proposals.

  Mentoring and networking build the capabilities of presidents and executive administrators along with division administrators, faculty, and staff. By uniting in the mission to develop NSF DUE expertise college-wide but separating to build individual capabilities, a college develops the next generation of leaders and cultivates a culture with a growth mindset.

Mentoring and networking for college presidents and executive administrators

DUE projects encompass each of the four major areas that college presidents report as occupying most of their time: fundraising, budgets, community relations, and strategic planning, with "fundraising (being) the area presidents stated they were least prepared to address when they began their presidency." Mentoring will focus on an understanding of DUE and how the most successful colleges develop their human resources and integrate DUE into their strategic plans while overlaying and developing the aforementioned four areas that college presidents found time consuming, which was confirmed during the research phase of Project Vision investigation and proposal development. Mentoring with this group will occur:

- <u>During the selection and onboarding process, audit visits, post-visit recommendation communication, and idea formulation</u>. These activities will build rapport for the next steps of mentoring while developing the broad strokes of a DUE idea with buy-in from senior administration so that the college personnel feel confident that what they pursue will gain approval.

- <u>One-on-one.</u> Following the passing of the agreed upon DUE idea to pursue to college personnel, besides making themselves readily available, the Project Vision PIs will connect every two months with each college's president and executive administration to answer any questions, review their comfort and capabilities with specific items per the sequence in the capacity and capability checklist (developed during the project's first quarter and continually refined), and provide guidance and resources where appropriate.

- <u>As a cohort</u>. A cohort model will compound and solidify the results of the mentoring received by the PIs, as college presidents and executive administrators can share with, teach, and encourage each other to a great and different degree than the structured mentoring. To facilitate these connections, each president involved will agree (including current agreement from the initial five pilot presidents) to have a presence at NSF meetings including the ATE PI conference where a pre- conference Special Interest Group (SIG) will be hosted. Further, a bi-monthly call will be held for each cohort with the capacity and capability checklist being the basis for the agenda while allowing college presidents and executive administrators to discuss and receive feedback on their designs, challenges, and successes.

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- Networked to the DUE community. Participation in NSF meetings will be one method for connecting this group to the DUE community, the other being individual recommendations and introductions to DUE awardees based on mutual interests.

Mentoring and networking for division administrators, faculty, and staff (DAFS)
A great deal of effort will be devoted to build the capabilities of DAFS. These professionals will ultimately generate ideas for DUE, plan the details, write the proposals, serve as Principal Investigators, implement the projects, and manage the fiscal responsibilities. Both the executive and division leaders are necessary to develop a college's culture and holistic capability to pursue and implement DUE projects, though it is important to recognize and address the day-to-day responsibilities of the faculty and division heads (serving as PIs and implementing projects) and the grant office personnel. With those responsibilities in mind, mentoring and networking for DAFS will include:

- The selection and onboarding process, audit visits, post-visit recommendation communication and collaboration in the idea formulation.

- A Professional Development (PD) series. This quarterly webinar with pre- and post- follow up will consist of three parts:
  1. The PI/Co-PIs will host sessions on creating a growth mindset to identify opportunities, formulate ideas, and maintain momentum through the proposal and award periods.
  2. In conjunction to the work being performed by the staff grant writer/administrator, a focus will be on communicating the value of a formulated idea, onboarding necessary partners, dissecting a DUE proposal into manageable sections, creating action plans, and ultimately completing a competitive DUE proposal.
  3. The DUE community will provide examples and contribute their experiences, knowledge, and resources.

Follow up with the best practice initiatives to help institutions maintain momentum and continue to grow in DUE fields. Project Vision will initiate contact with each institution prior to milestones and will remain available to answer questions, receive feedback, and provide guidance, resources, and connections to help each institution maintain momentum and continue to grow in DUE fields.

A repository of information. The repository will include a systematic process with all the information to take a college from unaware-of-DUE to DUE-proposal. Much of this information can be pulled and repurposed from already created material by current DUE awardees and specific DUE program guidelines; additionally, new pieces needed will emerge as the project progresses. This will be housed on the Project Vision website and accessible on demand. While this element lacks the audit team alleviating college bandwidth and expertise obstacles, it serves the dual purposes of allowing the colleges to refer to needed information or steps, and it will be available for all colleges that may have the appropriate resources to proactively seek DUE funding themselves.

Networked to the DUE community. Networking includes:

- Participation at NSF meetings, particularly the ATE PI Conference.

- Individual recommendations and introductions to DUE awardees based on mutual interests. This element will be greatly expanded by guiding the division administrators, faculty, and staff through the process of searching for relevant DUE awardees and

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helping them develop a systematic approach to identifying and adopting available DUE resources and connecting with others working in their fields.

- DUE community contribution to the professional development series, opening opportunities for the Project Vision two-year colleges to meet others in their specific communities e and continue to grow in DUE fields.

Project Vision team will mentor college Board of Trustees (BOT) on the nature and impact of NSF DUE programs, impart the importance of discussing DUE in presidential searches, and demonstrate how to support college presidents during the first-year transition and beyond in incorporating DUE opportunities to strategic plans.

Project Vision team recognizes that the traditional role and expectation of a community college president/CEO has drastically shifted due to economic challenges and influences that their respective colleges encounter. Project Vision team will coach and mentor the BOT by promoting its active engagement and involvement in professional development activities. These heighten the understanding of alternative sources of funding available for its respective institutions (ATE and other DUE funding). In turn, the BOT will encourage and inspire its president/CEOs to create excitement and active engagement opportunities for administrators, faculty, and staff to initiate and support visioning and ideation opportunities to pursue such funding as ATE or other DUE funding in support of programs that aligns with advancing the strategic priorities of their respective institutions.

BOT should understand and internalize that preparing a college for continual DUE awards is not only beneficial for the funding; it also helps the college by enabling leadership teams, setting direction and influencing the college's administrators and faculty culture, introducing new networks and resources for administrators and faculty, providing better educational experiences for STEM students and tighter bonds with local industry, and generating positive press and public relations. BOT encouraging and supporting their college presidents will be a low-cost way to scale Project Vision's effort of increasing DUE exposure and the number of new colleges applying for DUE funding.

Project Vision will address this opportunity and create solutions by means of a multi-tiered approach.

- Project Vision will research college president searches and survey BOT having overseen recent college president selection (initially with the five colleges in the inaugural pilot group plus another five unrelated colleges) to inquire about their interview questions regarding grants and fundraising and about their own knowledge of the NSF DUE. BOT will relate their understanding of the information and their desire for more information and/or a workshop to increase their understanding about grant fundraising and specifically NSF DUE program.

- Project Vision will create a multimedia package specifically for BOT. This will include printed overview information, case studies and research, and a short video series from college presidents attesting to the value of NSF DUE programs.

- A PD session will be developed on how to help BOT understand the process and impact of DUE funding on a college, add this in their evaluation and/or selection criteria, and support college presidents during the first-year transition and beyond in incorporating DUE

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opportunities to strategic plans. The PD session will be offered at the Association of Community College Trustees (ACCT) events.

- The PI/Co-PI team will offer BOT one-on-one consultations.

Evaluate the effects of these interventions and publish Case Studies and Academic Research on the value of idea formulation, resident and personnel mentorship and networking, Board of Trustee support, DUE and developing the next generation of leaders, and from zero to DUE. **In addition to** the main objectives, there is the opportunity to conduct a rigorous assessment of change at institutions, capture stories of overcoming challenge and succeeding in developing cultures with growth mindsets and DUE expertise, and communicate these lessons by means of published Case Studies and Academic Research.

Moreover, each college will be provided its own case study which shows the results from having been involved in Project Vision, including

- the change in DUE proposal knowledge, confidence, and capabilities of a college's president, executive administration, division administration, faculty, and grant staff
- effects of networking with the DUE community and the results on college personnel and STEM students of the first and subsequent DUE proposals (which will be updated as projects receive merit review decisions and implementation over the course of the Project Vision five-year period)

Collectively, these Case Studies should help maintain momentum and solidify the culture change being enacted, especially as new college faculty and staff arrive. Finally, Case Studies will focus on the maturity level at each institution and how this affects the development, germination, funding, and implementation of innovative ideas.

The external evaluator will be responsible for collecting these many data points. This data collected from the independent third party will provide measures of these changes within and impact upon each college due its involvement in Project Vision and subsequently as a recipient of DUE awards. Project Vision will package this quantitative and qualitative data to tell the stories of the impacts upon a college due to involvement in the DUE program. Each college will have its own Case Study plus Academic Research will come from the collection of data studying the effects and value of idea formulation, president and personnel mentorship and networking, BOT support, DUE and developing the next generation of leaders, and from zero to DUE. These Case Studies and Academic Research papers will be shared with community college presidents and administrations by a multifaceted distribution strategy via individual connections, published journals, and leadership conferences like ACE, Aspen, AACC, and ACCT.

Logistics

Project Vision logistics is governed and informed by a multi-phase processes (Pre-Visit, Visit, and Post-Visit information packet). See, next page:

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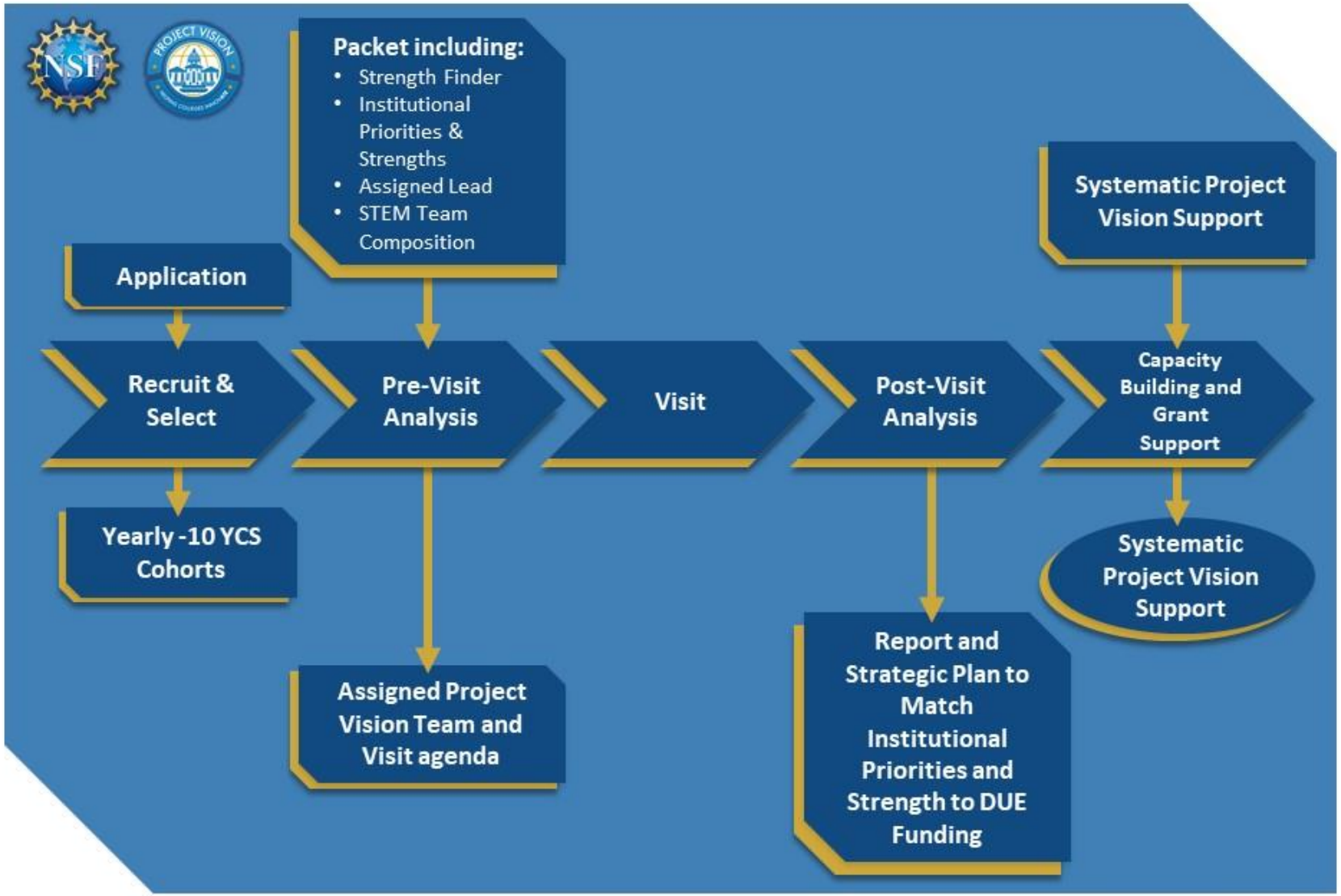
Project Vision – Process Flow Chart



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Mentee Site Visits

Mentee College Site visit agenda and specifics will be informed and framed by the pre-visit narrative that the Mentee College Team prepares and submits in advance of site visit. This narrative provides the Project Vision Team with a snapshot narrative of mentee college. This narrative also helps frame the Project Vision team's understanding of mentee college's background and history in areas such as organization/operation/planning/structure, administrative commitment and support, faculty involvement and engagement in visioning, ideation, innovation, key industry partnership, training/program development, commitment to student success agenda and equity/inclusion/social justice, effectiveness of institutional change, and institutional commitment to sustainability.

Upon reviewing mentee college's narrative, Project Vision Team will develop a summary document, which provides a composite picture of mentee college. Project Vision Team will use this summary document to jointly (a) initiate the development of details related our site visit logistics, which will lead to strategy development and (b) expand upon a dialogue with the mentee college and external stakeholders after the post visit in our collective journey.

Logistics Regarding Site Visit

Developing Meeting Agenda during the Mentee College site visit for Project Vision Team

A sample meeting agenda should include meeting with the following individuals during the Project Vision Team visit with the Mentee College Team.

Who	Why-Purpose	Anticipated Deliverables
Meeting with President/CEO		
Meeting with President/CEO BOT designees		
Meeting with President's Cabinet or Executive Leadership Team'		
Meeting with Mentee College Team		
Meeting with Key Industry Partners		
Joint Meeting with Mentee College Team and Key Business and Industry Partners		
Tours of Facilities and Industry Partners		

The site visit agenda will be designed for a two- or three-day site visit to mentee college. Meeting agenda should be developed in collaboration with the Mentee College Team, depending on what Project Vision Team understands from the snapshot narrative document (pre-visit narrative from mentee college) and audit report.

In designing the meeting agenda, topics such as Orientations, Training, and Mentoring (coaching) of stakeholder should be considered and included.

The site visit team will be populated by at least two members of Project Vision's administrative team of PI, Co-PIs, and/or Project Manager. The third member of the audit will be an SME

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selected through strategically conducted matching process that includes review of StrengthsFinder and DiSC analysis where relevant, targeted STEM fields, area of expertise, historical experience, and geography.

Arranging for Travel
As Project Vision launches during the height of the COVID-19 crisis, this section will remain dynamic. Traditionally, ground and air travel are both acceptable at IRSC negotiated rates. Travel arrangements can be made by the Project Vision manager or by each individual.

Reimbursement for Travel
Please work with Project Vision's manager for reimbursement. Project Vision follows IRSC's travel reimbursement policy which will be separately provided to all traveling parties.

A General Primer on NSF Grant Proposals

Introduction

The National Science Foundation (NSF) was established by Congress through the National Science Foundation Act of 1950 "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense..." (1). The agency provides approximately 25 percent of the total federal funds to U.S. colleges and universities to support basic research across nearly all fields of science and engineering (S&E), in addition to supporting innovation in STEM education and workforce development. In fiscal year 2020, the annual NSF budget was $8.3 billion, with more than $1 billion being invested in STEM education and workforce development. Through its history, NSF has supported research efforts of more than 240 Nobel Laureates.

Programmatic efforts at NSF are organized by Directorates with foci on specific areas within STEM (e.g., Directorate for Engineering [ENG] and Directorate for Mathematical and Physical Sciences [MPS]). Within each Directorate are Divisions that further narrow the focus on areas in the STEM enterprise (e.g., Division of Electrical, Communications and Cyber Systems [ECCS] within ENG and Division of Physics [PHY] within MPS).

While this primer on preparing NSF grant proposals has broad applicability to many programs across the agency, Project Vision is focused on working with college partners to build institutional capacity toward the outcome of receiving support from programs in the Division of Undergraduate Education (DUE) within the Directorate for Education and Human Resources (EHR). Please keep in mind that this document only addresses foundational aspects of proposal preparation and does not delve into fine details. It is meant to be a starting point to prepare college teams that collaborate with Project Vision for the task of preparing competitive NSF grant proposals. The fine details of proposal preparation will be approached as part of the collaborative process between team members of Project Vision and the college.

In particular, the primary focus of Project Vision is to align institutional efforts and STEM workforce development opportunities with the Advanced Technological Education (ATE) program (2), which is administered within DUE. By mandate from Congress in 1992 (3), the ATE program was established to support endeavors that promote technician education in two-year

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colleges, with an aim to supply highly qualified talent to the nation's STEM workforce, a driver of the U.S. economy.

Aspects of Proposal Development

The table below provides some high-level considerations that parties interested in pursuing NSF grant funds are recommended to keep in mind. This is in no way intended to be an exhaustive list but is simply a set of important issues to consider when deciding whether to prepare and submit a proposal to NSF.

Important Considerations when Preparing NSF Grant Proposals
1. A Valid Need for Support is Identified: A proposal must provide convincing evidence that an opportunity exists that could advance an important initiative in STEM education and/or workforce development by leveraging NSF grant funds. Furthermore, it is essential that a request for support is submitted to the appropriate NSF program with a mission to address the type of need identified.
2. Institutional Fit & Readiness: A proposal must demonstrate that the institution is in a position to address the opportunity that has been identified to advance STEM education and/or workforce development and either already possesses the resources or can develop the necessary resources with the grant support. These resources include infrastructure (classrooms, labs, equipment, etc.), administrative commitment, and other human resources.
3. Faculty Buy-In: As the majority of effort associated with nearly all endeavors in advancing STEM education and workforce development is shouldered by faculty members, it is imperative to ensure that key faculty members from the STEM disciplines support the proposal and contribute to, preferably by *leading*, its development..
4. Alignment with College Priorities: Whenever possible, proposals should reflect alignment with **existing** college priorities, as stated in a strategic plan or other institutional documents or mission-focused endeavors.
5. College Partners: Depending upon the nature of the proposed work, either existing partners outside the college or developing new partnerships could strengthen a request for NSF support. Entities such as industry advisory boards are especially important to inform and support proposals to the ATE program (more information below).
6. Professional Development: Project Vision will provide some professional development for teams **involved** in crafting an NSF grant proposal. However, the initiative outlined in the proposal may also benefit from future or ongoing professional development for participants. Devoting college resources to professional development activities is valuable.
7. Ability to Sustain the Initiative: Strong proposals include a sustainability plan that ensures any endeavor put into place with NSF funds does not lose momentum or even disappears after the grant expires. Demonstrating commitment of institutional resources and support to provide for ongoing project/program needs after the NSF funding ceases is very important.

NSF makes funding opportunities known and available to communities of scholars and innovators via four primary mechanisms. These include: (1) program solicitations, (2) program descriptions, (3) program announcements, and (4) Dear Colleague letters. For programs managed by DUE, details regarding the opportunities are disseminated primarily through program solicitations. Of the various mechanisms mentioned above, program solicitations are the most prescriptive, typically defining budget limits, required proposal content, restrictions on numbers of proposals

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from a given institution, etc. Regardless of the source from which a funding opportunity is derived, it is critically important to read the program solicitation or other notice of the funding opportunity thoroughly and to adhere to the guidelines and requirements with very high fidelity.

Similarly, it is crucial to follow the guidance and requirements for NSF proposal preparation found in Part I of the *NSF Proposal and Award Policies and Procedures Guide* (PAPPG). https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg

The PAPPG provides detailed guidance, requirements, and restrictions with regard to proposal preparation (Part I) to seek funding and award administration (Part II) once a grant is awarded. With regard to proposal preparation, the PAPPG provides details that include everything from the required sections that must be included in a proposal to issues such as font size and line spacing. It is imperative to consult the PAPPG throughout the development and preparation of an NSF grant proposal to ensure full compliance with NSF standards and requirements.

Reiterating this advice, it is vital to read, understand thoroughly, and consult often the source that announced the funding opportunity. As noted above, for DUE programs this is most often a program solicitation. Whereas the PAPPG provides guidance from a global perspective of a grant proposal, the program solicitation offers information and guidance at the level specific to the particular program to which a proposal is submitted. Between the PAPPG and the program solicitation (along with any sources referenced within those two documents), the information necessary to inform and guide the process of proposal development is made available. It cannot be overemphasized how important it is to consult and follow those two documents with high fidelity.

Understanding the NSF Merit Review Criteria and Proposal Processing

Regardless of the Directorate, Division or program at NSF to which proposals are submitted, decisions concerning funding (whether to award a grant or not) are made by following the same procedure. Each proposal that NSF processes is reviewed according to the two Merit Review Criteria of Intellectual Merit and Broader Impacts. All NSF proposals *must* explicitly address each of these two criteria. Thus, possessing a solid understanding of the proposal review process employed by NSF is imperative to frame the transformation of innovative ideas in STEM education and workforce development into a compelling grant proposal.

Furthermore, nearly all proposals submitted to DUE programs are reviewed by panels made up of peers from academic institutions, industry, and professional organizations. These panelists are instructed to prepare reviews of each proposal they are assigned, framing the reviews in the context of the Merit Review Criteria. In addition to the written review, based on the overall impression of the reviewer, each proposal receives a rating of Excellent, Very Good, Good, Fair, or Poor. These individual reviews and ratings are completed prior to when a panel convenes to discuss each of the proposals assigned to it, although it is not uncommon for ratings of some proposals to be adjusted after the panel has discussed it. There is no "overall" rating for a proposal.

After the review process has been completed, the Principal Investigator (PI) will receive the individual reviews (anonymized) and ratings for his or her proposal, in addition to a set of comments from the managing NSF Program Officer in charge of processing the proposal. Generally, the PI will also receive a panel summary that captures the essence of the discussion of the proposal by the panel.

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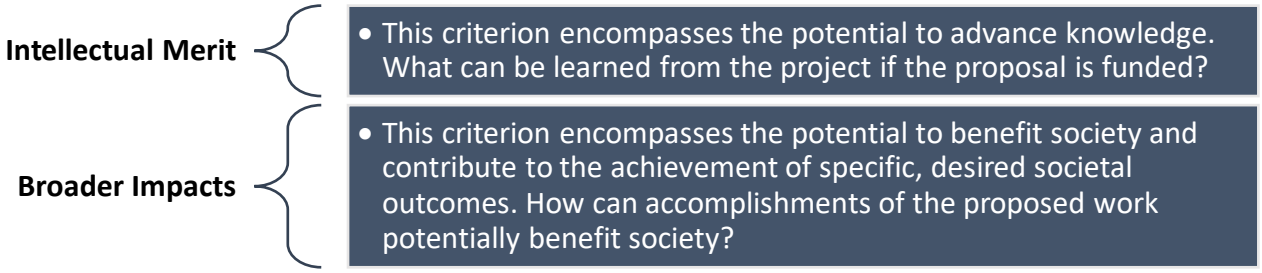
A brief summary of the Merit Review Criteria follows and draws upon direct language from the PAPPG (4). However, for deeper insights into the trajectory of a proposal that is processed at NSF, a thorough explanation of the NSF Merit Review process can be found here:
https://www.nsf.gov/bfa/dias/policy/merit_review



Each criterion is reviewed according to the framework built by the **five following elements**:

1) What is the potential for the proposed activity to: (a) Advance knowledge and understanding within its own field or across different fields (Intellectual Merit) and (b) Benefit society or advance desired societal outcomes (Broader Impacts)?

2) To what extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?

3) Is the plan for carrying out the proposed activities well-reasoned, well-organized, and soundly based from a rationale standpoint? Does the plan incorporate a mechanism to assess success?

4) How well qualified is the individual, team, or organization to conduct the proposed activities?

5) Are there adequate resources available to the PI (either at the home organization or through collaborations) to carry out the proposed activities?

The descriptors found above, associated with the Merit Review Criteria, make it clear that NSF expects all projects to contribute to the knowledge base in their particular fields; after all, the NSF slogan is "Where Discoveries Begin" (5). In addition to advancing knowledge through the work, it is also important for a proposal to demonstrate how the degree of success of the proposed endeavor will be determined (From item 3 above: Does the plan incorporate a mechanism to assess success?).

This reference to assessing the success of a project is not to be overlooked, as it points to a need to include an evaluation plan in the proposal. The project evaluation should be conducted by a qualified independent evaluator who is external to the project (not a stakeholder whatsoever). It is important to identify a project evaluator early in the process. He or she should contribute to the development of the proposal to ensure that the envisioned goals, objectives, and intended outcomes are measurable and map to the project evaluation. A couple of resources to gain insights on project evaluation are found by following the two links immediate below:
https://www.evalu-ate.org
https://www.evalu-ate.org/wp-content/uploads/formidable/Doc_2010_NSFHandbook.pdf

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Specific Advice for Proposals Submitted to the ATE Program

While other NSF programs may ultimately prove to fit well at colleges partnering with Project Vision, as noted above, the program at the focal point of the endeavor is the ATE program. It will be the first opportunity explored as a potential source of NSF support. Among other program tracks, the ATE program provides grants to institutions that award two-year degrees in technology areas to establish new programs or to enhance existing programs that serve workforce partners in a high-tech field(s). Some of the fields supported by the ATE program include advanced manufacturing technologies, agricultural technology, biotechnology, chemical technology, energy and environmental technologies, engineering technology, information technology, micro- and nanotechnologies, security technologies, and geospatial technologies. The ATE program also focuses on building pathways between levels of education (e.g., high schools to two-year colleges and two-year colleges to four-year institutions) to facilitate the production of highly skilled technician-level professionals.

An *essential* aspect of successful ATE proposals is to demonstrate a need within STEM workforce development that has been *validated* by industry partners engaged in the process of proposal development. Perhaps a sector within the high-technology workforce in the service area of the college has already been identified that is in need of qualified entry-level professionals that could be provided by a new or fortified program at the college. Such an opportunity has the potential to serve as the core of an ATE proposal. However, if no such alignment of industry needs with college potential has yet been made, then this website may be of value to identify a potential industry sector in the vicinity of the college:
http://www.clustermapping.us

Proposals that do not demonstrate industry involvement have very low likelihoods of success, so it is important to engage business and industry partners early in the proposal-development process. As such, it is strongly recommended to engage an existing industry advisory board or assemble a new industry advisory board to inform an ATE proposal. Proposed development of programs and curricula supported by ATE grants must convince reviewers that the new endeavor is meeting industry needs.

Exploring what other colleges have done with ATE grants is a fine way to germinate ideas. A pair of resources that can provide insights into recent ATE investments are:
https://atecentral.net
https://www.nsf.gov/awardsearch/advancedSearchResult?ProgEleCode=7412&BooleanElement=Any&BooleanRef=Any&ActiveAwards=true&#results

Concluding Remarks on ATE Proposals

Reiterating and summarizing advice previously stated, when preparing a proposal for submission to the ATE program, these three principal elements of broad framework should be followed:

1. **Refer to the PAPPG frequently** to ensure how to conform to requirements and prepare correctly the content mandatory for inclusion in nearly all NSF proposals. These include seemingly mundane issues of page size and margins to elements critical to a specific proposal such as developing a budget or preparing biographical sketches for senior personnel.

2. **Read and follow the content of the ATE Program Solicitation**. This document should be a core resource of any endeavor to prepare an ATE proposal. It contains a wealth of information

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with regard to the details and nuances of the ATE program, in addition to the specific requirements, restrictions, and limitations associated with the program that must be observed when crafting a proposal.

3. **Engage industry and other potential partners** in the planning stage of any ATE proposal. As the focus of the ATE program is the STEM workforce, it is critical to ensure the request for funds is founded on a need for skilled technical employees, as validated by industry partners. While partners from specific companies that may be facing challenges to fill technician-level positions are key, other partners may also be strategic and valuable. For instance, local Workforce Investment Boards or similar regional entities curate valuable information on the high-technology workforce and employment therein. Furthermore, for projects that may involve building educational pathways into the workforce across different levels of education, engaging key partners in high schools and transfer institutions could turn out to be indispensable.

Institutional Infrastructure

In addition to the important work to generate the ideas to inform a proposal and the actual preparation of the proposal, technology infrastructure is required to transmit a final product to NSF. To create and submit proposals, NSF employs two internet portals: **FastLane** (https://www.fastlane.nsf.gov) and **Research.gov** (https://www.research.gov). In general, FastLane is primarily used for submitting proposals, and Research.gov is used for administrative purposes after a grant is awarded (submitting reports, etc.), although Research.gov has limited capacity for proposal submission. As of this writing, it is recommended to use FastLane to submit proposals to DUE programs. However, going forward that recommendation could evolve, as NSF may continue to migrate a greater proportion of functionality and proposal-related activity to Research.gov.

A preliminary step that must precede the use of FastLane or Research.gov for the preparation and submission of NSF proposals is to ensure that the institution is registered with NSF. It is important to check with the appropriate individual(s) within the college administration to verify whether an organizational NSF account exists. If it is determined that the college has not previously registered with NSF, then an individual at the college, deemed to be responsible for managing an NSF account, should visit Research.gov to register for an account (acquire an **NSF ID**). Once this individual has registered for a personal account by acquiring an NSF ID, he or she can register the college with NSF by following the procedures found here:
https://www.research.gov/common/attachment/Desktop/Single_ID_Help.pdf#page=12.

If it is uncertain whether the institution has an NSF account, then the first step in the process should be to visit this webpage:
https://www.research.gov/accountmgmt/assets/welcomeregistration.html.

Assistance with this process can be found in this extensive support document:
https://www.research.gov/common/attachment/Desktop/Single_ID_Help.pdf

Additionally, any individual who may be navigating NSF proposal and grant-related activities on behalf of the college, *aside from* the administrator of the college NSF account (e.g., an intended Principal Investigator for a proposal), should have his or her own personal NSF account (NSF ID) as well. This should be done *after* determining whether the institution has an existing NSF account

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(and establishing an NSF account if none yet exists), as the registration of an individual will generate an email message to the manager of the organization's NSF account to approve or deny the new individual account. This individual account registration can be done here: https://www.research.gov/accountmgmt/#/registration

In addition to securing NSF accounts for the college and specific individuals who may need access to FastLane and Research.gov, it is valuable for key college personnel to understand various standards NSF expects organizations to uphold regarding the management of grants in advance of receiving an award, especially with respect to financial matters. Any institution that has never received NSF support or for which five calendar years have passed since the end-date of its most recent award should expect to provide basic information to the NSF Office of Budget, Finance and Award Management regarding information on organization and management and certifications. NSF provides thorough guidance to institutions on issues such as financial viability, allowable costs, sub awards and much more via the Prospective New Awardee Guide (NSF 20-32), which can be accessed here: https://nsf.gov/pubs/2020/nsf20032/nsf20032.pdf.

References Cited

1) Online at https://www.nsf.gov/about (accessed June 26, 2020).
2) Online at https://nsf.gov/ate (accessed June 26, 2020).
3) Online at https://www.congress.gov/bill/102nd-congress/senate-bill/1146 (accessed June 26, 2020).
4) Online at https://www.nsf.gov/pubs/policydocs/pappg20_1/pappg_3.jsp#IIIA2 (accessed June 26, 2020).
5) Online at https://nsf.gov (accessed June 26, 2020).

Professional Development for Mentee Colleges

Project Vision will provide access and analysis for Mentee College Team members for:

- StrengthsFinder --https://www.gallup.com/cliftonstrengths/en/strengthsfinder.aspx
- Emotional Intelligence -- https://globalleadershipfoundation.com/geit/eitest.html

This analysis combined with the growth process implemented by Project Vision's mentor team will help each mentee college with:

- Formulating and matching innovative ideas to identified funding opportunities
- Developing strategic partners for grant proposals
- Leveraging an NSF award to create a college culture that pursues grant funding

Appendices

- Appendix A - What is Mentoring?
- Appendix B - Pre-Visit, Visit, and Post-Visit Packet
- Appendix C - Grant Development Rubric (one sample) and Sample Grant Proposals URLs

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APPENDICES

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Appendix A[2].

What is Mentoring?

The Merriam-Webster Dictionary defines mentor as a trusted counselor or guide. A mentor is an experienced individual who guides another individual's development. The mentor's role is to guide, to give advice, and to support the mentee. A mentor can help a mentee improve his or her abilities and skills through observation, assessment, modeling, and guidance.

Mentoring is an effective method of helping inexperienced individuals develop and progress in their profession or a particular initiative or project. More specifically to Project Vision, the PI, Co-PI, and SMEs have ample opportunities to mentor the Mentee College Team members. The keys to establishing a successful mentoring relationship include creating a relationship of trust, clearly defining roles and responsibilities, establishing short- and long-term goals, using open and supportive communication, and collaboratively solving problems.

Benefits of Mentoring

There are many benefits to successful mentoring relationships:

- Mentees are able to learn and grow under the mentor's guidance.
- Mentees are able to experiment with creative solutions to problems within a safe and supportive environment.
- Mentees become stronger and intentional in their coaching and guiding mentee(s).

Successful Mentoring Relationship

There are four keys to establishing successful mentor-mentee relationships.

1. Develop a Relationship of Trust
    - Relationships need to be built before any effective mentoring can take place. An environment of trust and mutuality must be established. It is important for the mentor and the Mentee College Team to become acquainted with each other.
    - Begin each relationship with a getting-to-know-you session.
    - The mentor should greet the Mentee College Team warmly and help the Mentee College Team to identify their institution's needs and goals (project).
    - The mentor should learn about the Mentee College Team educational background and experience and share information about his or her own background and experience.
    - The mentor can then continue to build upon the mentee's strengths, needs, and goals throughout the mentoring period.

2. Define Roles and Responsibilities
    - Clearly define the roles and responsibilities of both the mentor and the Mentee College Team. Typically, the Mentee College Team is more receptive to feedback if they feel like an active participant in the relationship and are fully engaged from the get-go. Some questions to consider include:
        - What will the role of the mentor be?
        - What types of mentoring will be most effective?
        - What are the responsibilities of the Mentee College Team and mentor? For example, the Mentee College Team may be required to attend specific training given by the mentor or complete a certain number of mutually determined goals during the mentoring period.

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3. Establish Short- and Long-Term Goals
   - Take time to establish short- and long-term goals. Mentors and the Mentee College Team should work together to develop mutually agreed upon goals. These goals become the basis for the mentoring activities.
   - Mentors need to provide constructive feedback to the Mentee College Team on goal setting, progression, and proposal development for the mentee college. Open, respectful, and supportive communication is essential to this process and should include the following:
     - Active listening. Mentors must be skilled at actively listening to concerns. Feelings are important, and greater trust is established when the Mentee College Team feels they can safely share thoughts and feelings with the mentor.
     - Timing is everything. Mentors must be sensitive to the timing of feedback. If emotions are high or the Mentee College Team seems defensive, mentors need to back off and reschedule another time for giving feedback or address the perceived barriers.
     - Value each other's feedback. Even experienced coaches/mentor can learn new ways of thinking and doing things. Mentors and the Mentee College Team must value and be responsive to each other's feedback.

4. Collaborate to Solve Problems
   - Be collaborative in solving problems. Mentors need to allow the Mentee College Team the opportunity to identify concerns and potential solutions. Mentors should encourage the Mentee College Team to take risks and use alternative methods by implementing creative solutions. Mentors can improve the outcome of their mentoring by doing the following together:
     - Identify the specific concern.
     - Brainstorm possible solutions. The mentor can offer ideas, but the Mentee College Team should be allowed to choose which plan to put into action.
     - Select a plan to try and discuss desired outcomes.
     - Implement the plan. The mentor should be supportive and encouraging, reinforcing the successful completion of the plan.
     - Assess the outcome together. The mentor and the Mentee College Team should be reflective, discuss the effectiveness of the activity, and make adjustments as needed.
     - Try alternative solutions, if needed. It is important for mentors to remember that there are many different ways to address an issue and that the mentor's way may not be the most effective solution for the Mentee College Team.
     - Celebrate successful results.

Successful Mentor/Mentee Relationships

Successful mentor-mentee relationships should be fulfilling and beneficial for all involved. Use these ten tips for a more effective and productive relationship:

Helpful Hints and Tips	**Mentor Role**	**Mentee Role**
1. Keep communications open	Help the Mentee College Team set realistic expectations. Also, if you know you will be unavailable because of business or personal travel, let them know.	Be upfront. Let your mentor know what your goals are and what you hope to take away from the program.

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2. Offer support	Encourage communication and participation. Help create a solid plan of action.	Remember that your mentor is there for you but is only a guide.
3. Set the stage by defining expectations	Help set up a system to measure achievement.	Review your goals. Make sure your mentor knows what to expect from you.
4. Maintain routine contact	Respond to your e-mails. Answer questions and provide advice, resources and guidance when appropriate. Use appropriate mode for communication.	Be polite and courteous. Keep up with your e-mails and ask questions.
5. Be honest	Be truthful in your evaluations, but also be tactful.	Let your mentor know if you do not understand something or have a differing opinion.
6. Active participation and engagement	Engage in your own learning while you are mentoring, collaborate on projects, and ask questions and experiment.	Listen. Ask if you can observe your mentor's practice if he/she is local.
7. Be innovative and creative	Share your ideas, give advice, and be a resource for new ideas.	Offer ideas on what activities and exercises you can do together.
8. Get to know each other	Remember that people come from diverse backgrounds and experiences. Get to know each other on an individual basis.	Remember that people come from diverse backgrounds and experiences. Get to know each other on an individual basis.
9. Be reliable and consistent	The more consistent you are, the more you will be trusted.	The more consistent you are, the more you will be trusted.
10. Stay upbeat and positive	Recognize the work the Mentee College Team has done, and the progress made.	Remember that your mentor is offering feedback and not criticizing.

[2.] **References Cited**:

https://www.skillsyouneed.com/learn/mentoring.html
https://artofmentoring.net/what-is-mentoring/
https://www.togetherplatform.com/blog/what-is-the-purpose-of-mentoring
https://www.joe.org/joe/2010december/tt8.php
https://www.amtamassage.org/find-mentor/ten-tips-for-successful-mentor-mentee-relationship/

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Appendix B

Pre-Visit, Visit, and Post-Visit Packet

- At this time only the Pre-Visit packet is included in this appendix. Visit and Post-Visit portions is currently under development.

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Appendix C.

Grant Development Rubric (one sample) and Sample Grant Proposals (URLs)

There are several steps for developing a credible and viable grant proposal. A major step is concerned with mentee college team members to evaluate and assess the grant proposal that they will be pursuing. A sample tool that can used to assess viability, institutional readiness in terms of pursuing a grant proposal is included in Appendix C. Each mentee college can easily customize this tool (one sample rubrics) for their institutional use.

Other important steps supporting a solid and viable grant development proposal are as follows:

Grant Preparation & Submission Factors
1. College Fit (aligned with strategic plan)
2. Priority Fit (high priority of Grants Development Task Force)
3. Need (Clearly documented community need and internal need from Research Findings, etc.)
4. College Faculty/Staff Expertise
5. College PI/Faculty/Staff Time Commitments
6. Team Members (college's partners)
7. Financial Potential (generates new revenues, additional credit, and non-credit students)
8. Faculty Development/Dissemination (will develop Mentee College faculty/staff)
9. College Resources (Space: new or renovation needed, personnel, matching funds, equipment, etc.)
10. Leveraged Resources (Money, space, equipment, students, Internships, customers, etc.)
11. Capability to Effectively Develop Credible Proposal
12. Existing key partnerships or new key partnerships
13. Accountability requirements are too time consuming and complicated
14. Capability to sustain the initiative after funding ends

Additionally, resources from URLs listed below can be useful tools that can guide you in developing robust ATE grant proposal.

https://www.usf.edu/arts-sciences/research-scholarship/proposal-tools/index.aspx
https://www.usf.edu/arts-sciences/research-scholarship/proposal-tools/proposal-samples.aspx

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Project Title and Agency:								Estimated budget amount: $
Submission Factors	Weighted Decision Criteria							
	No	Weak		Moderate		Strong		
1. College Fit (aligned with strategic plan and operational objectives)	No alignment with strategic plan and operational objectives	Poor/limited alignment with strategic plan and operational objectives	Low High	Moderate alignment with strategic plan and operational objectives	Low High	Major alignment with strategic plan and operational objectives		Low High
2. Priority Fit (high priority of Grants Development Task Force)	Not a Task Force priority	Minor Task Force priority and minimum impact	Low High	Moderate Task Force priority and moderate impact	Low High	Major Task Force priority and high impact		Low High
3. Need (Clearly documented community need, internal need from Research Findings, etc.)	No documented community or internal need	Only anecdotal qualitative information	Low High	Some data to document need, however not strong information	Low High	Multiple qualitative and quantitative third-party data sources		Low High
4. College Faculty/Staff Expertise	No F/S experience in the area	Minimal level of F/S experience in the area	Low High	F/S have some experience in the area	Low High	F/S have extensive experience in the area		Low High
5. College PI/Faculty/Staff Time Commitments	PI/F/S have no time to commit; no support for release/ reassignment time	PI/F/S have barely any time to commit; minimal support for release/ reassignment time	Low High	PI/F/S have some time; some support for release/ reassignment time	Low High	PI/F/S have time to commit; clear support for release/reassignment time		Low High
6. Team Members (college's partners)	Have no known partners	Likelihood of partnerships is poor	Low High	Known potential partners	Low High	Have longstanding relationships with partners		Low High
7. Faculty Development (will develop Mentee College faculty/staff)	Does not provide opportunities for professional development for F/S	Little professional development opportunities for F/S	Low High	Provides moderate professional development opportunities for F/S	Low High	Provides many professional development opportunities for F/S		Low High
8. College Resources (Space: new or renovation needed, personnel, matching funds, equipment, etc.)	Requires maximum investment of college resources	Requires significant investment of college resources	Low High	Requires moderate investment of college resources	Low High	Requires minimal investment of college resources		Low High

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Project Title and Agency:								Estimated budget amount: $
Submission Factors	Weighted Decision Criteria							
	No	Weak		Moderate		Strong		
9. Leveraged Resources (Money, space, equipment, students, Internships, customers, etc.)	Requires maximum investment of external resources	Requires significant investment of external resources	Low High	Requires moderate investment of external resources	Low High	Requires minimal investment of external resources	Low High	
10. Capability to Effectively Develop Credible Proposal	Do not have staff time to adequately respond	Hardly any staff time to respond	Low High	Stresses staff time, but are able to respond	Low High	Have staff time to develop highly competitive proposal	Low High	
11. Feasibility for project implementation and completion (turnaround time)	Project timeline is not at all adequate	Project timeline is barely adequate	Low High	Project timeline is moderately adequate	Low High	Project timeline is adequate	Low High	
12. Accountability requirements are too time consuming and complicated	Do not have staff time to meet the requirements	Hardly any staff time to meet the requirements	Low High	Stresses staff time, but are able to meet the requirements	Low High	Have staff time to meet the requirements completely	Low High	
13. Capability to sustain the initiative after funding ends	Have no known other revenue sources	Little access to other revenue sources	Low High	May be able to find other revenue sources	Low High	Have definite revenue sources for sustenance of the initiative	Low High	
					Decision:	Submit	Do Not Submit	

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