After experiencing 35 percent growth in 2010, global aerospace/defense company AAR was well positioned to expand its aircraft maintenance and manufacturing operations, creating jobs. Instead, at a time of record-high unemployment, AAR encountered hiring challenges linked to profound skills gaps for hands-on, highly technical careers. With 600 unfilled positions in spring 2011, AAR’s numerous education partnerships paid off, enabling it to fill job vacancies and begin rebuilding the talent pipeline in four mid-America cities.

The Story

AAR is a labor-intensive aircraft services company with an estimated 6,500 employees in the United States. The majority are mid-skills positions that require industry specialization and/or certification but not necessarily a four-year college degree. Studies show that skills gaps are acute for aircraft mechanic and sheet metal technicians, as well as production-related jobs such as welders and machine operators. Enrollment in aircraft mechanic programs has yet to return to pre-9/11 levels, and fewer airframe and powerplant (A&P) mechanics and sheet metal technicians are coming out of the military. A stigma attached to hands-on labor and a lackluster focus on applied STEM education in America have emerged as additional barriers to recruiting young people into mid-skills jobs in aviation. Key players in shaping the talent
pipeline such as educators, guidance counselors and even parents are unaware of the diversity of career options in aviation and are not promoting them to the next-generation workforce. Meanwhile, the current workforce is aging, with mass retirements projected over the next several years.

## How It Works

AAR is rebuilding the talent pipeline by working closely with community colleges, technical schools, and universities to develop curriculum and training programs in four cities where it operates—Indianapolis, Oklahoma City, Hot Springs, Arkansas, and Goldsboro, North Carolina. Specifically, AAR executives want to address the disconnect between what’s being taught and the needs of business, shorten the time it takes to get people work ready, and introduce aviation careers to students at a younger age.

In Indianapolis, AAR developed curriculum and training for A&P mechanics and sheet metal technicians with Vincennes University. It recruits Vincennes’ students for two on-the-job and apprenticeship training initiatives at its Indianapolis Maintenance Center. The company also created two new job classifications—maintenance intern and support technician—to get workers into the pipeline faster, earning a paycheck while they learn. AAR offers opportunities to advance for those with the aptitude and interest in obtaining industry certification.

In Oklahoma City, AAR teamed up with Francis Tuttle Technology Center to design a registered apprenticeship and training program for sheet metal technicians that effectively combines classroom teaching with hands-on training. The company is working with Spartan College of Aeronautics in Tulsa, Oklahoma, to align curriculum with industry requirements and to connect Spartan students with jobs at AAR right out of school. AAR also has an internship program with Western Heights High School, exposing two students to careers in aviation over the summer. It contributes up to $10,000 a year to support scholarships for 100 teachers statewide to attend the Oklahoma Aerospace Summit and Expo, and purchase supplies and videos to teach youth about careers in aerospace.

In Hot Springs, Arkansas, where AAR has an aircraft maintenance facility near the regional airport, the nomadic nature of the business can cause severe worker shortages during peak periods. The local community college didn’t offer aerospace courses, so AAR reached out to officials at National Park Community College to develop a curriculum. A former trainer at AAR Aircraft Services has since joined the staff at the college to teach an Introduction to Aerospace course.

After experiencing a shortage of qualified welders, AAR Mobility Systems, its manufacturing division in Goldsboro, North Carolina, partnered with Wayne Community College to design a registered apprenticeship and training program for welders. Patterson’s ambitions were clear. His boss recommended him for the eight-week welding certification course Wayne Community College customized for AAR in collaboration with the company’s welding supervisors. The class meets one night a week for three hours. It was Patterson’s first experience with college. He completed the course and passed his shop floor exam a week later. Once certified, he moved up to welding—and the pay scale—immediately.

“I was thinking about getting a better job. But I never thought I would be a welder,” said Patterson, 20, who has a two-year-old son. “I’m thinking about going back for my two-year degree in welding so I can learn everything.”

## Student Success Story

### Aaron Patterson

Six months ago, Aaron Patterson was a shelter technician at AAR Mobility Systems, which produces mobile shelters for defense customers. His job was to grind down the welds made by his better-trained—and higher paid—colleagues, the welders, who at AAR earn between $4 and $5 an hour more than “grinders” do. Patterson, though, acted like a welder, thought like a welder, and even hung out with welders on his lunch break. “They’d teach me how to weld in my spare time. I learned a lot from them.”

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### Stephen Lowery

Stephen Lowery has a tight schedule. He’s in class by 7:30 a.m. at Vincennes University, where he is studying to be an A&P mechanic. Classes end at 1:50 p.m., and Lowery clocks in at 2:30 p.m. at AAR’s nearby Indianapolis Maintenance Center. As a support technician, he works alongside licensed A&P mechanics, cleaning parts, stripping aircraft down to the bare metal, and reinstalling rollers for loading systems.

“The school teaches you the theory behind it, but AAR actually teaches me what I’ll see in the field,” said Lowery, who enrolled in December 2011.

Lowery studies on his break and clocks out at 11:00 p.m. It’s a long day, but he says it’s worth it. His last job was at a car wash. His income has risen substantially, and he could be eligible to test for his FAA certification as early as next May.

Stephen’s father is an A&P mechanic, so he understands the responsibility that comes with the job. “I like having the responsibility. But don’t get me wrong; it can be tough when you’re signing off on stuff you did on an aircraft. If something happens, and if they figure out it’s your fault, you’ll be the one liable. It made me grow up.”
to develop a fast-track welding certification program lasting eight weeks, instead of a year. Students receive foundational skills, experience and a paycheck while they learn. AAR also teamed up with local industries and Wayne Community College to develop an Introduction to Manufacturing course designed to prepare students for manufacturing careers starting in the fall. The company also collaborated with local educators, nonprofits and industry associations in Goldsboro to spearhead adoption of the Career Readiness Certificate (CRC), a nationally portable skills credential that assesses the work readiness level of job applicants and incumbent workers.

The Business Case

While the U.S. economy lags, global competition continues to foster new business and growth opportunities for American aerospace companies. Once AAR began diverting work to Miami from Oklahoma due to a worker shortage, it became apparent to executives these critical workforce issues needed to be addressed. AAR Chairman and CEO David P. Storch saw an opportunity to provide thought leadership on an issue affecting businesses of all sizes across industries, encouraging private sector companies to become more actively engaged in building and managing the workforce supply chain.

In spring 2011, AAR partnered with The Manufacturing Institute (an affiliate of the National Association of Manufacturers) and the American Association of Community Colleges to produce the special report, The Mid-Skills Gap in Middle America: Building Today’s Workforce. The report uses AAR as a real-life example of a midsize company working diligently to remove barriers to education, recruitment, training and retention.

As a result of its strategic decision, AAR has begun to rebuild the talent pool and ramp up operations by creating clear pathways to middle-income careers. It has successfully identified new talent sources, recruited and put people to work in less time. In 2012, AAR plans to hire 20 Vincennes’ students for its new A&P internship program. This part-time position is a precursor to a multitude of aircraft-related skills sets, including mechanics, avionics, cabin and sheet metal. Once the students have obtained their A&P licenses from the FAA, they will be eligible for full-time, permanent positions at AAR.

As part of ongoing efforts to align curriculum with business needs, AAR Aircraft Services in Oklahoma has teamed up with the National Center for Aerospace and Transportation Technologies in Ft. Worth, Texas, and other aerospace maintenance, repair and operations entities to establish a nationally recognized credential for airframe sheet metal technicians.

Aerospace, like all business, is cyclical and at times uncertain. Through its partnerships with the education community, AAR has ensured access to a qualified workforce to keep business local and help spur positive economic growth.