Northern New Mexico Perkins V Consortium B Work-Based Learning Strategic Plan

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Executive Summary

The following report is a collection of quantitative and qualitative work-based learning program data collected from stakeholders and partners of the New Mexico Perkins V Consortium B. The purpose of the report is to facilitate a regional strategic work-based learning (WBL) plan and to understand the opportunities and barriers to effective WBL experiences for secondary and post-secondary career and technical education students in Northern New Mexico. This strategic plan will help lay the groundwork for further collaboration of future workforce training grant opportunities.

This strategic plan was commissioned by New Mexico's Perkins V Consortium (Region) B, which includes local educational agencies and institutions of higher education New Mexico's Santa Fe, Rio Arriba, Los Alamos, Sandoval, and Taos counties that can collectively use Perkins funds to support consortium-wide activities and initiatives. Partners and stakeholders from San Miguel and Mora Counties were also invited to participate. The strategic planning processes was meant to provide information on existing WBL programs in the Northern New Mexico region, identify sponsors and partners engaged in WBL, identify critical elements for WBL program success, identify new occupational pathways for WBL expansion, identify effective strategies and approaches being used to ensure equitable access to WBL opportunities, and gain buy-in and adaptation of WBL with key community stakeholders.

Work-based learning, referred to as WBL, is the "umbrella" term used to identify activities that collaboratively engage employers and training providers in providing structured learning experiences for individuals, particularly students. Types of work-based learning include internships, cooperative education, on-the-job training, work-experience, transitional jobs, pre-apprenticeships, and apprenticeships. These experiences focus on assisting individuals in developing broad, transferable skills for secondary and post-secondary education and the workplace and often translate into employment opportunities that offer livable wages.

The comprehensive strategic plan consists of an executive summary, details of the planning context and process, critical elements of WBL programs and an analysis of strengths, opportunities, weaknesses, and barriers. Based on this analysis, there are suggestions on building a WBL Eco-System for the Northern New Mexico Region. There is also a compiled list of the region's WBL assets as well as sample WBL programs and collaborations that might be replicated and studied for best practices.

Based on the research completed, Thomas P. Miller and Associates have developed a logic model outlining a set of resources, activities, outputs, and outcomes for implementation. These outputs and activities are meant to assist the Consortium in continuing the work started during the strategic planning process.

Planning Context

The Strengthening Career and Technical Education for the 21st Century Act (Perkins V) provides a framework for forming regional consortia of local educational agencies and institutions of higher education that can collectively use Perkins funds to support consortium-wide activities and initiatives. In June 2020, the New Mexico Public Education Department released its four-year plan outlining the vision and strategies for implementing Perkins V career technical education in New Mexico.[1] This plan outlines a system of organized regional associations, including secondary and post-secondary education institutions, industry partners, community stakeholders, and state agency representatives that will work collaboratively to develop programs of study that are fully aligned and lead directly to careers. The plan also outlines how regional collaboration between secondary schools, post-secondary institutions, and employers will provide students with experience in, and understanding of, all aspects of an industry, which may include work-based learning such as internships, mentorships, simulated work environments, and other hands-on or inquiry-based learning activities.

The New Mexico Perkins V Consortium B represents the local education agencies and institutions of higher education in the Northern New Mexico counties of Santa Fe, Rio Arriba, Los Alamos, Sandoval, and Taos. Northern New Mexico College, Santa Fe Community College, University of New Mexico – Los Alamos and the University of New Mexico – Taos pooled a portion of their Perkins V grant funds, along with a grant from the Los Alamos National Laboratory (LANL) Foundation and partnered with the Institute of American Indian Arts (IAIA) to undertake a regional strategic planning process to develop a work-based learning plan for the region. At the request of the LANL Foundation, San Miguel and Mora counties were also included in this plan.

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[1] Strengthening CTE for the 21st Century – Perkins V 4-year plan. Grant years 2020-2024. Revised June 25, 2020

The Strategic Planning Process

The New Mexico Perkins V Consortium B undertook the strategic planning process from August to November 2020 to develop a strategic plan for work-based learning (WBL) in the Northern New Mexico region. The process began with information gathering and environmental scans. Then a series of one-on-one interviews and stakeholder input sessions (focus groups) were conducted, and a stakeholder survey was launched. Collectively, these activities provided information on essential elements of WBL programs, new potential occupational pathways, effective strategies, and approaches to ensure equitable access to WBL opportunities, and feedback related to the opportunities and barriers to effective WBL experiences. Collected information was presented to Consortium B leadership and key influencers at a virtual roundtable, resulting in focused priorities for action. Finally, a list of actions and recommendations for next steps were built for Consortium leadership.

Step 1: Document Review and Environmental Scan
A document review and environmental scan identified existing registered apprenticeship programs, industry recognized apprenticeship programs, pre-apprenticeship and internship program sponsors, employers, and labor organizations. The environmental scan assisted in develop a rich understanding of the cultures and diverse populations of the Northern New Mexico region and the needs of underserved and special populations.

Step 2: Interviews and Stakeholder Input Sessions (Focus Groups)
One-on-one interviews were conducted with 11 employers and workforce leaders. Five virtual stakeholder input sessions were conducted with stakeholders from state agency/workforce agencies, secondary education institutions, post-secondary education institutions, community-based and non-profit organizations, and tribal leadership. Nearly 35 stakeholders engaged in these sessions. These sessions were used to gather a first-hand perspective on the types of WBL opportunities that are being offered, resources being used, successes and challenges of sponsoring WBL, recruitment, and working with special and underserved populations. See Appendix A for a list of individuals who participated in the interviews and stakeholder input sessions/focus groups.

Step 3: Stakeholder Survey
The Fall 2020 survey had 133 respondents, who represented at least one of the following types of organizations: private business, tribal corporation or business, post-secondary institutions, secondary institutions, government (state, county or local), workforce or economic development organizations, tribal government, labor organizations, and community-based organizations/non-profits. Stakeholders were asked to provide input to better understand the opportunities and barriers to effective work-based learning experiences for both secondary and post-secondary career and technical education students in Northern New Mexico as well as individuals currently not in school. Survey participants were also asked to rate the essential characteristics of WBL partnerships and programs, to identify challenges their organization is facing during the COVID-19 pandemic, and to rate and comment on the accessibility of WBL opportunities for underserved populations.

Step 4: Consortium Roundtable
On November 18, 2020, the Consortium convened a virtual Roundtable meeting of over 30 key stakeholders to review core findings from the interviews, focus groups, stakeholder survey, and environmental scan. The goal of this session was to begin to develop a plan to enhance work-based

learning opportunities in the region and to gain influence from workforce leaders from around the region. Key stakeholders were chosen based on their knowledge of both opportunities and barriers to effective work-based learning experiences for secondary and post-secondary career and technical education students in Northern New Mexico. See Appendix B for a list of individuals who participated in the Consortium Roundtable.

Key Findings

The following key findings are based on the results of the environmental scan, desktop research, input sessions and interviews. The key findings are presented in five sections:

1) Work-Based Learning Critical Elements
2) Northern New Mexico's Work-Based Learning Assets
3) The Stakeholder Survey
4) Stakeholder Engagement – Strengths and Opportunities
5) Stakeholder Engagement – Weaknesses and Barriers

Section 1: Work-Based Learning Critical Elements

Based on feedback from the surveys, input sessions and desktop research, the following critical elements have been identified as those that are essential to WBL program implementation and success.

Registered Apprenticeship & Industry Recognized Apprenticeship Programs

The following elements are required for registered apprenticeships: paid work experience with incremental salary increases, on-the-job training, related instruction/classroom instruction, mentorship, and a nationally recognized certificate of apprenticeship. Similarly, industry-recognized apprenticeship programs (IRAPs) must include paid work experience, on-the-job training with a mentor, related instruction, the award of an industry-recognized credential/s, and host employers must satisfy workplace safety and equal opportunity guidelines.[2]

Pre-Apprenticeship Programs

The following are the essential elements, recognized by Jobs for the Future, for pre-apprenticeship programs:
- Transparent entry and success requirements
- Alignment of skills sought by local employers and high-quality apprenticeship programs
- Culmination in one or more industry-recognized credentials
- Development of skills through hands-on activities and work-based learning
- Offering of academic, career exploration, and wraparound supports
- Transition into a registered apprenticeship or other high-quality apprenticeship programs[3]

Internship Programs

Internships include hands-on career experience, are of limited duration, can occur with or without pay, and be full- or part-time, allowing the participant to gain high-quality work experience, and may satisfy

Stakeholders who participated in the focus groups and individual interviews supported fully the use of internships as a work-based learning strategy. Most importantly, these stakeholders recognized the need for paid internships that align with the students' career pathway. Paid internships allow students

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[2] https://www.apprenticeship.gov/employers/program-comparison
[3] https://www.jff.org/what-we-do/impact-stories/center-for-apprenticeship-and-work-based-learning/pre-apprenticeship/

to focus on a future career pathway and related instruction without having to secure additional employment outside of the WBL experience.

Mentorships

Mentorships are a form of workplace support for individuals participating in work-based learning programs. In mentoring arrangements, senior employees provide guidance and assistance to participants in WBL programs, helping them navigate company culture, teaching them how to do specific tasks, and introducing them to workplace policies and procedures. This match between students or less experienced workers with more seasoned professionals builds mentees' employability skills and technical skills and helps them gain an understanding of the cultures—both formal and informal—of specific workplaces or industries. For students and prospective workers, mentoring provides valuable connections to established professionals in fields that interest them. In many cases, mentors provide mentees with guidance in developing their learning objectives and help them measure their progress and proficiency. [4]

Several secondary and career technical educators in the Northern New Mexico region expressed their interest in implementing or expanding mentorship programs for their students. This group expressed the importance of mentorship in career exploration and establishing relationships and support for students as they explore future careers.

Work-Based Learning Critical Elements – Summary

Survey respondents indicated that work-skills development (sometimes call "soft skills" or "essential skills") were extremely essential to WBL experiences. Mentorship and the pipeline/opportunity for employment were also ranked as extremely essential. Stakeholders expressed the importance of being engaged in meaningful work. Other characteristics of successful WBL partnerships and opportunities included work experiences that satisfied course credit, mentorship, paid work experience, and career exploration.

Section 2: Northern New Mexico's Work-Based Learning Assets
Table 1 highlights examples of work-based learning assets in the Northern New Mexico Region that were explored during the document review and environmental scan, the one-on-one interviews, focus groups, Consortium Roundtable and other research and conversations. These are not meant to be all-inclusive of such programs in the region. Because these opportunities are constantly changing, the best resource to identify apprenticeships and internships are the New Mexico Department of Workforce Solutions' searchable apprenticeship and internship databases. Please see: https://www.dws.state.nm.us/en-us/Job-Seekers/Explore-Career-Options/Apprenticeship/Current-Career-Pathway-Programs and https://www.dws.state.nm.us/Internships/InternshipSearch.

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[4] https://www.jff.org/what-we-do/impact-stories/center-for-apprenticeship-and-work-based-learning/work-based-learning-glossary/

Table 1: Examples of Northern New Mexico Work-Based Learning Assets Explored in this Research			
	Internships	Apprenticeships	Mentorship, OJT, Other
Albuquerque	4	2	1
Los Alamos	1	1	2
Rio Arriba		1	
San Miguel	1		1
Santa Fe	6		
Taos	2	1	
Regional	1	2	

Please reference Appendix C for a list of the WBL assets in Northern New Mexico explored as part of this research.

Section 3: Stakeholder Survey

A comprehensive presentation of the survey findings is available in the separate report - New Mexico Work-based Learning Survey Report and a summary of this report is included in Appendix D.

Section 4: Stakeholder Engagement – Strengths and Opportunities

During the engagement with the WBL stakeholders via interviews and focus groups, most stakeholders were familiar with or engaged with WBL in some way, with paid and non-paid internships being the most popular. There is a strong presence of internship and mentorship opportunities at the secondary and post-secondary levels, and individual counseling is available for students from schools and community-based organizations. There are also a significant number of mentorship/career exploration programs at the secondary level.

A strength of the Northern New Mexico region is that as the Consortium moves forward with action planning and seeking resources to support WBL there is a coalition engaged and ready to act. Stakeholders and survey completers agreed there is a common need to better coordinate WBL efforts across the region, and collectively want to break down barriers and the current siloed approaches. Stakeholders and community leaders are willing to engage in and enact change on the WBL delivery system, strengthening relationships with employers and working together to provide focused efforts. Similarly, most stakeholders see the opportunity to engage with Perkins' special populations and those with barriers to employment to provide equitable access to WBL opportunities. The Consortium represents a coalition of problem solvers who want to work together for the common goal of strengthening WBL opportunities in the Northern New Mexico region.

Further opportunities to expand WBL in the Northern New Mexico region include:

Apprenticeship and Pre-Apprenticeship Programs

Stakeholders recognized the need for registered apprenticeship and pre-apprenticeship programs, particularly for youth. The expansion of paid, pipeline programs, like pre-apprenticeship, that offer soft skills and job skill development prior to placement into employment is a crucial opportunity for the Northern New Mexico region.

Internship and Mentorship

The expansion of internship and mentorship opportunities at local non-profits and community-based organizations as well as in rural communities and small businesses could also meet the unmet need for WBL opportunities. One example is a partnership with Habitat for Humanity to provide WBL opportunities in the construction trades.

Paid Work Study

Supporting and growing opportunities for paid work-study, so students do not have to choose between school and working is a big opportunity for the region. There is an opportunity to braid funding available through the Workforce Innovation and Opportunity Act (WIOA) and youth funding available through the local workforce development board. Some local boards have even amended policies to adopt WBL, supporting registered apprenticeship and pre-apprenticeship.

Support Employers and Educational Institutions

There are many opportunities to further support employers and sponsors of WBL in Northern New Mexico. Opportunities include offering training and workshops for employers participating/hosting WBL experiences and/or providing employer onboarding training. An employer toolkit containing tools, templates, guides, and worksheets would provide employers assistance in developing WBL opportunities. Additionally, information on funding and incentives available like the Job Training Incentive Program would also be helpful for employers.

There are opportunities for the educational institutions and sponsors of WBL, including developing toolkits for institutions starting new programs (handbooks, example paperwork, templates for outreach, creating partnerships, where to start, etc.). There is a strong need for a centralized organization/leadership of WBL efforts across the region and creating a Consortium-wide framework for supporting WBL at all levels.

Non-profits can also play an intermediary role, acting as the connection between the schools, employers, students, and workforce development resources. Future Focused Education provides a good example of an organization acting in this intermediary role.

Explore Additional Occupational Pathways

Additional/new occupational pathways should be explored for WBL opportunities. Survey respondents and stakeholders suggest that the following occupations should be targeted for expanded/future WBL experiences: healthcare, information technology, construction and energy-efficiency jobs, and hospitality and tourism. Machining, robotics, and additive manufacturing were also mentioned as emerging occupations that might align with WBL program implementation.

Section 5: Stakeholder Engagement – Barriers and Weaknesses

Findings indicate that a huge barrier for WBL in the region is that there are currently not enough WBL programs and opportunities. In addition, though programs that exists in the Northern New Mexico region are innovative, effective, and transformational, the fact that there are not enough paid opportunities within in demand fields in the region will continue to hinder the expansion of the concept. There was a limited mention of registered apprenticeship programs other than with the labor organizations that participated in stakeholder engagement sessions. A stakeholder indicated that

currently WBL is not very 'popular' in the region. Having limited opportunities makes it difficult for participants to experience WBL and for WBL to become the norm.

Stakeholders shared anecdotally that many of the top performers who participate in WBL activities go on to leave New Mexico for opportunities elsewhere, leading to the question, "What are we doing to equip those that will be left behind so they can engage, excel and thrive in the community?" To identify the barriers involved in WBL, one must think about how the existing process leads to exclusionary outcomes.

Furthermore, barriers and access sometimes mean different things to different stakeholders. The feedback and data collated through stakeholder engagement were all-encompassing and extremely insightful. Though generally, all stakeholders agree about the value of WBL, there is still much to be done to make WBL an quintessential part of the existing framework, be it at work or in school.

The identified weaknesses and barriers to the WBL experience can be loosely categorized into three buckets, barriers experienced from the perspective of the participant, the employer or sponsor, and the system, as outlined in the graphic below.
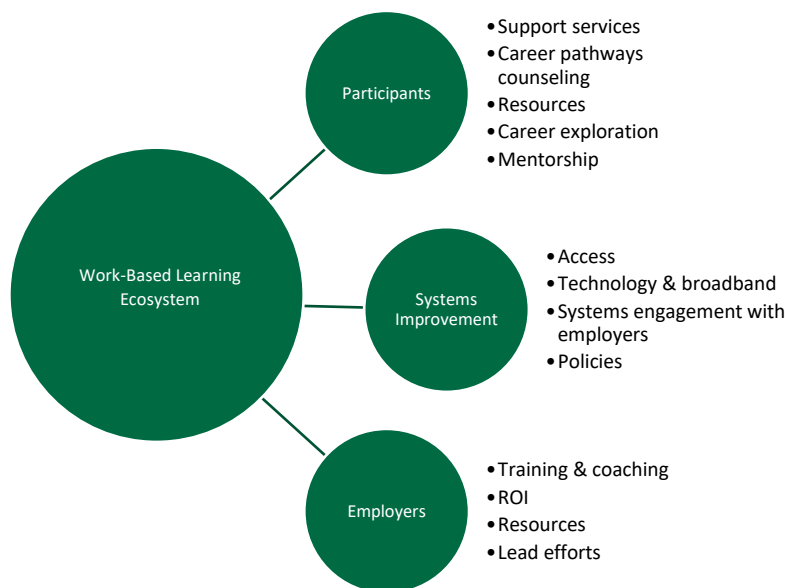
Participants

To successfully expand WBL in the Northern New Mexico Region, WBL stakeholders must formally collaborate to remove barriers and align education, workforce systems, and employers along clearly defined WBL opportunities. Stakeholder input identified non-college bound seniors and recent graduates of technical training, two-year, and four-year degree programs as prime candidates for WBL activities in the region.

When identifying the barriers to expanding WBL, one uncovers that WBL opportunities are reserved for high performers, people that have access, and those with limited to no barriers. A stakeholder representing the education system indicated: "We need to stop applying traditional-student

expectations on non-traditional students. When we embrace our strengths, we make space for achievements instead of constantly fighting to overcome our obstacles." Stakeholders also mentioned the barriers these participants face to access and participate in WBL opportunities in the region vary based on the individual's education, skills, and life circumstances. Survey respondents discussed barriers such as "widespread poverty, poor K-12 schools, no real 'culture' of post-secondary training or education." In addition, survey respondents stated that accessibility "is a multi-layered question for tribal communities. Accessibility includes economic ability, digital access, family support, and continuity of programming." Tribal communities were not the only ones who shared that there were many barriers for participants to access WBL. One respondent shared, "some of our students are undocumented, and it is often difficult to pair these students with an internship or paying job."

Participants need WBL exposure early on to develop work ethics, identify career aptitude as well as hone relevant skills[5]. Therefore, the barriers to access WBL opportunities either due to the design of the system or because of the limited number of opportunities in the region must be mitigated fast. According to a respondent, there are many things that must happen for a student to access WBL. Good grades are very important for participants to qualify for many existing WBL programs. In addition, connections are important to secure opportunities. A stakeholder mentioned that "students who have well connected parents have an easier time securing WBL experiences". Another issue often brought up by respondents is the lack of public transportation. Participants must travel to WBL sites, and that can be challenging if the student does not have access to a vehicle. Participants may also face other barriers while participating in a WBL program. Maintaining a WBL opportunity is often an issue if the participant requires childcare or if the participant is responsible for financially contributing to their household, especially if the WBL opportunity is unpaid. In addition, participants who want to engage in WBL have no clear pathway to access opportunities in the region. The lack of a structure for participants in the region to access and participate in WBL is a barrier that was recognized repeatedly by stakeholders.

Two other issues were expressed by stakeholders. The first was that the K-12 system does not engage extensively with employers, especially due to COVID-19 and as a result, in-demand careers in the region that do not require a college degree are often overlooked by young people. Compounding this is the traditional mindset of parents that prioritize college as the only option after high school. This mentality undermines the importance of non-college career pathways for high school students, particularly for sectors within the region. The second issue uncovered from stakeholder engagement was a disconnect between the K-12 system and the young adult workforce system. The importance of a warm hand-off between education and workforce providers cannot be overstated when supporting young people as they navigate WBL opportunities.

COVID-19 and the lack of access to technology, both equipment and broadband, were recognized as significant barriers as well.

Employers/Sponsors

The barriers employers/sponsors face to support and provide WBL opportunities include limited access to coaching, training, and the resources needed to implement structured WBL programs. Small-to mid-

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[5] https://jfforg-prod-new.s3.amazonaws.com/media/documents/WBL_Principles_Paper_062416.pdf

sized employers, now more than ever, do not have the resources, knowledge, or capacity to develop and deploy WBL programs.

Even if employers/sponsors can offer WBL opportunities, participants have not been engaging due to the many barriers participants report experiencing that have been exacerbated by the COVID-19 pandemic.

Stakeholders agree that WBL is a valuable tool; however, data on the return on investment (ROI) for WBL programs in the region appears to be limited. ROI is required to duplicate, improve, and prove the impact of WBL programs to justify the allocation of resources for WBL.[6]

Employers/sponsors also recognized a lack of structures for hosting students and expressed a need for templates or standardized operating systems for hosting students. When working with education providers, employers often cannot find the "right" person at the education provider to help them

Systems

When describing the barriers to WBL, employers regularly mention soft skills (employability skills) development as a key contributing factor and the stakeholders from Northern New Mexico's WBL Eco-System were no exception. One respondent indicated that "...this generation does not have the same values we did...". The deficiency of individual soft skills is often a drum beat for employers and while there are strategies that can be undertaken to improve soft skills, it is critical to do so with the understanding that soft skills are not acquired in a vacuum. In many cases, they are a manifestation of the systemic racial and economic inequalities that underpin the American labor market. Characteristics often pointed to as soft skill deficiencies such as absenteeism, tardiness, and poor interpersonal skills are in fact the symptoms of an economic system that continually under resources education, public transportation, childcare, healthcare, etc. Thus, when embarking on the design and implementation of WBL development strategies, particularly in conjunction with employers, it is important to do so with that systemic context in mind.[7]

With that context, the most severe systemic barriers faced by stakeholders in the Northern New Mexico WBL Eco-System include the implications of the COVID-19 pandemic, the lack of access to broadband and technology, and the absence of strategic communication and coordinated outreach surrounding WBL. In addition, there are still too many silos and not enough strategic direction to implement effective solutions. The fact that WBL programs' availability and quality varies across the region speaks to how the system needs to identify ways to align services, share resources, and duplicate best practices. If not, WBL will continue to reach a relatively small number of people, few programs will be designed or replicated, staffed, and funded to incorporate best practices, and even fewer resources will be dedicated to access and equity issues.

In the Northern New Mexico Region, career exploration must serve as the foundation upon which the rest of the WBL framework is built. The WBL Eco-System stakeholder feedback placed an increased emphasis on workplace skills over academic skills and the ongoing employer demand for qualified

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[6] https://www.forbes.com/sites/forbestechcouncil/2020/01/06/work-based-learning-why-you-have-to-get-with-the-program/?sh=5c4074b435b6
[7] https://www.raceforward.org/system/files/pdf/reports/RaceForward_WorkforceDevelopment_BeyondTrainingAndTheSkillsGap_FullReport_2019.pdf

talent. Respondents believe that it will be important that WBL is embedded early into the K-12 system so that young people can make the most of WBL opportunities in the future. One stakeholder said "…it is hard to expect a young person who has had no exposure to understand what it is like (to work) in some of the trades." This will require effort on not just the part of the education and workforce development organizations to develop these opportunities, but also employers who must find ways to engage with these systems to build their talent pipelines.

Recommendations and Implementation

Based on the findings described in the previous section, the following highlights recommendations, organized across eight main categories: centralized leadership, employer-led initiatives, strengthened and formalized relationships between partners, support systems for participants, support systems for employers, finding solutions for resource alignment, opportunities to reach under-represented populations, and increasing access through technology. The purpose of these recommendations is to develop a systems-based operational approach to WBL program implementation, improve collaboration between system partners, and bridge the gap with business and industry.

Centralized Leadership

A centralized WBL coordinator would provide support and coordination of the region's WBL efforts. The coordinator would act as an intermediary, communicating with all partners and guiding formalized structures and frameworks around WBL in the Northern New Mexico region. This would also allow for a coordinated system and communication for marketing and outreach and could assist in aligning WBL efforts with labor market demand.

Employer-Led Initiatives

The centralized WBL operational/systems approach to coordinating WBL efforts should be guided by employers. Employer leadership is important to ensure the system is truly demand-driven and will lead to better outcomes for participants. Employer leadership is also important to address the unique needs of the regional economy.

Strengthened and Formalized Relationships Between Partners

Centralized leadership for regional WBL efforts will assist in strengthening and formalizing relationships between employers, educators, workforce and government agencies, community-based and non-profit organizations, and economic development agencies. Formalized relationships will also allow for scaling and replicating of WBL program solutions and best practices. Relationships may be formalized through memorandum of understanding (MOU), referral processes, transfer and articulation agreements, or other types of agreements.

Support Systems for Participants

The Northern New Mexico region should leverage existing resources, networks, and partners to assist with recruitment and support services for individuals engaging with WBL programs. Partners can facilitate the process of building WBL candidate pipelines with emphasis on supportive services. The WBL system should support aligning paid work experiences with education opportunities and coordinate activities that create pathways to careers, support services, and education providers.

Support Systems for Employers

The WBL system should develop a business engagement strategy, including documenting current resources and incentives and recognizing gaps in services for future development. Developing a return-on-investment model would help promote employer engagement, and the development of other toolkits and handbooks will assist employers in implementing and scaling WBL opportunities. Mentorship training is also a key recommendation for employer support.

Finding Solutions for Resource Alignment
Though formalized relationships, WBL partners and stakeholders can build upon existing efforts to inventory and document current resources and supportive services available to providers and partners. Agencies and partners that offer resources, student aide, incentives, training vouchers, etc., should come together to explore ways of braiding funding and fully utilizing available funding sources.

Opportunities to Reach Under-Represented Populations
There are many barriers and systematic inequities in the current WBL system. Formalized partnerships and long-term planning should be embraced to overcome these barriers. Providing additional support and outreach to focused on under-represented populations and using WBL as a tool to deliver mentorship and career exploration to these groups can begin to open the doors to underserved populations. Pipeline programs that provide paid, on-the-job-training, education, and support systems for participants should also be explored. These types of programs often provide the wrap-around services at-risk populations need to complete training and education programs.

Increasing Access Through Technology
The Northern New Mexico WBL community should explore short- and long-term solutions for increasing access through technology and broadband. Different stakeholders from around the region have developed innovative solutions to delivering on-the-job training and related educational instruction online. Additionally, there are opportunities for development of grants and other funding streams to support the spread of broadband access.

Northern New Mexico's Work-Based Learning Eco-System
The following operational eco-system is being proposed to support the recommendations and activities above. This eco-system, explained in the graphic below, will allow a system-based approach with employer leadership to drive WBL programs in the region. Employers are at the center, driving the work of the eco-system while community-based organizations, support services, funding and resources, education institutions, state and local government organizations, and pueblos, tribes, and nations, and economic and workforce development support the eco-system.

Employers:
- For-Profit and Non-Profit
- Any organization that provides/ could provide WBL experiences

Education Institutions
- K-12 Education (including charter schools)
- Community Colleges
- Four-year Colleges and Universities
- Tribal Colleges
- Adult Education
- JATCs/Unions

Workforce and Government Agencies
- New Mexico Department of Workforce Solutions
- Pueblos, Tribes, and Nations
- Policy & State Aligned Strategies

- Northern Area Local Workforce Development Board
- New Mexico Public Education Department and Career Technical Education
- New Mexico Higher Education Department

Community-Based and Non-Profit Organizations
- Individual Support Services and Case Management
- Foundations
- Community Centers
- United Way
- Youth Support Organizations
- Job Training
- Counseling Services

Economic Development
- Regional Development Councils
- Chambers of Commerce
- Northern New Mexico Economic Development District
- Small Business Development Centers

Northern New Mexico's
Work-Based Learning Eco-System

Community Colleges
Career Technical Education
K-12 Education
Four-year Colleges and Universities
Tribal Colleges
Adult Education
JATCs/Unions

Community-Based Organizations

Support Services

Employers

Department of Workforce Solutions
Pueblos, Tribes and Nations
Policy & State-aligned Strategies
Northern Area Local Workforce Development Board
Public Education Department
Higher Education Department

Funding & Resources

Economic Development (RDC)
Chambers of Commerce
Northern New Mexico Economic Development District

Implementation Outputs and Suggested Activities

Based on all information gathered through stakeholder outreach, interviews, the WBL survey tool, the following New Mexico Perkins V Consortium B Program Implementation Logic Model was developed. The logic model identifies the factors that will affect program implementation and anticipates the data and resources needed to achieve implementation success. The logic model will help the Consortium systematically address important program planning and evaluation issues including cataloguing the resources and actions that will be needed to reach intended results; documenting connections among available resources, planned activities and the results to be achieved; and describes the desired results in terms of specific, measurable, action-oriented, realistic, and timed outcomes.[8]

New Mexico Perkins V Consortium B Program Implementation Logic Model				
RESOURCES	**ACTIVITIES**	**OUTPUTS**	**OUTCOMES**	
			SHORT-TERM	**LONG-TERM**
Current Perkins V funding grants Existing funding and grant resources Dedicated employer-led advisory group Consortium partners' funding to support WBL regional coordinator Existing best practices and successful WBL models In-demand job/occupational information for the region	Consortium Leadership engages with key partners to develop a plan for centralized leadership Employer-led WBL Advisory group engaged Inventory current resources and support services available to WBL participants Inventory current incentives and resources available to employers Develop employer toolbox Develop mentorship training and onboarding workshops for employers sponsoring WBL Inventory and document resources and services available to education providers Engage in long-term planning to address barriers and equity in access	New regional WBL coordinator/manager hired # of students/participants participating in WBL opportunities # of employers participating in WBL # of WBL opportunities available # of registered apprenticeship opportunities offered # of partners engaged	Centralized leadership of WBL program delivery in Northern NM WBL support services working in coordination More individuals participating in WBL Increased and equitable access to WBL opportunities by special populations (as defined by Perkins V) More employers (particularly small- to medium-sized employers) engaged in offering WBL opportunities Leveraged and braided funding to support all aspects of WBL – participants, employers, and providers	Coordinated system of WBL program delivery in Northern NM WBL Eco-system is sustained and self-sufficient Barriers to participation have been mitigated; special populations are fully engaged and supported in WBL

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[8] From the W.K. Kellogg Foundation Logic Model Development Guide. Retrieved from: https://www.aacu.org/sites/default/files/LogicModel.pdf

This Logic Model represents the resources, activities, outputs, and outcomes (short- and long-term) to support WBL program implementation and activities. The following outlines suggested Consortium activities based on this logic model.

Output 1: New Regional WBL Coordinator/Manager hired
Suggested Activities: 1. Engage the WBL Eco-System's key leadership to develop plans for centralized coordination of WBL efforts in Northern New Mexico. 2. WBL Eco-System leadership forms and engages an employer-led advisory group to work with regional coordinator in advisory role. 3. WBL Coordinator works to ensure WBL programs' alignment with labor market demand and new/emerging occupations. 4. WBL Coordinator works with employer advisory group to coordinate systems and communication for marketing and outreach. 5. WBL Coordinator and employer advisory group coordinate finding, securing and braiding solutions for resource alignment. 6. WBL Coordinator and employer advisory group will engage with the Northern Area Local Workforce Development Board, the Department of Workforce Solutions, the Northern New Mexico Economic Development District, the Pueblos, Tribes and Nations of Northern New Mexico, and other similar agencies to leverage funding and resources. 7. Coordinate with WBL partners to host an online portal to become a "one-stop" shop for all WBL opportunities. This portal can provide connections between employers/sponsors, participants, education providers. The online portal could also provide a resource for additional information on WBL programs in the Northern New Mexico region, provide answers to frequently asked questions, and provide connections to support services and toolkits.

Output 2: Increase number of students/participants participating in WBL opportunities
Suggested Activities: 1. Coordinate pre-screening and referral activities through on-ramp programs that create pathways to careers, support service providers, and education providers. 2. Convene public and private partners to facilitate the process of building a WBL candidate pipeline with an emphasis on supportive services. 3. Align paid work experiences with education opportunities. 4. Explore, scale and/or replicate existing pipeline/job readiness training programs that prepare individuals via job-skill development, classroom, and hands-on job training. 5. Leverage existing resources, networks, and WBL Eco-System Partners to assist with recruitment and support services for individuals interested and/or already participating in WBL experiences. 6. Prospect current employer partners for opportunities to develop/offer WBL opportunities to incumbent workers to enhance skills and advance career pathway opportunities.

Output 3: Increase employers participating in WBL and the number of available opportunities

Suggested Activities:
1. WBL Coordinator and employer advisory group develop business engagement strategy/plan.
2. Inventory and document current resources and incentives available to employers; recognizing gaps in services and supports for future development.
3. Formalize WBL structures and frameworks – particularly focusing on paid internships and registered apprenticeship.
4. Develop Return on Investment (ROI) model to help promote employer engagement in WBL.
5. Develop employer toolkit/handbook (including templates, frameworks, and documents) to assist employers in implementing and scaling WBL opportunities.
6. Develop mentorship handbooks, onboarding workshops and other training resources for employers, mentors, and sponsors of WBL.
7. Expand outreach efforts to small- to medium-sized businesses and businesses located in rural areas to provide support and guidance on developing WBL opportunities for local citizens.

Output 4: Increase the number of registered apprenticeship programs (RAPs) opportunities

Suggested Activities:
1. Formalize the partnership between the WBL Eco-System and the New Mexico's State Office of Apprenticeship.
2. In partnership with the Office of Apprenticeship, continue to research and document organizations that offer group-sponsored model RAPs. Group-sponsored apprenticeships can be expanded and replicated to serve small- to medium-sized businesses that do not have internal capacity to support developing RAPs.
3. Partner with State Office of Apprenticeship to increase opportunities with employers already approved to offer RAPs.
4. Continue to explore emerging industries and industries in need of new training/retraining of incumbent workers for RAP program development.
5. Explore non-traditional models for RAPs, including competency-based, hybrid, short-term and industry-recognized apprenticeship programs.

Output 5: Increase number of partners engaged

Suggested Activities:
1. Inventory and document current resources and supportive services available to providers and partners.
2. Formalize relationships between partners, employers and educational providers via MOUs, articulation agreements, etc.
3. Provide training and resources to the front-line/case management staff of partners and providers on WBL opportunities in the region.
4. Document a formalized referral process for potential WBL participants to connect WBL programs and education providers.
5. Engage in long-term planning to address systemic inequities and barriers to workforce and education resources, ensuring equitable access to WBL opportunities.
6. Explore short- and long-term solutions for increasing access through technology and broadband.

Summary

The New Mexico Perkins V Consortium pooled its funding to facilitate a regional strategic WBL plan and to understand the opportunities and barriers to effective WBL experiences for secondary and post-secondary career and technical education students in Northern New Mexico. This strategic plan lays the groundwork for further collaboration for future workforce training grant opportunities. The strategic planning processes provided information on existing WBL programs in the Northern New Mexico region, identified sponsors and partners engaged in WBL, identified critical elements for WBL program success, identified new occupational pathways for WBL expansion, identified effective strategies and approaches being used to ensure equitable access to WBL opportunities, and engaged key community stakeholders in conversations about WBL in the region.

Based on the analysis of the data collected we have suggested the engagement of a WBL Eco-System for the Northern New Mexico Region and compiled a list of sample WBL programs and collaborations (see Appendix E) that might be replicated and studied for best practices. Finally, a logic model, outlining a set of resources, activities, outputs, and outcomes for implementation is provided to assist the Consortium in continuing the work started during the strategic planning process.

APPENDIX A

ONE-ON-ONE INTERVIEWS AND FOCUS GROUPS

One-on-One Interviews
Dana Aragon – Workforce Development Director at the Associated General Contractors
Danika Padilla – Director of Social Impact at Meow Wolf
Liddie Martinez – Los Alamos Region President and Director of Community Engagement at Enterprise Bank and Trust
Katrina Vigil – State Apprenticeship Director at State of New Mexico
Arthur Sparks – Director of Training at UA Local 412 Plumbers and Pipefitters Training Center
Elijah Baca – CEO at Santa Clara Development Corporation, Pueblo of Santa Clara
Luis Reyes – CEO and General Manager Kit Carson Electric Cooperative
Pam Coleman – Director of the New Mexico State Personnel Office
Ron Lovato – Governor at Ohikay Owingeh
Rebecca Estrada – Northern Area Local Workforce Development Board and Outreach Specialist for Higher Education and Workforce at Los Alamos National Laboratory
Brenda Romero – Board of Trustees at the Presbyterian Espanola Hospital

Focus Groups
Workforce Session Attendees:
Art Martinez – Workforce Administrator at Workforce Connection of Central New Mexico
Terri Strauss – YouthBuild Educator at HelpNM
Maggie Washburne – Director at Stem Boomerang
Christopher Madrid – Rio Arriba County – Economic Development
Waldy Salazar – Program director at NM Department of Workforce Solutions
Teresa Quintana – HelpNM
Rebecca Estrada – Specialist at LANL
Maggie Lujan – Jobs for Progress, service provider for central region for WIOA services
Amber Gomez – Project Specialist/Communications at Northern Area Local Workforce Board
Myrriah Tomar – Director of Science and Tech at NM Economic Development
Lisa Ortiz – Northern Area Local Workforce Development Board

Secondary Institution Session Attendees:
Isabelle Onge – Director at Vista Grande Charter HS
Margarita Porter – Head administrator at NM Connections Academy
Christopher DeJesus – CTE at Monte del Sol Charter HS
Corbett Wicks – Internship Director at Vista Grande Charter HS
Brent Collom – Los Alamos Public Schools
Sarah Tario – Director at McCurdy Charter

Post-Secondary Institution Session Attendees:
Ya'el Chaikind – Internship Coordinator at Santa Fe Community College
Karen Gomez – Internship and Career Director at IAIA
Frank Loera – Chair of Trades at Northern Mexico Comm College
Charlie Bergman – Director of Personal Professional Development at St. Johns College
Louis Moya – Director of Development/Grants Coordination UNM – Taos

Community-Based Organizations and Non-Profits Attendees:
Jason Hayes – Board Chair at SkillsUSA NM
Mike May - Director of Workforce Creation of Paid Internships at Future Focused Education
Kat Duran - Education Coordinator at NWERC2
Jeannene Sparks - Business Manager at NWERC2
Alliyah Noor - Exe Director at College Career Plaza
Joleen Montoya - Co Director at Bridges Project
Tony Monfiletto – Executive Director at Future Focused Education
Tim Harville - Manager at Falling Colors
Valerie Trujillo – Executive Director at NWERC2
Melynn Schuyler - Executive Director at Youth Works

Tribal Session Attendees:
Peter Garcia, Jr. Ohkay Owingeh, President – BOE
Bettina Sandoval, Taos Pueblo, Dir. Educ and Training Division

APPENDIX B

CONSORTIUM ROUNDTABLE ATTENDEES*

Lisa Ortiz, Executive Director, Northern Area Workforce Development Board
Rebecca Estrada, Specialist for Higher Education and Workforce, LANL
Bill McCamley, Cabinet Secretary, Department of Workforce Solutions
Corbett Wicks, Vista Grande Charter High School
Rick Schmidt, New Mexico Public Education Department
Ya'el Chaikind, Internship Coordinator, PILAS Internship Program, Santa Fe Community College
Danika Padilla, Senior Director of Social Impact, Meow Wolf
Cindy Padilla, Executive Director, United Way of Northern New Mexico
Jennifer Case Nevarez, Community Learning Network
Elijah Baca, Chief Executive Officer, Santa Clara Development Cooperation
Alexandra Lutz, Public Education Department, College & Career Readiness
Ann Black, Grants Director, Santa Fe Community College
Teresa Quintana, Vice President, Office of Economic Empowerment with HELP New Mexico, Inc.
Liddie Martinez, Regional President, Enterprise Bank & Trust
Karen Gomez, Internship & Career Director, Institute of American Indian Arts
Frank Loera, Chair for Technical Trades, Northern New Mexico Branch Community College
Angelo R. Valencia, Director of Operations Human Resources, Christus St. Vincent
Cindy Rooney, Chancellor, UNM-Los Alamos
Brent G. Collom, Los Alamos Early College and Career Academy
Alvin Warren, Vice President of Career Pathways and Advocacy, LANL Foundation
Katrina Vigil, State Apprenticeship Director, New Mexico Department of Workforce Solutions
Brenda Vogley, Senior Consultant, Thomas P. Miller and Associates
Nithya Pramekumar, Senior Consultant, Thomas P. Miller and Associates
Joaquin Gallegos, Professor, Northern New Mexico College
Pam Coleman, New Mexico State Personnel Office
Art Sparks, UA Local 412
Tony Monfiletto, Executive Director, Future Focused Education
Jaime Hernandez, New Mexico Division of Workforce Solutions
Monica Abeita, North Central New Mexico Economic Development District
Lisa Hamilton, Superintendent, Penasco Independent School District
Jenny Parks, President and CEO, LANL Foundation
Kelly Roepke-Orth, Chief Executive Officer, Associated General Contractors
Faith Rosetta, Principal, Santa Fe Indian School

Some attendees did not participate in the full meeting.

APPENDIX C

NORTHERN NEW MEXICO WORK-BASED LEARNING ASSETS

Internships		
Program Name	**Sponsor**	**Region/Service Area**
X3 Internship Program (Virtual & Hybrid Internships)	Future Focused Education	Albuquerque
AFRL Scholars Program (internships)	Air Force Research Laboratory (AFRL) New Mexico	Albuquerque
Laboratory Internship	UNM Engineering School	Albuquerque
Work Study Positions	Southwestern Indian Polytechnic Institution	Albuquerque
Internships (variety)	Enterprise Bank and Trust	Los Alamos
Internships (variety)	New Mexico Highlands University	San Miguel
Programa de Internos, Los Alamos (PILAS) internship Program	Santa Fe Community College in partnership with the Regional Development Corporation, Santa Fe Community College Foundation, Anchorum, and the New Mexico Higher Education Department	Santa Fe
Health Exploration Program (HEP)	CHRISTUS St. Vincent	Santa Fe
High School and College Summer Internship	Santa Fe Leadership Institute	Santa Fe
Internships (variety)	Meow Wolf	Santa Fe
Journey Home Internship	Institute of American Indian Arts (IAIA)	Santa Fe
Internships (variety)	St. Johns College	Santa Fe
Agriculture and Natural Resources Internship	Vista Grande Charter School	Taos
Internships (variety)	Taos Academy Charter	Taos
N3B Internships	N3B-Los Alamos and Institutions of Higher Education	Regional
Apprenticeships		
Program Name	**Sponsor**	**Region/Service Area**
New Mexico IT Apprenticeship Program (NMITAP)	Central New Mexico Community College (CNM Ingenuity, Inc.)	Albuquerque
Electrical Industry	New Mexico Joint Apprenticeship and Training Committee	Albuquerque
Nuclear Operators Apprenticeship Program	New Mexico Department of workforce Solutions, Los Alamos National Laboratory, University	Los Alamos

	of New Mexico Los Alamos, N3B-Los Alamos	
Plumbing and Electrical Technology	Northern New Mexico Community College and UA Local 412 Plumbers and Pipefitters Training Center	Rio Arriba
Building and Construction Trades Apprenticeship	Los Alamos National Laboratory, New Mexico Building and Construction Trades Council and Taos High School	Taos
Registered Apprenticeships	New Mexico Office of Apprenticeship	Regional
AGC Multi-Trade Apprenticeship	AGC New Mexico	Regional
Pre-Apprenticeship		
Program Name	**Sponsor**	**Region/Service Area**
On-the-Job Training/Mentorships/Other		
Program Name	**Sponsor**	**Region/Service Area**
YouthBuild-Construction OJT	HelpNM	Albuquerque
Radiological Control Technician Bootcamp	New Mexico Department of workforce Solutions, Los Alamos National Laboratory, University of New Mexico Los Alamos, N3B-Los Alamos	Los Alamos
Waste Processing Operator Bootcamp	New Mexico Department of workforce Solutions, Los Alamos National Laboratory, University of New Mexico Los Alamos, N3B-Los Alamos	Los Alamos
Unique Cultural Technology Immersion Program	New Mexico Highlands University	San Miguel

APPENDIX D

NEW MEXICO WORK-BASED LEARNING SURVEY SUMMARY

New Mexico Work-Based Learning Survey Summary

Presented to:
New Mexico Perkins V Consortium B and the LANL Foundation
Ann Black, Grants Director, Santa Fe Community College
Alvin Warren, Vice President, Career Pathways and Advocacy, LANL Foundation

OVERVIEW

Several Northern New Mexico colleges, including Santa Fe Community College, Northern New Mexico College, UNM-Taos, UNM-Los Alamos, the Institute of American Indian Arts, and the LANL Foundation are working together on a regional work-based learning (WBL) strategic plan. Thomas P. Miller & Associates (TPMA), an Indianapolis-based consulting firm, was hired to conduct a survey to gather input from stakeholders from across the region. Stakeholders were asked to provide input about the opportunities and barriers for effective work-based learning experiences for both secondary and postsecondary career and technical education students in Northern New Mexico as well as individuals currently not in school.

SURVEY RESPONDENTS

The Fall 2020 survey had 133 respondents representing at least one of the following types of organizations: Private Business, Tribal Corporation or Business, Post-Secondary Institution, Secondary Institution, State Government (State, County or Local), Workforce or Economic Development Organization, Tribal Government, Labor Organization, Community-based Organization/Non-Profit. 21 of the organizations selected multiple options when asked to select "Which best describes your organizations."

Respondents were asked "How familiar are you with work-based learning programs in the region?". Of the 131 respondents to the question 64.9% indicated they were "very familiar or somewhat familiar" with work-based learning programs whereas 22.9% indicated they were "somewhat unfamiliar or very unfamiliar" and 12.2% were "neither familiar nor unfamiliar"

Familiarity with WBL

- 19.1% Very familiar
- 45.8% Somewhat familiar
- 12.2% Neither familiar nor unfamiliar
- 15.3% Somewhat unfamiliar
- 7.6% Very unfamiliar
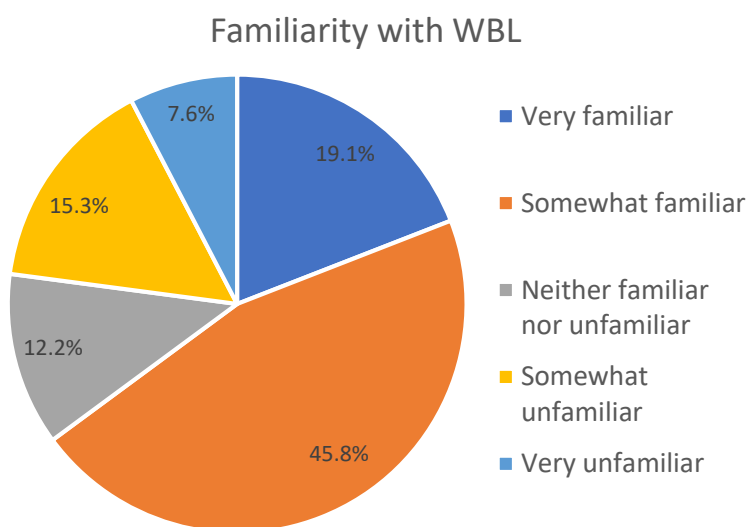
The respondents who indicated they were "very familiar, somewhat familiar, or neither familiar nor unfamiliar" were asked questions about their engagement with WBL, the next sections will refer to this group as the familiar respondents. Participants who indicated they were "somewhat unfamiliar or very unfamiliar" were asked questions pertaining to their interest in WBL and what reasons they have not participated. The next sections will refer to this group as the unfamiliar respondents.

FAMILIAR WITH WORK-BASED LEARNING

For those survey respondents who indicated they were familiar with WBL, 94 answered the question "Is your business, organization or agency actively engaged in internships, registered apprenticeships, pre-apprenticeships, or other types of work-based learning, in any way?" 64 (68.1%) indicated they are actively engaged, and 21 (22.3%) respondents identified they were somewhat engaged. There were only 9 (9.6%) responses of "No. The organization I represent is not participating in work-based learning at all."

Which types of work-based learning (WBL) is your business or organization involved with?
83 survey respondents selected WBL programs their business or organization was involved with. Providing paid internships was the top way respondents engage in WBL. Other ways respondents engage in WBL included connecting applicants with internships, sponsoring WBL programs, providing work experience and on-the-job-training, and paid transitional jobs. One respondent shared that "we do not have funds for paid internships but advocate them as part of career technical education."

Characteristics of WBL
Survey participants were asked to rate on a scale of one-to-five stars how essential certain characteristics were to successful WBL partnerships and opportunities, with five stars being extremely essential and one star being not essential. The majority of respondents indicated that work skills development, sometimes called "soft skills" or "essential skills" was extremely essential. 79 out of the 81 respondents gave work-skills four or five stars. Mentorship and the pipeline/opportunity for employment were also ranked as extremely essential. A survey respondent shared "The pipeline is an area that we would love to see grow - currently, our students do most of their internships in entry-level positions and few of these grow into actual careers."

Opportunities
Respondents were asked "What opportunities do you see to strengthen, expand, or increase access to WBL in Northern New Mexico?" and were allowed to select multiple answers. To the right is what was selected. 25 participants shared their explanations for their responses above. The responses generally fell into one of three categories: support for participants, support/systems improvement, and types of jobs.

Opportunities	Responses
Increase access to WBL through improved technology (including broadband)	67
Additional occupational pathways for WBL	34
Providing equitable access to WBL opportunities to special populations as defined by Perkins V.	64
Additional support to individuals participating in WBL	61
Additional support to sponsors/employers who host WBL experiences	60
Other	9

NOT FAMILIAR WITH WORK-BASED LEARNING

33 respondents that selected they were "Somewhat Unfamiliar" or "Very Unfamiliar" with WBL completed the question "What reasons, if any, has your organization not participated in WBL?" Zero participants selected "we are not interested" or that they "do not see the benefit of such programs". Respondents were given the option to select multiple reasons. The majority (19 participants) selected that they were "unaware that was an option/ do not have information about WBL" while 12 selected "lack of capacity" as a reason.

Of the respondents who chose to answer about their organizational interest in WBL, most understood how WBL can benefit individuals, organizations, and communities and would be interested in learning more about WBL. Many were interested in the opportunity and one respondent shared that they were 'definitely interested, [it] would be helpful to have someone inform us (concisely) about specific opportunities." Another shared "I believe my students would benefit from a program like this." Some were interested in starting a program but "are lacking the knowledge how to start and how to reach out to businesses." Others had concerns about their capacity. One responded "in this pandemic time, I don't know what time commitment staff or the org can engage in new project. While I am interested and can see engagement in this initiative, we are maxed out right now."

COVID-19

Participants were asked "What challenges are you/your organization facing to expand or explore WBL due to COVID19? How are you/your organization overcoming these challenges?" One respondent shared "There has been many challenges due to COVID19: Keeping school kids in school, keeping high school students in school, searching for jobs, keeping jobs, finding a job that pays a livable wage in Northern New Mexico." Others echoed this sentiment and added being remote was an obstacle to WBL. Another identified a challenge of "participation in virtual programming when it seems like everyone is burnt out on 'virtual' everything. We're keeping the programming on the table. We can't make people participate but we can stand by in case we're needed." Others discussed how students were fearful to leave home and there was a challenge with "technology access by students and ability of students to adapt to new learning environment." The need for broadband especially in rural areas was a challenge shared by multiple responders. In addition to virtual engagement and access, a respondent commented that "employers immediate concerns are focused on addressing COVID-19 issues and not developing WBL strategies." Many respondents indicated they are halting programs until after the pandemic. Funding was also identified as a challenge.

ACCESSIBILITY

Participants were asked, "In your opinion, how accessible are work-based learning opportunities in Northern New Mexico?" They were then instructed to use a slider to indicate how accessible

they thought WBL was, zero represented not accessible while five was very accessible. Most respondents selected two on the scale from zero to five.

When asked to explain their response to the accessibility of WBL in Northern NM, the responses generally fell into three broad categories:

1. Limited options
2. Barriers (for employers, institutions, communities, and students/participants)
3. Communication and knowledge about programs and supports

Limited Options // Respondents shared that there were limited options for WBL. For many respondents, the limited options were in part due to employer participation. Others mentioned that the options were limited due to their rural location. "There are not many work-based learning options in a small town, and there is competition for those places among local schools." Even where programs existed, geographic impact on capacity was mentioned. For example, on respondent wrote that "All of the hospitals host nursing students and allied health students. They are limited in what they can offer by their size and geographic area." Another shared, "These programs are more accessible to students living in Albuquerque and Santa Fe, but more rural areas in Northern New Mexico need to develop opportunities for our students."

Barriers to Accessibility // Respondents found that accessibility "depends upon the population you are serving, their needs, and their skills as well as the receiving mentors needs, and skills needed and to be learned." Many discussed barriers such as "widespread poverty, many poor K-12 schools, not really 'culture' of post-secondary training or education." For one respondent, the question of accessibility "is a multi-layered question for tribal communities. Accessibility includes economic ability, digital access, family support, continuity of programming." Tribal communities were not the only ones who commented on barriers to access, one respondent shared that "some of our students are undocumented and it is often difficult to pair for these students with an internship or paying job."

Communication// When discussing accessibility, many respondents discussed the availability of information and how opportunities were communicated. Responses that involved communication tended to fall into one of two categories: marketing and inter-agency communication.

Respondents were asked "What, if anything, could be done to make work-based learning more accessible in our region?" Similar to the responses that explained their ranking for accessibility, increased outreach was mentioned by several participants. Some respondents focused on strategies to improve WBL systems and others discussed removing barriers to access, such as transportation.

EQUITY

Survey participants were asked "In your opinion, how well are current work-based learning opportunities in Northern New Mexico serving special populations as defined by Perkins V, including individuals with disabilities; individuals from economically disadvantaged families, including low- income youth and adults; individuals preparing for non-traditional fields; single parents, including single pregnant women; out-of-workforce individuals; English learners; homeless individuals; youth who are in, or have aged out of, the foster care system; and youth with a parent who is a member of the armed forces and is on active duty." They were then instructed to use a slider to indicate how equitable they thought WBL was, zero represented not equitable while five was very equitable. 70 of the 93 respondents ranked equity at a one or two.

When asked to explain their responses, many shared that there were multiple reasons why they felt WBL was not equitable. Many mentioned that these populations need more wrap- around services or supports beyond WBL programs. Others mentioned there needed to be more funding for WBL programs and outreach to these populations. In sharing their thoughts on equity, respondents gave insights on systemic issues, supports available, barriers, and access. Others discussed outreach to select populations and the lack of coordinated systems.

Respondents were asked, "What, if anything, could be done to make work-based learning more equitable in serving these and other underrepresented populations?" Suggestions included more discussion and ensuring representation in the conversations, more outreach, better coordination, wrap-around services for participates, and eliminating certain barriers.

BARRIERS

When discussing barriers, respondents echoed their previous insights that transportation, childcare, and access to broadband were barriers. Additionally, respondents discussed employer engagement and funding for opportunities as a barrier as well as building relationships and trust. One survey respondent said, "there are still too many silos. Organizations are the barriers. We over think situations and fail to implement." Another stated, "We have many good things that are happening, but they are not systemic and are therefore difficult to replicate. If we want these programs, we have to get realistic about funding them. These are often very expensive programs, but will pay off in terms of economic growth and development if we would make the initial investment."

Appendix E

Sample Work-Based Learning Programs and Collaborations

As the WBL Eco-System continues with the work of the strategic planning process and begins to prioritize program implementation and support, partners can reference the following summary of WBL programs for lessons learned, collaborative design and as examples of successful implementation.

Program Name: Nuclear Operators Apprenticeship Program, Radiological Control Technician Bootcamp, Waste Processing Operator Bootcamp

Collaboration Partners: New Mexico Department of Workforce Solutions (NMDWS); Los Alamos National Laboratory (LANL); Northern New Mexico College (NNMC); University of New Mexico-Los Alamos (UNM-LA); and N3B-Los Alamos

Program Summary: In partnership with LANL, NNMC is offering a two-year associate degree in Radiation Protection that provides career opportunities at LANL. Radiological control technicians (RCT) help the Laboratory safely conduct operations that are essential to its national security mission.

In partnership with NNMC and courses offered at the DOE's National Training Center, N3B will offer a 22-month state-registered apprenticeship program to train nuclear operators, with an initial cohort of five students. Combining approximately 2,500 hours of instruction and on-the-job training, successful graduates should receive 50 college credit hours and a program certificate.

The NMDWS funding will support tuition for 30 of the initial cohort of 40 students, with the National Nuclear Security Administration and LANL funding the other ten.

N3B and UNM-LA are offering a 12-week intensive academic program taught at UNM-LA by senior N3B radiological protection personnel, with several hours of hands-on fieldwork under the direct supervision of qualified RCTs. This 10-credit-hour RCT "boot-camp" is a non-registered apprenticeship program for ten students leading to a certificate in Radiation Control.

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Program Name: N3B Internships

Collaboration Partners: N3B-Los Alamos and other Institutions of Higher Education

Program Summary: Each summer, N3B's Internship Program provides ten applicants professional experience as they navigate college. Students learn new and improved skills and abilities, professional communication, and the importance of networking. They gain real-world experience that enables them to apply what they have learned in school. At the culmination of their college career, N3B hopes interns will consider them as a future employer.

Program Name: X3 Internship Program

Collaboration Partners: Future Focused Education and Multiple Employers/Hosts

Program Summary: The X3 Internship program offers students an opportunity to be paired with local employers to provide meaningful work experiences and a monthly stipend. Their program offers virtual and hybrid formats to keep students and mentors safe during the pandemic. The X3 Internship program opens doors to future careers and higher education for local marginalized youth. The program runs in 13-week cycles where interns work 12 hours per week and are paid $2,500 per session. Interns are matched to employers based on fit and skill set. The WBL experience is customized, with co-created position descriptions. Future Focused Education also takes care of the onboarding and preparation for interns and mentors, timesheet management, payroll, insurance, as well as evaluation and support tools for employers.

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Program Name: Building and Construction Trades Registered Apprenticeship

Collaboration Partners: LANL, New Mexico Building and Construction Trades Council (NMBCTC) and Taos High School

Program Summary: LANL, NMBCTC, and Taos High School have designed a pathway for high school students for direct entry into union apprenticeship programs. As apprentices, participants will work full time at the Laboratory or at other job sites at the starting salary of $16 an hour while receiving additional classroom and on-the-job training. Upon completion of the apprenticeship, trainees will be journey workers with a starting salary of $72,000 per year. Participation in this course is free for the student and paid for by the Laboratory.

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Program Name: PILAS Internship Program

Collaboration Partners: Santa Fe Community College, Santa Fe Community College Foundation, Los Alamos National Security (LANS) and LANL

Program Summary: The Programa de Internos, Los Alamos (PILAS) Internship Program gives students the opportunity to earn pay while gaining skills. Participating businesses will assign student interns a project and mentor them through to completion. Students will spend between 50 to 80 hours in their internship and will earn academic credit.

Program Name: Columbus State Community College's Modern Manufacturing Work-Study

Collaboration Partners: Columbus State Community College in partnership with Honda and other industry partners in the Central Ohio region

Program Summary: The Modern Manufacturing Work-Study Program (MMWS) at Columbus State allows students to dive into a challenging advanced manufacturing career while receiving the education needed to build their resume. The MMWS program combines classroom and lab-learning with the opportunity for a paid work-study position at a local industry partner. Work-study participants receive an average of $18, helping them graduate debt-free. This career path offers an opportunity to play an important role in producing the goods Americans rely on, from cars and medical devices to consumer products and aerospace parts, while earning an average annual salary of $50,000-$60,000.

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Program Name: Future Ready Iowa

Collaboration Partners: Future Ready Iowa, AEA Learning Online, Iowa Department of Education, Iowa Workforce Development, Greatness STEMS from Iowans (Governor's STEM Advisory Council) and Iowa Economic Development

Program Summary: The Iowa Clearinghouse for Work-Based Learning connects students and employers through shared projects that give students professional experience. This can include virtual projects, internships, and apprenticeships. The model helps to bring an authentic learning format to Iowa classrooms and districts that have not had the resources for this style of learning in the past. The virtual Clearinghouse is available to all Iowa schools, K-12 classrooms, and businesses for project involvement through a system where both classes and businesses can enter themselves as an interested party and browse for a good match for a project. Students work on the projects primarily in the classroom, making this distinctly different from work-study or internship formats. Read about successful WBL projects in action here: https://clearinghouse.futurereadyiowa.gov/success-stories/.

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Program Name: Building Pathways Inc.

Collaboration Partners: Chicago Women in Trades and the Boston Building Trades Unions

Program Summary: Building Pathways Inc. (BPI), a six-week pre-apprenticeship training program set up by the Boston Building Trades Unions, was founded to diversify their membership and ensure a skilled construction workforce. BPI knows that women graduates may face additional scrutiny in seeking RAP opportunities and prepares participants for the skills and training they will need to succeed in a construction apprenticeship. BPI's rigorous training includes a basic understanding of construction math, tool recognition and use, measuring, and blueprint reading as well as hands-on experience at union apprenticeship programs and active construction sites. BPI has an agreement with the building trades that gives program graduates priority when new apprenticeships become available, which has led to a sizable increase in the number of female apprentices in Massachusetts.

Program Name: WorkAdvance

Collaboration Partners: Eastern Gateway Community College, Mahoning County Career and Technical Center, Nordson, and Mahoning Valley Manufacturers Coalition (MVMC)

Program Summary: WorkAdvance is an example of a structure that combines sector specific career readiness, technical training, and job placement with ongoing career coaching and supportive services to improve outcomes for low-wage workers. Participants are hired by an employer and paid wages during training. Up to six months of wages are covered by WIOA On-the-Job Training dollars and are paid through the Goodwill. Employers get 50% wage reimbursement. When replicated in Northeast Ohio, workers were four times more likely to complete technical training and nearly 50% more likely to be working in a targeted in-demand sector when compared to participants in a control group.[9]

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Program Name: Colorado Workforce Development Council's Lives Empowered

Collaboration Partners: Colorado Workforce Development Council, Penn Foster, Walmart Grant funding

Program Summary: Sector partnerships across Colorado are developing solutions to the food service industry and the retail and hospitality industry's common issues including finding and retaining talent, upskilling employees, and responding to the rapidly changing needs of the industry. The Lives Empowered initiative is helping to foster more of these successful partnerships across the state as well as providing upskilling opportunities for existing workers. The Lives Empowered program includes access to a training academy, financial services, work-life employee support services and information on retail and service industry career pathways.

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Program Name: Mahoning Valley Manufacturers Coalition (MVMC) Group Sponsored Registered Apprenticeship

Collaboration Partners: MVMC members (multiple companies), Erie Regional Manufacturing Partnership (ERMP) members (multiple companies), multiple education providers (Career and Technical Centers and Community Colleges)

Program Summary: The MVMC serves as the sponsor of the group sponsored registered apprenticeship. The MVMC leads a group of employers as they work together to recruit, screen, hire and train apprentices. The model streamlines administrative responsibilities through a single point of contact. The RAP is also competency-based, meaning apprentices can progress at their own pace and will demonstrate proficiency through assessments.

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[9] https://www.towardsemployment.org/wp-content/uploads/WorkAdvance_LocalReport_112216.pdf