

# External Evaluation Report: Project Vision's\* 1st Year

**\*A National Science Foundation (NSF)  
Advanced Technological Education (ATE)  
supported project (award #2018198)**

**Prepared for:**

Dr. Kevin Cooper  
Principal Investigator

Dr. Rassoul Dastmozd  
Co-Principal Investigator

Dr. David Brown  
Co-Principal Investigator

Dr. Virginia Celeste Carter  
NSF ATE Program Officer

Project Vision  
Indian River State College  
3209 Virginia Avenue  
Fort Pierce, FL 34981 (772) 462-7546

**Prepared by:**

Benjamin Reid  
Principal Consultant  
Impact Allies Inc

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## Acknowledgements

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- Ms. Yi-Ding (Geegee) Betancourt, as project coordinator, for keeping Project Vision's people, material, data, and events on track, in sync and presentable.

Dr. Virginia Celeste Carter, as Program Officer for this NSF - ATE project, and the proposal reviewers for suggesting that Project Vision as a first order of data collection conduct a national survey of two-year colleges (2YCs) to understand the issues surrounding proposal submissions. The 238 responses from 130+ unique community colleges helped the PI team fine tune their work by better understanding proposal submission trends, motivators, and inhibitors at 2YCs from the perspectives of faculty, administrators, and presidents.

- Dr. Carter again along with ATE Central, AACC, Rural Community College Alliance (RCCA), ATE Centers (CREATE, RCNET, LASER-Tec, and CSSIA), and the PI team for distributing the survey.

Dr. Lola Adedokun, as an ATE Evaluation Coach through EvaluATE, for offering her expertise and outside perspective helping refine the big picture methodological design (Theory of Change, Logic Model, Evaluation Methodology and Plan, Change Management and Measurement Model) of the evaluation along with suggestions to the National and Mentee College Surveys.

- Dr. Kathy Davis, as Director of Planning and Assessment at Indian River State College (IRSC), for providing valuable insights to the survey's early design framework and edits. Dr. Dastmozd in leading the ADKAR Change Management milestone(s) adoption relevant to each mentee college grant seeking journey experience, co-developed and ensured proper measurement tools for assessing change in mentee colleges were developed and put in place.

Ms. Candiya Mann, as evaluator of AACC's MentorLinks, for organizing a community of practice for NSF-ATE mentor organization evaluators to align data collection and reporting.

- Ms. Mann again along with Ms. Rachael Bower, as PI of ATE Central, and Dr. Julia Siwierka, as evaluator of ATE Central through The Rucks Group, for co-designing survey questionnaires and sharing data for professional development activities and outreach events in which Project Vision's PIs were co-developers and presenters.

## Executive Summary

After 11 months of funding, *Project Vision is clearly exceeding its Year One proposal objectives and creating additional value* for two-year colleges (**2YCs**) and the NSF Directorate for Education and Human Resources (EHR) Division of Undergraduate Education (DUE) **ATE** program specifically and NSF-EHR-**DUE** broadly.

Project Vision completed its objectives, more than doubled its pilot cohort of mentee colleges, and developed and engaged-in several additional value-adding services, such as facilitating college Presidents' involvement in the conference and webinar series produced by American Association of Community Colleges (AACC) and ATE Central.

The PI team is responsible for pivoting during the Covid-19 pandemic by moving all interactions with mentee colleges (prospecting, recruitment, ideation, proposal development journey, and submission) from in-person to remote mode of interaction(s) using zoom and Google Meet. Collectively, PI team efforts promoted opportunities for creating and professionally engaging mentee colleges in activities, which 1) increase the exposure, reputation, and attraction of the NSF to 2YCs and 2) increase the knowledge, confidence, and capabilities of 2YC faculty and administrators and the grants capacity and culture of 2YC divisions and institutions.

Furthermore, PI team efforts and contributions intentionally engaged 2YC Presidents/CEOs from the onset of interactions with the mentee colleges - to initiate a conversation about change, build relationships, and show institutional support, which is yielding high returns for Project Vision, 2YCs and the ATE community.

This report:

1. Examines key data points for Project Vision's two principal goals and six objectives.
2. Presents data-derived challenges, opportunities, and suggestions.
3. References the evaluation methodology concerning measuring change at 2YCs.

# Introduction

## **Project Vision's Background**

In May of 2020, Project Vision was established through the support of NSF award number 2018198 to help broaden institutional participation in the NSF ATE Program. <https://projectvis.org/>

## **Project Vision's Major Goals and Objectives**

The two principal goals of Project Vision are:

1. Recruit and mentor new two-year colleges into the NSF DUE pipeline. Over the five-year project, 45 colleges will receive assistance formulating innovative ideas and developing comprehensive plans through the point of writing and submitting a competitive DUE proposal, with a primary focus on ATE proposals, and networking with the DUE community.
2. More broadly, Project Vision will assist mentee colleges to develop their capacity to identify new opportunities on an ongoing basis to infuse innovation into STEM education and workforce development endeavors and submit DUE proposals to request support for these efforts when appropriate.

Project Vision proposes to meet these goals by executing six objectives as detailed in the Findings section.

## **External Evaluator's Bio in Brief**

Benjamin Reid has a Masters of International Business from the University of Florida and worked in marketing, launching new products for Fortune 100 corporations, before his career in education. He has 15 years of service in higher education including faculty, director, and consultant roles, eight of which have been with 2YCs and NSF-ATE awards as Principal Consultant of Impact Allies Inc. He currently serves as external evaluator or Co-Principal Investigator for every ATE category: Center, Project, Targeted Research, and Small Projects New to ATE.

## Evaluation Questions and Methodology

The Evaluator and PI have previously worked together in the same capacities on other projects, which allowed this project to hit the ground running with their established “systematic approach to evaluating and responding principles” These principles were also applied to Project Vision. Everyone working (PIs, SMEs, coordinator, evaluator) systematically collects, presents, analyzes/debates data, and ideas to make more fully informed and triangulated decisions. This project and its mixed methods evaluation methodology is producing a depth and breadth of data that is verifiable, replicable, rich in layers, and from sources that lend themselves to longitudinal studies.

The evaluation design is essentially an applied social science research approach to collecting both formative and summative quantitative and qualitative data, has a three-fold purpose to: 1) help Project Vision improve decision-making regarding its planning, focus, activities and outputs through data and thoughtful analysis and recommendations; 2) determine the extent to which the project has met its objectives; and 3) measure the impact of the Project Vision work upon multiple stakeholders including the mentee college Presidents, administration and faculty, the colleges’ STEM and grant departments, the colleges’ industry, economic, and educational communities, college boards of trustees, and DUE itself.

New since the start of the project is a defined and robust assessment of change to mirror the project’s change management process using the ADKAR (**A**wareness, **D**esire, **K**nowledge, **A**bility, **R**einforcement) Change Management Model Milestones, led by Co-PI Dr. Dastmozd. For a deeper look into the process of measuring change at mentee colleges, see Appendix 2: Measuring Change and Overview Presentation.

The Findings and Suggestions sections are organized around Project Vision’s two Goals and six Objectives. Specific questions from the evaluation plan are laid overtop of Project Vision’s objectives and highlights its inputs, activities, outputs and outcomes. The broad evaluation questions below are used to measure outcomes and assess opportunities are:

1. To what extent is the project being implemented as planned, what are its strengths, opportunities for improvement, and opportunities to catalyze upon successes?
2. What are the consequences of the Project Vision process on institutions new to ATE?
3. What are the consequences of Project Vision on NSF DUE?

## Findings -- Year 1 Performance Snapshot

Key: <span style="background-color: #00FF00;">Delivered/exceeded as planned</span> <span style="background-color: #FFFF00;">On Track/in progress</span> <span style="background-color: #FF0000;">Delay/ change</span>	
Project Vision's Two Principal Goals	Indicators of Success
Recruit and mentor new two-year colleges into the NSF DUE pipeline. Over the five-year project, 45 colleges will receive assistance formulating innovative ideas and developing comprehensive plans through the point of writing and submitting a competitive DUE proposal, with a primary focus on ATE proposals, and networking with the DUE community.	<b>Colleges in Pilot Cohort</b> Plan: Five - actual:11 <b>Proposals Submitted Oct. 2021</b> plan: Zero - <b>actual:One</b>
More broadly, Project Vision will assist mentee colleges to develop their capacity to identify new opportunities on an ongoing basis to infuse innovation into STEM education and workforce development endeavors and submit DUE proposals to request support for these efforts when appropriate.	Mentee college Presidents/CEOs continue with their active engagement and are reporting positive first year affects upon their faculty, administrators, and grant seeking culture due Project Vision's efforts
Project Vision's Six Objectives	
<b>Objective One:</b> Identify and <b>partner</b> with 45 new two-year colleges, specifically smaller two-year colleges (with a focus on rural colleges) or colleges with newer presidents.	<b>Pilot Cohort: 11 colleges</b> 81% have not submitted to ATE. 90% first time Presidents. 72% < 4,000 student enrollment. <b>Pipeline:</b> Seven cohort two applications and 14 in pipeline; 30+ independent calls with 2YCs
<b>Objective Two: Evaluate</b> each college; provide a <b>recommendation report</b> identifying strengths, areas of concern, and applicable DUE program opportunities; collaborate on formulating an initial <b>innovative idea</b> .	<b>Pivoted to working virtually due to Covid-19.</b> Nine mentee colleges have completed Objective Two and progressed to Objective Three

<p><b>Objective Three:</b> Support college personnel in the <b>grant writing</b> process through the <b>submission</b> of their first ATE proposal.</p>	<p>Proposals Submitted Oct. 2020:<b>One</b>  <b>In-development phase for Oct. 2021:Ten</b></p>																				
<p><b>Objective Four: Mentor and network</b> college presidents, administrators, faculty, and staff to grow their internal capabilities of regularly generating original ideas and converting them into fundable proposals.</p>	<table border="1"> <thead> <tr> <th></th> <th>Mentee</th> <th>Touch</th> <th>Outreach</th> </tr> </thead> <tbody> <tr> <td><b>Presidents</b></td> <td><b>11</b></td> <td><b>32</b></td> <td rowspan="4">Data: AACC ATE Central RCCA, Other NSF funded Mentoring Venues, ATE Centers</td> </tr> <tr> <td><b>Admin</b></td> <td><b>41</b></td> <td><b>27</b></td> </tr> <tr> <td><b>Faculty</b></td> <td><b>42</b></td> <td><b>14</b></td> </tr> <tr> <td><b>Staff</b></td> <td><b>19</b></td> <td><b>9</b></td> </tr> </tbody> </table>					Mentee	Touch	Outreach	<b>Presidents</b>	<b>11</b>	<b>32</b>	Data: AACC ATE Central RCCA, Other NSF funded Mentoring Venues, ATE Centers	<b>Admin</b>	<b>41</b>	<b>27</b>	<b>Faculty</b>	<b>42</b>	<b>14</b>	<b>Staff</b>	<b>19</b>	<b>9</b>
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<p><b>Objective Five:</b> Mentor the college’s <b>Board of Trustees</b> on the nature and impact of NSF DUE programs, why to discuss DUE in presidential searches, and how to support college presidents during the first <sup>t</sup> year transition and beyond in incorporating NSF DUE opportunities into strategic plans.</p>	<p><b>Essential work and research complete;</b> in planning and partnering stages to build professional development venues that promote connected and sustainable role(s) in this space.</p>																				
<p><b>Objective Six:</b> Evaluate the effects of these interventions and publish <b>case studies and academic research</b> on the value of idea formulation, president and personnel mentorship and networking, Board of Trustee support, developing future leaders, and the impacts of undergoing a transformation from no NSF activity to participation in DUE-funded endeavors.</p>	<p><b>Delivered:</b> National Survey, Qualitative Survey of Presidents, Mentee measurement systems, One-pager and video success story, report templates and nine proposed case study topics.  <b>Developing:</b> Review committee and coordination with ATE mentor orgs.</p>																				



## Findings -- Additional Key Data Points for Project Vision's Objectives

The Evaluator contributed to the project documentation throughout the project year and has reviewed, verified, and adapted pieces below from Project Vision's Annual Report and other sources to highlight the activities, outputs, and outcomes under each objective.

**Objective One:** Identify and partner with 45 new two-year colleges, specifically smaller two-year colleges (with a focus on rural colleges) or colleges with newer presidents

<p><b>Colleges in Pilot Cohort</b>          proposal plan: Five - <b>actual:11</b>          120% increase in institutions served from first year proposal plan to project implementation.</p>	<p><b>Pipeline</b>          Seven institutions already applying for cohort two; 14 additional institutions are in the pipeline; Independent calls with over 30 colleges.</p>
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Pilot Cohort institutions represent various geographical areas/locations in the U.S. This cohort consists of standalone institutions and institutions that are member(s) of a district or member(s) of a state system. Project Vision also partnered with the Rural Community College Alliance (RCCA) by hosting two webinars in order to promote the opportunity to RCCA members to participate in the project. This partnership enhanced awareness of the program and contributed to increasing inquiries and applications to the project; ultimately leading to the recruitment of RCCA member institutions to become members of Cohort (II) of Project Vision.

### Profile of Pilot Cohort

Pilot Cohort	Standalone Institution, Member of System (District or State)	Location	Size Student Enrollment*	President/Chancellor's Name, Start Year, and History
East Mississippi Community College	Standalone	Mayhew, Mississippi	3,238 <small>*Source College Navigator</small>	Dr. Scott Alsorooks 2019 -- 1st time President

Hawaii Community College	Member of a State System	Hio, Hawaii	2,615	Dr. Rachel Solemsaas 2016 -- 1st time Chancellor
Riverland Community College	Member of a State System	Austin, Albert Lee, and Owatonna, Minnesota	3,475	Dr. Adenuga Atewologun 2013 -- 1st time President
University of New Mexico	Member of a State System	Grant, New Mexico	813	Dr. Cynthia Rooney 2016 -- 1st time CEO
Tarrant Community College-NW	Member of a District	Fortworth/Hurst, Texas	50,510 (overall district wide enrollment)	Dr. Zarina Blackenbaker 2017 -- 1st time President
Pierpont Community & Technical College	Member of State System	Fairmont, West Virginia	1912	Dr. Anthony Hancock 2021 -- 1st time Interim President
Fayetteville Community & Technical College	Member of State System	Fayetteville, North Carolina	12,021	Dr. J. Larry Keen 2007 -- 1st time President
Temple College	Standalone	Temple, Texas	4,887	Dr. Christy Ponce 2019 -- 1st time President
Greenfield Community College	Member of State System	Greenfield, Massachusetts	1,761	Dr. Yves Salomon-Fernandez 2018 -- 3rd Presidency
Gogebic	Member of	Ironwood,	945	Dr. George

Community College	State System	Michigan		McNulty 2019 -- 1st time President
Suny-Ulster	Member of State System	Stone Ridge, New York	3,550	Dr. Alan Roberts 2015 -- 1st time President

**Objective Two:** Evaluate each college; provide a recommendation report identifying strengths, areas of concern, and applicable DUE program opportunities; collaborate on formulating an initial innovative idea.

Each pilot college submitted a pre-visit packet, which was used to analyze their strengths and areas of concern, identify their strategic priorities, institutional commitment, assess faculty expertise and capacity, and offer recommendations for alignment of their academic master plan and strategic plan. Taken together, the information from pre-visit analysis was used to provide Project Vision Leadership Team with an informed insight about the current culture of grant seeking at the mentee institution; moreover, set the stage for Project Vision Leadership Team to tee up ideation (innovative) conversation with each prospective Mentee College.

**Objective Three:** Support college personnel in the grant writing process through the submission of their first ATE proposal

Project Vision Leadership is actively engaged with each 11 members of Cohort One to provide guidance in terms of the grant writing process for their first ATE proposal. For example, one of the mentee colleges (East Mississippi Community College) submitted an ATE proposal for the October 1, 2020 deadline. The other 10 mentee colleges are aiming to submit a proposal in October 2021. As part of their proposal development, each of 10 mentee colleges will prepare a one-page document that mimics a Project Summary in an NSF proposal that presents a project overview, along with statements on the intellectual merit and broader impacts of their proposed endeavor.

**Objective Four:** 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.

During the first year, Project Vision assembled and scheduled a series of meetings with each mentee college to help the president, administrators, faculty and staff to grow their internal capacity. Most importantly, the Project Vision team encouraged each mentee college team to explore alignment between their proposal and their academic master plan and their strategic plan. During the reporting period, 77 meetings were held with 11 mentee colleges.

**Objective Five:** Mentor the college's Board of Trustees on the nature and impact of NSF DUE programs, why to discuss DUE in presidential searches, and how to support college presidents during the first year transition and beyond in incorporating NSF DUE opportunities into strategic plans

The Project Vision leadership engaged in dialog with mentee Presidents/CEOs and senior administrative leaders regarding long-term strategic planning, to encourage their institutions to focus beyond their first submission of an NSF proposal.

The Project Vision leadership developed resource materials that elaborate on Change Management and Theory of Change at the mentee institutions where a grant seeking culture is encouraged by the Presidents/CEO-moreover, promoted and supported by the Trustees.

To support change management at each of the mentee colleges, Project Vision will employ Awareness, Desire, Knowledge, Abilities, and Reinforcement (milestones of the ADKAR Model of Change Management) to assess the degree and extent of change at each of the mentee colleges. Moreover, the Project Vision leadership team integrates Aspen skills competencies for the Board of Trustees, presidents, senior administrators, deans, and faculty to assess the alignment for change at each mentee institution.

Numerous learning sessions and resources have also been designed and organized as tools of professional development for Presidents where they are encouraged to share their firsthand experience and narrative not only with the Project Vision leadership team and subject matter experts but also, with their presidential colleagues across the community college landscape; and ultimately, seeking input how other presidents promote a culture of strategic grant seeking within their respective institutions by empowering and engaging their faculty and middle managers as well as key partners.

Collectively, activities and resources are organized to:

1. Tap into Presidents/CEOs experiences and narratives by sharing their challenges and opportunities.
2. Strengthen the awareness of and leadership commitment with STEM education;

3. Broadly disseminate NSF-ATE and STEM Education ongoing initiatives in each institution;
4. Share with Project Vision Leadership Team the type of leadership development activities that can provide optimum outcomes for change for their ecosystem;
5. Share key partnerships and best practices to advance STEM education and NSF-ATE;
6. Solicit ideas how to best establish Business/Industry and Outreach partnerships.

Moving forward, the development and organization of additional professional development resource materials is on-going solely for Trustees and Presidents/CEOs that promote change at the institution, which ultimately lead into improving linkages, improving alignment, and improving cross-system coordination at the mentee institutions.

**Objective Six:** 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, developing future leaders, and the impacts of undergoing a transformation from no NSF activity to participation in DUE-funded endeavors.

Distributed a survey to assess the landscape at the nation's two-year colleges regarding issues connected to pursuing NSF grant support. This was disseminated through ATE Central, AACC, RCCA, CREATE, RCNET, LASER-Tec, and CSSIA and received more than 270 unique responses from over 140 unique colleges. Takeaways were presented at NSF ATE Pre-Conference workshop, ATE-Central Office Hours, and at Mentoring consortium call. Additionally, a one-pager (submitted as an attachment to this report) was created with key takeaways and distributed to IRSC's network. Results were shared with a number of mentoring and other ATE initiatives to help steer future grant submissions and strategy.

Collectively, key takeaways were used in discussion and strategic alignment within Project Vision and with cohort colleges. Key salient takeaways include:

1. Lack of incentives is the greatest limiting factor for faculty to develop grant proposals.
2. Faculty need more support in developing proposals and managing awards.
3. Effect of changes to senior administration on proposal submissions.
4. Key themes from qualitative interviews of presidents that promote grant-seeking efforts.

See Appendix A: Project Vision Survey Results.

As part of fulfilling Objective Six, the Project Vision leadership team developed a template that will be used to generate case studies for each mentee college, as well as

a report that describes the extent to which the institution is embracing change by promoting a culture of grant seeking and deeply engaging faculty and key institutional partners.

Significant Results:

- Mentee College, EMCC, submitted an ATE proposal on October 1, 2020.
- An increased pilot cohort from the proposed five colleges to 11 colleges (including 81% that have never submitted to ATE).
- Scaled capacity by adding three additional SMEs to achieve gender balance.
- Developed model to engage industry and support proposal preparation with data-driven analysis.
- Seven colleges are already applying for cohort two with 14 additional schools in the pipeline.
- Conducted virtual meetings with more than 30 individual colleges.

## Suggestions

Project Vision's "systematic approach to evaluating and responding," happened in real time as the project progressed and differing scenarios emerged. Great examples are in the stories of Project Vision being an innovative, customer-centric entity - in the telling of why and how Project Vision has pivoted. One such example begins with observations being discussed about EMCC during a weekly team meeting -- after six weeks of strategic alignment, visioning and ideation with the PI team, and with only seven weeks until the NSF ATE proposal submission date -- led to the suggestion that Project Vision should consider extending the offer to EMCC to fast track the proposal development. The debate continued in the following days and next week's meeting the team was in cohesive agreement and motion towards recommending the option to the EMCC President, who enthusiastically agreed and supported, then to the team of faculty, administrators, and staff involved, who likewise agreed, were positive, and worked diligently.

That story has four uses: (1) it shows evaluating and responding in action; (2) illustrates the value of Emotional Intelligence (EQ) in addition to IQ when assessing indicators of success, opportunity, and readiness; (3) confirms the need of building grant development and seeking confidence and experience in 2YC STEM and CTE faculty; and (4) thus far proves what is possible in fast grant response by 2YCs in collaboration with Project Vision. See Appendix B: 1-page Success Story. East Mississippi Community College, Fast Grant Response

Project Vision internal suggestions (e.g. pilot a fast track option and gain valuable anecdotal evidence of time and input variables to complete the back half of the proposal development stages), since they are discussed weekly, will be put aside following these reminders of **Change and/or Upcoming Changes:**

- Transition from virtual to in-person meetings (when possible) with mentee colleges for visioning, analysis, and ideation.
- Transition from Pilot Cohort to second Year Cohort (implement developed strategies, processes, and tools; solidify Project Vision's culture amongst PI team, project coordinator, SMEs, evaluator, mentee colleges, key partners)
- Remain agile by adjusting for the percentage of colleges that will not complete the mentorship deliverables on schedule (according to mentor longitudinal data and early indicators from Project Vision pilot cohort). Assessing upcoming cohort colleges for the right variables (attributes) that would facilitate their ability

to succeed on a “fast track” would allow consistent annual ATE proposals from Project Vision mentee colleges.

The following suggestions focus on how, at this point, to potentially best serve 2YCs, the NSF ATE Program, and its partners in the shared mission of developing 2YC repeat grantees. Again, the Evaluator contributed to the data and conversations about innovating and serving throughout the project year and has reviewed, verified, and adapted pieces below from Project Vision’s *Lessons Learned from Project Vision’s Efforts to Align College Senior Administration with Faculty and Grant Funding*, and other sources to highlight, support and/or build upon the suggestions. **Opportunities to catalyze upon successes:**

#### Ideation for 2YC and ATE Communities:

- ATE mentorship organization Transparency and Coordination
  - Beginning organically
    - PIs in community of practice with PIs
    - Evaluator in community of practice with Evaluators
  - Expandable/Interweavable with NSF-DUE mentor organizations
    - Co-PI and SME lead an S-STEM mentorship program
    - Organizing and stacking mentor services over years from different DUE mentor organizations can help reinforce 2YC grant capacity building efforts.
  
- Targeted Recruitment of not-yet-reached 2YCs
  - Begun with data mining project of all IHEs
  
- Targeted Research of high performing 2YCs’ Origins and Variables in becoming sustainable “grant seeking institutions”
  - White paper developed by Dr. Cooper
  - White paper titled, “Scaling as Social Innovation Phenomenon and Change Management” developed by Dr. Dastmozd
  
- College-specific Longitudinal Studies of Change increasing 2YC grant cultures amongst faculty and administrations
  - Beginning with the support of Project Vision (or other mentoring organizations), and tracking other initiatives and their effects over five years.
  - Produce lessons for increasing grant cultures with NSF a priority in 2YCs by understanding the variables that contributed to or took from a positive, emerging, maturing, sustaining grants culture.
  - Connects to Project Vision’s current and suggested services, and the lenses are similar looking at the state of affairs from the institutional,



divisional, administrative, faculty, industry, and local economic development perspectives.

## **Creating a Presidential Network and Support Structure**

Through a series of monthly office hours meetings, targeted sessions at the NSF ATE Pre-Conference, and partnership events with AACC, RCCA, and ATE Central, and Presidential Roundtables and Learning Sessions, Project Vision consistently engaged a set of Presidents in capacity building conversations. These calls were hosted in a 1-on-1 format with the college Presidents and in cohorts with all Presidents. Three key salient takeaways emerged from this work.

1. **Presidents respond well in peer groups** where they can find affirmation especially when they are new and/or new to grants. In voluntary monthly office hours over 70% of Presidents were regularly in attendance.
2. **Presidents like outside consultation in a one-on-one format specifically to address challenges and ideate.** A third-party's perspective is critical for good decision making, especially when that 3<sup>rd</sup> party consists of a diverse team of experts. In general, it takes 2-3 meetings to build trust and rapport followed by monthly support meetings that investigate issues/opportunities.
3. **Actively involved Presidents embrace ATE opportunities more than disengaged Presidents.**

Project Vision PI (Kevin Cooper) and Co-PI (Rassoul Dastmozd) discovered that supporting Presidents (and 1-2 BOT members) on independent small group calls worked best. Most of these calls were structured and grounded in the ADKAR model of change theory milestones (**A**wareness, **D**esire, **K**nowledge, **A**bility, and **R**einforcement) so that institutional change could be promoted, captured, advanced, and sustained.

During Year Two, Project Vision will scale up a lot of these learning lessons to prospective Mentee College Board of Trustees through interaction and presentations at the ACCT and ASPEN workshops for BOTs, and other professional development forums. The goal of this expanded effort is to make sure funding and NSF funding is on the mindset of the Presidential and Sr. Institutional Leaders Search Committee Interview Processes.

## **Scalable Suggestions Opportunities**

Engaged Presidents support and will continue to support ATE initiatives.

1. It is suggested for large, funded NSF ATE Initiatives that NSF “voluntarily requires” the Presidents to become part of the cohort. NSF has invested a lot of monetary resources in these institutions, and it is really important that the

Presidents understand the value of ATE and feel connected to the projects. Perhaps quarterly cohort calls with in-person meetings at the NSF ATE Conference. Project Vision would be delighted to spearhead or support this.

2. For all other ATE grants, voluntary quarterly calls with the Presidents (similar to patterns of practice that Project Vision has led with the ATE Central Office Hours), which might build a network of peers and be a way of keeping Presidents supportive of ATE funding. Project Vision would also be happy to lead and support this.

#### Many problems can be mitigated with early communication

Often, faculty PIs find challenges at some level of their administration from chair to President. It is human nature to try to resolve these issues internally. However, often advice or advocacy might also help. It is suggested:

1. Project Vision or other mentor organizations can host sessions at the ATE PI Conference and HI-TEC Conferences to make these issues and challenges much more of an open topic in a safe space free of bias. The goal would be to advance and promote a solution-focused and asset-based approach instead of deficit- and problem-focused approach, which may represent negative connotation.
2. Provide an avenue for help, advice, and advocacy to struggling PIs through Project Vision or other mentor organizations. Additionally, the Presidential network is a close knit community and Presidents through Project Vision or other mentoring groups could provide ambassadorship if needed.

#### Presidential Mentorship Works

Expand mentorship to Presidents and BOTs by:

- Soliciting firsthand experience(s) from all attendees and actively participating in learning from each other.
- Tapping into their experience and narrative by sharing their challenges and opportunities;
- Strengthening the awareness of and leadership commitment to STEM education;
- Broadly disseminating NSF-ATE and STEM Education as well as ongoing initiatives in their respective institution;
- Sharing the type of leadership development activities that Project Vision can provide for their respective ecosystem;
- Sharing key partnerships and best practices to advance STEM education and NSF-ATE;
- Soliciting ideas on how to best establish Business/Industry and Outreach partnerships and engage employers and businesses/industries.



# Project Vision's Survey Results

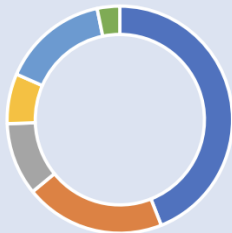
*Understanding Proposal Submissions from Two-Year Colleges*

## Purpose of the Survey

To understand **proposal** submission trends, motivators, and inhibitors at 2YCs from the perspectives of faculty, administrators, and presidents.

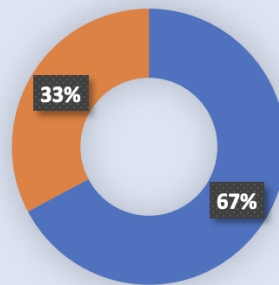
- **238 responses**
- **130+ unique community colleges**

### Profile of Respondents



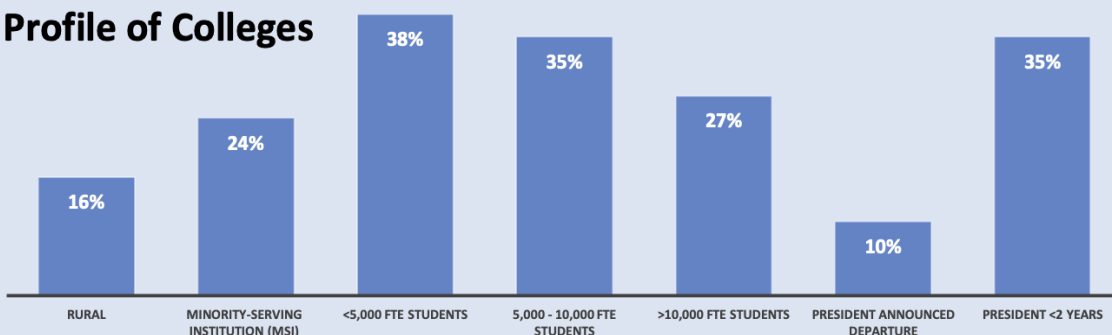
- Faculty
- Program Director
- Chair
- Dean
- Senior Administrator
- President

### Primary Role Grouping



- Faculty (n160)
- Administration (n78)

### Profile of Colleges





# Project Vision's Survey Results



## Understanding Proposal Submissions from Two-Year Colleges

### 4 Key Takeaways + COVID-19

#### 1) Lack of INCENTIVES is the greatest limiting factor for faculty to develop grant proposals.

- 71% (n=163/229) disagree that their college is structured to incentivize faculty to pursue grant funding.
- 82% (n=194/238) need more incentives for developing proposals and implementing an award.
- 83% would be motivated [41% definitely, 27% probably, 15% would consider] to submit a grant proposal for a stipend or release time for their development effort(s).
- 88% would be motivated [41% definitely, 29% probably, 18% would consider] to submit a grant proposal for a stipend or release time for the grant management responsibilities.

**Suggestion:** As a requirement in the NSF-ATE solicitation, state that proposals must describe how faculty are to be motivated to complete faculty adoption of the work.

#### 2) Faculty need more SUPPORT in developing proposals and managing awards.

- 71% (n=168/238) need more support writing grant proposals.
- 74% need more institutional support in managing the grant award.
- 69% need more assistance formulating an innovative idea to match grant funding opportunities.
- 72% need more assistance identifying and bringing together partners in a grant proposal.

**Suggestion:** Continue scaling independent mentoring organizations and encourage peer to peer mentoring among already funded ATE grants recipients. Additionally, promote peer mentoring at the ATE PI Conference sessions and the HI-TEC Conferences.

#### 3) Effect of changes to senior administration on proposal submissions.

- Highly dependent on prior experience with grants of the incoming president (qualitative interviews)
- Disconnect between faculty and administration perspectives on the effect (administration thought number of proposals increased while faculty thought the opposite)

**Suggestion:** Explicitly emphasize professional development, encouragement, and dissemination on the value of ATE grant funding to College Board of Trustees so it is a key criteria in selecting a new president.

#### 4) Key themes from qualitative interviews of presidents that promote grant seeking efforts

- Major themes emerged: (a) support for grant seeking efforts from presidents, (b) alignment with institution's strategic priorities, (c) having an infrastructure in place (human, talent, capacity), and (d) sustainability efforts after grant project is completed at the recipient institutions.

***At least a moderate decrease (6%) in grant proposals can be expected over the next year due to COVID-19.***

## EAST MISSISSIPPI COMMUNITY COLLEGE

### *Fast Grant Response*

*“EMCC is incredibly grateful to have the opportunity to work with Project Vision to develop our internal capacity to apply for future NSF grants. We were able to leverage the expertise of the Project Vision team to guide our faculty in the creation of a competitive submission in record time.”*

– Scott Alsobrooks, President EMCC



In 2019, EMCC added a 143,000 ft<sup>2</sup> advanced training facility known as The Communiversity which they hoped to couple with NSF ATE funding.

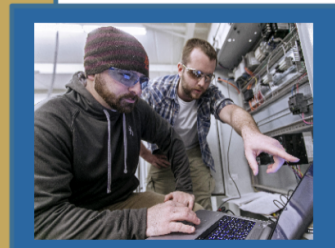
Within 3 months of alignment with Project Vision, EMCC submitted a very robust NSF ATE application that:

- Engaged faculty
- Matched EMCC’s strategic mission and regional economic development
- Had support from 3 ATE Center, 2 Universities, and 11 industry partners.

More importantly with the help of Project Vision, EMCC was able to strengthen trust, communication and confidence in a 2 faculty for continued grant writing and alignment.

As a first-time grant writer, Project Vision helped me overcome my fear and gain confidence writing a grant. They made the experience fun and rewarding.

- Kyle Pierce  
Advanced Manufacturing Faculty EMCC



This project is supported by National Science Foundation grant DUE-2018198  
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## Measuring Change an Overview Presentation

*For: Subject Matter Experts*

*By: Evaluator Reid (slides 2-9 on measuring change), and  
Co-PI Dastmozd (slides 10-39 on change management)*



## Project Vision

# Project Vision's Purpose: Develop Repeat Grantees

## Cohort Timeline

January - June	August	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	October
Application Open	Services Provided to Selected Colleges														
July	Pre-Visit														
Selection of Cohort	Selection of Team														
	Analysis and Report														
	Capacity Growth and Grant Writing														
															Grant Submission



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# Project Vision's Purpose: Develop Repeat Grantees

### Questions Regarding Measuring Change

#### **What changes are we measuring for the desired outcome of "Develop Repeat Grantees"?**

We are measuring changes in **1) Faculty, 2) Departments and 3) Institutions.**

We are measuring changes in their Awareness, Desire, Knowledge, Ability, and Reinforcements as the elements of change from their current state to the state of being a repeat grant proposer and recipient.

#### **Over what periods of time?**

We are observing and measuring changes during the year of mentorship and annually through Project Vision's duration for longitudinal evidence.

#### **Why are we measuring change?**

To prove the efficacy of the Project Vision, people and process for reaching their NSF-ATE mission:  
Develop Repeat Grantees



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## When an SME joins a mentee college in Sept-Nov

3 pieces of data and insight are available:

Pre-Recruitment  
Notes

Application

ADKAR Pre-  
Mentorship Survey



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# Project Vision

3 pieces of data and insight are available:

Pre-Recruitment Notes

Application

ADKAR Pre-Mentorship Survey

Provides **baseline** data and loads of **insights**. For example, survey shows where focus/help is needed at each college; progress already made and worth celebrating; most important changes that could be made:

Q18

What is the most important change your college could make to encourage you to develop and submit a grant proposal?

Answered: 4 Skipped: 0

Provide appropriate support and encouragement to pursue grant funding.  
1/23/2021 9:02 PM

Although I knew the college pursued grants, it is not at the forefront of things I am aware of, it would help to know that this is a priority for the college.  
1/21/2021 2:08 PM

After participating in the Grants Training at my college I would say that our college has more than adequate resources and support to pursue grants. I have been at the college just two years and have settled into the routine and now know that amount of time I have available to be able to start pursuing grant opportunities. I just need a little more knowledge about the NSF process and examples of types of funding as well as a little help thinking about what is possible with NSF grants. However, I feel I have the resources and support that I need from my college as they seemed to have a very well structured grants office with great resources to help with writing and managing the grant with easy to follow well defined processes and procedures.

Q19

What are the major obstacles or barriers that your college and colleagues have removed to reinforce their encouragement for you to pursue more NSF proposals when appropriate? When were those changes enacted?

Answered: 3 Skipped: 1

Lack of knowledge on how to get it done.  
1/21/2021 2:08 PM

The grants office is well established and provides resources to help write and manage grants. I have great support from my department chairs as well. The changes were implemented well before I arrived to the college.  
1/21/2021 11:24 AM

Additional support and help that is now available by the Grant office



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## Project Vision

### During the SME's ~year of mentorship

Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	October
Services Provided to Selected Colleges													
Pre-Visit													
Selection of Team													
	Analysis and Report												
			Capacity Growth and Grant Writing										
												Grant Submission	

SMEs will contribute to the change measurement with these deliverables:

- Pre-Visit Analysis
- Notes from Ideation/Visioning
- Notes from Visit and Post-Visit
- Audit Report
- Notes from Proposal Development
- NSF Pro Prep Forms Recommendations
- Post-submission



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# Project Vision

STAGE	ACTIVITIES IN STAGES	DELIVERABLES			
		Type/Subject			
STAGE	Key: <b>Red letters indicate SME included in &amp;/or leading activity</b>	All	PVT	SME	Eval
Application	<ul style="list-style-type: none"> <li><b>Pre-recruitment conversation between mentee institution and PV leadership team</b></li> <li>Selection of mentee institution after prospective mentee college completes their application</li> <li>Information from mentee college's application</li> </ul>		Summary/ Application		
Pre-Visit	<ul style="list-style-type: none"> <li>Information from initial mentee college survey</li> <li>Pre-visit document analysis</li> </ul>	Analysis/ Pre-Visit			Survey/ Pre- Mentor
Selection of Team	<ul style="list-style-type: none"> <li><b>PV Team and SME meeting with the mentee college during ideation and vision phase</b></li> </ul>	Notes/ Ideation			
Analysis and Report	<ul style="list-style-type: none"> <li><b>PV Team and SME notes from site visit and post-visit document (reflections/interactions)</b></li> <li><b>Mentee college audit report</b></li> </ul>	Notes/ Visit	Report/ Audit	Report/ Audit	
Capacity and Writing	<ul style="list-style-type: none"> <li>[suggestion of Evaluator: <b>Review and provide actionable recommendations for the mentee PI team's 3 NSF professional preparation forms</b>]</li> <li>[suggestion of Evaluator: <b>PVLT and SME discuss and note alignment at college</b>]</li> </ul>		Notes/ Prop Dev; Recom/ Prof Prep	Notes/ Prop Dev; Recom/ Prof Prep	
Grant Submission	<ul style="list-style-type: none"> <li>PV team and SME reflections and notes of mentee college after mentee college submits their NSF-ATE proposal</li> <li>Mentee college system change instrument</li> <li>Mentee college faculty lead testimonial</li> <li>Mentee college Sr. Admin. one-pager testimonial</li> </ul>		Report/ Post-sub	Report/ Post-sub	Survey; Video; Assess/ System Change



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## Project Vision

Upon the completion of the Project Vision relationship with each mentee college, we anticipate sharing with the mentee college and their president a report that informs their institution's journey, concerning:

- Improving linkages
- Improving alignment
- Improving cross-system coordination

This report will also include information and findings concerning the follow three value points:

- **Pinpoint the Area of Focus for Intervention**
- **Navigate to the Root Cause of the Issue**
- **Provide evidence of Intellectual Merit and Broader Impacts**

This report sheds light on improved linkages, improved alignment, and improved cross-system coordination along with three value points guide the change over a timespan throughout the lifecycle of the Project Vision relation with each mentee college.



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## Project Vision

The Change Assessment survey asks each mentee college to share information about grant funding knowledge, capabilities, motivators, and inhibitors from the perspectives of faculty, staff, administrators, presidents, and boards of trustees.

The Change Assessment survey findings will help identify three critical data points.

### Critical Data Points

- The baseline from which to measure change at each mentee college
- Capacity issues needed for the development and submission of NSF ATE proposals
- Gap discrepancies in perceptions between faculty and administrators that can be resolved through teamwork and effective communication

The Project Vision team in collaboration with each mentee college team aspires to facilitate a positive change process to overcome challenges associated with developing robust and credible NSF ATE grant development processes. Most importantly, Project Vision will promote strategies for sustainability, related to supporting ongoing ATE initiatives at the mentee institution.



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# Project Vision

## Theory of Change and Change Management

Concerning Change Management Model, Project Vision team proposes the use of ADKAR<sup>1</sup> model.

ADKAR is an acronym that represents the five tangible and concrete outcomes that people need to achieve for lasting change: **Awareness, Desire, Knowledge, Ability, and Reinforcement.**

<b>A</b>	• Awareness of the need for change
<b>D</b>	• Desire to support change
<b>K</b>	• Knowledge of how to change
<b>A</b>	• Ability to demonstrate skills and behaviors
<b>R</b>	• Reinforcement to make the change stick



1. Reference Citation: <https://www.prosci.com/adkar/adkar-model>

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