

## How Apprenticeships Build and Sustain Skills-Based Careers

*Innovations Case Narrative:*  
The Institute for Workplace Skills and Innovation

For many Americans, the Obama administration's recently publicized plan to invest billions of federal dollars in apprenticeship programs in the United States likely conjured up the image of Benjamin Franklin apprenticing as a printer, his first professional role.

Apprenticeships remain a fundamental, proven method of training individuals in what are likely high-skilled occupational areas, with hand-on learning processes that are directly supervised by skilled mentors. Today the effectiveness of these multiyear training commitments is measured by whether apprentices are hired by their employers upon completing their programs. If they are not, it's likely that the apprenticeship program itself needs to be restructured.

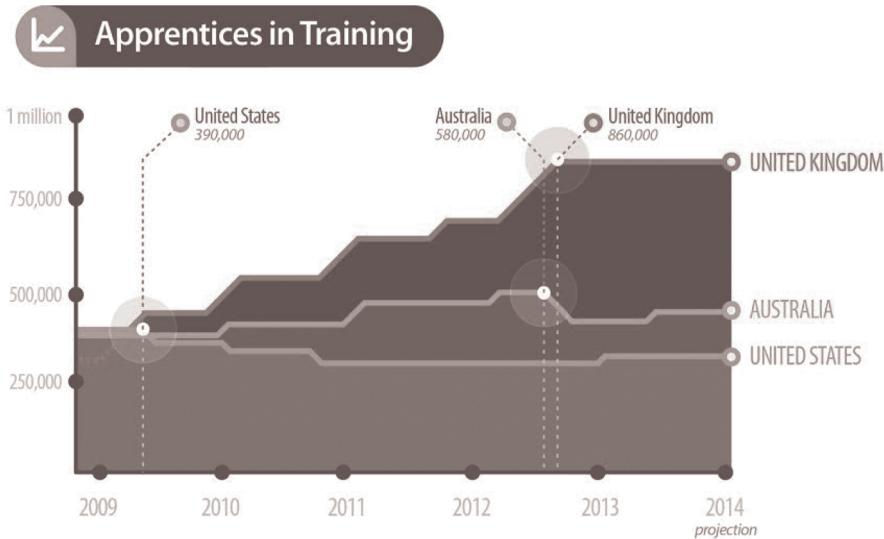
In the United States, there are only 14 apprentices for every 1,000 workers, and 4 percent of U.S. employers end up hiring their own apprentices, according to the International Skills Standards Organization. By comparison, in my native Australia there are 40 apprentices for every 1,000 workers, and 27 percent of Aussie employers hire their apprentices. According to data from the Australian and U.S. governments, Australia will continue to outpace the U.S. in the level of apprenticeships through at least 2015.

Onsite work and mentoring are the core of the training model that today's entry-level workers need in order to build and sustain lifelong careers. Strategically designed apprenticeship programs aggregate, monitor, and streamline the changing inputs and relationships required to promote workers and pave paths of sustainable employment.

University graduates have become unemployable in some countries, even while jobs go unfilled. Businesses worldwide lack skilled workers, even as unem-

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**Figure 1.** Apprentices in Training

Sources: U.K. Statistics <http://www.gov.uk>; Australian Statistics, National Centre for Vocational Education Research <http://www.ncver.edu.au>; United States statistics, Education and Training Administration, Department of Labor <http://doleta.gov>

ployment—particularly among the young—is high. Too few skilled workers means that projects sit idle and revenue growth falls short of potential. Therefore, apprenticeships and on-the-job training programs make good sense for companies that need middle-level skilled workers.

While certain positions in business and industry (i.e., engineers, scientists, and physicians) require university degrees, most do not. Skills acquired through apprentice-style training can lead to rewarding careers in fast-growing industries, such as advanced manufacturing, tourism, health care, and construction. Hardworking people who enter these fields and build their skills year by year will not be stuck in jobs with limited prospects; they can progress to solid middle-class lifestyles and beyond.

A skills-based career has profound implications. I have personally capitalized on the hands-on skills I developed via apprenticeships. But, as with every sensible strategy, how an apprenticeship program is implemented will determine its impact.

My own career track has been a continuum of interwoven tiers. It began at the bold age of 17, when I firmly decided that culinary school, not university, was right for me. My happiest memories involved cooking with my grandmother in the family kitchen, and I knew in my heart that college was not where I belonged at that point in my life. Follow one's passions and reap success? Nick, the teenager I was, owned that mindset.

However, my devoted parents believed otherwise, as they had placed me in an exclusive high school that prepped students for university. My father, a university

professor, assumed his son would earn a bachelor's degree at the very least. However, bold passion trumped parental logic, and I became an apprentice in a four-year program.

I'll confess, it was hard work. I was on my feet 12 hours a day, moving fast, furious, and in determined synchronicity with other trainees. But I loved it. I was learning and applying new skills continually. My apprenticeship offered more fulfilling and rewarding real-life experiences than classroom-style lectures. I was named captain of Australia's youth culinary team, which won gold in the 1988 Culinary Olympics held in Frankfurt, Germany. My team served 115 portions of award-winning Desert Bloom, an Australian rabbit dish—a triumph secured after reclaiming the 50 pounds of rabbit meat that German customs officials had confiscated.

Problem-solving is one of many soft skills learned in culinary work. As I became more skilled, more career opportunities presented themselves. In 1988 I was named Australian Apprentice of the Year and received a scholarship to study and work in some of the best kitchens in Europe. I also had the life-changing experience of serving Queen Elizabeth, Prince Charles and Diana, King Constantine of Greece, and other royalty.

In my final year of chef training, I was charged with supervising new apprentices. To be successful in this role, I knew immediately that I needed management training. I enrolled in my employer's in-house "train the trainer" program, thereby optimizing available resources to up my skills.

During my 10-year chef career I was living the dream. However, by age 30 I was eager for new challenges. I transferred my skills into corporate hospitality catering, where I learned to manage big business decisions, and people. In fact, my next big segue was into corporate human resources, a role in which I kept learning on the job, eagerly finding new challenges and approaches to work. And, contrary to my parents' concerns, my chef stint did not close the door on my academic learning.

By my late 30's, I was restless again. The time had come for me to develop a framework for a new career, and I was ready to test and transform my real-life skills in the context of a formal university education and commenced a graduate diploma in business. I had been taking business courses while working, but I suddenly saw the value in completing an entire level of education. My work experience had cultivated my strong learning instincts and an insatiable desire to develop new skills and advance my business acumen. I also was a much stronger student than I would have been decades earlier.

Experiential education, another way to view apprenticeships, has been credited with ingraining skills into students. My personal experience vouches for its value.

While I had feared that the years I spent out of school would put me behind my conventionally educated peers, in fact the self-confidence and problem-solving abilities I developed through work experiences opened more doors than I can count.

REVALUING HOW OFF-CAMPUS JOB PREPARATION  
AFFECTS CAREER GROWTH

Looking back at my somewhat nontraditional career path, I am not surprised that developing in-demand skills off campus helped me build a rewarding and successful life track. I had learned that being a good chef involved more than good cooking. Marketing, problem-solving, customer relations, managing people, and making critical business decisions were fundamental processes in all of my roles, whether performed in the kitchen or an office.

My “learn as you earn” apprenticeship had given me the ability to learn and apply both soft and technical skills, which opened up new career options. I travelled the world as a chef, and then returned to academia to develop my understanding of the hospitality industry’s HR business. Soon after that I earned an executive MBA.

The MBA gave me the opportunity to work for a large multinational company in HR. I ran my company’s world-class leadership and learning center, where I saw the impact of training, mentoring, and workforce development. I also learned the critical dynamics of working in teams. As satisfying as it was to work as part of a large team, I wanted to develop a specialized team of my own, one that could not only design but implement programs for organizations.

Leading WPC Group in Australia, a not-for-profit business, was the beginning of the most exciting chapter in my career. I saw that the traditional style of apprenticeship WPC had developed through 25 years of providing apprenticeships to business and industry needed to be updated, so I leveraged those assets and acumen and used them as a launch pad for designing and developing the next generation of apprenticeship and skills-building programs. WPC’s value in a country where the unemployment rate for the 15-to-24 age group is around 15, is priceless.

When I began conceptualizing structures to upskill unemployed individuals and engage them in the workforce, it became clear that government agencies were not positioned to finance, orchestrate, or scale tiered apprenticeship programs within companies or across industries. The private sector was the answer: these programs needed to be built around the skills needs of companies—not just for individual apprenticeship modeling but for large-scale efforts. In the world of work, companies are the stakeholders most concerned with hiring and retaining top talent.

In the next five years, more than 5,000 young adults gained their on- and off-the-job certification through WPC Group. The cornerstone was its unique mentoring systems, which made assistance available not only to employees but also to employers. However, for all our efforts we were losing traction, and by late 2008 the global financial crisis was upon us. Employers were abandoning entry-level employees hand over fist. There was a shortage of data and research that demonstrated to employers why they should continue to invest in skills-building. Some took a long-range view, but sadly, many did not.

FOUNDING THE INSTITUTE FOR WORKPLACE SKILLS AND  
INNOVATION

WPC Group needed supporting research and assistance to enter new markets, such as Southeast Asia, the United States, and Europe. In 2011, WPC launched the Institute for Workplace Skills and Innovation, which was to align all of WPC's innovative programs with a research capability. This reorganization was completed in early 2012, but one final piece of the puzzle was missing: engaging thousands of disengaged young people sidelined from sustainable careers. Many had never seen a paycheck, as they had entered the job market during a deep global recession. Some had worked a few part-time jobs or had bounced between training programs while seeking a clear entryway into a career, and regardless of their efforts remained jobless.

Thus, early in 2012 I began investigating how to engage the disengaged, working with Frederick Maddern and the directors, chairman of the Institute for Workplace Skills and Innovation. Drawing on his insights, I collaborated with my associate Joanne Gedge and several top economists and researchers from my global consulting team to lay the groundwork for the Skilling Australia Foundation. Our team had performed several large international assignments, including the development of an apprenticeship program and a supply-side review for Singapore's Workforce Development Agency. The foundation's aim was to allow young people to reach their full potential, regardless of their circumstances.

One of the foundation's initial projects focused on young adults, the population hardest hit by unemployment. In Australia, youth unemployment levels were at their highest since 2001, 14.1 percent, which was three times the national unemployment rate. In some areas the rate hovered around 30 percent.

Working in partnership with the Citi Foundation and the Citi Australia team, the institute identified more than 120 initial participants from lower socioeconomic backgrounds who suffered underemployment or disengagement, and/or lacked the academic background or basic educational skills necessary to secure and retain a full-time job.

Our aim was to place young at risk adults in traineeships and apprenticeships in the hospitality and services industry. Most of the 127 young people who began our new recruits program were uneducated, untrained, and jobless. By year's end, 92 percent had completed our four-week, job-ready boot camp; 83 percent went on to be engaged in a job, education, or further training, and nearly half commenced a four year apprenticeship or traineeship. The program has now been extended, by the number of industries covered and amount of participants enrolled.

In the last few years, the Institute of Workplace Skills and Innovation, through WPC Group and the Skilling Australia Foundation, has worked with dozens of companies, trade associations, and governments worldwide to formalize multi-year progressive apprenticeship programs. At any given time, our organization represents 600 to 700 young adults in mentored apprenticeships, who learn and

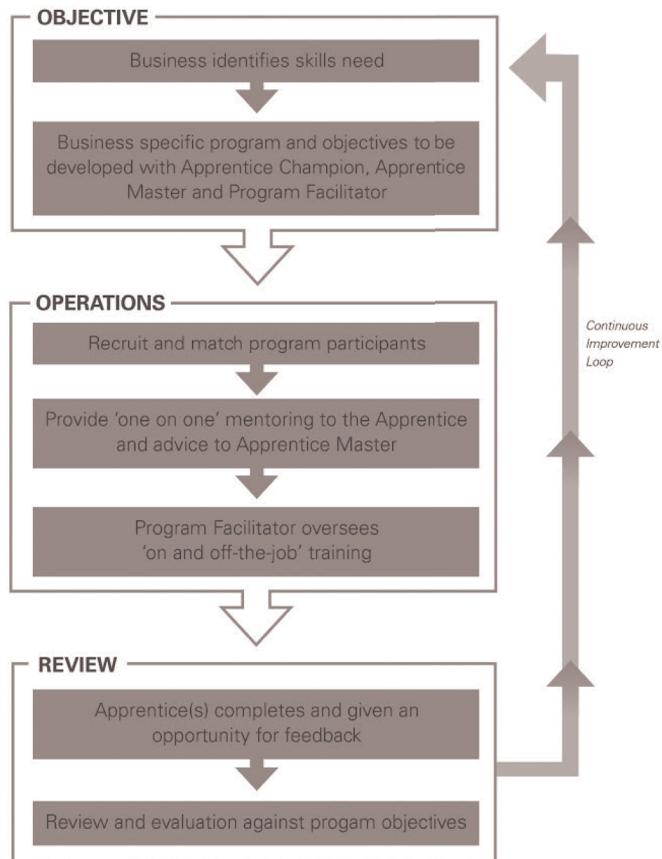
## Launching an Apprenticeship Model

Apprenticeships that involve mentoring provide young people with the frame of reference they need to forge a sustainable path, including networks and training resources. Hybrid training, from one-on-one development to being on the job, bridges school and the world of work. Programs keep individuals motivated and plugged into hiring employers. Mentors are experienced, trusted facilitators who coach both the apprentices and the employers, and they use the following model to align their dual focus:

- Make the program attractive by demonstrating long-term commitment and investment. The world of work has been conditioned to react to and prepare for short-term agreements and short-term gains. A hearty program alters this perspective and will stand out. Offer attractive pay and show participants a career ladder that adds responsibilities and better paying roles progressively within the hiring enterprise.
- Expect a time commitment from the apprentice, typically spanning four years. Lengthy programs are essential for both companies and apprentices to identify and reap the real value of the apprenticeship.
- Connect each apprentice with a mentor. Bonds of loyalty and trust that develop between young people and their mentors create the basis for employee satisfaction, retention, and skill-building progress.
- Partner with local educational institutions, including community colleges and vocational-technical schools that provide offsite supplemental education for employees' on-the-job learning.
- Focus on creating measurable value for the whole enterprise. Therefore, design apprenticeship/training programs around your company's business needs. All individuals have a unique mix of innate skills, both soft and technical, that need to be interpreted and connected to an enterprise's goals. Thus, each apprentice needs a customized performance plan that aligns with enterprise-wide objectives.
- Create a progressive path, as mentored apprenticeships need to be vertically integrated and aligned with different types of mentors. Here's a mentor structure that my teams have found to be effective in keeping apprentices engaged and focused on progressing toward their success models:
  - Management Level: Senior manager, executive, or business owner who leads the enterprise's workforce development and strategy. This person creates the workforce development policies and the culture to leverage employee buy-in and involvement companywide. This advocate is the most critical in ensuring that the apprentice program is successful, documented, and sustainable.
  - Supervisory Level: Internal staffers or a contractor who has undertaken a trade apprenticeship and has the appropriate skill level. This person is responsible for the apprentices' day-to-day training at the worksite.



**Figure 2: Four Elements of Successful Apprenticeship**



**Figure 3. Mentored Apprenticeship Program Model**

The trajectory of a multi-year apprenticeship, and how apprentices and mentors are integrated into a company's overall operations.

earn simultaneously. Approximately 82 percent of these apprentices are expected to complete their three to four-year programs, receive trade certifications, and earn successive raises and promotions within the companies that mentored/apprenticed them. And perhaps most notable is that they will not be saddled with university debt.

The success of these young people will become the foundation for the future apprenticeship programs that our organization models. The data we have gathered on “learn-and-earn” apprenticeships is guiding other organizations committed to upskilling jobless young adults.

One lesson we should learn from Germany and other highly skilled nations is that great things can happen when educators, employers, and government collaborate. These nations demonstrate that piecemeal approaches to building skills simply cannot get the job done on a scale that measures up to the current middle-skills gap. Educators must understand the skills employers require and adapt their curricula as those requirements change. Employers need to work closely with schools and their students, keeping them informed about the opportunities available to them and the skills they will need to do these jobs. And government must remove impediments, provide incentives, and coordinate efforts with employers and educators.

Engaging mentors and apprentices to participate in a mentored apprenticeship program requires breaking down how each party benefits and contributes within a company. In general, apprentices of today will be the managers and leaders of tomorrow, therefore an apprenticeship needs to be promoted as a true career pathway within a business. Companies benefit greatly from the new ideas offered by a fresh generation of workers, which complement a changing workforce. To recruit the right apprentices companies really need to highlight the value that apprenticeships offer apprentices themselves. For example, an apprenticeship is not just a job but a career pathway that enables a young person to develop technical skills; work toward sustainable employment while earning money; learn to work with other employees and to function in a team-based, cross-cultural workplace. They will likely be exposed to new methodologies and learn how to think analytically, rather than being limited to doing menial tasks; work under managers who are trained in contemporary leadership; experience work-life balance; and become an empowered and trusted member of a team. Finally, apprentices should look at pay as a training wage and an opportunity to be paid to study, rather than having to spend thousands of dollars to earn a college degree and end up with debt.

In turn, efforts to recruit more mentors to an apprenticeship program should highlight the value that mentors offer employers and apprentices. For example, with many management roles being eliminated, mentoring often replaces traditional supervisory roles. Also, mentors help company leaders identify and transfer organizational knowledge while supporting, guiding, and teaching young employees. Mentoring provides formal training and an informal method of educating talent, and it engages tomorrow’s workforce.

There are several styles of mentoring, including structured processes and informal, personalized coaching. My organization uses both approaches but relies on informal approaches to clarify issues that affect an apprentice's progress. Identifying and developing mentors is as important as identifying and developing the apprentices themselves. Misconceptions about the characteristics and competencies that make a good mentor abound. Mentors need to focus on skills that are in demand in the workplace, on motivation triggers, and on how to be a team player. The following details the different roles mentors play with young adults.

#### A FORWARD THINKING APPROACH

I have seen program managers tighten the middle-skills gap on several projects I have worked on in the automotive industry. For example, my team works with a large automotive business in Australia where some dealers within the network reported difficulty finding productive workers quickly. As a first step in making this happen, we looked at the typical duties performed in the dealership network workshops. In most cases, mechanic apprentices did shop maintenance and other routine activities. This led to high turnover and problems attracting the next generation of workers.

Many dealer managers had overlooked the fact that, 40 years earlier, one in four jobs required more than a high school education, whereas two in three jobs today require more classroom training. Apprenticeships provide essential skills that will be used in a range of roles throughout an individual's career. Successful apprentices quickly become productive, progress into new roles, and take on more responsibility.

Moreover, spending decades performing the same functions in the same department is a thing of the past. The technological innovation driving businesses worldwide requires that employees refresh their skills and understand how to apply them in new functions and industries.

Most of the company's dealer managers eventually realized that they needed a fresh approach. Our first order of business was to replace the apprentice mechanics with apprentice technicians. The response was immediately positive. We then had to train the first-year apprentices in basic automotive functions, such as doing an oil change. Once their training organization determined that they could complete this function competently, the apprentices could perform the task under the watchful eye of their supervisors, and the dealers could bill for their time. Thus the dealers saw a return on their investment in skills development, the apprentices felt they were adding value to the company, and the company's bottom line improved. This initiative earned the tagline "Productive People Quickly." Through the company's unique training programs, their automotive technicians receive not only on- and off-the-job training but product-specific specialized training. The program had more than 55 participants in the 16 months after it was launched, with an 83 percent retention rate.

## Diversifying the Workforce

Employers worldwide are seeking skilled tradespeople who can do the jobs that keep the world turning in IT, advanced manufacturing, healthcare, energy, electrical sectors—the list goes on. But while these sectors are considered high growth, their future fully relies on their success in building, continuously upskilling, and tenuring a diverse, gender-inclusive workforce. Progressive multi-year apprenticeships are the key to filling this tall order.

For 21-year-old Sara, who just completed a four-year apprenticeship in electro-technology with a global transport and logistics company, the future is looking bright.

Raised in a family of tradespeople, Sara was attracted to the idea of becoming an electrician. She was initially concerned about entering the male-dominated field, but she chose to pursue her dream anyway. Once she began her apprenticeship, Sara felt at ease and welcomed, despite being the only female in many of her classes. “I was nervous to start a trade that is definitely male dominated, but everybody at work was extremely supportive,” she says.

The company has found that investing in apprenticeship programs is key to attracting talent with strong potential, and to upskilling and sustaining their workforce.

For women like Sara, who are eager to earn an income while learning a job, apprenticing is the key to pursuing their ideal career without acquiring tuition debt. Moreover, if women represent half or more of the world’s workforce, recruiting them into highly skilled professions must be a priority. Proactively diversifying apprenticeship programs will attract more women into traditionally male-dominated trades, an essential step to closing the skills gap.

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## Make the Commitment

Individuals often mistakenly think skills-based vocational learning pays poorly. However, having technological skills and the ability to update and apply them quickly is today’s golden job ticket. Technology-based vocational jobs often lead to engaging, well-paid work that focuses on developing skills, not degrees. The jobs revolution offers a new way of looking at the path to a prosperous career.

Identifying the elements of successful apprenticeship models, such as those in Germany, Australia, and other countries, and customizing them into master models for programs in the United States is the focus of my leadership team. We will lead these models together with our partners—forward-thinking business leaders who have a long-term commitment to upskill the jobless and employed workers who are stuck in a rut.

## *How Apprenticeships Build and Sustain Skills-Based Careers*

All stakeholders in the U.S. economy, from workers themselves to companies to communities populated by high numbers of jobless youth, benefit from apprenticeship programs that are strategically implemented. Tomorrow's workforce has been left with too few viable proven options for making a successful leap into today's world of work.

The challenges facing youth in an economy slowly recovering from the global recession is to seek out the industries, and the actual companies in these industries, that both align with their passions and offer accelerated skills-development programs. Finally, it's the role of parents and educators to encourage youth to make the leap into high-growth, skills-based career tracks.