

HISTORY

The Institute for American Apprenticeships (IAA) was incorporated as a non-profit corporation (as Vermont HITEC) in the year 2000. The mission of the organization is to create employment opportunities for underemployed and unemployed Vermonters in the healthcare and technology fields by providing them with the necessary education and training that leads directly to guaranteed jobs. Initial funding for IAA programs was provided by grants from the Vermont Department of Labor, the US Department of Labor, the Vermont Department of Economic Development, and participating employers.

Using a multi-faceted and collaborative approach, the IAA model includes innovative strategies for recruitment; successful models for education and training; employer commitments to job creation and placement through the use of apprenticeships, and support services networks for retention strategies. Program applicants are recruited through an extensive marketing and outreach campaign to Vermont dislocated, unemployed, and under-employed workers. Recruitment efforts will consist of statewide media releases, television, newspaper and magazine articles, social media campaigns, paid radio and newspaper announcements, participation at various job fairs, direct mail and email solicitation to the target populations, poster distribution, and distribution of program materials to partnering human service agencies. All Vermont dislocated, unemployed, and underemployed workers will be encouraged to apply. All recruitment will be coordinated with Vermont DOL's One-Stop Career Centers.

All applicants will apply on-line through the IAA website. Individuals who complete applications will be invited to attend a mandatory orientation session, and complete aptitude assessments for skills such as programmer analysis, verbal communication, attention to detail, problem solving, customer service, reading comprehension, computer fundamentals, office procedures and multi-tasking. Based on the application, eligibility, and assessment information, a pool of candidates will be selected for a set of interviews, first and second round (by all participating parties, including IAA staff, Vermont DOL, and participating employers). Final selections will be made by participating employers who have committed to offering full-time employment to each sponsored participant who successfully graduates from the educational component.

IAA's apprenticeship model embraces a student-centric, total immersion competency-based education philosophy. Classes run 8-9 hours a day, 5 days a week, with 4 hours of homework assigned each night and 8 hours on the weekend. More importantly, its' programs follow a structured and complete workforce development model. From the student perspective, it involves program and career orientation, aptitude assessments, interviewing and selection, education, coaching and mentoring, transition into employment and mentoring as an apprentice. From the employer perspective, it involves business and workforce analysis, recruitment, curriculum development and delivery, transition into the workplace, performance standards, reviews, mentoring and retention. From an educational perspective, it has the rigors of an academically-reviewed curriculum with the awarding of college credits and the necessary position-specific credentials through national certifications by examination. The model works in

any industry for any job position. In short, IAA transforms workers with little or no skills into highly productive employees.

IAA's first program addressed the shortage of medical transcriptionists (MTs) nationwide. Identifying needs for workers in the field of medical transcription, IAA recruited 20 students from a pool of over 60 applicants and began classes at the Vermont Community College site in Newport, Vermont. Studying and working on computers both at home and in the classroom, 17 students successfully completed their immersion education in eight months. Tuition free, each graduate was offered a full-time, work-at-home job with EDiX Corporation (now Spheris Corporation), a subsidiary of IDX Systems Corporation (now GE Healthcare) in Burlington. Each graduate of the MTEC program also received 32 college credits from Burlington College. Graduate's earnings for these positions were based on production. These jobs could have been filled by MTs anywhere in the United States.

Based on the success of the Newport experience, IAA conducted five additional overlapping MTEC sessions around the state in Randolph, Rutland, Bennington, St. Albans and South Burlington respectively. Tuition-free, a total of 110 of the 131 students who enrolled in the program, successfully completed it and were subsequently employed. Four years later, approximately 85 of the 110 remain employed at EDiX, where they were hired upon completion of training. The remaining have gone on to other companies or sought additional training in the medical field.

Continuing to innovate, IAA responded to a community need to return good paying jobs back to Vermont. Due to the lack of available medical transcriptionists, UVM Medical Center (then as Fletcher Allen) found it necessary to outsource 20 jobs to India. In a joint effort between IAA and UVM Medical Center, twenty unemployed and underemployed Vermonters were recruited and enrolled in the MTEC program to become medical transcriptionists. Working with a newly developed model, the course was brought to students online with "hands on" interactive staff support. Enlisting applicants from across the entire state, those who successfully completed the program were able to obtain work-at-home jobs with UVM Medical Center. Students were selected from an original pool of over 700 applicants. In February of 2004, after eight months of classes, all twenty students graduated and became employed by UVM Medical Center. Five years later, 16 of the 20 remain employed and had virtually eliminated the backlog of transcription work previously outsourced throughout the hospital.

Based on the MTEC program's initial success, UVM Medical Center once again committed to using this model to develop another 30 new positions in 2007, 10 new positions in 2008, 43 new positions in 2009, and 9 new positions in 2010. The first session completed, with 15 of 15 students graduating and being employed as Practice Support Specialists and Registration Representatives. Another similar session completed in October 2007, graduating and employing 14 of the 15 program participants. Then in 2008, the third session educated and employed 10 of 10 Professional Medical Coders. In 2009, we implemented and completed a Phlebotomist ITAR program which educated and employed 10 clinical Phlebotomists at UVM Medical Center. We also recruited, educated and employed 25 EHR Data Abstractors at UVM Medical Center for the rollout of its EHR system called PRISM. In 2010, eight of these data abstractors were further educated and mentored to become EHR Go-Live Support staff for PRISM. We ended 2010 by running a Licensed Nursing Assistant ITAR program which educated and placed 9 LNAs at UVM Medical Center.

The success of the Vermont MTEC program led to another cooperative venture with IDX, the Vermont Department of Labor's Apprenticeship Division, and the Vermont Department of Economic Development's Vermont Training Program. The Vermont IT Apprenticeship Readiness Program (ITAR) was developed to provide training for software analysts and software engineer positions at IDX Systems Corporation (now GE Healthcare). Unemployed and underemployed Vermonters were recruited and enrolled in a tuition-free intensive 8-week program. Successful graduates were offered paid apprenticeship positions for one year. Full salaries were paid at the end of the apprenticeship upon demonstration of competency in the position. Of the 39 enrollees, 38 graduated, placed in apprentices, and were employed in positions earning between \$40,000 and \$50,000. Most of these jobs were originally budgeted for IDX's other offices located in Boston, Chicago, Dallas, and San Francisco.

The success of these programs led to the creation of an ITAR program for Dealer.com, a national web-systems development company based in Burlington, VT. Using the same model, and with no previous experience in account management, IAA developed an 8-week program for account managers, to be followed by a one-year apprenticeship. Fourteen students were selected and after 8 weeks all fourteen graduated and became employed with Dealer.com. One year later, 13 of the 14 remained employed. This success then led to the creation of a software developer (Java programmers) ITAR program for Dealer.com, which graduated seven students. One year later, all seven are still employed. IAA also repeated its first success with account managers, graduating three more classes for a total of 26 students. In addition, IAA created a program for seven web developers. Overall, IAA has recruited and trained 50 of Dealer.com's first 120 employees utilizing the ITAR model. Since, Dealer.com has grown immensely, now employing over 800 people.

IAA's model can be used in any industry for any position. Based on the success of IAA, the state of Vermont requested that it develop a statewide CNC machinist ITAR program. Having no background or competencies in CNC (computer numerical controlled) machining, IAA undertook an effort to build an entire CNC machinist ITAR program. Within six months, IAA developed a 9-week intensive program for seven Vermont employers seeking a total of 16 CNC machinists. These companies included Hazelett Strip-casting, Pre-Tech Precision, Husky, Flex-A-Seal, ITA-Aerospace, and Preci Manufacturing. Thirteen of the sixteen students graduated the program.

Moving the classroom from Chittenden County to Springfield, VT, IAA delivered its second session of the CNC machinist ITAR program for 8 local-area employers in need of 16 CNC machinists. These companies included Latva Machine, Gear Works, Chamberlain Machine, Lucas Industries, Kiosko, Lovejoy Tool Company, North Hartland Tool, and IVEK Corporation. The program graduated 14 of the 16 students.

Following on the success of the first two sessions, and finding an employer willing to commit to 14 guaranteed jobs to Vermonters, IAA conducted its third CNC machinist ITAR class for Hypertherm, Inc of Hanover NH. Fourteen of the sixteen students graduated the program. Returning to Chittenden County, IAA completed its fourth session of the CNC machinist ITAR class with 11 of 13 students graduating and being employed by Hazelett Strip-casting, Husky, ITA-Aerospace, and Preci Manufacturing. The fifth session of this program graduated and placed 11 graduates as apprentices with Hypertherm and other Upper Valley employers. Hypertherm, having embraced the ITAR model, is now training its existing and new workforce on a continuous basis through the Hypertherm Technical Training Institute (HTTI) and our sister organization River Valley Workforce Institute (RVWI). Both USDOL-ETA and VT/NH grants

have been secured to support this initiative. And in collaboration with NH Workforce Opportunity Council (now part of the NH Division of Economic Development) and River Valley Community College (RVCC), IAA has assisted in securing a \$1.5MM grant with the US/DOL for regional CNC machinist training of 150 workers in the Upper Valley for both NH and VT employers. In addition, IAA secured over \$6MM in US/DOL grants to serve Hypertherm through RVCC. To date, IAA has been involved with delivering 25 sessions under HTTI and over 15 sessions under USDOL-ETA grants, graduating over 400 CNC machine apprentices for 9 different Vermont and New Hampshire employers. In also assisted RVWI in developing a Welder-Fitter program for Structal Bridges of Claremont, NH which resulting in educating 12 Vermont and New Hampshire residents as welders and fitters using the IAA model.

In 2014, IAA entered into a partnership with Dartmouth-Hitchcock Medical Center in Lebanon, NH to deliver ITAR-model education and apprenticeship programs under the Dartmouth-Hitchcock Workforce Readiness Institute. The initial program fulfilled a need for certified medical coders and graduated 13 of 13 graduates placed as apprentices. All 13 graduates provide coding services to Dartmouth-Hitchcock to this day. Following the success of the medical coding program in 2014, Dartmouth-Hitchcock has graduated a class of 9 registration representatives, 5 sessions of certified medical assistants totaling 91 graduates, and 3 sessions of certified pharmacy technicians totaling 30 graduates. Dartmouth-Hitchcock and IAA have ongoing efforts to continue educating certified medical assistant and certified pharmacy technician apprentices to fulfill its needs. To date, IAA has recruited, educated and placed over 200 healthcare registered apprentices at Dartmouth-Hitchcock.

In 2015, IAA began workforce development efforts in a new industry, Business Services, by partnering with Triad Design Service of Williston, Vermont. Triad Design Service is a technical publications company providing technical documentation for the military, aerospace, industrial, and technology industries. IAA developed an 8 week technical documentation writer program to respond to an area shortage of technical writers. The program successfully graduated 11 of 12 apprentices.

Also in 2015, nThrive, a healthcare solutions company, partnered with IAA to educate certified medical coders for at-home jobs. As a virtual company, nThrive can choose to grow its workforce anywhere in the nation; however some of founding members have roots in Vermont. The success of the IAA workforce model and the support of Vermont DOL and the Vermont Agency of Commerce and Community Development incented nThrive to grow these positions using Vermont residents. To date, IAA has graduated 2 sessions of certified medical coders totaling 33 apprentices, and begun recruitment for a new apprenticeable occupation, Oncology Data Management (ODM) Specialists. This new program will education and place 10 apprentices, preparing them for national certification as Certified Tumor Registrars with the National Cancer Registrars Association.

IAA had also continued its program with local high schools and colleges to provide internship opportunities for information technology students. IAA has partnered with the University of Vermont, St. Michael's, Champlain, and Middlebury Colleges. IAA manages and mentors students towards the successful completion of real work projects by participating employers. Over 66 students have participated in the program working on workplace-based projects with UVM Medical Center, Dealer.com, State of Vermont and other Vermont employers. Additionally, IAA worked with long standing employer-partners Husky and Hypertherm to pilot a summer internship program for high school juniors and seniors; in this program, high school juniors

participate in a paid internship where they receive formal classroom instruction while acquiring hands-on experience at the employer site. Participants return the following summer to complete an advanced portion of curriculum, and gain more hands-on experience. At the end of the summer internship program, students earn credit toward an advanced degree, or may be selected as full time employees upon high school graduation.

This unique and innovative workforce development program has secured job commitments from local area employers – success in recruiting, selecting, educating, training and employing people in quality jobs has been clearly demonstrated. Opportunities exist to expand IAA's programs and job opportunities on both the state and national level. IAA is currently working with Hypertherm of Hanover, NH and Dartmouth-Hitchcock of Lebanon, NH to expand the model to create workforce development institutes to serve their industries' needs. To meet the needs of New Hampshire employers and residents, IAA has also provided both resources and technical assistance to the River Valley Workforce Institute, a NH non-profit created to serve New Hampshire and to expand the IAA workforce development model through local area colleges. Currently, IAA and Vermont DOL are managing nearly \$4MM in grant funding aimed directly at growing Registered Apprenticeship in Vermont.

RECOGNITION

IAA, through the use of its accelerated workforce development and competency-based registered apprenticeship model, closes the gap by providing employers the newly skilled workforce it needs. Registered apprenticeship acts a cornerstone of IAA's model. Specifically, **every participant selected and enrolled** in a IAA accelerated pre-apprenticeship education program who graduates **is guaranteed full-time employment in a registered apprenticeship** at a livable wage, with full benefits. In the past 15 years, this model has been used to create over 1400 new jobs in 20 different non-traditional apprenticeable occupations for more than 25 regional employers.

From an educational perspective, IAA programs have the rigors of an academically-reviewed curriculum and had been awarded college credits through various college partnerships and the earning of necessary position-specific credentials through national certifications by examination. From the student's perspective, it involves career and program orientation, aptitude assessments, interviewing and selection, accelerated pre-apprenticeship education, coaching and mentoring, immediate transition into employment, and intensive mentoring in a competency-based registered apprenticeship. From the employer's perspective, it involves business and workforce analysis, recruitment, reverse-engineering curriculum development, education delivery, apprentice transition into the workplace, performance standards and metrics, performance reviews, mentoring and retention. This accelerated model can be used in any industry for any occupation.

IAA's accelerated model has received significant national attention over the years. Due to its successful results, IAA has presented at dozens of conferences to speak about the model and the use of competency-based apprenticeships for non-traditional occupations. This expanded to national recognition where the IAA model was featured by US DOL/OA in several of its regional and national clinics and webinars: Boston Action Clinic – *Registered Apprenticeships*

(September 2010), *Virtual Action Clinic - Registered Apprenticeship and Building Workforce Partnerships* (May 2011); *Road to Recovery Summit: Strategies for Reemployment* (December 2011); and the *Virtual Action Clinic - Partnerships that Deliver Results: The Workforce System and Registered Apprenticeship* (November 2014). The model, and its use by two of IAA's employer-partners, was also recognized by the USDOL/OA as part of its 75th Anniversary's "Trailblazers and Innovators" Program (August 2012).

In 2014, Vermont HITEC attended three of the six USDOL American Apprenticeship RoundTable Discussions on Healthcare (Boston), Advanced Manufacturing (Chicago) and Information Technology (San Francisco), with its employer-partners and had the opportunity to share with the participants the IAA accelerated apprenticeship model. As a result, IAA and several of its employer-partners were asked to attend and participate in White House Summit on American Apprenticeships held in July, 2014. IAA's model has also been featured in Vice President Biden's address at the 2014 National Governors Association (NGA) Summer Meeting held in July; and in Vice President Biden's Report to the President Obama entitled *Ready to Work: Job-Driven Training and American Opportunity* (July 2014). IAA's model was also featured in the Center for American Progress's Report entitled *Innovations in Apprenticeship - 5 Case Studies That Illustrate the Promise of Apprenticeship in the United States* (September 2014). Recently, the Federal Reserve Bank of Philadelphia featured an article in its *Cascade Publication* entitled "Intermediaries Play Key Role in Expanding Apprenticeships" (*Cascade*: No. 92, Summer 2016) which featured IAA's role in expanding registered apprenticeships in Vermont and New Hampshire.

Since July 2014, IAA continues to be invited to speak about its model on the national stage, including at Jobs for the Future's Congressional and Executive Staff Briefings on *American Apprenticeship Models* (November 2014); National Association of Workforce Boards 2015 Forum - *WIB and Registered Apprenticeship Work-Based Learning Partnerships Delivering Results* (March 2015); and Jobs for the Future's Bridging the Gap Conference: *Trading Up: How Work-Based Learning Can Connect Students to Careers beyond the Trades* (April 2015). Throughout 2016, IAA has participated on numerous panels presenting the values and benefits of registered apprenticeships to the business community. For example, see Bersin by Deloitte IMPACT 2016 Presentation: *New Ways to Build Talent – Registered Apprenticeships at Dartmouth-Hitchcock* (April 2016); and USDOL American Apprenticeship Initiative Grantee Conference, *Panel Discussion of IT Apprenticeships* (April 2016). IAA's employer-partner nThive was a keynote speaker at the USDOL American Apprenticeship Initiative Grantee Conference (December 2016). The IAA and two of its employer-partners, Hypertherm and Dartmouth-Hitchcock Health Systems, were all featured in the US Department of Commerce ROI report entitled *The Benefits and Costs of Apprenticeships: A Business Perspective* (November 2016).

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