



**NORTHEASTERN UNIVERSITY  
EMERGENCY MEDICAL CAREERS  
PARTNERSHIP  
FINAL REPORT**

**Prepared for:**

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# NORTHEASTERN UNIVERSITY

## EMERGENCY MEDICAL CAREERS PARTNERSHIP

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### PARTNERSHIP OVERVIEW

#### Mission and Structure

The goal of the Northeastern University (NU) Emergency Medical Careers Partnership (EMCP) was to address the employment needs of greater Boston's emergency medical services industry by providing opportunities for Boston area residents to move into medium-skilled, higher-paying jobs through training programs that lead to occupational credentials. In partnership with adult education providers and employers (Boston's major ambulance companies as well as the city's emergency medical service), EMCP aimed to create new educational pipelines connecting lower-skilled workers to entry-level emergency medical technician (EMT)-Basic positions and connecting lower-level incumbent workers to EMT-Paramedic positions.

EMCP was the only SkillWorks partnership that had a postsecondary educational institution as its lead. Northeastern University, specifically the university's College of Professional Studies (CPS), was responsible for organizing the partners, providing educational courses, and managing the SkillWorks grant. CPS focuses on career-centered education and serves working adults through a mix of classroom instruction and online learning. CPS has worked with employers in the emergency medical services industry for more than 20 years on curriculum alignment with industry standards, professional development programs for incumbent workers, and recruitment and placement of graduates. EMCP had several employer partners that worked with the partnership in a range of different areas. These partners included the city of Boston's public sector emergency medical services agency, Boston Emergency Medical Services (Boston EMS), and two private employers—Cataldo Ambulance Service, Inc. and Armstrong Ambulance Service, Inc.. The other primary partners in EMCP were two adult basic education/GED providers, Dimock Center Adult Basic Education Program and X-Cel Education. At the beginning of the initiative, they were primarily responsible for preparing students in their GED courses for EMCP's pre-employment EMT-Basic program, but during the first year of implementation their responsibilities expanded to include extended coaching support for their graduates during the EMT-Basic course.

EMCP dissolved in early 2011. After multiple challenges in implementation during its first year, NU decided that it would not seek additional years of SkillWorks funding to operate the partnership. SkillWorks continued to support two cohorts of Boston EMS students already enrolled in NU-sponsored paramedic training through the end of their programs in 2012, but the partnership did not enroll new students.

## Services

EMCP provided a range of classes and services designed to help jobseekers and incumbent workers access occupational credentials needed for employment and advancement in the emergency medical services industry. The program that the partnership implemented had two separate tracks: an EMT-Basic certification program for pre-employment participants and an EMT-Paramedic certification program for incumbent participants in EMT-Basic positions. EMCP had planned to offer incumbents an educational pathway leading to an associate's degree in Paramedic Technology, but limited demand led the partnership to focus on only the two tracks of training activity.

### Pre-employment Services

The EMCP pre-employment track prepared adult learners for employment as EMTs by helping them make a smooth transition from a GED program, and then supporting them through the EMT-Basic training at NU and the subsequent certification process. To facilitate the transition of GED students into the EMT program, EMCP's GED partners, Dimock and X-Cel, worked with the EMCP team at Northeastern and the partner employers to integrate health-related content, including material from the EMT-Basic course, into the math and science units of their own GED curricula. The students in these classes were simultaneously studying for the GED and preparing for the EMT course at Northeastern. The GED partners also provided EMCP participants with a medical terminology course and CPR/first aid classes, both of which they could later apply to the EMT-Basic certification.

Despite the preparation they received from the GED providers prior to enrolling at NU, pre-employment participants needed more support during the EMT-Basic training than the EMCP team had expected. During the first year of implementation, the EMCP partners adjusted service delivery to have GED partners extend their support for participants by providing coaching services during their EMT training. EMCP intended to formalize the GED partners' support role in Year 2 and increase the amount of preparation and transition support that participants would receive prior to enrolling in the EMT-Basic course, but the partnership ended before it could implement this work.

### Services for Incumbent Workers

One of the primary goals of EMCP was to provide incumbent workers with opportunities to advance up the EMT/paramedic career ladder through education and training that would lead to occupational credentials. The program that EMCP ultimately implemented was an EMT-Paramedic certification program for incumbent EMT-Basics. Originally, there also were plans for programs that would serve entry-level incumbents, primarily chair car drivers, seeking EMT-Basic certifications as well as mid-level incumbents seeking an associate's degree or a leadership certificate, but there was not enough interest among workers for these programs to move forward, despite some outreach at the partner employers.

Incumbent workers participated in these trainings in one of two venues: EMCP delivered the program on-site to two cohorts of EMTs at Boston EMS, and also through a public course at NU's Burlington campus. The EMCP participants in this course were from Cataldo and

Armstrong Ambulance Services. In both cases, while workers were receiving training, employers supported them in a variety of ways, such as paid release time, tuition reimbursement, and sometimes on-the-job tutoring or other support for learning at work. The EMCP team at Northeastern tried to build mechanisms into the courses to better serve working adults such as awarding academic credit for past work experience, creating experiential learning opportunities at their current jobs, and offering online academic programming.

### Participant Characteristics

EMCP enrolled a total of 74 individuals before the partnership ended in 2012. This included a single cohort of 25 pre-employment participants seeking EMT-Basic certification, and 49 incumbent EMTs seeking EMT-Paramedic certification. The table below presents data on some of the key demographic and economic characteristics of each group.

DEMOGRAPHIC CHARACTERISTICS (AT ENROLLMENT)			
TOTAL NUMBER OF SKILLWORKS PARTICIPANTS: 74		Pre-employment	Incumbent
<b># of Participants Enrolled</b>		25	49
<b>Background</b>	Average Age	26	31
	Living in Boston	88%	76%
	Born Outside the U.S.	32%	6%
	Reports English as Barrier to Advancement	8%	12%
<b>Race/Ethnicity</b>	Hispanic/Latino	20%	8%
	Non-Hispanic/Latino		
	Asian	0%	31%
	Black/African-American	64%	20%
	White	4%	63%
	Other/two or more races	12%	8%
<b>Gender</b>	Male	64%	78%
	Female	36%	20%
<b>Highest Level of Educational Attainment</b>	Associates Degree or Higher	0%	23%
	Some College, no Degree	4%	54%
	High School Diploma (or equivalent)	96%	23%
<b>Economic Status</b>	Employed	32%	100%
	Average Hourly Wage	\$13.44	\$22.79
	Average Hours/Week at Primary Job	31.3	39.9
	Economically Disadvantaged <sup>1</sup>	68%	4%

<sup>1</sup> SkillWorks defined individuals as economically disadvantaged if they reported receiving certain public benefits (TANF, Food Stamps, SSI-Disability, unemployment benefits) or if their reported yearly family income fell below a minimum necessary level based on their family size.

The pre-employment cohort was composed of 25 students who had recently completed their GED through either Dimock or X-Cel. The EMCP team selected this group from a relatively narrow population sharing many common characteristics. Nearly all were members of minority groups that are underrepresented in the emergency medical services industry, almost two-thirds identified as black or African-American, and one-fifth identified as Hispanic or Latino. In terms of education, 96 percent of all of the participants had a high school diploma or equivalent, since EMCP required a minimum of a GED before students could enroll. Most of the pre-employment participants were clearly struggling economically; only eight of them had jobs at enrollment, and several of those jobs were part-time or seasonal. None of the pre-employment participants were working in the emergency medical services industry, although two had jobs in hospitals.

The EMCP team selected the 49 incumbent workers from a very different population. Most were white, almost all of them had high school diplomas (rather than GEDs), and a number of them had bachelor's or associate's degrees. All 49 worked as EMT-Basics, but their economic situations varied based on which partner employed them. The 38 participants who worked at Boston EMS earned \$25.21 per hour on average, whereas the 11 participants who worked at Cataldo and Armstrong had a mean wage of just \$13.85.

The two groups do share some similarities. In both cases, there were very high rates of Boston residency. In the case of the pre-employment program, this may be due to the location of the feeder GED programs, and, in the case of the incumbents, it is mostly the result of Boston EMS's requirement that its workers live in the city. Both groups also skewed by gender: the pre-employment cohort was 64 percent male, and the incumbent cohort was 78 percent male.

## PARTICIPANT OUTCOMES

### Pre-employment Outcomes

EMCP experienced limited success in seeing the 25 pre-employment participants through to completion of EMT-Basic training and certification. In the end, only 12 students completed the EMT-Basic course offered at Northeastern. Of these 12, only five passed the EMT practical exam and only two passed the written exam and actually became certified as EMT-Basics.

There is very little information available regarding the employment status of the two participants who received their EMT-Basic certification. Northeastern hired one of them in 2011 as a part-time teaching assistant for another Northeastern EMT-Basic class, and no information is available for the other individual.

Two key challenges limited the pre-employment program's success:

- *Students did not receive sufficient academic coaching or case management support.* While EMCP's GED partners provided some coaching, participants clearly needed more support to see them through to completion. Despite EMCP's additions to the GED curricula, many pre-employment participants were unprepared for the demands of the EMT courses at Northeastern. "Readiness" in this case required much more than the knowledge students

absorbed from their GED classes. Many students lacked skills and habits that are critical to academic success, such as time management, organization, the ability to study efficiently, and knowing when and where to seek help. Although they had been able to complete their GEDs without these skills, when they encountered the more rigorous coursework and less supportive environment at Northeastern, their progress stalled. Ongoing coaching support or more intensive preparation might have helped these students succeed, but CPS did not have the resources to pursue these types of interventions. As previously mentioned, the partnership ended up providing some coaching to the course's participants through the GED partners, but the timing and level of support were insufficient to address the participant challenges in facing intensive, postsecondary STEM-focused coursework that required a high level of English literacy.

- *Criminal records were a barrier for some students.* Students and staff did not have a clear understanding during the outreach and assessment process as to whether a student's criminal record would pose a barrier to licensing or employment. Students were not able to review their Criminal Offender Record Information (CORI) report nor were they advised which elements within that report might be problematic for potential employers or the state licensing authority. Both the timing of the licensing authority's review (after completion of coursework) and the latitude that the authority has in using information in the CORI, made it impossible for EMCP to know in advance whether or not a particular past offense would result in disqualification. Furthermore, some employers' hiring practices may set different standards around CORI than the licensing authority, so even a participant's successful licensure could not guarantee that barriers related to CORI had been resolved. While EMCP explored the possibility of setting more uniform standards across employers, it faced concerns that setting a common policy might result in less-restrictive employers raising the bar for applicants to the level used by more-restrictive employers, making it even more difficult for disadvantaged individuals to enter the industry.

### Incumbent Outcomes

Although the EMCP incumbent programs faced many problems related to enrollment and employer engagement, the 49 EMTs who did enroll between 2009 and 2011 were fairly successful in terms of completion. Overall, 33 participants, or about 67 percent of those who enrolled, received their EMT-Paramedic certification, although in some cases they received it at a later testing date than originally planned. The courses for the Boston EMS cohorts had a very high certificate completion rate, 71 percent, and the public course at Northeastern's completion rate was slightly lower, with 55 percent of the EMCP-supported students achieving certification.

In terms of direct employment-related outcomes, the 33 participants who earned the EMT-Paramedic certificate had mixed results. Data indicate only five participants received promotions.<sup>2</sup> At Cataldo and Armstrong, four participants were able to attain paramedic positions, which came with an average wage increase of \$1.75 per hour. Only one of the 38 Boston EMS workers achieved a promotion to paramedic. This promotion came with a wage increase of roughly \$2.25 per hour. This very low rate of promotion was caused by a lower than expected rate of job openings for paramedics at the agency.<sup>3</sup> As long as they do not let their certification expire, the EMCP participants will still be eligible for job openings when they do occur. Boston EMS was able to provide extra information on wages and job retention through January 2014. The data show that of the 38 original participants, 32 were still working at Boston EMS. Those who stayed had their hourly wages increase by \$2.67 on average, but, except for the one promotion, these were due to raises associated with the union contract and not with the training.

While placements into paramedic positions have been quite limited to date, participants and employers cite some outcomes related to the program. Employers saw it as a way to improve their employees' skills and, on this count, it was reportedly successful. For participants, one of the main benefits that the program offered was the opportunity to earn credits towards an academic degree in a very convenient and cost-effective way. Many of the interviewed participants saw their EMT-Paramedic coursework as a stepping-stone to specific academic degrees in other health-related fields, and some of them continued to attend college classes after completing the paramedic program. In a small survey of Boston EMS participants, one-third of respondents indicated they had completed paramedic training and had pursued additional education following certification. A few also indicated that they were putting their paramedic training to use even before promotion opportunities at Boston EMS, and were picking up extra shifts with other emergency medical employers.

## DISCONTINUATION OF PARTNERSHIP

NU was not able to bring its original plan for a four-year project to fruition. The startup phase of the program took longer than expected. As a result of the slow ramp up, funders extended NU's first year grant by six months so EMCP could fully execute its Year 1 work plan rather than proceed with a re-funding process in the fall of 2009. In the spring of 2010, SkillWorks funders conditionally approved a second grant that would run from July 1, 2010 through June 30, 2011. To meet the conditions for final approval, EMCP was to complete an analysis of the labor market for EMT-Basics and EMT-Paramedics, develop a job placement strategy for pre-employment participants, and make improvements to other components of the effort,

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<sup>2</sup> Employers at Cataldo and Armstrong Ambulance Services only tracked participants through the end of the EMCP grant, so more of the incumbents may have become paramedics since that time. Boston EMS provided SkillWorks with an update in 2012 and a final update in January 2014. Because employers did not continue to track employees who quit or were terminated, some of the workers who left may be working as paramedics, but employers did not have this information available.

<sup>3</sup> Individuals seeking a promotion to paramedic at Boston EMS must wait until Boston EMS opens a promotional process. Many EMT-Basics at Boston EMS complete paramedic training in preparation for the promotional event, but the number promoted varies as the budget allows so the process can be quite competitive.

including the employer engagement strategy and the bridge between the GED and EMT courses. The departure of the original project director in June 2010 and continuing discussions between SkillWorks and NU leadership regarding the Year 2 grant conditions further slowed progress. Ultimately, SkillWorks offered a 16-month agreement that was to span from September 2010 through December 2011. SkillWorks released one grant installment to support the partnership's planning work so that the partners could make enough progress on the grant conditions to start training new participants in January 2011. Through the fall of 2010, Northeastern focused on meeting several of the grant conditions laid out in the Year 2 agreement. NU made progress on those grant conditions, most significantly on the requirements related to the bridge program for pre-employment participants. However, in early 2011, Northeastern notified SkillWorks that it was no longer interested in going forward as the lead organization of the Emergency Medical Career Partnership. As a result, the partnership concluded after only one full year of implementation. Northeastern's decision to exit the partnership was part of a larger change in strategic direction for the university; within months of exiting the partnership, NU discontinued its emergency medical services program entirely as a result of market conditions and changing leadership at CPS.

## **EMPLOYER BENEFIT**

The partnership rarely convened employers and did not exist long enough to produce substantial impact for employers. Cataldo and Armstrong, in particular, saw very little benefit, mostly because only 11 of their employees ever went through the program. These employers were never deeply involved in the effort, and when a change in NU's policies on the use of the Burlington facility led to the discontinuation of the paramedic classes, their involvement diminished further.

The employer that received the greatest benefit was Boston EMS, the only employer that worked with Northeastern to create on-site courses for closed employee cohorts and the largest partner, by far, in terms of number of workers enrolled in EMCP's offerings. The program upgraded the skills of its EMTs and created a ready pool of employees to promote when the organization had openings for paramedics. The Boston EMS medical director described the program's benefits for the agency and its employees in straightforward terms: "Most of our employees want to go to the next level. They're highly motivated. This kind of partnership really helps us to meet our needs for well-trained staff and their needs for advancement."

## **SYSTEM OUTCOMES**

NU's EMCP identified five system change goals at the start of the project. The project aimed to create or facilitate the following:

- a permanent academic scaffold for the emergency medical services industry;
- new industry-wide policies and procedures that address CORI reviews and other human resource practices that create potentially unnecessary impediments to entry;

- new pathways linking an EMT/paramedic career ladder to other ladders within the health professions;
- new employee assistance programs, including Individual Development Accounts and other financial tools, to assist employees with tuition costs that can pose a barrier to career advancement; and
- new management and leadership programming specific to the emergency medical services industry.

The project ended before its planned completion and, as a result, EMCP made little, if any, progress on these systemic goals.

## CONCLUSION

Due to lower than anticipated enrollments and course completions, and the inability of NU as the lead organization in the partnership to take action to improve outcomes, the program was unable to show results in creating new pathways for workers in emergency medical careers. EMCP may have been an effective mechanism for some incumbent workers, but for the EMT-Basic program, the project required additional resources to create a more robust case management system for people entering from pre-employment programs.

## Lessons Learned

- ➔ **Adult basic education is only one component of the workforce development assistance that entry-level workers need to succeed.**

EMCP's pre-employment program faced challenges that demonstrate that skills training alone is not enough for students with multiple barriers to employment. While the postsecondary training was only 14 weeks in duration, it was academically demanding for participants and required a more supportive set of transition and wrap-around services to help students achieve their goal. Pathway programs like EMCP that place underprepared students in college classrooms should build case management and academic coaching into their service delivery model. In addition, programs need a strong awareness of industry hiring practices and the challenges that issues like CORI checks may represent in the hiring process.

- ➔ **On-site, cohort style training in partnership with a single employer is a highly effective and valued means of delivering incumbent workforce development.**

EMCP's most successful academic classes were the on-site paramedic classes offered through a partnership with Boston EMS. The on-site model allowed for the tailoring of the offering to the training needs and schedules of the employer and the employees, which led to a high rate of success in the course and greater employer satisfaction.

➔ **Sector partnerships require provider flexibility to adapt to employer needs and conditions.**

Training providers, in this case NU, need to be willing to accommodate varied stakeholder needs, showing flexibility in altering service delivery, schedules, and location to best suit the needs of employers and participants. Despite Northeastern's reputation for maintaining an employer focus through its well-known coop program, which combines academic and work experience for undergraduates, and the orientation of CPS, which regularly serves working adults, the institution was not accustomed to making programmatic decisions based primarily on the feedback of employers and participants as would be expected of a true sector-based workforce partnership. Students coming independently to the public programs had to adjust their work schedules around NU's course offerings. When there were conflicts, students would sometimes fall behind and then have trouble recovering. The type of coaching provided by other partnerships was not pursued for EMCP participants. In the future, providers and the funders of partnerships should carefully consider whether the organizations have the capacity and desire to offer the level of flexibility, customization, and support needed to make partnerships successful.

➔ **Multi-level institutional commitment and staff continuity are essential for long-term partnership success.**

As the first SkillWorks partnership led by a major university, EMCP spotlights some of the complications of partnering with such a large entity. While CPS may have embraced the mission, goals, and strategies of the EMCP partnership, the level of overall university support was not as strong. University decisions adversely affected how and where courses were offered and how CPS could partner with GED partners. Reflecting on the partnership, one employer noted, "If we're working with universities on sector partnerships, the university has to be fully bought in to the mission of the partnership. This commitment has to extend beyond the program office where the program is located. The university needs to have as much on the line as the other partners."

At times, individual partnership directors and CPS leadership showed deep commitment to the partnership mission. However, over the short life of the partnership, NU employed three different project directors and experienced several changes in the CPS dean position as well. Without a clear institutional vision and alignment of the university to the mission, it was difficult given the turnover among those closest to the partnership to maintain momentum.