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NATIONAL FUND FOR WORKFORCE SOLUTIONS

EXPLORING THE BUSINESS IMPACT OF WORKFORCE DEVELOPMENT SERVICES

A CASE STUDY OF BOSTON CHILDREN'S HOSPITAL



By Devon Winey and Alyssa Rosen Saunders
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CareerSTAT is an initiative to document and endorse the business case for investments in frontline hospital workers and to establish an employer-led advocacy council to promote investments that yield strong skill development and career outcomes for low-wage, frontline hospital workers.

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INTRODUCTION

As a result of the implementation of the Affordable Care Act (ACA) and shifting demographics, health care organizations across the United States are experiencing unprecedented change. Responding to these changes, health care providers are scrutinizing existing programs and developing new initiatives. As a result, many organizations are pursuing innovative or expanded human resource policies to better equip employees to respond effectively to changing circumstances and higher expectations.

Frontline health care workers are especially receiving increased attention and investment as organizations are searching for the most effective opportunities for employee development and cost reduction. Because many frontline workers interact directly with patients and therefore highly affect patient satisfaction rates, organizations are developing their frontline workers to improve patient experience.

Given the rising levels of investment in frontline health care workers, many organizations are seeking to measure the business impact of these training programs. As a result, CareerSTAT, with the support of the Joyce Foundation, funded this study with the objective of documenting and measuring the business impact of workforce development programs for frontline incumbent workers employed at Boston Children's Hospital (BCH).

BCH is an employer partner of the Healthcare Training Institute (HTI), a health care training partnership

operating in Boston. With organizational goals to increase the diversity of their patient-focused workforce and to improve the performance and retention of frontline workers, BCH has adopted multiple training programs independently and in partnership with SkillWorks and HTI. BCH participated in this study in part to measure the impact made by current employee training efforts and to inform future workforce development programs. This study looks specifically at the impact of selected business metrics of workforce development programs supported by SkillWorks and provided by the Healthcare Training Institute to BCH and other employer members of the health care partnership from 2009-2013.

CareerSTAT is a network of health care leaders advocating for the career and skill development of frontline health care workers. Organized by the National Fund for Workforce Solutions and Jobs for the Future, the national initiative fosters employer investment in frontline workers by documenting and sharing effective workforce development practices with health care providers across the country.

Frontline workers are workers whose role requires less than an Associate's degree and range from pharmacy technicians to certified nursing assistants and dietary service staff. These workers play a crucial role in health care service delivery, and have a direct impact upon the patient experience, and thus, quality of care. BCH further defines frontline workers as individual

Frontline health care workers are especially receiving increased attention and investment as organizations are searching for the most effective opportunities for employee development and cost reduction.

contributors who are patient facing, entry-level, or low-wage workers. Some of the frontline workers that BCH invested in had AA degrees—or even B.A. or B.S. degrees—before entering the program, but sought to obtain specific credentials to qualify for high-demand, high-growth jobs that offer middle-income wages.

In addition to shedding light on the specific business impact of a selection of BCH's training programs, BCH's experience developing the process, tools, and methodologies offer valuable lessons to other health care organizations as they embark on measuring the business impact of their investments in frontline worker development. The study thus provides information on the objectives, tools, and processes for the Bridge to College Program and other incumbent worker training at BCH.

Mt. Auburn Associates prepared this report in collaboration with individuals at Boston Children's Hospital and the National Fund for Workforce Solutions.

ABOUT BOSTON CHILDREN'S HOSPITAL, HEALTHCARE TRAINING INSTITUTE (HTI), AND SKILLWORKS

Boston Children's Hospital (BCH), a 395-bed comprehensive center for pediatric health care, is one of the largest pediatric medical centers in the United States and offers a complete range of health care services for children from birth to age 21. BCH is committed to the professional development of its employees through its Learning and Development (L&D) Department, housed within Human Resources. The L&D Department offers varied services for BCH's workforce including customized team or departmental trainings, career coaching, service skills development, technical training in BCH's computer systems and programs, and management development classes. BCH's L&D Department has grown from a staff of one at its start in 2001 to a team of eight with a workforce development budget of several hundred thousand dollars in 2014. The department's work is driven by a larger organizational vision:

The quality of the patient and family experience is a key driver in Boston Children's Hospital's success as a leader in pediatric clinical care. We strive to lead

in embracing diversity throughout the hospital in both our commitment to Boston's diverse talent pool and by encouraging diverse, culturally competent employees to grow and serve in roles throughout all corners of the hospital. In this way, we can only become better equipped to meet and exceed patient families' expectations. As we continue to lead the way as a world-class health care delivery system that attracts a growing volume of families from across the nation and abroad, our cultural competence is more critical than ever.

—Inez Stewart, Vice President of Human Resources, Boston Children's Hospital

The L&D Department has developed a portfolio of offerings that cater to its entry-level workforce. Through the HTI partnership, BCH employees can take classes offered by Jewish Vocational Services (JVS) in ESOL, pronunciation, citizenship, and computer skills. Investing \$175,000 annually, BCH also supports employees in their academic pursuits at postsecondary institutions through a tuition reimbursement program that assists employees in pursuing an Associate's degree, a Bachelor's degree, or advanced education. Recently, BCH extended its policy to include certifications and postsecondary credentials and expanded the offer to additional job classifications for those in the Bridges to College Program. This was not a tuition reimbursement program, but instead provided a tuition advance that reduced the upfront monetary burden for employees to enroll in postsecondary education courses and expanded the range of eligible postsecondary credentials besides a Bachelor's degree to programs that were within reach for entry-level BCH employees.

The Healthcare Training Institute (HTCI) is funded by SkillWorks, a regional funder collaborative supported by the National Fund of Workforce Solutions. SkillWorks is a multiyear initiative based at the Boston Foundation, to improve workforce development in Greater Boston and in the Commonwealth of Massachusetts. SkillWorks brings together philanthropy, government, community organizations, and employers to address the twin goals of helping low-skill and/or low-income individuals attain family-supporting jobs and businesses find skilled employees. While many studies have documented the outcomes of SkillWorks' workforce development services for the program participants, few have examined the benefits to employers as a result of improving the skills of their incumbent workers.

METHODOLOGY FOR ASSESSING BUSINESS IMPACT TO BOSTON CHILDREN'S HOSPITAL

This study looks specifically at the business impact to Boston Children's Hospital from workforce development activities provided by HTI and supported by SkillWorks from 2009 to 2013.

To select the metrics used to measure business impact, Mt. Auburn Associates consulted BCH L&D Department staff, JVS staff managing HTI, and SkillWorks' leadership to understand key stakeholders' hypotheses of how the HTI workforce investments would benefit BCH as a whole. Stakeholders identified the following three areas because they align closely with the BCH's mission, vision, and values:

- > **Improved employee retention.** BCH expected that employees who participated in workforce development services would be more committed to the hospital and more satisfied in their job resulting in a higher retention rate. By retaining employees, BCH reduces hiring and training costs, improving its bottom line.
- > **Increased diversity to better reflect diversity among patients.** BCH continues to be committed to providing a superior service to patients and their families. BCH identified that one element of providing that high level of service is to have the diversity of health care providers who interact on a regular basis with patients mirror the diversity of the patient population. BCH believed that by providing the opportunity for entry-level workers to advance into positions that provide direct patient care, the racial and gender profiles of health care staff would become more diverse.
- > **Improved job performance.** BCH anticipated that the employees receiving workforce development services would perform better in their existing job either as a result of the direct content provided through their coursework or the soft skills developed as part of the preparation for postsecondary work. BCH thought the improvements in time management, problem solving, communication skills, and organizational skills would improve on-the-job performance.

PROGRAM COMPONENTS

Three programs at Boston Children's Hospital were selected for the business impact analysis:

POSTSECONDARY ADVANCEMENT SERVICES (BRIDGE TO COLLEGE)

A SkillWorks program that enables BCH employees to enroll in precollege English or math courses¹ and pursue a certificate or Associate's Degree in Allied Health and Nursing. By offering these opportunities together with academic coaching, the organization sought to achieve key corporate objectives such as matching caregiver ethnicity to patient populations, improving retention, increasing diversity, and improving employee performance and wage attainment.

CENTRAL PROCESSING CERTIFICATION FOR CENTRAL PROCESSING DEPARTMENT (CPD) SERVICES

All CPD employees are required to have a national Central Processing Certification. BCH worked closely with JVS and Bunker Hill Community College (BHCC) to develop a customized program to enable current CPD employees to earn the newly required credential. The program included on-site, precollege preparatory classes in reading, writing, and math. BCH committed to a salary increase for participants who gained their certification and completed additional internal training within one year of certification.

MEDICAL CODING (ICD-10) PROGRAM

The Medical Coding program was developed with JVS and Massachusetts College of Pharmacy and Human Science through SkillWorks Phase II in response to the introduction of ICD-10, a new medical coding standard. The medical coding system upgrade to ICD-10 required a significant transformation in how coders perform their jobs. Designed to train BCH employees in ICD-10 by 2012, the program included on-site precollege prep, medical coding courses, and academic coaching.

PARTICIPANT GROUP

The participant group was chosen on the basis of participation in programs funded by SkillWorks and indirectly by the National Fund. Participants represented roles and positions that (a) aligned with organizational imperatives, such as a mandate that required that all Central Processing employees have a national certification and staff in medical coding who needed to be trained to ICD-10, or (b) chose to pursue postsecondary education and were eligible for tuition for postsecondary education. Many of the frontline employees represented in the participant group did not have postsecondary education, had not attended school in many years, and/or had received their education outside of the United States. Participants in the postsecondary program worked in departments that often did not involve direct care for patients and were in positions unrelated to the occupational goal of their education.

METRICS USED TO MEASURE BUSINESS IMPACT AT BOSTON CHILDREN'S HOSPITAL

Boston Children's Hospital chose three metrics tied to their organizational mission, vision, and values. They were raising employee retention, increasing employee diversity, and improving the job performance of BCH employees enrolled in one of three SkillWorks-funded programs between 2009 and 2013. Other objectives included responding to mandates that medical coders become proficient in using ICD-10 by a certain point in time and that staff members of the Central Processing Division qualify for and become certified for the national certification for Central Processing.

The researchers, Mt. Auburn Associates, drew on two primary data sources to measure business impact: 1) Human Resource Information System (HRIS) employment data, to explore impacts related to employee retention, wage gain, and diversity; and 2) a survey of participating employees and direct supervisors, to explore the perceived impact of services on skill development, job satisfaction, and job performance.

HUMAN RESOURCES IN FRONTLINE SYSTEMS (HRIS) DATA ANALYSIS

Based on a review of the SkillWorks database and JVS documentation, Mt. Auburn Associates identified 113 BCH employees receiving workforce development services in the three selected training programs between 2009 and 2013. BCH provided participant data for the following fields: date of hire, position/department at hire, position/

department over time, reason for change in position over time, wage over time, performance rating over time, ethnic group, and gender. Data from BCH included details on employees' job family, job group, and job code—three different units of job classifications. BCH was also able to provide a subset of requested data points related to hospital employees at-large (as opposed to only those receiving workforce development services). BCH provided data on hospital retention for particular job families as well as for employees whose 2009 wage was comparable with those who were receiving workforce development services. Lastly, BCH also provided data on the diversity of its employees in departments or job families that interact with patients or offer bedside care.

SUPERVISOR SURVEY

The survey asked respondents a series of questions related to their impressions of how the workforce development training may have affected their employees' skills (i.e., organizational, time management, efficiency, comprehension, critical thinking, accuracy, comfort with technology, customer service, prioritization, conflict management), or affected their employees' enthusiasm for their work (i.e., morale, motivation, ambition, punctuality, attitude). Additionally, this survey asked supervisors to provide open-ended responses related to how such training has impacted their department and how the training has impacted BCH as a whole. Mt. Auburn Associates distributed the survey electronically to a list of supervisors, provided by BCH, who had supervised employees receiving workforce development services

between 2009 and 2013. The survey response rate was 38 percent and reflected observations from supervisors of at least 28 participants.

PARTICIPANT SURVEY

The survey questions focused on gaining insight into each participant's personal reflection of his/her skill enhancement(s) and personal enthusiasm for work as a result of the training. The survey also asked participants to provide open-ended responses related to how their training has impacted their department as well as BCH as a whole. A subset of questions mirrored questions from BCH's hospital-wide employee satisfaction survey conducted once every two years.

BCH provided answers to these very same questions from the 2012 satisfaction survey as a means of comparison. Mt. Auburn Associates distributed the participant survey used for this research electronically to the list of BCH employees who had received workforce development services between 2009 and 2013. BCH provided the contact information for participants, and the response rate was 29 percent. Where possible, researchers compared data from the workforce development participants with comparison groups within BCH. In addition to making comparisons between workforce development participants and BCH employees in the same job families, Mt. Auburn compared workforce development participants to others throughout the hospital who were making comparable wages as of 2009.

FINDINGS AND OUTCOMES

Data collected for the study demonstrate that Boston Children's Hospital, JVS, and SkillWorks accomplished many of the objectives set forth in the original work plan including successful completion of programs by participants, better retention rates of participants, increased diversity of trained caregivers at BCH, and improved job performance.

Participants made significant progress in terms of program completion. In the Central Processing Division, fourteen employees enrolled in the Central Processing Certification training. Of the 14 enrollees, 13 completed the course, and 9 (64 percent) passed the certification examination. In medical coding, 14 employees enrolled in the medical coding course for the new medical coding standard, ICD-10, and 10 (71 percent) completed it. Finally, as of 2014, 75 employees had received postsecondary advancement services. Of the 75 participating employees, 40 individuals have enrolled in college, with 12 individuals having already completed their degrees and at least 12 others still enrolled in courses.

RETENTION

Across the board, five-year employee retention rates among those receiving workforce development services exceeded the five-year retention rates of employees in the same job families, hospital-wide.

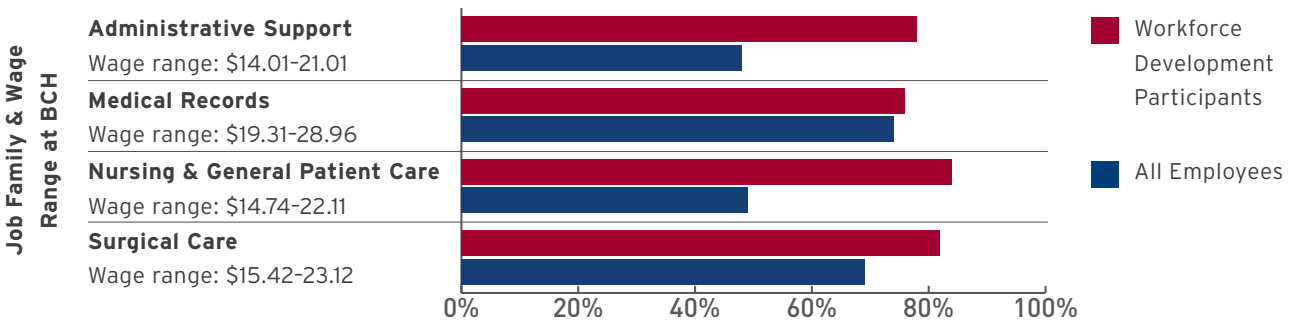
Overall, of those workforce development participants who were employed at BCH in 2009, 83 percent² were still employed at BCH in 2013. A five-year, 83 percent retention rate among entry-level workers enrolled in workforce development services is impressive. Retention among those working in administrative support in 2009 was better for individuals enrolled in workforce development services (78 percent retained) as compared to only 54 percent for all employees who had been working in administrative support as of 2009. Similarly, retention among those working in nursing and general patient care in 2009 was better for individuals enrolled in workforce development services (86 percent) as compared to only 74 percent for all employees who had been working in nursing and general patient care as of 2009.

Data collected for the study demonstrate that Boston Children's Hospital, JVS, and SkillWorks accomplished many of the objectives set forth in the original work plan including successful completion of programs by participants, better retention rates of participants, increased diversity of trained caregivers at BCH, and improved job performance.

Exhibit One: Participants and Job Families, 2009

Job Family	Total Number of Program Participants who Enrolled	Total Number of All Employees with Similar Wages and Job Family	Total Number of All Employees in Job Family
Administrative Support	36	753	1,174
Medical Records	8	12	28
Nursing and General Patient Care	14	189	2,448
Surgical Care	17	43	117
Other	28	N/A	N/A

Exhibit Two: Percentage of 2009 Staff Still Employed in 2013



Workforce development participants have a higher retention rate when compared to all employees in the same job families at similar wages levels.

Five-year retention rates among workforce development participants employed in administrative support, medical records, nursing and general patient care, and surgical care far exceed retention rates among employees in those same job families, hospital-wide, earning similar 2009 wages (see *Exhibit One and Exhibit Two*).

The impressive retention among those individuals receiving workforce development services aligns with survey results, which indicate that individuals enrolled in workforce development services at BCH appear to be satisfied working at the hospital and intend to stay.

In general BCH's employees are satisfied with BCH as an employer. The higher retention rate among workforce development participants does not appear linked to a higher job satisfaction rate.

Based on survey results from 26 individuals enrolled in workforce development services, the majority of employees receiving services reported that they were satisfied working at BCH, with 91 percent reporting that they plan to work for BCH a year from now, and 68 percent reporting that they would decline a role in another organization for slightly higher pay. Though the survey response rate among individuals receiving workforce development services was only 29 percent, the responses received still provide insight into employees' level of satisfaction in their positions. However, the majority of all BCH employees report

Workforce development participants have a higher retention rate when compared to all employees in the same job families at similar wages levels.

Exhibit Three: Job Satisfaction Rates Among Program Participants and All Staff

Statements	Program Participants Survey Responses	Hospital-Wide Responses ³	Aggregate Responses from Administrative, Nursing and Patient Care, Medical Records, and Surgical Care
I have the knowledge and skills required to do my job.	8.6	9.0	9.0
I receive the training I need to keep my skills up to date.	8.0	7.9	7.9
I see the connection between what I do and what Children's Hospital is trying to accomplish.	8.2	8.5	8.2
This organization shows respect for its employees.	8.2	7.9	7.7
People of different ethnic backgrounds and races are valued by Children's Hospital.	8.2	8.7	8.6
I am encouraged to develop my full potential.	8.0	7.9	7.7
I have the chance to participate in professional development activities.	7.3	7.7	7.5
I have the opportunity to learn new skills from others who have those skills.	7.3	7.8	7.7
My work is important to the overall success of Children's Hospital.	8.5	8.4	8.4
I like working at Children's Hospital.	8.7	8.6	8.6

high levels of satisfaction. On a scale of 0-10, with 10 indicating strongly agree, average responses across the board ranged from 6.8 to 9.1, with the majority of averages exceeding 8 (see *Exhibit Three*).

DIVERSITY

One of BCH's goals in supporting entry-level workers' pursuit of health care-specific postsecondary certifications and degrees was to increase the diversity among the individuals who interact with patients so that the staff more closely mirror the diversity of the patient population. According to workforce development staff, this included diversity in terms of

race, ethnicity, and gender. Women account for the majority of entry-level positions that provide health care services to patients at BCH.

Given the comparatively small pool of workforce development participants relative to the overall BCH employment pool, it is not realistic to demonstrate a meaningful change in the overall diversity profile for the institution or even for job families. Still, looking at whether the pool of workforce development candidates was indeed more diverse than the general BCH employee population would indicate whether BCH's workforce development efforts may at least have the potential to have an impact on the diversity of some job families.

Program participants were more racially and ethnically diverse than relevant job families overall. They were also slightly more diverse in terms of gender.

Minority ethnic groups make up 80 percent of employees receiving workforce development services, in contrast to the primarily white ethnic demographic profile of BCH employees who interact with patients. Additionally, the percentage of males receiving workforce development services exceeds the percentage of men in the job families to which they may aspire. By enrolling such a diverse group of employees in workforce development services, BCH is poised to have a positive impact on the levels of diversity in job families that involve patient interaction and/or bedside care as program participants earn degrees and advance into these job families.

The program participant group is still notably more diverse, at least in terms of ethnicity and race, when compared to similar BCH employees.

BCH's interest in increasing the diversity of employees, especially among those who interact with patients or provide bedside care, is reflected in its efforts to target workforce development services to its entry-level employees, who are a more ethnically diverse population. Since workforce development services are positively correlated to retention, targeting services towards a diverse group of participants may ultimately add to the diversity among staff offering bedside care. While the percentage of males receiving workforce development services does not exceed the percentage of males with comparable wages hospital-wide, the percentage of men in the workforce development population (20 percent) is not far behind the total percentage of employees hospital-wide earning comparable wages (29 percent).

PERFORMANCE

One potential BCH benefit related to workforce development services offered to employees is improved job performance. Stakeholders anticipated the following three performance improvements among participants:

> **Improved "soft skills" as a result of transferable skills introduced through academic coaching:**

This includes time management, critical thinking, communication, organization, efficiency, comprehension, accuracy, comfort with technology, prioritization, and conflict management. However, as discussed later, the improvement may not have been to the level supervisors considered significant or necessary to demonstrate improvement in performance.

> **Improved initiative as a result of higher morale:**

By participating in the workforce development programs, participants would feel more satisfied with their work, appreciative of their employer, and—as a result—would be more likely to be motivated, ambitious, and punctual.

> **Improved job-specific performance as a result of occupationally specific training:**

CPD and medical coding participants' training was intended to improve performance in their existing positions. For the college cohort, improved performance in their specific job was less relevant given the expectation that they would change jobs upon completion of their training.

To analyze the overall impacts of workforce development on job performance, researchers 1) reviewed participants' job performance ratings; 2) analyzed changes in wages between 2009 and 2013 relative to nonparticipants; and 3) examined

Program participants were more racially and ethnically diverse than relevant job families overall.

participant and supervisor survey results to understand the perceptions of changed job performance.

The analysis faced limitations in documenting changes in employee performance and productivity. While nine employees from the Central Processing Division completed the course and passed the national certification, this report cannot definitively measure the impact this training had on employee performance or productivity. Of the fourteen enrollees in the ICD-10 medical coding program, 10 employees completed the course and developed competency in new medical coding standards. It is important to note that these employees were trained years in advance of the actual ICD-10 implementation date of October 1, 2015, which may possibly lead to a more risk-free transition to the new coding system for BCH.

JOB PERFORMANCE RATINGS

An analysis of participant employee performance reviews suggests that the participants did see an increase in their performance ratings after receiving workforce development services. The modest level of differentiation in employee performance ratings generally, coupled with the lack of comparison data for nonparticipants, makes it difficult to draw strong conclusions.

BCH regularly documents employees' job performance using a rating scale of 1-5 (5 being the best). A comparison of participants' ratings prior to and after receiving HTI services shows a modest increase in performance. At the start of the HTI program, workforce development participants had a mean baseline performance rating of 2.8. Participants' final mean rating after receiving HTI services was 3.2.

While the improvement in performance is promising, the research team is cautious to draw significant conclusions from this data. Mt. Auburn Associates was unable to compare the performance increase to other BCH employee performance ratings, making it difficult to assess whether the increase differed from the larger employee population.

WAGE INCREASE COMPARISON

The increase in wages among workforce development participants as compared to other BCH employees in a similar earnings bracket does not suggest that BCH recognized training participants for superior job performance through above average wage increases. In fact, workforce development participants, on average, received slightly lower wage increases over the five-year period than their counterparts who did not participate in workforce development. It should be noted that this work was done at the height of the recession when health care organizations in general were not giving wage increases.

PARTICIPANT AND SUPERVISOR SURVEY RESULTS

The survey data of participants and supervisors provide additional insights on job performance. While the majority of participants felt that they had improved skills that could translate into improved job performance, supervisors tended to disagree about the level of skill improvement and its effect on performance. It is likely that even though employees felt they were making skill gains, the improvement in skills and performance is lower than the gains

An analysis of participant employee performance reviews suggests that the participants did see an increase in their performance ratings after receiving workforce development services.

Exhibit Four: Participant & Supervisor Survey Results

Survey Results	Participants: % Agree or Strongly Agree	Supervisors: % Agree or Strongly Agree
Increased Organizational Skills	76%	29%
Better Time Management	72%	19%
Increased Efficiency/Productivity	68%	29%
Stronger Comprehension	64%	29%
Stronger Critical Thinking/Reasoning	75%	24%
Increased Accuracy	68%	29%
Increased Comfort with Technology	68%	24%
Improved Customer Service	64%	33%
Increased Ability to Prioritize	76%	35%
Better Conflict Management Skills	71%	24%
Improved in Other Ways	75%	20%

their supervisors would have liked or expected the participants to achieve. Another possibility is that the participants did not have the opportunity to exercise their improved or newly learned skills so they were not manifest in their jobs and performance.

Based on workforce development participant survey results, roughly two-thirds of respondents agreed or strongly agreed that since enrolling in workforce development training they had improved their organizational skills, time management skills, level of efficiency, comprehension, critical thinking and reasoning, accuracy, comfort with technology, customer services skills, prioritization, and conflict management. While some participants did not report a particular gain or loss in such skills, only a small portion of individuals disagreed or strongly disagreed with statements suggesting that workforce development training had a positive impact on participants' skills. Though program participants noticed positive personal improvements in their skills since enrolling in training, the majority of the 26 supervisors who responded to the survey neither agreed nor disagreed that their employees' skill sets improved since enrolling in training. While about one-third of supervisors agreed that their employees gained some skill improvements since enrolling in the training, very few (one or two at the most) of these

supervisors *strongly agreed* that their staff members enhanced their skills. A few supervisors did note that they disagreed that employees' skills improved since enrolling in training, but, again, few *strongly disagreed* (see Exhibit Four).

Program participants also acknowledged other ways their skills had improved since enrolling in training. One participant noted an increase in his or her "goal-setting ability to acknowledge personal accomplishments and be proud"; another two participants noted an improvement in math and writing skills; two others noted improved confidence, with one specifying increased ability to be assertive in the workplace; and one noted an improved ability to prioritize life and days to make better use of time. While these improved skills are certainly beneficial to each individual, these are also wins for each of these individual's departments.

While it was not possible to demonstrate a measurable difference in performance (hence the supervisors' low responses), anecdotal information from supervisors suggests some of the types of hypothesized benefits in performance have manifested themselves. Through interviews and survey responses, supervisors indicated that a number of participants had demonstrated some form of progress. While there were few commonalities

across supervisors' assessments, the range of improvements suggested by the supervisors is as follows:

- Willingness to accept more challenges;
- Showing leadership skills;
- Increased level of openness and confidence when interacting with customers;
- Improved effectiveness at communication in English; and
- CPD employees developed a better understanding of *why* they perform their daily tasks.

Some supervisors noted that the employees who enrolled in training had already been good workers who were efficient, reliable, and dependable. Training may have not dramatically increased employees' skills or performance since for some their skills and performance were already well respected by their supervisors.

Overall, supervisors and participants were very supportive of BCH's investment in workforce development opportunities for employees. However, the supervisor survey did surface some areas of concern related to the workforce development services.

- **Scheduling conflicts and lost work time.** While three of the 26 supervisors responding to the survey noted that there were no drawbacks for the department related to having employees enroll in training, seven mentioned scheduling conflicts (scheduling around class time and the need for per diem staff coverage during participants' practicum) and one additional supervisor mentioned that test preparation prevented an employee from completing work tasks on time.
- **Disappointment in non-completers.** Not all individuals who enroll in workforce development programs complete them, which can have negative consequences within departments. One supervisor indicated that her two employees enrolled in SkillWorks services were pursuing goals they were unable to achieve and ultimately felt discouraged to the point that they did not complete their programs. She expressed concern that they would be afraid to pursue other growth opportunities as a result

of their experiences. Another supervisor from a different department was quite optimistic when allowing two of her staff to enroll in training, hoping that the department would cultivate an in-house radiologist. She had to make considerations for their academic schedules, which frustrated other staff members who had to stay late and cover for them. Unfortunately, both employees stopped working for BCH and consequently ended their engagement with SkillWorks, so the supervisor never saw the return on her investment.

- **Potential loss of newly skilled employees.** Supervisors also realized that one possible outcome of supporting academic achievements for their staff is that their newly trained staff member finds a position in another department or outside of BCH. One supervisor mentioned the reality that his or her department was at risk of losing a valued employee if an opportunity presented itself in the trainee's field of study. Another noted that the ICD-10 medical coding training made her staff more marketable, resulting in one employee ending employment at BCH and transferring to work at another hospital. Still, at the same time, accommodating schedules for staff seeking to both work and pursue academic credentials keeps staff members at their job at least for the duration of the coursework and potentially even after. One supervisor noted, "I knew if we could accommodate her schedule it was a coup for us to keep her here. If we didn't accommodate her we'd lose a good employee [immediately]." While there is always the chance that a department will lose a newly skilled employee, one supervisor recognized that if BCH has openings for a staff member who has recently acquired a new advanced degree to move into a new advanced position, there is actually an advantage to the department as that staff member already knows the people, BCH's systems, and the building itself.

Though supervisors are certainly supportive of workforce training efforts, they acknowledge that there are small tradeoffs for a department when allowing their employees to dedicate time to educational pursuits while also continuing to work fulltime. While supervisors need to make accommodations from time to time, they do not feel that enrolling employees in such training creates any drawback for BCH as a whole.

LESSONS LEARNED AND RECOMMENDATIONS FOR FUTURE BUSINESS IMPACT STUDIES

In today's evolving health care environment, measuring the business impact of workforce development investments is critical to health care employers. Knowing that programs are tied to organizational strategy or imperatives and ensuring they provide a solid business impact is critical to continued investment. However, measuring business impact is a significant undertaking and this study generated a number of lessons for employers, health care partnerships, and evaluators who may carry out similar efforts in the future.

Before attempting to assess business impact, ensure that the program being considered is clearly tied to an organizational strategy or imperative.

While the anticipated business impact will vary depending on program, business impact may be more clearly measured by aligning interventions with programs and initiatives that fill business gaps. By partnering with senior leadership, workforce development and learning professionals can potentially gain a line of sight into business strategies and gaps or risks in employee skills and education. In the programs being considered, it is possible that an effort could have been made to determine and measure the business impact of employees achieving the desired certification for Central Processing and the preparation for the ICD-10 medical coding standards.

The evaluative metrics should be identified as the training program is being designed and employer and supervisor expectations regarding the target skills improvements should be clearly communicated to the employees.

It is important that the evaluation or business impact study is designed at the same time as the program and appropriate metrics are defined and agreed upon with the employer and relevant managers within the organization and clearly related to the program design. It is important to have a discussion with the stakeholders and owners of the data at that time. Any data privacy or HIPAA regulations that govern data use should also be addressed at that time. A review of whether the project should be presented to any internal review boards should also be determined prior to beginning work. Each metric should be able to be associated with organizational objectives and imperatives should be shared upfront.

The success and value of postsecondary advancement programs such as the Bridge to College program can only be determined in a longer timeframe.

Individuals in postsecondary programs such as the Bridge to College are likely to take more than two or three years to complete precollege courses and the relevant certificate or Associate's degree program

as they are pursuing these programs in addition to working full time. Therefore, it is only possible to determine the value of the program to the employer in a much longer timeframe.

Ensure that each program has a senior level sponsor and an internal champion that supports both the program and the evaluation effort.

It's important to approach investments in workforce development like any other major organizational initiative by having a clear set of objectives for doing the work and a leader who can champion the efforts across the organization. It is critical to keep staff apprised of changes in strategy so that course corrections regarding the evaluation and the training program can be made.

Have a clearly outlined change and communications plan in place to ensure maximum support from management.

A clear, comprehensive, and ongoing communication plan with key themes and messages about the need for the program and the role of both participants and their supervisors is necessary to ensure that supervisors understand the program and its value to the organization.

Expect data collection challenges and develop an iterative data collection and evaluation design process.

Moving from anecdotal assessments of initiatives to quantitative measures is challenging for a number of reasons. Due to the lack of consistent human resources data and data collection methods, there is often limited agreement on the best metrics for determining the

success of skill development programs. While health care organizations are data-rich, human resources and learning data is often not compatible with business impact measurement. Often HR data about employees is sensitive and organizational policy or regulatory statutes prohibit its use outside of the organization. Also the relevant data is often divided among multiple departments such finance, marketing, and patient experience officers.

In order to be successful, these issues should be reviewed and evaluated before beginning the workforce investment program. Each metric should be linked to an organizational imperative with a mutually agreed upon formula, data location, and owner. Depending upon the organizations' policies and the limitations of its HR system, data collection for this type of work may need to be done separately.

The field would benefit from a study of the costs of turnover in entry-level health care professions.

While it may not be realistic for each hospital to fully capture the costs of turnover among entry-level employees, other employer-benefit research studies would benefit from a realistic industry benchmark on the cost of turnover. Benchmarks cited in other research or by workforce development professionals do not appear to be geared toward the entry-level workforce relevant to this and other studies. The costs of temporary replacement workers, the search process, training, and reduced productivity among new workers are all relevant, but it is unlikely that these costs are the same for every hospital employee. Without an accurate benchmark, it is difficult to calculate a true financial benefit from improved retention. CareerSTAT could help the field by funding such a study.

CONCLUSIONS AND POINTS FOR FURTHER DISCUSSION

Based on this research, Boston Children's Hospital's workforce development efforts are linked to improved retention, which ultimately reduces its recruitment, hiring, and training costs. Workforce development efforts at BCH are also targeted towards a diverse population of employees who, if successful in their training and degree attainment, have the potential to advance or transfer to positions that require patient interaction. This would further BCH's goal to increase diversity across the continuum of care, particularly among employees who interact with patients. Recipients of workforce development services are also increasing their annual wages, though at a somewhat comparable rate as other BCH staff not receiving workforce development services. Based on this metric, job performance among workforce development recipients is not improving at a more significant rate than other employees.

While the specific workforce development programs studied appear to potentially yield benefits for BCH in two of the three hypothesized areas, it is worth further consideration as to the level of BCH benefit given the small scale of the program relative to the overall institution. The study examined the hospital benefit related to just over 100 individuals who participated in SkillWorks-supported programming, representing less than 1.5 percent of BCH employees. Despite the benefits highlighted in this research, the scale of this program is unlikely to impact such factors as overall BCH retention rates or make a measurable dent in the hospital's diversity profile.

Perhaps the greatest benefit to BCH is not a measurable business impact, but rather the contribution to the mission of the institution as a teaching hospital. At the outset of BCH's participation in SkillWorks-supported HTI, the then-Director of Workforce Development stated that the primary interest of BCH in participating was to support the institution's mission to promote learning and education in the health care field. BCH's mission aligned well with SkillWorks' vision. At the start of Phase II of HTI, SkillWorks defined key program goals as to "help low-income workers and community residents improve their skills, enter college, and fill vacancies in high-demand occupations offering family-sustaining wages."⁴ The program that served the largest number of employees, the postsecondary advancement services program, was really designed to help individuals advance through education and was not designed to improve their performance in their current positions.

The workforce development programs profiled in this study specifically looked at those efforts that BCH engaged in through HTI with SkillWorks support. Other workforce development offerings, such as English, computer skills, or professional communication (a new offering of the BCH workforce development department in partnership with JVS), might possibly demonstrate a more direct relationship to job performance. Generally, it seems that the more directly workforce development efforts respond to the specific competencies articulated by supervisors

and managers, the more likely the institution is to see an improvement in job performance as a result of employee participation. The SkillWorks-supported workforce programs supported long-term advancement (college preparation and coaching), helped participants meet new occupational certification standards (CPD), or prepared employees for new industry standards such as ICD-10, Medical Coding certification. Given

the goals of the programs, it is not surprising that the primary benefit is retaining employees who might otherwise not have been able to meet the new certification standards, might lack the skills needed to apply new industry standards, or might need to seek alternative employment in order to advance on a career path.

ENDNOTES

¹ A handful of participants who enrolled in these services also enrolled in pronunciation courses, citizenship courses, basic computer classes, and preparatory courses for the Test of Essential Academic Skills (TEAS).

² This percentage excludes 10 individuals who received workforce development services, but did not have a 2009 data record. Many of these individuals were hired after 2009, in either 2010 or 2011. If these individuals were included, the retention rate would be 82 percent (93/113). These individuals have also been excluded from the calculations included in the retention tables in this section of the study and in the wage calculations.

³ A total of 3,617 employees hospital-wide responded to the survey. This is significantly less than the total number of employees at Boston Children's Hospital.

⁴ See: <http://www.skill-works.org/workforce-partnerships-phase-2.php>



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