

**BUILDING A SYSTEM OF COLLEGE AND CAREER PATHWAYS**  
**November 2019<sup>1</sup>**

In 2018, statewide only 74 percent of New Mexico high school students were graduating on time, and the percentages were even lower for Hispanic and Native American students. Moreover, of those graduating, many lacked sufficient academic and technical proficiency to pursue some form of postsecondary education without remediation and advance beyond entry-level employment.<sup>2</sup>

Statewide, less than 20 percent of high school students were proficient in mathematics, less than 30 percent proficient in science, and less than 40 percent (at the 10<sup>th</sup> grade) proficient in English Language Arts. In short, in an era of rapidly increasing global competitiveness, we are relegating too many young people to life on the margins, barely subsisting in low-wage jobs offering little prospect for advancement and extremely at risk of elimination through automation.

To improve the economic prospects of young people, New Mexico is undertaking an important examination of career and technical education (CTE) and its role in the larger K-12 and postsecondary education systems.<sup>1</sup> To be sure, CTE has an important role to play in revitalizing New Mexico's education systems. Research shows that participation in CTE—especially three or more courses of focused, high quality technical instruction—can produce positive impacts on high school completion, postsecondary transition, and future earnings.<sup>3</sup>

However, these gains are relatively modest. This is not surprising. Most high school students will not take more than two or three CTE courses while in high school. CTE alone, no matter how good we make it, cannot produce major improvement in student outcomes. If we do not do something to improve the rest of students' high school experience—the twenty or more core academic courses needed for graduation—we will continue on a course of disengagement, dropping out, under achievement, diminished opportunities, and limited economic and social prospects. Fortunately, a growing body of research provides another way forward, one that makes CTE an integral part of students' larger secondary (and postsecondary) educational experience.<sup>4</sup>

**Policy Goal: Make career and technical education an integral part of secondary and postsecondary education in New Mexico by creating a system of college and career pathways that integrate CTE *and* core academic curriculum, combine classroom and work-based learning, and align secondary and postsecondary programs to prepare all students for postsecondary education and career success.**

Making CTE an integral part of students' education experience is a strategy that intentionally prepares all students, especially those furthest from opportunity, for lasting success in both college *and* career, not just one or the other. This strategy ignites students' passions by creating meaningful learning experiences through college and career pathways in fields such as education, energy, health professions, and more. Typically, students are organized into pathways or academies of 300-600 students in grades 9-12, and attend their classes as grade-level cohorts, each served by an interdisciplinary team of academic and career and technical education teachers. This organization allows for much greater flexibility in the use of time during the school day, and for much more direct links to after-school and summer learning opportunities. This approach also makes learning more like the real world of work, responds to student interests, and helps students answer the question, "Why do I need to learn this?" When students love what they're learning, they work harder, dream bigger, and learn more.

**Recommendation 1: The Legislature should adopt a New Mexico college and career pathways framework that ensures that state- and locally funded programs adhere to evidence-based principles while also respecting local context, needs, assets, and preferences.**

To capitalize on the increased impact on student outcomes through a more comprehensive college and career pathways approach, New Mexico should expand the focus of the recently enacted HB91, which created a seven-year “career and technical education pilot project” to promote high quality career and technical education. Specifically, the state should require that further implementation of this pilot incorporate the CTE improvements envisioned by this legislation into a broader college and career pathway framework that consists of four essential components:

1. *College preparatory core academics (math, science, English, social studies, world language, and the arts), emphasizing real-world application, project-based learning, and performance assessment and aligned with;*
2. *A cluster or sequence of four or more challenging CTE courses embracing industry standards in the sector that is the theme of the pathway, and wherever possible, offering related industry certifications; both aligned with;*
3. *A continuum of work-based learning experiences, beginning with career awareness, mentoring, or job shadowing in grade nine and evolving into internships and/or school-based enterprise by grade twelve; all undergirded with;*
4. *Personalized student supports including college and career counseling, accelerated instruction in mathematics and English language arts, and attention to social-emotional learning.*

**Recommendation 2: As part of the continuing implementation of the HB91 CTE Pilot, create a demonstration of college and career pathways systems in six to ten districts throughout the state.**

*Direct the Public Education Department to draft and issue an RFP to New Mexico school districts requesting proposals interested districts to design and implement districtwide systems of college and career pathways, consisting of the four core components defined above and organized around major industry themes reflecting the most promising opportunities in New Mexico for careers in high wage/high demand occupations.*

The demonstration should include a representative sample of six to twelve New Mexico school districts with respect to size, geography, and demographics.

- a. Large districts with multiple high schools
- b. Districts with only one high school
  - i. More than 1,200 students
  - ii. Between 400 to 1,200 students
  - iii. Fewer than 400 students

**Recommendation 3: Establish state standards for pathways that ensure quality and equity of access, participation, and success.**

*Direct and fund the Public Education Department develop quality standards for college and career pathways that reflect the framework above.*

Such standards could include:

1. *Student Outcomes-Driven Practice*: The progress of every student is the driving focus for evaluating pathway quality. Data on student and pathway performance are used regularly to ensure the pathway is preparing all students for college and career.
2. *Culture of High Expectations, Equity, and Inclusion*: Pathways establish a culture of high expectations for all students, maintain non-discriminatory and inclusive policies, practices, and instruction, and are equitably accessible to any interested student.
3. *Industry Themed Program of Study*: An industry-themed pathway program brings coherence to the four core components of college and career pathways. The pathway is designed to ensure all students are offered the opportunity to earn postsecondary dual credit and are prepared for success in the full range of postsecondary options, including a four-year college.
4. *Inquiry and Project-Based Learning and Teaching*: Pathway students engage in inquiry and project-based learning that is relevant, rigorous, outcome-focused, and collaborative in nature. Every student's progress towards mastery of college- and career-ready learning outcomes is monitored and supported.
5. *Work-Based Learning*: Every student participates in a personalized and coordinated continuum of work-based learning experiences designed to help them master and demonstrate academic and professional skills needed to be prepared for college and careers.
6. *Personalized Student Support*: Pathway staff, in consultation with families and service providers, identify and address the academic, personal, and social-emotional needs of all students so that they make progress toward achieving personalized college and career goals and pathway student learning outcomes.
7. *Distributed Leadership and Engaged Partners*: Pathway staff, school site and district leaders, and industry and community partners share responsibility for the pathway's effectiveness and successful student outcomes. These stakeholders are representative of the community and assure that conditions are in place to establish and sustain pathway quality.

**Recommendation 4: Incentivize employer engagement and work-based learning, including industry certifications and entrepreneurship**

*Direct the Public Education Department, Higher Education Department, Economic Development Department, Department of Workforce Solutions and any other related state agencies to develop recommendations about how the state can incentivize employer involvement in work-based learning.*

A continuum of high-quality work-based learning experiences, spanning grades 9-12 and continuing on into postsecondary, is a critical component of all high-quality college and career pathways. Too often, work-based learning is perceived as mainly student internships, paid or unpaid. New Mexico state policy should clarify that, in addition to internships, work-based learning includes mentoring, job shadowing, informational interviews, employer-directed project-based learning, and school-based enterprise.

New Mexico's Job Training Incentive Program (JTIP) reimburses 50-75 percent of wages of newly hired, eligible trainees for up to six months in eligible companies (manufacturers, non-retail service companies such as software developers and product testing laboratories, and certain green industries). Currently, the program serves mainly postsecondary students and adults. New Mexico should consider adapting this program to partially fund work-based learning experiences that are a core component of college and career pathways in high schools. Such a strategy would strengthen connections between employers and pathways in their associated industry, as well as create a stronger through line for JTIP.

**Recommendation 5: Fund the PED to build the capacity of educators, district leaders, and communities to implement well-designed, high-quality college and career pathways, with attention to the framework and quality criteria.**

*Encourage local communities to develop a "Graduate Profile"—what the community expects graduates of their schools to know and be able to do.*<sup>5</sup>

A graduate profile, specifying the student outcomes the community expects from its schools, guides the design of each college and career pathway and the accompanying program of study spanning grades nine through twelve.

*Provide professional development to site leaders (principals and assistant principals) that builds their capacity to support pathway design and implementation, deepening their understanding of the importance of common planning time for teachers, scheduling students in pathway cohorts, more effective use of master scheduling, and effective professional development for pathway teachers.*

*Provide professional development to both academic and CTE teachers that enables them to realize the potential of pathways to transform learning and teaching in ways that better engage students, elevate relevance, and stress demonstrating competence and understanding in ways that go beyond performance on standardized tests.*

*Provide incentives for teachers to earn dual academic and CTE credentials as a strategy for building capacity to integrate academics and CTE. These might include tuition waivers or reimbursement and special recognition of dual credentials into salary schedules.*

Not only are dual certified teachers better able to align academic and CTE curriculum and instruction but also, especially in smaller high schools, having dual certified teachers can make it easier to offer college and career pathways to a smaller number of students than the number otherwise required to dedicate a full cadre of academic and CTE teachers to particular pathway and cohort of students.

**Recommendation 6: Adopt a system of metrics that can be used to monitor pathway implementation and quality and support continuous improvement, locally and statewide.**

*Direct and fund the Public Education Department to lead a process for developing and selecting metrics that can be used to periodically assess pathway quality, in addition to establishing standards for pathway quality. This process should include developing a pathway quality assessment rubric, tied to state quality standards, as well as incentives for pathways to achieve increasingly higher levels of high quality implementation.*

*Integrate data from the pathway assessment system with New Mexico's existing data systems at the state and local levels to promote pathway quality and continuous improvement is integration.*

Tracking student performance within and across pathways on such key indicators as enrollment, attendance, credits earned, grade point average, work-based learning experiences, high school completion, and postsecondary transition, persistence, and attainment is critical to ensuring that pathways are promoting equity and not regressing into old systems that led to tracking and inequitable outcomes for students with respect to race, ethnicity, gender, and special needs.

**Recommendation 7: Amend New Mexico's Graduation Requirements Statute to (§ 22-13-1.1) to encourage and support students' participation in high-quality college and career pathways.**

*Modify the Next Step plan to incorporate pathways participation and preparation for college, career, and life, as a way to provide context and meaning for students' high school coursetaking plans.*

*Modify the state's high school graduation course requirements to eliminate barriers to students' successful completion of high-quality college and career pathways, for example by establishing a process whereby certain CTE courses (e.g., environmental science, Biomedical science) could satisfy some of the academic course-taking requirements.*

*Establish a "college and career readiness seal" on the diploma, which students could earn by successfully completing a college and career pathway.*

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<sup>1</sup> The Learning Policy Institute (LPI) conducts and communicates independent, high-quality research to improve education policy and practice. Nonprofit and nonpartisan, LPI connects policymakers and stakeholders at the local, state, and federal levels with evidence, ideas, and actions needed to strengthen the education system and support empowering and equitable learning for each and every child. LPI's research in New Mexico is supported by core operating support provided by the Sandler Foundation, the William and Flora Hewlett Foundation, and the Ford Foundation, and by a grant from the Thornburg Foundation. For further information regarding this memo, contact Dr. Gary Hoachlander, President, ConnectEd: National Center for College and Career at [ghoachlander@connectednational.org](mailto:ghoachlander@connectednational.org).

<sup>2</sup> Xianglei Chen. *Remedial Coursetaking at U.S. Public 2- and 4-Year Institutions: Scope, Experiences, and Outcomes*. Washington, D.C.: The National Center for Education Statistics. September 2016.

<sup>3</sup> U.S. Department of Education, Office of Planning, Evaluation and Policy Development, Policy and Program Studies Service (2014), *National Assessment of Career and Technical Education: Final Report to Congress*. Washington, DC.

<sup>4</sup> Kemple, J., Herlihy, C., and Willner, C. "Career Academies: Long-term Impacts on Labor Market Outcomes, Educational Attainment, and Transitions to Adulthood." New York: MDRC, 2008; Warner, M., Caspary, K., Arshan, N., Stites, R., Padilla, C., Patel, D., McCracken, M., Harless, E., Park, C., Fahimuddin, L., & Adelman, N. (2016). *Taking stock of the California Linked Learning District Initiative. Seventh-year evaluation report*. Menlo Park, CA: SRI International.

<sup>5</sup> At the state level, New Mexico has made important progress on this front by adopting the *Common Career Technical Core (CCTE)*, developed in partnership with forty-one other states. CCTE not only specifies twelve career-ready outcomes desired of all students but also details more specific standards for each of sixteen career clusters. This is an excellent foundation on which to build a broader "college and career readiness" profile for the state.

**Appendix: Designing and Implementing District Systems: Twelve Steps**

At the district level, designing a comprehensive system of college and career pathways typically requires about five years, starting with a year of planning and continuing for four more years until the first cohort of ninth graders in pathways graduates from high school. During this time, the district, usually with support from an external technical assistance provider, engages in the following twelve steps.

1. Orientation
  - a. Pathways that prepare students for college *and* career
  - b. Core components
  - c. Essential elements of pathway quality
  - d. Adopting an equity lens
2. Produce a Map of Assets and Challenges and Create an Implementation Plan
  - a. Regional economy and career opportunities
  - b. Leadership vision for College and Career Readiness and commitment to equity
  - c. Instructional strengths and challenges—academics and career and technical education; the current state of adult learning within the district
  - d. Engagement of Key Stakeholders—postsecondary, employers, and community-based organizations
3. Establish the Graduate Profile
  - a. Knowledge
  - b. Skills
  - c. Productive Dispositions and Behaviors
  - d. Ability to navigate further education, the world of work, and civic engagement
4. Select Pathway Themes and Programs of Study
  - a. Menu of pathway themes informed by regional economic conditions, general industry connections, teacher and student interest, existing instructional assets, college opportunities, and specific employer partners
  - b. Each Pathway develops a Program of Study which includes a comprehensive, coherent industry-themed core of academic courses and focused career and technical education with a sequence of work-based learning experiences and student supports and shows the direct connection to the post-secondary opportunities
5. Revise the Master Schedule
  - a. Provide Common Planning Time for Teachers
  - b. Enable student cohorting
  - c. Create expanded learning time
  - d. Consider block scheduling options
6. Create the Data Dashboard
  - a. Student Outcomes
  - b. Pathway Quality
7. Build Capacity of District and Site Leadership
  - a. Coaching
  - b. Site Leadership development and Succession Planning

- c. Parent engagement
- 8. Strengthen Learning and Teaching
  - a. Adult Learning within schools and the district
  - b. Project-based Learning
  - c. Performance Assessment
  - d. Dual enrollment
- 9. Develop Work-Based Learning System
  - a. The Work-based learning Continuum
  - b. Pathway Advisory Boards
  - c. Employer Council
  - d. Industry certification and/or an intermediary structure of support
- 10. Build System of Personalized Student Supports
  - a. Accelerated instruction in reading, writing, and mathematics
  - b. Social/emotional support
  - c. College and career counseling
- 11. Align High School Redesign
  - a. K-8—deepen exposure to project-based learning and career awareness exploration and preparation; and industry certification options
  - b. Postsecondary—map pathways to college majors, apprenticeship, and industry certifications
- 12. Engage in Continuous Improvement to Achieve Pathway Certification
  - a. Candidate Status
  - b. Silver Certification
  - c. Gold Certification