



# Skilled Trades Playbook: Dynamic Partnerships for a New Economy

*How Businesses and Community Colleges Can Work Together  
to Find, Train and Place Workers in the Skilled Trades*

Welcome to a how-to guide for ways businesses can partner with community colleges to help find, train and place workers in the skilled trades—and why this solution can benefit everyone: from local business owners, to individuals looking for work, to community colleges, to our economy.

## ***The Playbook***

Many businesses, especially those that rely on skilled trades workers, report difficulty finding qualified individuals to fill open jobs. We believe it's time to meet this training challenge by creating partnerships that provide an opportunity to better align the skill needs of businesses with the education and training offered by community colleges. Unfortunately, many businesses and community colleges interested in such partnerships don't know where to start.

That's why this playbook was created—as a tool for businesses, community colleges and anyone else trying to find out if this solution may make sense, showing how to get started building a partnership and the benefits that may result. It includes checklists and links to outside resources throughout this playbook that can be used either to have a conversation about beginning a partnership or guiding efforts to sustain an existing partnership.

The ideas in this playbook in part grew out of a [\*Partnerships in Practice\*](#) event at the Aspen Institute in February 2013, where business leaders, community college presidents and academic experts discussed the reality and scope of the skills gap, the challenges they face, and how businesses and schools can work together to prepare the future and incumbent workforce. This was combined with real-world examples of local partnerships that are preparing skilled trades workers.

## ***The Commitment***

In an increasingly competitive global economy, America's economic strength depends on the education and skills of its workers. That's why public-private partnerships are an issue of vital importance to Grainger and Skills for America's Future.

Grainger supports community college students who are preparing for jobs in the skilled trades across the country and Skills for America's Future was founded to promote high-impact partnerships between community colleges and businesses

Together, Skills for America's Future and Grainger have partnered to create this playbook to share resources and real-world examples to inspire industry and community colleges to strengthen the pipeline of skilled trades workers in America.

### *Let's Get Started*

This action-oriented resource will help more businesses and community colleges train the next generation of skilled workers. **Please share your partnership stories, including what works, how you got started, how the partnership is sustained and the measurable outcomes on Grainger's [Facebook](#) or email us at <mailto:saf@aspeninstitute.org>.**

This playbook can help you begin a conversation and form partnerships to meet this training challenge. Read on to learn about the value of community college and business partnerships and how to get started!

## Understand the Challenges

It's time to better align education and training to job opportunities—and the responsibility to do this belongs to everyone: businesses, community colleges and individuals alike. But each group is facing real challenges, some of which are outlined below.

To meet these challenges, businesses have to decide to get involved in training, community colleges have to know what skills are valued by industries looking to hire, and individual students must have access to information allowing them to make informed career decisions.

### For Business: Finding Workers with Skills that Match Their Needs

“Employers no longer have the luxury of remaining on the sidelines”

*James T. Ryan*

*Chairman, President and Chief Executive Officer*

*W.W. Grainger, Inc.*

While there is some dispute about the existence or depth of a skills gap, many businesses report difficulty finding workers with the needed skill sets for jobs in their industry. The situation can differ by geographic region, by industry sector and by labor market.

In the skilled trades specifically the problem may only get worse as time goes on, since a significant percentage of the workforce is approaching retirement age, and the education and workforce systems may not be prepared to address the looming openings when current workers leave their jobs.

Many business leaders say that part of the challenge in finding trained workers comes from the negative perceptions or misperceptions of the skilled trades industry, with people picturing skilled trade jobs as they looked 40 or 50 years ago.



OF AMERICANS THINK WE SHOULD INVEST MORE IN MANUFACTURING



WOULD ENCOURAGE THEIR CHILDREN TO GO INTO MANUFACTURING AS A CAREER

Source: [\*Leadership wanted: U.S. public opinions on manufacturing, Deloitte and The Manufacturing Institute\*](#)

Partnerships can help solve this talent mismatch by developing a new pipeline for future workers as the older ones retire, and shifting the perception of skilled trades careers.

### **For Community Colleges: Knowing What's Valued and How to Teach It**

“Partnerships with industry will help community colleges rise to the challenge of preparing a workforce for the 21st Century”

*Walter Bumphus, President, American Association of Community Colleges*

Right now, many community colleges are not teaching the skills that are valued and required by local employers. Part of the challenge is that it is sometimes difficult for community colleges to easily obtain and keep up-to-date with businesses changing skill needs. There also can be cultural differences between how businesses and community colleges operate.

“We often don't know where jobs are, and what skills are required to be successful in those jobs. Conversation needs to happen to ensure students are trained on the right tools and right skills sets.”

*Bryan Albrecht, President, Gateway Technical College*

The challenge is how to ensure community colleges are keeping up-to-date with real-time information about what training is needed or the latest equipment being used, allowing the schools to develop students with academic, technical and professional skills. Some of that training will be in STEM disciplines, where skilled trades businesses are saying they can't find workers with the math and technological knowledge needed in today's advanced manufacturing careers.

While community colleges can have different goals, many are eager to partner with businesses to gain a better understanding of what training is needed to ensure their students can get a job when they leave school.

### **For Individuals: Finding a Job in an Ever-Changing Hiring Environment**

**“More manufacturing is going to happen. We must match skills to this opportunity.”**

*Nick Garbis, Strategic Workforce Planning Leader,  
General Electric Company*

In an ever-changing hiring environment, many individuals are seeking to understand the skills, certifications and degrees that individual businesses and the industry value, or want opportunities to prove they are the most qualified applicant for an open position—but don't know where to start.

The good news is that as the economy continues to improve, there will be an increased demand in hiring, including in manufacturing and the skilled trades. But hiring patterns will be changing as well and it will be critical to have partnerships and systems in place that can produce workers with the right skills.

# Rethinking the Strategy: Alignment

Many businesses are already rethinking how to recruit, train and hire workers. These businesses are finding that partnerships that allow them to be involved in the student's education and provide real, hands-on experience are helping them to be more successful.

Community college partnerships are a strategy that can incorporate the above trends to improve the alignment between economic and workforce development.

To meet the challenge, skills development should be aligned with the following issues:

## 1. Business and Regional Hiring Needs

As a number of employers express difficulty in finding workers that fit their needs, successful partners understand the hiring needs of a business or regional industry. This could include aligning training with needs such as the opening of a new location or the aging of a workforce in a business or regional industry.

## 2. Local Economic Development Goals

It is critical that skills development supports local economic development goals and visions. Building out local economic goals, set by outside groups such as an economic development board or mayor, will require alignment with training at the local level to support these goals and lure or expand potential businesses or industries.

## 3. Industry Sector Partnerships

In some communities, employers of all sizes have come together to form industry sector partnerships. Through these partnerships, industry leaders define common skill needs, certifications and credentials that are valued by the businesses. This information can be shared with community colleges so their training programs are aligned with the employer's needs.

# Partnering with Community Colleges: One Solution

Community colleges can offer unique benefits for businesses looking to attract new workers to their industry or develop the skills of their existing workforce, and are well-suited to help address the lack of well-trained, skilled and certified workers across the country.

“Your best workforce resource may be your local community college. As colleges reimagine their roles for the 21st century, they are committing to work with business and industry to provide trained and adaptable talent. We encourage companies to work with their community college partners to develop programs and pipelines that meet their current and future needs.”

Walter Bumphus  
President,  
American Association of Community Colleges

## Why a Community College Model Works

**Part of the Mission.** Across the country, community colleges are weaving employment-related outcomes into their missions, taking to heart the call to prepare their graduates to enter the workforce. Community colleges, located in all 50 states, are local or regional in their focus, attracting students from the area and building lasting ties to local economies. Community colleges also generally have open admissions, meaning that the majority of potential workers are eligible to enroll in classes.

**Reliable Source of Talent.** Community colleges are positioned to serve as a reliable source of trained workers with degrees and credentials. For businesses of any size, partnerships can help hiring go beyond traditional hiring practices like simple word of mouth, employment services or want ads. Partnerships can result in businesses knowing that a potential worker has received industry-recognized training or credentials. It may also result in a learn-and-earn opportunity, which offers the company the ability to get to know the students prior to hiring.

**Adaptable and Responsive.** An ability to be agile and responsive to businesses’ needs is where the community college partnership model can really shine. Community colleges are capable of producing courses of different lengths and depths. In



many cases, community colleges will change their class offerings, class times and even class locations to meet the needs of local employers and the workforce.

Community colleges can also provide training of different lengths for different purposes—ranging from a 2-year associates program to a 2-month intensive training “crash course.” Ongoing communication with a community college translates to a flexible and responsive relationship, allowing the college to tailor its offerings to accommodate near- or long-term skills needs.

**Effective Use of Resources.** Community colleges are often a solution that makes sense for businesses and students when it comes to resources. For businesses, partnering with community colleges allows them to take advantage of institutions and structures already geared to training people. Businesses can work within these existing training structures to develop successful and cost-effective operations.

Compared to other training providers or potentially even training in-house, community college programs can require fewer resources for employers, and partnerships can reduce recruitment costs. For students, the average in-state tuition rate for community college students costs 64% less than in-state tuition at public 4-year colleges, and sometimes can be partially supported by scholarships or employee tuition assistance offered by the partnering business.

### **Not a “Silver Bullet” for Unemployment**

**WHAT PARTNERSHIPS ARE NOT:** Business and community college partnerships are not a silver bullet to the country’s unemployment challenges or the lack of hiring demand that we still face as the country continues to recover from the recession. Even if every worker had the skills needed by business, there would still be unemployment challenges.

**WHAT PARTNERSHIPS ARE:** Business and community college partnerships are one solution to more closely align training and businesses’ skill requirements, and help build a stronger workforce.

# Community Colleges: A Local Partner

## Develop the workforce you need. Support the workforce you have

As businesses are looking to community colleges to help recruit, train and advance workers, there are 2 core reasons businesses say they seek community college partnerships:

### 1. Develop a pipeline of new employees for both immediate and long-term hiring needs.

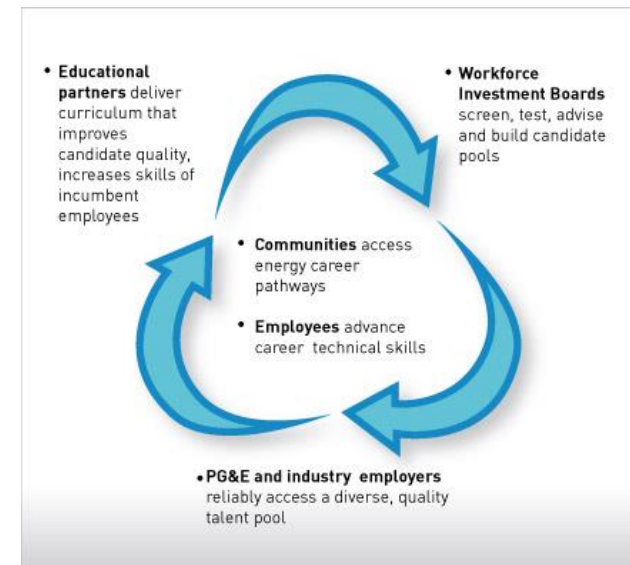
### 2. Enhance the skills of existing workers.

There are proven examples to address these demands.

#### Pacific Gas & Electric (PG&E) Company: Develop the workforce you need

The [PowerPathway™ program](#) at PG&E has the pipeline model down to a science. And it gets results.

**The What** > PG&E designs short-term (8-12 week) limited-enrollment programs based specifically on a local hiring need. Programs are flexible and use customized coursework developed in partnership with PG&E to prepare students for entry- and apprentice-level careers with PG&E or in other companies in the utility industry. The program includes pre-employment testing and rigorous application pre-screening. To PG&E, this program also counters the coming “Silver Tsunami,” as a large percentage of their workforce approaches retirement age.



**The How** > PG&E contributes by providing technical support, curriculum design, faculty “train-the-trainer” programs, co-delivery of classroom instruction, student field visits, in-kind donations of training equipment and funding. Workforce Investment Boards (WIBs) pre-screen candidates to ensure successful completion rates.

**The Who** > PG&E’s PowerPathway™ program relies on an array of partners, including: California community colleges and universities, local workforce investment boards (WIBs), community-based training organizations, military installations, labor unions and other businesses.

**The Story** > Jacob Cordova, a recent graduate of the PowerPathway™ program and a military veteran, had previously applied to PG&E, but didn’t make it through the hiring process. After being selected and committing to the PowerPathway™ program, Jacob was trained alongside 30 other veterans, ranging in age from 22 to 43-years old, and after successfully completing the program was hired by PG&E. Jacob mentioned that the program gave him the “something extra” and the ability to stand out in a crowded field of applicants.

**The Numbers** > Most students are connected to jobs, but not just PG&E jobs. 71% of PowerPathway™ graduates are hired into industry positions, including PG&E suppliers, contactors and even competitors. PG&E also has found a 98% retention rate after 6 months of employment, 10% higher than workers who have not gone through the program.

### **Georgia-Pacific, Luminant and General Electric (GE): Support the workforce you have**

Other businesses are investing in their current workforce by advancing the skills of their incumbent workers.

**Georgia-Pacific** > Employees at [Georgia-Pacific](#) wanted to upgrade their skills from basic manufacturing to fill the shortage of workers with electrical, instrumentation and mechanical skills, something encouraged by the business. With opportunities to enroll in a paid training program during nights or weekends, employees are able to transition from making a good living working 12-hour rotating shifts to a full day shift job and a career. Employees earn a higher pay rate because they learned these new skills, and Georgia-Pacific develops talent throughout the company.

**Luminant** > Luminant employs more than 2,800 people throughout its Texas mines and power plants. The company started its Power Track program as a way to train individuals for entry-level employment in power plant operations. The program includes a paid summer internship working with a mentor at a Luminant power plant between the student's first and second year. However, current Luminant employees were inspired by Power Track interns to take advantage of advanced education opportunities, and have also attended classes. Since the implementation of Power Track, employee training has increased [59% at Luminant](#).

**GE** > Investing in the future, and investing in people—that's the combination GE uses to incorporate training its existing workforce into its business model. GE channels its existing workforce through community colleges. In addition to designing programs, GE funds its employees to go back to school for training on the global supply chain or to earn manufacturing certifications and training for machinists, welders and assemblers. Some assistance through funding, operational support and equipment is offered for community college programs. This support is determined by the individual partnerships and needs at each GE site and local community college. GE believes the larger community benefits by having incumbent workers develop their skills. And a skilled workforce is a key component that GE uses when deciding where to locate their business and if they should remain in the area where they are currently based.

# 10 Steps to Form and Sustain a Partnership

**Top Tip: Communicate.** The most important step is communication. Success can only emerge from high-quality, frequent communication, which leads to trusting relationships between partners. By forging effective channels of communication and collaboration, businesses and community colleges can develop tailored and adaptable solutions that work.

## Getting a Partnership Started:

“How do you get started? I think it’s frustrating on both ends.”

*Kelly Wolff, Plant Manager, Savannah River Mill,  
Georgia-Pacific*

### 1. Make the connection and designate a point of contact.

- Making the first move can be difficult. Many companies don’t see their role as the catalyst, nor do most community colleges. But someone has to make the first call.
- One easy step for businesses is to survey their own employees to find out if they have any relationships with a local community college. Does anyone already serve on an advisory board? Did someone attend the community college and still has ties?
- Both potential partners can look at what’s already working. Often there are useful examples of cooperation or collaboration in your community, region or industry that businesses and community colleges can learn from and build on.

- If there aren't established connections, sometimes it's best to start at the top, with the president of the community college or local business executive, but not always. For businesses and community colleges, communications structures will differ and decision-makers can vary based on size. For example, many community colleges have different structures—some have industry coordinators designated to work on partnerships, others lack these resources.
- Personalities matter. Remember, “It's the person, not the role” who will listen and take action.
- Often the first conversation can be about interest, and the second conversation can begin to address other key issues such as the capacity of the college, resources needed to support the partnership, etc.
- It's important for businesses and community colleges to have clear lines of responsibility for the partnerships. Decide: Who is responsible for day-to-day communication? Who is designated as the point of contact for each partner?

## 2. Understand each other's needs and capabilities.

- Businesses can make their training needs clear up front through open and ongoing communication. This communication may occur by participating on advisory boards that meet fairly frequently, and establishing relationships with key community college staff.
- Businesses can work closely with community colleges to inform the school of industry-recognized credentials that are relevant to businesses and will benefit individuals as they seek employment and career advancement.

**Example >** [Right Skills Now](#), which is building on the National Association of Manufacturers-endorsed [Manufacturing Skills Certification System](#), includes nationally portable, industry-recognized certifications that are combined with for-credit education programs.

- Businesses can share knowledge of the industry in an ongoing way by providing community colleges with adjunct faculty or training the existing faculty.

- Small, medium and large businesses all can benefit from community college partnerships. What often changes with size is the structure of partnerships. Sometimes it is difficult for community colleges to respond to training needs for only a few workers. That's why it can be more effective if small businesses aggregate their hiring needs and collaborating to achieve the strongest results. Some companies believe they are too small to request customized training from community colleges individually, but can do so as part of a group or association.

### 3. Set goals for both the business and the community college.

- Both the community college and business must make sure their goals align before entering into a partnership. There must be a recognized need on both sides that the partnership will add value.
- Businesses need to decide what type of training they are looking to provide: is it to fill an immediate hiring need, to provide general skills training or to improve the skills of incumbent workers?
- Some businesses may not have direct hiring goals. At [Sandvik Coromant](#), a tooling company, they are focused on promoting training programs for the company's end users – manufacturing companies – to ensure a continued market for their products by promoting training for people who they hope are going to *use* their products.
- Businesses should also determine other goals, such as whether they are looking to diversify their workforce by attracting individuals who have been underrepresented in the skilled trades, such as military veterans, women or minorities. For example, Grainger and PG&E have tailored part of their partnership programs specifically for military veterans, with Grainger offering half of all scholarships annually to [military veterans](#).
- Community colleges must make sure that the partnership is meeting its goals as well. For instance, is the college looking to build more robust training in one industry area? Is it focused on simulating on-the-job experiences or classroom instruction?

- The key to a successful partnership is having both a broad enough vision to see where the partnership opportunities might be and a willingness to own the process of building the relationship. Organizational buy-in is therefore critical—both from the business and the community college. For this buy-in, top level interaction (the college president or business CEO) can be helpful, but is not always needed.

#### **4. Agree on how what resources will be used and how long you're willing to make a commitment.**

- Business and community college leaders who formed successful partnerships said it over and over: in order for partnerships to work, they need to be sustained, often with more long-term, strategic and systemic collaboration and investment.

*Example >* Gateway Technical College asks all business partners to commit to 5 years, with the knowledge that if the college hasn't demonstrated value in 5 years the company can walk away. GE looks for a 3 to 5 year horizon for their partnerships with community colleges.

- While it can seem like an unnecessary detail, businesses and community colleges should come to a consensus at the beginning of their relationship about the length of the commitment, knowing that a more sustained commitment can often lead to a more successful outcome.
- Partnerships vary on the amount of resources required to begin and sustain the work. Some partnerships don't require a significant financial commitment. Others are a collaborative relationship—funded by a combination of business, government and other resources.
- Businesses should look at their funding availability and have an honest conversation with the community college about the resources they are able to expend, which will help determine the scope and capacity of the partnership program.



## 5. Bring in additional partners to help reach the goals (if needed).

- Many partnerships don't just involve two parties—they also use outside entities to help achieve desired goals. In addition to the potential entities below, other stakeholders in the community may complement the partnership.
- Potential additional partners can include:
  - **Workforce Investment Boards**

WIBs can assist in screening processes, initial interviews and providing information about effective training partners. WIBs also can assist in case management, often tracking workers even after they are placed in jobs, enabling businesses to keep their own metrics on hiring up-to-date.
  - **Other businesses**

Effective approaches can range from allowing other businesses in the same region and/or industry to meet program participants to forming a full-scale industry consortium.
  - **Industry associations**

Industry associations, such as the National Association of Manufacturers (NAM), can gather and speak for the needs of its employer members. With partnerships, they can be useful in defining skills and competencies and determining which credentials and certifications are valued throughout the industry.
  - **Governments**

At the federal, state and local level, government programs targeting worker training can provide needed programmatic and resource capacity. While government resources are becoming scarcer, some successful partnerships have a government funding component, or use local government to promote the partnership regionally.
  - **Community-based organizations**

Sometimes community-based organizations can play an intermediary role, helping the “key players” – the businesses and community colleges – work together and determine how best to connect to potential local talent.

➤ **Labor unions**

Some partnerships involve local labor unions as key partners. For example, in a [program developed by NextEra Energy](#) in Florida, trainees complete classroom instruction and on-the-job training to satisfy IBEW requirements for Journeyman status, and the local IBEW provides apprentice instructors.

➤ **Foundations**

Many regional and national foundations include workforce development among their funding priorities, and view authentic partnerships between employers and colleges and an attractive investment. For more information about private and corporate foundations, visit [The Foundation Center's](#) website.

## 6. Set requirements for the participants.

- Many partnerships have specific testing requirements for participants.

*Example >* Right Skills Now requires students to earn the ACT National Career Readiness Certificate (NCRC) before entering the program. Individuals who do not achieve desired scores on the tests for the NCRC can target their training to only the areas in which their scores were not high enough.

- Some programs also require students to earn a specific GPA or pass a drug test.

## Steps to Keep a Partnership Going:

“How do you get started? I think it’s frustrating on both ends.”

*Kelly Wolff, Plant Manager, Savannah River Mill,  
Georgia-Pacific*

## **7. Determine the resources needed to sustain the partnership in the long-term.**

- Resources – including staffing and funding levels – are key to sustaining and growing a partnership once it's started.
- The amount of staffing resources dedicated by the business and the community college may depend on the size of the organization and the scope of the partnership effort. Businesses should decide if they want staff resources “on-the-ground” or in the office, and how the staff time can be most effectively used to support the partnership goals.
- For instance, will the business have staff members focused on the partnership as a fulltime job? Or will it be something done part-time or as part of other duties? While some companies have full teams dedicated to partnerships, others see it as a function of a larger set of duties around workforce development.
- Often partnerships have initial funding or committed support, but do not have a plan for sustaining the partnerships. For instance, businesses and community colleges would need to decide how a partnership initially supported with grant funds will continue once the funding ends. Are the businesses and community colleges willing to invest financial resources to sustain the partnerships?

## **8. Know and show the value within your company and institution.**

- Once these partnership programs are created, it is up to both the business and the community college to ensure the value of the program is understood and articulated internally and integrated into things such as hiring processes or community college recruitment.
- Businesses should send clear signals to human resources and other hiring managers or recruiters on what it means for a potential employee to participate in that program.
- As one business leader says, “Communications should flow down into the field to the people who make those hiring decisions...The program has to mean something to the people in the business who are doing the hiring.” Understanding

how the program will be integrated into the company's hiring process is essential to recognize the benefits that come from such a ready-made pipeline of workers.

- The community college should also decide how to articulate the value of the partnership. This can include featuring the partnership program for future students or building a training facility on campus that becomes a flagship location in the college.

## 9. Grow the partnership to other company locations.

- Businesses looking to expand successful partnership programs can take a standardized or localized approach.
- Standardized partnerships replicate partnership aspects across partnership sites.

**Example** > Grainger's Tools for Tomorrow® scholarship program offers scholarships across the country to community college students in their final year preparing for careers in the industrial trades.

**Example** > Georgia-Pacific is working to transport full training programs to company facilities in other geographic locations. The programs will be adapted to respond to regional economies. Regional managers meet 3 times a year and share successes and failures to help "transport success."

- Localized partnerships can take a more of what one business leader called a "site-to-school" approach, with large companies having distinct local or regional efforts to best respond to the individualized needs of the regional economy or capacities at local community colleges.

**Example** > Sandvik Coromant has hundreds of partnerships, but has made a decision to localize their training programs to best meet the local community college need.

## 10. Set measures to inform program success and share your story.

- Part of sustaining a partnership is setting and adjusting measures, tracking and telling the story of the effort's success.
- One way to gauge success is through **credentialing or certification**, especially when multiple businesses or an industry sign off on a commitment to recognize the value of a created certificate.

*Example* > [Snap-on](#) began offering curriculum-based product certifications to technical college students in 2006, and since then has provided more than 7,000 students with over 10,000 industry-recognized Snap-on certifications. This national program reaches more than 100 community colleges that offer these industry-recognized Snap-on certifications to students, and in some cases, to the incumbent workforce. By offering third party, stackable and transferable credentials, the certifications can help their students become more marketable, and show the success of Snap-on's partnerships.

- Another is the number of workers hired and placed in jobs, which allows businesses to know the training they are a part of is working. Hiring success can depend on getting the integration process right, so that the value of the trainees is understood by the company. Partners can also ensure other local businesses get to see their program in action and meet the individuals being trained, to increase hiring overall.
- Other measures of success, including whether individuals receive a promotion, employee retention, or even pass rates on pre-employment tests, can help partners gauge success. Metrics can provide concrete evidence to businesses and community colleges that the partnerships are working, while also highlighting opportunities for program improvement.

# Working Together: The Benefits

Businesses and community colleges can support each other in many different and exciting ways. Below are some examples.

## Scholarships and Financial Support

Businesses can help provide financial support through **scholarships to students**, or by **directly financially supporting** partner community college's training programs, allowing students and schools to have the resources they need to ensure successful training.

*Scholarship Example* > [Grainger's Tools for Tomorrow® scholarship program](#) awards two \$2,000 scholarships annually to students enrolled in their final year of an industrial trades program with a 3.0 GPA or higher at 100 community colleges across America. In 2013, half of the scholarships were offered to students who are military veterans.

## Industry Expertise

The intellectual property and know-how that comes from a business is an undeniable resource for an effective partnership, providing students with job-ready skills from the beginning by giving them up-to-date knowledge. This includes businesses working with community colleges to develop course content, offering industry expertise through supports such as **curriculum development, instructor training** or even having employees teach in the classroom.

*Curriculum Example* > DuPont Washington Works, one of the largest DuPont manufacturing facilities in the world, works closely with West Virginia University at Parkersburg to develop the [curriculum](#) for the Learn and Earn program. The curriculum focuses specifically on the skills needed to meet the demands of polymer companies in and around Parkersburg, West Virginia, and gives selected students the opportunity to earn a 30-hour certificate of applied science in chemical and polymer operator technology.

**Curriculum Example** > At the Community College of Allegheny County (CCAC) in Pennsylvania, the college developed a standard curriculum for manufacturing which was then shared with partner companies to review and participate in ongoing conversations. As CCAC's Vice President for Workforce Development Alicia Booker put it, "We want employers at the table to review our curriculum. If it doesn't match, then it's useless. We can be flexible."

**Instructor Training Example** > The National Coalition of Certification Centers (NC3) network trains instructors every summer in a 2-week program, churning out about 70 instructors each year to teach 17 certifications in transportation, energy and aviation across the country. This focus on instructor training also includes regionally located NC3 leadership schools that provide instructional material development, train-the-trainer activities and mentoring to NC3 education members.

## Equipment and Facilities

Businesses can contribute equipment and facilities—from helping create or fund a full-scale facility on campus to the use of a business' in-house training centers. This contribution to community college training programs allows businesses to know future workers will be knowledgeable about the equipment and environment they will encounter on the job.

**Equipment Example** > Grainger's Tools for Tomorrow® program includes a donated customized Westward® toolkit to each scholarship winner after they graduate to kick-start their career.

**Equipment Example** > At Sandvik Coromant, special pricing is extended to all educational institutions on the company's full range of tools.

**Facilities Examples** > At the Community College of Allegheny County (CCAC) in Pennsylvania, facility designers have created a training floor that looks just like the manufacturing floor at the business they partner with by working with the company to simulate their environment. At Gateway Technical College in Wisconsin, facility designers and directors also work directly with facility designers at partner businesses to see how companies' facilities are set-up so the institution can simulate the design in the classroom.

**Facilities Example** > In Texas, the power company [Luminant](#) constructed a 24,000-square foot training facility at Tyler Junior College that includes classrooms, training labs and high-fidelity boiler simulators that imitate the actual operation of Luminant power plants, and now trains nearly 300 students per year using the facility.

## Work Experience

Businesses can offer work experience, in the form of **paid internships, on-site training or apprenticeships**, giving students the opportunity to link classroom instruction with practical work experience in a company and industry.

Internships and apprenticeships can be an important part of ensuring the potential job candidate will have the combination of academic and technical training, professional skills and work experience that businesses value. It also allows employers to see potential hires in action.

**Paid Internships Example** > After the first semester in the partnership program with Savannah Technical College, Georgia-Pacific interviews and selects 2 candidates to work 20 hours a week in the company's facility, while attending school. They are paid as part-time workers, and are hired at the end of the program.

**Paid On-Site Training Example** > With DuPont's one-year Learn and Earn program, students rotate in groups of 10 between 2 semesters of coursework at West Virginia University at Parkersburg and 2 three-month rotations of paid on-site training at the DuPont plant. The state of West Virginia and DuPont each cover half the cost to pay students for the work done during each 3-month rotation. The paid work rotations reinforce knowledge gained in the classroom by providing a supervised work experience in manufacturing methods, process operations, planning and scheduling and equipment operation. Students are considered for employment after successful completion of the [program](#).

**Apprenticeships Example** > Florida Power & Light, a subsidiary of NextEra Energy, developed an Apprenticeship Degree and Qualification Program with a local labor union and Indian River State College to help train new workers and address the problem of an aging workforce in the nuclear energy industry. NextEra Energy's partnership program includes a 2-year degree program and a 1-year on-site apprenticeship. The apprenticeship is dedicated to providing



site-specific labs and practical exercises to prepare the candidates for a career at a local power plant station and is delivered almost exclusively by apprentice [instructors](#).

## Soft Skills Assistance

Teaching participants **soft skills**, like interviewing techniques, resume writing, test prep, leadership and professional guidance, are often woven into some of the most successful partnerships for training skilled trades workers. These soft skills can give students a leg up and make sure they fit in with a business's culture when applying for a job.

***Soft Skills Example*** > In addition to technical training, in their [PowerPathway™ program](#), PG&E focuses on what they call “intangibles,” such as test prep, resume building and mock interviews. This includes working with community college partners to use on-campus resources to reinforce soft skills training. Jacob Cordova, a PowerPathway™ graduate and military veteran mentioned a 22-year old veteran in his program who “didn’t have interviewing skills or resume writing skills” and noted how much the soft skills assistance like writing workshops made his fellow graduate more marketable.

## Leadership and Advocacy

Business and community college leaders can serve on advisory boards at local, state and national levels to promote community college partnerships and share promising practices. In policy debates, they can act as strong advocates for their industry and for industry partnerships that help businesses meet their skills needs.

***Advocacy Example*** > As an owner of a smaller company, [Permac Industries](#) President Darlene Miller focuses her energies on being a local and national champion for partnerships as the way to ensure more workers are trained for the skilled trades. She helped create Right Skills Now, an initiative to develop a nationally replicable fast-track solution for small manufacturers.

**Advocacy Example** > Grainger started an [awareness campaign](#), partnering with the American Association of Community to promote awareness about job opportunities in the industrial trades professions and highlight the key role community colleges play as the nation’s training ground for these careers.

## Why Partnerships Are a Win for Everyone

The most exciting part of creating or participating in these partnerships is how everyone can benefit, especially by building upon what we already know works. Each set of stakeholders can gain from these partnerships – and with strong communication and the flexibility to adjust to evolving needs – can work together like a well-oiled machine.

### Win for the Business

Business leaders who have helped build partnerships see the clear advantages, with access to a pool of qualified and skilled candidates.

**Remove the Hiring Guesswork.** Hiring can be time-consuming and drain resources. When individuals have access to the skills training valued by businesses, they enter employment better prepared to meet their employer’s expectations. For businesses, they can be assured individuals will meet their skill requirements, since they worked with the community college to provide input or develop the training program.

“Fishing in the experienced talent pool is expensive. We believe we can hire and build people out of a program and into job...that way is a better value proposition.”

*Nick Garbis Strategic Workforce Planning Leader, General Electric Company*

“If students are taking the time to do the program, it shows their dedication to learning these skills, the industry and sometimes the company.”

*Jacob Cordova Former American River Community College Student and PowerPathway Graduate*

“

**Get Workers with Desired Skills.** Partnerships help businesses ensure they are bringing on incoming workers who have been trained with an understanding of their skills needs. Businesses know the students have the required skills, credentials and training as a direct result of an orchestrated partnership.

**Create a Ready-Made Worker Pipeline and Retain Workers Longer.** Partnerships allow businesses to put a training program in place, creating a continual pipeline of new employees and a capacity to train-up current employees. By building and adapting the partnerships, businesses can create a pipeline to access the skilled workers they need. For many companies, these programs have also led to increased employee retention.

*Example* > In 2007, a local power plant station with Florida Power and Light formed a partnership with the local International Brotherhood of Electrical Workers (IBEW) union and Indian River State College. Through the Apprenticeship Degree and Qualification Program, with a 2-year degree program and 1-year apprenticeship, the company sought to hire 20 graduates a year over the next 10 years. The partnership is allowing the local facility to grow its own pipeline by targeting new workers who will have a greater propensity and incentive to stay with a company in their [community](#).

**Be More Productive and Get Ahead.** As Grainger’s CEO Jim Ryan knows, one of the ways you get more productive is to look at what you’re doing—and then figure out ways to do it smarter and better. But, as he put it: [“If you’re always chasing employment and always trying to catch up and find somebody to fill jobs, you’re not able to take a step back and look at your business and figure out how to improve it.”](#) Partnerships can reduce hiring and training costs, and ensure a more skilled and effective workforce while allowing businesses to focus efforts towards improving in other areas.

## Win for the Community College

Public private partnerships can be a key to sustaining the future of community colleges, especially at a time of scarce public resources, allowing the community colleges to work with local industry to train individuals for available jobs.

**Align Training with Local Need.** Partnerships ensure that the education and training being provided by local community colleges are better aligned to local labor markets. This allows the college to become an asset to local businesses and regional industries.

“We are excited about the new roles that companies are willing to play to mobilize powerful partnerships and increase the capacity of the community college to ensure opportunity and economic growth.”

*Walter Bumphus President, American Association of Community Colleges*

**Place Students in Jobs.** If one measure of success is student job placement, business partnerships begin an essential workforce cycle, creating more opportunities to place students in jobs. As schools align training with business needs and begin to funnel students to jobs, more businesses become interested in the qualified candidates and more students are interested in enrolling in the program if they see that graduates obtain jobs.

“For schools, it’s a win-win. If they teach the right thing, people get hired at a higher percentage, and they get more student.”

*Darlene Miller President, Permac Industries and Incoming President of the Precision Machined Products Association*

**Help with Instructor Training and Curriculum.** When curriculum is developed with an understanding of the industry and is in line with business needs, community colleges can rely on businesses to help decide what makes a good candidate and a successful employee in the field, instead of shooting in dark. Instructor training can also ensure that the community college’s faculty are providing the most up-to-date training to students.

**Receive Cutting-Edge Equipment.** Many businesses will provide and upgrade equipment for community college training programs, allowing the college to update equipment at a reasonable rate. By partnering with businesses, community colleges can ensure that their students are being trained on the most up-to-date equipment at a reduced or even at no cost to the school.

## Win for the Students

Students who participate in partnership programs are able to receive education and training that is in demand, and better understand their career options.

**Gain Skills Aligned with Business Needs.** Employment is not guaranteed after earning a degree or credential. However, solid training combined with work experience can provide participating students clear connections to businesses' needs and a better idea of possible career paths they can take.

**Earn Industry-Recognized Credentials.** Businesses are taking a “strength in numbers” approach, leveraging education partnerships to develop industry-recognized credentials that are stackable and portable across the entire industry. Students who choose programs that result in recognized credentials or certifications are able to quickly demonstrate their skills to many different businesses.

**Spend Less Time and Money.** People deciding to go back for training are often looking for ways to decrease the financial and time commitment that comes with a traditional 4- or even 2-year degree program. Business-community college partnerships can offer students an alternative, often lasting only a few months while providing the specific skills businesses are looking for.

“The way I saw it, there were two routes: Get a masters or advanced degree, but of course pile on substantial student loan debt, or go back to junior college or the tech trade school route, which was considerably more affordable. I spoke with advisors at the local community college, Joliet Junior College. They couldn't guarantee I'd find a job, but said the chance was really high.”

*Michael Johnston Student, Joliet Junior College*

**Get Real-World Work Experience.** Many partnerships offer opportunities for hands-on training, either in simulated or real-world scenarios, giving students an understanding of the field they are hoping to break into and work experience that can be highly valued by potential employers. Some programs also provide students paid internships as a stepping stone from the training program to employment. Paid internships are a valuable piece of the puzzle, providing opportunities for workers to test the field they're interested in and see if it's a right fit.

**Gain Pride and a Sense of Accomplishment.** After returning student Andy Moyer was selected for a Grainger Tools for Tomorrow® scholarship, he mentioned a sense of accomplishment in receiving that distinction from the company. Business-community college partnerships can give workers who may have been unemployed the needed skills to get hired, instilling pride and confidence that only come from a job.

## Win for the Community

When partnerships are working well, full communities and regions can enjoy economic growth.

**Grow the Regional Economy.** Business-community college partnerships can play a role in the future economic growth of the community. A community with strong partnership programs is a community with the ability to sustain and grow strong businesses with deep ties to the local workforce.

**Greater Understanding of Local Industries.** Partnerships can play a key role in informing the community about the training needs and opportunities in local industries. This includes the community learning about significant hiring needs, or getting residents to develop new thinking about what jobs in the skilled trades look like today.

**Ensure Worker Pipeline to Lure New Business Growth.** The skills and quality of the local workforce is a big consideration for companies as they determine expansions or relocations. Business-community college partnerships demonstrate a ready-made worker pipeline that can act as an incentive that communities can use as they look to create future business growth. Partnerships also offer communities the ability to retain talented workers in the area because the jobs are there, instead of having them leave the region.

“It’s about keeping the best and brightest young people in the community.”

*Kelly Wolff Plant Manager, Savannah River Mill, Georgia-Pacific*

## Resources

Thank you for visiting the Skilled Trades Playbook website. Please share this site with your colleagues and friends and tell us about your programs. [Grainger](#) and [Skills for America's Future](#) invite employers and community colleges to share their success model for partnerships that have already begun to get results. [Share your story here.](#)

**Skills for America's Future.** Skills for America's Future (SAF), a policy initiative of the Economic Opportunities Program at the Aspen Institute, seeks to create or expand high-impact partnerships between community colleges and businesses to better match training and education to employment opportunities and lead to better trained workers. SAF provides information about successful business-community college partnerships. [www.skillsforamericasfuture.org](http://www.skillsforamericasfuture.org).

**Grainger Technical Education.** Grainger is an American company that comes faces to face with these training needs and job opportunities every day, helping customers save time and money by providing them the right products to keep their facilities up and running. Their products go out to 2 million businesses around the world, businesses that are employing and seeking professionals trained in the skilled trades. Grainger provides opportunities for workers to receive technical education in the skilled trades. Tools for Tomorrow® is the scholarship program sponsored by Grainger at nearly 90 community colleges across the nation. [www.grainger.com/Grainger/static/ci\\_technical\\_education.html](http://www.grainger.com/Grainger/static/ci_technical_education.html)

**American Association of Community Colleges (AACC).** AACC is the trade association for community colleges across the United States with more than 1,200 member institutions. The site includes news and information on community colleges across the nation including a community college finder that will help you locate a community college near you. [www.aacc.nche.edu](http://www.aacc.nche.edu).

**Center for Energy Workforce Development (CEWD).** CEWD is a non-profit consortium of electric, natural gas, nuclear utilities and their associations. CEWD works with education and training institutions, the workforce system and organized labor to address the workforce needs of the energy industry. [www.cewd.org](http://www.cewd.org).



**The Manufacturing Institute.** The Manufacturing Institute, an affiliate of the National Association of Manufacturers, conducts research about the workforce needs and public perceptions of the manufacturing industry. In addition, they have developed a Manufacturing Skills Certification System (MSCS). The MSCS is a system of nationally portable, industry-recognized credentials needed to be productive and successful on the job. [www.themanufacturinginstitute.org](http://www.themanufacturinginstitute.org)

**Help Wanted: Projection of Jobs and Education Requirements through 2018.** This 2010 study by Georgetown University's Center on Education and the Workforce provides background information on the future educational needs of American industry. <http://cew.georgetown.edu/jobs2018>

**Leadership Wanted: US Public Opinions on Manufacturing.** This 2012 report from the Manufacturing Institute examines the results of the Institute's fourth annual survey of American citizens measuring their perceptions of the manufacturing industry in the United States relative to other industries.

[www.themanufacturinginstitute.org/~ /media/5856BC6196764320A6BEFA0D9962BE80.ashx](http://www.themanufacturinginstitute.org/~ /media/5856BC6196764320A6BEFA0D9962BE80.ashx)

**National Coalition of Certification Centers (NC3).** The National Coalition of Certification Centers was established to address the need for strong industry partnerships with educational institutions in order to develop, implement and sustain industry-recognized portable certifications that have strong validation and assessment standards. [www.nc3.net](http://www.nc3.net)

**Right Skills Now.** Right Skills Now is a program that provides a curriculum based on the NAM-Endorsed Manufacturing Skills Certification System and apprenticeship opportunities for workers in preparation for careers in the manufacturing industry. <http://rightskillsnow.org>

**Precision Machined Products Association (PMPA).** The PMPA is an international trade association representing the interests of the precision machined products industry. While PMPA consists mainly of North America based manufacturers, its members also operate facilities in various industrial markets around the globe. [www.pmpa.org/](http://www.pmpa.org/)

**Sector Skills Academy.** To build on the momentum of sector work and to strengthen, sustain and grow the field, the first Sector Skills Academy was initiated in June 2005 by three well-known organizations in the sectoral workforce development field: The Aspen Institute Workforce Strategies Initiative, the National Network of Sector Partners, and Public/Private

Ventures. Major funding is provided by the Charles Stewart Mott Foundation. The Academy provides emerging leaders with an opportunity for experiential learning with practical applications for present and future work in the sector field.

<http://sectorskillsacademy.org/About.html> and

<http://sectorskillsacademy.org/Webinars/EmployerEngagement/lib/playback.html> (employer engagement webinar)

**The Aspen Institute's Business Value Assessment Toolkit.** The Business Value Assessment Toolkit provides hands-on guidance and practical tools that a workforce program manager can use to plan and measure business results that accrue from a workforce partnership. [www.aspenwsi.org/resource/bva-toolkit/](http://www.aspenwsi.org/resource/bva-toolkit/)

# Glossary

**Advisory Councils** - Many community colleges across the nation have established advisory councils or boards to share information from experts to help make the community college and its programs stronger. Advisory Council members often include faculty, students, community members and business leaders. These groups can serve the institution as a whole or be established by discipline, and activities could include everything from offering high-level strategic planning to implementing local partnerships. Advisory Council connections are often a great way to connect to a community college partner.

**Career Placement Test** - Career placement tests, sometimes referred to as pre-employment tests, are one method of screening applicants for a particular job or industry, and are used by some businesses in the skilled trades. These tests measure an individual's aptitude for a range of capabilities, like math or industry knowledge, tied to the type of position or program the applicant is applying for. Some partnership programs offer lessons and learning geared towards helping participants pass career placement tests.

**Community-based Organizations** - The term community-based organizations or CBOs refers to a wide range of grassroots groups that address community needs. Community-based organizations include groups such as: a local United Way, food bank, human service organizations, skills-focused training centers, or community foundations. There are a wide variety of community organizations unique to a local area that can help facilitate or be part of public-private partnerships.

**Community Colleges** - Community colleges are postsecondary education and training institutions that enroll almost half of all undergraduates in America, with the mission of providing education for individuals, many of whom are adults, in their service regions. There are 1,132 regionally accredited, primarily associate degree granting community colleges across the country. While offering degrees in many fields, community colleges have the flexibility to also offer credentials or certifications in a shorter time period or in more targeted areas of expertise. Although some community college students enroll with the intention of eventually obtaining a degree from a four-year institution, many students in fact never intend to go beyond an associate's degree and other students only seek to get a certification or credential for professional purposes. Some students seek to enroll in a class or specific program to enhance their skills, knowledge or training.

Community colleges are inclusive institutions. Most have open enrollment. Approximately 13 million students are enrolled in America's community colleges and two-thirds of community college students attend part-time. People of color comprise 45% of students. The average age of community college students is 28, and more than half are already employed. Learn more about community colleges and community college students at the [American Association of Community Colleges](#) or [Skills for America's Future](#).

**Consortium (Plural: Consortia)** – Often when discussing business-community college partnerships, a consortium is generally a grouping of individuals or businesses within a similar industry that are experiencing similar workforce challenges. It often is used specifically to refer to a group of businesses, and sometimes community colleges, that join together based on a common interest – industry, geographic region, training need, etc. – to achieve more success as a group than they could as individuals. One example is the multistate [Auto Communities Consortium \(ACC\)](#), which was established in 2010 by community colleges in the Midwest to address pervasive economic losses faced by communities whose major employers were auto industry related, and now consists of 37 community colleges located in 17 states.

**Industry Associations** - Businesses both large and small join together in industry associations or trade associations to accomplish any number of activities, from forming a powerful voice for advocating on their specific industry needs to organizing standards or providing research. As business-community college partnerships are established and grow, industry associations can play a key role on agreeing on new credentials or training programs that should be recognized and valued in their hiring practices and helping make skills and credentials accepted across businesses. The [National Association of Manufacturers \(NAM\)](#) is an example of an industry association that has focused on addressing many of the challenges businesses are facing when it comes to finding workers to fit their skills requirements.

**Industry-Recognized Credentials** - Credentials are recognition of an individual's knowledge and training in a certain subject area, typically given by a higher-education institution or training center and used by businesses to evaluate the capabilities of future employees or to consider incumbent employees for new positions. Education institutions may develop curricula and credentials, not necessarily understood or aligned with other training or employment opportunities in other regions. To help combat misalignment, industry-recognized credentials are a set of specific skills and training programs with value within a certain industry, allowing businesses to be assured of an individual's skills and individuals to better market themselves with proven skills.

**Stackable and Portable Credentials** - There are many types of knowledge and skill sets that form the base of other higher-level skills. Instead of repeating basic information in new training or certification programs, many higher-education or training facilities are offering what is known as “stackable” credentials, allowing individuals to continually build new skills and knowledge on top of their already granted certifications. These credentials help an individual through a career pathway, [accumulating and building on each past credential to eventually form a strong training background to advance their career](#). The goal of stackable credentials are to first [build a foundation of basic academic and workplace requirements, followed by cross-cutting technical competencies and finally more specialized, occupationally specific skills](#). For this method to be successful, credentials also should be “portable,” meaning that they are recognized and accepted not only at other businesses, but also at other educational institutions and in other regions. See more on credentials from the U.S. [Department of Labor](#), or learn about the Manufacturing Institute’s [NAM-Endorsed Manufacturing Skills Certification System](#), a system of stackable, nationally portable and industry-recognized credentials that can apply to all sectors in the manufacturing industry.

**[National Career Readiness Certificate \(NCRC\)](#)** - Administered by ACT, the non-profit organization that administers the widely-recognized college admissions test, the NCRC assesses employability skills by looking at three areas: “applied mathematics, locating information, [and] reading for information.” This test is used by employers and training programs as a pre-screening tool to determine how candidates respond to a variety of questions on applied skills and “work-related behaviors,” sometimes referred to as soft skills.

**Skills Gap/Skills Mismatch/Talent Mismatch** - The skills gap is a term that generally refers to the large number of open jobs in businesses across the country that is said to be due to businesses’ inability to find workers with the right skills and training to match position requirements. While there has been much discussion on the existence or breadth of the skills gap, the phrases talent mismatch or skills mismatch may more appropriately describe the current situation faced by businesses in the skilled trades, as factors such as rapid changes in technology, increasing skills demands from employers and globalization have impacted the labor market in an unprecedented manner.