

Implementation Analysis of High Growth Job Training Initiative (HGJTI) Programs

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CONTENTS

Abstract	iv
Executive Summary	v
I. Introduction	1
A. Overview of the HGJTI Initiative	1
B. The HGJTI Evaluation: Status and Future Components	1
II. The National Initiative	2
A. Overview of the National Initiative	2
B. Grantee Characteristics	2
C. Grantee Activities	9
D. Goals and Outcomes	11
III. Structure and Implementation of Selected Grantee Projects	13
A. Grantee Organizations and Characteristics	13
B. Job Training Strategies	24
C. Capacity-Building Strategies	37
D. Implementation Issues and Lessons from the Field	43
IV. Conclusions and Implications	57
A. Summary of Implementation Analysis Findings	57
B. Next Steps in Evaluation	58
ATTACHMENT A	59

IMPLEMENTATION ANALYSIS OF HIGH GROWTH JOB TRAINING INITIATIVE (HGJTI) PROGRAMS

ABSTRACT

The High Growth Job Training Initiative (HGJTI) is a national grants program administered by the U.S. Department of Labor Employment and Training Administration (ETA). Between 2001 and 2006, more than 150 grants were awarded to establish demand-driven job training and related projects designed to meet employer-defined workforce challenges. This report is one of a series from the national evaluation of the HGJTI being conducted by the Urban Institute, the Institute for Policy Studies at Johns Hopkins University, and Capital Research Corporation. This report documents the national initiative and describes the structure and implementation of projects implemented by selected grantees. The information presented is based on reviews of grantee applications and quarterly reports submitted to ETA, and on field-based site visits to six grantees purposively selected to represent a variety of organizations, industry sectors, and geographic regions.

EXECUTIVE SUMMARY

The High Growth Job Training Initiative (HGJTI) is a national grants program administered by the U.S. Department of Labor (DOL) Employment and Training Administration (ETA). Between 2001 and 2006, more than 150 grants were awarded to establish demand-driven job training and related projects designed to meet employer-defined workforce challenges. This report is one of a series from the national evaluation of the HGJTI being conducted by the Urban Institute, the Institute for Policy Studies at Johns Hopkins University, and Capital Research Corporation. This report documents the national initiative and describes the structure and implementation of projects being implemented by selected grantees. The information presented is based on review of grantee applications and quarterly reports submitted to ETA, and on field-based site visits to six grantees purposively selected to represent a variety of organizations, industry sectors, and geographic regions.

The National Initiative

- As of December 31, 2006, 156 grants had been awarded. Of those, 47 percent were still active at the beginning of 2007, while the remaining 53 percent had ended.
- Of the 156 grantees, 21 percent of the grantees were in the health care sector, 21 percent in advanced manufacturing, 10 percent in biotechnology, and the remainder in other targeted sectors (aerospace, automotive, construction, energy, financial services, geospatial technology, hospitality, information technology, retail, and transportation) or in non-sector-specific areas (such as Gulf Coast hurricane recovery occupations in demand).
- The average grant awarded was nearly \$1.9 million. Nearly all grantees leveraged the national funds with other funds and in-kind resources from businesses or other partners, with the reported leveraged contributions ranging from \$7,000 to \$31 million and a median of \$700,000.
- About 30 percent of the grantees operate nationwide, which means that workers or businesses in every state have access to activities funded by multiple grantees.
- All grantees report using the grant funds to operate some form of job training, the most common types of which are apprenticeships (31 percent of grantees) and internships (16 percent of grantees).
- Grantees target their activities to one or more particular populations, the most common of which are youth (36 percent of grantees), incumbent workers (35 percent of grantees), dislocated workers (23 percent of grantees), and entry-level workers (22 percent of grantees). About half the grantees report targeting other “special populations” such as ethnic minorities, veterans, or survivors of Hurricanes Katrina and Rita.
- Nearly all grantees, regardless of industry, report incorporating some capacity-building activities into their initiatives. The range is broad and includes developing curriculum,

career ladders, recruitment efforts, occupational skill certifications, and distance learning options.

- Grantees submit quarterly reports to ETA that include summaries of activities carried out, the number of participants trained, and progress toward their stated goals. A review of quarterly reports indicates that grantees do not consistently define goals, activities, or outcomes. Given the differences in reporting across grantees, it is not possible to report activity levels or outcomes at a national aggregate level.

Structure and Implementation of Projects in Selected Grantees

To document and assess the implementation of the HGJTI, structured fieldwork was conducted in 2007 with the following six grantees:

- Miami-Dade College (Florida)
 - Columbia Gorge Community College (The Dalles, Oregon)
 - Chicago Women in Trades (Illinois)
 - JobPath, Inc. (Tucson, Arizona)
 - Louisiana Department of Labor
 - Oklahoma Department of Career and Technology Education/High Plains Technology Center (Woodward, Oklahoma)
- These grantees focus on three workforce challenges: (1) insufficient skilled workers for certain growth industries; (2) poor employment opportunities for low-skilled and disadvantaged workers; and (3) lack of educational or training programs for jobs in an industry. All grantees were implementing both training and capacity-building efforts but Louisiana was more focused on meeting workforce needs related to the recovery from Hurricanes Katrina and Rita.
 - Training priorities were paramount in all the grantees. Four of the six grantees were also focused on retention (on the job and in training), with five grantees placing high priority on improving education and training capacity. Five specifically intended to find and attract new pools of workers—including low-income individuals, women, dislocated workers, and the unemployed or underemployed.
 - Five of the six grantees visited (except Chicago Women in Trades) offered more than one training component. A total of 41 separate training initiatives were funded with HGJTI funding across these six sites, 26 of which were contracted under the Louisiana Department of Labor grant.
 - While three of the six HGJTI grantees offered long-term training (usually at a community college), much of the training is of short duration (80 hours or less). Shorter-term training was often meant to elicit workers' interest in a particular field and to provide basic skills

(and knowledge of safety procedures) that would facilitate entry into a high-growth field. Longer-term training could take four years or more to complete because participants attended training only part time and sometimes had to transfer to a four-year university to complete their degree program.

- All six grantees engaged in multiple capacity-building efforts, defined as strategies designed to expand the quality and quantity of training and education programs for workers and to increase the capacity of the workforce in occupations in the targeted sectors. Across the grantees, the following types of capacity building are under way:
 - development of outreach materials;
 - design and development of program curricula and instructional materials;
 - creation of career ladders and competency models;
 - development or improvement of credentials, certifications, or degree programs;
 - design or use of new instructional techniques and/or technologies (e.g., Web-based learning);
 - expansion of the number of training program “slots”;
 - expansion of the number of certified instructors for particular training or education programs; and
 - expansion of training alternatives to access new or untapped labor pools.
- Most grantees identified multiple challenges and issues to overcome in implementing their initiatives. These self-reported challenges or issues included difficulties recruiting training participants, lack of experience in federal grants management, turf issues, and burdens of securing active cooperation on the part of other organizations that were vital to meeting project goals.
- Key lessons from the grantees’ perspective include the following:
 - Employers are important partners in implementing all aspects of an industry-driven project. Overwhelmingly, these grantees said that employers were essential to the success of their projects by helping secure additional resources, advising and providing feedback on curriculum and training program development, recruiting participants, developing career awareness in a particular industry, hiring trainees, and/or providing on-the-job training or internships. The earlier employers were engaged in project activities, the more invested they became in the project.
 - New training technologies should be explored and used to provide better training delivery mechanisms.

- Hiring key project staff with knowledge of the industry and of federal grants could make implementation easier.
- Instructors from industry are needed, but they can be difficult to retain. Some grantees were able to entice experienced workers and supervisors to become instructors, but some had difficulty hiring enough instructors because the wages provided by employers were much higher than the training programs or colleges could offer.
- Projects need to be flexible to respond to changes in the external environment, including rising unemployment rate or delays in firms relocating to a particular labor market.
- Resource and cash contributions, especially from employers, are difficult to secure. Grantees often had to seek other sources or rely more heavily on others when some partners that promised cash and in-kind contributions as a part of their required match in the grant application were then unable to fully live up to that commitment. In addition, any changes to the required match by the grantees had to be approved by ETA.
- Having hands-on training components is as important as classroom training. Many grantees felt that their on-the-job training, internships, and simulation training were important aspects of the success of their training programs.

Next Steps in Evaluation

More than 150 grants have been awarded, and projects funded by those grants have mostly been completed, although some are still operating. The implementation analysis in this report provides insight into the types of evaluations that could be conducted to rigorously estimate the impacts of similar projects designed to improve worker skills, meet business skills needs, and improve workforce development capacity. A forthcoming report will present the results of a nonexperimental statistical analysis of the outcomes of job training provided by selected HGJTI grantees, using grantee data on participants and quarterly administrative data on earnings and employment from states where the study grantees operate. The nonexperimental analysis will provide important information about the outcomes and results of the selected projects.

I. INTRODUCTION

The High Growth Job Training Initiative (HGJTI) is a major national effort to encourage market-driven strategic partnerships among the private business sector, educational institutions, and the workforce investment system. This report is the second in a series of reports from the national evaluation of the HGJTI conducted by the Urban Institute, Johns Hopkins University, and Capital Research Corporation. This report documents the national initiative and describes the structure and implementation of projects being implemented by selected grantees.

A. Overview of the HGJTI Initiative

The HGJTI is one of three grant programs developed by the U.S. Department of Labor (DOL) Employment and Training Administration (ETA) that together intend to encourage market-driven, demand-focused partnerships between the private business sector and the public sector, including the workforce investment system, community colleges, and economic development agencies. Since 2001, ETA has awarded more than 150 HGJTI grants to support development of industry-driven solutions to meet workforce challenges identified by employers. The grantee efforts provide a rich source of information about various models and approaches that can be used to meet a key national goal of expanding the skilled workforce needed by high-growth and high-demand economic sectors. Grantees have used the funds to implement various capacity-building strategies, such as developing new curricula and materials for training workers for high-demand occupations, increasing the number of appropriately qualified instructors, using new communication technology (e.g., Web-based learning) to improve knowledge about industry and occupational demand, and operating occupation-specific job training projects. As of December 31, 2006, a little more than half of the grants had ended.

B. The HGJTI Evaluation: Status and Future Components

The Urban Institute, with its partners Johns Hopkins University and Capital Research Corporation, is conducting the national evaluation of HGJTI. This evaluation has two major components: an implementation analysis and an analysis of early outcomes and impacts of training in six grant programs. The first report on the implementation and sustainability of 20 early HGJTI grants was released in June 2007. This report presents a second, more in-depth implementation analysis. The third report (forthcoming in early 2009) will analyze the early outcomes of job training in six grant programs.

The information presented in this report is based on review of grantee applications and quarterly reports submitted to ETA, and on field-based site visits to six grantees purposively selected to represent organizations, industry sectors, and geographic regions. Chapter II provides an overview of the national HGJTI and a summary of the general characteristics and funding of all grantees, based on ETA reporting data as of December 31, 2006. Chapter III describes the six selected grantees by the types of projects and activities they developed with grant funds, the partnerships involved, and the job training and capacity-building efforts in which they engaged. Finally, Chapter IV provides conclusions about the implementation of the HGJTI grants and next steps in the evaluation.

II. THE NATIONAL INITIATIVE

This section provides an overview of the national HGJTI and a description of the key characteristics of the grants funded as of December 31, 2006.

A. Overview of the National Initiative

Since 2001, more than 150 HGJTI grants have been awarded by ETA to support the development of industry-driven solutions to meet workforce challenges identified by employers and industries. The grantee efforts provide a rich source of information about various models and approaches that can be used to meet a key national goal of expanding the skilled workforce needed by high-growth and high-demand economic sectors. Most of the earliest grants awarded have ended, but many were still active as of the end of 2006.¹

Grantees can use the funds to implement various activities, including job training and capacity-building strategies, such as developing new curricula and materials for training workers for high-demand occupations, increasing the number of appropriately qualified instructors, using new technology (e.g., Web-based learning) to improve knowledge about industry and occupational demand, or operating occupation-specific job training projects.

Each grantee is required to submit quarterly progress reports to ETA summarizing the status of grant-funded efforts, including training and capacity-building activities. This section profiles the HGJTI grantees and their projects, based on the grantees' quarterly reports and their initial grant applications to ETA. The grantees are described according to industry sector, organization type, geographic region, and the funding levels received. The different capacity-building activities conducted by grantees and the target populations for training are also described. The section concludes with a discussion of the goals and outcomes reported by grantees.

B. Grantee Characteristics

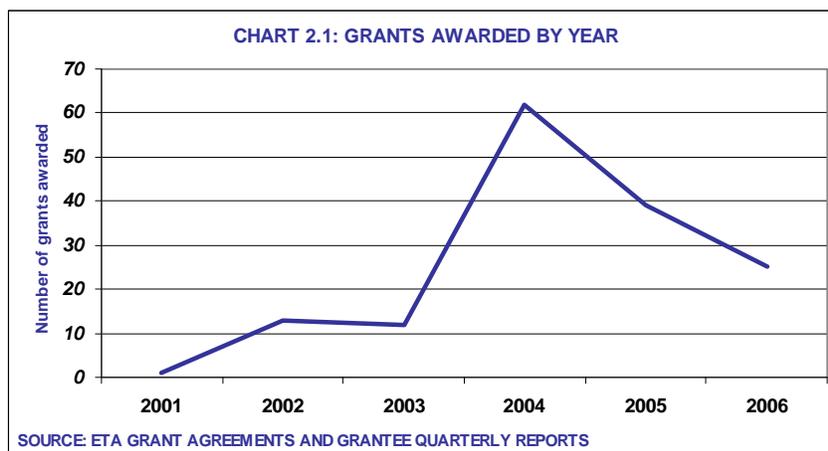
Grantee organizations were specifically awarded HGJTI grants because they intended to focus their job training and capacity-building efforts on targeted high-growth industry sectors and their approaches were considered unique or innovative by ETA. This section summarizes the number of grantees and the general characteristics of all the grants awarded from 2001 through 2006.

¹ For more information on early implementation experiences of the HGJTI grants, see John Trutko, Carolyn O'Brien, Pamela Holcomb, and Demetra Smith Nightingale, *Implementation and Sustainability: Emerging Lessons from the Early High Growth Job Training Initiative (HGJTI) Grants* (Washington, DC: The Urban Institute, 2007), available at http://wdr.doleta.gov/research/keyword.cfm?fuseaction=dsp_resultDetails&pub_id=2344&mp=y.

Industry Distribution

As of December 31, 2006, 156 grants had been awarded.² Of those, 47 percent were still active at the beginning of 2007, while the remaining 53 percent had ended. The number of grants funded peaked in 2004, as shown in chart 2.1, when 62 grants were awarded, accounting for 41 percent of all grants awarded.

A majority of grantees come from three industries: health care, advanced manufacturing, and biotechnology. As shown in table 2.1, these three industries account for 53 percent of all grantees (21, 21, and 10 percent, respectively). Awards in the automotive industry and those that are non-sector specific each make up 7 percent of the grants, and the construction industry makes up 6 percent of the grants. Each of the remaining industries is less than 5 percent of the grants.



As shown in table 2.1, these three industries account for 53 percent of all grantees (21, 21, and 10 percent, respectively). Awards in the automotive industry and those that are non-sector specific each make up 7 percent of the grants, and the construction industry makes up 6 percent of the grants. Each of the remaining industries is less than 5 percent of the grants.

TABLE 2.1: INDUSTRY DISTRIBUTION OF HGJTI GRANTEEES

Industry	Number of Grantees	Percent of Grantees
Advanced manufacturing	33	21
Aerospace	7	4
Automotive	11	7
Biotechnology	16	10
Construction	9	6
Energy	11	7
Financial services	5	3
Geospatial technology	6	4
Health care	33	21
Hospitality	4	3
Information technology	3	2
Non-sector specific	11	7
Retail trade	3	2
Transportation	4	3
Total	156	100

SOURCES: ETA GRANT AGREEMENTS AND GRANTEE QUARTERLY REPORTS.

² In two instances, ETA awarded multiple grants under a particular initiative. These two cases are (1) the Health Corporation of America Cares, in which four grants were awarded to the Colorado Department of Labor and Employment, the Florida Agency for Workforce Innovation, the Georgia Department of Labor, and the Texas Workforce Commission; and (2) the National Center for Integrated Systems Technology, in which two grants were awarded to the Illinois Department of Employment Security and the Ohio Department of Job and Family Services. We consider each grant award as a separate case in our analysis.

Table 2.2 displays the proportion of grants awarded each year by industry. The earliest grant was in the aerospace sector in 2001, and the most recent awards were in financial services, energy, and advanced manufacturing. Of the grants awarded in 2002, 31 percent were in the health industry and 31 percent were non-sector specific. In 2003, the grants were more evenly distributed among nine industries, while in 2004, 32 percent of grants awarded were in the health care industry, 16 percent in advanced manufacturing, 15 percent in automotive, and 15 percent in

TABLE 2.2: HGJTI GRANTS AWARDED BY YEAR AND BY INDUSTRY

Industry	Percent of Grantees					
	2001	2002	2003	2004	2005	2006
Advanced manufacturing	0	23	8	16	15	48
Aerospace	100	0	8	6	3	0
Automotive	0	8	0	15	3	0
Biotechnology	0	0	8	15	15	0
Construction	0	0	0	11	5	0
Energy	0	0	17	0	5	28
Financial services	0	0	0	0	0	12
Geospatial technology	0	0	8	5	5	0
Health care	0	31	17	32	18	0
Hospitality	0	8	0	0	8	0
Information technology	0	0	8	0	5	0
Non-sector specific	0	31	8	0	13	0
Retail trade	0	0	17	0	3	0
Transportation	0	0	0	0	3	12
All industries	100	100	100	100	100	100

SOURCES: ETA GRANT AGREEMENTS AND GRANTEE QUARTERLY REPORTS.

biotechnology. In 2005, grants were also spread fairly evenly over 13 industries, with the health care industry receiving 18 percent of all grants and the biotechnology and advanced manufacturing industries receiving 15 percent of the total grants each. In 2006, 48 percent of all grants awarded were in the advanced manufacturing industry.

Funding

Grants awarded by ETA ranged from \$60,000 to \$12 million, with the average grantee receiving nearly \$1.9 million. Chart 2.2 shows the proportion of grantees that fall within different ranges of grant amounts. The highest proportion of grantees (32 percent) are in range of \$1 million to under \$2 million awarded, while 10 percent of grantees received a grant of \$4 million or more. The construction and advanced manufacturing industries made up a little over half of all grantees that received \$4 million or more.

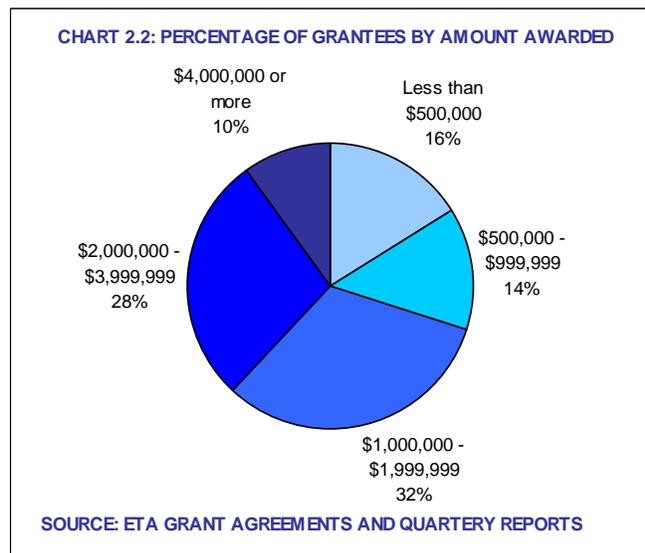


Table 2.3 displays grant amounts by industry. Over half of all grants awarded to the construction, advanced manufacturing, energy, information technology, non-sector, retail trade, and transportation industries are over \$2 million. In addition, over half the automotive, financial services, and geospatial technology industries grants were less than \$1 million.

TABLE 2.3: GRANT AMOUNTS BY INDUSTRY

Industry	Percent of Grantees				
	Less than \$500,000	\$500,000–\$999,999	\$1,000,000–\$1,999,999	\$2,000,000–\$3,999,999	\$4,000,000 or more
Advanced manufacturing	3	3	50	31	13
Aerospace	29	0	57	0	14
Automotive	45	27	9	9	9
Biotechnology	19	25	25	25	6
Construction	11	0	11	33	44
Energy	9	9	9	64	9
Financial services	33	33	0	33	0
Geospatial technology	17	33	33	17	0
Health care	18	21	42	12	6
Hospitality	25	25	50	0	0
Information technology	0	0	33	67	0
Non-sector specific	20	10	10	50	10
Retail trade	33	0	0	33	33
Transportation	0	0	25	75	0
All industries	16	14	32	28	10

SOURCES: ETA GRANT AGREEMENTS AND GRANTEE QUARTERLY REPORTS.

Grantees were encouraged to use the federal funds to leverage other public and private resources to address workforce challenges, and almost all grantees reported some leveraged resources. Ninety-two percent of grantees reported that they brought together leveraged resources, ranging from \$7,000 to \$31 million, with the average amount a little more than \$2 million. The median amount leveraged was about \$700,000, with the \$2 million average driven up by the 25 percent of all grantees who received leveraged resources above the mean. Table 2.4 displays leveraged grant amounts by industry. The transportation industry grantees were more likely to have leveraged resources of \$4 million or more, and a majority of the grantees in transportation, information technology, and retail trade industries have leveraged amounts of \$2 million or more. The leveraged amounts were less than \$500,000 for grantees in financial services, biotechnology, geospatial technology, hospitality, and non-sector specific industries.

Leveraged resources were provided by grantees or their partners as either cash donations or in-kind contributions (e.g., equipment, training facilities, and instructors). The data also indicate that leveraged funds came from various sources, including educational institutions, businesses and employers, foundations, governments, industry associations, nonprofit organizations, and the grantees themselves. However, many grantees did not provide specific information on the types of contributions and sources from which leveraged resources were obtained, and it cannot be systematically reported.

TABLE 2.4: LEVERAGED GRANT AMOUNTS BY INDUSTRY

Industry	Percent of Grantees				
	Less than \$500,000	\$500,000–\$999,999	\$1,000,000–\$1,999,999	\$2,000,000–\$3,999,999	\$4,000,000 or more
Advanced manufacturing	13	13	35	19	19
Aerospace	43	29	29	0	0
Automotive	45	0	18	27	9
Biotechnology	50	31	13	0	6
Construction	22	33	22	11	11
Energy	36	36	9	9	9
Financial services	100	0	0	0	0
Geospatial technology	50	17	17	0	17
Health care	33	36	18	6	6
Hospitality	50	0	25	0	25
Information technology	33	0	0	67	0
Non-sector specific	67	17	0	17	0
Retail trade	33	0	0	33	33
Transportation	0	0	0	25	75
All industries	13	13	35	19	19

SOURCES: ETA GRANT AGREEMENTS AND GRANTEE QUARTERLY REPORTS.

Organization Type

Table 2.5 shows the percent of HGJTI grantees by their organization type. One-fifth of all grantees are an industry group or association, followed by community colleges (17 percent), nonprofit training providers (11 percent), and state workforce agencies (10 percent).

TABLE 2.5: ORGANIZATION TYPE OF HGJTI GRANTEEES

Organizational Type	Percent of Grantees
Community college	17
Economic development agency	5
Employer	4
Faith-based organization	1
Industry group/association	20
Local workforce investment board	9
National nonprofit	4
Nonprofit training provider	11
Other	3
Other government	4
State workforce investment board	3
State workforce agency	10
Union	1
University	8
Total	100

SOURCES: ETA GRANT AGREEMENTS AND GRANTEE QUARTERLY REPORTS.

The majority of grantees are nonprofit or public organizations; 49 percent of grantees are nonprofit, 46 percent are public, and 5 percent are for-profit entities. Of the nonprofit grantees, 28 percent are industry groups or associations, 19 percent are nonprofit training providers, and

12 percent are community colleges. Of public grantees, 26 percent are community colleges, 19 percent are state workforce agencies, and 16 percent are local workforce investment boards.

Length of Grant

The grants lasted between six months and five years. Chart 2.3 displays the proportion of grantees by length of the grant. The median length of a grant is two years, including some grantees that requested and received extensions. Forty-seven percent of grantees had grants ranging from 1.1 to two years, 36 percent of grantees had grants for 2.1 to three years, while 11 percent of grantees had grants lasting a year or less. About 5 percent of grantees had grants covering 3.1 to four years in duration, and less than one percent of grantees had a grant lasting longer than four years.

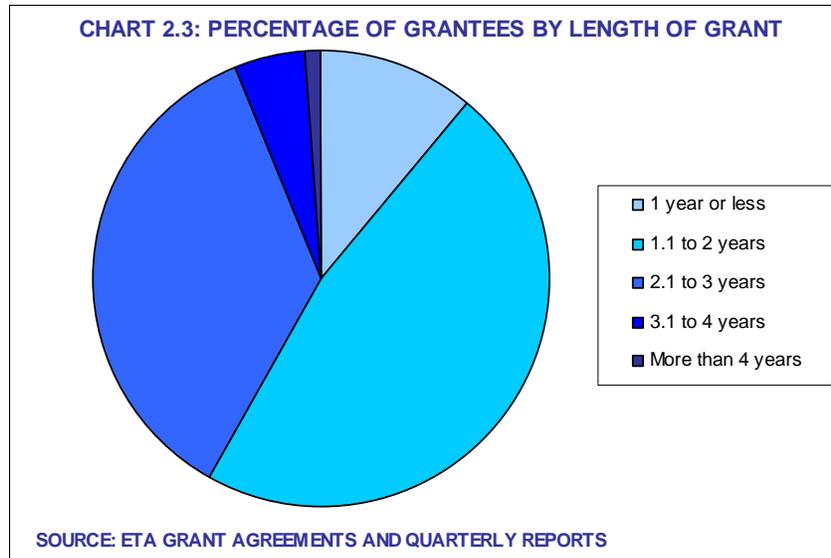
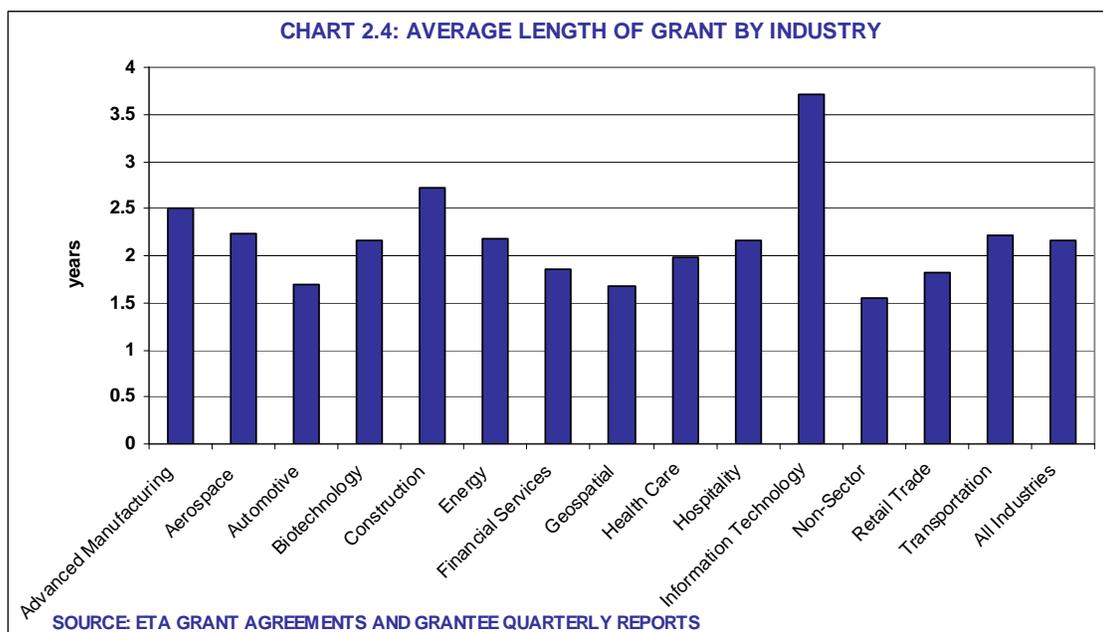


Chart 2.4 displays the average length of grant by industry. The information technology industry has the longest average grant length at 3.7 years, while grantees that are not sector-specific have the shortest grant period of 1.6 years. The average length of grant across all industries is 2.2 years.

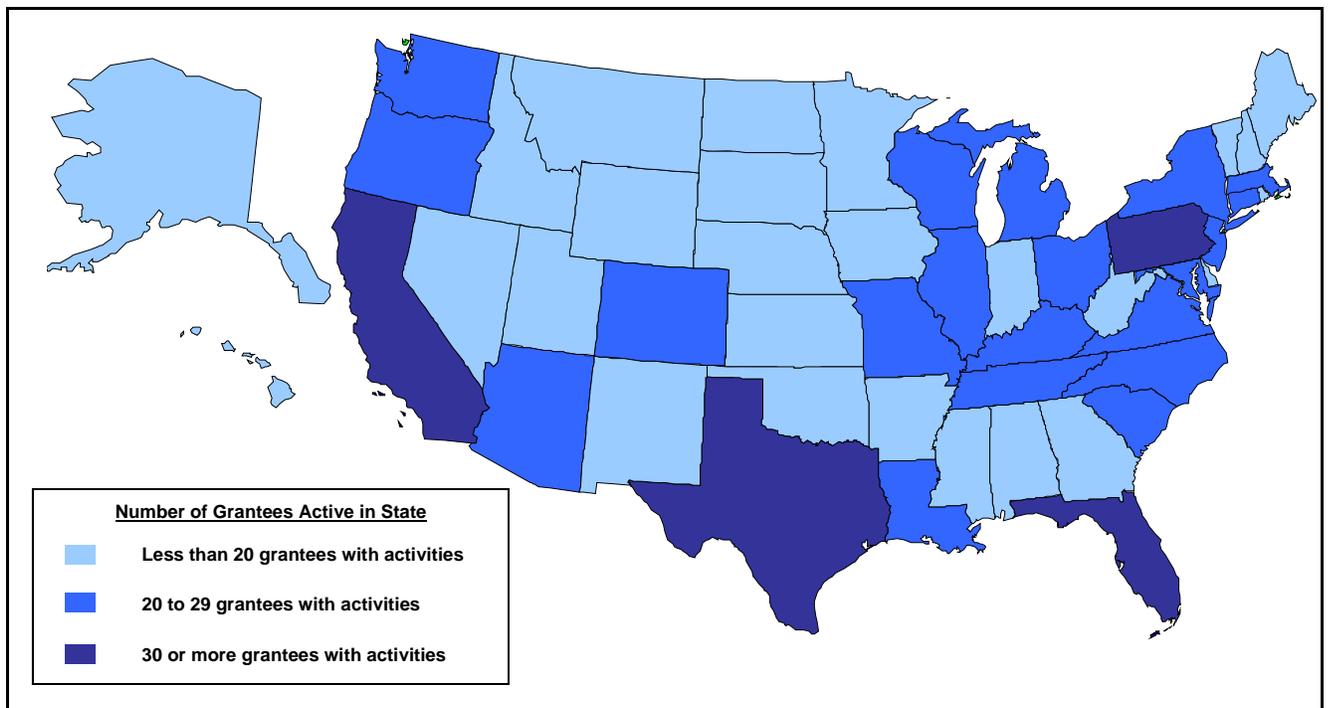


Geographic Distribution

While some grantees focus on specific communities, others operate in multiple communities within a state, and several operate in more than one state. The number of states involved in grant activities ranges from one to 51 (including the District of Columbia). In fact, 30 percent of all grantees report that their activities occur in more than one state or nationwide. The regional and cross-state scope of many grantees may, for example, reflect an industry focus or a labor-market focus, where labor markets cross state lines. The majority of the programs that report they operate nationwide do so through Web site information, public education, and outreach, to which users in all states have access. Of those grantees that report activities in all 50 states plus the District of Columbia, 25 percent are in the automobile industry, while the remainder is spread across the advanced manufacturing, construction, energy, hospitality, non-sector specific, retail, and transportation industries.

Since many grantees have a national focus, every state, including the District of Columbia, has access to at least 16 grantees' activities. Eight states have access to activities of more than 16 grantees: Delaware, Maine, Mississippi, Montana, New Mexico, North Dakota, West Virginia, and Texas (which has access to activities of 38 grantees). Again, note that this includes "access" to some grantees for which the primary purpose is to garner exposure of their industry's or organization's career options through Web site development. Chart 2.5 displays all states based on the number of grantees providing some activities available to workers, computer users, or businesses in the state.

CHART 2.5: ACCESS TO HGJTI GRANTEE ACTIVITIES BY STATE



C. Grantee Activities

As noted earlier, grantees can use the HGJTI funds for a range of activities designed to address the goals and purposes as defined by the partnering industries or employers. According to the ETA guidelines, these activities can include both planning and implementing capacity-building and training efforts. Later chapters describe how selected grantees define capacity building and training and document the specific operational implementation of these different activities. Since each grant application and quarterly report summarized how grantees are using the funds, this section provides a general overview of all HGJTI grantee activities developed with grant funds.

Training Activities and Targeted Populations

In their quarterly reports to ETA, all grantees report using grant funds to operate some form of job training, the most common types of which are apprenticeships and internships. Table 2.7 shows that 16 percent of all grantees report that they offer an apprenticeship program, with most of these grantees in the advanced manufacturing, construction, health care, and transportation industries. Twenty-six grantees (16 percent) report offering internships, with the majority of these grantees in the automotive, biotechnology, and information technology industries.

TABLE 2.7: INTERNSHIPS AND APPRENTICESHIPS OFFERED BY HGJTI GRANTEES, BY INDUSTRY

Industry	Percent of Grantees	
	Offers Apprenticeships	Offers Internships
Advanced manufacturing	24	15
Aerospace	0	0
Automotive	0	36
Biotechnology	6	50
Construction	44	0
Energy	18	18
Financial services	0	0
Geospatial technology	17	17
Health care	12	12
Hospitality	0	25
Information technology	67	33
Non-sector specific	0	0
Retail trade	0	0
Transportation	75	0
All industries	16	16

SOURCES: ETA GRANT AGREEMENTS AND GRANTEE QUARTERLY REPORTS.

Grantees also report on the populations they target or serve. As shown in table 2.8, 36 percent of all grantees provide youth-targeted training, and 35 percent target incumbent workers. Grantees in the financial services industry are more likely than other sectors to target training on youth, while grantees in the hospitality industry are much more likely than other sectors to target their training toward entry-level workers (50 percent). Thirty-four percent of grantees report that they target special populations, as opposed to dislocated, entry-level, or incumbent workers as well as youth. This category is wide ranging and includes such populations as ethnic minorities (Hispanic), hurricane survivors, and war veterans.

TABLE 2.8: TARGETED POPULATIONS TARGETED BY HGJI GRANTEES, BY INDUSTRY

Industry	Percent of Grantees				
	Dislocated Workers	Entry-level Workers	Incumbent Workers	Special Populations	Youth
Advanced manufacturing	21	21	42	17	45
Aerospace	29	29	57	43	43
Automotive	9	0	36	50	55
Biotechnology	31	31	38	20	38
Construction	33	33	33	22	56
Energy	18	27	36	45	27
Financial services	20	20	40	40	60
Geospatial technology	33	0	0	33	33
Health care	26	29	38	38	24
Hospitality	0	50	50	75	50
Information technology	33	0	33	50	0
Non-sector specific	17	8	8	57	25
Retail trade	0	0	0	0	0
Transportation	25	25	50	50	25
All industries	23	22	35	34	36

SOURCES: ETA GRANT AGREEMENTS AND GRANTEE QUARTERLY REPORTS.

Capacity-Building Activities

In their quarterly reports to ETA, grantees also summarize the different activities they are implementing. Ninety-one percent of grantees report implementing some form of capacity building, regardless of industry. Grantees in the financial services and non-sector specific industries are somewhat less likely than grantees in other sectors to conduct capacity-building activities (20 and 58 percent, respectively). Table 2.9 displays the different capacity-building activities being implemented or operated by industry. A majority of grantees (59 percent) are developing curriculum. Thirty-eight percent of grantees are designing career ladders, 33 percent are developing recruitment efforts, and 28 percent are developing occupational skill certifications. About 20 percent of grantees are developing distance learning programs.

TABLE 2.9: CAPACITY-BUILDING ACTIVITIES AMONG HGJTI GRANTEES, BY INDUSTRY

Industry	Percent of Grantees						
	Certification Development	Career Ladders	Curriculum Development	Distance Learning	Recruitment	Train the Trainer	Web Site Development
Advanced manufacturing	42	45	82	21	30	30	24
Aerospace	29	29	29	29	57	14	29
Automotive	36	27	55	18	36	18	45
Biotechnology	38	63	69	19	25	38	25
Construction	0	22	78	11	44	33	22
Energy	36	27	64	9	18	9	18
Financial services	20	0	40	0	0	0	0
Geospatial technology	17	33	67	50	17	50	33
Health care	15	38	50	29	47	26	26
Hospitality	25	0	50	0	25	25	25
Information technology	67	33	33	33	67	33	0
Non-sector specific	17	25	17	0	8	0	8
Retail trade	0	67	100	0	67	67	0
Transportation	50	50	50	50	25	0	50
All industries	28	38	59	20	33	25	24

SOURCES: ETA GRANT AGREEMENTS AND GRANTEE QUARTERLY REPORTS.

D. Goals and Outcomes

Grantees also submit in their quarterly reports to ETA summaries of the activities carried out, the number of participants trained, and progress toward their stated goals. A review of the quarterly reports indicates that grantees do not consistently define their goals, activities, or outcomes, but that instead the reports are generally based on the activities and milestones described in the grantees’ statement of work. Several data items are not reported by many grantees. In addition, some grantees report quantitative goals and accomplishments, while others report more qualitatively. For example, of all programs that have capacity-building goals, only 40 percent quantitatively describe the type of result they hope to achieve. One grantee described a capacity-building goal in a quantitative sense by stating it would “develop six competency-based apprenticeship programs.” In comparison, another grantee stated it would “enhance the existing integrated systems technology apprenticeship model.” These differences in reporting across grantees make it difficult to report activity levels or outcomes at a national aggregate level. Still, it is useful to summarize what the grantees have reported about their goals and accomplishments to obtain a general sense of activities to date.

Training is the most commonly specified goal for which grantees report activity levels and outcomes. Of all grantees, 91 percent have specified some form of training goal as at least one objective for their grant effort. Of those, 98 percent have reported a goal for the number of participants they expect to train, with the number ranging across grantees from five to 13,160 trainees. Completion and placement rates are reported in a number of ways, though, with considerable variation across grantees. Of the grantees that specify a training goal, about 38 percent report their training and/or placement outcomes, but various calculations and definitions

are used. For example, training activity may be calculated as “number of persons completing training/number of trainees” or “number of trainees/goal.” Placements might be reported as “number of participants placed in jobs or higher education/number of participants enrolled,” but some grantees report the number or percentage of participants they anticipate completing the program or the number or percentage of participants that the grantee predicts will be placed in jobs within a specified period. Some grantees also report additional activity information about their services to particular types of participants they have targeted to enroll in their programs.

As summarized in this chapter, the national HGJTI grant program covers a wide range of grantees, industries, and activities. Of the grants awarded thus far, activities are being carried out in all states and every region of the nation. The activities range from primarily online industry or skills information for occupational exploration to more traditional job training. Nearly all grantees report that they are using the grant for training and capacity building. The inconsistency in reporting to ETA does not allow researchers to calculate the level of activities in either category, although the types of activities offered are fairly clear. The most common types of training are reportedly apprenticeships and internships. Grantees also are targeting a wide range of population groups, and the most common focus of training is youth and incumbent workers. The most common types of capacity-building efforts involve developing curricula and designing career ladders.

The following chapter provides more detail on the types of activities being implemented by grantees and the lessons they have learned based on site visits to six grantees.

III. STRUCTURE AND IMPLEMENTATION OF SELECTED GRANTEE PROJECTS

To document and assess the implementation of the HGJTI, structured fieldwork was conducted in 2007 to six grantees. The focus of the site visits was to document the activities supported with the grant funds, the specific objectives that guide the activities implemented, the nature of activities conducted and products developed, and the partnerships involved. The intent was to describe the structure and implementation of the selected HGJTI grantees to identify common trends and patterns across all sectors and identify implementation trends, considerations, and issues unique to one sector or type of grantee. The fieldwork also was designed to allow the evaluation team to consider appropriate rigorous evaluation designs that could be conducted in the future to precisely measure impacts and effectiveness. To add to the data collected during the site visits, findings from the first report for this study of HGJTI, which examined early implementation experiences of 20 grantees, are incorporated in several areas of this chapter.³

This chapter presents the descriptive findings from the implementation study, and the following chapter considers the potential for future rigorous evaluations of impacts. The first section identifies and describes the general characteristics of the study grantees. This is followed by sections that document the different types of job training implemented and the various capacity-building activities. Then, the overall status of implementation as of mid-2007 is discussed, including the partnerships established, systems changes introduced, and plans for post-grant sustainability.

A. Grantee Organizations and Characteristics

The six grantees selected for the in-depth study represent varied organizations, industries, and regions of the country.

Grantee Organizations

To better understand how various organizations may be involved in developing and implementing demand-driven workforce initiatives, six grantees were purposively selected to represent different types of organizations and different industry emphases. The six grantees selected for this implementation study represent postsecondary education, community-based nonprofit organizations, and government agencies—all key partners in meeting state and local workforce demands. The six grantees selected are:

- **Miami-Dade College (MDC)**—A postsecondary educational institution in a large metropolitan area
- **Columbia Gorge Community College (CGCC)**—A postsecondary educational institution in a rural area
- **Chicago Women in Trades (CWIT)**—A community-based nonprofit organization in a large metropolitan area

³ See Trutko et al. (2007).

- **JobPath Inc.**—A community-based nonprofit organization in a smaller metropolitan area
- **Louisiana Department of Labor (LDOL)**—A state workforce agency
- **Oklahoma Department of Career and Technology Education (ODCTE)/High Plains Technology Center (HPTC)**⁴—A training technology center in collaboration with a state career and technology education agency

These grantees are generally representative of the overall group of grantees, as described in the previous chapter. Some of these grantees are small organizations—such as CWIT and JobPath—with small staffs and overall operating budgets, while the state agencies have thousands of employees and hundreds of millions of dollars in annual operating budgets. Some grantees have prior experience providing direct education and training instruction to individuals—the educational institutions and HPTC—while others oversee extensive training in postsecondary education systems. These grantee organizations are also located in six different states—Arizona, Florida, Illinois, Louisiana, Oklahoma, and Oregon—which were selected for their regional diversity. Details on the selected grantee organizations are presented in table 3.1.

TABLE 3.1: CHARACTERISTICS OF SELECTED GRANTEE ORGANIZATIONS

Grantee Organization	Type of Organization	Service Area	Most Recent Annual Operating Budget	Staff Size	Services
Chicago Women in Trades (CWIT)	Community-based nonprofit organization	Chicago metropolitan area (Illinois)	\$1,192,898	~10 staff	Serves as a pre-apprenticeship program to get women into the construction trades
Columbia Gorge Community College (CGCC)	Postsecondary educational institution (two-year)	Mid-Columbia region (north central Oregon)	\$46,187,074	~100 employees	Offers two-year associate's degrees in criminal justice and health care, among other things
JobPath Inc.	Community-based nonprofit organization	Tucson metropolitan area (southern Arizona)	\$511,616	7 staff	Operates and supports job training programs for low-income individuals
Louisiana Department of Labor (LDOL)	State workforce agency	State of Louisiana	\$258,608,416	Not available	Operates the state's workforce system
Miami-Dade College (MDC)	Postsecondary educational institution (four-year)	Miami-Dade metropolitan area (southern Florida)	\$694,585,686	5,000+ employees	Provides mostly two-year associate's degree programs and some four-year baccalaureate degree programs
Oklahoma Department of Career & Technology Education (ODCTE)/High Plains Technology Center (HPTC)	State technical education agency/secondary and postsecondary training provider	State of Oklahoma	\$436,801,014	2,609 teachers and staff/55 staff	Operates the CareerTech system in Oklahoma

SOURCES: ETA GRANT AGREEMENTS, GRANTEE QUARTERLY REPORTS, AND 2007 SITE VISITS.

⁴ For this site, HPTC is the organization of reference. While HPTC received the first HGJTI grant for this project, the ODCTE, the umbrella agency of HPTC and 28 other technology centers, received the second grant. HPTC, however, has conducted the training and capacity-building activities for this project, while ODCTE has served as the administrator of the second grant and was not involved in training or other direct activities.

Workforce Challenges Addressed by Grants

The six grantee organizations were focusing on both job training and capacity-building objectives, but each had specific workforce challenges unique to their state or locality that they were attempting to address with projects implemented using the federal grant funds. The three main workforce challenges grantee staff discussed are: (1) increasing the number of skilled workers; (2) improving opportunities for low-wage workers to move up in the job market; (3) and expanding or developing training projects for particular industries or occupations. Grantees attempted to identify their workforce challenges in various ways, using data, surveys, and discussions with industry partners. The following are specific details on the main workforce challenges grantees faced.

1) Insufficient skilled workers for a growing industry. A common workforce challenge for employers in some industries is that they have difficulty finding enough appropriately skilled workers for certain jobs. This may be a particular problem for employers in high-growth industries, such as health care and biotechnology. Local and state workforce partners may also have difficulty overcoming a lack of skilled workers for available jobs in less populated regions with few job training resources.

In developing their applications for a HGJTI grant, many of the six grantee organizations explained that they had scanned local workforce needs for the industry on which they wanted to focus.⁵ For example, CGCC administered multiple surveys of regional health care providers to determine the specific number of certified nursing assistants, licensed practical nurses, and registered nurses needed in the regional workforce. Similarly, MDC surveyed biotechnology companies to forecast how many industrial pharmaceutical manufacturing technicians were needed in the coming years.

Other grantees analyzed labor market information to better understand the skills of their current workforce and the types of training or capacity-building efforts needed to improve skills to meet industry demands. HPTC examined employment and wage data in the oil and gas industry to understand how the industry was growing and was projected to grow in the future and determined what career paths were possible for entry-level workers such as floor hands.⁶

2) Poor employment opportunities for low-wage and other disadvantaged workers. Some grantees decided to target high-skills training to lower-wage workers and other disadvantaged populations. For JobPath, serving low-income individuals was part of its overall mission, and attracting and training these individuals for biotechnology jobs, which provide a living wage and more, fit with the organization's broader purpose (see box 3.1 for more details). LDOL was simultaneously facing high unemployment along with business disruption and increasing demand for workers after Hurricanes Katrina and Rita. The state's grant was used to improve employment opportunities statewide through cross-sectoral training strategies for particular high-growth industries critical to the recovery effort, such as construction, health care, and shipping. CWIT targeted low-income women, mostly African American, to bring them as

⁵ In most cases, grantees had to conduct an industry scan as a part of their application for an HGJTI grant.

⁶ Floor hands—also referred to as rotary-driller helpers, roughnecks, roustabouts, or general laborers—guide the lower ends of pipe to well openings, connect pipe joints and drill bits, and do general oilfield maintenance and construction work.

new workers into the construction trades where high-paying jobs were available. MDC also saw an opportunity to train low-income Miami-Dade residents for employment and promotion in the biotechnology industry.

Box 3.1

JobPath Workforce Challenge: Finding Meaningful Employment for Low-Income Residents

JobPath, Inc, a nonprofit workforce development program, sponsors underemployed, underskilled, or unemployed adults in obtaining long-term training, career counseling and mentorships for “good jobs” with benefits. The organization helps to develop career paths for workers in Pima County, Arizona, described by project staff as a “low-wage” area. Before receipt of the grant, JobPath was providing recruitment, evaluation, and enrollment services for programs in several sectors (e.g., early childhood education, trades, aviation) as part of its organizational mission. Its service model includes training plan development; peer support meetings; counseling; financial assistance for tuition, books, fees, supplies and emergencies; and referrals to other agencies. A similar program for biotechnology was added in response to statewide interest in focusing on new opportunities for growth in the biotechnology sector.

3) Lack of educational or training programs for jobs in an industry. All six grantees realized that there were not enough training or education programs in their local areas for particular high-growth jobs. To increase the number of skilled workers, staff reported that they first had to increase the availability of training. CGCC saw an opportunity to train and keep residents in their rural region by developing a health occupations program that could operate locally. The closest health education programs were at least two hours away, and residents had to move away from the community to receive training. This meant that many residents ended up with jobs in the labor market where they received training and did not return to the mid-Columbia region. Thus, the new health occupations program was intended to train and employ workers without them having to leave the region. JobPath saw the grant as a way to expand postsecondary training for the local community college’s biotechnology program. MDC and HPTC developed new training programs to address the training needs of new and incumbent workers in the biotechnology and oil and gas industries, respectively. JobPath worked with Pima Community College to develop an introduction to biotechnology course as a prerequisite to the program and offer internships with local biotechnology employers for credit. CWIT also expanded its pre-apprenticeship training program to new community colleges to reach more low-income women and recruit them into the trades.

Grantee Goals and Priorities

Grantee staff in all six sites were asked to discuss their goals for their HGJTI-funded projects. In general, the goals encompassed the training and capacity-building activities proposed and defined the outcomes expected. The grantees’ goals for their projects changed minimally, if at all, during their grant period. Table 3.2 summarizes the goals.

All grantees visited were primarily focused on training new and incumbent workers as a part of their training efforts. However, four grantees also focused on job retention and retention in training programs. For example, CGCC staff noted that retention was a workforce challenge

for local health care facilities and that by training and employing workers locally, they would stay in the area and with their new employer. Retention was also a focus of the MDC grant and was one of the outcomes routinely monitored by grantee staff.

Building and improving education and training capacity was also a major goal for all grantees visited except LDOL, which focused more on immediate employment needs in the recovery area. Five of the six grantees also wanted to find and attract new pools of workers—including low-income individuals, women, dislocated workers, and the unemployed or underemployed. Grantees such as JobPath and MDC worked with local high schools to attract youth to these industries. These five grantees also planned to develop new or build existing partnerships through their grant activities. For example, HPTC wanted to develop partnerships with a large number of employers, while grantees such as MDC and JobPath wanted to cultivate partnerships with a few highly involved businesses. Four grantees placed priority on developing career ladders either directly (CGCC and HPTC) or by creating another “rung” in the career ladder (JobPath and MDC). LDOL’s top goal was to rebuild the workforce and the economy.

The first report on 20 early HGJTI implementers similarly found that most grantees (13 of 20) had both training and capacity-building goals.⁷ For example, those projects had capacity-building goals aimed at implementing strategies to improve the quality and quantity of workforce training and education, including: developing and designing new demand-driven training and education curricula and materials; establishing new partnerships and networks among businesses, public systems, training educators, and deliverers of training; using new communication mechanisms such as the Internet to deliver information and training; and expanding the number and quality of training programs for the targeted sectors.

TABLE 3.2: TRAINING AND CAPACITY-BUILDING GOALS OF SELECTED GRANTEE ORGANIZATIONS

HGJTI grantee	Training Goals		Capacity-Building Goals				
	Train New and Incumbent Workers	Increase Retention	Build or Improve Education and Training Capacity	Access New Labor Pools	Develop or Expand Partnerships	Create a Career Ladder	Rebuild Workforce and Economy
Chicago Women in Trades	✓		✓	✓	✓		
Columbia Gorge Community College	✓	✓	✓	✓	✓	✓	
High Plains Technology Center	✓	✓	✓		✓	✓	
JobPath, Inc.	✓	✓	✓	✓	✓	✓	
Louisiana Department of Labor	✓			✓			✓
Miami-Dade College	✓	✓	✓	✓	✓	✓	

SOURCES: ETA GRANT AGREEMENTS, GRANTEE QUARTERLY REPORTS, AND 2007 SITE VISITS.

⁷ See exhibit 1 in Trutko et al. (2007).

Industry and Occupational Focus of the HGJTI Grantees

The six grantees focused on different high-growth industries—health care, biotechnology, energy, construction, and non-sector specific—based on their labor-market assessments and workforce challenges. While the industries are different, the main reason grantee staff gave for selecting them was that the sector had potential for career paths to lead to higher-paying jobs for workers and at the same time would meet employers’ stated demand for more skilled workers. In the first HGJTI report, the selected 20 grantees focused initiatives on several of the same and additional high-growth industry sectors, including advanced manufacturing (4), health care (4), biotechnology (2), automotive (2), aerospace (2), energy (2), construction (1), geospatial (1), retail (1), and cross-sector (1).

Health care. CGCC was one of 34 HGJTI grantees (21 percent of all grantees) that focused on the health care sector. The training program developed by CGCC trains for occupations in demand as defined by the local hospitals and long-term care facilities in the region, including registered nurses, licensed practical nurses, certified nursing assistants, certified medical assistants, emergency medical technicians, and emergency first responders. The hospitals and facilities are located in both Oregon and Washington, and CGCC did a regional survey to quantify this need. As there was no postsecondary education institution in the region with a health occupations program, CGCC staff felt that they would be serving both the employers and the residents of the mid-Columbia region by providing good jobs and expanding the supply of qualified workers for local employers. The health care jobs in the region pay a starting salary of approximately \$20,000 a year for a certified nursing assistant and upwards of \$70,000 a year for a registered nurse with a bachelor’s of science in nursing.

Biotechnology. Both JobPath and MDC used their HGJTI grants to focus on the biotechnology sector. They were two of 16 HGJTI biotechnology grantees. For JobPath, targeting the Tucson area’s growing biotechnology sector made sense as its mission is to help low-income individuals find gainful employment with a combination of training and supportive services. Grantee staff described Tucson as a “low-wage town” with a “20 percent poverty rate.” Thus, JobPath began working with Pima Community College, which had started a biotechnology certificate program with the help of a state foundation based on projected new hires of 27,000 over the next 10 years, to support individuals going through the program.

Similar growth predictions were projected for jobs in the biosciences sector in the Miami-Dade area, and MDC had initiated a biotechnology associate’s degree and certificate program using a U.S. Department of Education grant at the same time it applied for the HGJTI grant. The HGJTI grant was used to fund incumbent worker training for local industrial pharmaceutical manufacturers to complement the for-credit college program.

Energy. The HPTC project was funded through two HGJTI grants, which represented two of the 11 grants awarded in the energy sector. The focus of this grant effort is the upstream oil and gas industry, which includes drilling, servicing, and production of oil and gas. The Oklahoma region was prime for growth in the industry as gas consumption was rising nationwide and the area had no federal restrictions on new drilling. While the number of jobs was not predicted to grow, it was an industry plagued with high turnover and increasing retirements, and training of new and current employees to retain and promote was imperative. Thus, training was

focused on new employees with little or no previous experience in the oil and gas field and on current employees in the industry interested in upgrading their skills, which typically meant moving up from a floor hand to a derrick hand.⁸

Construction. CWIT already was focused on moving low-income women into better-paying jobs in the construction trades, a male-dominated industry. As one of nine grantees in the construction sector, the organization expanded its pre-apprenticeship program to areas farther outside the Chicago area. At the time of the grant application, predictions were that 38,000 new construction jobs would be added in the Chicago region over the next 10 years. While job growth has slowed considerably in the local labor market, CWIT continues with its plans to develop a pre-apprenticeship system for women to enter the trades.

Non-Sector. LDOL was one of 12 grants that did not focus on one particular industry sector. When the grant was awarded, Louisiana was recovering from the economic devastation following Hurricanes Katrina and Rita. The state was developing a large initiative to rebuild its workforce by training residents for available jobs in various sectors. Most of these jobs were in health care, energy, hospitality, and construction—all of which are industries designated by DOL as “high growth.” The larger workforce initiative leveraged the HGJTI grant with National Emergency Grants (NEGs), Base Realignment and Closure (BRAC) grants, and Workforce Investment Act (WIA) formula funds to address the workforce needs during the recovery period.⁹

Funding Levels and Matching/Leveraged Funds

HGJTI funding could be used flexibly for training and capacity-building activities, with most of the amounts in the \$1–3 million range, as shown in table 3.3. JobPath received the smallest HGJTI grant funding of the six grantees visited, with approximately \$275,000. LDOL received the highest single grant award of \$3 million. HPTC was able to combine its two grants into nearly \$4 million for its training and capacity-building efforts.

Matching and leveraging funds are a major part of the HGJTI mechanism. Four grantees, (CWIT, CGCC, JobPath, and MDC) were required to provide matching funds that were either cash or in-kind contributions. Some of the grant solicitations required a match of 50 percent of the grant amount requested, and 50 percent of that match had to be in cash from one or more employer partners. Neither prior investments nor federal resources were allowed to be counted as matching funds but were thought of as “leveraged” funds by the grantees. This matching requirement applied to CWIT, CGCC, JobPath, and MDC. It did not apply to the HPTC grants, but HPTC did provide a match of approximately one-third in mostly in-kind contributions. LDOL did not have a match requirement but the grant was part of a larger recovery initiative and leveraged funds mainly from NEGs.

⁸ Derrick hands—also referred to as derrick operators—work on small platforms high on rigs to help run pipe in and out of well holes and operate the pumps that circulate mud through the pipe.

⁹ The funds leveraged through NEG, BRAC, and WIA are not considered “matching” funds. No matching requirements existed for this HGJTI grant, and LDOL did not record these other grants as matching.

TABLE 3.3: FUNDING AND DURATION OF GRANTS

HGJTI grantee	Type of Grant		Project Duration		Project Funding	
	Training	Capacity-Building	Start Date	End Date	HGJTI Funding	Matching Funding
Chicago Women in Trades	✓	✓	12/1/05	11/30/07	\$2,092,343	\$1,172,398
Columbia Gorge Community College	✓	✓	4/1/04	8/31/07	\$1,250,000	\$1,367,000
High Plains Technology Center	✓	✓	6/1/03 12/01/05	3/30/06 11/30/07	\$1,546,463 \$2,383,538	\$528,683 \$831,568 (all in-kind)
JobPath, Inc.	✓	✓	7/1/05	6/30/07 Extended to 12/31/07	\$276,393	\$185,710
Louisiana Department of Labor	✓	✓	9/6/05	9/5/06	\$3,000,000	\$0
Miami-Dade College	✓	✓	6/15/05	6/30/07 Extended to 6/30/08	\$1,000,000	\$1,370,000

SOURCES: ETA GRANT AGREEMENTS, GRANTEE QUARTERLY REPORTS, AND 2007 SITE VISITS.

The grantees that had cash-matching requirements usually solicited financial support from more than one employer. For example, CGCC garnered pledges from eight business partners, and MDC had three employers willing to contribute to the project. However, as usual with cash contributions, grantees had some difficulty collecting these contributions during the grant, and some had to find new sources to meet the match requirement. (This issue is discussed further under “Implementation Challenges.”)

The grantees were able to leverage significant amounts of funding by using the HGJTI grant to build or improve current initiatives or by using funds simultaneously to create new initiatives. LDOL had the largest leveraged funding amount with at least \$62 million from a NEG from ETA, plus a BRAC grant and WIA formula funds. Other grantees also leveraged other funding sources, especially other federal and state grants. MDC received a \$3.5 million U.S. Department of Education grant and a \$500,000 state education grant to develop the new biotechnology degree program. JobPath leveraged grants from the City of Tucson (\$500,000) and Pima County (\$380,000) to help support participants going through the training program. Of the 20 early HGJTI implementers discussed in the first report, 19 of 20 grantees had a wide range of matching and leveraged funds as well, from under \$100,000 (in two grantees) to in excess of \$10 million (in three grantees).¹⁰

Partnerships and Collaborations

A key goal of the HGJTI is creating meaningful and long-term partnerships between the workforce development system, local community colleges and other training institutions, employers, and a range of other organizations within a locality or region. Grantees sought out a wide array of partners to strengthen their initiatives by leveraging additional resources, expanding the range of participant training and other services, and helping to assure sustainability after HGJTI grant resources have been expended. Table 3.4 highlights key partners for each grantee.

¹⁰ See exhibit 1 in Trutko et al. (2007).

TABLE 3.4: GRANTEE PARTNERS

HGJTI Grantee	Grantee Partners						More Information
	K-12 Schools	Post-Secondary Schools	Local WIBs/ One-Stop Career Centers	Employers	Unions	Economic Development	
Columbia Gorge Community College		✓	✓	✓			Local hospitals and long-term care facilities provide preceptorships ^a for students
Chicago Women in Trades		✓	✓	✓	✓		Community colleges play an active role with recruitment and sponsor Technical Opportunities Program classes
High Plain Technology Center		✓	✓	✓		✓	Employers and industry trade associations play key role in sending individuals for training and provide direct input on curricula
JobPath, Inc.	✓	✓	✓	✓			Foundation and industry trade associations sit on the advisory board
Louisiana Department of Labor		✓	✓	✓	✓	✓	Nearly all HGJTI funding is distributed through 26 contracts to local workforce investment boards, Community Technical Colleges System, community-based organizations, local unions, and employers
Miami-Dade College	✓			✓	✓		Industry trade associations sit on advisory board and review curricula

SOURCES: ETA GRANT AGREEMENTS, GRANTEE QUARTERLY REPORTS, AND 2007 SITE VISITS.

^a A preceptorship is the practical experience gained in a professional setting in a nurse training program.

Employers. All six grantees engaged employers and industry associations as key partners. Employer partnerships played a particularly critical role in four sites (HPTC, MDC, CGCC, and LDOL). For example, several local hospitals and long-term care facilities gave in-kind and cash contributions to support health career training for the CGCC project. They also provided preceptors (mentors and clinical instructors) who delivered hands-on instruction to nursing trainees. Similarly, employee partners in the HPTC project contributed equipment and tools.

The report of 20 HGJTI early implementers also found that employer partnerships are especially important to ensure that the workforce challenges are accurately defined and the strategies selected meet the current and immediate needs of the sector. For example, grantees surveyed indicated that direct input from employers on curriculum, teaching methods, and equipment helps to ensure that instruction is relevant and attuned to specific industry applications and the latest adoption of new production processes. Employer involvement also helps to fine-tune knowledge about numbers and types of workers needed within occupational

sub-specialties so there is a good match between supply of skilled workers and demand (e.g., to ensure that those trained are absorbed within the local/regional employers).¹¹

In addition to contributions, many employer partners paid for their employees' time spent participating in the training program and hired training graduates as new employees. Approximately 30 oil and gas companies provided direct input on program design and curriculum development for the HPTC project. As a result, the tailored training met the needs of employers and their production process. Some employers integrated the training initiative as a new employee orientation to the oil and gas industry, and others conditioned hiring on completion of the orientation training. MDC established formal agreements with three employers for training provision, and two partners directly assisted in the development of the training curricula. The University of Arizona's BIO5 Institute sponsored a majority of JobPath's biotechnology internships. In addition, BIO5 faculty and researchers served as guest speakers, hosted lab tours and reviewed curricula for the initiative. As part of the LDOL project, five employers used HGJTI funds to immediately address their training and hiring needs. In the wake of Hurricanes Katrina and Rita, the funds helped the firms reestablish their businesses by supplying trained workers. While employers have not played a major role in the CWIT initiative, they have offered to hire training participants once they have completed the program and can enter into formal apprenticeships. Finally, hospital and long-term care facility staff also promote the CGCC initiative in the community and identify potential candidates for the training programs.

Industry groups and trade associations serve as key partners in two sites (HPTC and MDC). Several oil and gas trade associations have actively participated in the HPTC initiative, providing input on training and curriculum, job needs and vacancies, and advertising the program to employers in the oil and gas industry. The Biosciences Job Growth Initiative in Miami-Dade County maintains a working relationship with the South Florida Manufacturing Association. Although not as actively involved or prominent as other sites, a representative from a local biotechnology trade association serves on JobPath's advisory board.

Local Workforce Investment Boards and One-Stop Career Centers. Most HGJTI grantees developed partnerships with local workforce investment boards (WIBs) and One-Stop Career Centers, but half the HGJTI grantees (CGCC, JobPath, and LDOL) had more extensive partnerships with the workforce system than the other half (CWIT, HPTC, and MDC).¹² In Tucson, JobPath has a longstanding relationship with the Pima County WIB. JobPath refers WIA-eligible participants to the WIB and co-enrolls them. In addition, One-Stop staff provide assistance in recruiting students for the JobPath Biotechnology Summer Institute and a college biotechnology program. A One-Stop representative also serves on the project's advisory board. In another site, CGCC training participants may receive WIA funding to offset tuition costs and benefit from referrals to support services. Further, as in the JobPath project, One-Stop staff refer many participants to CGCC training. Local WIBs also play a major role as subgrantees for the LDOL initiative. For example, the Jefferson Parish WIB (JPWIB) serves as the fiscal agent for \$1 million in grant funds to serve eight gulf region parishes. In this role, JPWIB staff conduct

¹¹ For more information, see Trutko et al. (2007), page 11.

¹² All grantees indicated in their grant applications that the workforce system would have some role in the proposed HGJTI activities.

outreach and recruitment for the program, help complete paperwork and enter client data, track training completion and job placement, and review and process invoices. However, HGJTI participants are not co-enrolled in WIA and do not receive WIA-funded support services.

Other HGJTI grantees have not developed as active partnerships with WIBs and One-Stop Career Centers as CGCC, JobPath, and LDOL have. In several CWIT counties, WIBs and One-Stop Career Centers provide some assistance with outreach and recruitment to the CWIT program. However, CWIT does not qualify as a WIA training provider and, typically, training participants do not enroll in WIA. HPTC does not collaborate extensively with the WIB, although the WIB provided support and referrals during the preceding grant period. While local One-Stop Career Centers distribute brochures about the program, no formal Memorandum of Understanding is in place with HPTC, and training participants do not enroll in WIA. Although a WIB representative serves on the MDC's biotechnology advisory board, the WIB does not officially partner with the HGJTI project.

Other Organizations. HGJTI grantees partner with various other organizations, including postsecondary institutions, local high schools, area nonprofits, and labor unions. Pima Community College played a key role in both curriculum development and instruction for the JobPath initiative. Four community colleges in Illinois actively recruit and provide support services in the CWIT project. As part of the LDOL project, Delgado Community College received HGJTI funding to provide fire safety training for the maritime offshore oil and gas industry. The Oregon Health Sciences University shared experiences and modules from its simulation lab with CGCC.

Two grantees work with local schools to recruit high school students for their programs. MDC works with the Miami-Dade Public Schools to recruit minority youth through career days and other presentations to high school students. Similarly, JobPath partners with area high schools to help recruit high school students for JobPath's Summer Institute.

HGJTI grantees also partner with local service providers for training delivery. A nonprofit substance abuse treatment facility received LDOL HGJTI funds to train workers in furniture repair and rehabilitation in support of a furniture rehabilitation business. La Clinica, a community-based organization, helped develop outreach materials in English and Spanish and provided clinical setting opportunities for students as part of the CGCC grant activities.

HGJTI grantees also partner with state and federal agencies. Illinois state agencies provide matching funds for the CWIT initiative. The state agency overseeing the workforce development system encourages local WIBs and One-Stop Career Centers to support the CWIT initiative and assist with recruitment, and Apprenticeship Information Centers have disseminated apprenticeship information. Oklahoma's Bureau of Indian Affairs, the VA, and the criminal justice system provide some outreach efforts and referrals for the HPTC initiative.¹³

Some HGJTI grantees work with local economic development agencies and unions. For example, local economic development agencies have assisted HPTC's efforts and extended opportunities to present information about the initiative to employers. Members of a local

¹³ For additional details about partnerships, see Trutko et al. (2007), pages 9–12.

consortium of organizations and businesses interested in promoting the development of the biosciences in southern Florida work with MDC to help shape its curricula and promote MDC's incumbent worker and associate degree programs in biotechnology. In addition, two projects established partnerships with unions (CWIT and LDOT). Approximately 30 unions have contributed to the CWIT initiative, sponsoring hands-on instruction and assisting with outreach efforts.

Similarly, the 20 grantees surveyed as part of the early implementation study emphasized that bringing the right partnerships together is critical to the success of the grant efforts. For many of these early implementers, the partnerships formed involved close collaboration among several of the following: (1) local workforce investment system (usually the One-Stop Career Center and local WIB); (2) educational system (often the local community college system); (3) employers within the specific industry targeted; and (4) local or regional economic development agencies. Grantee staff stressed the importance of partners sharing a similar vision, providing buy-in in the form of financial or in-kind contributions, having a clear understanding of respective roles and responsibilities, and regularly getting together to monitor progress and troubleshoot problems.

B. Job Training Strategies

As envisioned by ETA, the HGJTI is “a strategic effort to prepare workers to take advantage of new and increasing job opportunities in high-growth, high-demand and economically vital sectors of the American economy.” At the heart of HGJTI is job training provided to enhance worker skills to build successful careers in high-growth industries. As defined by ETA, the job training initiatives undertaken by HGJTI grantees are aimed at the following:

- developing a pipeline of young workers;
- building competency models, career ladders, and career lattices for new and incumbent workers;
- expanding postsecondary training alternatives including apprenticeships and community colleges' workforce development programs;
- accessing new and/or untapped labor pools;
- transitioning workers from declining industries;
- developing strategies for retaining incumbent workers and updating their skills; and
- engaging small businesses.¹⁴

The job training models implemented by the six HGJTI sites visited as part of this assessment each exhibit many of these features and, when taken together, exhibit all these features. This section describes the key aspects of the training approaches undertaken at each of the six selected sites, including the number of training programs initiated; types of occupations trained, training duration, and training methods employed; and whether training resulted in degree or certification. Table 3.5 provides an overview of key dimensions of the individual training programs initiated at the six HGJTI sites.

¹⁴ Background on the job training goals under the HGJTI is from the ETA Web site, <http://www.doleta.gov/BRG/JobTrainInitiative/>.

Number, Types, and Focus of Training Programs

As shown in table 3.5, five of the six sites visited (all except CWIT) offered more than one training component. A total of 41 separate training initiatives were funded with HGJTI funding across these six sites—26 of which were contracted under the LDOL HGJTI grant.¹⁵ Across the six sites visited, the training provided was in five high-growth industry sectors: health care, energy (including oil and gas), construction/building trades/shipbuilding, biotechnology, and hospitality. Five of the six HGJTI projects focused on training workers for a single industry sector. The sixth project, sponsored by the LDOL, aimed more broadly to assist workers and businesses recovering from the devastation of Hurricanes Katrina and Rita across four industry sectors. Under this project, much of the \$3 million in HGJTI funding was subcontracted through local WIBs and to community colleges and other training providers to support training efforts in the health care, energy, hospitality, and shipbuilding/construction industry sectors (see box 3.2 for an overview of the range of training initiatives offered through the LDOL project).

Box 3.2

Louisiana Department of Labor: Job Training as a Part of Disaster Recovery

The Louisiana Department of Labor initiated 26 contracts (with local WIBs, the Louisiana Community Technical College Systems, community-based agencies, local unions, and employers) to provide training targeted on four sectors: health care, energy, hospitality, and construction. The training was broadly aimed at helping rebuild the workforce and assisting recovering businesses devastated by Hurricanes Katrina and Rita. Training was targeted to bring new workers into the region with skills needed by area employers, as well as to upgrade skills of dislocated and incumbent workers already in the area. Due to the need for getting workers into the workforce quickly, much of the training provided was on-the-job or involved short-term intensive classroom training. The high-growth occupations targeted included pipe fitters, ship fitters, and welders (in the shipbuilding industry); registered nurses, certified nursing assistants, and medical assistants (in the health care industry); and carpenters (in the construction industry).

¹⁵ The exhibit shows details on 6 of the 26 training initiatives begun under the HGJTI in Louisiana as they were the training programs visited or discussed during the site visit.

TABLE 3.5: GRANTEE TRAINING COMPONENTS

HGJTI Grantee	Sector	Type of Training	Duration of Training	Type of Instruction			Results in Degree or Certification	Overview
				Class-room	On-the-job Training (OJT) Contract w/ Employer	Internship/ Hands-on Experience		
Chicago Women in Trades	Construction	Pre-apprenticeship training (for entry to building trades apprenticeship programs)	170 hours	✓		✓		<ul style="list-style-type: none"> The Technical Opportunities Program is aimed at heightening awareness and preparing women for the building trades apprenticeship entry exam and interview. More than 300 individuals have gone through the training to date, usually in classes of 30 to 35. Training includes classroom time and an emphasis on experiencing building trades first hand; training is conducted over 12 weeks and includes four training components: math curriculum, job readiness instruction, hands-on experience involving workshops in various building trades, and physical conditioning. Case management and job development services are also provided to complement training.
Columbia Gorge Community College	Health care	Associate's degree in nursing (RN)	2 years	✓		✓	✓ (Associate's degree)	<ul style="list-style-type: none"> Goal is to enable local residents to obtain ADN degree without leaving the local area. 24 new students accepted each year into the program. Intensive two-year program that features a combination of classroom training with two days of hands-on experience in simulation laboratory and 10 days at area hospitals/health facilities each term.
	Health care	Certified nursing assistant (CNA)	160 hours	✓		✓	✓ (CNA certification)	<ul style="list-style-type: none"> Aimed at increasing pipeline into health careers. About 200 CNAs trained to date under HGJTI, usually in classes ranging from 8 to 20. Includes 80 hours of classroom and 80 hours of clinical training, usually at long-term care facilities.
	Health care	Certified medication assistant (CMA)	80 hours	✓		✓	✓ (CMA certification)	<ul style="list-style-type: none"> Aimed at upgrading skills of CNAs (must already be CNA to enter training). Offers 48 hours of classroom and 32 hours of clinical training, including use of simulation lab.

TABLE 3.5: GRANTEE TRAINING COMPONENTS

HGJTI Grantee	Sector	Type of Training	Duration of Training	Type of Instruction			Results in Degree or Certification	Overview
				Class-room	On-the-job Training (OJT) Contract w/ Employer	Internship/ Hands-on Experience		
	Health care	Emergency medical technician (EMT)	160 hours	✓		✓	✓ (EMT certification)	<ul style="list-style-type: none"> • Trainees are often current or prospective volunteer firefighters in the region. • Includes 160 hours of training, mostly in the classroom, with 8 hours in a local emergency room setting. • CGCC holds one course a year, usually in two cohorts; classes occur two times a week for four weeks.
	Health care	First responder	44 hours	✓		✓	✓ (First responder certification)	<ul style="list-style-type: none"> • First responders are volunteers in the community should a disaster or large-scale emergency occur; training is targeted to recent high school graduates in the community. • Trainees receive 44 hours of advanced first aid training (i.e., CPR and emergency response).
High Plains Technology Center	Oil & gas	Floor hand (for oil and gas drilling)	40 hours	✓		✓		<ul style="list-style-type: none"> • Trainees attend three days of classroom training and two days of hands-on instruction on an oil and gas drilling simulator. • Training focuses on rig safety, basic tools and equipment, proper tool use, forklift operations, and terms and definitions. Trainees receive a training manual; classroom instruction includes PowerPoint presentations and DVDs. • Four to 12 trainees attend each session, which typically run each week throughout the year
	Oil & gas	Floor hand (for well servicing)	40 hours	✓		✓		<ul style="list-style-type: none"> • Trainees attend three days of classroom training and two days of hands-on instruction on an oil and gas drilling simulator. • Training focuses on rig safety, basic tools and equipment, proper tool use in servicing of wells, and terms and definitions. Trainees receive a training manual; classroom instruction includes PowerPoint presentations and DVDs.

TABLE 3.5: GRANTEE TRAINING COMPONENTS

HGJTI Grantee	Sector	Type of Training	Duration of Training	Type of Instruction			Results in Degree or Certification	Overview
				Class-room	On-the-job Training (OJT) Contract w/ Employer	Internship/ Hands-on Experience		
	Oil & gas	Derrick hand (for oil and gas drilling)	40 hours	✓		✓		<ul style="list-style-type: none"> • Designed as upgrade training for floor hands to become more highly skilled and highly paid derrick hands. • Trainees attend three days of classroom training and two days of hands-on instruction on an oil and gas drilling simulator. • Training focuses on rig safety, basic tools and equipment, proper tool use, forklift operations, and terms and definitions. Trainees receive a training manual; classroom instruction includes PowerPoint presentations and DVDs.
JobPath, Inc.	Biotechnology	Biotechnology technology upgrade training	400+ hours	✓		✓	✓ (Certificate in biotechnology)	<ul style="list-style-type: none"> • Program is designed to complement an associate's or bachelor's degree. Prerequisites for the program include biology, chemistry, and math courses. • Hands-on lab experience is provided through three core biotechnology courses (totaling 9 credits), followed by cooperative work/paid internships (320 hours/3 credits) with biotechnology employers in industry or research (primarily the University of Arizona).
	Biotechnology	Summer institute for high school youth	90 hours	✓		✓		<ul style="list-style-type: none"> • Provides opportunity for selected high school students to take an Introduction to Biotechnology course at Pima Community College. • Students attend class for 4 hours a day, 5 days a week. • Coursework includes hands-on lab experience, class lectures, guest lectures from employers, field trips to employers, and small group work experiences, as well as instruction in critical thinking skills.

TABLE 3.5: GRANTEE TRAINING COMPONENTS

HGJTI Grantee	Sector	Type of Training	Duration of Training	Type of Instruction			Results in Degree or Certification	Overview
				Class-room	On-the-job Training (OJT) Contract w/ Employer	Internship/ Hands-on Experience		
Louisiana Department of Labor (LDOL)	Shipbuilding (contract with shipyard)	OJT for entry-level pipe fitters, ship fitters, and welders	640 hours	✓	✓	✓		<ul style="list-style-type: none"> OJT contract with major shipbuilder featured mostly OJT, complemented by two evenings of classroom training each week. 640 total hours of OJT covered with wages reimbursed at 100% initially and decreasing to 80%, then 60%, and finally 50%. During OJT phase, workers paid \$9.24 to \$10.95 an hour.
	Shipbuilding (contract with shipyard)	OJT for entry-level workers	240 hours	✓	✓	✓		<ul style="list-style-type: none"> OJT contract with major shipyard featured mostly OJT, with very limited classroom training Wages of workers subsidized for 240 hours.
	Health care (contract with hospital)	Certified nursing assistant	Up to 6 months	✓		✓	✓ (CNA certification)	<ul style="list-style-type: none"> Classroom training (six months or less) prepared entry-level workers for CNA and medical assistant positions at a hospital center.
	Health care (contract with Our Lady of Lakes)	Registered nurse	2 years	✓		✓	✓ (Associate's degree)	<ul style="list-style-type: none"> Contract picked up training costs (of about \$5,000 per individual) for the second half of RN training that had started just before Hurricane Katrina.
	Construction (contract with Odyssey House)	Carpentry skills and furniture repair	4 months (8 hours a day)	✓		✓		<ul style="list-style-type: none"> Participants affected by Hurricane Katrina needed to be in substance abuse treatment at Odyssey House. Grant funds used to purchase materials and tools to equip a furniture workshop, pay initial rent and training costs of a secondhand retail furniture store, and bring on two additional staff (one to oversee the workshop and one to oversee a retail secondhand furniture store). Training program is for four months (open-entry/open-exit), featuring one hour of classroom training each day, followed by seven hours of furniture repair/rehabilitation work.
	Energy (contract with Delgado Community College)	Safety training for offshore oil and gas platform workers	12 to 40 hours	✓		✓	✓ (Certificate of completion)	<ul style="list-style-type: none"> DCC received a two-month HGJTI grant to provide fire safety training for the maritime offshore oil and gas industry workers. 109 workers trained during 13 sessions (all sessions except one was for 12 hours); workers attended classroom training during days off from rigs.

TABLE 3.5: GRANTEE TRAINING COMPONENTS

HGJTI Grantee	Sector	Type of Training	Duration of Training	Type of Instruction			Results in Degree or Certification	Overview
				Class-room	On-the-job Training (OJT) Contract w/ Employer	Internship/ Hands-on Experience		
Miami-Dade College (MDC)	Biotechnology	Good manufacturing and documentation practices	8 hours	✓			✓ (Certificate of completion)	<ul style="list-style-type: none"> • Largest training effort under HGJTI, providing Industrial Pharmaceutical Manufacturing (IPM) technicians with 8 hours of instruction on the methodology for keeping good notes/records of their work in the lab. • MDC Virtual College created curriculum and online training course with the assistance of an outside consultant. • MDC Virtual College videotaped lessons for each module and pulled modules together with an online course that has lessons, examples, practice tests, and tests to complete the module. • Training can be conducted by an employee in his/her office or workstation during the scheduled training times. A trainer can monitor the trainees' progress through the modules and answer questions via e-mail.
	Biotechnology	Adult education and workplace skills	Variable	✓				<ul style="list-style-type: none"> • Training program started with agreement with large pharmaceutical company, where MDC provided adult education and workplace training to both new and current workers aimed at improving employee skill sets and ability to communicate. • Adult education and workplace skills such as computer literacy, business writing, basic Spanish, and English as a second language were provided for 104 new and current employees.
	Biotechnology	Performance evaluations and project management for managers	Several hours	✓			✓ (Certificate of completion)	<ul style="list-style-type: none"> • Consulting firm created curriculum and trainee workbooks. • Workshop sessions for 18 managers to enhance the management feedback, interaction, and overall employee appraisal system.
	Biotechnology	Contamination control	2 hours	✓			✓ (Certificate of completion)	<ul style="list-style-type: none"> • Purpose of workshop is to teach IPM technicians (at all levels) FDA regulations around contamination. • Consulting firm created curriculum and trainee workbooks. • Six two-hour training sessions over two days at an employer site for 244 incumbent workers.

SOURCES: ETA GRANT AGREEMENTS, GRANTEE QUARTERLY REPORTS, AND 2007 SITE VISITS.

Types of training offered under HGJTI grants were determined by regional labor market conditions as a result of direct employer input and through analyses of up-to-date labor market information concerning the specific types of workers (and blend of skills) required by area employers. In several sites, careful consideration was given to the “pipeline” of workers into and through a given industry sector, with particular attention on alleviating shortages of skilled workers faced by employers. The CWIT program, for example, sought to expand the supply of women entering a wide variety of occupations within the building trades. As shown in box 3.3, CWIT offered a pre-apprenticeship program that sought to bring an untapped supply of workers (i.e., women) to an industry sector that had experienced large growth in recent years. CWIT sought first to increase awareness within the targeted population of the many high-paying opportunities within the building trades sector through an extensive public relations campaign. Through its pre-apprenticeship training initiative, the agency then sought to increase the probability that women would be accepted into three- to five-year apprenticeship programs in building trades occupations (e.g., carpentry, plumbing, iron working, sheet metal).

Box 3.3

Chicago Women in Trades: Improving the Competitiveness of Women in Construction

Under its HGJTI grant, CWIT offered the Technical Opportunities Program (TOP), a pre-apprenticeship training program aimed at improving competitiveness of women on the apprenticeship entry exam and interview. TOP, which provided 170 hours of training over 12 weeks, had four training components:

- **Math curriculum.** Participants were prepared for the aptitude test by attending four hours of classroom instruction each week on basic math concepts (e.g., fractions, decimals, percentages, geometry, basic algebra, spatial relations, mechanical reasoning, and numerical reasoning).
- **Job readiness.** A one-hour weekly job readiness workshop covered how to find a job in the construction industry, career exploration, goal setting, self-esteem building, nontraditional resume development and interviewing, budgeting, and sexual harassment prevention.
- **Hands-on experience.** Provided every Saturday for 7 hours, hands-on experience in the construction trades involved field trips and workshops taught by tradespersons. The goal was to expose participants to the various construction trades and to aid them in choosing an apprenticeship program.
- **Physical conditioning.** Provided two hours a week, physical conditioning helped participants build endurance and upper-body strength and incorporate regular exercise and sound nutrition into their daily routines.

Similar to CWIT, HPTC also sought to expand the pipeline of workers entering a rapidly growing (and high-paying) industry sector within its region—the oil and gas drilling industry. Short-term training (lasting 40 hours) focused on introducing workers to entry-level floor hand jobs for oil and gas drilling, as well as for servicing oil and gas wells. The training emphasized rig safety, basic tools and equipment, and terms and definitions commonly used in the workplace. It included three days of classroom instruction, followed by two days of hands-on instruction on an oil and gas drilling simulator. Many trainees entering this program had been newly hired by employers and attended this 40-hour session as an introduction to working on oil rigs. Upon completing the workshop, they would go on to receive more in-depth on-the-job training at worksites within the industry. Once workers gained experience in entry-level floor

hand jobs within the sector, they could come back to HPTC for 40 hours of additional classroom training intended to help floor hands make the transition to derrick hands (the next rung on the career ladder within the industry).

CGCC similarly gave careful consideration to the “pipeline” of workers within a particular high-demand industry sector, health care. However, unlike CWIT and HPTC, CGCC sought to provide substantive training along several rungs of the career ladder that would lead to a health care degree or certification. CGCC’s HGJTI grant was squarely focused on reducing shortages of registered nurses (RNs), certified nursing assistants (CNAs), certified medication assistants (CMAs), emergency medical technicians (EMTs), and first responders within its rural area (see box 3.4). Training was targeted at individuals residing within the locality (a mostly rural, small town area a little over an hour from Portland) who were considered more likely to continue to reside in the area once they had completed training.

Box 3.4

Columbia Gorge Community College: Developing a Health Care Career Ladder in Rural Areas

An important goal under the HGJTI grant was to expand the college’s health care offerings into a career ladder program—for example, create a viable health career occupations ladder with an integrated pathway from CNA to CNA-2 to CMA to LPN to RN. This career ladder would offer multiple entry points, smooth transitions between steps, and give the opportunity to exit with an associate’s degree in nursing (with the potential down the road of enrollment in a distance learning bachelor’s degree of nursing program). An important goal was to bring new workers into the health care sector at varying levels and for these workers to stay in the region (rather than moving to Portland or other metropolitan areas). Five types of training were supported by the HGJTI grant: (1) a two-year RN training program, culminating in an associate’s degree in nursing; (2) a 160-hour CNA training program (featuring 80 hours of classroom and 80 hours of clinical training); (3) an 80-hour CMA training component to upgrade skills of existing CNAs within the community; (4) a 160-hour EMT training program; and (5) a 44-hour first responder training initiative (featuring advanced first aid training primarily aimed at recent high school graduates).

Finally, JobPath and MDC, which both offered training in biotechnology, took different approaches. The JobPath program focused on encouraging youth to consider careers in biotechnology (through the Biotechnology Summer Institute), then supporting efforts to provide two years of substantive training. The Biotechnology Summer Institute provides the opportunity for selected high school students to take an Introduction to Biotechnology Course at Pima Community College. This 90-hour summer school course includes hands-on lab experience, class lectures, guest lectures from employers, field trips to employers, small group work experiences, and instruction in critical thinking skills. JobPath also provides support for students in classes leading to a certificate in biotechnology. The certificate in biotechnology is designed to complement an associate’s or bachelor’s degree. Hands-on lab experience is provided through three core biotechnology courses (totaling nine credits), followed by cooperative work/paid internships (320 hours, for three credits) with biotechnology employers in industry or research, primarily the University of Arizona.

Under its HGJTI project, MDC offered four workshops aimed at upgrading skills of workers already working within the biotechnology industry: (1) good manufacturing and documentation practices; (2) adult education and workplace skills such as computer literacy, business writing, basic Spanish, and English as a second language (ESL); (3) performance evaluations and project management for managers; and (4) a contamination control workshop. Training modules were developed for each offering with the assistance of two outside training consultants and the input of the employers. The goal of the training effort was to train incumbent industrial pharmaceutical manufacturing (IPM) technicians and related biotechnology workers, as well as to increase retention of these workers. Box 3.5 provides additional information about the structure of the three incumbent worker training components offered under the MDC HGJTI initiative.

Box 3.5

Miami-Dade College: Supporting the Biotechnology Industry through Incumbent Worker Training

MDC focused on upgrading technical skills of technicians already within the biotechnology sector by providing the following training components, in addition to adult education and English as a Second Language:

- **Good manufacturing and documentation practices.** The Good Documentation Practices (GDP) curriculum provides technicians with eight hours of instruction on the methodology for keeping good notes/records of their work in the lab. MDC's Virtual College videotaped lessons for each module and pulled together an online course that had lessons, examples, practice tests, and tests to complete the module. The training could be conducted by an employee in his or her office or workstation during the scheduled training times.
- **Basics of contamination control.** This 12-hour workshop on contamination control is provided to biotechnology workers at one large biotech firm regulated by the Food and Drug Administration. The six-session workshop was held over two days for 244 employees, who received a certificate of completion.
- **Performance management.** Performance management classes were held to enhance the management feedback, interaction, and overall employee appraisal system. Eighteen managers (at two firms) attended this workshop.

Training Methods and Duration

As shown earlier in table 3.5, all the training programs offered some form of classroom instruction. Some training programs—particularly the longer ones (such as the associate's degree of nursing program offered by CGCC and the two-year histology and medical technician training offered by JobPath)—strongly emphasized classroom instruction. CGCC's RN training program provides an example of the type of longer-term training sponsored under HGJTI, which managed to supplement traditional classroom training with innovative training methods (e.g., using a simulation laboratory) and internships at area health care facilities (see box 3.6).

Box 3.6
Columbia Gorge Community College: Short- and Long-Term Nurse Training Programs

This HGJTI grant offered five separate training initiatives, all of which featured structured classroom instruction, supplemented by hands-on experiences in the workplace. The structure of two training initiatives (one longer-term and one shorter-term) are highlighted below:

- Students who complete the two-year associate’s degree of nursing (ADN) program become licensed registered nurses. Some nursing students become licensed as practical nurses (LPNs) after the end of the first year. CGCC accepts 24 students every year. While much of the students’ time is spent in the classroom, they spend all their time in the last quarter of the program in clinical settings. During the last quarter, students have 12 days of preceptorship (160 hours total worked), 2 days in the simulation lab, and 10 days at area hospitals.
- The certified nursing assistant (CNA) program provides a total of 160 hours of training—80 hours in class (earning nine credits) and 80 in a clinical setting (always long-term care facilities). The training, which takes place over 12 weeks during the fall or spring (or over four–five weeks in a summer session), is composed of up to 20 students. The classroom/lecture time occurs in the evening over five–six weeks, followed by the clinical training, which occurs during the day for six–eight weeks. There is one full-time instructor for the classroom portion and one adjunct that teaches the clinical setting. There is also CNA II–level coursework that CNAs can continue if they want to specialize in hospital-based nursing.

In the report on 20 early implementers, grantees emphasized that training for high-skilled, high-demand occupations requires highly trained instructors, up-to-date equipment, and flexibility. Grantees noted that training provided under HGJTI grants is, for the most part, cutting edge and in industry sectors—such as the advanced manufacturing, aerospace, automotive, biotechnology, and geospatial sectors—that have, in recent years, experienced rapid infusion of new technologies and production processes. According to the grantees, to prepare workers for emerging technologies and production processes, instructors must be well-versed in the use of the latest technologies, state-of-the-art equipment, and new production methods.¹⁶

At the other end of the training spectrum were on-the-job training (OJT) initiatives such as those mounted with HGJTI funding under the LDOL’s project, which featured wage subsidies to cover a portion of the wages paid to workers while they received mostly hands-on instruction from supervisors and fellow workers (typically complemented by several hours of classroom training). A good example of this type of training was provided through a contract by the JPWIB with a local shipbuilder (see box 3.7).

While some HGJTI grantees offered long-term training (as highlighted above), other grantees used HGJTI funding to sponsor classroom training that were much shorter (40 hours or less). These shorter-term training efforts were in some instances meant to get workers interested in a particular field and to provide a basic level of skills (and knowledge of safety procedures) that would facilitate entry into a high-growth field. As discussed earlier, the 170-hour pre-

¹⁶ For additional details about types of training offered by the 20 early implementers and lessons learned about providing training, see Trutko et al. (2007), pages 14–15.

apprenticeship workshop offered by CWIT and the 40-hour workshops (for floor hands in the oil and gas industry) offered by HPTC are examples of this type of short-term training that typically combines classroom and some level of hands-on experience. At the farthest end of the duration-of-training spectrum were several workshops offered by MDC: the eight-hour workshop (via distance learning) that focused on good manufacturing and documentation practices and the two-hour workshops focusing on contamination control.

Box 3.7

Louisiana Department of Labor: On-the-Job Training to Rebuild the Workforce

Several of the 26 subcontracts let under this HGJTI opted for on-the-job training to bring workers quickly into entry-level jobs and to support employer efforts to upgrade workers' job-related skills. For example, one OJT contract by the JPWIB was with a major shipbuilder in the Gulf region to provide training for entry-level pipe fitters, ship fitters, and welders. The OJT contracts were for a total of 640 hours, with the wage initially reimbursed at 100 percent, and then decreasing to 80 percent, 60 percent, and finally 50 percent over the length of the contract. During OJTs, the firm paid workers biweekly at an hourly rate ranging from \$9.24 to \$10.95. Training was mostly on the job but also included classroom training two nights each week. About 50 percent completed the 640 hours of training; about 40 percent remained with the firm after the OJT was completed. Reasons for attrition included lack of screening and low requirements for entry into training (e.g., the firm waived the high school/GED degree and lowered the Work Keys requirements), some trainees realized shipyard work was not for them or did not like working outside (i.e., shipyard work can be hard and dirty work that can at times be hazardous), and some trainees had their families elsewhere or were still getting resettled after Hurricane Katrina.

Overall, it is difficult to generalize about training hours and program duration. Some HGJTI programs offered training through a community college setting with a degree objective requiring up to two academic years (in some instances, because participants attended training only part time, training could take four years or longer to complete). The short-term training programs (sometimes resulting in certification, but other times only providing upgraded skill levels) varied from several hours or days to several weeks or months. Typically, training for incumbent workers was generally shorter and more narrowly focused, compared with training provided for unemployed or underemployed workers.

Training Levels

Discussions with grantee staff, along with grantee information and the quarterly reports submitted to ETA, provide some preliminary information about the level of training provided. All the grantees visited were tracking information on training activities, but there were some differences in what grantees collected and how it was reported.¹⁷ Nonetheless, the grantee reports are informative.

All six grantees were on track to meet their training goals. Five sites (CGCC, HPTC, JobPath, LDOL, and MDC) had exceeded their enrollment goals, and three sites (CGCC, HPTC,

¹⁷ A report on outcomes for the training component of selected grants will be published in 2008.

and MDC) had met their training completion goals. Some, such as MDC, CGCC, and HPTC, found that they were able to increase the number of individuals trained using the current funding levels and the support of employer partners, both cash and in-kind contributions. MDC also extended its grant to train more incumbent workers as a part of this project. CGCC's training numbers are duplicate counts, and it is difficult to tell how many people have been trained as some follow the career ladder from CNA to RN. However, CGCC has certainly exceeded its training numbers as well.

Among the grantees, the completion rates for those providing shorter-term training are higher than grantees providing longer training. More who start short-term training may complete the entire program, while a higher proportion of those in longer training may withdraw before the end. For example, HPTC, which provides 40 hours of training for new and current floor hands and derrick hands, has had few dropouts. The same is true for MDC's trainees, who receive short-term training that is usually conducted during work hours and at the work site (see table 3.6).

Some grantees have longer training programs than others do; as a result, their completion rates are not as high because individuals are still in training. For example, JobPath's completion rates for its biotechnology, histology, and phlebotomy students are currently low because it takes at least two years to complete these programs. LDOL also has longer-term training programs in shipbuilding and construction but have used mostly on-the-job training rather than classroom training. As trainees receive wages during their training time, this may have helped with the completion rates, coming in at 72 percent. One grantee, CWIT, which also has longer-term training (170 hours), had to modify its training goal—from 950 to 450 trained—owing to the slowdown of hiring in the construction industry. However, CWIT is on track to meet its revised training goal (see box 3.8).

TABLE 3.6: TRAINING OUTCOMES (AS OF 6/30/07 UNLESS OTHERWISE NOTED)

HGJTI Grantee	Enrollment and Training Goal	Number Enrolled in Training	Percent Completing Training	Percent Placed in Jobs	Percent Retained in Jobs	Comments
Chicago Women in Trades	450 (modified from 950)	333 (as of 8/21/07)	68% (225 as of 8/21/07)	49%	n/a	The goal for average wage at placement (\$13 an hour) has been exceeded (\$17.62 an hour) and wages will increase as participants complete apprenticeships.
Columbia Gorge Community College	200	767 (duplicated count)	91% (696 completers)	n/a	n/a	Nearly all RNs and CNAs complete training, pass exams, and enter employment.
High Plains Technology Center	1,303	2,162	Nearly 100%	74%	n/a	Participants typically earn \$14–\$18 an hour as floor hands and \$26 an hour as derrick hands.
JobPath, Inc.	30 (biotech) 50 (summer youth)	34 75	24%	100%	n/a	Those who completed the biotech certificate are earning \$37,000–\$42,000.
Louisiana Department of Labor	1,124	1,191	72%	56%	n/a	
Miami-Dade College	800	918	Nearly 100%	n/a	99%	Average hourly earnings of trainees are \$37.23.

SOURCES: ETA GRANT AGREEMENTS, GRANTEE QUARTERLY REPORTS, AND 2007 SITE VISITS.

Box 3.8

Chicago Women in Trades: Responding to a Slowdown in the Construction Sector

The original training goal of CWIT was to enroll 950 individuals in training, but because of slackening demand for new apprentices (owing to a slowdown in the construction industry), CWIT modified its enrollment goal to 450 individuals. As of the August 21, 2007 site visit, CWIT had enrolled 333 in training. This represents 75 percent of its revised enrollment goal. With a revised end date of June 2008, CWIT should reach this revised goal. CWIT anticipates that 70 percent of enrollees will complete training, and, as of the site visit, 225 had done so (68 percent). The goal is for 300 TOP participants to be accepted in apprenticeship programs or gain employment directly in the construction industry. Currently, there is a lag between completion of the coursework and entry into apprenticeship programs (sometimes a year or longer), so some graduates are still waiting for their acceptance into apprenticeship programs. Of the 225 who have completed the program, 103 have been accepted into apprenticeship programs and 8 are working in some other type of job in the construction industry, so job placements to date total 111. This yields a 49 percent placement rate so far. This rate is preliminary and is expected over time to increase as some of those who have completed training are just now applying to apprenticeship programs or are on waiting lists with some chance that they will be accepted in the future.

Four of the six grantees—CWIT, HPTC, JobPath, and LDOL—have tracked job placement rates. One hundred percent of JobPath graduates have found gainful employment in the biotechnology sector and are earning \$37,000–\$42,000 a year. HPTC estimates that nearly 75 percent of its trainees were placed in jobs if they were not already employed or promised a job upon completion. HPTC has a job placement specialist to help those trying to find a job. As described above in box 3.8, CWIT graduates, who have a 49 percent placement rate, must often wait a long time to be accepted to apprenticeship programs, and job placement is slow owing to the downturn in the construction industry. LDOL reported a 56 percent job placement rate, below its original goal of 75 percent, but it thought that placement was particularly successful in the health care sector and for participants that received on-the-job training. CGCC has surveyed its former training participants to track their job placement and retention, but the information gathered has not been reliable thus far.

MDC trains only incumbent workers so data collection on job placement was not necessary. However, it did track retention of the training completers. As of June 30, 2007, a year after training started, the retention rate for MDC trainees is 99 percent. This outcome is somewhat expected as the industrial pharmaceutical manufacturing industry has low turnover rates. MDC is tracking promotions within companies of individuals who received training and will be able to provide those numbers to ETA in its final report.

C. Capacity-Building Strategies

An important purpose of the HGJTI is to expand the capacity of the training and workforce development systems to meet the skills development needs of the targeted high-growth industries. As addressed in previous sections, some HGJTI grantees visited are primarily providing direct training to workers, others focus on a wide range of capacity-building efforts, and many grantees are engaged in both training and capacity-building activities. This section describes the capacity-building efforts undertaken as part of these initiatives.

Types of Capacity-Building Activities

Capacity-building activities within the context of HGJTI are strategies designed to expand the quality and quantity of training and education programs for workers and to increase the capacity of the workforce in occupations in the targeted sectors. Capacity-building efforts include activities, projects, or initiatives to develop new programs as well as enhance existing programs to better meet the demands of the targeted industries.

As shown in table 3.7, all six grantees selected for site visits included as key elements of their initiatives multiple types of capacity-building efforts. While not necessarily representative of all the HGJTI initiatives, these grantees provide many examples of the range of approaches to capacity-building implemented by the grantees. Descriptions of capacity-building activities implemented by one or more of the six grantees are provided below. These include development of outreach materials; design and development of program curricula and instructional materials; creation of career ladders and competency models; development or improvement of credentials, certifications or degree programs; design or use of new instructional techniques and/or technologies (e.g., Web-based learning); expansion of the number of training program “slots”; expansion of the number of certified instructors for particular training or education programs; and expansion of training alternatives to access new or untapped labor pools.

TABLE 3.7: TRAINING AND EDUCATION PROGRAM DEVELOPMENT CAPACITY-BUILDING ACTIVITIES

HGJTI Grantee	Developed Outreach Materials (e.g., brochures, Web sites)	Developed Curricula/ Instructional Materials	Created Career Ladders/ Competency Models	Developed New/Improved Credentials/ Certifications/ Degrees	Designed/ Used New Instructional Techniques/ Technologies	Expanded Number of Training Program Slots	Increased Number of Certified Instructors	Expanded Training Alternatives to Access New/Untapped Labor Pools
Chicago Women in Trades	✓	✓			✓			✓
Columbia Gorge Community College	✓	✓	✓	✓	✓	✓		✓
High Plains Technology Center	✓	✓	✓		✓	✓		
JobPath, Inc.	✓	✓	✓	✓		✓		✓
Louisiana Department of Labor	✓	✓	✓	✓	✓	✓	✓	✓
Miami-Dade College	✓	✓		✓		✓	✓	✓

SOURCES: ETA GRANT AGREEMENTS, GRANTEE QUARTERLY REPORTS, AND 2007 SITE VISITS.

Development of outreach materials. As shown in table 3.7, all six grantees developed some type of outreach materials designed to provide potential employees with information about education and training programs as well as new employment opportunities in the targeted sector. These materials included, for example, brochures, posters, flyers, DVDs, CDs, new or upgraded Web sites, presentations to various audiences (e.g., high school career days), newspaper

summer program designed to expose interested high school students to careers in the field. Future plans called for this curriculum to be offered at the college as an introductory course for the biotechnology certificate program.

Creation of career ladders or competency models. Five grantees either developed new career ladders and/or competency models or worked with partners to enhance or solidify models already in some stage of development. CGCC developed a career ladder program for employees in nursing (box 3.10). Although the biotechnology certificate program at Pima Community College was in place before the award of the HGJTI grant, Job Path supported the college in establishing a career ladder in biotechnology through funding for development of the Biotechnology Summer Institute for high school students and the introductory course for the program.

Box 3.10

Columbia Gorge Community College: Creating Multiple Entry Points to Career Ladders

One component of the CGCC project was the development of a health and nursing career ladder with multiple entry points. Interested students were able to progress from certified nursing assistant (CNA) to a bachelor's of science in nursing (BSN)/registered nurse (RN), mostly within the CGCC's own program. This was accomplished by building the CNA→certified medical assistant (CMA)→LPN→ADN pathway through its own course offerings and creating a partnership with the state university so ADN's could transfer to their BSN program. In addition, CGCC established partnerships with employers to enable graduates to find jobs more easily in the region.

Development of credentials, certifications, or degree programs. Five of the six grantees either developed new credentials, certifications, or degrees associated with their training programs or contributed to the improvement or further establishment of such credentials or programs already in place. For example, CGCC developed and supported five training programs in health occupations, including a two-year training program for RNs, which culminates in an associate's degree in nursing. Other programs for CNAs, CMAs, EMTs, and first responders result in a certification for participants who successfully complete the program requirements. Delgado Community College, as part of the LDOL grant, provides safety training for incumbent offshore oil and gas rig workers that includes both classroom and hands-on instruction. Participants who complete the training received a certification that, in some cases, could result in a move to a higher pay rate. MDC's training for incumbent workers on various topic areas (e.g., good manufacturing and documentation practices) also provides certifications of completion. As noted above, Pima Community College's certificate in biotechnology program was developed before this grant. However, JobPath's support of the students and the program is credited with keeping the students enrolled as well as establishing the program, raising its visibility in the community, and helping it grow.

Design or use of new instructional techniques or technologies. Four of the six grantees either created their own instructional techniques or technologies or used new ones as part of their capacity-building efforts. As described in box 3.11, CGCC staff developed a new simulation laboratory or "sim center" intended to replicate clinical settings for nursing students. Similarly,

HPTC provided both classroom training and hands-on instruction on an oil and gas drilling simulator, set up with the assistance of local employers. Using another form of new technology, MDC grantee staff worked with the college's Virtual College team and an employer partner's in-house trainer to develop an online training course on good documentation practices for incumbent IPM technicians. This course, which can be accessed by an employee in his or her office or workstation, includes videotaped presentations, lessons, examples, practice tests, and exams, and it eliminates the need for the in-person presence of an instructor at a training session. On a somewhat smaller scale, other grantees used new technology for both instructional purposes and to provide information about job opportunities. As described above, CWIT staff participated in Web seminars to share information about new opportunities for women in the construction trades in general and, more specifically, about their pre-apprenticeship program.

Box 3.11

Columbia Gorge Community College: Instituting New Training Technology

As part of its grant activities, CGCC developed a simulation laboratory or "sim center" to provide simulated clinical experience for nursing students. Project staff noted that the lab is especially useful in rural settings where limited in-hospital or in-facility clinical teaching opportunities are available. The lab equipment includes a computer-controlled "patient" or dummy that simulates vital signs and sounds and provides students with the ability to practice checking pulse, taking blood, and other activities. The lab is also available to local hospitals and other facilities for staff development or training.

Expansion of number of training program slots. Grant activities implemented by five of the six grantees resulted in an increase in the overall number of available slots or openings in training programs in the target industry. Subcontracts awarded through the LDOL HGJTI project funded new on-the-job training slots in the Gulf Coast region to move workers quickly into entry-level jobs as pipe fitters, ship fitters, and welders. Similarly, HPTC provided new slots for both classroom training and hands-on instruction in the oil and gas drilling field, and it replicated its training program at a satellite site housed at a community college.

Increased number of certified instructors. Although some grantees reported difficulties identifying and retaining appropriately qualified instructors for their training components, only one grantee pursued efforts to expand the number of certified instructors in their targeted industry. MDC worked closely with an employer partner's training instructor on the development of an online training program curriculum and then trained that instructor to become an adjunct faculty member of the Virtual College. Plans were also under way to train other MDC faculty members in the Virtual College online instructional program.

Expansion of training alternatives to access new or untapped labor pools. Five of the six grantees pursued efforts to expand postsecondary training alternatives to include apprenticeship and community college workforce development programs to access new or untapped labor pools. JobPath used grant monies to partner with a local community college in developing a summer program to expose high school students to career opportunities in the growing biotechnology sector. CWIT's HGJTI project focused on efforts to educate women about employment opportunities in the construction trades and to prepare them for entry into

union-sponsored apprenticeship programs, an area in which they are underrepresented. CGCC developed outreach materials in Spanish and collaborated with La Clinica, a local community-based organization, in an effort to attract local Hispanics into their training programs.

Results of Capacity-Building Activities

The outcomes of the capacity-building efforts are not being measured in any quantifiable way, but some observations about the results or, in some cases, products of these activities are possible. Among the six grantees, some activities resulted in tangible, transferable products that can be shared with and replicated by other similar organizations, often through technical assistance. Somewhat different, but still notable, outcomes of capacity-building efforts include the development of new or expansion of existing partnerships with other key training providers in the workforce system, such as employers, unions, WIBs, and educational institutions. Table 3.8 summarizes outcomes and results of capacity-building activities for the six grantees.

TABLE 3.8: OUTCOMES AND PRODUCTS FROM CAPACITY-BUILDING ACTIVITIES

HGJTI Grantee	Tangible/Transferable Products				New/Improved Partnerships		
	Outreach Materials	New/Revised Curricula and/or Other Training Materials	New Training Equipment/Facilities	Evaluation Reports	New Partnerships with Employers and Unions	New Partnerships with WIBs	New Partnerships with Educational Entities
Chicago Women in Trades	✓	✓		✓	✓	✓	✓
Columbia Gorge Community College	✓	✓	✓		✓		
High Plains Technology Center	✓	✓	✓		✓		
JobPath, Inc.	✓	✓		✓	✓		✓
Louisiana Department of Labor	✓	✓			✓	✓	
Miami-Dade College	✓	✓			✓		

SOURCES: ETA GRANT AGREEMENTS, GRANTEE QUARTERLY REPORTS, AND 2007 SITE VISITS.

Tangible/transferable products. All six grantees developed at least one lasting product as a result of the capacity-building activities implemented as part of the grant. Examples of this type of product include new outreach materials (e.g., DVDs, CDs, brochures, posters, flyers, informational Web sites, PowerPoint presentations), training curricula or other instructional materials (e.g., training manuals), training equipment or facilities (e.g., simulation training laboratories), or summary reports completed by local evaluators.¹⁸ The common link among these products is that all of them can be modified and reused by the grantee in future initiatives, and they can be shared with other organizations interested in replicating the efforts of the grantee. Thus, the legacy value of these products is their ability to simplify and guide the way for

¹⁸ These grantees used HGJTI grant funds for purchasing new equipment or build new facilities. They were able to use funding that was leveraged from other sources (e.g., other government grants, employer or industry contributions) to contribute to the overall capacity-building effort.

additional programs of this kind. For example, JobPath's introduction to biotechnology curriculum will be used in both a summer program for high school students as well as an introductory course for the biotechnology certificate program offered through a community college. Both programs are expected to continue operation locally after the grant period ends but have also sparked interest from other educational institutions considering implementing similar efforts. JobPath has also secured the services of an evaluator who is providing ongoing feedback on outcomes for participants in the summer program. The findings from her periodic reports are being used to refine both recruitment and instructional strategies.

New or improved partnerships with key training providers. A second type of outcome observed as a result of capacity-building activities is the creation of relationships with key training providers within the workforce investment system. In some cases, these partnerships resulted in expanded training alternatives in the community. As shown in table 3.8, partnerships developed in the grantee sites included those with employers and/or unions, WIBs and One-Stop Career Centers, and educational institutions such as community colleges or the local school district. In many cases, these relationships had been in place before this grant, while in some cases they were developed over the course of the grant. CWIT, for example, had worked closely with a number of WIBs, employers, and unions on similar efforts in the Chicago metropolitan area for a number of years before this grant. However, new relationships were developed with additional WIBs, unions, and community colleges in suburban areas as part of HGJTI grant activities. All six grantees developed partnerships with new employers as part of their capacity-building activities.

D. Implementation Issues and Lessons from the Field

Any grant program that involves mounting complex training and capacity-building initiatives covering widely varying geographical regions and bringing together many different partnering organizations during a limited grant period will encounter implementation challenges. Some of these challenges will be encountered early on when grantee staff are involved in intensive activities to launch the initiative, while others will emerge once the initiative is up and running. Moreover, grantees learned a number of lessons in the course of implementing their activities. This section summarizes, from the perspectives of the grantees visited, some key challenges and how grantees addressed the challenges, plans for sustaining the initiatives after the grant ends, and lessons for future implementation of similar efforts.

Implementation Challenges

When asked during site visits about major implementation challenges, all six HGJTI grantees reported some type of challenge. In fact, most grantees indicated that they had to overcome multiple challenges in implementing their initiatives. These self-reported challenges included difficulties in recruiting training participants, lack of experience in federal grants management, turf issues, and burdens of securing active cooperation on the part of other organizations that were vital to meeting project goals. Most of the implementation challenges identified in the first study of the early HGJTI implementers were also identified by grantees in this study.¹⁹ Table 3.9 describes site by site some of the main implementation issues that HGJTI grantees had to

¹⁹ For more details on implementation experiences and lessons, see Trutko et al. (2007), section III.

overcome during startup and ongoing operation of their projects. The balance of this section is devoted to discussing the main implementation challenges faced by HGJTI sites and, where possible, how issues were resolved and lessons learned.

TABLE 3.9. MAJOR IMPLEMENTATION CHALLENGES AMONG HGJTI GRANTEES

HGJTI Grantee	Major Implementation Challenges
Chicago Women in Trades	<p>Adverse Economic Conditions. The pace of construction industry hiring slowed just when grant funds were received and has remained much below expectations going into this project, resulting in fewer openings in building trades apprenticeship programs. As a result, CWIT reduced its goal individuals trained from 950 to 450 and lengthened the grant period of performance by one year.</p> <p>Recruitment into Nontraditional Employment. CWIT has had to overcome lots of skepticism and stereotypes concerning women entering and being successful within the building trades. CWIT has also had to overcome a lack of awareness among women of the opportunities available in the building trades. At the start of the program, CWIT lacked good promotional materials, so it had to develop new outreach materials to engage the target population.</p> <p>Engaging with Workforce Investment System. Engaging WIBs and One-Stop Career Centers was sometimes difficult (though some have partnered enthusiastically), so CWIT had to take the initiative to make these partnerships happen. Some WIBs/One-Stop Career Centers feared women would find it tough to find and keep employment in construction. The state did not identify the construction trades as a critical skills shortage field, so WIBs were focusing more on other critical shortage occupations.</p> <p>Rigidity of for-Credit Educational System. The community college system tends to focus on for-credit rather than noncredit instruction. To partner on this effort, some community colleges had to overcome bureaucratic barriers to providing noncredit instruction.</p>
Columbia Gorge Community College	<p>Securing Clinical Slots. Finding clinical slots at area hospitals and health care facilities was challenging and limited the number of RNs that could be trained. The RN training component could not be expanded beyond 24 slots without additional preceptorships. To further complicate matters, one partnering hospital was considering hiring only RNs with four-year nursing degrees (versus two-year associate's degree RNs); this proposed change would be a sharp blow to the CGCC nursing program, resulting in loss of clinical preceptor slots, cash/in-kind contributions from the hospital, and a potential workplace for graduating RNs.</p> <p>Insufficient Supply of Nursing Faculty. Attracting and keeping nursing faculty was a major challenge. Faculty can often earn more working as a nurse, so it can be difficult to hold onto faculty.</p> <p>Inability to Collect on Pledges of Support. Several health care facilities that originally made annual pledges of cash contributions to support the health careers training programs at CGCC have run into financial constraints and so have not fully met original pledges, necessitating use of CGCC general operating funds to offset the cost of training.</p> <p>Lack of Procurement and Federal Grant Expertise. CGCC lacked on-staff expertise to set up systems to meet federal grant requirements and to effectively procure expensive equipment for the nursing simulation training laboratory. CGCC brought on a staff person to fill these roles and was able to tighten up procedures in these two important areas.</p>
High Plains Technology Center	<p>Insufficient Supply of Instructors. Finding and keeping instructors with hands-on experience in the oil and gas industry proved a key challenge. Since instructors can secure high salaries at firms in the industry, it is difficult to find and retain good instructors. During the course of the grant, five instructors were replaced after leaving for jobs in the industry.</p>
JobPath, Inc.	<p>Project Staff Turnover. Changes in key personnel at Pima Community College slowed progress early on. A lead staff person behind the development of the biotechnology certificate program moved to another position, so some of the institutional knowledge and momentum was lost.</p> <p>Recruitment. Enrollment in the biotechnology program was less than expected; the college inadvertently omitted descriptions of the courses in one version of the course catalog, and the courses were scheduled during the day as opposed to evening hours, making it difficult for many students to attend. Since the enrollment in these classes was low, the grant scope of work was modified to include support for students in histology and medical laboratory technician programs.</p> <p>Employer Links. JobPath expected to receive cash for internship stipends and in-kind support from TGEN, a biotechnology employer. However, because TGEN is headquartered in Phoenix, students were unwilling or unable to travel that distance for internships and, as a result, the employer support did not materialize.</p>

HGJTI Grantee	Major Implementation Challenges
Louisiana Department of Labor	<p>Adverse Environmental Conditions. Hurricanes Katrina and Rita destroyed much of the infrastructure and many businesses in Louisiana's Gulf Coast region. Lack of infrastructure and slow pace of rebuilding and recovery complicated efforts to implement the wide range of training programs. Displacement of families and loss of housing contributed to difficulties in recruiting training participants, and at times, led to attrition in training programs.</p> <p>Lost Documentation. Local contracted grantees and WIBs indicated that sometimes it was very difficult to meet basic documentation requirements for enrolling individuals in training since some individuals lost identification documents as a result of the hurricanes.</p> <p>Data System Problems. Getting information into the state's data system for tracking purposes proved a burden for some contractors. For example, Delgado Community College (DCC) provided safety training for 30 to 40 offshore oil and gas workers under a contract, but it could not charge these individuals to the grant because they had not been entered into the state's system before receiving the training. This was the result of delays in getting the One-Stop Career Center staff to gather client data and enter it into the state system (i.e., DCC could not do this on its own).</p>
Miami-Dade College	<p>Securing Employer Support. The two employers tapped for major partnerships for the grant experienced situations that held up their involvement. One major partner experienced a merger at the start of the grant and was unable to move ahead with the partnership and cash contribution right away. The other expected partner had difficulties completing its facility on time, and the move was delayed. Once one partner was able to move forward and a new employer partner was recruited, activities on the grant begun.</p> <p>Hiring Key Project Staff. Hiring a program manager for the grant took almost a year; grant activities moved quickly once he started.</p>

SOURCES: ETA GRANT AGREEMENTS, GRANTEE QUARTERLY REPORTS, AND 2007 SITE VISITS.

Lack of experience in federal grants management. One challenge encountered by several sites was a lack of prior grantee or staff experience in federal grants management. Some grantees had no prior organizational experience in managing a large federal grant and found that it was more complicated than anticipated to administer the grant to meet federal government requirements. In addition, because of pressure to get HGJTI grants up and running quickly, grantee staff had to move forward with implementation despite their lack of knowledge on how to manage the grant. Some of the selected grantees received assistance from their federal monitors in dealing with grant requirements.

Similarly, several grantees in the study of 20 early implementers indicated that they had no prior organizational experience in managing a large federal grant and found that it was much more complicated than anticipated to administer the grant to meet federal government requirements. In addition, because of the importance of the HGJTI grants, grantee staff indicated that they had to move forward with implementation despite their lack of knowledge on how to manage the grant. A number of these early implementers noted that ETA staff provided valuable guidance and support to HGJTI grantees during the implementation period, but also noted that they needed more management-focused technical assistance sooner.²⁰

As noted in the example below, some grantees were confused about requirements, made mistakes early on, and in some instances, had to bring aboard new staff with prior federal grants management experience to sort out difficulties and make sure they were in compliance with grant requirements (see box 3.12).

²⁰ For additional discussion, see Trutko et al. (2007), pages 19–20.

Box 3.12
Columbia Gorge Community College: Addressing Startup Challenges

According to the CGCC interviewees, the development of the nursing and health occupations program was “a big leap” for a small college. Startup was “painful at times” as the college did not have the necessary infrastructure or personnel needed to manage a federal grant of this size. Many meetings were held at first. There was also a need to add staff expertise on how to procure the equipment for a nursing simulation laboratory, which was mostly funded out of grants CGCC leveraged. Current CGCC staff determined that to be successful, the project needed to bring on a new staff person with procurement and federal grants management expertise. There was a sense of relief when this new administrative staff person was brought on to the project team. Procurement of the equipment for the lab and development of data systems needed to meet federal reporting requirements moved forward smoothly and effectively once this staff person was brought on board.

Difficulties recruiting or retaining appropriate staff. Effective and timely implementation of HGJTI grants depended considerably on grantees being able to recruit and hold onto appropriate staff for the period of performance of the grant (in most cases, about two years). In interviews, several grantees noted that they had encountered some difficulties recruiting and assembling staff with the requisite blend of experience and expertise needed to launch their initiatives in a timely and effective manner. For example, at the time of the site visit, CGCC was actively recruiting for two nursing faculty positions but was finding it difficult to find instructors who both met the college’s hiring requirements and were willing to accept a salary that was less than what they would likely earn as a practicing RN at an area hospital or nursing home. Other grantees experienced difficulties with retaining staff—particularly instructional staff—throughout the grant period (see box 3.13 for an example).

Box 3.13
High Plains Technology Center: Finding and Retaining Training Instructors

The High Plains Technology Center—part of a statewide network of training centers responsible for providing instruction under this grant—indicated that its main challenge in administering its HGJTI grant was difficulty finding and keeping instructors with hands-on experience in the oil and gas industry. Since instructors can secure competitive salaries at firms in the industry (often with opportunities for much overtime to swell earnings), it is difficult to find and retain good instructors with the hands-on experience needed to provide effective instruction. During the course of the grant, five instructors had to be replaced after leaving for high-paying jobs within the oil and gas industry.

Continuity of staff is a critical ingredient in the overall success of innovative initiatives such as those mounted under HGJTI. Low rates of staff attrition are particularly important in grant programs such as HGJTI because of the relatively short period over which grant activities must be completed. Difficulty hiring or staff turnover can be a particular problem when it affects leadership positions (especially a project director). For example, at MDC, hiring a program manager for the grant took almost a year; once the project manager was brought on board, grant startup and recruitment activities moved along quickly. When key staff leave, it can take several

months or longer to recruit replacement staff and have them gain the on-the-job experience needed to be effective in their new positions. It can also be difficult to hold onto staff in later stages of the grant period, particularly if other funding sources are not secured well before the expiration of grant funds.

Difficulties recruiting or retaining participants in HGJTI training programs. Training programs mounted under HGJTI grants were targeted on widely varying subpopulations across grantees. For example, some initiatives targeted entry-level workers, while others sought to recruit incumbent workers or unemployed/dislocated workers. Most of the six programs visited sought to recruit individuals interested in entering a specific industry. For example, CWIT targeted women exclusively and sought to bring new workers into nontraditional employment in the building trades. Under the HPTC initiative, recruitment was targeted on bringing new workers into the oil and gas industry (as floor hand/derrick hands for oil and gas drilling or floor hands for well servicing). At the time of the site visits, five of the six sites had reached or exceeded their goals for recruitment into training, and the sixth site (CWIT), appeared on its way to meeting its revised goal for training (which had been reduced through a grant modification with ETA from 950 to 450 individuals).

Several programs experienced little difficulty in meeting enrollment goals and were able to recruit the types of individuals they originally targeted in sufficient numbers. Several other grantees, while eventually meeting their recruitment goals, struggled with meeting recruitment goals because of difficulties reaching out to and generating interest in the targeted population or because the pool of individuals targeted turned out to be relatively small. Several grantees experienced changes in environmental conditions (especially economic circumstances) that altered the size of the targeted population during the grant period. For example, as shown in box 3.14, CWIT struggled to meet its enrollment goals because of inherent difficulties in overcoming lack of awareness and interest of women in a nontraditional field (such as construction), as well as a downturn in the construction industry. The devastation wrought by Hurricanes Katrina and Rita complicated efforts to initially get locally contracted training projects up and running in the Gulf Coast region and engage potential training prospects in a range of training projects funded under HGJTI.

Several HGJTI grantees struggled with retaining program participants once they were involved in training activities.²¹ Attrition from training programs stemmed from various factors, including lack of selectivity during the recruitment process, disinterest on the part of individuals once enrolled in training, insufficient basic or foundational skills to be able to effectively master the training curriculum being delivered, and other intervening personal factors (e.g., illness, family circumstances, and moving to other locales because of a lack of affordable housing or employment).

²¹ As shown earlier in table 3.6, while over 90 percent of those enrolled in training activities completed training in three sites (CGCC, HPTC, and MDC), 72 percent completed training under the LDOL grant, 68 percent (through August 2007) had completed training under the CWIT grant, and about 25 percent of those enrolled completed training under the JobPath, Inc. project., Activities were still under way at CWIT and JobPath at the time of the site visits so retention rates are likely to change.

Box 3.14
Chicago Women in Trades and Louisiana Department of Labor:
Addressing Challenges in Recruiting Participants

The main challenge faced by CWIT is that recruitment and entry into its TOP pre-apprenticeship training program has lagged behind what was originally planned. The pace of construction industry hiring has slowed and is much below expectations going into this project. This has resulted in fewer openings in apprenticeship programs. CWIT has, as a result, reduced its goals for numbers to be trained under the initiative—from 950 to 450—and lengthened the grant period of performance by one year (through a no-cost extension). In addition, in its recruitment efforts, as well as getting those completing training into apprenticeship programs, CWIT had to overcome skepticism and stereotypes concerning women entering and being successful within the building trades. All along, it has been necessary to fight preconceived views about the difficulties that women are likely to encounter within the building trades—starting with prospective candidates, to union officials, to WIBs/One-Stop Career Center staff, to employers. CWIT also had to overcome a lack of awareness among the women of the opportunities available in the building trades (e.g., good employment prospects, high wages, fringe benefits, training, and interesting/rewarding work). To address these issues, CWIT devoted significant time and resources to an extensive public relations campaign to get the word out about the construction trades.

According to LDOL officials, gaining commitments to enter training programs was initially difficult because many people received unemployment insurance and had unstable housing circumstances. According to local WIB staff in the Gulf Coast region (responsible for contracting out to a number of local training providers under the grant), the lack of affordable housing complicated efforts to both recruit and retain workers in training programs. For example, many who had returned to the area had families living in other areas of Louisiana, in Texas, and elsewhere. These individuals were waiting (in some cases) until houses and schools were rebuilt before bringing their families back. They often commuted back and forth to see their families and so were unwilling or reluctant to commit to training programs until their housing and personal circumstances were more settled. In addition, some potential participants had lost identification as a result of the loss of their housing during Hurricane Katrina, which complicated efforts to meet documentation requirements under the grant (and in obtaining other supportive services that would facilitate enrollment in training under the grant or WIA).

Grantees noted the importance of careful early assessment to determine each candidate’s capabilities and appropriateness for training, as well as his or her inherent interests in pursuing a career in the particular occupation for which training was being provided. For example, as shown in box 3.15, CWIT initiated a three-part assessment process to ensure that individuals were truly interested in entering the building trades and would have the level of commitment needed to withstand the lengthy (up to five years) apprenticeship training process, and that they had the physical stamina and resolve to stay in the construction trades over the long term (e.g., in the face of potential harassment on construction sites from other workers). To guard against attrition later on, CWIT wanted to make sure that women participants “knew what they were getting into” when they decided to enter a nontraditional field.

Box 3.15
Chicago Women in Trades: Assessing Participants to Reduce Attrition

To avoid attrition during its training program and once individuals entered lengthy pre-apprenticeship programs, CWIT instituted a three-step assessment process:

- **Aptitude test.** CWIT administers a 1½ hour test based on testing done for entry into apprenticeship programs; the test measures basic mathematics and reading capabilities (with a particular focus on basic math skills like multiplication and fractions). Individuals who score poorly on the test are generally not admitted to the CWIT’s pre-apprenticeship program.
- **Physical agility test.** This test is to check the physical fitness of applicants; it includes pushups, jumping jacks, sit-ups, lifting and carrying 50 pounds, and climbing a ladder. This test is intended more as a “reality check” for participants; some drop out at this point either because they do not show up for the test or because they realize that the strenuous nature of construction jobs is not for them.
- **“Discussion of interest.”** A short in-person interview is conducted with the applicant by a CWIT staff person and a person involved in the building trades (e.g., union representative, employer, a construction trades worker). A key focus is on understanding why the individual wants to enter the construction trades and her likelihood of being able to qualify for an apprenticeship program upon completion of TOP. A “score” is given to the participant at the end of the interview, and those with poor scores are typically not admitted to TOP.

Tight schedule for grant completion. Most grantees worked under the constraints of completing their grants within about a two-year period (except the LDOL, which initially had a one-year grant). Several grantees indicated that the two-year grant period was tight in terms of initiating their grants, recruiting staff and participants, providing training or developing capacity-building tools, tracking participants for a reasonable period after training completion, and making a concerted effort to secure new resources to sustain projects once grant funds had been exhausted. As evidenced by the fact that two of six grantees visited requested and received extensions to their grant periods of performance, the original grant periods were short considering the broad grant objectives and the often lengthy list of tasks and activities to be performed.

Complexities of partnering with employers and other organizations. One fundamental goal of the HGJTI was to spur the formation of meaningful and long-term partnerships between the workforce investment system, local community colleges and other training institutions, employers, and a range of other organizations within a locality or region. From our interviews and review of documents, it is apparent that HGJTI grantees have sought out a wide array of partners to strengthen their initiatives. The project descriptions (included in Attachment A) attest to the proliferation of partnering arrangements that have resulted from the HGJTI initiatives. These partnerships have helped strengthen initiatives by leveraging additional resources, expanding the range of training and other services that can be delivered to participants, and helping to assure sustainability after HGJTI grant resources have been expended. At the same time, the grantees interviewed indicated that there were complexities and some costs associated with collaboration.

Grantees cited a number of obstacles to coordination and ongoing costs to such partnerships. Several sites reported difficulties engaging some area employers, either for providing hands-on training experience (e.g., through internships) or for obtaining promised cash or in-kind contributions. Box 3.16 provides details about difficulties that the CGCC encountered in obtaining cash contributions from several of its employer partners, as well as concerns that plans to change hiring requirements for RNs could eliminate opportunities for clinical internships and job placement. This box also provides details concerning similar difficulties that the JobPath project encountered in securing in-kind support from a key employer.

All grantees provided some description of how they would work with or partner with the workforce investment system, mainly WIBs, to implement their HGJTI projects. However, the intensity in which WIBs participated in grant activities varied among grantees. CWIT experienced mixed results in its efforts to engage the 11 WIBs and 19 One-Stop Career Centers in its service area (in and surrounding Chicago) for several reasons. First, WIBs and One-Stop Career Centers were not required to partner in this effort. Adding to the difficulties was the fact that the state had not identified the construction trades as one of the high-skill/high-demand sectors. In addition, CWIT was not on the eligible training provider list, and its TOP training effort was not for credit (and did not lead to certification), which further complicated efforts to partner with the workforce investment system. Despite these challenges, CWIT was able to engage WIBs (and the One-Stops Career Centers) in 3 of the 11 counties.

Box 3.16

Columbia Gorge Community College and JobPath, Inc.: Securing Matching Funds and Leveraging Resources

CGCC has been able to leverage significant amounts of funding through in-kind and cash contributions by hospitals and other health care facilities (e.g., matched and leveraged amounts exceed the HGJTI grant). However, three health care facilities that originally pledged cash contributions to support training under the HGJTI have run into financial difficulties and have not been able to fully meet their original pledges. In addition, several area hospitals and nursing homes have provided essential clinical internship slots for the RN and CNA training programs. One area hospital, however, is considering hiring only RNs with four-year degrees (BSNs), which could be a potentially sharp blow to the associate's degree RN program funded (in part) under the HGJTI grant. If this key employer partner limited hiring to nurses with BSNs, this change would translate into a loss of sizeable numbers of clinical internships for the RN training program, as well as a place where program graduates have sought employment. At the time the grant application was written, JobPath expected to receive cash for internship stipends and in-kind support from one biotechnology employer. However, because the employer is headquartered in Phoenix, students were unwilling or unable to travel that distance for internships and that support did not materialize. Most of the larger biotechnology employers are located in and around Phoenix, which makes developing links difficult.

Complexities of administering program across vast areas, including rural areas. Under HGJTI, grantees were encouraged to bring together partners and initiate grant activities over expansive geographic regions. While some grantees limited grant activities to a single local workforce area (such as the HGJTI projects mounted by JobPath, Inc., and MDC), the other four projects visited were regional. For example, the CGCC served training participants across a

seven-county area in Washington and Oregon, and the HPTC recruited individuals interested in training for entry-level floor hand jobs in the oil and gas industry across a four-state area that included all of Oklahoma, southwest Kansas, the Texas Panhandle, and western Arkansas. Staff reported that it was difficult and costly to bring together partnering organizations when they stretch across several states or where certain partners are located in remote, rural areas. In addition, multisite initiatives encountered different challenges when operating in urban versus rural areas. Using training initiatives as an example, problems of scale and availability of training facilities in sparsely populated rural areas differ from those encountered in urban areas.

Plans for Sustainability

At the time of the site visits, all six grants were still in operation, so analysis of the post-grant activities is not possible. However, all six grantees had plans to sustain either all or part of their programs.²²

Similarly, the earlier report on the 20 HGJTI early implementers found that these grantees had moved aggressively in identifying and securing funding while the grants were still under way to maintain and, in some cases, expand the efforts begun under their HGJTI grant. Of the 20 HGJTI grants included in the early implementer study, 8 had continued the activities developed under their HGJTI grants in a similar form and scale, while 10 others had continued activities conducted under their HGJTI grants but in a somewhat modified form or at a smaller or larger scale. Only two had ceased activities begun with grant funds, and both were seeking new resources to support the activities continuously. The majority of the early HGJTI grantees had garnered additional funds to sustain their programs. At least 5 of the 20 had received another HGJTI grant, meaning it is not yet possible to know whether the projects will ultimately be sustained after the final HGJTI grant. Three of the grantees examined had obtained industry association or union funds, or have received approval from their management and governing boards to use some of the organization's own internal funds. Almost all (five) of the HGJTI-funded projects were continuing with WIA funds, usually using WIA funds to leverage and blend other resources (e.g., employer contributions, Individual Training Accounts (ITAs) and Pell Grants for training, college and private investments, state workforce investment discretionary funds, and private foundations).

The six grantees were mainly concerned with finding continuing funding sources for their training programs. Staff at CGCC have currently secured funding for the 2007–2008 academic year using some funding from its foundation and continued funding from area health care facilities. MDC also expected to continue its incumbent worker training program after the end of the grant in June 2008 through employer payments and in-kind contributions of space for training and instructors. HPTC expects to approach local employers and industry associations about providing financial support to the training effort to continue in the future. Some training programs started by LDOL will continue with employer funding of training at the community colleges.

²² See Trutko et al. (2007), pages 21–27.

Other grantees are working with their state legislatures and city government to secure funding for program continuation. CWIT will receive \$650,000 from a newly funded \$6.2 million training program passed by the state legislature. HPTC has written a \$768,000 proposal to the state legislature to continue the program after the end of the grant in November 2007. JobPath receives \$500,000 in annual funding for its training programs, and staff hope this will continue to support the biotechnology program. JobPath staff are also talking to the state workforce commission to secure additional funding.

According to some grantees, the HGJTI grant has allowed them to build a reputation and strengthen partnerships between employers, community colleges, and the workforce investment system. For example, MDC has been able to build a strong reputation with local industrial pharmaceutical manufacturers as the local trainer for the industry and will continue to do so with its degree program. According to employers interviewed, CGCC maintains great working relationships with employers because the community college has been able to help these facilities hire and retain skilled health care workers that graduate from its program (see box 3.17).

LDOL has also been able to help create new partnerships that will last beyond the grant. Before the grant, community colleges and the WIA systems in Louisiana were not very involved with each other. Now, with the HGJTI grant and other grants received as a result of the 2005 hurricanes, extensive collaboration between the two systems has occurred and a strong partnership has grown. CWIT has also created strong partnerships with area community colleges and is encouraging the colleges to seek accreditation for the construction training programs being used under the HGJTI grant.

Accomplishments and Lessons

The six HGJTI grantees visited for this study were asked to share the accomplishments they achieved and lessons they drew from the experience. The accomplishments they highlighted included both the training and capacity-building efforts for their HGJTI projects. The lessons they learned from implementing their HGJTI-funded projects involved developing partnerships, new ways of training, staffing, curriculum development, leveraging of resources, and adapting to changing economic conditions. The following section describes these accomplishments and lessons so others implementing similar training and capacity-building projects can learn from their experiences.

Grantee accomplishments. All grantees named more than one accomplishment of their HGJTI project. The accomplishments reported by the HGJTI grantees are presented in table 3.10.²³

Two grantees indicated that one key accomplishment was the volume of people they trained. CGCC provided training to more than 600 individuals (including 217 CNAs and 36 RNs to help alleviate nursing shortages within the region. MDC exceeded its goal of 918 individuals

²³ This section is based on grantee interviews and quarterly reports to ETA and provides a summary of the grantees' accounts of their accomplishments. A future report will provide an analysis that will validate the early training outcomes of the grant programs.

who completed the program; the program will continue to expand the number over the next year as the grant continues.

Three grantees indicated that the level of success experienced by their training graduates was a major accomplishment. The CWIT trainees who secured an apprenticeship after completing the pre-apprenticeship program were able to raise their hourly wage to an average of \$17.62. It is anticipated that the wages for these trainees will increase as they progress through their apprenticeship training. HPTC trainees were able to improve their employment prospects in the upstream oil and gas industry. For example, floor hands were able to earn \$14–\$18 an hour and could move up to derrick hands, who earn around \$26 an hour. There were also plenty of job opportunities for these trainees to pursue. In addition, JobPath graduates were able to find well-paying jobs quickly.

While the training accomplishments can be measured in numbers of individuals completing training, job placement, and wages, some capacity-building accomplishments named by the six grantees are often less tangible. CWIT has been able to expand the knowledge of building trades among their target population, low-income women, as well as increase awareness among workforce investment system professionals that women are a large and generally untapped source of potential workers for the high-paying jobs within the construction industry. HPTC was able to bring new workers into the upstream oil and gas industry and to gain positive feedback from employers hiring their trainees.

Establishing partnerships were another often cited accomplishment by the grantees. For example, LDOL indicated that the HGJTI grant enabled the local WIBs to work closely with and forge stronger partnerships with both employers and the community college system. MDC staff also indicated that they were able to develop strong partnerships with employers in an emerging industry that will keep the incumbent worker training program going in the future.

Other capacity-building accomplishments are more concrete, such as curriculum development and the establishment of career ladders and training programs. Three grantees (CGCC, HPTC, and MDC) named curriculum development as one of their major accomplishments. Two grantees (CGCC and MDC) also mentioned their ability to use new technologies to deliver the training curricula as an accomplishment. In addition, two of the grantees (CGCC and JobPath) indicated they were able to create new career ladders in their industry of focus.

TABLE 3.10: HGJTI GRANTEES' VIEWS ON KEY ACCOMPLISHMENTS

HGJTI Grantee	Training	Capacity Building
Chicago Women in Trades	<ul style="list-style-type: none"> • Success of those completing the program in passing apprenticeship entrance tests and securing an apprenticeship • Increased the hourly wage of trainees who enter into apprenticeship to an average of \$17.62 	<ul style="list-style-type: none"> • Expanded knowledge of the building trades of low-income women • Created much greater awareness within the workforce investment system of the job opportunities in construction and in apprenticeship
Columbia Gorge Community College	<ul style="list-style-type: none"> • Provision of high-quality training to more than 600 individuals 	<ul style="list-style-type: none"> • Alleviated shortages of RNs and CNAs within the region • Developed local health care occupations program to train local residents for local jobs • Created a viable health care career ladder • Installed the simulation laboratory, which has become a recognized center for providing health care training in the region • Created and upgraded curriculum for its CNA, RN, and other health career training programs
High Plains Technology Center	<ul style="list-style-type: none"> • Good employment prospects for those trained 	<ul style="list-style-type: none"> • Brought new workers into the oil and gas industry • Received positive feedback and support from employers about the program • Developed curriculum and other materials that are being replicated in other locations
JobPath, Inc.	<ul style="list-style-type: none"> • Success of current graduates in job placement and receipt of high wages 	<ul style="list-style-type: none"> • Has been very successful in interesting youth in biotech • Developed a career ladder in the biosciences
Louisiana Department of Labor	<ul style="list-style-type: none"> • Initiated training programs through 26 contracts in high-demand occupations critical to supplying manpower to recovering businesses 	<ul style="list-style-type: none"> • Helped area businesses address the immediate needs for workers and avoid closing down • Enabled WIBs to work closely with and forge stronger partnerships with both employers and the community college system
Miami-Dade College	<ul style="list-style-type: none"> • Exceeded its goal of 918 completers and will continue to expand the number over the next year 	<ul style="list-style-type: none"> • Developed partnerships with employers and industry in an emerging industry • Created new curricula and was able to customize it to employer needs • Used new technology to deliver training • Success of the training program has helped to build the credibility of the grantee

SOURCES: ETA GRANT AGREEMENTS, GRANTEE QUARTERLY REPORTS, AND 2007 SITE VISITS.

Lessons from HGJTI grantees. In an effort to share knowledge about developing industry-focused projects to train workers and build workforce capacity, the six grantees were asked to share the lessons they had learned through their implementation experiences. These lessons were somewhat similar to those of the early implementer grantees interviewed in June 2006.²⁴

- **Employers are important partners in implementing all aspects of an industry-driven project.** Overwhelmingly, these grantees said that employers were key to the success of these projects. They were needed to: secure funding and other resources; provide advice and feedback on curriculum and training program development; develop career awareness in a particular industry; provide on-the-job training or internships; help recruit or provide employees as instructors; and hire trainees (after completion of training), among others. In addition, HGJTI grantees indicated that the earlier employers were engaged in project activities, the more invested they became in the project.
- **New training technologies should be explored and used to provide better training delivery mechanisms.** CGCC and MDC used new technology for delivering training to help overcome several common training program issues. For CGCC, the project staff built and developed scenarios for a simulation laboratory that provided clinical experiences for students. MDC used its Virtual College to develop online training for good documentation practices in biomanufacturing so the instructor could reach more trainees without having to leave his office.
- **Hiring key project staff with knowledge of the industry and of federal grants will make implementation easier.** Several grantees indicated that having the right staff in place made the project run more smoothly. For CGCC, their key project staff included two former nurses as instructors that knew both the health care industry and the standards to which the curriculum would be held by state boards. MDC was able to move quickly on its grant activity startup once it hired a project director who had operated similar government-funded training programs.
- **Instructors from the industry are needed, but they can be difficult to retain.** Two grantees said that having instructors that were either employed by or formerly in the industry of focus was necessary, but that they were often lured away by companies or higher wages. Many HPTC instructors, who had experience as floor hands and derrick hands, were enticed by employers to work for them for better wages. CGCC had difficulty hiring enough instructors because the wages provided by employers were much higher than the college could offer.
- **Projects need to be flexible to respond to changes in the external environment.** MDC and CWIT had to respond to changing conditions to ensure that their projects would be relevant. MDC had secured an employer partner that was moving to the

²⁴ For example, while they similarly mentioned lessons learned relating to forging partnerships, and project startup and design issues, unlike those grantees interviewed for the early implementers study, the six grantees did not experience challenges of reaching and recruiting trainees or on meeting federal requirements. See Trutko et al. (2007), pages 9–20.

area and needed workers before the grant was awarded. However, the employer's move was delayed and new employers had to be recruited to participate in the incumbent worker training program to keep the project going. CWIT faced a downturn in the regional construction industry and had to reduce its training goals, but it then intensified the preparation of the trainees to ensure that they were able to pass their exams to obtain the "harder to come by" apprenticeship slots.

- **Resource and cash contributions, especially from employers, are difficult to collect, even though there is a commitment in place.** Several grantees had to adapt their funding strategies when partners that promised cash and in-kind contributions as a part of their required match in the grant application were then not able to fully live up to that commitment. Grantees said that employers were not able to fulfill their financial commitments due to changing economic conditions or changes in organizational structure and priorities. For example, MDC, JobPath, and CGCC had to recruit new employer contributors to the project or rely more heavily on current contributors to make up the difference. In addition, changes to the required match had to be approved by ETA.
- **Providing hands-on training components is as important as classroom training.** Many grantees indicated that their on-the-job training, internships, and simulation training contributed substantially to the success of their training programs. The simulation laboratory developed by CGCC provided required training for the nursing program. The internships provided to JobPath's biotechnology students were imperative to earning their certificate and providing experience for their resume.

IV. CONCLUSIONS AND IMPLICATIONS

The national evaluation of the HGJTI has two major components:

- **Implementation analyses** of the initiative, including a description of the national grants program and documentation of projects in selected grantees. The preceding chapters in this report present the implementation analysis, and an earlier report addressed the structure and implementation of the experiences of selected early grantees (many of which had reached the end of their grant period by 2006).
- **Nonexperimental statistical analyses** of the early outcomes of job training in selected grantees using administrative data. A forthcoming report (2008) will present the results of these analyses.

The descriptions and documentation of the national HGJTI and the projects implemented by selected grantees provide lessons about operating and evaluating such projects. This section first summarizes the main findings about program implementation and then discusses next steps in this evaluation.

A. Summary of Implementation Analysis Findings

The previous chapters indicate the following general points about the structure and implementation of the HGJTI as of mid-2007:

- **Grant activities.** The HGJTI-funded projects were designed to address workforce challenges by providing training opportunities and building (or increasing) capacity to supply skilled workers for a high-growth industry. The grantees visited were all implementing both training and capacity-building projects with the grant funds, either directly sponsoring training related to target industries or funding various efforts to improve or expand the training capacity. These projects, though, are unique in each site, and each grantee has established different priorities for its projects. Training projects are generally small, either by design or because of recruitment difficulties, and range from very short term (e.g., two-week safety training courses) to very long term (four or more years of postsecondary course work). In addition, some grantees (including 6 of the 20 grantees interviewed for the early implementer report) engage in projects with only capacity-building activities. The capacity-building projects often lack measurable outcomes and are highly varied in the types and mix of activities they performed.
- **Use of matching funds.** Obtaining matching funds from employers and other stakeholders and leveraging other funds created immediate partnerships with employers and industry as well as community colleges and the workforce investment system. These contributors were invested in the projects implemented, presumably to produce a return to the employers. The amounts of matching contributions are tracked by the grantees visited whose award required them to have a match, and employers and grantee staff describe the value of the training efforts in positive terms although there are no formal analyses of the return on the investments.

- **Decentralization.** The decentralized nature of the HGJTI and the flexibility allowed to grantees are key features of the overall effort. Grantees expressed appreciation for the discretion they had to use the funds as needed to meet employer needs, respond to changing economic conditions as they arise, and target training on particular populations such as youth, women, and low-skilled workers as well as incumbent and dislocated workers. The decentralized nature of the initiative also means different partnerships have been used. All grantees have industry or employer partnerships; some, but not all, involve coordination or collaboration with community colleges or other institutions of higher education and with local One-Stop Career Centers.
- **Data issues.** Grantee and project data are being maintained on training activities and trainees but not consistently across grantees. In addition, aggregate data reported to ETA do not use standard definitions. The number of trainees can be compiled from grantee-level project information systems. However, for capacity-building activities, the wide range of strategies being developed—ranging from meetings with stakeholders and career awareness (e.g., Web sites, job fairs) to operating training facilities and developing college degree programs—means one would have to modify the quarterly report or conduct special data collection from all grantees to summarize across grantees or nationally the scope of such efforts.

The HGJTI grantees are attempting to incorporate an understanding of the needs of workers and industry employers to develop customized training and capacity-building activities. Each grantee has developed and implemented unique projects, using the grant funds and associated matching resources flexibility to meet their stated purposes. Training projects are relatively small and target various types of workers, industries, and occupations, and range from very short-term to relatively long-term.

B. Next Steps in Evaluation

The HGJTI represents a major federal initiative intended to encourage the development of projects that meet the needs of businesses and industries involved in high-growth sectors. The implementation of the projects funded with those grants provides lessons about training approaches that meet employer needs and about ways to improve the overall capacity to meet the needs for workers in high-growth sectors. The projects funded by the HGJTI also provide insight into how such projects can be evaluated. The implementation analysis presented in this report will be complemented with a nonexperimental analysis of early job training outcomes of selected grantee projects using program and state administrative data on quarterly employment and earnings. The analysis of outcomes will be presented in a forthcoming report in early 2009.

ATTACHMENT A

Selected Grantee Profiles

Women in Skilled Trades

Grantee:	Chicago Women in Trades (CWIT)
Location of Grant Activities:	11-county area in and surrounding the Chicago metropolitan area (Cook, DuPage, Will, McHenry, Grundy, Livingston, Kankakee, DeKalb, Kendall, Lake, and Kane counties)
Sector Targeted:	Construction
Type of Grant:	Training and Capacity Building
Grant Amount:	\$2,092,343
Match/Leveraged Amount:	\$1,172,398
Grant Period:	10/04–06/07 (extended to 06/08)

Workforce Context: When the HGJTI project began, forecasts projected strong and sustained growth in the office and residential housing market in the Chicago metropolitan area. Before grant receipt, job growth projections coupled with anticipated retirements of existing workers translated into estimates for 5,400 new construction jobs annually. However, the industry has historically experienced difficulty recruiting workers from nontraditional labor pools, such as women. In fact, women represent less than 3 percent of all skilled construction trades workers throughout the country. This grant focused on increasing female awareness of preparation for and participation in a variety of skilled construction trades.

Project Goals: The project includes four goals:

- a. Create an articulated, systemic approach to maintain a pipeline and support system for female applicants to the construction industry that operates in a timely and targeted way to meet industry needs and addresses barriers that impede female applicant's success.
- b. Expand the pipeline of qualified applicants for skilled trade apprenticeships through a systemic outreach campaign to underrepresented female populations.
- c. Support the connection of, preparation for, and successful entrance and retention of female candidates in the construction industry.
- d. Enhance the ability of the workforce investment system and community colleges to promote the construction industry to female clients and students and support their preparation to be competitive candidates.

Major Project Components:

- *Recruitment.* The original goal for outreach and recruitment efforts was to increase awareness of job opportunities in the construction trades for 9,200 women, primarily through their attendance at orientations and career fairs. (This goal was revised downward to 7,000.) Through August 2007, CWIT had conducted outreach to 6,702 individuals. Outreach and recruitment efforts include development and distribution of pamphlets and flyers, public service announcements (PSAs) on the radio, newspaper advertisements, and job fairs.
- *Intake and Assessment.* The project specifies four eligibility criteria for participation: (a) women; (b) possess a valid driver's license; (c) 18 years old or older; and (d) legal authorization to work

in the United States. A three-step assessment process that screens eligible participants includes (a) a 1½ hour aptitude test to measure basic math and reading skills; (b) a physical agility test that includes jumping jacks, sit-ups and tests of ability to lift and carry heavy weights; and (c) a 30-minute “discussion of interest” in-person interview led by a CWIT staff member and a representative of the industry (e.g., an employer or union representative).

- *Training and Curriculum Development.* The key training component for this program is the Technical Opportunities Program (TOP), a pre-apprenticeship training session, designed to prepare participants and make them competitive for apprenticeship exams and interviews. The 12-week training program includes 170 hours of training (14 hours a week, with training provided two evenings a week and on Saturday). CWIT developed curriculum based on the skills and exam requirements for entry into apprenticeship programs. The curriculum includes four major areas of training: (1) math; (2) job readiness; (3) hands-on experience in various construction trades, generally hosted by industry partners; and (4) physical conditioning. Instructors developed and refined a modular curriculum called “In for a Change: A Curriculum Guide for Pre-Apprenticeship Training” that provides lesson plans and hands-on exercises.

As of August 2007, CWIT enrolled 333 trainees, which amounts to 75 percent of its revised enrollment goal of 450. TOP aims to place 300 trainees in apprenticeship programs or gain employment directly in the construction industry. Through August 2007, 103 of the 225 TOP completers have entered apprenticeship programs and 8 currently work in the construction industry. The project has exceeded the \$13 an hour goal for average wage at placement as trainees are earning an average of \$17.62 an hour.

- *Case Management and Job Development Services.* Case managers monitor training participants’ progress throughout the TOP program. The case manager helps identify needed support services and ensure that completers successfully apply to apprenticeship programs. A job developer also meets with students to make sure they are aware of the various apprenticeship opportunities. The job developer also teaches the job readiness TOP classes, monitors when new apprenticeship programs begin, and troubleshoots issues around retention for TOP participants once they enroll in apprenticeship programs.

Key Implementation Lessons:

- *Programs must be prepared to adjust to changing job growth projections over the course of a multiyear project.* The pace of construction industry hiring slowed down noticeably after the grant application was submitted. As a result, the number of available openings in construction trades’ apprenticeship programs declined over time. CWIT was forced to revise its enrollment goals downward and extended the contract (through a no-cost extension) by one year.
- *To be successful, training programs must engage in efforts to challenge and overcome stereotypes about women in nontraditional jobs such as construction.* During recruitment and apprenticeship application, CWIT and trainees had to overcome much skepticism and stereotypes concerning women entering and being successful in construction. CWIT devoted time and resources to an extensive public relations campaign to raise awareness about the potential for encouraging women to enter the construction industry.
- *Engaging the full cooperation of and integration with all partners in the workforce investment system in a large service area can prove challenging.* Although some of the WIBs and One-Stop Career Centers were enthusiastic and willing partners, many were reluctant to participate because of fears and concerns associated with the nontraditional nature of women in the construction

trades. In addition, construction trades were not among those sectors identified by the state as “critical skills shortage” areas, so WIBs were more focused on other industries. In addition, TOP training is not aligned with college credits or accreditation and community colleges, which typically focus on credit-based programs, and often must overcome bureaucratic barriers to provide the type of noncredit instruction associated with this program.

Key Partnering Agencies: Four community colleges (Joliet, DuPage, Elgin, and McHenry) have played active roles as recruiters and service providers under the initiative. These colleges have assisted with recruitment in suburban areas, and then offered TOP classes. CWIT has engaged WIBs and One-Stop Career Centers in Cook, DuPage, and McHenry counties in outreach and recruitment efforts. Unions sponsor hands-on instruction, usually at a trade union training facility. CWIT maintains close contact with unions to identify when new apprenticeship classes begin. State agencies have provided some match, and the Apprenticeship Information Centers have disseminated information about apprenticeship programs.

Post-Grantee Status (as of August 2007): The project has been extended until June 2008. CWIT has secured future sources of funding and continues to solicit additional sources. With encouragement from CWIT and other partners, the state legislature recently approved a \$6.2 million program (Employment Opportunity Grant Program) that provides funding to support pre-apprenticeship and other training initiatives. Under the initiative, CWIT will receive \$650,000 over an 18-month period to continue its TOP program, with a focus on providing training for women in Cook County. CWIT also submitted a grant proposal to the Aspen Institute for funding for a three-year “bridge program” that would help low-income individuals lacking basic skills to make the transition to education and training at community colleges and a career.

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Rural Healthcare High Growth Job Training and Economic Recovery Initiative

Grantee:	Columbia Gorge Community College (CGCC)
Location of Grant Activities:	Mid-Columbia Region (North Central Oregon and South Central Washington)
Sector Targeted:	Health Care
Type of Grant:	Training and Capacity Building
Grant Amount:	\$1,250,000
Match/Leveraged Amount:	\$1,367,000
Grant Period:	04/04–09/06 (extended to 08/07)

Workforce Context: The training programs developed focused on the health care skill needs of the local hospitals and long-term care facilities in the region as well as the need for good jobs for local residents. These hospitals and facilities, according to a survey conducted by CGCC, were experiencing a shortage of health care workers and would continue to in the future. No regional health occupations program existed to train residents locally, so CGCC decided to create a career ladder program to train certified nursing assistants, licensed practical nurses, and registered nurses to meet the need. CGCC also recognized a local shortage in first responders and emergency medical technicians, who are mainly volunteers, and added a program to train them. Those who completed the nursing career ladder and became licensed as a registered nurse could earn upwards of \$70,000 a year.

Project Goals: In order to support the overarching goal of creating a pipeline of 200 new health care workers for the Mid-Columbia Region, the program aimed to:

- a. create a health occupations career ladder;
- b. install a simulation laboratory to become a regional training center for health occupations;
- c. increase effectiveness of worksite training with a preceptorship training program;
- d. create recruitment and training advancement through partnerships; and
- e. expand job placement opportunities with health care business partners.

Major Project Components: The project consisted of the following training and capacity-building components:

- *Recruitment.* The program aimed to recruit minorities, youth, and dislocated workers for health care training. The program did not initially meet anticipated enrollment and recruitment targets, but partners continued to reach out to eligible individuals. All student trainees must pass reading and math assessments and a background check. In addition, nursing students must complete a placement exam and are subject to an admissions interview.
- *Health Care Training.* CGCC developed and supported a career ladder that includes five health care training programs. First, the certified nursing assistant (CNA) program served the largest number of trainees, approximately 200. The CNA program includes 160 hours of training with 80 hours in class and 80 hours in a clinical setting. A full-time instructor delivers classroom training, and an adjunct instructor provides clinical training. Second, the certified medical assistant (CMA)

program provides practicing CNAs an additional 80 hours of training, with 48 hours in class and 32 hours in a clinical setting. CMAs use a simulation lab for training. A part-time instructor delivers classroom training, and a preceptor (mentor/clinical instructor) oversees aspects of the clinical experience. The associate's degree in nursing (ADN) is a two-year associate degree program (90 credit hours), and graduates take a licensed registered nurses (RN) test. Nursing students can become licensed practical nurses (LPNs) after completing one year and earning 46 credits. To complete the two-year program, students must complete 12 days of preceptorship, including 2 days in the simulation lab and 10 days at area hospitals. Academic prerequisites include biology, chemistry, and math and reading proficiency. These three programs make up the career ladder for nurses.

CGCC also developed training for first responders and emergency medical technicians. The emergency medical technician (EMT) program trains volunteer firefighters in the region. Trainees receive 160 hours of training, including 8 hours in an emergency room setting. The first responder program provides 44 hours of training in CPR and emergency response.

The project has enrolled 668 trainees and 625 completed training as of July 2007.

- *Simulation Laboratory.* The development of the simulation laboratory (“sim center”) was a major project component. The lab simulates clinical settings of which there are limited slots for students and opportunities for different medical situations that more urban health facilities would have. CGCC constructed the simulation lab to look like a hospital room with equipment and medical instruments to be used on “sim” people, or dummies that can mimic breathing, heartbeats and pulses, and more. The “sim” people are also connected to a computer and microphone where instructors control the vital signs of the dummy and are the voice of the patient during clinical scenarios.
- *Curriculum Development.* Each training program required curriculum development, but the development of the CNA, CMA, and ADN curricula was a very involved process to ensure that the curricula met state standards. In addition, curriculum was developed for the scenarios used in the sim lab to ensure that the nursing students received as “true to life” clinical experience as possible. With these new curricula, CGCC is seeking state accreditation for its health occupations programs by 2009.

Key Implementation Lessons:

- *Having experienced staff in federal grant management and procurement is important.* CGCC did not have the infrastructure in place to manage a large grant and the accompanying federal requirements. In addition, the procurement process for the construction and installation of the sim lab was labor intensive and required some knowledge of the college's financial system and procedures. Thus, CGCC hired someone to administer the procurement process to secure the necessary equipment for the simulation lab.
- *Training programs must find and retain knowledgeable instructors.* Qualified instructors (usually BSN/RNs) can earn more practicing as nurses than as instructors, and many potential instructors cannot afford to accept lower earnings to teach new students. CGCC continued to seek new instructors for classroom and on-the-job training.
- *It is important to realize that financial commitments of employers and other partners may be affected by changing economic conditions.* CGCC experienced some initial difficulty collecting

the promised financial support from employer partners but worked with the employers to help them realize the return on investment that they would see from this support.

Key Partnering Agencies: The Mid-Columbia Medical Center, Providence Hood River Memorial Hospital, and Oregon Veterans Home played active role in planning, development, and implementation of the project, including funding, on-site training, curriculum review, recruitment, and hiring. Other area hospitals participated and provided financial support, recruitment, and hiring. The long-term care facilities in the area also provide support, especially for the CNA program. The Mid-Columbia Council of Government (MCCOG), the local WIB/One-Stop Career Center operator in the region, played a limited role but helped by referring dislocated workers and other job seekers to the college. La Clinica, a community-based organization in Hood River, helped develop outreach materials in English and Spanish and provided clinical setting opportunities. Oregon Health Sciences University offered to share experiences and modules from its own simulation lab.

Post-Grantee Status (as of June 2007): The health occupations project secured funding through program year 2008, using a mix of employer financial support, state grants, federal grants, and general funds. The project will likely continue after 2009 if the training programs achieve accreditation and if trainee recruitment matures. In addition, outside nursing programs have begun traveling to CGCC to learn about the sim lab and how to replicate it.

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Strengthening the Oil and Gas Industry

Grantee (Grant 1): High Plains Technology Center (HPTC)
Grantee (Grant 2): Oklahoma Department of Career and Technology Education (ODCTE)
Subgrantee (Grant 2): High Plains Technology Center (HPTC)

Location of Grant Activities (Grant 1): Oklahoma, Kansas, and Texas
Location of Grant Activities (Grant 2): Oklahoma, Kansas, Texas, and Arkansas

Sector Targeted: Energy

Type of Grant: Training and Capacity Building

Grant Amount (Grant 1): \$1,546,463
Grant Amount (Grant 2): \$2,363,539

Match/Leveraged Amount (Grant 1): \$528,683
Match/Leveraged Amount (Grant 2): \$855,568

Grant Period (Grant 1): 06/03–03/06
Grant Period (Grant 2): 12/05–11/07

Workforce Context: Despite low, and shrinking, total oil and gas employment, the energy industry experiences high worker turnover and retirement rates. Projections show an increase in demand for workers in Oklahoma’s oil and gas extraction occupations, but simultaneously, heavy declines in the supply of skilled extraction workers. Although the industry pays high wages, this high-hazard sector requires specialized training not readily available in the targeted region. The oil and gas industry has faced shortages of skilled labor in recent years and offers high wages for its workers. Floor hands earn between \$14 and \$18 an hour and derrick hands start at about \$26 an hour. High turnover plagues the oil and gas industry (5–6 percent a month) because rigs continuously open up and close down. Workers unwilling to travel with their current rig to a faraway site lose their jobs. Although this initiative may not expand the pipeline into the energy industry, it aims to increase entry-level workers’ skills set.

Project Goals: Both grants shared two main goals: (1) develop and provide training for new and incumbent workers in the oil and gas industry; and (2) better connect the industry with workforce development resources in northwest Oklahoma, southwest Kansas, the Texas Panhandle, and Arkansas. The second project built on the activities carried out under the first grant by adding the following specific goals:

- a. build a satellite training center at another location in Oklahoma operated by HPTC staff (the Poteau site);
- b. provide technical assistance to other education and training organizations across the country interested in establishing a similar program; and
- c. establish an off-road truck driving training program component.

Major Project Components:

- *Training.* HPTC provides three types of training: (1) floor hand training for oil and gas drilling; (2) floor hand training for well servicing; and (3) derrick hand training for oil and gas drilling. Training integrated technical and soft skills with safety training. Forty hours of instruction are provided for each type of training over a five-day period, including three days of classroom instruction and two days of hands-on training. All workers must pass a drug test (urine screening) on the first day of the class. A recruitment and job placement specialist interacts with employers and the workforce investment system. HPTC will complete construction on its own off-road driving course and will soon introduce an off-road truck driving class. Trainees can attain specific industry certifications (e.g., forklift operations) where available in addition to certifications for completion of the training sessions. As of September 2005, the first grant trained 2,532 individuals (1,951 incumbent workers and 581 new workers). Over the first grant period, more than 3,500 received training. By the end of December 2006, the second grant trained 1,385 workers (983 incumbents and 402 potential new workers), exceeding its goal to train 1,303 workers (815 incumbent workers and 488 new workers). As many as 800 to 1,000 additional individuals could complete training before the grant ends on December 1, 2007. The project reports dropout rates below 1 percent.
- *Curriculum.* Several industry representatives from four industry associations assisted in developing the curriculum. The curriculum includes a manual for each of the three training courses, and the initiative translated one manual into Spanish so that trainees can attend instructional sessions in English and Spanish. HPTC hired bilingual instructors. Project staff also developed detailed instructor notes (which have been converted into PowerPoint presentations) and short DVD film segments that focus on safety, drilling techniques, and other aspects of the oil and gas industry. The curriculum, PowerPoint notes, and DVDs facilitate replication of the training program in other locales. Project staff provides technical assistance to educational institutions interested in oil and gas training.
- *Follow-Up Activities.* In 2005, the grantee surveyed over 45 companies to collect information on current job vacancies and future training needs. HPTC also conducted a follow-up survey of almost 100 incumbent employees who participated in the training, and found that over 70 percent of new entrant trainees obtained a job, and that pay increases averaged over \$17,000 a year for incumbent workers who received promotions.

Key Implementation Lessons:

- *Difficulties recruiting and retaining qualified instructors present challenges.* The project experienced difficulty recruiting and retaining qualified instructors with hands-on experience in the oil and gas industry. Eligible instructors can usually secure highly competitive salaries (over \$100,000 a year) with industry firms and may not be able to afford participating in training projects. During the course of the grant, several instructors left the training project after opting for jobs in the industry. Grantee staff attempted to lure qualified instructors to these jobs by highlighting the comparatively better working conditions enjoyed by instructors. They also recruited former workers in the oil and gas industry who had recently retired.

Key Partnering Agencies: Employers and industry associations play the most extensive roles in the initiative. Program staff estimated that 30 oil and gas companies (e.g., Unit Drilling, Key Energy Services, Devon Energy, BP, Pool Well Services, and others) have contributed cash or in-kind resources or support to the project as employer partners. Employers provide direct input on program design and curriculum that meets employer needs and reflect their production process. The following trade

associations have actively contributed to the initiative: Oklahoma Independent Petroleum Association, the Independent Drilling Contractors Association, the Association of Energy Service Contractors, the Marginal Well Commission, the Energy Training Council, and the Kansas Oil and Gas Association. These organizations provided input on training needs and curriculum as well as job needs and vacancies, and they have advertised the program to employers in the oil and gas industry. During the first grant project, the initiative benefited from partnerships with Workforce Oklahoma (the local WIA agency) and the WIB, which endorsed the project and referred trainees. The second grant project does not collaborate extensively with WIBs, although One-Stop Career Centers distribute brochures about the program and attempt to increase its visibility. Other peripheral partners that provide some outreach and recruitment support include the Bureau of Indian Affairs, Veteran Affairs, and the criminal justice system. The local chamber of commerce and economic development agencies provide opportunities to disseminate information about the project.

Post-Grantee Status (as of February 2007): The first grant ended in March 2006. Before its end, the initiative added training in additional occupational areas (e.g., off-road operations), and HPTC developed and implemented specialized industry-relevant training programs (e.g., blowout prevention) in response to input from employers. HPTC funded the latter through state funds and direct charges to employers. The program has not received any additional federal funds to continue the program after the second HGJTI grant ended in November 2007. The staff developed a \$768,000 proposal to continue the program and has communicated with members of the state legislature about funding the request. In addition, the program requested \$5 million for facility improvements at HPTC to accommodate the training program. HPTC may approach industry associations and employers to request funding. Trainers and other grantee staff would not likely remain on the project without funding.

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Arizona Biotechnology Career Ladder (ABCL)

Grantee:	JobPath, Inc.
Location of Grant Activities:	Pima County, Arizona (Tucson)
Sector Targeted:	Biotechnology
Type of Grant:	Training and Capacity Building
Grant Amount:	\$276,393
Match/Leveraged Amount:	\$185,710
Grant Period:	7/05–6/07 (extended to 12/07)

Workforce Context: Pima County aims to position itself as a competitive area of growth in the biotechnology sector. A study conducted by Battelle projected over 27,000 new hires and a gap between the needs of employers and the number of skilled workers expected to enter the workforce over the next decade. Although relatively new and still small, biotechnology has become an emerging industry and is regarded as having great potential for growth in the state. Statewide efforts to promote Arizona as a magnet state for biotechnology are currently under way. The Tucson area houses the BIO5 Institute at the University of Arizona, funded by the state as part of a statewide mandate to enhance biotechnology training. The Institute brings together researchers from agriculture, medicine, pharmacy, basic science, and engineering working with industry scientists and business professionals to focus on bioscience education and to find problem-based solutions using a cross-disciplinary approach.

Project Goals: The ABCL project aims to develop, test, modify, and expand a career ladder that meets Arizona's biosciences needs. The career ladder progresses through five stages: (a) introduction to biotechnology course through the Biotechnology Summer Institute/Pima Community College (PCC); (b) prerequisite courses for the PCC biotechnology certificate program; (c) PCC biotechnology certificate program; (d) employment in Biotechnology Industry; and (e) BS/MS/PhD coursework. Specific project goals include:

- a. Build a pipeline of youth interested in pursuing careers in biotechnology through the development of an introduction to biotechnology course taught by PCC faculty to high school students in a Biotechnology Summer Institute. The outcome goal was the graduation of 50 high school students.
- b. Deliver the introduction of biotechnology course to PCC students in fall 2006, who will then advance to prerequisites for other biotechnology courses. The outcome goal was 20 students from each class beginning in fall 2006.
- c. Access new and/or untapped labor pools; transition workers from declining industries; build competency models, career ladders, and career lattices for new and incumbent workers; and develop incumbent workers by updating their skills. Recruit and support students enrolled in biotechnology courses and certificate programs at PCC. The outcome goal was to graduate 30 JobPath participants from the three core PCC biotechnology courses (Biotechnology I, II, and III) who would move on to employment or higher education. Provide financial support for other PCC students taking biotechnology courses or prerequisites.

- d. Expand postsecondary training alternatives and engage small businesses by offering paid internships with bioscience employers for PCC students who have completed PCC biotechnology courses. The outcome goal was to graduate 30 participants from paid internships with employers.
- e. Develop and sustain a career ladder for biotechnology in Pima County, which can be replicated statewide and nationally. The outcome goal was to disseminate course materials and information on this program model statewide and nationally to assist organizations replicate and sustain the proposed project.

Major Project Components:

- *Biotechnology Summer Institute.* The Institute exposes high school students to opportunities in the biotechnology field through participation in a college-level introduction to biotechnology course taught at PCC. JobPath recruits participants from Tucson-area schools via various outreach methods, including in-person presentations, distribution of flyers, notices in school newsletters, and newspaper ads. JobPath received over 90 applications for the first session and accepted 25 (mostly junior and seniors). Incentives included an \$800 stipend and four college credits upon successful completion of course. The Institute postponed the first session until summer 2006, and the no-cost extension allowed the grantee to offer the second session in summer 2007. Students attend class for four hours a day, five days a week. The course includes hands-on lab experience, class lectures, guest lectures from employers, employer field trips, small group work experiences, and instruction in critical thinking skills. Ninety-six percent of students who enrolled in the summer 2006 session successfully completed the program. Since PCC offered to cover the costs for one session, JobPath had decided to offer two 25-student sessions during summer 2007.
- *Certificate in Biotechnology.* Job Path provides financial and other support to students enrolled in PCC classes leading to a certificate in biotechnology. The certificate, offered since 2004, complements an associate's or bachelor's degree. Prerequisites include biology, chemistry and math courses. Recruitment involves the distribution of flyers and outreach to churches, schools, and other organizations. The University of Arizona also referred students with BS degrees. Entry into the program does not depend on income level. JobPath covers tuition, fees, and books for participants. Students also participate in counseling and peer support sessions, receive \$20 gas cards, and can receive other support services such as assistance with child care, housing, transportation, and utilities. The program offers hands-on lab experience, three core biotechnology courses (nine credits), and paid internships (320 hours, three credits) with biotechnology employers in industry or research. As of January 2007, 34 students had enrolled in one of three JobPath programs: biotechnology (22), histology (7), and medical laboratory technician (5). Seven withdrew, 5 completed, and the remaining 22 students continued participating. Twenty-seven participants received tuition, book, and exam assistance for an average amount of \$465.11. Ninety-four percent of participants attended peer support meetings, and students attended an average of 9.7 meetings. JobPath's support of the students in the certificate in biotechnology program raised the visibility of the program.
- *Curriculum.* PCC faculty developed the introduction to biotechnology curriculum for the Summer Institute under the grant, and PCC will use the curriculum for an introductory course in biotechnology.

Key Implementation Lessons:

- *Unforeseen challenges may affect enrollment goals and expectations.* For a number of reasons, enrollment in the certificate in biotechnology program did not meet expectations. The college inadvertently omitted descriptions of the courses in one version of the course catalog and scheduled the courses during the day as opposed to evening hours when more students could attend. The project team then modified the scope of work to include support for JobPath students enrolled in separate histology and medical laboratory technician programs.
- *Changes in key personnel can have a negative impact on project progress and momentum.* The transfer of a key team member involved in the early development of the certificate in biotechnology program to another position at PCC resulted in the loss of some of the institutional knowledge as well as a delay in the forward momentum of the project. In addition, a change in ETA personnel (specifically, the grant's Federal Project Officer) caused some difficulties and delayed technical assistance.
- *Engaging the participation of employer partners can prove challenging.* JobPath experienced some difficulties establishing links with employers in their service area. Initially, project staff expected to receive cash for internship stipends and in-kind support from a key biotechnology employer. However, because that employer was located outside the Tucson area, students were unwilling or unable to travel to that location for internships, and that support did not materialize. In addition, many larger biotechnology companies were headquartered outside the Tucson area (closer to Phoenix), making establishment of links with these employers difficult. Although project staff indicated that more progress could be made in terms of developing these links, they were successful in identifying sufficient internship slots with a number of employers.

Key Partnering Agencies: Job Path benefited from close partnerships with several organizations on this initiative, most importantly PCC. Other key partners included the University of Arizona and its BIO5 Institute, which provided internships and in-kind resources. BIO5 faculty and researchers also participated as guest speakers, hosts for lab tours, and curricula reviewers. The Pima County WIB, which has a longstanding working relationship with JobPath, assisted with recruitment for this project. The Phoenix-based Flinn Foundation (which provides funding to Arizona nonprofit organizations for research projects) supported the Summer Institute's graduation ceremony, and a Flinn vice president chairs the project's advisory board.

Post-Grantee Status (as of March 2007): Project activities supported by the grant will likely continue after the grant period ends. In fact, the grant manager noted that this grant was "designed to be sustainable." JobPath is planning to seek other funds, including additional federal funds, and are communicating with the State Workforce Commission to discuss securing financial support. Staff are also considering charging a fee for the Summer Institute in order to sustain the program.

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Louisiana High Growth Job Training Initiative

Grantee:	Louisiana Department of Labor (LDOL)
Location of Grant Activities:	State of Louisiana
Sectors Targeted:	Health Care, Construction, Energy, and Hospitality
Type of Grant:	Training and Capacity Building
Grant Amount:	\$3,000,000
Match/Leveraged Amount:	None
Grant Period:	09/05–09/06

Workforce Context: In its rebuilding efforts for the state after Hurricanes Katrina and Rita, the Louisiana Department of Labor focused on a four-part approach for rebuilding: (1) businesses, (2) communities, (3) service delivery systems, and (4) the workforce. LDOL used HGJTI grant funding among others (National Emergency Grants and Base Realignment and Closure grants) to accomplish this overarching goal. The post-Katrina labor market demand increased compared with the pre-Katrina labor market, but some businesses experienced difficulties finding skilled workers, especially in the hospitality, construction and health care sectors. The lack of affordable housing also complicated employers' recruitment efforts. In addition, many who had worked in the area before Katrina had settled elsewhere and might not return. Thus, the mission to supply skilled workers to keep businesses open and operating was vital.

Project Goals: The project aimed to help prepare new, returning, and incumbent workers with skills for high-demand jobs needed in the new emerging economy and with transition support to reestablish their families. The project provided initial training in health care, energy, and hospitality and various construction occupations. The training effort responded to the need to rebuild the workforce after the devastation of Hurricanes Katrina and Rita.

Major Project Components:

- *Training.* Over 80 percent of the grant funded training programs, and 11 percent of the grant aided capacity-building efforts designed to sustain training after the grant project ended. The project supported 26 subgrants—the majority offering a combination of classroom and on-the-job training. Training programs for new and incumbent workers prioritized direct connections to employers, short-term training, and training in high-growth industries. Training relied on partnerships among the local One-Stop Career Centers, Louisiana Community Technical College Systems (LCTCS), community-based organizations, local unions, and employers. Some WIBs assisted potential trainees to complete applications and other paperwork.

Key Implementation Lessons:

- *Especially after a disaster, grant activities must be flexible to meet the shifting needs of the workers.* Some training programs reported high turnover rates due to lack of screening, career assessment, and resettlement difficulties. Resettlement proved especially difficult when training did not also include substantive supportive services and housing assistance. In response, training

programs offered classes during evenings and weekends and recruited additional incumbent workers and LCTCS recommended offering supportive services to trainees.

- *Strong employer focus is needed when rebuilding labor markets.* Louisiana’s economy changed dramatically after Hurricanes Katrina and Rita. The new economic context of the area shifted and areas of high-growth and high-demand before the hurricanes did not always reflect new areas of high-growth and high-demand. The grant effort emphasizes rebuilding the business and workforce foundation that suffered or nearly disappeared immediately after the hurricanes. In response, the state emphasized projects with strong employer partnerships as well as incumbent worker training.

Key Partnering Agencies: Training relied on partnerships among the local One-Stop Career Centers, LCTCS, community-based agencies, local unions, and employers. WIBs conducted outreach and recruitment for the program, assisted with applications and other paperwork, entered client data into the state’s MIS, tracked training completion and job placement, and reviewed and processed invoices. Employers recognized the value of the project because it occurred “at a time when they were struggling to put their own industries back in place” and this effort helped “to get the bills paid.”

Post-Grantee Status (as of June 2007): The project trained 1,232 individuals, thus exceeding its goal of 1,124. Trainees and training providers can continue activities under the state Pathways program, a \$5 million federal grant from the Department of Labor. The grant project served as a method in strengthening the working relationship among partner organizations, especially LDOL and LCTCS. Employers who saw successful skills development and job placement as a result of the project may be willing to support ongoing job training programs through cash and in-kind contributions.

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Biosciences Job Growth Initiative (BJGI)

Grantee:	Miami-Dade College (MDC)
Location of Grant Activities:	Miami-Dade County, Doral and Homestead, Florida, and remote employer sites across the country
Sector Targeted:	Biotechnology
Type of Grant:	Training and Capacity Building
Grant Amount:	\$1,000,000
Match/Leveraged Amount:	\$1,370,000 in in-kind and cash contributions from MDC and employers; leveraged grants from U.S. Department of Education the Florida Department of Education
Grant Period:	6/05–6/07 (extended to 6/08)

Workforce Context: At the time of the grant application, the biotechnology industry in Florida and Miami-Dade County was considered an emerging industry. Three biotechnology research institutes, approximately 90 pharmaceutical companies, and over 100 biotechnology companies operate in the state, and more companies were locating there. These companies create jobs ranging from lab technicians to highly skilled and university-trained scientists. Entry-level lab technicians with technical training earn between \$11.50 and \$14.25 an hour. Higher paid scientists usually have four-year degrees in science (biology, chemistry, etc.) and additional practical training in biotechnology. Governor Jeb Bush developed a statewide economic development initiative to enhance biotechnology activities. In the region, the South Florida Bioscience Consortium leads regional and local efforts to attract biotechnology employers and build capacity to supply employers with skilled (and, ideally, local) workers. Thus, MDC decided to develop an associate degree and certificate program and an incumbent worker training program to meet the need for skilled workers regionally.

Project Goals: The Biosciences Job Growth Initiative (BJGI) identified the following goals:

- a. increase capacity of education and training providers;
- b. establish a pipeline to access untapped labor pools;
- c. develop specialized skill sets and competency models;
- d. train 800 incumbent and future Industrial Pharmaceutical Manufacturing (IPM) technicians and related workers;
- e. increase retention by 30 percent annually;
- f. introduce good manufacturing, lab, clinical, and documentation practices in IPM curricula, pedagogy, and industry processes; and
- g. deliver IPM/Biosciences career guidance at all stages of lifelong learning.

Major Project Components: The following components focus on different types of training deployed by MDC and three employer partners. As of June 2007, the BJGI had trained 918 incumbent workers, exceeding its training goal of 800 workers. In addition, MDC reports that 99 percent of trainees stayed with their current employer.

- *Adult Education and Workplace Skills Training.* One employer for new and current employees emphasized foundational business writing, ESL, and computer training. Needs assessments identified employees that could benefit from employee skill sets and effective communication. Another employer also identified employees with limited English language skills for ESL training.
- *IPM Competency Training.* All three employers used IPM competency training. Specifically, two employers received training in manufacturing and documentation practices. This training was also provided remotely through distance learning. In addition, two employers used regulatory compliance and contaminations training.
- *Management Training.* All three employers received management training, including Six Sigma project management and performance evaluation training.
- *Curriculum Development.* Training consultants and employer partner representatives developed and tailored a curriculum for IPM employees: basics of contamination control, good documentation practices, performance management, and project management.
- *Credit Associate Degree and Certificate Programs.* Employer and industry partners have also helped shape MDC Biotech Program curriculum to reflect industry requirements.
- *Increased Capacity of Education and Training Providers.* MDC is planning to train its own faculty and has trained a supervisor at one of the employers to be adjunct faculty for the Virtual College.
- *Pipeline for Untapped Labor Pools.* The BJGI and the Biotechnology Program have worked with Miami-Dade high schools to interest youth, especially minority youth, in biotechnology careers.

Key Implementation Lessons:

- *Expect and adjust for unforeseen delays in employer partner involvement.* Two major employer partners underwent changes that delayed their participation. One employer partner experienced a merger and its participation and contributions to the grant were delayed. Another employer had planned on a move to the area before the beginning of the grant but was unable to participate in the grant activities when the move was delayed. Additional employer recruitment for the project was necessary and new employers were able to participate.
- *Staff with knowledge in federal grants management and job training projects are helpful.* It took MDC about a year to find the right project manager for the grant. However, once it did, the grant activities were able to move very quickly because the new project manager knew how to work with federal grants and make the right connections to build the incumbent worker training program.

Key Partnering Agencies: Employer and industry association partnerships were critical in this initiative. MDC signed formal partnering agreements (usually in the form of Memoranda of Understanding) with three employers that provided job training. Two of the employers also helped develop the training curricula. Various industry groups participated in the BJGI. MDC staff attend regular meetings of the South Florida Biosciences Consortium and have working relationships with other industry and business representatives. The WIB sits on the advisory board for the Biotechnology Program and is working with the state to place biotechnology on the Targeted Industries List. The Miami-Dade Public Schools also

partnered with the BJGI and Biotechnology Program to help recruit minority youth through career days for and presentations to high school students.

Post-Grantee Status (as of June 2007): The project has been extended until June 2008. Even though the training goal has already been exceeded, MDC anticipates that several hundred more incumbent workers will receive training. The incumbent worker program has helped to build credibility as a biotechnology training provider, which will help MDC attract more students for its credit-based programs. Continued work with employer partners to increase cost-sharing responsibilities as well as obtaining government or nonprofit grants remains critical for sustainability and seems likely to occur.

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