



Registered Apprenticeship for Dislocated Workers:

Case Study of the Electrolux/ Machinists Industrial Manufacturing Technician Program

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Executive Summary

This case study describes the occupational background, economic context, organizational partnerships and activities of a registered apprenticeship program held at a manufacturing firm in St. Cloud, Minnesota, during 2018-19. After recounting the history of the Industrial Manufacturing Technician program, it explains the role of manufacturing in the Minnesota economy and reveals how company strategy at Electrolux Products led to the closure of a refrigerator plant and the dislocation of more than 800 workers. A table summarizes the roles of ten program partners. The registered apprenticeship program graduated 35 persons in September 2019. The program demonstrated the importance of partnerships in program design and implementation and revealed how a state labor federation exercised its capacity to help establish a joint apprenticeship program. Two years after completion of the apprenticeship program, 57 percent of the graduates were employed at an average wage of \$17.87 per hour, about two percent lower than their Electrolux earnings.

Introduction: The IMT Registered Apprenticeship

Participants in this program were enrolled in the Industrial Manufacturing Technician (IMT) apprenticeship, which is registered by the U.S. Department of Labor as ONET Code 17-3029.09 and RAPIDS Code 2031 HY.

Initial development of the IMT was driven by the Wisconsin Regional Training Partnership (WRTP) in concert with unions, Wisconsin manufacturing employers, the state's Bureau of Apprenticeship, subject matter experts, and a community and technical college. Founded in 1994 as a workforce intermediary, the WRTP had substantial experience working with employers to advance workers' skills and maintain manufacturing employment. The organization discovered that manufacturing firms typically employed entry level workers, generally with a high school education, who learned their production skills on the job but had limited opportunities to move up into more highly skilled, better compensated positions. The pipelines into these positions had deteriorated due to the erosion of internal labor markets and reduced reliance by companies on apprenticeship.

Moreover, as employers introduced advanced technology, the demand for high skill workers steadily increased. WRTP staff noted that "they were hearing consistently about the need for skills inside plants throughout their network. Inside plants, the job titles were inconsistent, but the skills needed were consistent. . . . The IMT gives those workers a stronger base of skills, allows them to work in more skilled positions, and provides the foundation for future advancement into even more skilled positions like maintenance or electrical/mechanical positions."¹ The IMT was seen as an innovation that would reestablish a middle rung of occupations for existing workers at manufacturers.

In 2012 the Bureau of Apprenticeship Standards (BAS) in Wisconsin coordinated occupational analysis, subject matter expert validation, related instruction

course design, and employer and union input to produce an apprenticeship program that would appeal to multiple groups, notably high school graduates, career changers and non-traditional workers. As the BAS described these technical workers:

Entry level industrial manufacturing technicians operate industrial production related equipment, work with manufacturing related tools, and perform work processes related to a wide variety of manufacturing settings. Industrial manufacturing technician apprentices will learn to set up, operate, monitor, and control production equipment. They will also help improve manufacturing processes and schedules to meet customer requirements.²

As standardized in Wisconsin, an IMT apprenticeship would stretch over 18 months, a shorter period than many other apprenticeships in factory settings and involve both on-the-job learning and related technical instruction (RTI), often provided at community and technical colleges. Apprenticeship sponsors would be required to document 2,736 hours of training on-the-job and combine that with competency in a range of production processes, safety regulations, mathematics, and communication skills. The IMT was designed as a *hybrid* program. The necessary competencies could be documented through either 264 hours of classroom instruction or demonstrating knowledge attainment through assessment and certification as part of the Manufacturing Skills Standards Council (MSSC), a validated system for identifying basic production process knowledge for frontline manufacturing workers.³

Advocates for the IMT apprenticeship highlight that its structure is both *adaptable* for employers, who benefit from a rapid increase in workers' skills,

and *flexible* in its capacity to adjust to different manufacturing settings. After agreement by employer and union representatives (when a union is present) to engage in the IMT, implementation involves consultation about what aspects of the IMT guidelines (the “Job Book”) are relevant to a particular manufacturer. The 23-page Job Book specifies the duties and tasks involved in achieving ten competencies such as “Set Up, Inspect and Adjust Production Equipment” and “Measure and Inspect Work Using Mechanical Tools and Testing Equipment.”⁴ The employer sponsors of an IMT program customize the curriculum to their production needs.

Once installed with several unionized manufacturers in Wisconsin, the IMT apprenticeship spread more widely through the WRTP’s alliance with national organizations and access to government resources. A milestone was reached in November 2014 when the Office of Apprenticeship (OA) in the U.S. Department of Labor approved the IMT as a registered program. Two groups worked with WRTP on expansion. One was Jobs for the Future (JFF), a Boston-based non-profit that has created a framework for expanding work-based learning to “catalyze industry strategies” to meet skill shortages and give underserved groups greater access to credentials while supporting a family.⁵ The other is the AFL-CIO Working for America Institute (WAI), which has long supported high road, worker-centered and joint employer-union partnership approaches⁶ to work-based learning and views joint apprenticeship programs by workforce intermediary partnerships as a key strategy to increase diversity in the manufacturing workforce.⁷

During the federal American Apprenticeship Initiative (AAI) of 2014-15, both JFF and the WAI received a federal grant and contract, respectively, to expand the IMT apprenticeship across a number of states and, later, nationally. While the two organizations set delivery strategies and administered overall program activities, state-based partnerships contacted employers and unions to implement IMT programs, provide mentorship training, deliver

technical assistance and track progress.⁸ Between 2015 and 2018, these workforce intermediary partnerships registered 850 apprentices.⁹ The Electrolux/Machinists IMT apprenticeship in St. Cloud, Minnesota, was one of many manufacturers who agreed to sponsor the IMT. In this case, the program served dislocated workers and provided an opportunity to examine the extent to which this subgroup of unemployed workers would benefit.

Economic and Workforce Context

Manufacturing is an important segment of the Minnesota economy, accounting for about 14 percent of total output. The National Association of Manufacturers reported that there were 6,618 manufacturing firms in the state in 2016. Out of the 50 largest (in revenues) Minnesota public companies in 2018, one half of the total were manufacturing firms that included brands such as the 3M Company, General Mills, Hormel Foods, The Toro Company, and Winnebago Industries.

Although manufacturing employment declined in the decade after 2000 due to company outsourcing of production, it began to level off and stabilize in subsequent years.¹⁰ In their 2018 survey of manufacturing conditions, the state's Department of Employment and Economic Development (DEED) concluded that the outlook generally was stable. Employers were optimistic about their production for the next year, with 47 percent expecting a higher number of orders. Thirty-three percent expected their employment level to increase the next year.¹¹ Manufacturing employment in the state exceeded 320,000 in 2018. The Electrolux Products Freezer Division factory in St. Cloud was part of the electrical equipment, appliance and component manufacturing sector, which accounted for between 8,200 and 8,800 workers in the state.

Manufacturing comprised the second highest number of jobs in the St. Cloud area, exceeded only by health care and the social assistance industry. The four-county DEED economic development region surrounding St. Cloud had an average labor force of some 238,000 persons in 2018, with 25,634 jobs in 707 manufacturing firms. In turn, jobs in the region's production occupation accounted for 12 percent of total employment.¹² Labor market analysts projected that the region's manufacturing industry would add 2,316 jobs between 2016 and 2026, with a continuing tight labor market featuring a "growing scarcity of workers."¹³

Registered apprenticeship is a well-established model of job training in the state, where a Minnesota Apprenticeship Initiative provides up to \$5,000 per apprentice to employers and is expanding the model into industries such as advanced manufacturing. There were 195 active apprenticeship sponsors statewide serving about 11,600 apprentices in December 2018.¹⁴ In partnership with community and technical colleges, the Minnesota AFL-CIO helped to establish the IMT program at manufacturers such as Hood Packaging and West Rock (with United Steelworkers Local 264) and Baldinger Bakery (with BCTGM Local 22.) "We've worked with the AFL-CIO and the IMT apprenticeship program to deliver [stackable credentials] in partnership," affirmed Heidi Braun of Anoka-Ramsey Community College. "To date we've worked with 40 some companies. We have quite a few number of successes with the IMT program across the state [where] about 20 companies have been working with us."¹⁵ These partnerships built a foundation of knowledge and experience for the formation of the IMT apprenticeship at Electrolux Products when workers were confronted by the closure of the St. Cloud facility.

Company and Union Overview

Based in Sweden, Electrolux is the world's second largest manufacturer of consumer and commercial appliances with some 54,000 workers in 58 countries in 2018. Founded in the early 1900s as a producer of vacuum cleaners, the company expanded through multiple firm acquisitions across Scandinavia, Europe, the UK, and the United States after World War II. It diversified into product areas such as washing machines, refrigerators and food service equipment. In 1997-98 a new CEO launched an aggressive restructuring strategy, cutting costs and consolidating operations by closing 24 factories and 50 warehouses. The company dismissed some 12,000 workers.¹⁶ Over the next four years Electrolux cut employment in “high-waged, unionised Europe into cheaper more deregulated (de-unionised) labour zones” in Eastern Europe, Asia and South America.¹⁷

After merging with White Consolidated Industries in 1986, Electrolux Home Products, Inc. acquired the St. Cloud facility, making it part of their Freezer Division. It is located on a site in the Pantown neighborhood that had housed an industrial plant since 1929. About 1,600 workers there continued to produce freezers for the consumer market. Explains the union shop chairperson: “Our busy season starts when the construction season picks up, people are remodeling their homes and kitchens, and then in the fall you have the harvest and hunting seasons, so people are buying their freezers [for] a hunting shack or maybe a man cave and that's where they put all the deer and fish that they caught all season.”¹⁸ By 1998 the factory was producing, under the Frigidaire label, 75 percent of the freezers sold in the United States.

Hourly workers at the St. Cloud facility became members of Local 623 of the International Association of Machinists and Aerospace Workers (IAMAW). Out of the eight shops in the local, the St. Cloud facility was the largest, numbering nearly

1,700 members of the collective bargaining unit in 2004, when the company's cost cutting practices appeared. That year Electrolux moved production of a compact freezer from St. Cloud to China. As a radio station reported:

In 2004, Electrolux began a major restructuring, shuffling jobs from high-cost to low-cost areas, from Sweden to Hungary, from England to Poland and from Denmark to Thailand. This summer [2013], Electrolux will begin moving jobs from a town outside Montreal to Memphis, Tenn., where it will begin production of ovens in a brand-new high-tech plant.¹⁹

The Memphis plant, attracted by public incentives of more than \$150 million, opened in 2014 and paid union-level wages to employees represented by IBEW Local 474. Electrolux closed it in 2019 and moved production to a \$250 million new plant in Anderson, South Carolina.

Restructuring also hit Michigan and Iowa. Electrolux closed their large refrigerator production facility in Greenville, Michigan, in 2006 and moved to Juarez, Mexico, where Electrolux workers made \$1.57 per hour. Some 2,700 U.S. workers lost their jobs.²⁰ In Iowa, the company shut their washer-dryer factory, idling some 2,000 workers, and moved production to the Juarez plant.

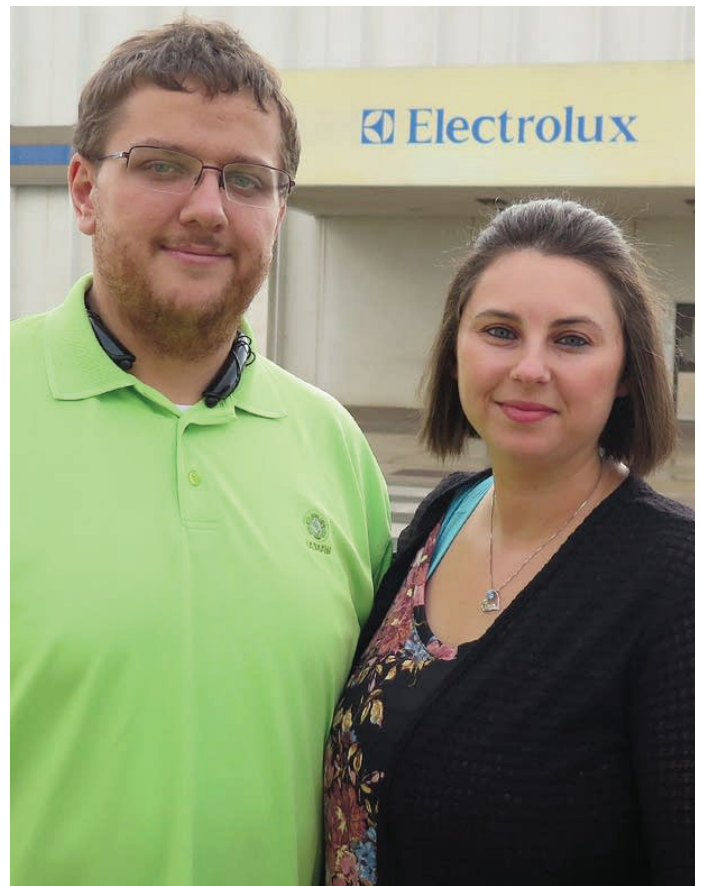
The Minnesota facility suffered a similar fate. In January 2018 Electrolux announced that it would close the St. Cloud plant and move freezer production to a highly automated factory in South Carolina. Union leaders and public officials had heard rumors about the company's plans for years. In late 2017 the mayor of St. Cloud asked an Electrolux manager whether a closing was planned, and the company delivered a “blatant response” of

“no,” according to notes from a closed meeting of union and public officials.²¹ International union officers, both U.S. Senators, and local public officials campaigned to convince Electrolux to reconsider. Electrolux replied that they expected to close the plant around the 4th quarter of 2019.

The declared closing posed a dilemma for the company. It wished to continue freezer production in Minnesota for the next year while waiting for productive capacity at the new factory to come online. Skilled workers with employment options could be expected to start leaving after the announcement. At the same moment, said a union official: “We have a huge labor shortage in St. Cloud. We have five or ten percent more job openings than job applicants. And we have a very large skills divide.” How to motivate employees to stay on the job? Or come to work at a factory that was on its way out of town?

The company and union developed several responses. The company offered a hiring bonus for “motivated production employees,” a severance payment when the plant closes, and a full menu of benefits afforded by the collective bargaining agreement. The IAMAW Local 623 Bargaining Committee negotiated an “effects agreement” that included a severance package, a wage increase, continued medical benefits after layoff, and agreement to “work together to help laid off employees access government programs, transition assistance, training and other employment.”²² After the local union heard about the IMT from its international representative and the Minnesota AFL-CIO, the company and union accepted the apprenticeship program, with Electrolux as the formal sponsor.

Although additional education and skill training could help dislocated workers obtain new jobs over the long term, and the moderately optimistic projections of central Minnesota manufacturers suggested that they would be hiring, the immediate impact of the closing on the local community would be severe. The University of Minnesota Extension and the St. Cloud State University School of Public Affairs Research Institute issued an “economic emergency report” which showed that the closing of the plant,



Joe and Ashley Baratta stand in front of the Electrolux facility in St. Cloud, Minnesota, in 2019. Joe graduated from the Industrial Manufacturing Technician (IMT) registered apprenticeship program and says that this training and education helped to prepare him for work and reemployment in the digital age. Joe and Ashley Baratta photo from Minnesota Public Radio News. © 2019 Minnesota Public Radio. Used with permission. All rights reserved.*

and the dismissal of its 860 workers, would cause an estimated decline of \$670 million in economic output in the three counties surrounding St. Cloud. An additional 940 jobs in suppliers would be affected, for a total loss of approximately 1,800 jobs and a loss of \$103 million in labor income. Small businesses also were affected negatively. A local health care provider shut down their for-profit medical clinic, for example, after losing some 4,000 patients due to the closing’s impact on family health care coverage.

The “economic shock” would be felt acutely by local residents because 585 employees (68 percent) lived in St. Cloud and adjoining cities.²³ This report, and a survey by a state agency, would help to guide a partnership of organizations to develop programs that would include the IMT registered apprenticeship.

Program Development through Partnerships

Important facets of the program included rapid response, the coordination of state and federal government resources, and the involvement of an experienced workforce intermediary which navigated the varied guidelines of separate programs. The company did not set a specific date for the closure, so they were not required to issue a notice under the mandates of federal law.

Without a formal notice, federal dislocated worker funds from the Workforce Innovation and Opportunity Act (WIOA) could not be used immediately to provide services. In this case the displaced workers benefited from the Workforce Development Fund, a state program which accumulates resources from a small annual assessment of employers on their taxable wages. (In 2016-17 alone, the Fund collected \$56.4 million.)²⁴ The state's Job Skills Partnership Board manages disbursements, which may go the Department of Employment and Economic Development for competitive dislocated worker grants or be combined with federal dislocated worker funds.

In the wake of the closing announcement, DEED rapid response staff met with company officials to gather data on their workforce and identify the interests of workers. In cooperation with the Minnesota AFL-CIO and community service providers, DEED sponsored dislocated worker information sessions and conducted an employee survey that achieved an 85 percent rate of response. At least 78 percent of the workers were over the age of 40, the survey found, and 56 percent had worked for the company for more than 20 years. Nearly two out of three sought full-time employment. Though more than one third had earned a high school degree or GED, nearly 18 percent had not completed high school.²⁵ "One of the things that came out in the survey is basic computer skills," explained Tammy Biery of Career Solutions in St. Cloud. "They don't

use computers on the plant floor, so it came across loud and clear. They want at least basic computer skills, which they're going to need to be able to apply for a job."²⁶ The relatively low rate of education of many Electrolux workers, along with their lack of familiarity with computers, presented challenges to service delivery.

Career Solutions is a workforce intermediary housed at St. Cloud Technical & Community College. It operates the St. Cloud Workforce Center under the direction of the local workforce development board and the requirements of the WIOA. Career Solutions communicated with DEED about how to deliver services and applied to the state Job Skills Partnership Board, obtaining a two-year dislocated worker (DW) grant that provided resources for a range of services. Grant monies enabled the organization to hire nine additional staff persons. Career planners advised each apprentice in the program, visiting classrooms sessions periodically and helping apprentices overcome issues (such as the availability of day care) that could present barriers to successful completion. The grant also was essential for the apprenticeship program.

When Career Solutions and Minnesota AFL-CIO staff met with company officials, said Biery, "we explained [the apprenticeship program] to the powers that be at Electrolux, and we thought they would say, 'well, we'll get back to you on whether or not to move forward.' In the meeting, they basically said: 'What's our next step?' So they were on board quickly." What motivated the company's positive response? "I think part of it is that in order for someone to finish the IMT, they need to stay working there until plant closure. That has got to be the biggest carrot for them to participate and support programs like the IMT," Biery continued.²⁷ Union officials commented that both the company and union were excited by the IMT apprenticeship "to

keep employees engaged,” adding that Electrolux was “taking a beating” in the local community because of the closure and this would help their image. In a marketing strategy meeting with several partners, the company’s human resources director highlighted the apprenticeship as part of Electrolux’s effort to “make sure everybody has a soft landing.”²⁸

Biery estimated that 35 to 40 different agencies and community organizations participated in the information sessions. “The level of partnership and collaboration is certainly a huge accomplishment here. If you look at all the parties involved to make this happen, that’s very exciting. We always look for opportunities to help in the community, help the company [and] help those individuals to meet their needs. It’s a win-win really for everyone,” said Tricia Simon of St. Cloud Technical & Community College.²⁹

In addition to interfacing with the company, organizing information sessions for workers, and supporting Career Solutions’ request for state funds, DEED submitted a petition to the U.S. Department of Labor to qualify Electrolux workers for Trade Adjustment Assistance (TAA) For Workers services. The petition was certified in May 2018, making workers who would become “totally or partially separated from employment” eligible for benefits such as job search allowances, assistance with relocation, paid education, and extended unemployment benefits.³⁰ One limitation: TAA funds could not be used for *staff time* to coach and mentor dislocated workers or provide tutoring in basic skills while they

were still on the job. Career Solutions used state DW grant funds to pay tuition for the apprentices, which the college then used to pay instructors. The table below summarizes the roles of major partners.

The organizations in Table 1 were the most visible partners engaged in one or more aspects of the many services available to those being directly displaced. As the impact of the shutdown rippled through the regional economy, workers in other organizations were displaced and other community-based groups emerged to provide necessary social and supportive services. The *St. Cloud Times* newspaper reported, for example, that the closure would affect the jobs of some 300 workers whose employer, a non-profit organization for disabled persons, had a 15-year-old contract with Electrolux to manufacture parts and packaging containers for Electrolux freezers; it was not clear whether the company would obtain other contracts to retain all their employees.³¹

As the IMT apprenticeship progressed, adult basic education services were required and provided by a group specializing in this area. Overall, the IMT apprenticeship was part of a complex process of identifying and mobilizing resources from a number of organizations and institutions to meet the needs of the displaced workers. Flexibility and creativity were essential to adjust as those needs changed during different phases of the effort.

Table 1: Selected Program Partners

Organization Name	Role(s)
Minnesota AFL-CIO	Staff met directly with company and union officials to introduce the IMT. Served as liaison between company, union, state government agencies, and community colleges to introduce the IMT and plan for its introduction and implementation. Staff helped to recruit participants and then tracked workers throughout the program, completing forms to document achievement of competencies on the shop floor.

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Table 1 Continued: Selected Program Partners

Organization Name	Role(s)
Electrolux Home Products, Freezer Division	Formal sponsor of the IMT registered apprenticeship program. Provided time and space in a training center for IMT classes. Sponsored job fairs in September 2019 during work time to give employees access to manufacturers and community service organizations.
IAMAW Local 623	Leadership negotiated an effects agreement that included support for job training for their members. The local supported the IMT apprenticeship program and recruited members to participate.
Wisconsin Regional Training Partnership	Provided technical assistance to Minnesota AFL-CIO staff on the IMT. Participated in information sessions. The WRTP application form for the IMT was used to gather initial data on workers interested in apprenticeship.
Career Solutions	Obtained a state grant to provide comprehensive services to dislocated workers, including IMT apprentices and those eligible for TAA. Worked with technical colleges to give workers access to computers. Tracked the progress of IMT apprenticeship program. Reported provision of services to the local workforce development board and other state government bodies.
Minnesota Department of Employment and Economic Development	Sponsored rapid response sessions for workers to be dislocated from Electrolux and recruited community participants. Conducted a survey of Electrolux workers. Prepared and submitted a petition to U.S. Department of Labor to certify dislocated workers as eligible for TAA services.
St. Cloud Technical & Community College	Provided office space for Career Solutions and the local American Job Center as part of the state's CareerForce network. Served as a location for workers to access computers, as needed. During the Fall 2018 semester, employed a classroom instructor for the related instruction aspect of the IMT. Enrolled IMT apprentices as college students, enabling them to earn credits which could be used for an associate degree.
Pine Technical & Community College	Accumulated experience working with manufacturing companies and unions to implement the IMT apprenticeship. During the 2019 semesters, employed the instructor teaching the classroom aspect of the IMT.
AFL-CIO Working for America Institute	Provided technical assistance to the union-related organizations on implementing the IMT apprenticeship. Connected the Electrolux/Machinists apprenticeship to national resources. Publicized results of the apprenticeship program. Used resources to sponsor a case study that will help to determine the relevance of the IMT to dislocated workers.
Jobs for the Future	Provided the work-based learning policy and strategic context for the expansion of the IMT to St. Cloud and other locations. Recipient of a national grant to assist the formation of registered apprenticeship in manufacturing. Reported the progress and results of the Electrolux program to the U.S. Department of Labor.

Program Components and Activities

As outlined by the U.S. Department of Labor, a registered apprenticeship program has five components: business involvement, related classroom instruction, structured on-the-job training, rewards to workers for the gains in skills, and the achievement of a nationally recognized credential.³² The Electrolux/Machinists IMT apprenticeship included four of these components with a modification of the first point (because the program was supported by both the business and union) and a variation in the “rewards” due to the nature of the population and the strength of the union winning gains for *all* hourly workers.

As the formal sponsor, Electrolux documented the participation of each apprentice and was responsible for maintaining their records and troubleshooting any problems. The company promoted the program by discussing it with supervisors at periodic meetings. The company’s human resource department staff assisted interested workers in completing and signing an apprenticeship agreement, standardized by the Minnesota Department of Labor and Industry (DLI) and available as an online form. In accord with the collective bargaining agreement, the representatives of IAMAW Local 623 were engaged in setting the terms of the apprenticeship program.

The union recruited participants while acknowledging the challenges likely to be faced by their members. The union shop chairperson and chief communicator, who had worked at the plant for some 11 years, joined the apprenticeship program and continued through graduation. When I asked the chairperson about his support, he speculated that it would help motivate his fellow workers. One of the challenges for union members, he said, was that some were intimidated by the prospect of taking classes because they had not attended classroom-

centered school for many years. He argued that an apprenticeship certificate, along with their years of manufacturing experience, would make them appealing to future employers.

The moment I read about it, I was a strong supporter. I’m enrolled in the apprenticeship program. People in there keep asking me questions about it and I’m like, I looked into this, what do you really have to lose? It’s one day a week [in a class] and you’re here late and you do some homework. Having this apprenticeship and having this certificate, along with decades of experience, especially your machine operators, your classified people or assembly ... this is a great leg up.”³³

When one female worker heard about the program, she talked to her coworkers and also decided this would be a good thing to do. She had worked for Electrolux for 15 years and had experience in a number of departments, becoming a team leader and completing the firm’s management system’s course. She had learned to weld while working at Crestliner Aluminum Fishing Boats and taken computer courses at a community college. Personal gratification in achievement and a commitment to continuous learning propelled her forward.

I’m in my 50s, so I grew up with a lot of female discrimination, you can’t do this, you can’t do that. I couldn’t even take a welding class when I was in school. They laughed at me. For me to do something like this here, I do it because I can. I like hands-on stuff. I just built a deck for my house. All by myself. That’s kind of where my mind is. I keep learning. It’s just part of life and if I can get a better job than making what I make here, that’s what I need to do.”³⁴

After the DEED rapid response sessions had been held, a diverse planning committee established, the TAA petition certified, and the company agreeing to sponsor the apprenticeship, partners prepared an IMT recruitment and marketing plan. An August 2018 morning meeting at the company included most key partners: the Electrolux human resource department, the Minnesota DLI, the state's Department of Employment and Economic Development, Career Solutions, St. Cloud Technical & Community College, Jobs for the Future, and the Minnesota AFL-CIO.³⁵ Reporting on the session was Filiberto Nolasco Gomez, editor of *Workday Minnesota*.³⁶ The human resource director announced that intake forms for the apprenticeship program were available in the HR office and 17 persons had signed up thus far. Minnesota AFL-CIO staff emphasized the sign-up deadline of mid-August. The first class would be held on September 17, 2018. Timing here was critical. A fall 2018 start of classes was barely sufficient: it would allow about 16 months for the entire program, assuming that Electrolux would leave open the plant through 2019.

That same afternoon, visiting St. Cloud from their headquarters in St. Paul, Minnesota, Todd Dahlstrom and Jerome Balsimo of the Minnesota AFL-CIO presented at two orientation sessions. The closure was a “cruddy situation,” said Balsimo, acknowledging the raw feelings of fear and betrayal shared by many workers. But the IMT apprenticeship, he continued, offered workers the chance to get a journey worker card, certifications and college credit that would help them get new jobs. Dahlstrom asked the group: Why was this important? He related a personal story. He had worked for 11 years in a box board factory and learned a great deal on the job about manufacturing work. When the plant closed, however, he had no *verification* of what he had learned. He wished that he had the opportunity to gain national skilled-occupation credentials while still earning an hourly wage. “This is one way to get an advantage” in the job search and reemployment process, he argued.³⁷ Also present was Tricia Simon of SCTCC, who explained that successful apprentices would obtain 16 credits at the local community college – credits that could

be applied later for an Associate of Applied Science degree – and obtain a Production Technologies Certificate, knowledge that is a core part of the MSSC.

The most visible aspect of the apprenticeship was the related instruction held at convenient times. There were two class sessions per week, both held on Monday, organized to coincide with shifts at the factory. Importantly, classes would be held at an accessible and familiar location, a company training center on 8th Street North, directly across from the plant, enabling apprentices to attend in proximity to their shifts. Apprentices working the first shift would finish work at 3:30 pm and walk over to a class starting at 3:45. Second shift workers came to the training center *before* work, taking a 1:15 pm class and going to work at 3:30 pm. In addition to the two hours of classes, it was estimated that apprentices would spend another two hours weekly doing homework, chiefly completed on computers using the D2L Brightspace system used across Minnesota community colleges.

In the first round of applications, comprising those who expressed interest in the program, 57 persons signed up.³⁸ The majority of those initial enrollees were Caucasian males. The group included 19 people of color and eight females. Two supervisors expressed interest. Excluding the two managers, the average wage of the others was \$18.52 per hour.

To lead the classes, Career Solutions and program organizers selected an experienced college teacher who appeared to develop a good rapport with apprentices. In her summary of work experience, Mary Kay McVey emphasized her 15 years in management consulting, experience in manufacturing settings, and abilities in “effective training techniques” and “customized training” to reach “organizational goals and objectives.” With an undergraduate degree in engineering technology and a Master's in Project Management, she had taught at several state community and technical colleges, so she was well-known to decision makers.³⁹

Through previous teaching and consulting, McVey had assembled an extensive collection

of manufacturing-related instructional material, available in electronic formats, especially valuable in a class that would not use hard-bound textbooks. Students retrieved reading material by computer and took quizzes on the class's D2L site, which they accessed at home or at the local community college (where technical assistance was available.) Much of the classwork was done in small groups, she said, to encourage peer-to-peer support. Beyond imparting necessary technical, product quality and safety knowledge, she described how she was attuned to the special circumstances of the Electrolux factory workers. Participants in the two classes were diverse, both in their facility with the English language and familiarity with structured schooling.

I can think of a few individuals that they've never done school before. They were very, very hesitant of even starting this program. Their confidence was very low. They didn't think they could do this and encouraging them along the way: 'You got this, you can do this, I know you can. These are the things that manufacturing employees do all the time. And you're taking the step forward to better yourself.' ... Most of them had been there for their whole entire career, which is anywhere from 10 to 30 years plus. This is the first time they've been in a [college] setting.⁴⁰

In several instances she modified aspects of the class and ensured that apprentices had extra tutoring to tackle difficult material, while involving them in critical decisions. Because some apprentices had difficulty completing computer-based tests, she would download the questions and go over them in class to prepare students to complete the exams online. The classes in

technical mathematics were very challenging for students with English as their second language, so an Adult Basic Education instructor held Saturday morning tutoring and peer support sessions to review the material at an appropriate pace. When Electrolux announced that the plant would close on November 1, 2019 – earlier than expected – it appeared that there might not be enough time to complete the required hours. McVey gave the apprentices the choice of when to finish and 83 percent voted to end on September 30th. This decision meant doubling up by holding two class session in some weeks, placing increased stress on incumbent workers facing an unknown employment future.⁴¹

Business support for the program stretched from the Electrolux sponsorship to the participation of employers in two Job Fairs held in September 2019, a few weeks before apprentices graduated. Sixty organizations were there to talk with Electrolux workers, including small and large manufacturers, health care employers, local transportation agencies, a brewery, the local school district, a bank, and non-profit organizations.

In a typical manufacturing apprenticeship, where skill training is tied to employee upskilling and expected advancement, apprentices receive systematic wage increases as they progress successfully through time. This practice was not applicable to this program. Rather, the union-negotiated effects agreement provided higher wages for all union members who remained at Electrolux until the closure. This aspect of the program, due to the reality of dislocation, was distinctly different. The effect on participant motivation is unknown.

"Strong partnerships are critical for building high-quality programs through which apprentices are supported in their learning and work experience ... [They] result in better outcomes for program and participant success ... Partnering with industry associations, workforce leaders and labor unions helps better incorporate the perspective of these groups in decision-making." — National Governors Association (2020), 12-13.

Program Outcomes

The most immediate and tangible outcome was the receipt of completion certificates for those who had finished the classroom training and acquired necessary skills in the factory. Thirty-five former Electrolux workers participated in an apprenticeship graduation ceremony on September 30, 2019. The apprentices who obtained a journeyworker card included two women.

In the federal employment and training field, a common indicator of an effective job training program is the percentage of graduates who have obtained employment six months after program conclusion. In this case, the six-month point was March 31, 2020. Employment then at manufacturing firms was affected by the rise of the coronavirus pandemic. Minnesota Governor Tim Walz issued an emergency executive order on March 25, 2020, for all residents to stay at home to limit spread of the virus. In March and April of 2020, Minnesota manufacturers cut 23,600 jobs, a reduction of nearly 26 percent in manufacturing employment compared to a year earlier.⁴² Presumably, the emergence of the pandemic, combined with the availability of TAA for Worker benefits – which enable eligible displaced workers to gain extended unemployment insurance benefits on the condition of college enrollment – influenced the career and employment choices of apprentices.

Out of the 35 apprentices who completed the program, employment and hourly wage information was available and pertinent for 33 persons. (One had retired and another had passed away due to an illness contracted before the pandemic.) The average wage of non-manager successful apprentices, while working at Electrolux, was \$18.21 per hour. The six-month outcome statistics for dislocated workers were generally positive. A majority (61 percent) were reported to be enrolled in college as of March 31, 2020. Nine workers (27 percent of

the 33 respondents) were employed and earning wages that averaged \$17.07 per hour, a decrease of 6 percent from the previous average. About one half of the employed former apprentices were working for manufacturing firms. One worker reportedly obtained a manufacturing job and then lost it due to a coronavirus-related layoff. Five workers were unemployed and not attending college six months after the plant closing.

Though the virus continued to be “firmly entrenched” in the state,⁴³ manufacturers reported that they were “busier than ever” in 2021, with 62 percent hiring for open positions and 87 percent claiming to have difficulty finding qualified workers.⁴⁴ After dropping to 301,100 in May 2020, the total number of manufacturing employees in Minnesota increased to 318,600 by October 2021.⁴⁵ Manufacturing jobs apparently were available to those willing to apply for positions.

Employment data for 28 apprenticeship graduates was available for September 30, 2021, two years after the end of the program.⁴⁶ Fifty-seven (57) percent were employed, higher than the March 2020 figure. The average wage of the non-managerial employed graduate apprentices was \$17.87 per hour, about 2 percent lower than their Electrolux earnings. Three persons were employed at entry level wages of \$14.00 per hour; they could be expected to increase their earnings as they gained experience and seniority on the job. Seven employees worked for manufacturers. One was involved in health care services.

The proportion of displaced hourly workers in college was somewhat lower than 16 months earlier. Fourteen of the 28 successful apprentices contacted reportedly remained in college two years after program completion. Nearly all the graduates were occupied with work or schooling. Only one respondent was not employed and not taking college courses.

Why did this proportion of participants choose to stay in college? State labor federation leaders speculate that Electrolux workers gained confidence through the apprenticeship in their ability to complete college courses and be successful in a college environment. Their personal pride in going back to school may have been a motivating factor, especially considering that many were attending college for the first time. Federal TAA for Workers provides tuition coverage and other financial support for those eligible, making it easier for participants to enroll in other credentialed training programs. Additionally, a Career Solutions career planner in contact with former Electrolux workers stated that many “saw college as an opportunity to have a trade which would not only give them a career but also allow them the opportunity to support their families ... [and] start at wages higher than their Electrolux wages.”⁴⁷

Aside from quantitative measures of effectiveness, the apprenticeship program at Electrolux produced several programmatic and organizational outcomes. In their review of 44 grantee programs funded under the American Apprenticeship Initiative, the National Governors Association identified strong *partnerships* as an important factor in successful apprenticeship programs.⁴⁸ The Electrolux program confirmed the value of partnerships in program development and implementation. The company reacted quickly to the apprenticeship opportunity and took the important steps of sponsorship and making a convenient training center available for classes. Union support enhanced the legitimacy of the program and provided peer support for apprentices who were not accustomed to classroom education. The link with community colleges and their libraries was essential in giving apprentices access to computers. A workforce intermediary organization, with a track record of serving dislocated workers and an understanding of state funding mechanisms, oversaw a varied group of services and responded flexibly as the program moved forward.

The program also demonstrated that a state labor federation has the capacity to drive a registered

apprenticeship program forward through productive collaboration with partners in the context of national policy. Ordinarily, joint apprenticeship programs in an industry are established by individual labor unions working with selected employers. The Minnesota AFL-CIO developed working relationships with all the actors necessary to launch a successful apprenticeship, fulfilling a liaison function that stretches beyond any single company or labor union. State labor federations have the capacity to contribute to longstanding AFL-CIO policy and practice⁴⁹ to boost regional economies and provide opportunities for worker advancement to increase the adoption of high road strategies.

Research, analysis and writing for this case study stretched from May 2018 to December 2021. Research involved a comprehensive literature review, site visits, structured interviews and field notes of observed program activities and events. I compiled and analyzed approximately 145 news articles, research reports, spreadsheets of participant demographics, minutes of local workforce board meetings, Electrolux corporate documents, survey results, registered apprenticeship standards, and community college curriculum and promotional materials. I conducted three site visits to St. Cloud during 2018 and 2019, which enabled me to observe classroom sessions, a marketing meeting of partners, and participant orientation. After preparing an interview schedule of questions, I conducted seven structured interviews with union officials, community college professional staff, apprentices (including a person of color and a female), and workforce intermediary staff. All interviews were recorded and transcribed. Gathering other research data involved multiple conversations with Minnesota AFL-CIO staff, extended email exchanges, and following program progress during conference calls with Jobs for the Future, the AFL-CIO Working for America Institute, and workforce intermediary staff.

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