

# **Evaluation of the New Jersey Workforce Development Partnership Program: Customized Training Program**

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The logo for Rutgers University, featuring the word "RUTGERS" in a large, red, serif font. The letter "R" is stylized with a long, sweeping tail that extends downwards and to the left.

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## **EXECUTIVE SUMMARY**

This report uses in-depth case studies with ten grant recipients and a review of administrative data to profile the Customized Training (CT) grants awarded under New Jersey's Workforce Development Partnership (WDP) Program.<sup>1</sup>

Using evidence generated from interviews with individual grant administrators, company executives, training instructors, supervisors of individuals receiving training, and the individuals who received training themselves, this report explores the perceived effect of CT grants on recipient companies and their employees. The report also uses New Jersey Unemployment Insurance wage records to examine the wage and employment outcomes of selected individuals who received training. Finally, the report makes a series of recommendations that could be used to inform future CT grant decisions.

The ten grants included in this study were selected because they represent five general categories of grants that were of specific interest to the State Employment and Training Commission and the New Jersey Department of Labor and Workforce Development. These include: grants to fund customer service skills training for the retail industry, grants to fund customer service skills training in the casino industry, grants to fund process improvement training for the manufacturing and wholesale trade, transportation and warehousing industries, grants to fund various types of training for companies in the life sciences industry, and grants to fund English as a second language and adult basic skills training for various industries.

### **Key Findings**

- **Company executives interviewed for this profile reported that CT grants assisted the companies to increase the amount of training provided to employees.**

All of the thirteen employers interviewed reported that the training funded by the CT grant would either not have occurred or would have been far less comprehensive without the receipt of the grant. In addition, the four employers interviewed that had fewer than 100 employees reported that they had limited training budgets and limited overall available resources, including the time and management necessary to execute a training program. The CT grant assisted them to obtain the resources and capacity necessary to provide training to their employees.

- **Company executives also reported that the training funded by CT grants assisted companies to increase employee productivity and increase the economic competitiveness of the company.**

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<sup>1</sup> In order to examine the long term effect of the Customized Training grants on companies and employees, this study focuses on grants awarded between July 1, 2002, through June 30, 2004

For example, small manufacturing companies participating in a consortia organized by a local economic development organization used the CT grant to provide process improvement training to their employees, enabling the companies to receive ISO-9000 certification (Chapter 4). According to executives of two companies interviewed for this study, this certification has been crucial to each company's attempts to retain existing customers and to obtain new ones.

In addition, executives of casinos that participated in a consortia organized by Atlantic Cape Community College reported that ESL training provided to housekeeping and facilities employees helped to increase their productivity (Chapter 3). Two casino employers interviewed for this study reported that increasing the English language proficiency of employees improved the efficiency of their working environment by enabling communication between employees and their co-workers, supervisors and customers.

- **All of the more than thirty individuals interviewed for this study who received training funded by CT grants reported that they benefited from that training.**

For example, a manufacturer of generic pharmaceuticals used the CT grant to partner with the local community college to provide a wide variety of courses to employees, including good laboratory practices, introduction to microbiology, and chemical hygiene for laboratories (Chapter 5). Inspired by the college credit they received through the courses, some employees have enrolled in degree programs at the community college in order to obtain an associates degree.

In addition, individuals reported that the six-week training course offered by the Retail Skills Center at the Jersey Gardens Mall (a program supported by a series of CT grants) helped them to obtain employment in retail stores, by providing them with improved communication and retail skills, such as how to deal with difficult customers and how to make change properly (Chapter 2).

- **Four promising practices emerged from this research which could be used by the Department of Labor and Workforce Development, in conjunction with existing criteria and program requirements, to guide future CT grant decisions.**

Industry / Higher Education Partnerships: The Atlantic Cape Community College Casino Training Consortium, which has been funded by a series of CT grants since 1995, has become an important training resource for the casino industry (Chapter 3). At the beginning of each CT grant period, staff of the Atlantic Cape Community College work closely with individuals from the industry to identify the priority skill needs of each participating casino and then design a training plan that meets the needs of all participating casinos. As a result of the longstanding relationship between the college and

the industry, staff and faculty of the college have developed an understanding of the needs of the industry ensuring that future efforts are tailored to the needs of the industry.

Training for Small Companies Organized by Consortia: The awarding of grants to consortia, led by local economic development agencies or educational institutions, can allow small companies, who often have limited training budgets and capacity, to provide training to their employees.

A consortium administered by the Union County Economic Development Corporation (UCEDC) provided small manufacturing companies with an opportunity to obtain ISO 9000 certification. This certification indicates to potential purchasers of the company's products that the company follows accepted quality practices. To obtain ISO certification, companies involved in the consortium provided training to their employees in efficiency controls, resulting in higher productivity of employees and the company as a whole.

Two companies interviewed for this report indicated that the company would not have been able to provide the training to employees and to obtain ISO-9000 certification without the assistance of the UCEDC and without funding from the CT grant. In addition, companies participating in the consortium reported that they benefited from the involvement of other similar companies in the grant, through guidance they received from peer companies and through the development of business partnerships that continued after the grant period.

Training Programs That Provide Individuals With College Credit Or An Industry-Recognized Credential: Training programs that provide trainees with college credits or an industry-recognized credential appear to have the most potential to benefit individuals receiving training. The Retail Skills Center at Jersey Garden Mall uses a training curriculum that is built on skill standards developed nationally for the retail industry (Chapter 2). Individuals who complete the training program and pass an exam receive an industry-based credential that demonstrates to possible employers that the individual has the necessary skills to succeed in an entry-level retail industry job.

A pharmaceutical manufacturer that received a CT grant during the study period used the local community college to provide training to their employees on site at the company (Chapter 5). Some employees who received business training funded by the grant earned college credit. Many of these individual chose to continue their education at the community college after the grant-funded training. The community college now offers a Business Management Associate's Degree program to the company's employees on-site at the company and twenty employees of the company enrolled in this program by the end of the grant period.

English as Second Language Training: As a state with many immigrants, there is a significant need for English as a Second Language training. In 2005, 27% of New Jersey residents over the age of 5 lived in a household where a language other than English is spoken. In addition, 84% of these residents lived in a household where English was spoken less than “very well”. CT grants, both through the Literacy / Basic Skills program and through the primary grant program, can be used to provide important opportunities for New Jersey workers to receive English as a Second Language training.

During the study period, approximately one-third of all Customized Training (CT) grants were used wholly or partially to provide literacy and basic skills training. Many of these grants were awarded through the CT program’s Literacy / Basic Skills Program. The most common form of literacy and basic skills training funded by CT grants is English as a Second Language (ESL) training.

Two casinos and three manufacturing companies included in this study provided ESL training to their employees. According to individuals interviewed for this study, the five companies typically hire individuals with low and moderate levels of formal education to fill positions with limited skill requirements. The labor pool for these types of positions, which include housekeeping jobs in casinos and low skill production jobs in the manufacturing industry, includes a large number of individuals with limited English skills. English language skills are not a formal requirement for these positions.

As a result, companies reported that they would not have provided ESL training, or provided it at a lower level, without the CT grants. Companies reported, however, that the ESL training increased the productivity of workers, by increasing their ability to communicate with co-workers, supervisors and, in the case of casinos, with customers.

- **The New Jersey Department of Labor and Workforce Development should use current and new methods to calculate performance measures for the Customized Training program.**

In order to facilitate the monitoring of program results and to inform the management of the program, the New Jersey Department of Labor and Workforce Development should calculate performance measures for the program on a regular basis, building on existing data collection efforts.

All companies and consortia that receive a CT grant are required to submit a close-out report at the end of the grant period that summarizes the training provided with grant funds, the number of jobs created as a result of the grant and the number of jobs retained as a result of the grant. The Department of Labor and Workforce Development should make modest modifications to the close-out report to allow for the calculation and reporting of this information. For example,

companies could be asked to respond to a series of questions about the perceived effect of the training on employee productivity.

Grantees are also required to report information on individuals who receive on-the-job training through the CT grant. The Department should also consider requiring grantees to submit similar information of individuals who receive other types of training. Finally, the Department should use New Jersey Unemployment Insurance wage records to determine the employment status and earnings levels of all individuals after they complete training.

# Chapter 1: Background

## I. Description of Grants Awarded

In order to examine the long term effect of the Customized Training grants on companies and employees, this study focuses on grants awarded between July 1, 2002, through June 30, 2004. During this period, the New Jersey Department of Labor and Workforce Development (LWD) awarded a total of 363 Customized Training (CT) grants, totaling \$38 million, to individual companies, consortia of companies, and labor unions to assist them in providing training to current and future employees. Over one quarter of these CT grants (98 in total) were awarded through the CT program's basic skills / literacy program, which provides training grants for the purpose of improving the English language, reading, math, computer, and workplace-readiness skills of current and future employees.

Grant recipients are given great latitude in the design and implementation of training. Grants recipients are required, in most cases, to contribute their own resources to the training efforts and to at least match the state grant with their own funds.

In fiscal year 2003, LWD awarded \$17.8 million in a total of 183 Customized Training grants, an average of approximately \$97,000 per grant. The following year, LWD awarded 180 Customized Training grants for a total of \$20.8 million, an average of approximately \$115,000 per grant. Of the 363 total grants awarded during the study period, nearly half (159 grants, 44%) were less than \$50,000. A total of (151 grants, 42%) grants were worth between \$50,000 and \$200,000, and the remaining fifty-three grants (15%) were for more than \$200,000.

### *Type of Grant Recipient*

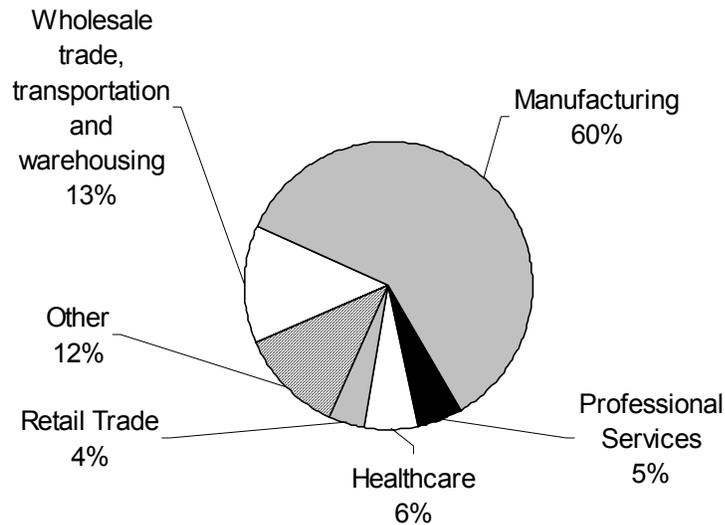
There are four primary types of grant recipients: grants to individual companies, grants to consortia of companies, grants to training centers that provide training to a particular industry or group of companies, and grants to labor unions.

**Individual companies:** During the study period, 91% of grants (329) were awarded directly to individual companies. These companies used the CT grant funds in combination with their own funds to implement training programs tailored to their specific needs. Individual companies received a total of \$33.3 million, 86% of the total amount awarded during the study period.

Sixty percent of the grants awarded to individual companies were given to manufacturing companies. An additional eleven percent of the grants were awarded to companies in the wholesale trade/transportation sector, six percent to companies in the health care and social assistance industry, and six percent to companies in the professional and technical services industries. Four percent of grants were awarded to companies in the retail trade industry.

Fourteen percent of grants were awarded to companies in other industries, including finance and insurance, arts and recreation, accommodation and food services, and others.

**Figure 1.1.**  
**Industry of Companies Receiving Customized Training Grants, 2003-2004**



Source: New Jersey Department of Labor and Workforce Development, Customized Training Program Database.

**Consortia:** During the study period, a total of twenty-five grants were awarded to consortia. These consortia, typically groups of companies from a specific industry and organized by a third party, such as an educational institution or local economic development agency, received 7% of the grants and 9% of the total money awarded (\$3.4 million).

**Labor Unions:** Eight grants were awarded to labor unions during the study period, for a total amount of \$1.5 million, which represents 4% of total grant money awarded. These grants were used to train union members in various trade and workplace-readiness skills.

**Training Centers:** The Retail Skills Center at the Jersey Gardens Mall in Elizabeth was the sole training center to receive a grant during the study period, for a total amount of \$349,000. Training centers differ from consortia in that they provide training to individuals who are not currently employed and wish to obtain the skills necessary to obtain a job in a specific industry.

## II. Summary of Grants Included in this Profile

This report focuses on five groups of training grants, selected by LWD and the State Employment and Training Commission (SETC) because of their prevalence or because they were of particular policy interest to the state. These categories were chosen because they either represent unique Customized Training models (Retail Skills Center, ACCC Casino Training Consortium) or because they represent very common forms of training within the program (Process Improvement and Logistics, Literacy/Basic Skills/ESL). Grants awarded to companies in the biotechnology / pharmaceutical industry were also included in this report due to the industry's importance to the New Jersey economy and the large number of grants awarded in this sector.

### Retail Skills Center at Jersey Gardens Mall

**Reason for inclusion in the study** Grant was used to provide training to unemployed individuals to help them obtain employment, an uncommon use of Customized Training grant funds.

Grant	Amount Awarded	Percent of Award Spent	Firm contribution	Number of Individuals Trained
Retail Skills Center at Jersey Gardens Mall	\$349,220	100%	N/A	161

The Retail Skills Center at the Jersey Gardens Mall (RSC), profiled in Chapter 2 of this report, provides retail skills training to potential workers through a four and a half week classroom training program. The RSC also offers a six week training course which integrates English as a Second Language (ESL) training with the retail skills curriculum. For the training period between November 2003 and October 2004, the RSC received almost \$350,000 in Customized Training (CT) grant funds--approximately 80% of the Center's total budget during this span. The RSC received the balance of its funding from local businesses and non-governmental organizations, including the developer of the Jersey Gardens Mall, the Union County Urban League, the City of Elizabeth, and the Elizabeth Development Corporation. During this period, the RSC trained 161 people, for an average of approximately \$2,100 per trainee.

## Atlantic Cape Community College Casino Training Consortium

**Reason for inclusion in the study** Grant was used to fund an on-going partnership between a community college and key companies in an industry (hospitality / casinos) that is important to the region's economy

Grant	Amount Awarded	Percent of Award Spent	Firm contribution	Number of Individuals Trained
Atlantic Cape Community College Casino Consortium	\$569,755	99%	\$956,965	4,752

The Atlantic Cape Community College Casino Training Consortium is profiled in chapter 3 of this report. Since 1995, Atlantic Cape Community College (ACCC) has received Customized Training (CT) grants to provide training to the employees of Atlantic City casinos. Training is provided to current casino employees in both English as a Second Language (ESL) and occupational skills. In 2003, LWD awarded a CT grant of \$560,000 to ACCC to provide training to the employees of five Atlantic City casino operators. ACCC used the CT grant to provide training to approximately 4,700 casino employees. ACCC offered twenty-one different classes, including English as a Second Language (ESL), Microsoft Office software training, and various types of occupational skill based courses. The employees receiving training through this grant included housekeeping staff, food services workers, card dealers, cashiers, sanitation staff, and general hotel staff.

## Process Improvement Training

**Reason for inclusion in the study** A significant number of grants are awarded to companies to assist them to provide process improvement training to their employees.

Grant	Amount Awarded	Percent of Award Spent	Firm contribution	Number of Individuals Trained
Union County Economic Development Corporation ISO Consortium	\$438,800	90%	\$307,194	552
<i>Companies included in the study that participated in the consortium</i>				
Industrial Gas Manufacturer	\$25,000	n/a	n/a	12
Plastic Tool Manufacturer	\$25,000	n/a	n/a	6
Medical Packaging Manufacturer	\$39,000	68%	\$35,640	55
Paper Manufacturer	\$123,400	100%	\$136,318	190
Wholesale Merchant	\$109,600	100%	\$149,729	443

The experiences of two manufacturing companies that received grants to fund process improvement training, one wholesale trade company that received a grant to fund process improvement training, and two manufacturing companies which participated in the Union County Economic Development Corporation's ISO training consortium are profiled in Chapter 4 of this report.

Process improvement training is implemented by companies to improve the efficiency of operations. Manufacturing companies implement process improvement training to improve the efficiency of production. Companies in the wholesale trade, transportation and warehousing industries typically implement process improvement training to improve the efficiency of goods movement.

In 2003 and 2004, New Jersey Department of Labor and Workforce Development (LWD) awarded 57 grants to manufacturing companies or consortia of manufacturing companies to provide process improvement training to their employees. These process improvement grants totaled about \$3.48 million, representing 13% of the total number of grants awarded and 9% of the total CT grant money spent by the program in 2003 and 2004. Forty-five of these grants were awarded directly to manufacturing companies. The remaining eleven grants were awarded to consortia serving small manufacturing companies.

In 2003 and 2004, LWD awarded 13 CT grants to companies in the transportation and warehousing industry to provide process improvement training to their employees. Approximately \$1.17 million was awarded through these grants, representing 4% of the total number of grants awarded and 3% of the total Customized Training money spent by the program in 2003 and 2004.

**Life Sciences: Pharmaceuticals / Biotechnology**

**Reason for inclusion in the study** A significant number of grants are awarded to companies in the life sciences industry, an industry that is important to the state's economy

Grant	Amount Awarded	Percent of Award Spent	Firm contribution	Number of Individuals Trained
Medical Research Laboratory	\$20,780	100%	\$30,701	110
Chemical Manufacturer	\$524,800	100%	\$483,761	702
Pharmaceutical Manufacturer	\$125,532	75%	\$142,592	290

Grants awarded to three companies in the biotechnology and pharmaceutical industry are profiled in Chapter 5 of this report. Seventeen grants (totaling \$1.9 million) were awarded to companies in the biotechnology and pharmaceutical industry during the study period. A majority of this grant funding (56%) was awarded to companies that develop, manufacture and market pharmaceutical products. Seventy-five percent of grants in this sector were awarded to small and medium sized companies (fewer than 500 employees).

## Literacy / Basic Skills / English as a Second Language Training

**Reason for inclusion in the study** A portion of the Customized Training program is devoted to funding literacy, basic skills and English as a Second Language training. In addition, a significant number of grants throughout the Customized Training program are used by recipients to provide such training.

Grant	Amount Awarded	Percent of Award Spent	Firm contribution	Number of Individuals Trained
<i>Grants awarded as part of the CT Program's Basic Skills / Literacy Program</i>				
Personal Care Products Manufacturer	\$30,500	100%	\$24,373	50
<i>Other grantees included in this study that provided literacy and ESL training</i>				
Atlantic Cape Community College Casino Consortium	\$569,755	99%	\$956,965	4,752
Medical Packaging Manufacturer	\$39,000	68%	\$35,640	55
Chemical Manufacturer	\$524,800	100%	\$483,761	702

Four grants that providing funding for literacy, basic skills and ESL training are profiled in Chapter 6 of this report. One of these grants was awarded as part of the CT program's literacy and basic skills training program. The Customized Training program awarded approximately \$4.6 million in ninety-eight ESL and adult basic skills Customized Training grants in 2003 and 2004. These grants were specifically dedicated to providing ESL and adult basic skills training, including literacy, basic math, basic computer, and work-readiness skills training.

An additional four grants profiled in other chapters of this report provided significant amounts of ESL or basic skills training to employees as part of a larger training strategy. Relevant results from these four companies are summarized in this Chapter. These four companies are not unique, as training in literacy, basic skills, and ESL was very common part of the training funded by the Customized Training grants during the study period.

# **Chapter 2: Customer Service Skills Training in the Retail Industry--The Retail Skills Center at Jersey Gardens Mall**

## **Chapter Summary**

The Retail Skills Center at Jersey Gardens Mall (RSC) in Elizabeth, New Jersey, provides retail skills training to potential retail industry workers through a four and a half week classroom training program. The RSC also offers a six week training course which integrates English as a Second Language (ESL) training with the retail skills curriculum. For the training period between November 2003 and October 2004, the RSC received approximately \$350,000 in Customized Training (CT) grant funds--approximately 80% of the Center's total budget during this span. The RSC received the balance of its funding from local businesses and non-governmental organizations, including the developer of the Jersey Gardens Mall, the Union County Urban League, the City of Elizabeth, and the Elizabeth Development Corporation. During this period, the RSC trained 161 people, for an average of approximately \$2,100 per trainee.

Employers reported a number of benefits to hiring RSC graduates, including reduced recruitment costs, increased customer service skills of new employees, a more stable flow of qualified workers, and reduced turnover of employees. RSC graduates also reported that the training had a number of benefits, including providing them with a credential recognized by possible employers and that distinguished them from other prospective workers.

Using Unemployment Insurance (U.I.) wage records from the State of New Jersey, employment and wage outcomes were calculated for individuals receiving training from the RSC in 2003 and 2004. Individuals who received training from the RSC were more likely to be employed after training than before. For example, 32% of trainees were employed during the quarter before they completed training, while 56% of these individuals were employed in the quarter after they completed training. The employment rate for these trainees remained between 50% and 60% for all eight quarters following training. People who received training from the RSC also saw their average wages increase following training. The median quarterly wage for RSC trainees four quarters prior to entering training was \$2,375. In the 8th quarter following training, the median quarterly wage for trainees was \$3,236.<sup>2</sup>

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<sup>2</sup> Wages were not adjusted for inflation for this analysis.

## Full Chapter

### 1. Background: Retail Skills Centers

The Retail Skills Center (RSC) at the Jersey Gardens Mall, with funding from the Customized Training (CT) program, provides training to individuals interested in entering the retail trade industry, particularly through employment with one of the retail stores located in the Jersey Gardens Mall. The RSC at Jersey Gardens, located within the mall itself, opened in 1999 to assist local residents in obtaining jobs with retailers at the mall and to help these retailers identify qualified workers.

During the grant period examined by the study, the RSC at the Jersey Gardens Mall was administered by the National Retail Foundation (NRF)—an arm of the National Retail Federation, the nation’s largest retail industry trade group. The RSC at Jersey Gardens was the second center to open, following the opening of the initial RSC at the King of Prussia Mall in suburban Philadelphia in 1997.<sup>3</sup> The RSC model was developed through a joint effort between the federal government and National Retail Foundation (NRF) to develop a set of skill standards for retail workers. The RSC model is designed to address three challenges faced by the retail industry: the high levels of worker turnover, the need to increase the supply of qualified workers, and the need to enhance the skills of retail workers in response to changes within the industry.

The retail trade industry’s primary motivation in developing the RSC model was to increase the supply of workers available to the industry’s employers. Located near hubs of retail activity and employment, RSC’s are designed to provide retailers with a stable flow of more highly-trained employees, as well as allowing them to more effectively respond to the surges in consumer demand natural to the retail sector. The need for this supply of retail workers has increased with the growth of the retail industry in New Jersey. With New Jersey’s manufacturing employment expected to continue to decline, service-based jobs are projected to represent all of the growth in state employment over the short to medium term. State estimates project a twelve percent growth in retail trade employment between 2002 and 2012, a total increase of 56,400 jobs.<sup>4</sup>

A second purpose of an RSC, including the RSC at the Jersey Gardens Mall, is to reduce the turnover rates of new retail employees by more effectively preparing workers for jobs. The types of retail establishments typically found in shopping malls—those selling clothing, accessories, and general merchandise—account for about a fifth of all retail merchants.<sup>5</sup> Sales jobs account for about 65 percent of total employment within these companies, and these jobs are typically

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<sup>3</sup> National Retail Federation. <http://www.nrf.com/content/default.asp?folder=foundation&file=rsc.htm>

<sup>4</sup> New Jersey Department of Labor and Workforce Development. “Employment Projections by Major Industry Division, 2002-2012”

<http://www.wnjp.net/OneStopCareerCenter/LaborMarketInformation/lmi04/state/majorind.htm>

<sup>5</sup> U.S. Department of Labor, Bureau of Labor Statistics. “Clothing, Accessory, and General Merchandise Stores.” <http://www.bls.gov/oco/cg/cgs022.htm>.

filled by workers either just entering the labor market or switching between industries. The prevalence of part-time work and relatively low earnings mean that workers in retail sales jobs are more likely to be younger than the average worker. Turnover is also very high within the industry, creating large numbers of job openings despite only moderate overall employment growth. Labor demand also varies seasonally, with increasing work available around the holiday season and in late summer just before schools re-open.<sup>6</sup>

Finally, RSC's, including the RSC at the Jersey Gardens Mall, are designed to increase the skill levels of new employees. The RSC curriculum is based on a set of skills standards identified by the industry and on adult literacy principles developed through the Equipped for the Future program. The training is designed to both give students the skills required for jobs in the industry and to assist them in identifying a career path within the industry.<sup>7</sup> While the implementation of the RSC model differs from site to site, all RSC's integrate a standards-based assessment, curriculum, and training system that provides for industry-wide standardization.

In 2006, there were twenty-four NRF-affiliated Retail Skills Centers nationwide, including a two additional centers in New Jersey. The Jersey City Customer Service Skills Center has been open since October 2004 and is administered in Jersey City through a partnership between the Jersey City Economic Development Corporation and the NRF. The Institute for Service Excellence, administered by Atlantic Cape Community College in partnership with the NRF and the Hamilton Mall in Hamilton Township, has also been operating since fall 2004.<sup>8</sup>

## **2. Overview of the Retail Skills Center (RSC) at Jersey Gardens Mall**

Since opening in 1999, the Retail Skills Center at the Jersey Gardens Mall had trained 1,311 people through its retail-skills based course as of September 2005.<sup>9</sup> During this period, Customized Training (CT) grants were the RSC's primary source of funding. For the one-year training period from November 1, 2003, through October 31, 2004, the RSC received \$349,220 in CT funds and trained 161 people, for an average of approximately \$2,100 per trainee.<sup>10</sup> The RSC received approximately 80% of its funding through the CT grant and the balance of its funding from local businesses and non-governmental organizations, including the developer of the Jersey Gardens Mall, the Union County Urban League, the City of Elizabeth, and the Elizabeth

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<sup>6</sup> U.S. Department of Labor, Bureau of Labor Statistics. "Clothing, Accessory, and General Merchandise Stores." <http://www.bls.gov/oco/cg/cgs022.htm>.

<sup>7</sup> National Retail Federation Foundation. "What are Industry Standards?" <http://www.nrf.com/content/default.asp?folder=foundation&file=standards.htm&bhcp=1>.

<sup>8</sup> Ibid.

<sup>9</sup> Retail Skills Center at Jersey Gardens Mall, internal administrative data.

<sup>10</sup> New Jersey Department of Labor and Workforce Development customized training administrative database.

Development Corporation. In February 2005, the RSC received an additional CT grant for \$483,000 to continue the same training model for another twelve months.<sup>11</sup>

### *Recruitment of Participants*

Individuals who receive training from the RSC are typically individuals interested in obtaining employment in a retail store at the Jersey Gardens mall. According to program managers at the RSC, participants typically have limited work experience and modest levels of formal education. While more than half of the participants have earned a high school diploma or a GED, a significant number have not completed high school.

The RSC uses a variety of methods to recruit participants for its training program, including Jersey Gardens mall employer recommendations, referrals from One Stop Career Centers, and word-of-mouth. Many employers at the Jersey Gardens Mall are familiar with the services offered by the RSC and will refer the RSC to individuals who have come into their stores looking for work. These referrals occur either when employers do not have specific openings, or when the openings the employers do have do not match the skills of the job seeker. One Stop Career Centers refer clients looking for targeted training to the RSC, as well. Posters and literature informing individuals about the RSC's services are present at the Union County One-Stop Career Center and Department of Vocational Rehabilitation offices. Individuals who have obtained training at the RSC also are a significant source of referrals to the RSC, passing along information to friends and relatives.

### *Intake/Assessment*

Participants are interviewed upon arrival at the RSC to determine whether or not they have the basic skills, including the necessary English language skills, to complete the training course. Incoming students are also given two assessment tests—a basic literacy profile based on the Test of Adult Basic Education (TABE) and the National Retail Assessment profile, developed by the NRF. Each of these tests is used to assist RSC staff to determine if individuals need English as a Second Language (ESL) assistance, and also to help the instructors tailor class materials and instruction to the individual students. Instructors interviewed noted that a large share of RSC participants either have limited formal education, significant learning disabilities, or both. The assessment process assists instructors in identifying these and other possible barriers to successful training.

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<sup>11</sup> National Retail Federation. News Release. February 18, 2005.  
<http://www.nrf.com/content/default.asp?folder=press/release2005&file=njgrant0205.htm&bhcp=1>

### *Training Offered by the Retail Skills Center*

The primary service offered by the RSC is the retail skills-based workplace readiness training course. The basic curriculum for this course is covered in a four-and-a-half week class that meets from nine o'clock in the morning until three o'clock in the afternoon, Monday through Friday. A second course covers the identical material, adding an ESL component for students whose English is too limited to complete the primary class. This "enhanced ESL" class takes six weeks to complete.

Both courses train students in a package of customer service and sales skills based on retail skills standards developed by the National Retail Foundation. Both the standard and ESL-enhanced classes also integrate Equipped for the Future (EFF) standards for adult literacy and lifelong learning. EFF was developed by the National Institute for Literacy (NIFL) in 1995 as an effort to create a system of measurable outcomes for adult basic literacy training.

The original curriculum used by the RSC emphasized only direct retail skills, including topics in customer service, inventory control, loss prevention, merchandising, and salesmanship. In response to concerns from employers that the workers they were hiring were not fully prepared for the general workplace, the NRF integrated explicit Equipped for the Future principles into later versions of this curriculum. These principles stressed communication and decision-making skills, as well as interpersonal skills and methods of lifelong learning.

In addition to teaching students specific skills needed to work in the retail industry, the RSC also teaches students how to search for and obtain a job. Students develop a resume with the assistance of instructors and prepare for job interviews. The RSC also teaches participants appropriate work behaviors and gives them access to work-appropriate clothing, if necessary.

Upon completion of the training program, students take the NRF examination, testing their math and critical work skills. This examination is a seventy-question, proctored, computer-based exam that can be taken at either the RSC itself or at other licensed testing locations. Students who pass the exam receive NRF-endorsed professional certification in customer service and sales.

### *Job Placement Assistance*

The RSC program also assists participants in finding employment. By the third week of the program, participants begin checking the RSC's master job posting board for opportunities. The listings on this board, which come largely from retail stores at the Jersey Gardens Mall, include information on each position's responsibilities, wage rates, and required qualifications. Employer names are not linked to individual postings, encouraging participants to pursue openings that best fit their specific skills, as opposed to pursuing openings based on the name of a particular store.

Students submit resumes for specific job openings to the RSC staff. A RSC job placement specialist then reviews the resumes and determines if the participant is qualified for the position. When appropriate matches are found, the RSC staff arranges an interview for the student with the prospective employer. A job match database is also maintained by the RSC, further assisting the staff in identifying appropriate job openings for participants. The RSC facilitates “positive recruitments”, as well, helping employers who need to fill a large number of jobs at once. In addition, the RSC hosts job fairs several times a year, allowing employers from both inside and outside the Jersey Gardens Mall to publicize various work opportunities for RSC graduates.

Participants who complete the training program but do not immediately find a job often return to the RSC to continue their job search. The RSC makes computers available in the center to former participants so that they can search for job openings, set up interviews, and prepare resumes, cover letters, and other crucial job search materials.

#### *Connection to the One Stop Career Center*

The RSC is a designated satellite location of the Union County One Stop Career Center, referring people to the county’s One Stop Career Centers in Elizabeth and Plainfield for services that the RSC can not provide. The RSC staff is familiar with the services offered through the One Stop system, and can direct walk-ins to the appropriate location for the services they require.

The RSC receives referrals from the One Stop Career Centers, and the RSC uses One Stop Career Center informational forms and orientation materials during its intake phase. The connection between the RSC and the One Stop Career Center also allows people who did not receive training through the RSC to more easily participate in job fairs and job recruitment efforts hosted by the RSC. These events open another channel of job opportunities to people who are in regular contact with the One Stop Career Center and other community-based agencies but who may not otherwise learn about the RSC’s service offerings.

#### *Funding of the Retail Skills Center*

For the period under study (November 2003 to October 2004), the RSC received approximately 80% of its operating revenue from the CT grant. The RSC also received funding from local businesses and non-governmental organizations, including the developer of the Jersey Gardens Mall, the National Retail Federation, the Union County Urban League, the City of Elizabeth, and the Elizabeth Development Corporation. The RSC also develops and implements tailored training services for specific employers for a fee. While these tailored training programs are a very small part of the RSC’s total budget, RSC staff was hopeful that such arrangements could be expanded in the future.

### **3. Perceived Effect of the RSC on Retail Employers**

The two retail employers interviewed for this study reported that the RSC has three primary benefits. First, the RSC provides a convenient, reliable source of applicants for jobs, thus reducing the cost of hiring new employees. As a result of high turnover in retail sales positions, employers often must fill jobs on short notice. The RSC provides a steady flow of people who have completed the training sequence and are looking for work. The RSC plays an important function by matching these potential workers with possible employers. As a result, employers can avoid the cost of advertising their open positions in more traditional ways.

Second, the RSC also provides an important screening function for employers, thus reducing the number of people that an employer must interview in order to find a qualified candidate. Employers reported that prospective employees referred by the RSC have completed an extensive training program and thus have displayed a strong commitment to work in the retail industry. Staff of the RSC and employers also reported that the RSC's unique, anonymous job match process ensures that training participants find work that best fits their skills and interests, rather than allowing specific company names to influence their search.

Third, employers also reported that the RSC training program provides individuals with the retail specific and workplace readiness skills necessary for employment. Employers reported that participation in the RSC training program increases the chance a new hire will be a productive and reliable. Employers reported that individuals who complete the RSC training program and receive the NRF credential are likely to possess both the retail-specific and the workplace readiness skills required for employment in a retail store. In addition, according to instructors and employers, the inclusion of EFF principles has allowed the RSC to become more effective at preparing individuals for employment in the retail industry.

A manager of one large retail store noted that individuals who have the NRF credential have a distinct advantage during the hiring process. The manager reported that based on her past experience hiring individuals with the NRF credential, she is confident that applicants with the credential are prepared for work in the retail industry. She has found that the RSC program helps individuals identify and address any skill deficiencies. In addition, one hiring manager believed that employees who have received training from the RSC are more likely to remain at the company partially because participants are more prepared and more likely to be given the opportunity for advancement.

In addition, employers reported that RSC-trained workers require less training while on the job, as well as being less likely to commit common types of errors among new retail hires. One hiring manager commented that the RSC gave her store an advantage on other stores within the same company that do not have the benefit of such a Center. For her company—a mid-sized retailer operating large warehouse-type stores—recruitment and hiring policies are essentially

determined on a store-by-store basis. The RSC makes it easier for her to find new employees and distinguishes the individual store from its peers in other markets.

As a result of the success of the RSC, some employers in the Jersey Gardens Mall have developed close connections with the RSC. For example, one hiring manager interviewed returns to the RSC regularly to give presentations to students on the workplace readiness skills required by retail employers. In addition, employers refer applicants who are not qualified for employment at their store to the RSC for training.

#### **4. Perceived Effect of the RSC on Individuals' Post Training Employment**

The RSC program appears to provide a variety of benefits to individuals, including helping them to develop their workplace readiness skills, communication skills, retail-specific skills, and job search skills.

According to employer, the RSC, with its emphasis on high expectations for participants, including strict attendance and dress requirements, appears to be successful at developing the workplace readiness skills of participants. The RSC encourages students to treat the training program as a job. Participants are required to attend class in business clothing. Attendance at all classes is mandatory. Missed classes must be made up, which means that absent students do not finish the program at the same time as their classmates. Program staff and participants reported that these requirements create an atmosphere of personal investment in the program, which can encourage successful completion. The training classes are from 9 o'clock in the morning until 3 o'clock in the afternoon each weekday for either a four-and-a-half or six-week period. This daily, business-hour schedule was also reported to reinforce the importance of stability and commitment in the workplace.

The RSC program also appears to be successful in helping participants develop the communication skills that are essential to customer service jobs. All six current and former participants interviewed for this study stated that the RSC program had helped them improve their communication skills. All felt that after training they were better able to identify and respond to the needs of a customer or employer.

RSC participants also reported that the program had helped them to develop retail skills, for example, how to deal with difficult customers and how to make change properly. In addition, they reported that the RSC program also taught them a deeper understanding of business concepts. Participants reported that the RSC program demonstrated to them the important connection between customer service and the success of the retail store.

The RSC program also places a strong emphasis on assisting participants in developing their job search skills. The RSC program and staff stress the importance of making a powerful first

impression on potential employers. Participants, in particular, noted that the RSC had taught them how to search for and find a job. For example, participants reported that mock interviews, included in the RSC curriculum, closely resembled the actual interview process—something which all agreed they had generally handled poorly in the past. One student described how in previous interviews, he had sat silently when asked if he had any questions for the interviewer. The RSC provides students with a list of questions to ask, which the students agreed both improved their interview performance and generated more respect from employers.

All participants commented that resume-writing and interview preparation skills, such as role playing, were immensely helpful in both building confidence and in getting a job. In an interview, one participant showed his original resume and an updated resume that he had created with the help of RSC staff. He reported that the updated resume was a large improvement over his original resume and that it was more effective at demonstrating his real strengths and skills to a possible employer.

The RSC program also teaches students how to make informed decisions about their job search. RSC staff reported that participants no longer thought of the job search process as a means to get “any job”. Instead, participants asked: “Is this job right for me?” Staff reported that this new level of critical thinking about jobs assists participants to make better decisions about jobs and their careers.

Participants, instructors and the program director agreed that the RSC curriculum is successful because it allows for interaction between the instructor and participants. The participants, expecting to be lead through a book by the instructor, were impressed with the engagement offered by the teacher with the class. In addition to helping them learn more effectively, the students said that the interactive teaching style helped them become more personally invested in the course—an important accomplishment given the course’s strict attendance requirements. Participants, instructors, and the program director also noted that the program is modified, as needed, to address specific students’ needs. The students and the instructor both spoke about an exercise conducted near the beginning of the training program designed to identify each participant’s specific learning style. The instructor reported that this information is combined with the assessment test results to make adjustments to the curriculum, as needed.

In addition to helping participants develop their skills, the RSC also appears to be successful at assisting students to obtain a job in the retail industry. The participants interviewed reported that they had a difficult time finding a job before they enrolled in the RSC program. The RSC training helped them to develop new skills and obtain employment at retail stores in the Jersey Gardens Mall. For example, after a long, unsuccessful job search, one participant enrolled in the RSC program and was able to secure two separate part-time jobs with retail stores at the Jersey Gardens mall. The RSC training assisted another participant in using his existing skills to learn new skills required by retail employers. The participant explained that he had a natural ability to communicate with people. The RSC training helped him to use that skill to meet the needs of

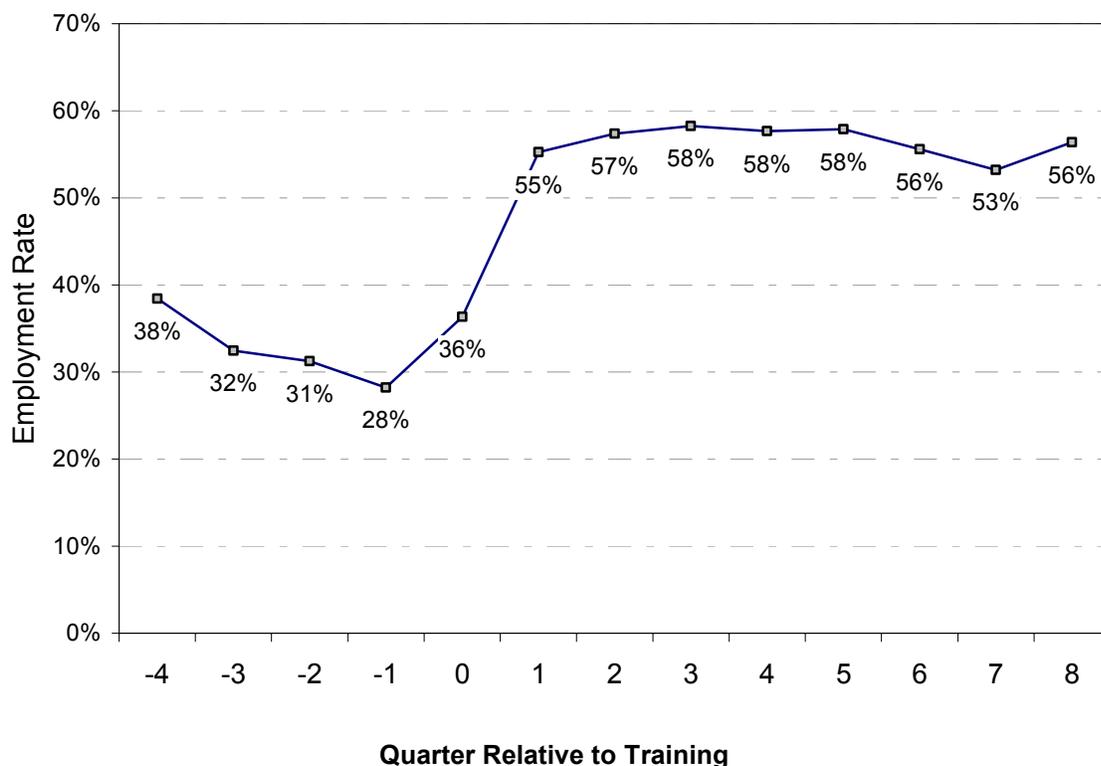
customers. An additional participant reported that the RSC training helped him to make a successful transition from employment as a security guard to employment in the retail industry. While he had a good deal of prior experience dealing with people, the RSC helped him to further develop his customer service skills.

## 5. Employment Experiences of RSC Participants

The reported experiences of these participants are largely supported by an analysis of employment histories of 333 people who received training at the RSC between September 1, 2002, and December 31, 2005 and of 62 people who participated in the enhanced ESL program at the RSC also during this period. This period encompasses the entire training grant period from November 1, 2003, through October 31, 2004.

This analysis, using Unemployment Insurance (U.I.) wage records collected by the State of New Jersey, found that individuals who participated in the basic (non-ESL) RSC program are more likely to be employed after the program than they were before the program. Slightly less than thirty percent of participants (28%) were employed during the quarter before they received training (Figure 2.1.). In the first quarter after completing training, 55% of participants were employed. The employment rate for participants remained between 50% and 60% for the eight-quarter period following training.

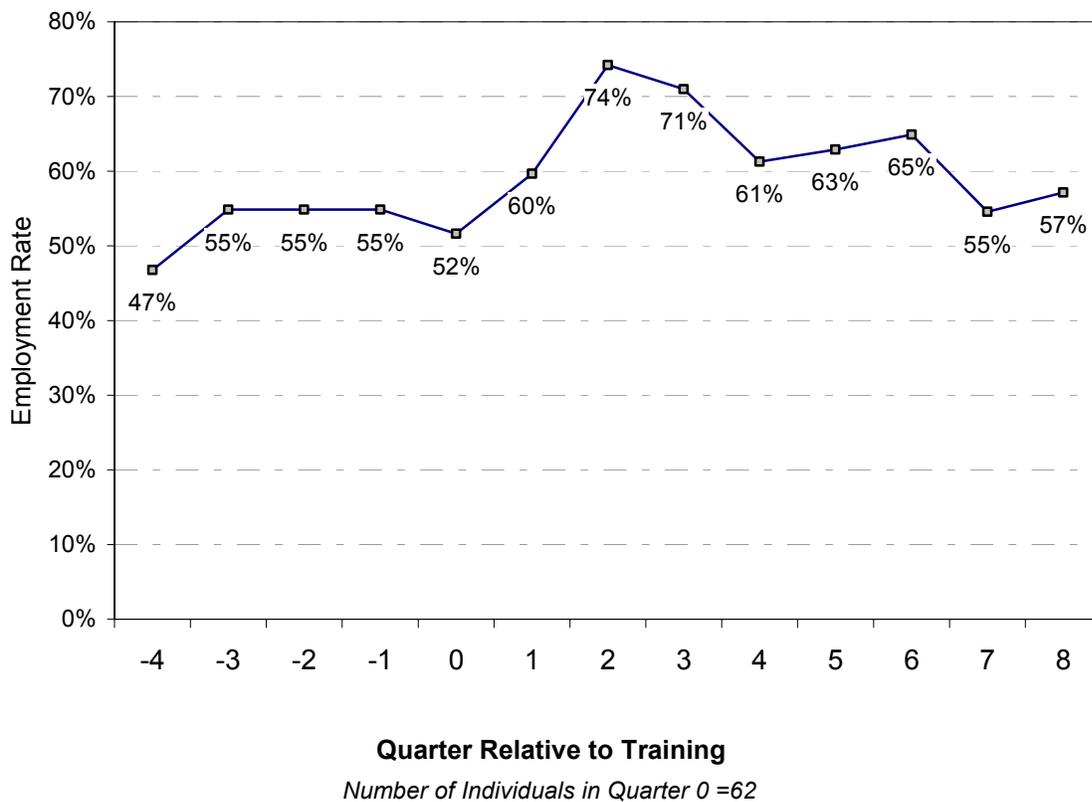
**Figure 2.1.**  
**Employment Rate for Individuals Completing the**  
**Basic Training Program at the Retail Skills Center, 2002 - 2005**



Source: New Jersey Department of Labor and Workforce Development, Customized Training Program Database and New Jersey Department of Labor and Workforce Development, Unemployment Insurance Wage Records.

Individuals participating in the enhanced-ESL RSC program were also more likely to be employed immediately after the program than they were before the program. These individuals were more likely than the other participants to be employed prior to enrolling in the RSC program. In the first quarter before they received training, 55% of the enhanced-ESL participants were employed, compared to only 28% of other participants (Figure 2.2.). By the second full quarter after training, 74% of the enhanced-ESL participants were employed. Employment rates for this group however, peaked during this quarter. By the eight quarter after the training, the percentage of these individuals who were employed had fell dramatically to 57%, a rate similar to pre-training levels.

**Figure 2.2.**  
**Employment Rate for Individuals Completing the**  
**Enhanced-ESL Training Program at the Retail Skills Center, 2002 - 2005**

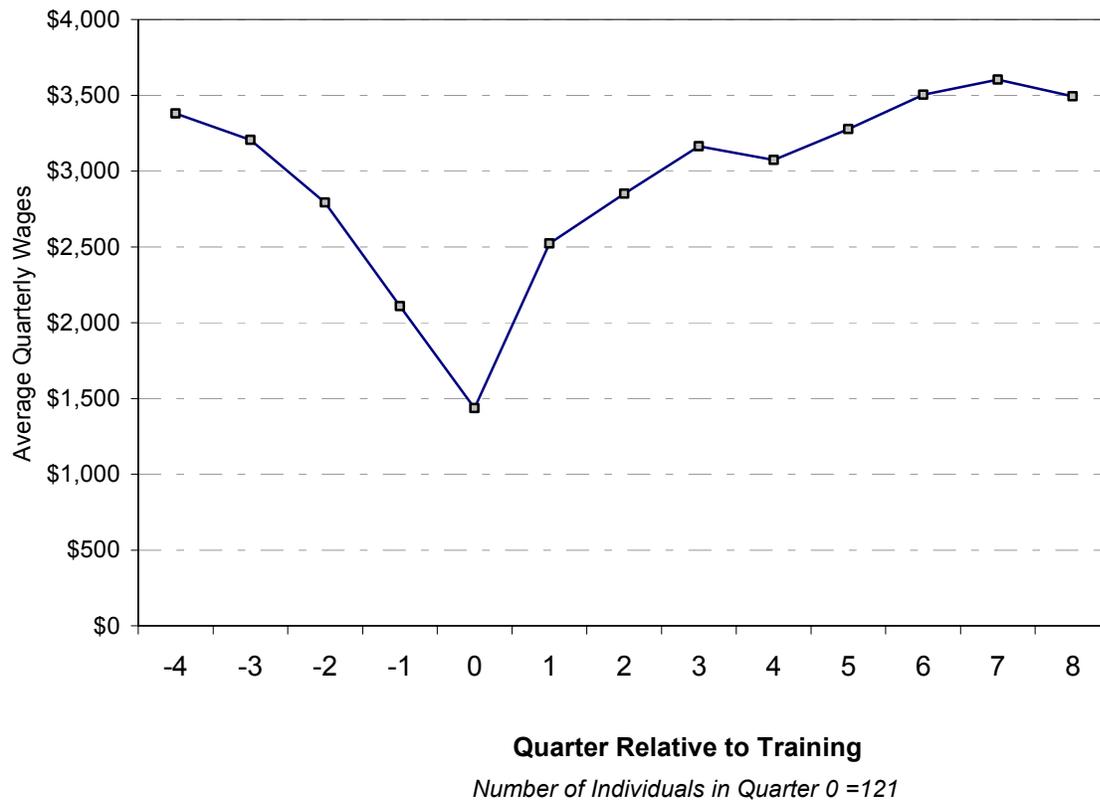


Source: New Jersey Department of Labor and Workforce Development, Customized Training Program Database and New Jersey Department of Labor and Workforce Development, Unemployment Insurance Wage Records.

Participants in the basic RSC program who were employed had a median quarterly wage of \$3,379 four quarters prior to entering training (Figure 2.3.). Wages of employed participants

dropped to \$2,108 during the last full quarter before they enrolled in training. Once the training was completed, however, individuals' wages began to increase. In the third quarter after completing training, participants who were employed had a mean quarterly wages of \$3,163. In the eighth quarter after training, these individuals earned an average of \$3,493 per quarter, slightly higher than wage levels in the fourth quarter before receiving training.

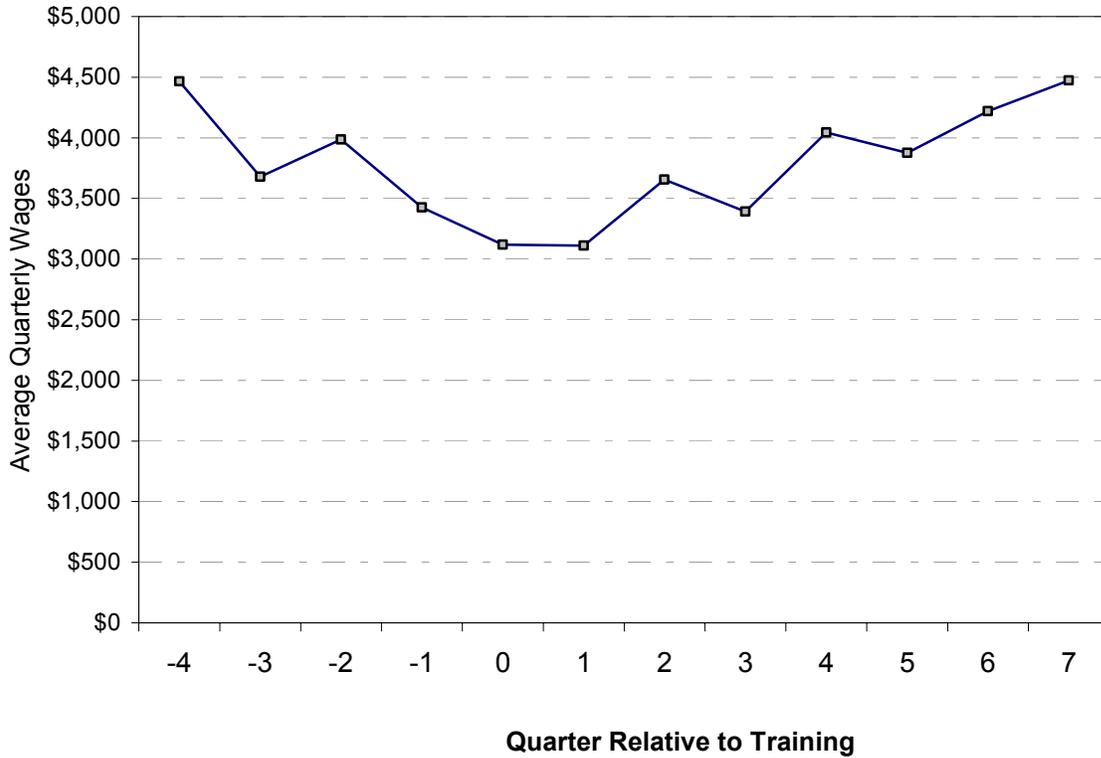
**Figure 2.3.**  
**Average Quarterly Wages for Employed Individuals Completing the Basic Training Program at the Retail Skills Center, 2002 - 2005**



Source: New Jersey Department of Labor and Workforce Development, Customized Training Program Database and New Jersey Department of Labor and Workforce Development, Unemployment Insurance Wage Records.

Participants in the enhanced-ESL RSC program who were employed had higher average wages than those who participated in the basic RSC program. In the fourth quarter before training, the employed participants in the enhanced-ESL RSC program had average quarterly wages of \$4,465 (Figure 2.4.). In the first full quarter before training, average wages had decreased to \$3,424. By the seventh quarter after training, the average wages for these individuals increased to \$4,473, a figure similar to pre-program wages.

**Figure 2.4.**  
**Average Quarterly Wages for Employed Individuals Completing the**  
**Enhanced-ESL Training Program at the Retail Skills Center, 2002 - 2005**



*Number of Individuals in Quarter 0 =32*

Source: New Jersey Department of Labor and Workforce Development, Customized Training Program Database and New Jersey Department of Labor and Workforce Development, Unemployment Insurance Wage Records.

## **6. Challenges Faced by the Retail Skills Center**

Participants cited lack of physical space as a drawback of the RSC—the center is located in space provided rent-free by the mall’s developer, and room for classes is limited. Some participants also suggested that the RSC might offer extended hours (weekends, nights) to better accommodate job searchers who have other jobs that may prevent them from being at the RSC during its hours of operation.

RSC staff acknowledged that some participants face barriers to employment which the current training program does not address, including limited transportation options, the need for childcare, and the need for flexible work hours. As a result, the RSC has organized “strategy sessions” with local community and faith-based groups to discuss ways to address these barriers.

RSC staff members are also sharing information with local social service agencies to secure their assistance in addressing these barriers.

RSC staff also reported that some participants' learning disabilities and lack of formal education were important barriers to their successful completion of the RSC training program. In particular, RSC staff reported that some participants have difficulty in passing the post-training exam. As a result, RSC instructors have made some adjustments to the NRF exam, offering an oral exam to some participants and allowing extra exam time for some participants to complete the exam.

## **7. Conclusion**

The Retail Skills Center at Jersey Gardens Mall employs a number of promising practices. First, the RSC's curriculum is based on industry skill standards and Equipped for the Future literacy standards, helping to ensure that students receive the skills they need to find and keep a job in the retail industry. The training curriculum offered by the RSC is guided by a formal set of skill standards developed for the retail industry and designed to give graduates the skills necessary to excel at an entry-level retail job. These standards were developed with the input of the retail trade industry's national research group, and thus are tailored to employer-identified needs. The RSC curriculum also incorporates Equipped for the Future (EFF) adult learning principles. EFF was developed by the National Institute for Literacy (NIFL) in 1995 as an effort to create a system of measurable outcomes for adult basic literacy training. EFF formally partnered with the NRF's Retail Skills Center program in 2002.<sup>12</sup>

Second, participants who complete the training program and pass an exam receive an industry – based credential, certifying that the participant has the necessary skills to succeed in an entry-level retail industry job. This credential allows employers to easily identify qualified applicants for job openings.

Third, the Retail Skills Center's location at the Jersey Gardens Mall is crucial to its ability to maintain important connections with employers. The Jersey Gardens Mall, and thus the RSC, is served by public bus routes, ensuring that participants without access to a vehicle can travel to the RSC.

Finally, the Retail Skills Center is unique among CT grant programs in that it provides training to unemployed individuals who need training to assist them to find a job. With its close connections to possible employers and its awarding of industry-recognized credential, the RSC provides an important training option for customers of the One Stop Career Center

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<sup>12</sup> *Equipped for the Future - EFF Fundamentals*. <http://eff.cls.utk.edu/fundamentals/about.htm>.

Although the RSC training structure has potential to serve as a model for industry-based training programs in other industries, the employment outcomes of the participants in the RSC training program suggest that the RSC may need to offer post-training services to employees to help them remain employed and obtain promotions. The participants in the basic RSC program whose employment outcomes were examined for this study were more likely to be employed after the training than they were before the training (from 28% in the 1st quarter before training to 58% in the 3<sup>rd</sup> quarter after training). However, the average wage for those RSC participants who are employed is approximately \$3,000 a quarter one year after completing training--an annual estimated income of about \$12,000. In addition, only half of the RSC graduates who were employed in the first quarter. In addition, participants in the enhanced-ESL RSC program experience are more likely to be employed immediately following training than they were prior to training. However, employment rates for this group decrease to pre-program levels two years after these individuals completed the program.

# **Chapter 3: Customer Service Skills Training in the Casino Industry: The Atlantic Cape Community College Casino Training Consortium**

## **Chapter Summary**

Since 1995, Atlantic Cape Community College (ACCC) has received a series of Customized Training (CT) grants to provide training to the employees of Atlantic City casinos. In 2003, LWD awarded a CT grant of \$569,000 to ACCC to provide training to the employees of five Atlantic City casino operators. ACCC used the CT grant, and \$957,000 in company contributions, to provide training to 4,752 casino employees. ACCC offered twenty-one different classes, including English as a Second Language (ESL), Microsoft Office software training, and various types of occupational skill based courses. The employees receiving training through this grant included housekeeping staff, food services workers, card dealers, cashiers, sanitation staff, and general hotel staff.

The two casino employers interviewed for this study reported that the CT grant helped them increase their retention of employees, reducing the casinos' recruitment and new hire training costs. Customer service outcomes and employee morale were also reported to improve, due to an increased ability of non-native English speaking employees to communicate with both their supervisors and with casino guests. Casinos also reported that the ESL training has social benefits for new immigrants, a group which composes a significant share of the casino workforce.

One quarter after training, 87% of individuals who received ESL training were employed, and the median quarterly earnings of these individuals were nearly \$5,000. One year after training, 88% of these employed individuals were still working for the same company they had worked for in the first quarter after training.

## **Full Chapter**

### **I. Background: Need for the Casino Training Consortium**

The leisure and hospitality industry has been the primary economic engine of the Atlantic County economy since the late 1970's. The manufacturing sector was once very strong regionally, but the decline of this sector, coupled with the introduction of casinos in 1978, changed the industrial composition of the Atlantic County economy. Today, the Atlantic County economy is dominated by three industries: leisure and hospitality industry (including casinos), educational and health services (including large hospitals), and retail trade. More than seventy percent of jobs in Atlantic County (a total of 89,000) are found in one of these three industries.<sup>13</sup> Atlantic County

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<sup>13</sup> Bureau of Labor Statistics. Current Employment Statistics program. <http://www.bls.gov/sae/home.htm>

has a much greater concentration of leisure and hospitality jobs than the remainder of the state. Almost half of all jobs in Atlantic County in 2005 were in the leisure and hospitality industry, while only 10% of state jobs were leisure and hospitality jobs. One out of every six leisure and hospitality jobs in New Jersey was located in Atlantic County in 2005.<sup>14</sup>

In 2005, a total of 43,000 individuals worked in the casino industry in Atlantic City. The casino industry is labor intensive, requiring large numbers of workers to fill service jobs, including front desk workers, housekeeping staff, custodians, food and beverage workers, and dealers. According to casino employers, many applicants for jobs in the industry have little or no formal work experience and very limited English skills. As a result, they are typically hired for jobs with low skill requirements, including housekeeping, cafeteria, and janitorial work. Once their English skills develop, these individuals can possibly move to dealing or security jobs, and then possibly to a managerial position.

According to the two casino employers interviewed for this report, individuals with limited English skills are also becoming a larger portion of the labor supply available for the casino industry. The share of residents living in households with a primary language other than English increased more rapidly in Atlantic County than in any other New Jersey county during the 1990's.<sup>15</sup> In 1990, 13% of Atlantic County residents lived in households where the primary language spoken was not English. By 2000, this number had climbed to 20%, an increase of 54%. In addition, nearly half (47%) of the labor force in Atlantic County with less than a high school diploma does not speak English as their primary language. One in five members of the labor force possessing a high school diploma but no college education is a non-native English speaker.<sup>16</sup>

## **II. Overview of Atlantic Cape Community College Casino Industry Consortium**

To meet the need for employees for the casino industry, Atlantic Cape Community College (ACCC) and the Atlantic City casinos began a partnership in 1995, funded by a CT grant, to provide training to casino employees. Since that time, ACCC has received a series of CT grants to continue the partnership.

In 2003, ACCC received a CT grant for \$570,000 to provide training to the employees of five different casinos: Borgata, Caesars, Showboat, Resorts, and Tropicana. These casinos contributed a total of \$957,000 to the training effort. The five casinos participating in the CT grant represented five of the seven casino ownership groups that managed casinos in Atlantic City in 2003.

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<sup>14</sup> Bureau of Labor Statistics. Current Employment Statistics program. <http://www.bls.gov/ces/home.htm>

<sup>15</sup> U.S. Census of Population, 1990 and 2000.

<sup>16</sup> American Community Survey, 2004.

Prior to submitting their CT grant proposal, ACCC training administrators met with human resources staff from each of the seven casino ownership groups to discuss the training needs of the individual casinos. As a result of these meetings, five casino ownership groups chose to participate in the CT grant proposal on behalf of five separate casinos. Following the initial meeting, representatives of the participating casinos and ACCC staff met again to develop specific individual training plans for each casino.

### *Description of the Training Classes Offered*

Through the 2003 CT grant, ACCC offered a total of twenty-one different courses and provided training to over 4,750 students. This figure does not represent unique casino employees, since, according to the ACCC grant administrator and training class rosters, it was typical for employees to enroll in more than one class. The training covered skill training in a wide variety of areas, including English as a Second Language, computer skills, housekeeping skills, sanitation skills, supervisory skills, customer service skills, culinary skills, accent reduction, management skills, financial skills, and electronics skills. Eighteen of the twenty-one separate courses offered by ACCC were taught in training classrooms on casino sites.

Although ACCC developed and implemented separate training plans for five separate casino corporations, there was substantial overlap in the types of courses provided to each casino. For example, all five casino corporations used the CT grant to provide ESL training to their employees. These five corporations also all provided Business and Report Writing to their employees. Four of the five corporations provided Microsoft Office Applications training.

Employees who received training were selected through the casinos' internal management processes. However, to ensure that the training matched the skill levels of participants, ACCC administered a pre-test to each participant, evaluating their basic level of competency in the area of skill being taught.

Despite the wide variety of courses offered, 70% of the CT grant funds were used to provide two types of course, ESL (\$208,000) and Microsoft Office Applications (\$148,800) (Figure 3.1.). In addition, two casinos (Borgata and Showboat) used a total of \$44,000 of the CT grant to supplement their internal training for large numbers of new employees.

**Figure 3.1.  
Courses Offered through Atlantic Cape Community College  
Casino Industry Consortium, 2003-2005**

	Amount of CT funds spent on class	# of trainees	Length of the training class (in hours)	# of casinos participating
<i>ESL</i>	\$ 208,000	827	40	5
<i>Microsoft Office Applications</i>	\$ 148,800	1284	6	4
<i>Culinary Training</i>	\$ 39,039	33	75	2
<i>Team Building</i>	\$ 19,488	261	6	3
<i>Housekeeping (Borgata)</i>	\$ 16,064	344	48	1
<i>Supervisory Skills I</i>	\$ 14,616	174	6	3
<i>Spanish for Supervisors</i>	\$ 14,400	49	24	2
<i>Front Desk (Borgata)</i>	\$ 13,804	50	90	1
<i>Business and Report Writing</i>	\$ 12,180	128	6	5
<i>Sanitation Training</i>	\$ 12,000	69	15	1
<i>Advanced Electronics</i>	\$ 11,020	15	40	1
<i>Presentation Skills</i>	\$ 9,744	43	12	2
<i>Sanitation Basics (Borgata)</i>	\$ 9,000	1141	n/a	1
<i>Supervisory Skills II</i>	\$ 7,308	43	6	3
<i>Supervisory Skills III</i>	\$ 6,090	76	6	1
<i>Accent Reduction</i>	\$ 6,000	29	30	1
<i>Housekeeping/Front Desk (Showbo)</i>	\$ 5,278	145	48	1
<i>Visual Basic</i>	\$ 4,800	8	24	1
<i>Budget Preparation and Analysis</i>	\$ 2,436	13	12	1
<i>Improving Customer Service</i>	\$ 1,218	10	6	1
<i>Time Management</i>	\$ 1,218	10	6	1

Source: New Jersey Department of Labor and Workforce Development, Customized Training Program Database.

*English as a Second Language Training*

A total of 827 students from all five participating casino corporations received ESL training funded by the CT grant. The majority of individuals receiving ESL training (60%) were in housekeeping positions. One quarter of recipients were in culinary positions and 15% were in facilities positions. A total of \$208,000 in CT grant funds (37% of the grant amount) was spent on ESL training.

To meet the various needs of employees, ACCC offered three ESL courses based on employees level of English language proficiency. Each of the three courses involved forty hours of class time and took place either over twenty two-hour sessions or sixteen two-and-a-half hour sessions. The courses were designed to help employees understand and respond to requests from hotel guests

and coworkers/supervisors, as well as being able to converse with guests with an emphasis on proper pronunciation. Speaking principles were stressed in these classes over written work.

### Microsoft Office Applications Training

A total of \$148,800 in CT grant funds was spent to provide Microsoft Office Applications training to 1,284 students. Four of the five casino properties sent employees to a six hour training class designed to teach the skills needed to be proficient with basic computer applications, including word processing, spreadsheets, databases, and standard computer configurations. The majority of the employees who took this course were administrative assistants (approx. 60%), with hotel staff accounting for an additional 20% of the participants. The remaining 20% of trainees were members of the culinary staff, members of the security staff, marketing representatives, and supervisors.

### Training Specific to Individual Casinos

Two casinos (Borgata and Showboat) used a total of \$44,000 of the CT grant to supplement their internal training to large numbers of new employees. These two casinos provided training to 1,680 students. The training was provided primarily by the human resources staff of the individual employers and the training programs were designed to expose new employees to the specific work processes of the casino. For example, the Borgata used CT funds to provide new employees with housekeeping and front desk training.

## **III. Perceived Effect of the ACCC Training Consortium on Casino Employers and Workers**

The two casino employers interviewed for this study reported that the training provided with the CT grant funds had a variety of benefits to the casinos and to their employees. First, casino employers reported that both ESL and computer skills training, in particular, helped to increase the productivity of employees. Casino employers reported that increasing the English language proficiency of employees improved the efficiency of their working environment, by enabling communication between employees and their co-workers, supervisors and customers. For example, one casino employer reported that, based on the company's analysis of internal data, customer complaints fell by 80% after the housekeeping staff received ESL training from ACCC. Housekeeping staff who had acquired even a basic level of English were able to respond to customers' simple requests and questions, solving many problems before the customer had a chance to have his or her need go unmet. In addition, casino employers reported that after training communication became possible between employees who spoke different languages, eliminating the need for manager or front desk involvement.

Casino employers also reported that the computer skills training funded by the CT grant improved the productivity of casino employees. Work functions within the casinos are

increasingly technology driven, and the computer training provided by the CT grant allowed workers to perform jobs they may not otherwise have been able to perform.

Second, casino employers also reported that the training funded by the CT grant provided some employees the opportunity to earn a promotion within the company. In particular, casino employers noted that employees who improved their English language skills were now able to assume more responsibility and obtain a promotion.

Third, casino employers reported that the training funded by the CT grant has helped to reduce employee turnover. Since much of the work done in casinos requires limited levels of formal education and skills, casino employers have found that providing workers with the opportunity to advance within the company creates an incentive for employees to remain employed at their casino. For example, a worker who has the opportunity to be promoted from an entry level food and beverage job to a job with more responsibility and more varied work tasks, is more likely to stay with the casino in the short to medium term.

The two casino employers interviewed reported that the ESL training, in particular, has helped to decrease employee turnover, as language skills are the primary barrier to many employees' advancement from a low to a moderately skilled job. One manager said that the casino has measured a lost worker rate of between 3% and 5% for people who received ESL training, compared to a lost worker rate of approximately 25% for those who had not received training. While a number of factors could explain this difference in lost worker rates, including the general motivation level of those who seek out ESL training, the manager believed that the goodwill built by the ESL offerings increased the likelihood of a worker staying with the casino.

The casinos have had high numbers of workers volunteering to take the ESL classes. Many of the ESL trainees had significant educations in their own country, and do not wish to continue working in low-skilled, low responsibility jobs. They see ESL training as a way to either become more attractive for work outside of a casino or to make them a valid choice for promotion within the casino.

Additionally, according to both supervisors responsible for managing workers trained under the grant, and the workers themselves, the ESL training allows the workers to more fully participate in their lives outside of work. For workers who immigrated in an effort to provide their children with better opportunities, the ESL classes give them the skills to communicate on a basic level with their children's teachers and doctors. Employers believe that the "social" gain, i.e., enhanced quality of life for non-native English speakers, is believed to be a significant reason behind workers seeking the ESL training.

## **IV. Employment Experiences of Participants**

The employment histories of 520 people who received ESL training through the ACCC training consortium between June 1, 2003, and February 28, 2005 were calculated using New Jersey Unemployment Insurance wage records. The New Jersey Department of Labor and Workforce Development (LWD) made social security numbers of people who received ESL training funded by the CT grant available. The ESL classes were given primarily to existing employees, and improving individual employment and wage outcomes of the trainees was an implicit goal of these classes. Both property-specific training classes were designed to respond to a specific expansion of a casino property, and both dealt largely with new employees. While these classes were expected to help business performance, according to LWD, individual employment and wage outcomes should not have been expected to change significantly.

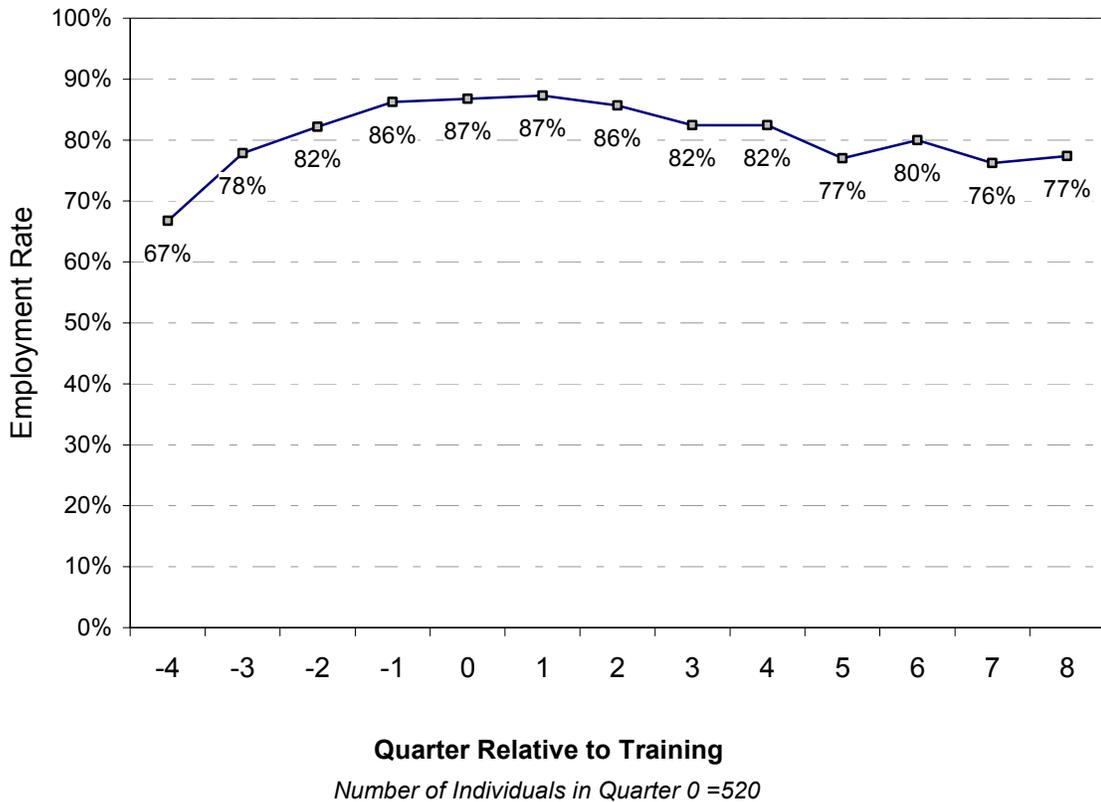
### *Employment*

Casino employees taking ESL training were slightly less likely to be employed following training as they were prior to entering training (Figure 3.2.).<sup>17</sup> The employment rate for ESL trainees rose in the four quarters immediately preceding training and then slightly dropped over the eight quarters following training. In the first quarter following training, 87% of ESL trainees were employed, and 77% of the trainees were employed eight quarters following training (Figure 3.2.). These figures capture employment with any employer and are not restricted to either their employer at the time of training or to another employer within the casino industry. An individual is counted as employed within a given quarter if he or she earned any wages during that quarter.

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<sup>17</sup> Note: Since employees receive training while employed by a casino, the quarter zero employment rate should be 100 percent. The actual observed rate is likely lower than 100 percent for several possible reasons, including incorrectly recorded and/or reported social security numbers. It is also possible that casino employees may have been hired and immediately joined a training class which had already started. In this case, if the class began in an earlier quarter, the employee would be recorded as having taken the class without having been employed by the casino in quarter zero—the quarter in which the class began.

**Figure 3.2.**  
**Employment Rate for ESL trainees in the ACCC Casino Industry Consortium**



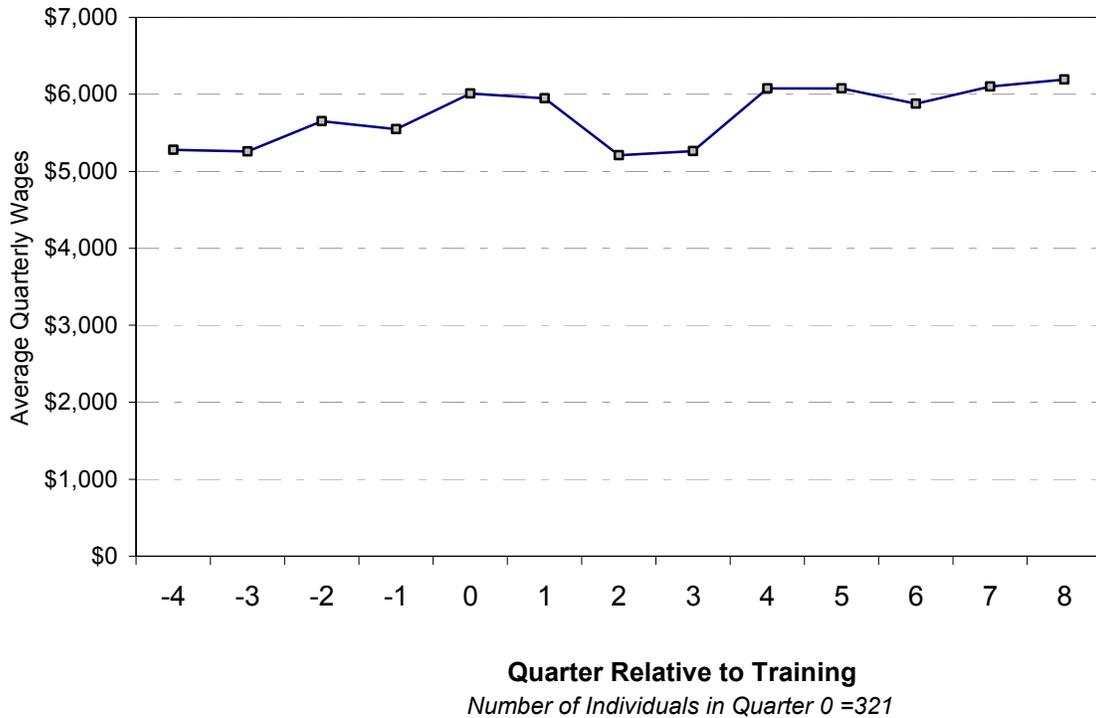
7

Source: New Jersey Department of Labor and Workforce Development, Customized Training Program Database and New Jersey Department of Labor and Workforce Development, Unemployment Insurance Wage Records.

### *Earnings*

Wages remained fairly stable for employed recipients of ESL training through the seven quarters following receipt of training. The average wage for ESL trainees averaged about \$5,500 per quarter for the two quarters immediately preceding training and increased to \$6,000 in the first full quarter after receiving training (Figure 3.3.). According to the closeout report for the ACCC grant, the month-long Local 54 strike in October and November of 2004 reduced quarterly earnings for the fourth quarter of 2004 for many of the ESL training attendees. The impact of this strike on lost wages appears clearly - a large percentage of ESL trainees took the ESL class in the first or second quarter of 2004, and thus had lower than expected wages in quarter two and quarter three following training.

**Figure 3.3.**  
**Median Quarterly wages for ESL trainees in the in the**  
**ACCC Casino Industry Consortium**



Source: New Jersey Department of Labor and Workforce Development, Customized Training Program Database and New Jersey Department of Labor and Workforce Development, Unemployment Insurance Wage Records.

## **V. Conclusion**

The long-standing partnership between Atlantic Cape Community College (ACCC) and the casino industry, developed with the assistance of CT grants, can serve as a model for the creation of other education-industry partnerships in other industries. The two casino employers interviewed for this study reported that the ACCC consortium has been instrumental in ensuring that employees in the industry have the necessary skills, and thus has helped to contribute to the competitiveness of the industry.

The ACCC consortium, which was started in 1995, now serves as an important, on-going resource for the casino industry. The staff of ACCC has developed a deep knowledge of the casino industry which allows them to work closely with casino employers to implement training that is useful to the industry. According to staff of ACCC, this knowledge of the industry also allows them to adapt to the changing needs of the industry, brought about by the churning ownership of casinos that has been common to the industry over the past ten years.

The ACCC consortium is also able to efficiently provide training to multiple casinos when, as is often the case, they have similar training needs. The ACCC consortium, however, is flexible enough to implement training programs that meet the unique training needs of individual casinos. As a community college, ACCC has the ability to offer a wide variety of education and training courses and to thus meet the diverse training needs of the industry, including detailed vocational training and broad ESL/computer skills training as part of the same partnership.

# **Chapter 4: Process Improvement Training for Manufacturing and Wholesale Trade, Transportation and Warehousing Companies**

## **Chapter Summary**

The three companies and one consortium of companies profiled in this chapter received Customized Training (CT) grants to provide process improvement training to increase the efficiency of the companies' operating processes. In 2003 and 2004, 86 CT grants were awarded to fund process improvement training. The grants totaled about \$7.74 million--24% of the total number of grants awarded and 20% of the total customized training money awarded through the program in 2003 and 2004.

Forty-five of these were awarded directly to manufacturing companies. An additional eleven grants were awarded to consortia dealing primarily if not exclusively with manufacturing companies. CT grants awarded to two manufacturing companies and to a consortium of companies organized by Union County Economic Development Corporation (UCEDC) are profiled in this chapter.

Thirteen of the CT grants for process improvement training were awarded to companies in the wholesale trade and transportation and warehousing industries. Approximately \$1.2 million was awarded through these grants--4% of the total number of grants awarded and 3% of the total customized training money awarded through the program in 2003 and 2004. A CT grant to a wholesale trade company is profiled in this chapter. The remaining 17 CT grants that funded process improvement training were awarded to companies in other industries.

Companies conducting process improvement training reported that the training helped increase their employees' productivity. The two manufacturing companies found that the training helped employees integrate new technologies into their work functions, facilitated a team approach to solving problems, and increased employee loyalty and retention. The wholesale trade company reported that the CT grant assisted them in modernizing their inventory monitoring and controls. This training helped the company to improve the efficiency of supply processes and helped them to gain a competitive advantage through being able to move goods from suppliers and to buyers more quickly and with fewer mistakes.

Companies participating in the UCEDC consortium reported various additional benefits to participating in a consortium. First, companies reported that they benefited from the involvement of other similar companies, through guidance they received from peer companies. Second, companies reported that the UCEDC enabled them to participate in the training by playing an important administrative role and by maintaining the company's focus on completing the training program. The companies also reported that the training allowed them to receive ISO

certification<sup>18</sup>, which assured possible customers of the quality of their products and improved the efficiency of production at the company.

## **Full Chapter**

### **I. Introduction**

In a global economy, companies must be extremely efficient to remain competitive. This is particularly true for manufacturing companies in New Jersey who regularly compete with companies operating in less developed regions of the country and the world that have lower labor costs. Companies involved in the movement of goods must also be highly efficient in order to move goods as quickly as possible to end users. To support the efficiency of companies in the state, the Department of Labor and Workforce Development awarded a total of 86 CT grants to companies for process improvement training totaling \$7.74 million during 2003 and 2004.

#### *The Need for Process Improvement Training in the Manufacturing Industry*

The manufacturing industry in New Jersey, with 338,200 employees in 2004, declined significantly during the 1990's—manufacturing employment in the state today stands at about sixty percent of the level it did fifteen years ago.<sup>19</sup> From 1990 to 2005, New Jersey lost approximately 200,000 manufacturing jobs. In 1990, 17 percent of all private jobs in New Jersey were in manufacturing—by 2005, manufacturing's share of private employment had fallen to about 10 percent. While the employment decline is expected to continue, the pace of lost jobs has slowed over the past few years after reaching a peak in the early 2000's.

This decline in manufacturing employment has been driven by the movement of manufacturing facilities from New Jersey to regions of the country and world where the cost of production is less expensive and by the inability of some manufacturing companies in the state to compete with companies that operate in these lower cost regions. According to manufacturing company executives interviewed for this study, manufacturing companies that remain in New Jersey must be highly efficient to remain competitive. One strategy used by companies to improve efficiency is to provide process improvement training to employees. In many cases, such process improvement training is designed to assist the company to obtain ISO certification or other industry-recognized, standards-based certification. Such certifications are designed to assure customer that the products produced by the company meet the highest quality standards. Companies interviewed for this study also report that the process of achieving such certifications

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<sup>18</sup> ISO certification refers to the ISO 9000 family of standards, a set of generally accepted quality management standards. ISO certification is acquired through a series of external audits and endorses only the quality of the processes used by an individual company, not the quality of the goods and services being produced.

<sup>19</sup> New Jersey Department of Labor and Workforce Development and U.S. Department of Labor, Bureau of Labor Statistics.

can, in itself, increase the efficiency and the productivity of employees and the company as a whole.

In 2003 and 2004, New Jersey Department of Labor and Workforce Development (LWD) awarded 57 grants to manufacturing companies or consortia of manufacturing companies to provide process improvement training to their employees. These process improvement grants totaled about \$3.48 million, representing 13% of the total number of grants awarded and 9% of the total CT grant money spent by the program in 2003 and 2004. Forty-five of these grants were awarded directly to manufacturing companies. The remaining eleven grants were awarded to consortia serving small manufacturing companies.

### *The Need for Process Improvement Training for the Wholesale Trade / Transportation / Warehousing Industries*

The growth of the global economy, and advances in transportation technology, has led to an increase in the amount of goods moved around the world. As a result, employment in the wholesale trade, transportation and warehousing industries has grown significantly in both New Jersey and the United States overall in the past 15 years. Wholesale trade, transportation and warehousing employment grew in New Jersey between 1990 and 2004, rising to 392,000 in 2004. Wholesale trade, transportation and warehousing companies must maintain efficient product chains in order to remain competitive by ensuring that goods arrive on schedule and to the correct location. Companies that move perishable goods must be particularly efficient.

In 2003 and 2004, LWD awarded 13 CT grants to companies in the transportation and warehousing industry to provide process improvement training to their employees. Approximately \$1.17 million was awarded through these grants, representing 4% of the total number of grants awarded and 3% of the total Customized Training money spent by the program in 2003 and 2004.

### *Background: ISO Certification*

While process improvement training can take many forms, including Six Sigma and lean manufacturing, a significant percentage of the process improvement training funded by the CT program is designed to assist companies to obtain certification in the ISO 9000 family of standards, the standards applying to quality management production. The UCEDC consortium profiled in this chapter is designed to assist small companies to achieve ISO certification.

The ISO 9000 family of standards were developed to certify the quality of the processes used by an individual company. While ISO certification does not measure the quality of the goods and

services being produced, it does provide possible customer with some assurance that the company follows recognized standards for production.<sup>20</sup>

In the absence of ISO certification, a company may also face significant costs in proving to potential buyers that the company's production process is indeed a solid one. One clear example of this occurs when companies look to sell various types of safety equipment to the federal government, which for many companies is their largest client. Any company selling safety products to the Department of Defense, for example, must undergo an inspection of their facilities prior to the award of a contract. The presence of ISO certification can reduce the length of time devoted to this inspection considerably, reducing the cost to the company in terms of diverted resources and lost work time.

These standards are generally thought to apply to manufacturing companies, although an increasing number of service industry companies are also becoming ISO certified. The ISO organization does not publish complete lists of currently certified companies, but estimates from other certification cataloging companies put the current number of ISO certified companies in New Jersey at more than 1,200 in 2006.<sup>21</sup>

The ISO certification process involves several parties. The ISO organization develops the standards themselves and modifies them periodically, but does not conduct actual audits of individual companies. Other private companies handle the physical auditing and registration processes for companies. Companies seeking to become ISO registered often hire consultants to prepare them for this process. The ISO certification standard represents a set of requirements intended to ensure a standardized management and review system as it relates to the process of production for a product or service. ISO standards do not relate to the production of the product or service. ISO certification is recognized in more than 161 countries and over 510,000 companies have been ISO certified including more than 100,000 in 2001 alone.<sup>22</sup> ISO standards are evolving over time, and new regulations are consistently being introduced.

Several studies have found that IOS certification can benefit companies. One study found that ISO 9000 certification had a significant impact on leadership, strategic quality planning, good supplier relationships, and customer satisfaction. Another study of manufacturing plants found improved quality of work life in ISO certified plants.<sup>23</sup> Despite these positive results, many of the studies on the impact of ISO compliance do not account for selection bias and pre-certification

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<sup>20</sup> International Organization for Standardization, 2007, <http://www.iso.org/iso/en/aboutiso/introduction/index.html>.

<sup>21</sup> Quality Digest, 2007, <http://www.qualitydigest.com/iso9000database.shtml>.  
[http://www.whosregistered.com/iso/form.php?form\\_type=search&table\\_name=north\\_america](http://www.whosregistered.com/iso/form.php?form_type=search&table_name=north_america).

<sup>22</sup> Briscoe, Jason, Stanley Fawcett, and Robert Todd. 2005. "The Implementation and Impact of ISO 9000 among Small Manufacturing Enterprises." *Journal of Small Business Management*. 43(3): 309-330.

<sup>23</sup> Sharma, Divesh. 2005. "The association between ISO 9000 certification and financial performance." *The International Journal of Accounting*. 40(2): 151-172.

performance. It is possible that only the strongest companies seek and obtain ISO certification, and may have achieved positive outcomes without certification.

A study of small manufacturing companies found that small businesses struggle with ISO implementation. They suggested that small companies must be certain they are prepared for ISO certification before they undertake the certification process.<sup>24</sup> Another study found, that the extent of improvement is driven largely by operating efficiencies and suggested that companies can benefit from ISO 9000 certification if they are genuinely interested in the quality philosophy by improving their internal business processes.<sup>25</sup>

## **II. Process Improvement Training Offered By Individual Companies**

Three companies that received CT grants to fund process improvement training are profiled in this chapter, including a medical packaging manufacturer, a paper manufacturer, and a wholesale merchant.

### *Profiled grant 1: Medical Packaging Manufacturer*

A medical packaging manufacturer located in northern New Jersey received a CT grant for \$39,000 in 2003. The manufacturer used these funds and their own contribution to provide process improvement training including principles of lean manufacturing. The company also provided training to employees in basic math skills, basic computer software skills and English as a Second Language (ESL). A total of 55 employees received training funded by the CT grant, including multiple employees who completed more than one type of training class.

The process improvement training was designed to expose employees to general lean manufacturing principles and was not designed to achieve ISO or other formal certification. The company applied for the grant because the company's leadership realized that in order to remain competitive in its current location, the company's workers needed to become more productive. Although the company was able to identify clear training goals, it did not have the available funding to finance this training without the help of the CT grant.

This company contracted with a local non-profit training provider, and instructors from the training provider met with the president of the company to tailor general use adult education materials to the work processes of the company. For example, the company's production involves a significant amount of measuring and basic math, such as the calculation of percentages. These

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<sup>24</sup> Briscoe, Jason, Stanley Fawcett, and Robert Todd. 2005. "The Implementation and Impact of ISO 9000 among Small Manufacturing Enterprises." *Journal of Small Business Management*. 43(3): 309-330.

<sup>25</sup> Sharma, Divesh. 2005. "The association between ISO 9000 certification and financial performance." *The International Journal of Accounting*. 40(2): 151-172.

principles were incorporated into a course called, 'Shop Math'. ESL courses were also offered, allowing workers to both read instructions more clearly and to communicate concerns to their immediate superiors. As was the case with the math classes, company-specific language and terminology was incorporated into the ESL curricula, allowing the workers to better integrate their newly learned concepts into their daily work life.

This same company reported that more than seventy percent of its employees completed at least one training class, including a production efficiency certification class that the company has since added to its standard human resource process for new hires. Each new employee of the company now completes this program before beginning regular work. The company reported that this orientation program has made new employees more familiar with the concept of efficiency as a guiding principle and more comfortable with suggesting new ideas to increase efficiency.

#### *Profiled grant 2: Paper Manufacturer*

A paper manufacturer in central New Jersey received a CT grant for \$123,400 in 2004. The company used these funds and their own contribution to provide process improvement training, with a focus on the principles of lean manufacturing. The company also used the CT grant to provide training to employees in company-specific manufacturing equipment usage, basic computer software skills, maintenance and repair. A total of 190 employees completed at least one training course.

The company applied for the grant in order to increase the productivity of employees and the company as a whole. Interviews with the company's management suggested that the company would not have been able to afford the training in the absence of the grant.

#### *Profiled grant 3: Wholesale Merchant*

A wholesale merchant of non-durable goods in southern New Jersey received a CT grant for \$109,600 in 2003. The company used these funds and their own contribution to train its workers in Six Sigma process efficiency principles, as well as to establish a production efficiency certification program for new and existing employees. The Six Sigma principles are a set of quality control principles developed within the Motorola corporation and are now widely used in many process improvement efforts. A total of 443 employees completed at least one of the training courses offered.

The company handles a product that is very time-sensitive—quick turnaround times are mandatory in the company's line of work, and delays in the supply chain reduce freshness and diminish the value of the company's product significantly. As a result, the company chose to pursue logistics training in an attempt to increase the speed and efficiency with which their individual piece of the supply chain operates. The company had identified a series of specific

process areas in which it wanted to increase logistical efficiency, including the reduction of waste volume, shorter wait times within their product flow, and more precise inventory management.

Workers in the company's management and supervisory positions were also trained in Six Sigma methodologies, including thirty-two employees who received the Six Sigma Green Belt certification and one employee who received the Six Sigma Black Belt certification. Green Belt certification indicates that an employee has been trained in Six Sigma process improvement techniques and that process quality monitoring covers a portion of their regular job duties. Black Belt certification indicates that the employee has completed a series of training classes and passed a certification exam. Black Belts typically supervise the process quality improvement activities of Green Belts. Both of these sets of training classes were designed to give managers and supervisors both the information and the techniques for passing logistics efficiency principles on to the employees reporting to them.

### *Perceived Effects on Individual Companies of Process Improvement Training*

The three companies included in this study reported that the process improvement training, made possible by the CT grant, led to increased efficiency in the production or movement of goods. Several production managers interviewed for this study noted that production workers were more likely to come forward with ideas relating to efficiency following their completion of process improvement training. The 'lean manufacturing' approach to process improvement used by both manufacturing companies profiled in this chapter stresses that the bulk of the efficiency gains will be made by production employees and not by the smaller number of individuals in leadership positions in the company.<sup>26</sup> One company used classroom training to teach the basic concepts of process improvement before they applied these concepts to specific projects within the company. As a result of this training, workers were able to contribute their own ideas about ways to improve efficiency of production leading in increased efficiency at the company.

The wholesale trade company, which implemented Six Sigma training, reported similar effects of the training. As part of the training effort, company managers developed detailed descriptions for each occupation within the company. These descriptions each included a set of quality metrics that a worker in the occupation needs to meet in order to receive a top performance grade. Individual workers received training in how to meet these metrics, and how their individual job functions fit within the overall process of the company. The company believes that the internal company culture changed following the training, specifically in terms of a new attention to speed and efficiency. The company also noted that its employees have reported feeling more invested in their daily work, e.g., by encouraging employees to suggest methods by which the logistics chain

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<sup>26</sup> Shah, Rachna, and Peter T. Ward. 2003. "Lean manufacturing: context, practice bundles, and performance". *Journal of Operations Management*. 21(2): 129-149.

Plonka, Francis E. 1997. "Developing a lean and agile workforce." *Human Factors and Ergonomics in Manufacturing*. 7(1): 11-20.

could be improved, the company has given its employees more direct control over their job functions.

### **III. Process Improvement Training Offered Through The UCEDC Consortium**

The Union County Economic Development Corporation (UCEDC) developed, and has maintained since 1997, an effort to assist small, mostly manufacturing companies to become ISO certified. The effort brings together between fifteen and twenty small manufacturing companies for an eighteen-month course that mixes classroom-based work and on site preparation, leading to the company submitting an application to be audited for ISO certification. UCEDC has received five CT grants since 1997, each of which employed the same basic principles of the current training model. Participating companies are accepted into the consortium on a first-come, first-serve basis, although some advance discussion does occur to determine whether the company has the internal structure in place to benefit from ISO certification training. The consortium is not limited to companies from Union County.

UCEDC used funds from the CT grant to hire an ISO training consulting company to provide classroom training to managers of companies participating in the consortium and to assign individual consultants to assist companies to implement concepts learned in the classroom at the worksite. The classroom training classes are held periodically, around once a month, and are given at a central location. These classes are taught by the consultants and outline specific pieces of the ISO compliance process.

Individual consultants are then assigned to several of the companies participating in the consortium and are responsible for following up on classroom training sessions with visits to these companies' locations. These visits are used to evaluate the progress made by the company in implementing the topics taught in the previous class. The ISO certification process is intensive and is difficult to achieve without hiring a consulting company to prepare the business for the specific standards of an ISO auditor. UCEDC hires an ISO audit preparation consulting company with money from the CT grant.

The consulting company received exceptional reviews from everyone interviewed for this report, citing their professionalism, expertise in the subject, flexibility, and dedication to the process. Preparation services such as these generally cost about \$30,000, an amount above what many small companies can afford to pay. By bringing fifteen to twenty companies together in each consortium class, the UCEDC is able to negotiate a cheaper rate for these services—it can guarantee a single consulting company fifteen to twenty contracts all at once.

In 2003 and 2004, UCEDC received a CT grant for \$438,800 to provide this training and assistance to 18 companies. The companies contributed \$307,194 of their own funds to the effort.

A total of 552 individuals received training. Two companies that participated in the consortium are included in this study.

#### *UCEDC participant 1: Industrial Gas Manufacturer*

An industrial gas manufacturer in northern New Jersey participated in the UCEDC consortium and successfully completed the ISO certification process. This company had between ten and twenty employees at the time it enrolled in the consortium. Executive and managerial employees were primarily involved in the training courses. The company reported that the ISO training was both necessary for the company to maintain important client relationships and to increase the company's operating efficiency.

#### *UCEDC participant 2: Plastic Tool Manufacturer*

A plastic tool and mold manufacturer in northern New Jersey participated in the UCEDC consortium and successfully completed the ISO certification process. This company had fewer than ten employees at the time it enrolled in the consortium and included each employee in at least one stage of the ISO training. The company reported that its participation in the consortium allowed it to achieve ISO certification giving possible customers confidence in their products and allowed the company to develop valuable relationships within its industry sector.

#### *Perceived effects of Process Improvement Training*

##### Benefits of ISO Certification

The two companies from the UCEDC consortium and included in this study both were able to achieve ISO certification. In addition, both reported that this certification and the process to achieve certification were beneficial to the company for two reasons.

First, ISO certification indicates to potential purchasers of the company's product that the company follows accepted quality practices. Company executives interviewed for this study reported that large buyers have an extreme amount of leverage over small producers. The same quantity that represents a small order to a large company can mean the difference between a profit and loss for a year for a small manufacturer. As a result, large contracts draw wide interest and the large companies often demand ISO certification from their suppliers. One company which has completed the UCEDC training seminar and successfully received ISO certification obtained a significant contract with NASA to supply a recent mission. The president of this company acknowledged that NASA would not have had the confidence to purchase from them without the ISO certification.

Second, the process of achieving ISO certification involves the implementation of efficiency controls at the company, resulting in higher productivity of employees and the company as a

whole. The ISO certification process was reported to have value beyond signaling that a company runs efficiently. Company presidents who completed the UCEDC process described how the training introduced a “quality assurance mentality” to their company—even after ISO training and certification was completed, their employees were now thinking about their work tasks with an efficiency based approach. Employers claimed that the ISO process taught their employees the importance of seeking constant process improvement.

Prior to the training, managers reported that it was difficult to identify flaws within internal processes that they had helped to develop. The training and the certification process forced the company and its employees to take a “look from above” at the company’s processes and allowed managers to identify areas for improvement. There is also a built-in continual improvement piece inherent to ISO certification, since the certification is reviewed during annual mini-audits and is completely redone every three years.

#### Benefits of participating in the consortium

The two companies included in this study also reported significant benefits to participating in the UCEDC consortium. The two companies reported that they would not have been able to achieve ISO certification without the UCEDC consortium. Companies experienced with the ISO certification process reported that a small company, inexperienced with the process, is unlikely to pass an ISO certification audit. Hiring a consultant to help with the process costs about \$30,000, which is a higher price than many small companies can afford. In addition to the cost of the consultant, there is also the cost of reducing production during the consulting process. The company must document its processes, devote time to meeting with the consultant, and train its workers in the new ISO-sufficient production standards. All of these extra costs are present in the ISO training program, as well, but increase the total cost of hiring a consultant independently beyond the up front cost of the consulting company itself.

Companies also reported that they benefited by the participation of other similar companies in the consortium. Companies reported that the combination of classroom and on-site training allows participating companies to share their concerns among other companies experiencing the same difficulties, possibly gaining wisdom on how to deal with and solve conflicts.

In addition, the companies reported that UCEDC keeps the participating companies on a strict schedule and encourages them not to abandon ISO preparations midway through the process. Most of the decision makers for small companies have multiple job responsibilities and various pressures on their time. They are more likely than, for example, training/human resources managers at large companies, to also manage the daily operations of the entire company’s production. Preparing for an ISO audit is an intense process—note that the UCEDC’s training program lasts 18 months without significant breaks. Without the consortium schedule to keep companies on pace, many would certainly abandon the process. Several of the training sessions

run twelve or fourteen hours long, and preparations for these sessions—“homework”—can require equally as much time, all spent outside of working hours.

The consortium completes the administrative work of identifying the grant availability, assembling the other participants, and reporting on the grant’s progress. Much as the leadership of small companies may not have the available time or money to hire and manage a consultant, the barrier to finding and administering the grant may also be too large. The UCEDC currently does this for companies, as well as determining which companies by which companies judged to not be ready for the program are not encouraged to apply. With their years of expertise in administering and running the consortium program, UCEDC is better equipped than the customized training representatives to determine which companies are likely to benefit most from the ISO training.

Finally, these two companies reported that the UCEDC consortium directly and indirectly facilitates partnerships between participating companies. In addition to providing preparation for the ISO certification audit, the consortium brings together companies in similar sectors of the economy, generally small manufacturing. For example, one company president interviewed for this profile described the relationships he had formed with peer companies following his company’s completion of the UCEDC training course. These relationships were based on the comparative advantage of each company in the production of their respective goods—both companies required similar resources and processes, but each company possessed expertise in different areas. These two companies were able to develop a business partnership, increasing the efficiency of each. This company president was confident that such a partnership would not have emerged without the UCEDC consortium, primarily because it is time-consuming (and hence costly) for small manufacturers to identify and then cultivate potential business partnerships such as these.

#### **IV. Conclusion**

Companies conducting process improvement training with funding from CT grants reported that the training helped increase their employees’ productivity. Companies in the manufacturing industry, including those in the UCEDC consortium, reported that training has increased the level of involvement of employees in efficiency efforts, thus improving the efficiency of the entire company. Companies participating in the UCEDC consortium also reported that the CT grant allowed them to obtain ISO 9000 certification, which assured possible customers of the quality of their products and helped them to improve the efficiency of production. The one company in the transportation and warehousing industry reported that the training assisted to improve the efficiency of internal processes and helped them to gain a competitive advantage through being able to move goods from suppliers and to buyers more quickly and with fewer mistakes.

Small manufacturing companies, due to limited resources, can face difficulties in implementing process improvement training and obtaining ISO 9000 certification.<sup>27</sup> The UCEDC consortium, however, by managing the grant, identifying qualified consultants and organizing the training activities, provided small manufacturing companies with an opportunity to obtain ISO 9000 certification. In addition, companies participating in the consortium reported that they benefited from the involvement of other similar companies in the grant, through guidance they received from peer companies and through the development of business partnerships that continued after the grant period.

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<sup>27</sup> Briscoe, Jason, Stanley Fawcett, and Robert Todd. 2005. "The Implementation and Impact of ISO 9000 among Small Manufacturing Enterprises." *Journal of Small Business Management*. 43(3): 309-330.

# **Chapter 5: Training for Companies in the Life Sciences Industry**

## **Chapter Summary**

In 2003 and 2004, the Department of Labor and Workforce Development (LWD) awarded seventeen CT grants to companies in the life sciences industry, which includes the biotechnology and pharmaceutical industries. These grants totaled approximately \$2.9 million overall and averaged nearly \$170,000 per grant. Biotechnology and pharmaceutical companies received 5% of the CT grants and 7% of the total CT grant money awarded during 2003 and 2004. Each of the seventeen grants were awarded to individual companies, thirteen of which (76%) were small or medium-sized companies with fewer than 500 employees.

Companies from a variety of industry sub-sectors received CT grants during 2003 and 2004. Two-thirds (67%) of the CT funds awarded to companies in this industry were awarded to companies that manufacture medicines and pharmaceuticals. An additional 20% of the CT funds were awarded to medical and diagnostic laboratories and scientific research and development companies, while the remaining 13% were awarded to companies manufacturing medical devices and other electronic instruments. Companies used the CT grant funding to provide training in process improvement techniques (ISO, SAP), in general business practices (project management training, leadership training, business writing), and in basic computer software (spreadsheet, accounting, presentation, database) skills.

Three CT grants awarded to companies in this sector were included in this study. These include: a non-profit medical research laboratory that prepares materials for medical research conducted by other individuals and organizations, a manufacturing facility that produces generic drugs, and a large pharmaceutical manufacturer. The training grants to the two manufacturing facilities focused on raising the literacy and computer skills of the companies' employees. The medical research company used its customized training grant to hire a consultant to help prepare them for an ISO certification audit.

Each of the grant recipients in this sector reported that the training allowed their employees to improve their productivity. The companies also reported that the training helped them to strengthen their competitive positions within their industry, and the research laboratory noted that the CT grant helped them implement a new series of technological improvements. Employees of each of the grant recipients also reported positive outcomes from receiving training, including enhancing their workplace skills, adding skills which enabled them to seek further training, and acquiring college credits for training completed as part of the CT grant.

## Full Chapter

### I. Introduction

New Jersey has traditionally been a center of the nation's life sciences industry. In 2005, 40,000 people were employed in the pharmaceutical and medicinal manufacturing sector in New Jersey, ranking the state second (behind California) in sector employment.<sup>28</sup> While the industry includes companies whose primary core business is the manufacture of pharmaceuticals and medicines, companies in this sector also employ significant numbers of people in research and development and in general administration, including sales and marketing.

New Jersey's position in the nation as a center for the industry has weakened over the last fifteen years. Of the five states with the largest biotechnology and pharmaceutical manufacturing workforces in 2005, New Jersey saw the greatest reduction in the share of its private employment in biotechnology and pharmaceutical manufacturing from 1990 to 2005, even accounting for different rates of overall job growth in these states. For example, biotechnology and pharmaceutical manufacturing companies employed 9,200 people in North Carolina in 1990 and 20,000 in 2005, an increase of 120%. Overall, jobs grew by 30% in North Carolina over this same span. Thus, jobs in the biotechnology and pharmaceutical sector grew 82% faster than all jobs in North Carolina from 1990 through 2005, the greatest such rate among the five major biotechnology and pharmaceutical manufacturing states. New Jersey, on the other hand, lost some net biotechnology and pharmaceutical jobs over this period, while at the same time the state's private employment grew slightly overall.<sup>29</sup>

Industry employment has remained strong nationally, and while state employment in pharmaceutical and medicinal manufacturing did decline during the 1990's, it did so at a considerably lower rate than the rest of the manufacturing industry in New Jersey. From 1990 through 2005, New Jersey lost almost forty percent of its manufacturing jobs, as manufacturing employment in the state fell from 530,000 to 328,000. Biotechnology and pharmaceutical manufacturing employment stayed relatively even over this period, however—New Jersey lost only 5% of its net biopharmaceutical manufacturing jobs between 1990 and 2005, and the sector has shown slight job gains over the past five years. As a result of these trends, biotechnology and pharmaceutical manufacturing is now a higher share of New Jersey's overall manufacturing than it has been at any point in the last 15 years.<sup>30</sup>

Despite these trends, the life sciences industry is still concentrated in the state and was recognized by the Governor's 2007 Economic Growth Strategy as an important driver of the state's economy.

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<sup>28</sup> Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

<sup>29</sup> Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

<sup>30</sup> Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

## II. Overview of Training Provided by Life Sciences Companies

In 2003 and 2004, the Department of Labor and Workforce Development (LWD) awarded seventeen CT grants to companies in the biotechnology and pharmaceutical industries. These grants totaled approximately \$2.9 million overall and averaged nearly \$170,000 per grant. Biotechnology and pharmaceutical companies received 5% of the CT grants and 7% of the total CT grant money awarded during 2003 and 2004. Each of the seventeen grants were awarded to individual companies, thirteen of which (76%) were small or medium-sized companies with fewer than 500 employees.

Two-thirds (67%) of the CT funds awarded to companies in this industry were awarded to companies that manufacture medicines and pharmaceuticals. An additional 20% of the CT funds were awarded to medical and diagnostic laboratories and scientific research and development companies, while the remaining 13% were awarded to companies manufacturing medical devices and other electronic instruments.

Three CT grants awarded to companies in this sector were included in this study. These included a non-profit medical research laboratory that prepares materials for medical research conducted by other individuals and organizations, a manufacturing facility that produces generic drugs, and a large pharmaceutical manufacturer. The training grants to the two manufacturing facilities focused on raising the literacy and computer skills of the companies' employees. The medical research company used its CT grant to hire a consultant to help prepare them for ISO 9000 certification.

### *Profiled grant 1: Medical Research Laboratory*

A non-profit medical research laboratory, located in an urban area in southern New Jersey, received a CT grant for \$21,000 in 2003. The laboratory used these funds and their own contribution of \$31,000 to provide ISO 9000 certification training to employees.<sup>31</sup> A total of 110 employees received training funded by the CT grant.

This medical research laboratory specializes in preparing and experimenting on biomaterials, typically blood, for a variety of clients, including the state of New Jersey, federal agencies, pharmaceutical companies, and individual scientists. Executives reported that the laboratory, which operates as a non-profit organization, provides an important service to individuals and companies who conduct biomedical research both in New Jersey and across the nation.

Executives of the laboratory reported that their employees did not possess a broad knowledge of the laboratory's operations before receiving training in the principles of ISO certification. These

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<sup>31</sup> Chapter 4 of this report profiles grants awarded to companies to provide process improvement training and contains additional information about the perceived effect of ISO 9000 certification training.

employees, while highly skilled (primarily Ph.D. scientists and college-educated laboratory technicians), generally did not collaborate across research projects and had few opportunities to suggest improvements to the overall efficiency of the lab's operation. As a result, the work conducted by the laboratory was often poorly coordinated, with the existing systems were characterized by duplication and inefficiency.

In response to these issues, the laboratory began efforts to introduce an overall quality strategy in the early 1990's, attempting to document all standard operating procedures in a way compatible with eventual ISO certification. This process, however, became derailed numerous times due to changes in leadership and a lack of available time and funding to devote to the project. As a non-profit organization, the laboratory's executives reported often having difficulty funding organization-wide projects. Most of the organization's funds are earmarked to specific projects. Funding outside of specific projects requires fundraising efforts that distract from day-to-day operations and are expensive on their own.

The laboratory applied for and received a CT grant of \$20,000 in 2003. The CT grant allowed the company to hire a consultant to come onto the company's site and guide the company through a program leading to successful completion of an ISO certification audit. The company contributed an additional \$30,000 during the restructuring and training necessary to gain ISO certification. The consultant identified the processes that needed to be modified in order to meet ISO requirements, and worked with the executive and management team to create a plan to change these processes. The supervisors then passed their knowledge on to their employees through a series of training sessions. The process conversion team rewrote the operating procedure manual into a new overall quality manual, which laboratory executives believe is essential to the company's efforts to acquire new business.

The laboratory's management noted that the changes necessary to implement ISO-quality processes required complete institutional engagement. For example, the creation of the operating manual mandated a level of cooperation between the laboratory technicians and research scientists that was previously rare.

### *Profiled grant 2: Manufacturer of Generic Drugs*

In 2002, a manufacturer of generic drugs purchased a production facility in southern New Jersey from another company in the industry and retained the existing workforce. In 2003, this company applied for and received a CT grant for \$524,000 to provide training to about 80% of the employees at this facility. The company contributed an additional \$484,000 to the training program, which lasted 18 months. Twenty-two separate courses were offered to employees through the CT grant. Training was largely provided by the local community college and was designed to both upgrade employees' skills and to assist them in adapting to the standard processes of their new company.

The company used the CT grant to provide general computer skills training to its employees to enable them to use the company's production and administrative software. Managers with the company reported that prior to receiving the CT grant many of the employees receiving training lacked the basic level of computer skills necessary to operate any of this software. In addition, the grant was used to provide employees training in technical skills and principles of safety, including aseptic processing, good laboratory practices, introduction to microbiology, and chemical hygiene for laboratories.

The classes were held either in an on-site computer lab or at the local community college. Courses ranged in length from single two-hour sessions up to twenty-four hour multi-day courses. More than 700 employees received training, with the average employee participating in an average of 2.8 separate courses. In addition, the company reported that all manufacturing/production employees received at least sixteen hours of training under the grant.

### *Profiled grant 3: Pharmaceutical Manufacturer*

A large pharmaceutical manufacturer located in northern New Jersey received a CT grant for \$125,000 in 2003. The manufacturer used these funds and their own contribution of \$142,000 to train 270 employees. The company's production employees received ESL and technical skills training under the CT grant, while a portion of the company's supervisory staff was trained in new management techniques.

This company focused on improving the language and technical skills of its production workers and on the management skills of its staff of supervisors. The company reported that it was facing significant cost pressures at its New Jersey location, creating the possibility of relocation of its production responsibilities to other facilities within the same corporation, but outside of New Jersey. The leadership of the company's New Jersey operation reported choosing a training strategy which they estimated had the best chance to improve the company's operating efficiency.

In addition, although the company did not seek formal process certification or introduce an established quality assurance system, the training mix chosen by the company contained clear elements of process improvement philosophies. Computer software controlling pieces of the production line had recently been introduced, and the employees were trained in how to use this software. Continuous improvement and "good manufacturing" courses were also given to the majority of the company's site employees—both of these are key pieces of process improvement type training. Managers from the customized training company met with representatives from a local non-profit training provider to develop the training plan, and to provide the training on the company's work site.

### **III. Perceived Benefits of Training for Companies**

The three companies profiled in this chapter reported that training funded by the CT grant had a variety of benefits. Executives from both pharmaceutical manufacturers profiled reported that the CT grant raised the productivity of their employees. For example, one company used the CT grant funding to provide computer software training to its employees. By providing these employees with computer skill training, these employees were able to learn to use the company's existing software. Because the ownership of the company had recently changed prior to the beginning of the grant, this training was reported to be extremely important in facilitating employees' transition from the previous operating procedures to the new operating procedures.

The pharmaceutical manufacturer reported positive results from the CT grant funded training, including an increased level of skill among employees receiving training and improved customer service outcomes.

The medical research laboratory reported that the CT grant helped increase the company's competitiveness. While the company was competitive in its industry prior to the receipt of the CT grant, company executives reported that the CT grant greatly assisted the company in expanding relative to its peers in the sector. Many major purchasers of the research laboratory's work require certifications from national organizations. Acquiring ISO certification allowed the company to become eligible for an increased number of contracts. Other potential clients may not require explicit certification, but often have their own set of requirements for the suppliers demanding some sort of internally audited quality assurance process. The ISO certification has been able to fill these requirements in several cases. Additionally, the company has been able to expand into several international business relationships that would not have been possible without ISO certification.

Laboratory executives also reported that the CT grant assisted their employees to increase their productivity, primarily because the efficiency improvements introduced during the ISO certification process became part of standard operations. These executives reported that streamlining the lab's overall research process allowed its employees to handle its existing contract workload while simultaneously adding new business. According to executives interviewed, the company has seen an increase in new business while becoming more confident in its ability to retain previous contracts as a result of the ISO certification.

Laboratory executives also reported that the training funded by the CT grant led the company to develop a new data collection and reporting tool that further increased the company's competitive advantage within the sector. During the quality manual restructuring, the company realized that its computer tracking system—the entry and storage point for all lab findings—required an overhaul. The company responded by developing software now recognized as elite within the industry. Data collection and transfer is now completely paperless within the company, further increasing efficiency. In addition, company executives report that CT grant

allowed the company to increase the amount of training provided. As a result of the success of the training funded by the CT grant, the laboratory has used their own resources to finance subsequent annual ISO certification renewals using internal resources.

#### **IV. Perceived Benefits of Training for Workers**

Employees of all three companies reported that the training they received was beneficial to them. All employees interviewed individually or in focus groups reported that they were able to use skills they learned through training in their current jobs. Some employees reported that they believed the new skills they acquired through the training would help them to advance within the company.

Executives of one of the manufacturing companies reported that their company's employees were better prepared, post-training, to participate in its parent company's distance learning training program. This program is the corporation's primary staff development tool, and hence may be very valuable to new employees of the company looking to advance within the company. The company reported that the CT grant allowed the employees to progress much more quickly within their jobs, taking on more complicated work duties than they were able to without the company-wide training. The company reported that the ability of employees to pursue advancement is expected to have positive morale and retention outcomes, as well as facilitating better communication between employees and their supervisors.

Some employees of the pharmaceutical manufacturer profiled in this report received college credit for training they received from the community college that provided the training. At the request of its employees, the company has continued the relationship with the local community college that provided the grant-funded training. The community college now offers a Business Management Associate's Degree program to the company's employees on-site at the company. Twenty employees of the company enrolled in this program by the end of the grant period.

#### **V. Conclusion**

CT grants awarded to companies in the life sciences industry appear to assist the companies increase the productivity of employees and thus enhance the competitiveness of the company. While the types of training funded by the CT grants varied considerably from one company to another, all three companies profiled in this chapter reported that the CT grant and the training funded through the grant increased the productivity of employees and was thus beneficial to the company.

The training funded by the CT grant also benefited the employees who received training. At one company, in particular, the training had a long lasting impact on some employees.

These individuals received college credit for a portion of the training helping them to progress towards receiving an associate's degree. Some of the employees have continued to attend classes offered by the community college that are now offered on site at the company.

# Chapter 6: Literacy, Basic Skills, and ESL training

## Chapter Summary

In 2003 and 2004, approximately one-third of all Customized Training (CT) grants were used wholly or partially to provide literacy and basic skills training. During this period, the New Jersey Department of Labor and Workforce Development (LWD) awarded 98 CT grants as part of the Literacy/Basic Skills Program, which is designed to focus a portion of the CT grant program to fund English as a Second Language and adult basic skills training, including literacy, basic math, basic computer, and workplace readiness skills training. Grants awarded during 2003 and 2004 totaled \$4.6 million, amounting to 12% of grant funds and 27% of all CT grants. One company receiving a grant through this program is profiled in this chapter.

In addition to these grants, a significant number of grants awarded through the primary CT program are used to provide basic skills or literacy training. Based on limited information included in the CT grant database, at least 27 additional grants totaling \$4.2 million included at least some ESL and/or basic literacy training. Three grants profiled in other chapters of this report provided significant amounts of basic skills and literacy training. As a result, these grants are profiled in this chapter as well. The four grants profiled in this chapter include three grants to manufacturing companies and a grant to a consortium serving casinos in Atlantic City.

Companies profiled in this chapter reported that without the CT grant they would have not provided ESL or basic skills training to employees or offered it at a lower level. Companies also reported that ESL training, in particular, increased the productivity of workers, by increasing their ability to communicate with co-workers, supervisors and, in the case of casinos, with customers.

## Full Chapter

### I. Introduction

#### *The Need for Literacy, Basic Skills and ESL Training*

A significant share of New Jersey's adult population has limited formal education. Fourteen percent of those 25 years and over did not complete high school, and approximately 40 percent of these individuals have no more than an eighth grade education.<sup>32</sup> For example, a 1994 survey conducted through the U.S. Department of Education reported on the literacy competencies of New Jersey residents age 16 and over by placing survey respondents in one of five literacy levels. This report cited that the average literacy level of those who did not complete high school was in a range that included the lowest and second lowest literacy level. This study also reported that

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<sup>32</sup> American Community Survey, 2005.

between 40 and 50 percent of New Jersey residents age 16 and older had difficulty “with tasks that required them to integrate or synthesize information from complex or lengthy texts.”<sup>33</sup>

The demographics of the workforce in New Jersey suggest a high demand for English language skills training. For example, 61% of the population with less than a high school diploma and 25% of the labor force with a high school diploma but no college education speak a language other than English.<sup>34</sup> In addition, surveys by the Census Bureau approximate that 45 percent of the state’s residents who speak a language other than English do not speak it “very well”.<sup>35</sup>

The share of New Jersey residents living in a household where English is not the primary language has increased by 36% since 1990.<sup>36</sup> This growth has not been concentrated to specific parts of the state—since 1990, every county in New Jersey has seen an increase in the share of its population living in non-English speaking households. For example, in 1990, 22% of Middlesex County’s population lived in households where English was not the primary language; in 2004, 39% of its population did so--an increase of 80%. Overall, the state share of people living in households where English was not the primary language moved from 20% in 1990 to 27% in 2004.

Several of the counties with high numbers of jobs in manufacturing and health care—the two most common industries among CT grant recipients providing ESL and basic literacy—also have some of the fastest growing populations within non-English headed households. The three counties (Bergen, Middlesex, and Union) with the greatest number of manufacturing jobs in 2005 all have non-English growth rates above the state average, as did four of the top five counties (Bergen, Monmouth, Middlesex, and Camden) in health care employment in 2005.<sup>37</sup>

#### *CT Grants Awarded Through the Basic Skills / Literacy Program*

LWD awarded a total of \$4.6 million across ninety-eight basic CT grants through the Basic Skills / Literacy Program in 2003 and 2004. The grants were used to provide training to 8,741 individuals. The average grant was worth approximately \$47,000. Eighty percent of these grants were for less than \$50,000, while an additional eighteen percent were for between \$50,000 and \$200,000. There were two grant awards worth more than \$250,000.

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<sup>33</sup> ([http://nces.ed.gov/NAAL/pdf/state\\_summaries/NewJersey.pdf](http://nces.ed.gov/NAAL/pdf/state_summaries/NewJersey.pdf))

<sup>34</sup> American Community Survey, 2005.

<sup>35</sup> American Community Survey, 2005.

<sup>36</sup> U.S. Census (1990), American Community Survey (2004).

<sup>37</sup> Bureau of Labor Statistics, U.S. Census (1990), American Community Survey (2004).

**Figure 6.1.**  
**Distribution of Basic Skills / Literacy Program Grants by Grant Size,**  
**2003 - 2004**

Grant Size	#	Average
Small	78	\$ 25,676
Medium	18	\$ 90,556
Large	2	\$ 491,952

Source: New Jersey Department of Labor and Workforce Development, Customized Training Program Database.

Eighty-two of the 98 grants were awarded directly to individual companies. LWD awarded an additional 6 grants to labor unions and an additional ten grants to consortia of employers led by economic development organizations, disability and vocational rehabilitation groups, and adult education service providers. The average grant size to unions and to consortia was significantly larger than the average grant size to employers, although unions and third parties were also more likely to train large numbers of workers with the grant. However, the amount spent per trainee was fairly similar. Individual companies spent approximately \$503 in CT grant funds per trainee. Labor unions spent approximately \$485 in CT funds per trainee, and consortia averaged \$755 in CT funds per trainee.

**Figure 6.2.**  
**Distribution of Basic Skills / Literacy Program Grants by Type of Grantee,**  
**2003 - 2004**

Grantee type	# of grants	Amount of grants	Size of grants			# of people trained	Average funding per trainee
			Small	Medium	Large		
Direct employers	82	\$ 2,825,083	69	13	0	5,613	\$ 503
Unions	6	\$ 1,027,949	3	2	1	2,085	\$ 493
Third-party groups	10	\$ 762,879	6	3	1	1,043	\$ 731

Source: New Jersey Department of Labor and Workforce Development, Customized Training Program Database.

Thirty-seven percent of CT grants awarded to individuals companies were awarded to manufacturing companies and seventeen percent were awarded to companies within the health care industry, including hospitals. Hotels received eleven percent of the grants, while wholesale trade companies (10%), professional services companies (6%), and companies in the entertainment and recreation industry (5%) all received several literacy grants in 2003 and 2004, as well.

**Figure 6.3.**  
**Distribution of Basic Skills / Literacy Program Grants Awarded to Individual Companies by Industry, 2003 - 2004**

	# of grants	Total amount awarded	Average grant size	Share of literacy grants
Manufacturing	30	\$ 892,433	\$ 29,748	37%
Health Care and Social Assistance	14	\$ 617,600	\$ 44,114	17%
Accommodation and Food Services	9	\$ 197,500	\$ 21,944	11%
Wholesale Trade	8	\$ 321,100	\$ 40,138	10%
Professional, Scientific, and Technical Services	5	\$ 250,950	\$ 50,190	6%
Arts, Entertainment, and Recreation	4	\$ 119,350	\$ 29,838	5%
Real Estate and Rental and Leasing	3	\$ 61,670	\$ 20,557	4%
Other	9	\$ 364,480	\$ 40,498	11%
<b>TOTAL</b>	<b>82</b>	<b>\$ 2,825,083</b>	<b>\$ 34,452</b>	<b>100%</b>

Source: New Jersey Department of Labor and Workforce Development, Customized Training Program Database.

Customized training literacy funding was spread evenly across small, medium-sized, and large employers. Small companies (defined as those with fewer than 100 employees) received 33 percent of the employer grants and 23 percent of the total employer training funding. Medium-sized companies (with between 100 and 499 employees) received 50 percent of the employer grants and 56 percent of the funding, while large companies (500 or more employees) were awarded 17 percent of the grants and 21 percent of the funding. Although the average grant size was largest for companies with 500 or more employees, the average funding per trainee for these large companies was \$361, lower than the per trainee cost for either medium-sized (\$509 per trainee) or small companies (\$760 per trainee).

**Figure 6.4.**  
**Distribution of Basic Skills / Literacy Program Grants Awarded to Individual Companies by Size of Company, 2003 - 2004**

Firm size	# of grants	Amount of		# of people trained	Average funding	
		grants	Average grant size		per trainee	
Small (Under 100 employees)	27	\$ 639,530	\$ 23,686	842	\$ 760	
Medium (100-499 employees)	41	\$ 1,591,300	\$ 38,812	3,125	\$ 509	
Large (500 or more employees)	14	\$ 594,253	\$ 42,447	1,646	\$ 361	

Source: New Jersey Department of Labor and Workforce Development, Customized Training Program Database.

The large majority of grants were awarded to companies and organizations in Northern and Central New Jersey. Sixty-three percent of the total money and 47 percent of the grants went to

companies in Northern New Jersey, while 26 percent of the money and 42 percent of the grants went to companies and organizations in Central New Jersey. Southern New Jersey companies and organizations received 11 percent of both the total literacy and ESL training funding and grants. The populations in the northern and central portions of the state are less likely to be native English speakers, presumably creating a greater need for language and literacy training.

For example, 64% of the total Basic Skills / Literacy Program funds awarded in 2003 and 2004 went to four counties where the large majority of members of the labor force with less than a high school diploma speaks a language other than English--Union (83% of labor force with less than HS diploma speaks a language other than English), Bergen (77%), Middlesex (73%), and Essex (62%).

The majority of companies (63%) receiving ESL and basic literacy grants contracted with either a local county college or four-year university to provide the training. Twelve of New Jersey's county colleges and four of its four-year universities provided training through the Basic Skills / Literacy program in 2003 and 2004.

## **II. Overview of Profiled Grants**

Five grants profiled for this study either wholly or partially funded ESL and basic skills training. One grant profiled in this chapter was made to a company that manufactures personal care products through the Basic Skills / Literacy Program. The other three CT grants profiled in this section—the Atlantic Cape Community College casino training consortium, a medical packaging manufacturer, and a chemical manufacturer—each used portions of their CT grant funding to provide ESL training and basic skills training to their employees. Detailed descriptions of the grant operations of each of these grants are available in other chapters of this profile.

### *Profiled Grant 1: Personal Care Products Manufacturer*

A personal care products manufacturer located in central New Jersey received a CT grant for \$30,500 in 2003 through the Basic Skills / Literacy Program. The company used the grant and its own funds to provide ESL training to 57 of its employees. This training enabled the company's employees to complete safety and good manufacturing practices training that the company reported would not have been possible without an increased level of English proficiency.

### *Profiled Grant 2: Atlantic Cape Community College Casino Training Consortium*

Since 1995, Atlantic Cape Community College (ACCC) has received Customized Training (CT) grants to provide training to the employees of Atlantic City casinos. Training is provided to current casino employees in both English as a Second Language (ESL) and occupational skills. The employees receiving training through this grant included housekeeping staff, food services

workers, card dealers, cashiers, sanitation staff, and general hotel staff. A detailed analysis of the ACCC training program is included in Chapter 3 of this profile.

#### *Profiled Grant 3: Medical Packaging Manufacturer*

A medical packaging manufacturer located in northern New Jersey received a CT grant for \$39,000 in 2003. The manufacturer used these funds and their own contribution to provide training in basic math skills, basic computer software skills, ESL, and in process improvement, including principles of lean manufacturing. A total of 55 employees received training funded by the CT grant, including multiple employees who completed more than one type of training class. A detailed analysis of this grant is included in Chapter 5 of this profile.

#### *Profiled Grant 4: Chemical Manufacturer*

In 2002, a manufacturer of generic drugs purchased a production facility in southern New Jersey from another company in the industry. In 2003, this company applied for and received a CT grant for \$524,000 to provide training to about 80% of its new employees. Twenty-two separate courses were offered to employees through the CT grant, including English as a Second Language training. Training was largely provided by the local community college and was designed to both upgrade employees' skills and to assist them in adapting to the standard processes of their new company.

### **III. Overview of Training Provided**

English as a Second Language training was the most prevalent form of basic skills / literacy training offered by the four companies profiled in this report. According to hiring managers and executives of these companies, these companies typically hire individuals with low and moderate levels of formal education to fill positions with limited skill requirements. According to the companies interviewed for this report, the labor pool for these types of positions includes a large number of individuals with limited English skills. English language skills are not a formal requirement for these positions, which include housekeeping jobs in casinos and low skill jobs in the manufacturing industry. However, the companies sought out and received CT grant funds to provide ESL training for their employees because they realized that by improving the English language abilities of their worker, they could increase the productivity of employees.

While ESL and basic literacy skills are necessary to give individuals access to jobs with higher wages and more varied work tasks, but are often not the priority of an individual company in the absence of a training grant. All companies reported that the ESL and basic skills training would have not been offered or would have been offered at a far lower level in the absence of the CT grant.

All companies profiled in this chapter contracted with a local training provider to conduct the training classes. All companies interviewed for this profile held the classes on the company's work site during work hours. For companies running a continuous production line, this required replacing the worker in the production process while he or she was in training.

Each company included in this profile worked closely with the training providers to ensure that ESL training activities and materials to the work processes of the company and abilities of the employees. Training funded by the CT grant was focused on assisting employees to perform their jobs more successfully. As a result, ESL and basic skills lessons were closely tied to the responsibilities and duties of employees. For example, one manufacturing company included in this chapter requires its workers to be able to constantly adjust machinery according to measurements and basic calculation. The instructor of a basic math concepts class described how she was able to use this work duty—adjusting machines using basic measurements—to teach important lessons about the calculation of percentages. Employees of this company, interviewed for this profile reported that they had a much easier time grasping the lessons being taught when the instructor related them to their daily work.

Companies typically designed ESL programs around the proficiencies of their employees. For example, to meet the various needs of employees, ACCC offered three ESL courses based on employees' level of English language proficiency. Each of the three courses involved forty hours of class time and took place either over twenty two-hour sessions or sixteen two-and-a-half hour sessions. The courses were designed to help employees understand and respond to requests from hotel guests and coworkers or supervisors, as well as being able to converse with guests with an emphasis on proper pronunciation. Speaking principles were stressed in these classes over written work. The majority of individuals receiving ESL training (60%) were in housekeeping positions. One quarter of recipients were in culinary positions and 15% were in facilities positions.

### **III. Perceived Benefits Of ESL And Basic Skills Training**

Companies interviewed for this profile reported a variety of important benefits to the training funded by the CT grant, including increased productivity of employees through improved communication between employees.

Companies reported that ESL training had immediately increased the productivity of participating employees. For example, casinos reported that customer complaints about housekeeping staff fell significantly after these staff were trained through ESL classes. In this situation, the employees were able to understand and address the problem immediately, before a complaint could be registered. In addition, casino employers reported that increasing the English language proficiency of employees improved the efficiency of their working environment. Communication became possible between employees who spoke different languages, eliminating the need for manager or front desk involvement. Multiple conversations with casino human

resource managers stressed the same concept—a significant percentage of the casino workers are able to handle customer problems themselves, given that communication between the employee and customer can take place. Training the workers in English language skills also allows communication with their supervisors to occur more easily. In addition, one manufacturing company included in this study reported that following ESL training workers were able to identify and share their concerns about work processes with their supervisors and colleagues more readily, reducing both potential inefficiencies and safety threats.

One company providing ESL training had representatives from the training provider study the company's internal processes and design an ESL curriculum based on this study. The resulting ESL courses allowed workers to both read instructions more clearly and to communicate concerns to their immediate superiors. As was the case with the math classes, company-specific language and terminology was incorporated into the ESL curricula, allowing the workers to better integrate their newly learned concepts into their daily work tasks and responsibilities.

Some companies also reported that the ESL training has allowed the company to provide additional types of training to employees, who now had improved English language abilities. For example, the president of one company reported that individuals with improved English language skills could now be more easily trained in the use of a new production tool which required a moderate level of language facility in order to be adjusted. In addition, some companies reported that the ESL training has increased the effectiveness of the company's process improvement training efforts, since employees are now able to communicate more effectively with their supervisors

Employers also reported that ESL training has increased morale among employees, thus reducing turnover of employees. For example, casino employers found that employees who receive ESL training are more likely to stay with their employer than other employees at the same level who do not receive the training. One manager said that the casino has measured a lost worker rate of between 3% and 5% for people who received ESL training, compared to an approximation of 25% for those who had not received training.

Individual employees interviewed for this study reported that the ESL and basic skills training had benefited them. Employers reported high levels of interest in taking the ESL classes among their employees. Recipients of literacy and ESL training repeatedly indicated that the biggest benefit of training to them was the ability to speak with their children's teachers and doctors in a manner that was not previously possible. In addition, individuals reported that they were hopeful that with improved English language skills that they could secure a promotion with the company. In addition, several employers reported that employees were more likely to be able to be promoted following the completion of ESL classes.

## **IV. Conclusion**

Companies profiled in this chapter reported that the CT grant helped them to address the strong need for ESL and adult basic skills training among their employees. Nearly every employer interviewed for this chapter noted that the supply of workers for jobs with limited skill and education requirements in New Jersey includes a significant number of non-native English speakers and individuals with limited basic skills. While companies recognized the importance of ESL and basic skills training, they likely would not have offered such training to employees or offered it at lower levels without the CT grant.

Companies also reported that ESL training, in particular, increased the productivity of workers. Individuals who received ESL and basic literacy skills training were able to perform their jobs more efficiently and that they were able to communicate better with their supervisors and colleagues. Recipients of ESL and basic literacy training reported that the training provided them with both workplace and social benefits. These workers repeatedly indicated that the biggest benefit of training to them was the ability to speak with their children's teachers and doctors with a level of detail that was not possible with a low level of English.