

Case Study: The Most Effective Career Training Programs for a Workforce Board

By

Katherine Goldberg, Washington College

Maria Harsanyi, University of Maryland Global Campus

Candace Pruett, University of Maryland Global Campus

Robert Rodriguez, University of Maryland Global Campus

Denise Breckon, University of Maryland Global Campus

A systematic review was conducted for a state-sponsored workforce board, a non-profit quasi-governmental workforce development organization located in the northeastern U.S., to determine what are the most effective career training programs in healthcare, advanced manufacturing, hospitality, and marine economy industries for job seekers in U.S. based organizations. The absorptive capacity theory was utilized in examining the research problem through a theoretical lens. The results indicated that on-the-job training (OJT) was found to be the most effective training technique across all the industries. Career advising was also considered a crucial element of career training within the healthcare, hospitality, and marine economy industries. Recommendations for the workforce board included revamping their current OJT program and connecting with career advisors at the local high schools. Industry-specific recommendations for the workforce board included providing academic support in healthcare, workforce flexibility in advanced manufacturing, multilingual training in hospitality, and exposure to oceanic concepts in academics for the marine economy.

Funds spent in workforce development should result in employment opportunities for incumbent workers. This study researched effective training programs for employment in four of the most relevant industries in the northeastern United States.

Keywords: Absorptive capacity, career development, employment, hiring, on the job training (OJT), systematic review, workforce board, workforce initiatives

Introduction

Workforce boards are responsible for managing federal and state funding to increase sustainable employment by providing training and counseling despite recent cuts of \$238 million to underperforming career centers (National Association of Workforce Boards, 2017; U.S. Department of Labor, 2017). The purpose of this case study was to use an evidence-based approach to research and recommend the best career training programs to offer job seekers increased employment opportunities within their region. As case studies help researchers to examine the particular circumstances of one entity, this case study will provide evidence that adds value to research and is generalizable across workforce boards in the United States (Yin, 2012).

Career training and development has been evolving over the past 100 years as the focus has shifted to the well-being and overall trajectory of the employees (Pope, 2000; Wilson & Brown, 2012). For the past twenty years, states have created methods to reach the goals to maintain funding beginning with the Workforce Investment Act (WIA) of 1998 (Wilson & Brown, 2012) which was later revised to the Workforce Innovation and Opportunity Act. The targeted organization, a non-profit quasi-governmental organization, is one of many workforce centers covering cities in the U.S. The targeted workforce board is mandated and funded by the Department of Labor (DOL) through the Workforce Innovation and Opportunity Act (WIOA) to provide educational and occupational skills programs to meet the demands of local area employers (“Funding Opportunities”, n.d.).

The workforce board management recognizes the importance of improving overall metrics by supporting job seekers and employers and needs an active knowledge capture and evaluation process to avoid complacency or settling for the status quo. The recent organization change of a new career center staff has the potential to interrupt the effective information sharing and may prevent the absorptive capacity of new knowledge. Finally, it is imperative that board decisions are made based on the latest knowledge of the industries and that the board ensures that the recent organizational change is contributing to increased realized capacity and not missing out on opportunities.

This case study provided an analysis of the problem using the absorptive capacity theory. The conceptual framework used as guidance in this case study explained how information contributes to improved

board performance. The organizational assessment uncovered the strengths, weaknesses, threats and opportunities facing the workforce board. The analysis and synthesis of 33 articles from the body of literature resulted in six themes. The six themes were translated into evidence-based recommendations resulting in practical advice for management.

Review of Research and Theory

A theoretical framework is the application of a recognized theory to a problem at hand to assist the researcher in understanding the various concepts and definitions (Grant & Osanloo, 2014). The absorptive capacity theory was selected as the best fit to the organizational problem because it considers the amount to which a firm can understand the value of new external information, comprehend it, and then apply it to achieve their organizational goals (Cohen & Levinthal, 1989, 1990). Firms that are more innovative and flexible through new knowledge from internal research and development, operations, consultants, “absorptive capacity,” will have a competitive advantage over firms with lower abilities to retain new knowledge (Miles, 2012, p.18).

Other researchers have applied the absorptive capacity theory to boards to understand how information contributed to an increase in competitive advantage and increased the profit of the organization (Zahra, Filatotchev, & Wright 2009; Zhang,

2008). The application of the theory applies because the board is open to information sharing and knowledge creation that could lead to improved employment rates for the citizens of the region.

It was reasoned that with a high absorptive capacity, the workforce board could use the information they gained to enhance their programs to evolve into more effective career training opportunities and accomplish their metrics. Examples of external sources providing information are board members, consultants, professional staff, the staff at the career center, and business advisors. When these sources provide knowledge, employees and volunteers should be willing to hear new suggestions that can be applied to increase job placement. By assessing which career development programs perform the best in each of the four major industries, the board would be able to apply this knowledge to their current offering of services and increase their performance goals.

A theoretical concept model was created to assist in understanding the problem through the lens of the absorptive capacity theory (Figure 1). The model illustrates how external forces are influencing the ability to support an effective knowledge capture and

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evaluation process to avoid complacency of settling for the status quo. The recent organization change of a new career center staff may be limiting effective information sharing, preventing the absorptive capacity of new knowledge. Finally, using potentially outdated prior knowledge coupled with the recent organizational change is contributing to decreased realized capacity and creating missed opportunities. These concerns are being absorbed into the process causing stagnate and declining performance metrics as shown in Figure 1.

However, there are weaknesses with the use of the absorptive capacity theory in that there is a lack of a clear definition of “absorptive capacity,” and theorists developed the theory with a research and design (R&D) focus rather than through an organizational lens (Miles, 2012). In this application of the theory, the researchers viewed the absorptive capacity as the ability of the workforce board to absorb the information and the ability to change. The authors contend that the accumulation of new knowledge and absorption into the feedback loop from the career center/job seekers back to the board reflects a potential for increasing the success of the organization to provide the best opportunities for employees.

This case study provides practical explanations for management by examining the organizational problem through the explanation of a theoretical framework, then using a systematic review of scholarly

research. An analysis of the scholarly literature on workforce boards resulted in the identification of six themes. The first two themes identified in the literature are that workforce boards should promote on-the-job training (OJT) and that career advisors are necessary to actively manage relationships. The remaining four themes were specific to the four industries relevant to the workforce community. For healthcare related careers, academic competencies must be met in order to pass required exams and licenses. Advanced manufacturing companies need to provide expensive training as well as training for new staff. The hospitality industry faces challenges with language barriers that need to be overcome to reach employees. Lastly, the marine economy is dominated by older males, so the industry needs to promote its benefits to younger workers of both genders to expand the base of new employees.

The Workforce Development Organization

Northeast Workforce Development Organization (WDO) is the fictitious name to protect the confidentiality of the case study organization. Northeast WDO, is a non-profit, quasi-government organization with employment professionals that connect businesses and job seekers through their statewide network. They are one of several regional workforce development centers in the northeastern U.S., cover-

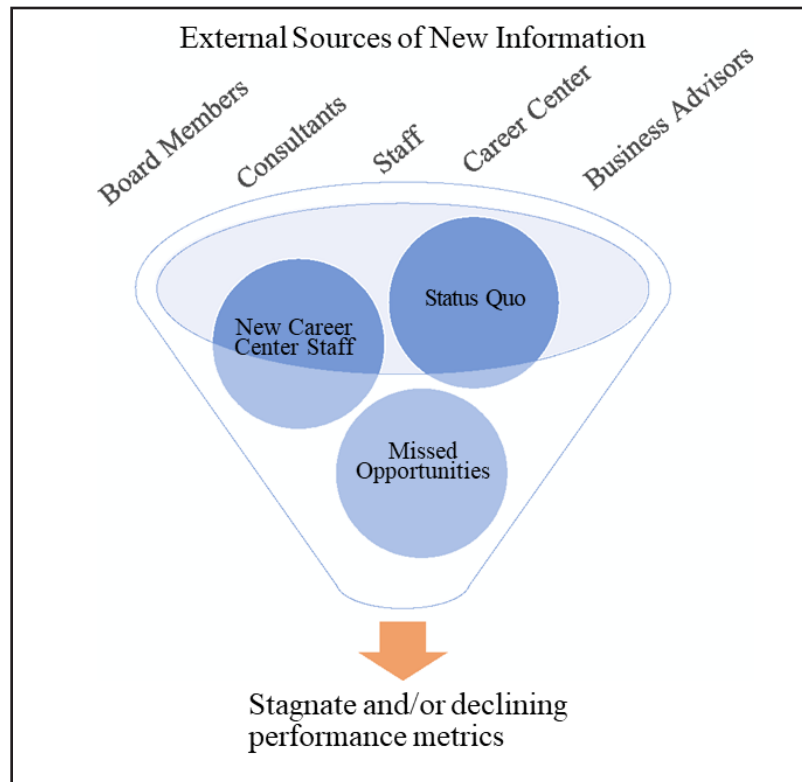


Figure 1. The theoretical concept model is depicting the problem based on the absorptive capacity theory.

Methodology

In this case study, background about the organization was obtained through phone interviews via video conference calls with the chief operating officer. The first phone call consisted of a general fact-finding about the scope of the problem and details about the mission. A second phone call consisted of validations regarding observations and diagnosis of the business problem. Later, the team provided a presentation of the findings and recommendations. In addition, the authors provided written management briefings to the organization, who in turn provided validation as well as feedback. Throughout the case study, the communication was maintained at key steps in the project. In addition to phone calls, the chief operating officer sent budgets, dashboards, annual reports, and internal documents that provided necessary background information to the case study. This site was selected based on a previous academic relationship with one of the authors.

Evidence-based management is the systematic use of quality evidence to improve management decision-making. This study sought to investigate the research evidence to provide recommendations for management practitioners and therefore used a systematic review. A systematic review was chosen as the methodology for gathering evidence or new knowledge for this case study since it is accepted as a rigorous and transparent process in identifying, evaluating and synthesizing qualitative and quantitative studies to generate empirical evidence to answer a specific research question for this organization (Mallett, Hagen-Zanker, Slater, & Duvendack, 2012). Given the transparent and rigorous process that a systematic review entails, the recommendations provided herein are supported through evidence identified in 33 scholarly articles.

The systematic search was conducted using the ProQuest ABI/INFORM Collection database and a university library research tool that simultaneously searches 45 library research databases. Due to the varying nature of the four industries of study, different search strings were utilized to capture and include the best available relevant research studies. The inclusion criteria for this systematic review were scholarly (peer-reviewed) journals; qualitative and quantitative research in the four industries; and studies of U.S.-based organizations. The exclusion criteria were non-English articles; studies of international organizations (except for the marine economy); and studies of other types of industries. After implementing the exclusion criteria in the abstract review, 139 articles were read beyond the abstract to see if the study met the criteria resulting in 33 articles for inclusion in the case study. Initially, the researchers evaluated the quality of the 33 articles chosen using the TAPUPAS framework. Long, Grayson, and Boaz (2006) propose that the seven principles that are valuable in evaluating the rigor and transparency of research methodology that translates directly to improving or solving management practice concerns identified by the acronym TAPUPAS are as follows (Gough, 2007):

- T – Transparency (is it open to scrutiny?)
- A – Accuracy (is it well-grounded?)
- P – Purposivity (is it fit for purpose?)
- U – Utility (is it fit for use?)
- P – Propriety (is it legal and ethical?)
- A – Accessibility (is it intelligible?)
- S – Specificity (does it meet source-specific standards)

To maximize the usefulness of the TAPUPAS results, the Weight of Evidence (WoE) benchmark was used as an additional measure of assessing the quality of the studies, and individual results were averaged and grouped based on the relative importance, computing an overall average quality rating for each of the 33 studies (Gough, 2007; Gough, Oliver & Thomas, 2017). All of the articles were ultimately evaluated as being relevant to the research. Table 1 contains a list of the 33 articles with their overall quality score and the related industry.

Table 1. Articles used in the Systematic Review

Author(s) / Year of publication	Overall Quality	Health-care	Adv Manuf	Hospitality	Marine Economy	All 4
Ali, Brown, & Loh (2017)	High					X
Arora, Schneider, Thal, & Meltzer (2011)	Med/High					X
Beer & Meethan (2007)	High					X
Bretz & Thompsett (1992)	Med		X			
Brownell (2004)	Med					X
Chuang (2011)	High					X
Chuang, Walker, & Caine-Bish (2009)	High					X
Darrah (1995)	Med					X
Dias & Phillip (2016)	Med					X
Dickey, Watson, & Zangelidis (2011)	High				X	
Egan & Andress (2018)	Low					X
Frash, Antun, Kline, & Almanza (2010)	Med					X
Fullwiler & Meyeraan (2010)	Low					X
Gissi & Suarez de Vivero (2016)	High	X		X	X	
Goldstein, Lowe, & Donegan (2012)	Med					X
Goodman & Kallenbach (2018)	Med	X		X	X	
Holzer (2012)	Med					X
Hoyt & Matuszek (2001)	Med					X
Jaworski, Ravichandran, Karpinski, & Singh (2018)	High					X
Kanagui-Munoz, Garriott, Flores, Cho, & Groves (2012)	High	X		X	X	
Lu, Weng, Huang, Leung, & Wang (2018)	High					X
Lusby & Cader (2010)	Med	X				
Morgan, D'Amico, & Hodge (2015)	High	X		X	X	
Raelin (2011)	Low					X
Ravichandran, Cichy, Powers, & Kirby (2014)	Med					X
Ruggunan & Kanengoni (2017)	High					X
Snell, Lepak, Dean, & Youndt (2000)	High		X			
Thomas (2004)	High				X	
Tillman & Tillman (2008)	High	X				
Truman (2009)	High		X			
Wirojanagud, Gel, Fowler, & Cardy (2007)	Med		X			
Wu, Chen, Ye, & Ho (2017)	High					X
Yang & Chen (2005)	Low/Med					X

ing several cities in their state. They are mandated by the Department of Labor (DOL) through the Workforce Innovation and Opportunity Act (WIOA) to provide educational and occupational skills to the citizens in their area. Northeast WDO receives the majority of its funding from federal grants from the DOL, but they also receive state and private gifts as well.

Northeast WDO was interested in understanding the most effective career training or intervention programs for job seekers in four major industries in the region; they include healthcare, advanced manufacturing, hospitality, and the marine economy. Six months earlier, Northeast WDO contracted with a new company to run the Career Center (Urbon, 2018). Also, Northeast WDO wanted to maximize the return from the funding provided by ensuring that the training programs provided to their clients would help them to get hired and stay hired. This specialized training can be expensive, so it was important that the workforce board provide oversight to the Career Center to ensure the right training is offered to the right beneficiaries. Complicating the situation, Northeast WDO also wanted to demonstrate its impact on the community by partnering with businesses and community groups to ensure they were satisfied with the employees delivered to them through the Career Center. The challenge was to address, How can the workforce board collaborate with their new partner to ensure the appropriate training is being offered and that quality employment is being provided to the community within the top four industries?

What do Workforce Development Organizations do?

Workforce development organizations are responsible for training and developing skills for job seekers for potential employment and for assisting employers in finding qualified candidates and for improving the training of their current workforce. Career counseling has evolved over the decades, along with an increasing need for talent within the targeted industries. Career counseling has been occurring throughout history since the early 1900s and has been changing to adapt to the needs of society. Pope (2000) described career counseling in the U.S. in six stages. From 1890 to 1919, career placement, also referred to as vocational guidance, was offered as society became more urban and industrial. From 1920 to 1939, education in elementary and secondary schools became the focal point; while the shift

to college and university education and training of counselors was from 1940 to 1959. From 1960 to 1979, meaning in one's work and systematic career development began the boom for counseling. Next was the transition from the industrial age to the information era where outplacement counseling and independent career counseling was the focus from 1980 to 1989. The current state of the career counseling phase, with the changing demographics and constant increase in technology, has focused on multicultural career counseling and a school-to-job transition. Transitional changes have been occurring in career counseling and training for decades.

The DOL measures workforce boards using a variety of key performance indicators that they are regulated to report. One strategy that Northeast WDO has developed to improve program performance metrics mandated from DOL is to concentrate on the industries which have the most impact in their region; healthcare, advanced manufacturing, hospitality, and marine economy. Northeast WDO uses key performance indicators such as employment rates of job seekers that are placed, as well as the literacy of youth. However, supplying career training, mentoring, job placement, and other services can be extremely costly, so the board leaders want to ensure they are maximizing the funds spent on each potential worker to have the highest impact of increasing employment.

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Northeast WDO Focus Industries

The primary industry of focus by Northeast WDO was healthcare since that sector employs 20 percent of employees in the area and is on the rise (Data USA, n.d.). The increase in demand for healthcare was attributed to a growing aging population, which means that many healthcare services are in higher demand and increasing (Bureau of Labor Statistics, 2018a). Many of the high demand jobs will also be the lowest paying jobs, which are home health aides (Bureau of Labor Statistics, 2018b). For these positions, job seekers need a high school diploma and academic training to pass the certification exams.

Advanced manufacturing is the center of innovation and a generator of economic power in the U.S. (National Science and Technology Council, 2018). Whereas manufacturing describes the process of creating products, advanced manufacturing systems (AMS) use improvements in technology such as robotics and precision tools to evolve production (Tao, Cheng, Zhang, & Nee, 2017). After decades of decline, advanced manufacturing is on the rise and employs 13 percent of the area workforce (Data USA,

n.d.; Giff et al., 2015; National Science and Technology Council, 2018). The number of manufacturing job openings is increasing, thereby creating an opportunity for Northeast WDO to improve performance by matching businesses and individuals; however, the lack of skills by job seekers may leave many of these positions unfilled (Giff et al., 2015).

Nationally, hospitality accounts for 10 percent of non-farm jobs or 16.3 million jobs; however, 10 percent of workers are employed part-time (Bureau of Labor Statistics, 2016; Bureau of Labor Statistics, 2018c; Employment and Training Administration, Department of Labor, U.S., 2010). According to the Bureau of Labor Statistics (BLS), as of October 2018, the hospitality and leisure industry, which includes art, entertainment, recreation, accommodation, and food service, accounted for 16,342,000 jobs (Bureau of Labor Statistics, 2018c). Entry-level positions such as front desk operations, housekeeping, engineering, food and beverage, and revenue management require communication skills, problem-solving, and customer service to meet the needs of high service expectations (Dias & Phillip, 2016). High turnover is typical in the hospitality industry, potentially a cause of why there is a lack of training and development for employees within these organizations.

Another of these industries is the marine economy

or sometimes referred to as a “maritime economy” or “blue economy.” The whaling and fishing industries have primarily dominated the marine economy. Today, the maritime economy accounts for one of the largest industries in the workforce area among New England’s states and accounts for \$6.4 billion in gross state product, employing over 90,000 workers and paying \$3.4 billion in total wages. The total ocean economy for the United States accounts for 2.3 percent of total employment and 1.6 percent of the total GDP of the U.S. (National Oceanic and Atmospheric Administration (NOAA) Office for Coastal Management, 2019). This sector of the economy is robust, with employment growing by 18.2 percent from 2005 to 2015. The maritime economy is made up of six sectors; tourism and recreation (coastal), living resources, marine construction, offshore minerals, ship and boat building, and transportation. Of these six, “tourism and recreation is by far the largest sector in terms of employment, although it accounts for a smaller share of total wages and gross state product” (p. ii). (Borges et al., 2017)

There are external and internal processes that play into achieving the goals of the workforce board, as shown in the systems diagram in Figure 2. Northeast WDO connects businesses and job seekers through their statewide network and is measured on measurable skill gains, eg., GEDs and EMTs, program

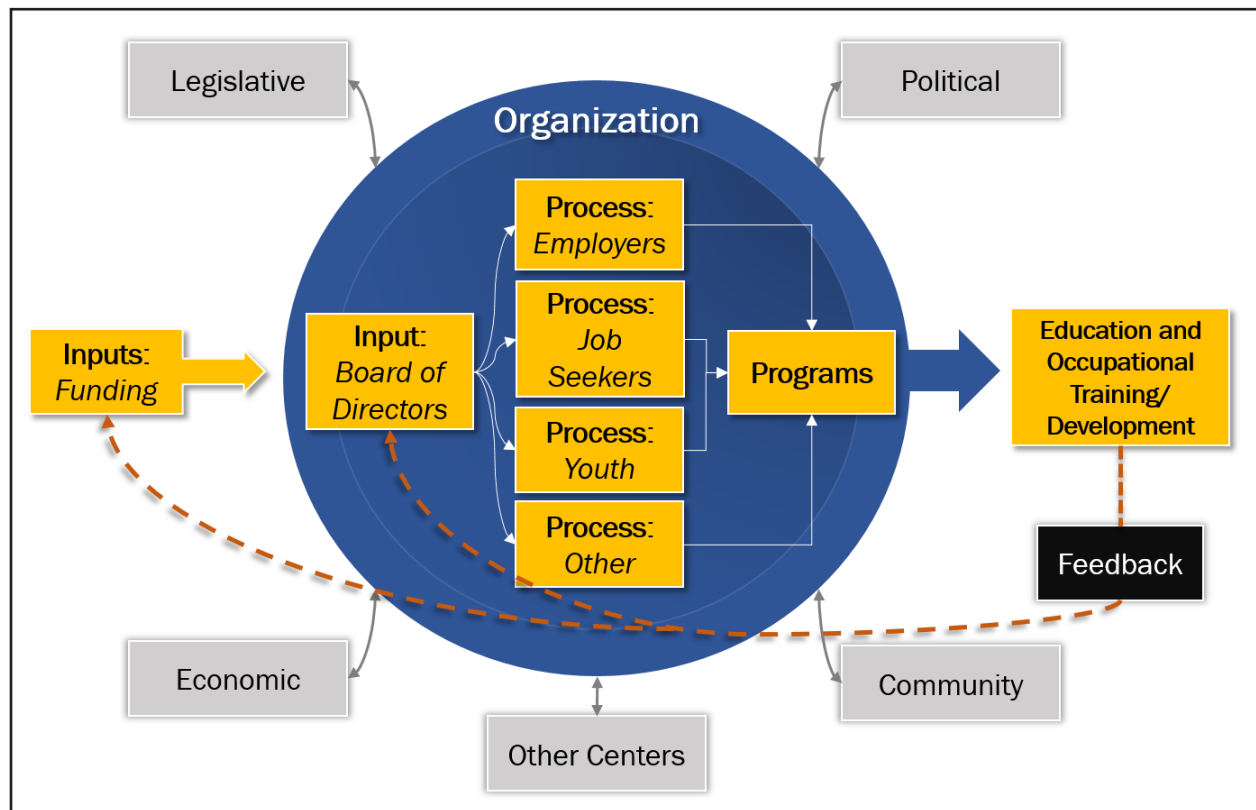


Figure 2. Systems Diagram of the Workforce Board Interfaces.

<i>Key Partners</i>	<i>Key Activities</i>	<i>Value Proposition</i>	<i>Customer Relationships</i>	<i>Customer Segments</i>
<ul style="list-style-type: none"> • The Workplace (The Career Center) • Local Community Colleges • Training Vendors • 12 Mandated Partnering Agencies • Dept. of Labor 	<ul style="list-style-type: none"> • Marketing and outreach • Financial management • Grant writing • Reporting on metrics/program success • Training and career coaching 	<ul style="list-style-type: none"> • Job Seeker: effectively and quickly help them find employment or stay employed • Job Providers: help to find qualified candidates and provide job training; tax credits • Youth: Assist with career guidance, interviewing assistance and job fair info 	<ul style="list-style-type: none"> • Career Center • Marketing (Job Fairs) • Online/Social Media • Workshops • Surveys • Networking • Board contacts 	<ul style="list-style-type: none"> • Employers <ul style="list-style-type: none"> ◦ Find a candidate ◦ Employee training ◦ Labor Market Data • Jobs Seekers <ul style="list-style-type: none"> ◦ Finding a job ◦ Job training ◦ Dislocated workers • Youth <ul style="list-style-type: none"> ◦ Career Guidance ◦ Interview Assistance ◦ Job Fair Info
<p><i>Key Resources</i></p> <ul style="list-style-type: none"> • Board members/Staff • Alumni recipients • Facilities • Technology • Knowledge/training • Resource Partners • Granting agencies (DOL) 		<p><i>Cost Structure</i></p> <p>According to IBIS World (2017) the majority of employment placement agencies' costs come from wages (40.9%), purchases (20.2%), rent and utilities (2.9%) and marketing (1.4%). Values in parenthesis were reported in 2017 990 report (Guide Star, n.d.).</p> <ul style="list-style-type: none"> • Wages (\$335,010) • Benefits and Payroll taxes (\$119,258) • Training/Education Vendors (\$2,547,839) • Supplies/ Purchases (\$17,465) • Rent & Utilities (\$12,863) • Marketing (\$1,205) • Accounting (\$21,200) 		
<p><i>Revenue Streams</i></p> <p>"Beneficiary Broker" because they are a government funded organization that is offering benefits to recipients who have the flexibility to select where they get their service (Foster et al., 2009).</p> <ul style="list-style-type: none"> • Beneficiary Broker • Grant Funding (government and private) • Professional services (training, workshops, education classes) 			<p><i>Channels</i></p> <ul style="list-style-type: none"> • Career Center • Online/Social Media • Job Fairs • Community partners • Blue Economy Marine & Maritime sectors • Burgeoning wind industry • Regional schools, agencies, and businesses 	

Figure 3. Business Model Canvas adapted from Strategyzer (2018)

completion rates, attendance rates, job placements, and post-secondary placements. Northeast WDO developed performance metrics to concentrate on the industries that impact their region. The management challenge was to determine how Northeast WDO can work more closely with their new career center partner to ensure the appropriate training is being offered, and employees are providing quality employment to the community within the top four industries (Urbon, 2018).

Organizational Assessment

An organizational assessment was conducted for Northeast WDO to better understand the organization. A business model canvas of the key areas was analyzed, as illustrated in Figure 3. A value chain analysis was performed to understand the activities that the organization performs to improve and strengthen its competitive position (Porter, 1985). This analysis led the researchers to determine that aggressive marketing is not needed. Instead, Northeast WDO should focus on quality outputs, transparency to stakeholders, and consistency with other workforce boards.

The researchers also identified Northeast WDO's strengths (S), weaknesses (W), opportunities (O), and threats (T) using a SWOT analysis, depicted in Figure 4 (SWOT Analysis, 2009). Per the analy-

sis, the strengths were identified as the diversity of the members of the organization as well as the experienced staff, whereas a primary weakness was assumed based on their new career center and the need to build new relationships. Examples of opportunities were an exclusive workforce training provider in the area with diverse industries and businesses. Finally, the threats were primarily financial due to the reliance on federal funding. The economy of the state and local area was listed as both an opportunity and potential threat.

Discussion

Based on 33 articles identified in the systematic review of the literature, six themes emerged from the evidence. The first two themes were general themes found across all industries, while the last four themes found were specific to the four industries. The first of the general themes demonstrated the importance of on the job training (OJT); and while it may seem to be an obvious solution, because it requires increased staffing, it might not be viewed as the best option. There are staff members in Northeast WDO who have been incredibly supportive of OJT, and so the dominance from this theme will provide them with the necessary confidence in their work. The second dominant general theme related to career advisors requiring actively managing relationships with mul-

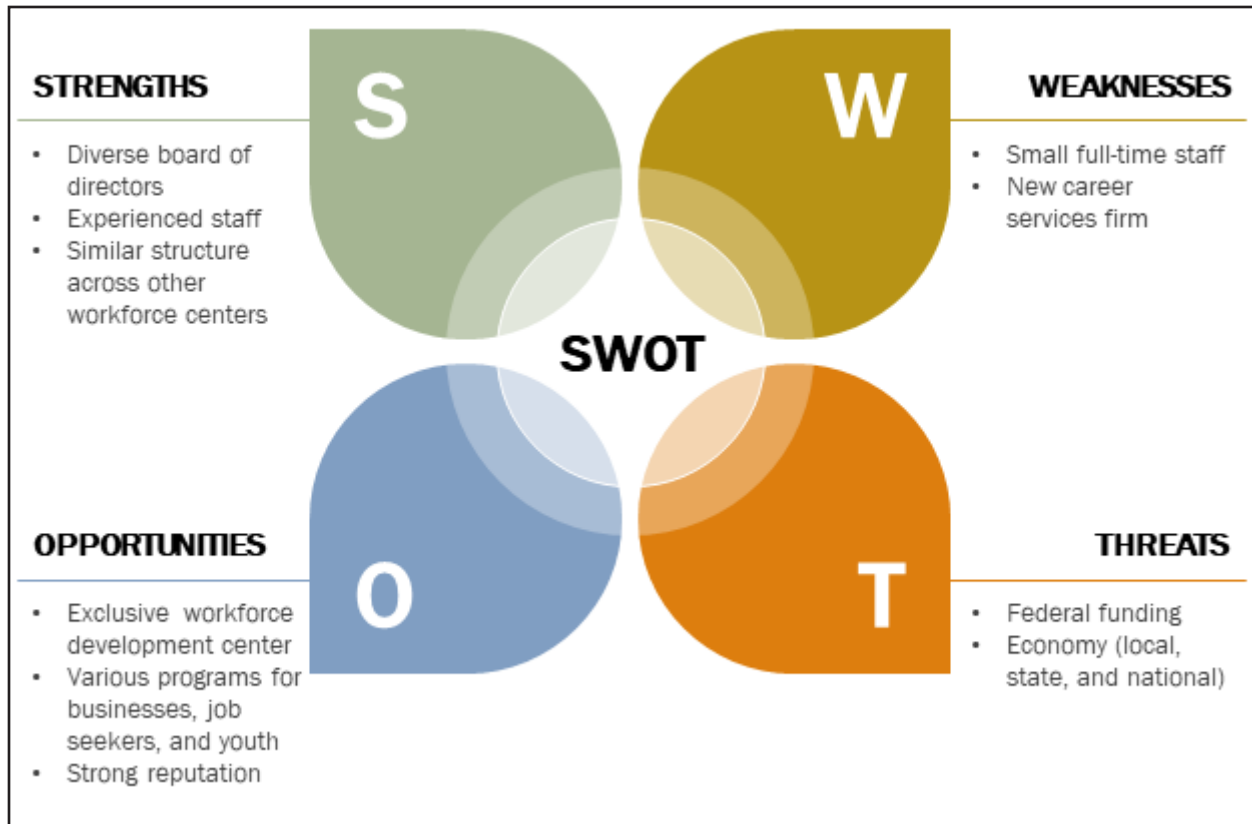


Figure 4. SWOT Analysis for the Workforce Board

multiple educational outlets and employers. Because the evidence supports work in high schools and community colleges, this expands the training requirements for career advisors and complicates the sharing of updated information.

The last four industry-specific themes are identified for Northeast WDO and other workforce organizations to provide an understanding of the nuances regarding training in a variety of industries. In the healthcare field, theme three, the finding was clear that job seekers need a strong academic foundation to pass their training and exams. This academic rigor should take place in the high schools, but the training should also be offered in community colleges. Theme four identified that the advanced manufacturing industry is challenged by sometimes cost-prohibitive training and diverse requirements to satisfy the training needs of new employees. For companies to keep up with the training, it could cut into their profit. In the hospitality industry, theme five outlined the language barriers and the need for finding ways to increase the confidence and job satisfaction of potential employees. This requires costly language-based training and oversight to measure employees' perceptions. Theme six identified that the maritime economy suffers from a lack of general awareness among young people and women; also, there is not enough training available. To improve

in both areas, there needs to be a specific plan to increase training opportunities in schools and the community.

By reinforcing the importance of gaining and applying the new knowledge found in the themes, Northeast WDO can break away from the status quo and increase their absorptive capacity. In consideration of the four dimensions of the absorptive capacity theory, the findings of this systematic review provided Northeast WDO several avenues to explore how the organization can acquire, transform, interpret and then apply the new information to enhance the OJT training program and other career development programs. By sharing this information with the new career center staff, new ideas on the best way to provide training and opportunities for job seekers will emerge and improve their metrics. Since the members of the organization are open to generating and listening to new ideas from external sources to find the most effective career development methods for employment in the local areas' critical industries, they can use the knowledge to increase the efficiency of training programs, human capacity, and funding resources. Synthesizing and evaluating the findings through the theoretical lens of the absorptive capacity theory assisted the researchers in developing a set of recommendations to improve performance metrics for Northeast WDO.

Recommendations

The themes that emerged during the systematic review serve as a conduit to providing the following recommendations that Northeast WDO should consider for enhancing their career training programs.

Revamp Current OJT Program

The workforce board should look at their current OJT program to ensure that they incorporate it into every career pathway program. Different types of OJT could include internships, apprenticeships, and job shadowing. Hanks and Madland (2018) reported that OJT could improve employees' employment rate more than formal schooling, especially when they are industry-specific and appropriately matched between the employee and business. These changes would likely require the career center staff to dedicate more time to finding suitable employers, matching the applicants, managing the expectations of both parties, assisting in developing a training plan that fits the employer's needs, and guiding the employer through the OJT process to ensure a successful outcome. The board could specifically look at what types of industry positions would be best for job seekers to come in and work as interns or in apprenticeships.

Connect with Career Advisors at High Schools

The workforce board should connect with local high school career advisors to share with them on the center's current career offerings and training initiatives, especially for the out of school youth program. The career advisors at the high school should relay this information to their students to assist with career planning and development. Career counselors can help to introduce students to careers and fields they might be unfamiliar with ("Career planning for high schoolers," 2015). The state of Ohio piloted a new program to provide students with mentors, experiential learning, integrated academic coursework with career training, and career-focused counseling, and after just one year, the schools reported positive impacts attributed to the increased focus on the students and providing educators with the tools needed to help the students (Ohio Department of Education, 2017).

Offer Healthcare Training at High School and Community College

An academic partnership with the local high schools and the community college needs to provide students and job seekers with the academic rigor necessary to complete training for healthcare and pass state certification exams. One successful healthcare partnership program in schools is the Health Care Con-

nect in Chester County, Pennsylvania, which had a White Coat ceremony for 75 local middle and high school students ("Future Health Care Workers Celebrated at White Coat Ceremony," n.d.). Community colleges are also natural partners in educating students in healthcare because they can provide general education as well as the specific training needed for healthcare. The National Association of Counties (2010) encourages making healthcare training investments in schools and encourages web-learning and mentorships to offset the high cost.

Create Workforce Flexibility

Since advanced manufacturing training is costly, the workforce board should strive for more efficient training through customized training and integrated learning to create workforce flexibility by directing resources to incumbent workforce training. For example, it is not always advantageous to pull current employees off the production floor for training. Instead, finding creative ways to provide training in the field would be more advantageous. A registered apprenticeship initiative that combines "on-the-job learning, related instruction, mentoring, and incremental wage increases" developed by

the National Institute for Metalworking Skills was shown to be effective in improving recruitment and retention, job skills, and the quality of production (Employment and Training Administration, United States Department of Labor, n.d.,

p. 6). This competency-based training proved to be an efficient process for apprentices to acquire new skills and reduce training costs.

Offer Classes in English and Other Languages

The workforce board should consider developing training programs for communication skills in the hospitality industry. Training could be offered in their native language so that they can understand the training, but English classes should also be offered so students can improve their communications with others in the workplace. McDonald's realized this potential; and assisted employees in improving their English skills, earning a high school diploma, working towards a college degree, and making an education and career plan with advisors ("McDonald's Archways to Opportunity," n.d.). McDonald's contracts with community colleges to tailor training to the employees' needs and to provide advanced courses (Meinert, 2018). In a high-turnover industry, the program has improved retention rates among participants, with 88 percent still working for McDonald's one year after course completion, and 75 percent remained after two or three years (Meinert, 2018).

The workforce board should connect with local high school career advisors to share with them on the center's current career offerings and training initiatives.

Incorporate Oceanic Studies in School Curriculum

To attract new workers in the marine economy, the workforce board should consider working with the local middle and high schools to develop a curriculum that incorporates oceanic studies that further educates students from a career perspective. Taking part in the curriculum may generate interest from students, who ultimately will gravitate to career opportunities within the marine sector. Within the curriculum proposal, the board can incorporate marine spatial planning (MSP) education as a central focus. MSP is a useful tool for planning and management of marine waters in a sustainable way, to resolve the issues and gaps that exist in current educational programs related to the field of MSP (Gissi & Suarez de Vivero, 2016). The workforce board may further research MSP to determine if there is a need to develop an in-house maritime training program that can provide appropriate training to job seekers in the area.

Further Considerations for Implementation

To implement the recommendations within this case study, the workforce board should employ dedicated staff to build relationships with businesses in each industry. Staff can work with businesses to offer internships, mentoring, and apprenticeships to job seekers. Within the high school and community college level, trained staff should visit and build relationships with the surrounding schools and the guidance counselors. The discussions with the schools should include internship opportunities, career advising, and suggestions on enhancing the curriculum to include educational opportunities for these industries. Concerning the advanced manufacturing industry, the workforce board can consider providing a direct resource for incumbent workforce training to strengthen and reinforce workers' skills within this industry. Finally, the board should work with the local community to offer training programs in the native language of their clients as well as offering English courses to help job seekers improve their written and oral English skills.

Implementation Risks

There are risks associated with implementing the recommendations. When executing the recommendations, it is important not to neglect the current successful operations and strategies. The implementation plan may require hiring additional staff members who add a financial burden to the organization. There is a potential risk to damage relationships with businesses in the various industries and the integrity of the programs by providing non-qualified job seekers. Thus, it is critical that the organization matches job seekers with the best fit industry so that the job seeker will complete the program. An unintended consequence of upskilling job seekers is that it may lead to artificial salary inflation that would be costly to employers, or employees may leave the or-

ganization taking their new skills with them (Snell, Lepak, Dean, & Youndt, 2000). During the process, the workforce board will want to make sure they are not duplicating efforts the career center has already been implementing. Instead, the board can use these recommendations to confirm what they are already accomplishing and identify additional areas of improvement.

Conclusions

After completing a systematic review and evaluating the themes that emerged from the evidence, this paper provided insight to Northeast WDO in identifying the most effective career training programs in the healthcare, advanced manufacturing, hospitality, and marine economy industries for job seekers in U.S.-based organizations. Job seekers who have OJT, career advisors, academic support in healthcare, workforce flexibility in advanced manufacturing, language training in hospitality, and exposure to oceanic concepts in academics are more likely to be hired and stay employed. Evidence found through the systematic review supports the recommendations provided to the workforce development organization. Northwest WDO leadership shared these findings with their board members to gain buy-in and had plans to engage with the staff at the career center as well as other key stakeholders.

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**References marked with an asterisk indicate studies included in the systematic review*

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Review

This article was accepted under the **strict peer review** option. For further details, see the descriptions at:

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Authors

	<p>Katherine Goldberg is a Business Intelligence Analyst for Institutional Research at Washington College. Before this role, she served as the Director of Advancement Services, providing data-driven strategic leadership during a \$150M capital campaign. In addition, Katherine is a lecturer of Data Analytics for the Business Management Department at Washington College. Katherine's research interests are in empowering organizations in data-driven decision making and improving performance outcomes. Katherine earned her Bachelor's Degree in Mathematical Biology from Randolph-Macon Woman's College, her Master's Degree in Data Analytics from University of Maryland Global Campus, and her Doctorate of Business Administration degree from University of Maryland Global Campus.</p>
	<p>Maria Harsanyi has over 30 years of accounting and cost analysis experience, but the majority of her experience and ultimate success is as a business entrepreneur. Maria holds a DBA and an MBA from the University of Maryland Global Campus (UMGC) and is a lifetime member of the Honors Society of Phi Kappa Phi. Maria's passion for learning and desire to help others in achieving their goals was ignited while working for nearly a decade as a TA in the MBA program at the UMGC. Maria's research areas of interest are in helping organizations avoid rebranding and team decision failures.</p>
	<p>Candace Pruett is a Business Consultant at the Maryland Small Business Development Center. In addition, Candace is an Adjunct Professor at Anne Arundel Community College, where she teaches Entrepreneurship. She has been awarded the SBDC State Star Award in 2017 recognized at the National ASBDC conference. She is certified as a GrowthWheel Certified Business Advisor. Candace is an active participant in Maryland Economic Development Association and a member of their Young Leaders Group. Candace earned her Doctor of Business Administration (DBA) at the University of Maryland Global Campus in 2020. Candace holds a BS in Management and MBA from Salisbury University. Her research interests are in generational studies, mentoring, and knowledge transfer.</p>
	<p>Robert Rodriguez is the Executive Director of Finance and Administration in the College of Business at Florida International University, where he directs the College's Finance, Human Resources, Facilities and IT support services. Serving on the Dean's Senior Leadership team, Robert helps the College in identifying synergies and providing guidance and input on how the College can effectively manage the financial resources to promote the College's strategic initiatives. Robert has over ten years of experience working in higher education administration. Robert holds a BBA and an MBA from Florida International University. He earned a Doctor of Business Administration (DBA) from the University of Maryland Global Campus.</p>
	<p>Denise Breckon is Collegiate Faculty at the University of Maryland Global Campus teaching adult professionals to be scholar-practitioners in their fields. After spending 30 years working as an acquisition professional for the Department of Defense, Denise realized that academic research was not finding its way into the management practices – and with a desire to bridge this research-practice gap, she began to teach in the business school. Regardless of the course, Denise spends much time igniting her students' passion for research. Denise earned a Bachelor's degree in Electrical Engineering from Penn State and a Masters and Doctorate in Management from the University of Maryland Global Campus (previously known as UMUC).</p>