The New Mexico Ready and Equitable Career and Technical Education Program CONTENTS

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1. SIGNIFICANCE

1.1 BUILDING LOCAL CAPACITY

Issues of poverty, minority achievement gaps, broader connectivity across the State, and alignment of education and the workplace have historically challenged New Mexico's education leaders as they strive to provide opportunities for all students to have a quality education, particularly those living in extreme rural communities. The *New Mexico Ready and Equitable Career and Technical Education program (NM RECTE)* proposes new CTE courses and expanded access, which together opens opportunities for all students to build academic and work skills. While *NM RECTE* does not directly address issues of poverty, it will impact the neediest communities as more of their students graduate high school being college and career ready.

New Mexico needs to build local capacity across the State, in which one-third of its schools are located in rural areas, more than half of all students are eligible for free-and-reduced lunch, close to half (49.1%) of all students are Hispanic, one in ten (10.9%) are Native American, and almost two in five (16%) are English Language Learners (Education Commission of the States, 2014; Jimerson, 2004; New Mexico Voices for Children 2020). Just 77% of households statewide have broadband internet subscriptions, well below the national average of 85% (Onsurez, 2020; Vitu, 2018).

Poverty is widespread among the State's children—29% compared to 12.3% for the U.S. as a whole, and educational attainment is low, with a college-educated population of just 36% versus 61% for the U.S. (New Mexico Voices for Children, 2020). According to the <u>U.S. News and World Report</u>'s rankings of states (2020), New Mexico ranked in the bottom on three attainment measures: 50th of 50 states in college readiness, 49th in high-school graduation, and 48th in NAEP math and NAEP English scores.

Before the data were embargoed for 2019, statewide PARCC assessments for 2018 showed just 21.6% of New Mexico's students in grades 3-11 were proficient in Math. For

Hispanic and Native American students, proficiency was even lower: 17.5% and 12.6% respectively. Language Arts had similar proficiency levels and minority gaps (NM PED, 2018).

Positively, New Mexico ranked well among all states on the percent of total taxable resources (3.5%) spent on education, and on funding equity including limited English proficiency and special-education (Blad, 2019; Nott, 2018). In April 2018, Governor Grisham signed a state budget that included a \$446 million (16%) increase in education spending from the previous year. Also in 2018, the Farm Bill included \$500 million for a Community Connects Program to support construction of broadband infrastructure in high-need communities. All these efforts help **build state and local capacity** and demonstrate New Mexico's commitment to revitalizing its educational system to be rigorous, inclusive, accessible, and relevant to today's workplace.

As part of Governor Grisham's plan for New Mexico, eight industry sectors have been identified where New Mexico can lead the nation—cybersecurity, intelligent manufacturing, sustainable and green industries, bioscience and health, tourism and outdoor industries, digital media and film, sustainable and value-added agriculture, and aerospace. The goal of the governor's plan is to promote growth in these sectors using various strategies, which include building a stronger talent pipeline and preparing students for high-value careers in New Mexico. The governor's most recent Executive Budget showed commitment to future steps in growth for the State and bold investments in education. Within the Budget, the governor targets funding to further build CTE—to teach and prepare students for high-wage, high-skill, and high-demand careers in the State (Grisham, 2020).

These needs and responding initiatives underlie New Mexico's vision to improve local and state-level capacity in education, and forge the direction for this program design, which is fully responsive to grant requirements. Gathering with business leaders, policymakers, educators, and community stakeholders—i.e., the NM PED, Regional Education Cooperatives, rural and non-rural district and school leadership, the CLNA Consortia, the CTE Industry Council, and the

Higher Ed Council—New Mexico has designed a program of well-rounded educational opportunities through online course access in math and CTE.

1.1.1 Building Capacity for Rural and Minority Students

NM RECTE is designed to meet the needs of all students, and in particular rural and disadvantaged students, and students with disabilities. To assure NM RECTE builds greater equity in education, recruitment for rural school districts will reach out to minority and otherwise economically disadvantaged populations to connect them with CTE online learning. To ensure success, the state is assisting local districts to provide hardware and software support where needed to eliminate barriers to participation.

1.2 REPLICABILITY

The proposed *NM RECTE* program accelerates educational inclusion and accessibility in New Mexico. To meet this goal, *NM RECTE* is putting together a well-rounded series of courses in CTE and math to ensure students are ready for career and/or college. These 9th to 12th grade courses will be accessible through a single online platform to assure seamless delivery throughout the State—even in the most rural areas. All courses are contextual to careers, and all are available online—both live and through video replays. Thus, the potential for replication in other states is high.

The proposed *NM RECTE* program creates a bi-directional interlocking CTE program driven by employer input *into* curricula, and driven *out* of the classroom into college and career readiness. Determining how to successfully move all students along the learning continuum from high school to careers is the goal for this highly replicable and scalable model.

To support expansion of the course offerings in New Mexico and replicability in other states, the project will develop a *NM RECTE Program Operations Manual* to sustain, improve and disseminate best practices. The Manual will be modeled on the highly utilized New Mexico Early College Policy Manual (http://echs-nm.com/wp-content/uploads/2020/03/ECHS-Policy-Manual-F2-022920.pdf). The CTE manual will review information pertaining to statewide CTE programming and online course delivery from a state and national perspective. An examination

of past practices will be outlined with their clear progression into current approaches to inclusion and accessibility across CTE programs.

2. PROJECT DESIGN

2.1 IMPROVE TEACHING & LEARNING, SUPPORT RIGOROUS STANDARDS

NM RECTE will develop a series of courses to support a well-rounded program of CTE. CTE is not a "new" strategy, but one that is expanding to meet the educational needs of students and the societal needs of increasing technical skills in the workplace. Consistent with NM's CTE programs as a way to foster partnerships with businesses, *NM RECTE* will make CTE opportunities available to every student in the State, regardless of ethnicity, geographic distance, or other challenges to ensure every student's education becomes relevant to today's workplace and prepares them for college and careers.

The program design embraces five approaches: (1) the proposed courses are all career connected learning; (2) all courses are accessible through online course delivery; (3) the employability skills building reflects the needs of the local workforce; (4) a model for blended learning offers these courses online and onsite; and (5) the professional development is career connected to build educator skills in CTE. The courses utilize two learning formats—online courses and in-person courses, or a blend of the two.

2.1.1 Approach 1. Career Connected Learning

Career Connected Learning (CCL), introduced by the National Center for College & Career Transitions, exposes students to the world of work during the learning process (Meeder & Pawlowski, 2020). CCL is a bridge to academic content, such as teaching math skills using examples from the construction industry; it involves teaching essential work skills such as teamwork; and, it is a collaboration with local employers.

Each of these applications engages students in their learning process. That is, connecting teaching and learning to the real world increases students' interest in what they are learning and

gives them a chance to look more closely into college and career opportunities that line up with their own strengths and interests (Kemple & Willner, 2008).

CTE is an example of CCL, where students receive regular exposure to careers and benefit from a more rigorous learning experience. With support from the Strengthening Career and Technical Education Act for the 21st Century (Perkins V), a CTE program of study develops more fully the academic knowledge and technical and employability skills of students so they can be college and career ready. Reflecting this commitment, New Mexico proposes *NM RECTE* as a program of online courses to improve the flexibility and accessibility of CTE, and engage more students in a fully realized CTE pathway.

2.1.2 Approach 2. Online Course Delivery

To ensure equity across the state, all the proposed CTE courses must be accessible both online and in the classroom. Online courses will ensure all students have access to CTE and career and college readiness courses neither available in their assigned schools, nor accessible to students due to rurality, home schooling, or special needs. As the National Alliance for Partnerships in Equity (NAPE, 1993) notes in its mission statement, "this [online] approach is an effective solution for increasing student access, educational equity, and workforce diversity." *NM RECTE* is in full accordance with this vision.

COVID-19 demonstrated several systemic failures in our country—in healthcare, social services, and education. As students were sent home to continue their learning, teachers scrambled to modify their lessons for virtual classrooms—through Zoom, online lesson plans, and other technologies as available for teaching, although not always available for learning from all of the students' homes. New Mexico is aggressively striving to meet all students' needs for connectivity in the event that schools may need to again conduct classroom learning in a virtual environment. This project provides a new platform for CTE and essential high-school math that will benefit students newly connected to online learning.

2.3.3 Approach 3. Customized Employability Skills

For the past decade employability (soft skills) have been proposed as one key to successful transitions from high school to higher education and the workforce (Harvard, 2010; Nagle, 2010; Wagner, 2008). As part of the proposed *NM RECTE* program, three distinguishing characteristics were identified to build a strong curriculum:

- Employer-defined standards: During New Mexico's 2020 Comprehensive Local Needs
 Assessment (CLNA) for Perkins V, employers reported a dramatic deficiency in personal and
 interpersonal competencies among first-time workers (NM PED, 2019). As the CLNA
 Consortia's final report noted, "New Mexicans expressed a very clear and consistent picture
 of the characteristics that would ensure the next generation of workforce talent is ready for
 success.... Across ten identified regions, there was consensus along three categories: skills,
 attitudes, and workforce and life readiness...." The Consortia further recommended that NM
 PED implement an effective program of employability skills linked to high-demand jobs in
 the State. This NM PED mandate underlies a significant impetus for design.
- **Situational Judgment:** Exercises in employability skills must be practical applications. Each new lesson, formative assessment, and activity needs to equip students to make good decisions and engage in behaviors that support workforce success.
- Career Context and the Career Pathways Index: Everything in employability skills building must be presented within the context of careers and within a career pathway.

2.1.4 Approach 4. Blended Learning

Nationally, COVID-19 demonstrated the need to: (1) rethink our educational models; (2) expand our vision of what learning means in today's world; and (3) prepare for changing environments. As students begin to return to the classroom, New Mexico will maintain and extend the online learning model it developed during the pandemic. The online model will be blended with onsite learning. In this way, a model can be demonstrated that is systemically ready and adaptable, and which responds to gaps in accessibility to high-quality learning, even in "normal times."

In 2013, the governor included within the executive budget an appropriation for "New Mexico Graduates Now," a program to start ECHSs in New Mexico. Currently, there are 22 designated ECHSs in the State. With funding from *NM RECTE*, ECHSs will both grow in number and change in access and delivery. *NM RECTE* will create a hybrid or *blended* model, where all proposed courses are accessible online as well as onsite, where classroom teachers balance the two delivery formats. This blended design accommodates rural and non-rural students across the State and, moving forward, should present a more equitable model available to all students in New Mexico and, theoretically, to every school system in America.

2.1.5 Approach 5. Professional Learning

A strong professional development (PD) initiative promotes leadership and improves the ability of educators to be effective in new models of education. For *NM RECTE*, the aim of the PD is to increase the ability of principals and educators to: (1) support online CTE and math learning including rigorous career-infused high-school mathematics; and (2) develop the specific skills to provide a blended model of teaching and learning onsite and online. By focusing efforts on enhancing teacher quality and leadership, *NM RECTE* can assure higher student enrollment, increased support for students throughout the online learning process, and the development of a cadre of educators to ensure the success of the future paradigm of blended learning.

2.1.6 Activities to Support Design Approaches

Working from these five approaches, NM PED has identified two sets of activities that will amplify this design model including: (1) development of an online platform through which any high-school student in the state can enroll in one or more of the CTE courses offered; and (2) development and upload to the platform of customized CTE courses, delivered by multiple providers. Courses include:

- Career Exploration to help students recognize their interests and career goals.
- Employability Skills to support development of higher-order reasoning, problem solving skills, teamwork, and work attitudes.

- Rigorous Pre-Algebra, Algebra 1, and Geometry—to make math learning contextual to the workplace so students can see how math skills are used in different careers.
- Podcasts—to give voice to the shared goals of students' career choices.

Course content will mirror each local area's high-demand careers, shown New Mexico's CLNA 2020 (http://nmcteclna.com/). All proposed math courses will be aligned to state standards, designated for high-school graduation credits by the NM PED, and articulated for college credits and industry certifications.

2.2 ACTIVITIES AND RESULTS

Online course assessments will serve as a link to students' local teachers and assure online courses are tied to the student's home school. Teachers will review three measures of student achievement in their CTE program of study: (1) the career exploration course will include personal inventories and journaling to track student awareness of college and career pathways; (2) criterion-referenced assessments will measure growth in employability skills; (3) Quantile assessments at the beginning, mid-year and end-of course periods for each math course will measure skill growth; and (4) capstone projects developed jointly by teachers and businesses will measure students' increased understanding of potential careers as a result of the podcasts. Student self-assessments will be included in every course.

Outcomes will track: (1) increased student awareness of career pathways; (2) improved student employability skills; (3) improved alignment of courses with local and regional workplace demand; (4) improved mathematics proficiencies; (5) increased number of high-need students engaged in CTE programs; and (5) demonstrable successes and satisfaction with the ECHS hybrid model.

Through the online teacher portal, teachers can monitor progress and provide support where needed for students' successful completion of each course. Graphic displays of data from the math courses' Quantile assessments will be available to program administrators, teachers, and students. In addition to revealing math learning, these charts will show students and their teachers the highest and lowest skill levels acceptable for work in each occupation. Students can

then compare their own scores to targets for their career choices, and experience heightened awareness to improve.

2.3 KNOWLEDGE FROM RESEARCH AND EFFECTIVE PRACTICE 2.3.1 The Rising Influence of CTE Programs

In New Mexico, 67% of all high school students have taken at least one CTE class over the course of their high-school careers. Fewer students (19%) are considered "concentrators," with three or more occupational classes under their belts. Most of these concentrators are committed to a full high-school CTE pathway, which includes a strong academic component as well.

Outcomes for CTE concentrators are consistently better than for other students. In New Mexico, 94% of CTE concentrators graduate high school compared to 71% of other students. And, 91% of CTE students in New Mexico who earn at least two CTE credits in high school enroll in some form of higher education.

CTE prepares students for STEM careers, which constitute 20% of all entry- to advanced-level jobs in the United States (Rothwell, 2013). A recent article in The Washington Post suggested schools need to *grow* CTE programs—that every school should contain at least 25% CTE courses (Matthews, 2020). The articles goes on to suggest schools need to move away from defining success in terms of attendance rates, graduation rates, and completion rates for courses required for college admission. Rather, success should be based on industry certifications, college credits earned, and internships that prepare students for the world they face.

2.3.2 How Business Concerns Impact Education

Educators, business leaders, and even economists are beginning to define the skills and knowledge that employers prioritize in the workplace (Goins, 2016; Harvard, 2011; Nagle, 2010; West Virginia, 2018), yet are often deemed absent in our education system. Among these deficiencies, math, technical, and soft skills stand out. Economist and Nobel Laureate James Heckman cites an emerging body of evidence which shows how soft skills—e.g., motivation, ability to work with others, cooperation, attention, self-regulation, and self-esteem may be

equally predictive of success in schooling and careers as are cognitive skills (Heckman, 2011). With *NM RECTE*, our students will not lack these skills.

2.3.3 Low Performances in Mathematics

The United States spends more on education as a percentage of GDP than almost every other country and yet, among the 34 OECD (Organization for Economic Co-operation and Development) countries, the U.S. consistently scores far below average in mathematics, ranking this year as only 24th. Math scores for the top-performers among the 34 OECD countries showed that students on the average were more than two years ahead of the United States (OECD, 2020) in their math learning. Students in the United States especially showed weaknesses in performing math tasks with higher cognitive demands, such as translating real-world situations into math terms and interpreting math aspects in real-world problems (NC³T, 2019).

3. PROJECT SERVICES

CTE programs develop more fully the academic knowledge and technical and employability skills of students. Embracing this core objective of CTE, NM PED proposes high-quality CTE courses to improve the flexibility and accountability of career-focused pathways and engage more students in a fully developed CTE program of learning to prepare for next steps after high-school graduation.

The logic model shown on the next page served as a planning document to engage all stakeholders in the planning process and to highlight for reviewers the flow of the proposed program.

OVERARCHING GOAL:

NM True CTE will make available a series of supports for online Career and Technical Education (CTE) and further students' abilities for a well-rounded education with enhanced career and college readiness upon high-school graduation.

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INPUTS

Mobilized Resources

- New Mexico Public Education Department (NM PED)
- NM PED College and Career Ready Bureau Leadership
- REC, district and school leaders across 100% of NM's LEAs including:
 - --10 Regional Education Cooperatives (RECs)
 - ...representing 68 primarily rural districts.
 - --23 LEAs in urban and suburban districts
- Perkins V- Comprehensive Local Needs Assessment (CLNA) Consortia
- CTE Industry Council
- Higher Ed Council
- Early College High Schools
- Multiple course providers:
 - Geographic Solutions (career exploration)
 - The Partnership for Workforce Innovation (soft skills)
 - NS4ed (STEM workforce contextual Algebra 1 and Geometry)
 - Front Porch Studios (business and community career podcasts)
 - Navajo Preparatory School Native American podcasts.
 - Edmentum (CTE Academies for hybrid ECHSs
- NM TRUE online course delivery platform
- MetaMetrics assessment provider
- Principal and Teacher Training Academies

OUTPUTS/OBJECTIVES

Activities and Interventions

NM PED works with Pathways2Careers to build the NM True CTE platform for online CTE course delivery across the state

- All proposed courses will be loaded on the platform for virtual access.
- Platform portals allow administrator, teacher, parent, and student access.

NM PED provides CTE opportunities accessible online to prepare students for college and careers

Career exploration

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- Rigorous STEM learning through career-focused pre-Algebra, Algebra, and Geometry courses, which meet requirements for graduation.
- Employability Skills (soft skills)
- Multi-ethnic including Native American and Hispanic business and community leader podcasts (electives)

<u>Course curricula represent learning experiences contextual to CTE and college and career readiness</u>

- Align all course curricula with state standards
- Articulate courses for college credits and industry certifications.
- Work with business and community leaders to align podcasts with course content and high-demand careers.

NM True CTE builds partnerships in support of CTE opportunities

- Ensure college/career pathways mirror regional high-demand careers.
- Engage leaders from businesses, communities, and higher education with parents and schools in all program planning and operations to reflect a true coming together of education, the workforce, and local economies.

School Districts assures high-need populations served

- Establish equitable recruitment and enrollment guidelines, with priority for under-represented, high-need rural and other students.
- Provide hardware and software upgrades for participants needing support.
- Make CTE courses accessible both online and onsite to ensure rural students have access to programs not available in their schools.

NM PED expands its support for ECHSs to include a hybrid online/onsite model

- Provides additional support to rural and other schools with ECHS state designation process.
- Promotes effective partnerships between "local" colleges and ECHSs.
- Develops policy guidelines for a hybrid ECHS model that combines online and on-site course requirements and electives.
- Phases-in online CTE Academies to give rural students opportunities to build their technical skills online for high-demand careers.

<u>NM RECTE</u> enhances program for principal and teacher quality and leadership in support of on-site and online CTE course and pathways opportunities

- Provide online PD Academy to train educators on how to use Labor Market Information to build their CTE programs.
- Provide online Principal and Teacher Training Academies to build skills in online coaching, mentoring, and administration.

NM True CTE courses include high-level assessments to monitor student growth

- Develop start-of-course, mid-course, and end-of course assessments embedded into each course.
- Create a menu of mid-course capstone projects for each course.
- Prepare NM True CTE Policy and Procedure Manual to guide continuous improvement, sustainability, and replicability in other states.

OUTCOMES

Short-term outcomes and measures

Increased awareness of career pathways and skill requirements.

- Improved employability skills
- Improved alignment of courses with local and regional workplace demand.
- Improved mathematics skills through career-focused course design.
- Quantile assessments of math coursework to measure skill growth.
- Increased course options for high-need students to prepare them for college and careers through CTE pathways.
- Increased number of ECHSs.
- Increased student outcomes including course completion, and growth in workplace and leadership skills as measured by imbedded course assessments.

program objectives
 New Mexico's online CTE opportunities increase the

Long-term outcomes reflecting

- opportunities increase the preparedness of the State for seamless, uninterrupted teaching and learning.
- Online course accessibility increases CTE participation for students across the state, including rural and other under-served and under-represented students in college and high-demand careers.
- Completion of industry credentials and college credits increases prior to high-school graduation.
- Career and college readiness increases as more students enroll in CTE pathways as a result of greater course accessibility.
- Growth in employment outcomes for students transitioning directly into the workforce after high school.
- A hybrid ECHS model including onsite and online CTE course opportunities adds to this proven model for engaging underrepresented students in career and college focused learning.

3.1 STRATEGIES TO ENSURE EQUAL ACCESS AND TREATMENT

New Mexico has 91 school districts-- 68 rural and 23 non-rural. All 91 districts have expressed a desire to participate in this program. Letters of support represent the participating districts, ECHSs, NM PED, and other stakeholders.

According to data gathered for the 2020 Perkins V CLNA, these 91 districts serve 94,000 high-school students of which 63,000 (67%) have enrolled in at least one CTE course and 18,000 (19%) are CTE concentrators. The proposed *NM RECTE* program will be open to all students, with an assumption that student enrollment will initially draw from CTE enrollers and concentrators. The program anticipates a high and gradually increasing number of students due to several important factors: (1) hosting capabilities for the platform can serve an unlimited number of students; (2) social distancing could continue or return in communities and schools where necessary; (3) districts where CTE opportunities are limited, particularly in rural areas, could encourage student participation for greater opportunity; and (4) students may prefer to take the engaging, career-infused Algebra 1 and Geometry courses that are both state-certified and credit-bearing toward their high-school graduation requirements. Considering these factors, NM PED projects 15,000 students initially enrolling in one or more of the proposed courses, increasing to 30,000 annually.

3.1.1 Providing an Online Delivery System

In New Mexico, schools have been closed since March 15 due to the pandemic. Students completed the academic year through a combination of online learning and packets of work to be completed at home.

While Internet access is increasing in the state, it is not near universal. Students for whom connectivity was not previously available were assisted by local school districts that created mobile hot spots by equipping one or more school buses with dashboard-mounted routers, and parking the buses in near area sports fields or other remote locations (D'Ammassa, 2020). This mobile bus approach to ensuring equity in education for rural students will remain an option as needed in this grant.

3.1.2 Outreach and Recruitment

NM PED will develop marketing materials for distribution in every high school in the State. The materials will highlight courses availability, the benefits of online accessibility, and students supports that will be provided. Parents and students will be apprised of the opportunity for CTE courses and how they effectively prepare students for college and high-demand careers. **This outreach** will underlie the recruitment process and enrollment of students in the program.

Every student in the state will have the opportunity to request access to the proposed CTE courses. The program platform is hosted on Amazon Web Services, and has no upper limit to the number of students, thus eliminating the need for recruitment and enrollment selection criteria.

While the program is open to all students in New Mexico, a focus will be on reaching rural students. Rural and remotely rural communities are often limited in access to high-quality CTE course opportunities; this program will solve equity concerns faced by many students who would seek CTE coursework but have difficulty accessing.

The ten NM RECs will oversee all recruitment in the State's rural school districts; Albuquerque Public Schools, which enrolls 40% of the State's students, will oversee recruitment and enrollment in the State's 23 non-rural districts. Actual enrollment will be through students' home schools. **No student fees will be charged.** Project staff will be hired to assist in this process, ensuring no community, large or small, falls between the cracks. Where needed, the program will upgrade student and school hardware and software to remove technological barriers to participation.

3.2 EXCEPTIONAL APPROACH TO PRIORITY

The proposed *NM RECTE* program's well-rounded education opportunities represent an attractive path for those students currently under-represented in higher education and the workplace—especially in high-demand, high-skill careers. The proposed program expands access to well-rounded courses by developing, implementing, and disseminating information on what courses are available, how to enroll, and what online and school procedures need to be

followed to begin the coursework. The courses are offered by **multiple providers** and accessed by students through a single online platform and log-in. By being available online, the program meets needs of disadvantaged students including students with disabilities and others who may present additional challenges—such as rurality—to accessing onsite school programs. All of the courses proposed contribute to assuring students are career and college ready by the end of 12th grade.

The remaining sections under 3.2 describe the components of the proposed program.

3.2.1 The Online Platform for Course Delivery

NM RECTE's (LMS) will host all career-focused courses in the proposed *NM RECTE* program. This cloud-based platform is hosted on the Amazon Web Service. The LMS will have three different audiences: Students, Teachers, and Administrators. All will login to the platform through the same interface, but will have different experiences.

- Students will log in and be able to access the lessons they are enrolled in, their assignments, the platform's Career Center, MetaMetrics assessments for math, and their profile. They will be able to submit any assignments and see their grades and teacher's comments. The Career Center will provide students a place to view detailed career information—i.e., job outlook, education requirements, on-the-job tasks, and more. Through the Career Center, students will also be able to view careers highlighted by their teacher or by their assessment results, and save a list of careers of interest for future reference.
- Once teachers log in, they will be able to access lessons or browse a catalog of lessons.

 Teachers can "branch" off an original lesson by duplicating the original lesson and making slight alterations. Teachers can maintain an online grade book where they can easily input grades for any students by assignment for any of their classes. The grade book will also provide easy at-a-glance views of assignment averages and student totals. An assignments page will allow teachers to manage individual students' grades, upload scan-ins of a student's completed assignment, and add teacher feedback. Aside from the lesson browser that allows teachers to easily search, view, print, or download PDF lessons, a resource browser will

- provide an easily searchable repository of high-quality, hand-curated resources that can be added to a teacher's copy of a lesson.
- Administrators will be able to view everything every teacher can view, and everything every student can view. Administrators can also see logs of events throughout the system, identifying who caused the event. Examples of events would be creating, editing, or deleting a lesson; adding or removing access to a course; or changing passwords. These access points for administrators guard against any potentially undetected malicious use.

3.2.2 Proposed CTE Courses to Meet Absolute Priority

The following courses were selected based on their ability to meet the program's design approaches. Providers for each of these courses were selected based on the high-quality of the math and CTE courses they proposed and their experience in curricular development.

3.2.2.1 Career Exploration

Engaging students early and often with intuitive and easy-to-use online tools can help with the discovery of interests and talents, as well as the development of pathways that align with high-demand jobs and living-wage opportunities. For the *NM RECTE* program, NM PED will utilize *Geographic Solutions*' online courseware, *Career Solutions* to help students explore future careers. The courseware will be customized to LMI in the State. The courseware will factor self-assessments and LMI into career exploration results, allowing students to identify careers that are not only suited for them, but are also in-demand and high-wage.

Offering this courseware as part of the proposed *NM RECTE* program and through the program platform will put this first-step career planning tool directly in front of students. While the courseware is provided through the NM Department of Workforce Solutions, *NM RECTE* will annually update the Facilitator Guide to reflect software enhancements and content changes to remain aligned to NM's changing local workforce priorities.

3.2.2.2 Employability Skills

The *Partnership for Workforce Innovations* will design five *Skills-Based Courses*, each with between 8 and 31 lessons; a *Career Literacy Course* with a lesson for each of 79 identified career pathways; and a *Job Preparation Course*, which includes seven strategic lessons on finding and securing a job. The Skills-Based Courses in their sum will address communication, enthusiasm and attitude, teamwork, problem solving and critical thinking, and professionalism. Students will identify a career pathway to follow based on their interests and aptitudes.

Lessons include: (1) engagement exercises—profile of a particular employability skill in the workplace and related topics for discussion; (2) definitions of terms; (3) instructional content; (4) formative assessments with multiple checks for understanding; (5) examples of highlighted skills from culture or history; and (6) situational judgment exercises—What would you do? What would be the most appropriate response? Was this response appropriate?

A unique criterion-referenced assessment measures not only the student's understanding of terms, definitions and facts, but also the student's ability to execute practical applications of these concepts in the workplace. The course will be uploaded to the *NM RECTE* platform and accessed by students through the platform sign-on. Teachers will monitor student progress through the online teacher portal.

3.2.2.3 Pathways 2 Pre-Algebra, Algebra 1, and Geometry

Pathways 2 Pre-Algebra, Pathways 2 Algebra 1, and Pathways 2 Geometry are new paradigms in math learning, which will be fully developed and introduced in this program. By making math purposeful and relevant to students' chosen career paths, these curricula increase students' motivation to learn, interest and engagement, effort and persistence, task/course completion, retention of new information, and performance. All Pathways 2 Math programs incorporate evidence-based learning strategies and are aligned to state standards in mathematics.

Math concepts are introduced within the context of 16 different career clusters recognized by the U.S. Department of Labor. Each cluster includes lessons focused on 20 high-demand, high-wage careers, providing students with the potential to experience 320 different career

options at the same time they are learning math. This design structure will further CTE in New Mexico by illustrating for all students how algebra and geometry are used in everyday workplace activities. To assure the math lessons are reflective of a student's career interest, each course begins with students answering questions about their career interests. Based on these responses, the math lessons are personalized to a student's chosen career cluster, engaging them in career-focused learning in math. At any point in the course, students can enter a different career cluster to continue with the lessons.

Each lesson begins with a career spotlight on the occupation that will illustrate that lesson. The career spotlight provides students with the occupation description, the differing levels of education required, potential employers, and a summary of responses to the question, "Is this a good career for me?" Also in the introduction is a list of the math concepts that will be taught. Lesson objectives are stated, along with illustrations of the math problem, again in context of the student-selected occupations. For example, if "volume of cylinders, cones, and spheres" is being taught in Geometry in the context of agricultural engineering, the lesson will show storage systems with their dimensions, following by hints for planning how to solve the presented storage problem for agricultural products. A series of problems at the end of the lesson determine skill growth and understanding of the math concept taught.

Materials to illustrate math programs are included in the *Optional Project Narrative File Attachment*. These include: (1) a sample Geometry lesson on Volume of Cylinders, Cones, and Spheres, in the career context of Agricultural Engineering; (2) a sample of the same lesson, teacher's edition, with enrichment suggestions and problem answers; (3) Tables of Contents for Algebra 1 and Geometry, which show the lesson topic, standard to which it is aligned, and the occupation; and (4) the Quantile framework for these courses.

Pathways 2 Math is anticipated to significantly raise math scores across New Mexico. Based on the curricula design, its career infusion, and a review by the NM PED of its content in terms of designated scope and sequence, the NM PED has designated Pathways 2 Algebra 1 and Pathways 2 Geometry as accepted course sequences to fulfill high-school requirements for

mathematics for graduation, completed either online or onsite in a classroom in a blended learning delivery model.

3.2.2.4 Business and Community Podcasts

Front Porch Studios will develop a series of five to 15-minute audiovisual interviews with individuals who are employed in the top three high-growth and high-wage careers in New Mexico. These interviews will cover 25 occupational groups within the 16 career clusters. All interviews will be geographically distributed across the state to engage both rural and non-rural students, ensuring the interviews are relevant to local community cultures and workforce demands. About half the interviewees will be Hispanic, reflecting the 46% Hispanic student body across the state.

A second series of podcasts will be produced by the Navajo Preparatory School in conjunction with the Diné Bizaad Center, developed in 2019 to support the culture and traditions of Native Americans. The podcasts, called *Indigenous Voices*, will highlight indigenous peoples and their journeys into STEM successful careers, where this population is under-represented, and how personal career successes have contributed to nation-building of sovereign tribal nations.

All of the interviews will highlight what employers are looking for in an employee, and other tips for what students can do as they prepare for their future career. The interviews, accessible online, will constitute a one or more elective credit full-year courses. The courses will confer credit toward graduation, as designated by the NM PED.

Assessments of knowledge gained in the podcast courses will be measured in the beginning and end of the course. Working with teachers across the state, students will complete a course project aligned with their selected career interest and influenced by one or more of the presenters. The projects will be evaluated by teachers at the students' home schools.

3.2.2.5 Online Career Academies

One Career Academy will be provided by Edmentum through *NM RECTE* to prepare students with vocational skills and entry-level training in one of eight available Academies at this time. The Career Academies are a fully accredited online high-school program that empowers

students to graduate on time with their cohorts, explore post-secondary possibilities, pursue personal interests, and prepare to obtain industry recognized credentials.

The Academy partners with schools and districts to put real-world application at the center of learning. One Career Academy will be introduced in Year 2 of the grant. The Academy will be selected from among the following available options: Home Care Professional, Child Care and Education, Hospitality and Leisure, Certified Protection Officer, Office Management, Homeland Security, General Career Professional and Professional Skills, Commercial Driving, Retail Customer Service, and Food and Hospitality. Selection of the first academy will be through the NM PED to reflect high-demand in the State.

3.2.3 ECHS Hybrid Model with Blended Learning

Applying the blended model approach described in previous sections, *NM RECTE* will create an ECHS hybrid model that combines online and onsite courses. In this blended model, math teachers will introduce lesson standards and objectives at the beginning of each lesson, and be available to support students' mastery of each lesson through primarily online instruction.

Five ECHSs in New Mexico will participate in a pilot demonstration of this hybrid model—Carlsbad Early College High School, Arrowhead Park Early College High School, Alta Vista Early College High School, The College and Career High School, and San Juan College High School. Each of these ECHSs offers students opportunities to graduate with up to two years' college credit (tuition free), an industry-recognized Certificate, or an Associate's Degree in their selected career pathway. Each also partners with a two-year community college and/or a four-year college or university. Multiple career pathways are offered at each school. Some ECHSs are far more specialized than others: Arrowhead Park focuses on general STEM pathways, and Alta Vista teaches the Principles of Technology to prepare students for technological fields.

3.2.4 Professional Learning

The professional development (PD) initiative will be a fully developed menu of workshops, coordinated by the National Center for College & Career Transitions in partnership

with NM PED, course providers, RECs, school Districts, the CTE Industry Council, the Higher Ed Council, Navajo Preparatory Council, and ECHS principals.

PD will connect educators to online learning possibilities for math and career education and to the power of LMI for sharing career information with students. With video tutorials, printable guides, learning assessments, and completion certificates, PD training is structured so participants can easily move between courses and modules, and explore topics most relevant to their own learning needs. The professional development will include four modules:

- The Future of Work: Rethinking college and career readiness; preparing students for careers; the shifting workforce landscape; problems and solutions.
- Using LMI to Connect with the Future of Work: the power of awareness to inform and prepare; what is LMI; the Labor Market Exploration System.
- Learning to Use LMI: staying connected to work; basic terms and definitions, identifying high-value careers, exploring LMI.
- Incorporating LMI into Education Processes: *career exploration, career planning, policy and practice, resources and tools.*

The NM PED will strongly encourage each educator in the State to participate in professional development when students in their districts/schools are enrolled in the proposed *NMCTE* program. PD promotional materials will be prepared by NM PED and across districts.

3.3 GAPS AND WEAKNESSES

NM RECTE is a readiness initiative, conducted as a new model of online schooling. It addresses the gaps in perceptions, especially the need to readjust education for interruptions in classroom-based learning, and most importantly, it closes up weaknesses in New Mexico's CTE program and its accessibility for all students

Recent discussions among New Mexico's leadership have directed plans for activities to improve alignment between education practices and workforce needs. As a result, significant efforts have been made to implement career-ready standards, scale up career pathways that

prepare students for high-value jobs, and ensure CTE programs are more in tune with the rapidly shifting needs of employers (NS4ed, 2019).

3.3.1 Capacity for Online Learning in New Mexico

COVID-19 came upon the country quickly, and the education system was not fully prepared for virtual teaching. Parents were not prepared to monitor and guide their children's learning, and children were not acclimated to learning outside the classroom. The NM PED ordered public schools to move to remote learning, although many parts of the state, rural areas in particular, suffer from gaps in internet connectivity. In effect, the educational system was short-changed and turned to creative ways to deliver education remotely (e.g., mobile hotspot buses), thereby addressing a potential systemic gap in education. To monitor a system of virtual learning, New Mexico will pay attention to efforts that increase rural access to expand and extend online resources.

3.3.2 The Learning Gap

When students were involuntarily sent home to continue their school year as a result of the pandemic, their formal education was disrupted. And, according to educators, the consequences will be overwhelming. Some students may lose up to one year of academic gains, increasing gaps in proficiency even more among student subgroups (New York Times, 2020b). In some cases, these gaps will effectively wipe out progress from the previous year in assuring equal learning opportunities for all students. If learning primarily continues to be based in the home, student outcomes will continue to fall, particularly if schools sustain budget cuts as a result of the economy.

Educators anticipate increased drops in state proficiency testing scores, higher drop-out rates, and lower graduation rates. These concerns are voiced by teachers, who report many of their students do not engage consistently in their remote assignments, particularly where parents are working outside the home. The response to this gap is to continue development of a virtual system that position schools across New Mexico to seamlessly deliver learning opportunities onsite and online.

3.4 NEEDS OF RECIPIENTS OR BENEFICIARIES OF SERVICES

3.4.1 Responsiveness

The proposed courses are being developed as a direct response to input from New Mexico's business community. All of the courses offer instruction on the skills (i.e., academic and employability) that New Mexico employers say are their priorities.

As part of its Perkins V CLNA in 2020, NM PED convened "CLNA Councils" in each of its ten economic districts as shown following. Representatives from business, education,



economic development, and local government collaborated to establish standards, skills profiles, and vision statements for CTE in each district. This innovative approach provided an unprecedented level of insight into the priorities and needs of employers in these communities. And, this approach in course design will serve students well when they face these same employers upon graduation from high school or local community

colleges and universities.

3.4.2

Accessibility and Equity

With *NM RECTE*, all online courses will be accessible to ensure all students have equal access to the course material. All online courses and services, including electronic and information technology, adheres to the requirements of the Americans with Disabilities Act, and Section 504 of the Rehabilitation Act. Beyond compliance with legal requirements, online courses will include the Universal Design concepts to assure course design can be accessed, understood and used to the greatest extent possible by all people regardless of their abilities or disabilities. The 7 Principles of Universal Design, developed 23 years ago at North Carolina State University, guide the design process to ensure the highest level of usability.

All course software will be evaluated by staff at the NM PED to ensure its appropriateness for students with disabilities; changing and current technologies; and the use of Internet supports for students with disabilities as well as low-income students and those in

extreme rural communities. Where hardware and software may be a barrier to participation, the project will work with the students' home districts to provide updates or technical system support to remove these barriers.

3.5 ENSURING HIGH-OUALITY PRODUCTS AND SERVICES

The courses selected are high-quality and contribute to preparing students for college and career. The quality of services is guided by the "fit for purpose" principle, that the products and mechanisms used are suitable for the intended purpose of high-quality CTE courses accessible online for the greatest impact on New Mexico's students.

Systems and processes proposed by *NM RECTE* have been either operational or under development across the providers for more than 15 years and have undergone rigorous studies to determine the effectiveness of their design. Course providers are not unknown to NM PED.

NM PED will establish a written agreement with each provider, including non-discrimination clauses, accountability, and other provisions. Providers include the following:

- NS4ed is a rising leader in designing technology-based career education services. The
 company has facilitated New Mexico's ECHS initiative for the past five years, supporting
 individual schools in the designation process, developing online resources for principals and
 teachers, and developing statewide professional development programs. NS4ed is also the
 technical advisor for the Early College program in Massachusetts.
- The Partnership for Workforce Innovation has worked with school districts, workforce boards, and economic development organizations around the country for more than a decade to create curricula and to position education as an engine of economic success.
- Geographic Solutions has worked with the New Mexico Department of Workforce Solutions for more than 16 years, providing career exploration strategies for adults returning to the workforce.
- MetaMetrics has extensive experience in providing assessments, and is working with NS4ed to integrate the Quantile assessments into the math programs.

- Front Porch Studios produces work-related podcasts nationally. Their podcasts often provide a way to connect people to people, and in some cases, people to ideas.
- Navajo Preparatory School is the only Navajo-sanctioned, college-prep school for Native
 Americans in the country. With 100% graduation rates and more than 90% college bound,
 NPS is a stellar example of learning in New Mexico, and will serve as an exemplar for
 indigenous students throughout the State.

Reviews of all the developing courses will be conducted at the end of each semester through a continuous quality improvement (CQI) process instituted by the NM PED. Course content and delivery will be reviewed at semesters' end and course and delivery adjustments will be made as needed to ensure continuous high quality as described in Section 4.4, Feedback and Continuous Improvement.

Student and teacher surveys will document content and delivery. Topics will include: (1) how easy students found moving through the lessons; (2) how well the content was presented; (3) how much the link to careers impacted ease of learning; (4) how much the courses increased awareness of careers; (5) how much was learned; and (6) how easy it was to access the course online and what barriers to access were encountered.

Responses will be reviewed and aggregated to determine any adjustments to courses or delivery systems. Findings will be reviewed by the NM PED project team and presented as part of the program's annual report for education and business stakeholders and policymakers in New Mexico. Findings will also be included in the *NM RECTE* Operations Manual to support replication and scalability.

4. MANAGEMENT PLAN

4.1 OBJECTIVES, RESPONSIBILITIES, TIMELINES, AND MILESTONES

The Logic Model on page 11 presents the objectives, activities, and outcomes for *NM RECTE*. The proposed management plan will show how the structure proposed herein will lead

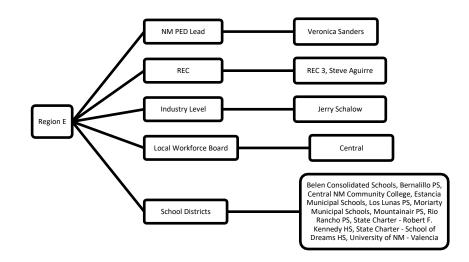
to the proposed outcomes most efficiently, on time and within budget by coordinating with and through existing education and workforce development structures within the State.

An underlying foundation of the program is the intrinsic link between education, the economy, and the workplace. To reflect this partnership, the management of *NMRECTE* will be divided, not merely by RECs and school districts, but also by educational units within the ten economic and workforce development regions in the state. (See map on page 22.) This approach will assure every student in the state has access to the online CTE programs that reflect the reality of the local workplace.

The centralized project management team works in the NM PED Career and College Readiness Bureau (CCRB). NM PED will hire a fulltime Project Director and a Recruitment Coordinator to support *NM RECTE*. The Project Director will oversee day-to-day operations and liaison with participating staff at CCRB and in each region; serve as liaison with the program and the NM Department of Workforce Solutions and its Industry Councils and Workforce Boards. coordinate data collection for analysis through NM PED; and prepare mid-year and annual reports. The Recruitment Coordinator will work with CCRB to develop marketing materials and recruitment processes, as well as liaison with the RECs and school districts to recruit and enroll students. Both positions will interface with the RECs in the ten Regions, who serve 68 school districts in the State, and with Albuquerque Public Schools who is coordinating recruitment efforts in the 23 non-rural school districts. Through this structure, NM PED and *NM RECTE* will have direct links to all 91 of New Mexico districts' CTE programs. The NM PED CCRB will also directly oversee the development of the ECHS hybrid model pilot in the five pilot ECHSs.

To ensure integration of education and workforce systems in furthering CTE expansion, each region will have its own NM RECTE lead, a management and operations link directly back to the central management structure in NM PED.

A sample Regional
Management framework is
shown here. As noted, it
includes the names of all
school districts served in the
region. In this way, all 91
LEAs in the state are firmly
served within their area to



maximize the local CTE, career and college benefits to their own students. All ten integrative plans appear in the *Optional Project Narrative File Attachments*.

The strength of this management Plan is that it links State oversight with regional education and economic needs, to naturally build local capacity under the umbrella of the grant.

The following table shows the NM PED senior staff working with the project, along with management team consultants and product developers.

Team Member	Current Position – NM PED	NM RECTE Responsibility				
Elaine Perea, Ph.D.	Director of NM PED, College and	Program Director, grant oversite				
	Career Readiness Bureau (CCRB)					
Alexandra Lutz, M.A.	Education Administrator	NM PED Lead, Region A				
Daniel Rick Schmidt	Advanced Education Administrator	NM PED Lead, Region B				
JoAnn Buerle	Education Administrator	NM PED Lead, Region C & I				
Barbara Armijo, M.A.	Education Administrator	NM PED Lead, Region D				
Veronica Griego-Sanders, MA	Education Administrator	NM PED Lead, Region E				
Susan Chaudoir, Ph.D.	State Administrator	NM PED Lead, Regions G and J				
Jaime Cherry, M.Ed	Education Administrator	NM PED Lead, Regions H and K				
Tracey Prelli Bryan, BA	President/CEO, The Bridge of	Public private partnerships				
	Southern New Mexico					
R. Stephen Aguirre, MA	Executive Director, REC 3	RECs recruitment of rural students				
PROVIDERS						
Joseph Goins, Ph.D.	Executive Director, NS4ed	Platform developer; NM ECHS				
_		consultant, math course developer				
Trevor Stokes	CEO, PWI	Employability skills course				
		developer, LMI				
Troy Price	CEO, Front Porch Studios	Business and community podcasts				
Darah Tabrum	Director of Student & Community	Indigenous voices podcasts.				
	Engagement	_				

The Management Team will meet monthly during Years 1 and 2 of the project, and quarterly thereafter. The NM PED Region Leads will provide data from their respective regions, including recruitment outreach, enrollment, technological needs to be addressed, and other impacts on the program. The Project Director and NM PED's data specialists will aggregate the data quarterly and provide input for quarterly reports. These reports will be distributed across each region to participating stakeholders, and will be highlighted in subsequent editions of marketing materials.

Following is the timeline for *NMRECTE*:

Year/Quarter	Activity	Benchmark/Milestone	Responsibility				
Administration, Start Up							
Y1, Q1	Management team planning meeting; hiring; team building	Program Plan is finalized Staff are hired Kick-off event with management and Regions	NM PED, Region lead staff Project Director (PD)				
Y1, Q1	Regional program planning	Regional staff in place Meeting schedules and flow of responsibility set	NM PED, Region Leads, PD				
	<i>U,</i>	nent, and Enrollment					
Y1, Q1; Y2, Q1; Y3, Q1; Y4, Q1; Y4, Q1 Y1, Q2 and ongoing Y1, Q3 ongoing Participant training	Develop marketing and recruitment materials Distribution of marketing materials Recruitment and enrollment Develop training program for students, parents, and teachers to use the online CTE	Online and print marketing and recruitment are complete. Distribution logs to assure outreach across state Enrollment benchmarks met, quarterly tracking Training program documented, student, parent, and teacher training online on the use	NM PED, RECs, Recruitment Coordinator (RC) RECs, LEAs, high schools, RC RECs, LEAs, schools, RC RECs, NM PED, RC, LEAs				
	system	of the system, attendance logs for training					
		evelopment					
Y1, Q1	Build technical requirements for single log-in in hosted platform	Online operation of platform	NS4ed, NM PED				
Y1, Q2; Y1, Q3; Y2, Q1; Y2, Q2 Ongoing	Identify interviewees, videotape podcasts, at Navajo Studio	Indigenous Voices podcasts available through platform for online access	Navajo Preparatory School				

Y1, Q1; Y1, Q3; Y2, Q1; Y2, Q2 Ongoing	Identify interviewees, videotape podcasts aligned to local careers	Community Voices podcasts available through platform for online access	Front Porch Studios, Industry Council				
Y1, Q3	Develop math courses aligned with local careers	Upload math courses to platform for online access.	NS4ed; Industry Council				
Year 1, Q3	Develop employability skills course aligned with local careers	Upload employability skills course to platform for online access	PWI, Industry Council				
	Blende	d Model					
Y1, Q3; Y2, Q2 Ongoing	Develop ECHS hybrid model of blended learning, integrate into ECHS curricula	Pilot begins for ECHS hybrid model at 5 high schools; adoption of ECHS hybrid sites availability at all ECHSs	NM PED; 5 pilot sites; all ECHSs				
Y3, Q1 ongoing	Develop ECHS blended model policy and procedure manual, Expand model	Completion of manual, requests for expansion to other ECHSs	NM PED, pilot sites, all ECHSs				
Professional Development Services							
Y1, Q2; Y1, Q4; Y2, Q2; Y2, Q4; Y3, Q2; Y3, Q4; and ongoing bi-annually	Develop PD program for grant, engage educators and stakeholders, identify current LMI	Menu of PD opportunities online, video library for upload of training sessions, printable resources	NM PED, PD, PD consultants, RECs.				

4.2 <u>INTEGRATION WITH SIMILAR EFFORTS</u>

NM RECTE complements rather than duplicates existing efforts to provide students with access to courses that contribute to a well-rounded education by supplementing and not supplanting, and integrating existing funding streams.

NM PED's CCRB provides the department with resources for CTE. Funding for the Department's current initiatives comes primarily from the Perkins V allotment and from State budgetary direct line items for CTE. *NM RECTE* supplements the current CTE program funds by offering an on-line cadre of well-rounded courses developed in conjunction with statewide workforce boards and industry representatives. *NM RECTE* expands CTE throughout all 91 school districts and provides accessibility to students in every corner of the state. The proposed CTE funding is an enhancement to both the quality and the equality of education envisioned by the State.

Several ongoing state initiatives will add their support to *NM RECTE*: (1) Build New Mexico, adds to the academic rigor of proposed courses and augments funding directly through the State Budget; (2) the Department of Workforce Solutions provides the resources that highlight the LMI that is integrated into our proposed CTE models; and (3) NM Career Pathways provides an otherwise funded website to allow educators, parents, and students to explore information about their local school districts, labor markets, and career clusters. As these initiatives show, *NM RECTE* is not supplanting these funds but rather supplementing efforts in CTE programming to ensure students are college and career ready for NM jobs.

4.3 ASSURANCE OF DIVERSITY OF PERSPECTIVES

The program will engage a broad range of stakeholders to support development and continuous improvement. The management structure provides a decentralized regional approach that builds local capacity and reaches every student in the state. The NM PED Region Leads assure a diversity of perspectives by soliciting input from parents, teachers, and students through bi-annual surveys and annual focus groups. Input from these activities will be reviewed in each Region's quarterly meeting and shared with NM PED project leadership and providers to ensure appropriate changes and concerns are addressed. Businesses, workforce and development councils will be incorporated into every stage of the planning and monitoring process across each of the 10 regions and through the statewide Industry Council.

4.4 FEEDBACK AND CONTINUOUS IMPROVEMENT

The Region Leads will review project data, information, and other performance feedback quarterly to assess progress toward outcomes. This process will serve as the basis for making informed decisions regarding program changes to ensure continuous performance improvement.

The Project Director and staff will be responsible for maintaining all process evaluation documents as evidence of program activity progress and efficiency. Program staff will regularly collect participant and partner data including satisfaction surveys. Data from these surveys, as well as other outcome data, will be assessed and discussed at project and Region meetings to assess the progress and quality of services. Working with the Project Director, a NM PED data

analysis group will compile aggregated data and prepare an annual evaluation report that describes outcome data and program progress in meeting contracted goals, objectives, and activities. The report will be used for formative assessment.

As part of the management cycle and throughout the duration of the project, the NM PED management team and Regions will work together to identify and deploy new strategies informed by their assessments and reviews of procedures. During recruitment and enrollment, parents will be apprised of their contributions to the program. Parents will be provided with instructions for how to **request new course offerings. All requests will be responded to, in writing, to parents.**

REFERENCES

- ACTE. (2008 December). CTE's role in career guidance.

 https://www.acteonline.org/wp-content/uploads/2018/03/Guidance_issuebrief.pdf.
- ACTE. (2018 January). CTE TODAY!

 https://www.acteonline.org/wp-content/uploads/2018/03/CTE_Today_Fact-Sheet_January2018.pdf
- Blad, E. (2019 September 3). New Mexico ranks last in nation on Quality Counts Annual Report Card. Education Week. https://www.edweek.org/ew/articles/2019/09/04/new-mexico-ranks-last-in-nation-on.html.
- D'Ammassa, A. (2020 May 28). As classrooms become more virtual amid COVID-19, broadband gaps loom large in NM. Las Cruces Sun News. https://www.lcsun-news.com/story/news/education/2020/05/28/new-mexico-coronavirus-schools-virtual-classrooms-broadband-gaps/3114780001/.
- Dougherty, S. (2016). Career and technical education in high school: Does it improve student outcomes? The Fordham Institute, Washington, DC.

 http://edexcellence.net/publications/career-and-technical-education-in-high-school-does-it-improve-student-outcome.
- Education Commission of the States. (2014 November). English Language Learners State Profile New Mexico.

 http://ecs.force.com/mbdata/mbstcprofexc?Rep=ELP14&st=New%20Mexico.
- Education Week. (2020 June 18). Education Week. Education funding at risk as New Mexico legislators meet. https://www.edweek.org/topics/states/new_mexico/index.html.
- Grisham, M. (2020). 2020 Executive budget. Executive budget recommendation highlights. https://www.governor.state.nm.us/2020-executive-budget/.
- Harvard Pathways Project. (2011). Pathways to Prosperity: Meeting the Challenge of Preparing Young Americans for the 21st Century: Boston, MA: Harvard University College of Education.

- Heckman, James. (2011 March). The American family in black and white: A post-racial strategy for improving skills to promote equality. NBER Working Paper Series, Working paper 16841. Cambridge, MA: National Bureau of Economic Research.
- Hollis, C. (2012 December). Native American children and families in New Mexico:

 Strengths and challenges. A New Mexico KIDS COUNT 2012 special report. New Mexico VOICES for Children. https://www.nmvoices.org/archives/5834.
- Jimerson, L. (2004). Teachers and teaching conditions in rural New Mexico. The Rural School and Community Trust. https://www.ruraledu.org/articles.php?id=2066.
- Kemple, J.; Willner, C. (2008.) Career Academies: Long-term impacts on labor market outcomes, educational attainment, and transitions to adulthood. NY: MDRC.)
- Matthews, J. (2020 June 11). Post-pandemic high schools should offer more career and technical training. Here's why. The Washington Post.
 https://www.washingtonpost.com/local/education/post-pandemic-high-schools-should-offer-more-career-and-technical-training-heres-why/2020/06/11/b0dff72a-aa70-11ea-94d2-d7bc43b26bf9_story.html
- Meeder, H.; Pawlowski, B. (2020). Preparing our students for the real world: The education shift our children and future demand. A thought paper for school and community leaders.

 National Center for College and Career Transitions (NC³T).

 file:///C:/Users/dell/OneDrive/Downloads/Workshop-3-3-Handout-NC3T-Career-Connected-Learning-white-paper.pdf.
- National Alliance for Partnerships in Equity. (1993).

https://www.ncwit.org/member/national-alliance-partnerships-equity-nape.

NM PED Student Assessment Results, July 2018.

https://webnew.ped.state.nm.us/wp-content/uploads/2018/07/PARCCBriefingPacket2018.pdf

- NM PED New Mexico's State Assessment System Recommendations from the New Mexico

 Task Force for Student Success. https://webnew.ped.state.nm.us/wp-content/uploads/2019/11/Student_Success_Task_Force_Report_Balanced_Assessment_System_-October_2019.pdf
- New Mexico Voices for Children. (2020 January). 2019 New Mexico's Kids Count Data Book. https://www.nmvoices.org/archives/13789.
- Nagle, Richard. (2010 January). Hiring, retention and training: Employers' perspectives on trade and soft skills in South Carolina. University of South Carolina, South Carolina Workforce Investment Board.
- NC3T. (nd). The case for college and career pathways: A research summary.

 https://www.nc3t.com/wp-content/uploads/2020/02/Case-for-Pathways-A-Research-Summary.pdf.
- Nott, R. (2018 January 17). Report: N.M. ranked next to last for public education.

The New Mexican.

https://www.santafenewmexican.com/news/education/report-n-m-ranked-next-to-last-for-public-education/article_19cf834f-9c1b-55dd-b863-762805fbc4b9.html#:~:text=New%20Mexico%20frequently%20ranks%20near,down%20from%20three%20consecutive%20C's.

- NS4ed. (2019 May 16). A proposal for sector-aligned lessons for Algebra 1 and Geometry.

 Prepared for NM PED. NS4ed: Maryville TN.
- OECD. (2020). Mathematics performance (PISA). doi: 10.1787/04711c74-en. https://data.oecd.org/pisa/mathematics-performance-pisa.htm.
- Onsurez, J. (2020 May). New Mexico schools seek funds for devices, internet. Alamogordo

 Daily News. https://www.govtech.com/network/New-Mexico-Schools-Seek-Funds-for-Devices-Internet.html.

- Rothwell, J. (2013 June). The Hidden STEM Economy. Metropolitan Policy Program at Brookings Institute. https://www.brookings.edu/wp-content/uploads/2016/06/TheHiddenSTEMEconomy610.pdf.
- Times Digest. (2020a May 12). Outbreak spells disaster for U.S. tribal nations. The New York Times. file:///C:/Users/dell/OneDrive/Downloads/TimesDigest_20200512%20(1).pdf.
- Times Digest. (2020b June 6 b). Virus closures leave students falling behind. The New York Times. file:///C:/Users/dell/OneDrive/Downloads/TimesDigest_20200606%20(1).pdf
- US. Census Bureau. (2019 July 1). Population Estimates. Quick Facts: New Mexico. https://www.census.gov/quickfacts/NM
- U.S. News & World Report. (2018) Best States Rankings._
 https://www.usnews.com/news/best-states/new-mexico.
- Wagner, T. (2008). The Global Achievement: Why even our best schools don't teach and what we can do about it. NY: Perseus. US Department of Labor.

 www.careeronestop.org/competencymodel/pyramid.aspx.
- World Population Review (2020). New Mexico 2020. https://worldpopulationreview.com/states/new-mexico-population/.