

The Problem

Buncombe and Madison counties face a **widening gap between Skilled Trades demand and the workers being produced to meet it**. A-B Tech's three focus trades — Electrical, Plumbing, and HVAC — post 541 regional openings a year against just 73 completions, with HVAC the most severe (358 postings vs. 15 completions). The **root cause is demographic**: many trades workers are nearing retirement age. As tradespeople retire, employers are also losing the capacity to train replacements — A-American Electric says it risks losing contracts outright without 30 additional electricians by the end of 2026. **Hurricane Helene recovery has only intensified demand**, while limited awareness, thin adult-learner pipelines, and minimal K-12 exposure continue to constrain supply.

The Solution

A-B Tech is **scaling three proven trade pathways by redesigning them around seven entry points instead of one** — HRD orientation, Continuing Education foundations courses, apprenticeships, certificates, diplomas, AAS degrees, and Credit for Prior Learning — so a displaced worker, a recent graduate, or an English-language learner can each start where they are and stack credentials toward a good job. The college has signed commitments with A-American Electric and Bolton Services covering **curriculum co-design, work-based learning, hiring, and co-investment**, with several additional employer commitments in progress. To deliver at scale, A-B Tech is converting its Interim Chair of HVAC into a permanent Chair of HVAC, Plumbing & Skilled Trades Pathways, adding dedicated HVAC and Plumbing instructors, and investing in mobile training labs. The initiative also **leans on regional collaboration, drawing on ABM Works** — a newly funded regional initiative connecting high school students to internships and pre-apprenticeships — with partners spanning the Mountain Area Workforce Development Board, the P-20 Council, My FutureNC, area Chambers of Commerce, and MAHEC, plus an **emerging dual-enrollment pre-apprenticeship pathway** with Asheville High School.

The Metrics

- **135 students placed into a Good Job** (\$25.07/hr) or Promising Job (\$18.80/hr with a defined advancement path) by July 2028
- **400 students enrolled** across the seven pathway entry points
- **60 students** completing a full credential; **20** noncredit-to-credit transitions, **20** apprenticeship entries, and **20** returning workers upskilling into higher-wage roles

The Investment: \$290,123

The Problem

The labor market surrounding Blue Ridge Community College is **structurally short of engineering and advanced manufacturing talent**: 166 civil engineering postings and 1,650 advanced manufacturing postings across ten occupations region-wide, against five open manufacturing-engineering roles for every job seeker in that field. Twenty-nine percent of the manufacturing workforce is over 55, accelerating retirements just as demand climbs. **Employer turnover data** makes the pressure concrete — with two employers reporting a range of 50-60% — driven by wage competition that can come down to "pennies more an hour" between competitors, a regional housing shortage that pushes workers out of commuting range, and workplace-readiness gaps among new hires. Underneath the numbers sit **specific misperceptions blocking entry**: limited career awareness, misconceptions about eligibility, the persistent "dark, dangerous, dirty" stereotype of manufacturing, unawareness of advancement paths, practical-skills gaps, and workplace-readiness gaps.

The Solution

Blue Ridge is **modifying its engineering and advanced manufacturing programs around six named AAS engineering pathways**, anchored by three new Level I academies launching Spring 2027 and a defined wage ladder from Production Worker (\$18/hr) through CNC Operator to Machinery Maintenance Technician (\$76,000–\$108,000). A **credit-into-degree pathway** lets Level I completers stack toward a full AAS rather than dead-ending at a certificate. A 10-person implementation team supports delivery, and **employer engagement runs through a formal seven-stage pipeline backed by a reusable Employer Engagement Rubric** that the college can apply to future employer partners as it scales. Wage and placement targets are tracked against **23 named metrics**, dated to a specific labor-market snapshot rather than a static average, and the program's **sustainability case** is built on real projected FTE revenue paired with a funding portfolio secured well beyond this grant.

The Impact

- **75 placements** at \$19.98/hr or higher by 2028, with a wage ladder advancing toward \$76,000–\$108,000 in upper-level roles
- **23 named funnel metrics**: 150 enrolled → 70% retention → 70% placement
- **3 new Level I academies** launching January 2027

The Investment: \$300,000

The Problem

Western North Carolina's **healthcare workforce shortage is particularly acute in Caldwell and Watauga counties**: the [Good Jobs WNC Data Hub](#) shows RN, LPN, and CNA as the top three available healthcare jobs across the Unifour and High Country regions, with **more than 5,000 combined annual job listings across the region's ten largest employers**. Caldwell's nursing programs graduate roughly 110 RN and LPN completers a year combined, against a regional need of more than 24,000 RN and 2,314 LPN postings — a gap widening further as an aging population and high attrition among nurses within their first five years on the job compound the shortage. UNC Health Appalachian told the college that **experience gaps in new nurses are forcing it to hire higher-cost travel nurses to keep units staffed**: the shortage isn't only headcount, it's also the time it takes new graduates to become fully capable.

The Solution

Caldwell's core strategy is **capacity expansion at the current Board of Nursing-approved level**: adding a full-time Nursing Instructor and a full-time Simulation Coordinator by January 2027 to **raise the RN cohort ceiling from roughly 75 to 140 students and the LPN ceiling from 40 to 50** — a combined 35 additional graduates a year. What distinguishes Caldwell's approach is the ecosystem feeding that expansion. **RISE Caldwell-Watauga**, a regional pre-apprenticeship initiative, will enroll a minimum of 50 healthcare students a year starting in high school, with 20 entering Registered Apprenticeship pathways; 87% of RISE's employer partners report they'd hire a participating student into a long-term role today if a position were open. **UNC Health Appalachian and UNC Health Caldwell are structural partners**: UNC Health Caldwell already shares clinical instructors with the college, and the two systems are converting a flood-damaged UNC Health Appalachian building in Boone into shared classroom and lab space, letting Caldwell expand its Watauga County footprint without new capital construction. That same space enables Caldwell's **next-phase expansion into Medical Laboratory Technology, Physical Therapist Assistant, Sonography, and Radiography** — extending its programs into the High Country for the first time.

The Impact

- 40 LPN graduates into Good Jobs by Dec. 2026, rising to 50 by Dec. 2027
- 75 RN graduates into Good Jobs by May 2027, rising to 100 by May 2028
- 20 students entering RISE Caldwell-Watauga's healthcare pre-apprenticeship pathway in both Fall 2026 and Fall 2027 cohorts

The Investment: \$300,000

The Problem

Haywood County's skilled trades economy **runs on commercial drivers, and the region doesn't have enough of them**: 61 current CDL job openings with 170.7% projected growth, and roughly 102 CDL job postings a month, at wages averaging \$27.64/hr — well above the region's living wage. The **bottleneck isn't interest, it's throughput**: Haywood Community College's CDL program runs just four evening and Saturday sessions, because its instructors are working truck drivers teaching part-time around their full-time jobs, and licensure testing is capacity-constrained too — six recent candidates waited more than a month for a driving exam slot, available only at a single site an hour away in Andrews, NC. The **evening-only schedule shuts out exactly the students who'd benefit most**: working parents and anyone whose evening hours are already spoken for.

The Solution

Haywood's fix is a **new full-time, daytime CDL cohort track** running alongside the existing evening/weekend model, removing the biggest access barrier the college has identified: working adults, parents managing childcare, and students juggling other commitments who can't attend evening classes. It also **compresses program length from roughly 14 weeks to 10 or fewer**, since daytime instruction includes peak-traffic, real-world driving conditions that build job-readiness faster. The expansion anticipates converting Haywood's existing part-time Program Manager/Lead Instructor role into a full-time position, and to **grow from three cohorts a year to five (roughly 50 students per cycle)**. **Three employer commitments are already signed** and the college's July 2026 CDL Advisory Board confirmed roughly 2,705 CDL-related positions and more than 100 monthly job postings regionally. Haywood has **already invested approximately \$5 million of its own capital** into CDL training infrastructure — facilities, vehicles, and equipment — enabling the grant to focus on adding instructional capacity and increasing access. The program also **coordinates with NCWorks Career Centers, the Workforce Alliance of Haywood County, and local K-12 systems** for outreach to graduating seniors.

The Impact

- ~60 graduates entering employment, reflecting expansion from three to five cohorts at a 75% completion rate
- 50% of graduates placed within 3 months, 80% within 6 months; \$27.64/hr target wage
- 65% employment retention targeted at 12 months

The Investment: \$287,665

The Problem

Rutherford and Polk counties face a **growing gap in electrical, construction, and HVAC trades**. Branch Construction Group alone confirmed 100 openings over the next two years; four additional regional employers — Camp Electric Co., Fountain Electric & Services, Rutherford Heating & Air Conditioning, and Forest City Heating & Air — confirmed 86 more combined, a named-employer accounting of regional demand alongside the Good Jobs WNC Data Hub and Lightcast data. HVAC Installation Technician postings run highest in the greater Asheville region at 295 annual postings against a \$27.16/hr median wage, while Journeyman Electrician and Commercial Construction Foreman roles both clear \$29–\$41/hr. **Rural geography compounds the gap:** lack of transportation, childcare challenges, and limited awareness that trades careers pay competitively without a four-year degree all suppress participation even where jobs exist.

The Solution

To close this gap, Isothermal is using the funding to **launch short-term, stackable Workforce Continuing Education certificates in HVAC, Construction Trades, and Electrical Systems**, letting students earn a credential quickly and build on it rather than committing to a full program up front. The first is a **16-week HVAC certificate** piloting with one cohort of 10 in Year 1, scaling to three cohorts of 15 in Year 2 (55 students total) and projected to generate \$136,760 in tuition revenue against \$108,100 in cost — a net gain the college will reinvest as it builds out the other two certificates on the same model. **Two new full-time Building Construction Trades/HVAC instructors** provide the added capacity to deliver them, and each certificate is designed based on employer input, with HVAC employers convened first to identify entry-level task requirements, skill gaps, and valued credentials. **GIS mapping** through the college's Strategic Analytics Group targets recruitment to where adult learners are concentrated, and **five employer partners have already signed commitment letters** across the three sectors.

The Impact

- 80 students placed into good jobs (at or above wage benchmark of \$42,000/yr plus benefits)
- 92 total students placed into training-related employment
- 108 students earning industry-recognized credentials
- 5 signed employer partnership commitments across Electrical, Construction, and HVAC

The Investment: \$300,000

The Problem

Mayland's three-county service area — Mitchell, Avery, and Yancey — is **losing healthcare workforce capacity at the same time regional demand is rising**. Blue Ridge Regional Hospital's expansion, growth at Mountain Community Health Partnership, and a new AdventHealth facility are all increasing demand for nurses even as Hurricane Helene displaced workers and disrupted the regional economy. The constraint isn't demand or program quality — Mayland's RN program already runs a 94% job placement rate and a 100% first-time NCLEX-RN pass rate — it's capacity: **the program is capped at just 17–19 graduates a year, and completion sits at only 61%**.

The Solution

Rather than build a new program, Mayland is **scaling one that already works: growing RN completions from roughly 20 a year to 25 in Year 1 and 30 in Year 2** — a 50% increase — by adding a dedicated nursing instructor and a Clinical Coordinator position, with Mayland covering part of the Clinical Coordinator role's cost itself.. On the front end, the college is building a **dedicated academic advisor role** within Student Services specifically for nursing students, pairing it with **targeted Kaplan exam-prep support**, and **reviewing General Education course sequencing** to remove points where students stall out. Employer co-design runs through Clinical Affiliation Agreements with Blue Ridge Regional Hospital and Mountain Community Health Partnership, which shape curriculum and help identify where students are most likely to drop out along the pathway. The college is also **building earlier on-ramps** — expanding College & Career Promise dual-enrollment access and developing grade 9–12 career maps laying out credential pathways and employment outcomes.

The Metrics

- 57 participants placed into healthcare jobs at \$30.86/hr or higher within two years
- Scaling RN completions from ~20/year to 25 in Year 1 (+25%) and 30 in Year 2 (+50% cumulative)
- 25% increase in ADN retention and graduation rates

The Investment: \$300,000

The Problem

Manufacturing is McDowell County's economic backbone — the county's largest sector, supporting more than 5,000 jobs, with roughly 37.5% of the workforce in manufacturing-related occupations and Baxter Healthcare alone employing over 1,000 people as the county's largest private employer. Yet the region's three largest manufacturers — Baxter Healthcare, Smurfit WestRock, and Columbia Forest Products — consistently report they **can't find entry-level workers ready for a modern manufacturing floor**, and **Hurricane Helene compounded the problem** by flooding Baxter Healthcare's Marion facility, which produces a significant share of the nation's IV fluids and dialysis solutions. The county's **labor-force participation rate sits at just 53.2%**, and roughly 17% of residents ages 16–24 are neither employed nor in school — a substantial pool of untapped talent alongside roughly 1,000 unfilled advanced-manufacturing openings paying an average of \$67,000 a year.

The Solution

McDowell Tech's answer, **M3 Manufacturing Momentum**, was built directly from employer input: Baxter, Smurfit WestRock, and Columbia Forest Products all told the college, independently, that **entry-level readiness is their most urgent hiring problem**, and the resulting **three-level structure carries students from entry-level readiness through advanced manufacturing training into a McDowell Tech degree**. **Level One** delivers the Employability Skills Alignment Project plus the MSSC Certified Production Technician Safety Module and OSHA 10 across five sites, including two Cooperative Innovative High Schools on campus — new ground for the college, which has never offered MSSC CPT training before and has already invested roughly \$50,000 of its own money in two Amatrol training systems. All three employer partners have committed to **guaranteed interviews for Level One completers** and negotiated **occupation-specific wage progressions** — Smurfit WestRock, for instance, has proposed lifting its entry wage for M3 graduates by \$1.50/hr to \$19.00–\$19.50/hr. A dedicated **M3 Career Navigator** will manage the arc from recruitment through placement and wage tracking.

The Metrics

- **70 Level One participants** over two years (30 in Y1, 40 in Y2), with a **75% placement goal**
- **~53 securing jobs** through guaranteed interviews at Baxter Healthcare, Smurfit WestRock, or Columbia Forest Products
- **~\$50,000 in institutional equipment investment** committed ahead of grant funding

The Investment: \$300,000

The Problem

HVAC is one of the strongest "Good Job" opportunities in the far west: NCCareers.org rated it a Five Star Job in 2025 for wages, openings, growth, and experience level, and installation technicians earn a median \$27.16/hr — nearly \$8 above the region's \$19.41/hr living wage. Yet only three colleges in the ten-county far west and Asheville subregions, including Southwestern, offer HVAC training, **producing just 35 completers in 2025 against 286 posted openings.** Employers point to **five drivers:** an aging technician workforce, a large stock of older homes needing maintenance, high remodeling demand, a booming new-construction market in Buncombe County, and the January 2025 federal ban on R410 refrigerant production accelerating system replacements. Ward Plumbing, Heating & Air told SCC directly that the **shortage is "severe,"** with the greatest need for technicians who service and maintain units.

The Solution

SCC's two existing HVAC pathways — a five-semester diploma and an embedded three-semester certificate — take a full year to reach even the shorter credential, too slow to meet employer urgency. The **new 14-week daytime certificate** compresses that dramatically: four days a week of classroom and lab instruction plus a Friday work-based learning day with an HVAC employer, building EPA Section 608 and OSHA 10 certifications into the curriculum at Ward Plumbing's recommendation, whose General Manager confirmed this model is the fastest realistic way to prepare a job-ready technician and has formalized Ward's role through a **signed MOU covering curriculum review, equipment donation, work-based learning placements, and satisfaction surveys.** To reduce single-employer dependence, the college is **hosting an industry-wide luncheon** to bring additional HVAC employers on as Friday work-based learning hosts before the program scales. The program **targets recent high school graduates and young adults**, including those currently in low-wage retail, tourism, or construction roles, who research showed preferred a daytime schedule over evening classes.

The Metrics

- 54 graduates placed into a Good Job (\$42,000+/yr plus benefits) within 90 days of completion
- 15 students enrolled in the first Fall 2026 cohort, growing to 20 per cohort by Spring 2027
- 80% completion target across four cohorts
- 5 HVAC employer partners actively engaged, with 90% employer satisfaction targeted

The Investment: \$271,575 (Funding Shared Across Southwestern's Two Programs)

The Problem

Southwestern's healthcare partners describe an LPN pipeline in crisis: **a 69-to-1 ratio of LPN job postings to program graduates across the far west and Asheville subregions**. Angel Medical Center's CEO told SCC that his hospital "would hire ten new LPNs today if they had the opportunity" and that SCC already supplies 82% (9 of 11) of the hospital's most recent nursing hires. The **causes are structural**: LPNs are aging out faster than they're replaced, younger nurses migrate to metro areas for better pay, and many working LPNs quickly move into RN programs. Including Southwestern, **only three colleges in the region offer Practical Nursing** at all, producing just 27 graduates in the 2024–2025 academic year.

The Solution

Southwestern's existing **daytime LPN program is full and structurally excludes the population the region needs most**: working adults and career-changers, particularly low-income female heads of household, for whom quitting a daytime job to attend class is an untenable risk. The **new evening LPN track removes that barrier** — a three-semester diploma mirroring the daytime curriculum's 1,024 contact hours but scheduled evenings and weekends. **Recruitment leans on SCC's existing healthcare relationships**: notifying its current daytime PN waitlist first, then marketing directly to HR directors at regional hospitals and long-term care facilities to reach working CNAs, Medical Assistants, and Home Health Aides who want to advance without quitting their jobs. The program also **draws on Project SHIFT**, an initiative that has introduced local middle and high schoolers to SCC's 18 health sciences programs since 2023 and measurably lifted enrollment. Employer co-design runs through signed MOUs with Angel Medical Center and Harris Regional Hospital, committing to **paid externships, curriculum review, tuition reimbursement up to \$5,250 for graduates hired full-time, equipment donations, and priority hiring** — plus a new ApprenticeshipNC-registered **"LPN-to-ADN Bridge" apprenticeship**.

The Metrics

- 24 LPN graduates placed into a good job or advancing to an RN program, within 90 days of completion
- 10 students enrolled in Year 1, growing to 20 in Year 2
- 90% graduation rate and 100% first-time NCLEX-PN pass rate
- 5 healthcare employer partners actively engaged, with 90% employer satisfaction targeted

The Investment: \$271,575 (Funding Shared Across Southwestern's Two Programs)

The Problem

Tri-County serves **one of the most geographically isolated corners of North Carolina** — Cherokee, Clay, and Graham counties, bordered by Tennessee and Georgia — with no nearby community college partners to share clinical infrastructure, and **most LPNs currently serving the area train in North Georgia**, roughly ninety minutes from campus. Regionally, in 2024, 1,120 eligible applications went to LPN programs across 24 North Carolina schools, but only 620 students enrolled and 360 graduated — and just 6% of those enrollments happened anywhere in Western North Carolina. **Nearly a quarter of LPN positions in WNC sit vacant**, one in three go unfilled statewide, and the UNC Program on Health Workforce Research projects a **shortfall of more than 5,000 LPNs statewide by 2033**. Tri-County's own employer survey found more than 40 open LPN positions in its three-county service area right now.

The Solution

Rather than modify an existing program, Tri-County is **building LPN training from the ground up** — a new one-year, three-semester diploma with a **direct bridge into the college's existing ADN and RIBN pathways**. The program is **co-designed from the outset** with six regional healthcare employers serving on an LPN-specific Program Advisory Committee — Murphy Rehabilitation and Nursing, Erlanger Western Carolina Hospital, Clay County Health and Rehabilitation, Mountain Home Health Service, Valley View Health and Rehabilitation, and Graham Healthcare and Rehabilitation — each **shaping curriculum as an advisory member while also serving as a clinical training site and employer of graduates**. Four of the six clinical agreements are already signed, with the final two in progress. With regional LPN turnover running at 62% (per Strada), the program **builds in success coaching, peer support, and mentoring aimed at retention**, alongside flexible evening scheduling for working adults. Recruitment draws on more than 20 years of contact records from Tri-County's CNA continuing-education pipeline.

The Metrics

- **13 LPN graduates employed** in good jobs by Fall 2028, of a Year 1 cohort of 15 students
- **6 healthcare employer partners** formally engaged on the Program Advisory Committee, with all committing to hire graduates
- **100% NCLEX-PN pass rate** targeted among Year 1 graduates

The Investment: \$300,000

The Problem

Burke County's **manufacturing base needs workers faster than the region is producing them**: 57.9% of adults ages 25–44 lack a postsecondary credential, even as advanced manufacturing employs more than 41,000 workers regionally and **accounts for 25% to 38% of local employment**, with nearly 29% of that workforce already age 55 or older. Three named employers — AUMOVIO, Leviton, and Case Farms — have quantified specific, unmet annual hiring needs across Mechatronics Technicians, CNC Machinists, Production Technicians, and Welders. Wages tell a two-tier story: those occupations pay \$24–\$36/hr, well above the region's \$20.02/hr living-wage threshold (MIT Living Wage Calculator, February 2026), but entry-level Production Worker and Materials Handler roles average just \$18.17–\$18.53/hr — meaning **entry-level jobs frequently fall short of a "good job."**

The Solution

Western Piedmont is **modifying its existing Mechatronics, Machining, and Welding programs**, targeting **three distinct populations with tailored entry points**: adult learners and underemployed workers, incumbent workers seeking advancement, and non-enrolled recent high school graduates. **Integrated Education and Training (IET) pathways** serve students who need foundational-skills support alongside technical training, and **stackable credentials** let participants progress from entry-level production positions into the higher-wage technical roles above. All three employer partners have fully **signed MOUs committing to internships, apprenticeships, job shadowing, and curriculum input** — Leviton, whose fully automated Morganton facility faces a wave of retirements among maintenance staff, is building an apprenticeship pipeline for Industrial Maintenance and Tool & Die Makers with the college, while AUMOVIO and Case Farms both describe long-standing partnerships with WPCC. The program **builds on existing state infrastructure** — NC Reconnect, BOOST, SECU Bridge to Career, and Propel NC — and the implementation plan includes 10 specific milestones, alongside **advising, transportation assistance, and career-awareness support to remove access barriers**.

The Metrics

- 40–50 students placed into good jobs by 2028, including 15–20 new students
- 30 industry-recognized credentials earned or further education completed beyond WPCC
- 50 work-based learning opportunities (apprenticeships, internships, and related coursework)

The Investment: \$400,000 (WPCC received funding from two Direct Funders totalling \$400,000)

The Problem

Wilkes, Ashe, and Alleghany counties are **among North Carolina's most economically distressed**, even as employers across all three sectors report persistent shortages, from skilled machine operators and maintenance technicians to nurses and reliable entry-level construction labor. **More than 40,000 residents commute outside the seven-county High Country region** for work daily, and the **population is projected to decline 2.4% over the next 20 years** — WCC's explicit goal is to reverse that and become a net importer of talent. Local manufacturers offer Advanced Manufacturing Technician roles paying \$45,000–\$60,000 a year, among the most accessible paths to a family-sustaining wage in the region, but the county has **lacked a structured way to connect residents to them**.

The Solution

WCC is pursuing **two complementary strategies**. The first is **Work & Learn, a chapter-based model** built around five Advanced Manufacturing employers — Tyson Foods, Gardner Glass, InterFlex, Herbal Ingenuity, and PIP Worldwide — who pay participants at least \$18/hr directly as students work three to four days a week while completing an Applied Engineering Technology degree, leading into Industrial Maintenance Technician roles paying \$19.33–\$28.61/hr. The model was **co-designed with regional leadership** — the High Country Workforce Development Board, the Wilkes EDC, the Wilkes Chamber, and Gardner Glass's manufacturing officer — and WCC has already committed to expanding it into Healthcare and Skilled Trades cohorts in 2027–28. The second strategy is a **set of mobile immersive learning tools** — AR/VR anatomy models, a virtual welding simulator, and electrical-systems trainers — spanning all three sectors, deployed by a **dedicated Success Coach for both community-based career exploration and on-site incumbent-worker upskilling with employers** including Atrium Health Wake Forest Baptist and MBI Builders. That same Success Coach role is tied to the **intrusive-advising model** that has already doubled Wilkes's graduation rates since 2019.

The Metrics

- **35 Work & Learn students placed into good jobs**, including Industrial Maintenance Technician and related roles within two years
- **96 incumbent workers trained** across 16 employer-informed upskilling sessions

The Investment: \$300,000