Energy and Advanced Manufacturing Grant
April 1, 2006 through March 31, 2008

Final Project Report

Prepared for
The Workforce Development Board
of Contra Costa County

I. Grant Development:

The history of the development of this grant began with a tour of the Shell Oil Company's Martinez refinery by the Workforce Development Board (WDB) of Contra Costa County in January of 2005. The Board received an inside look at refinery jobs, was able to view a modern oil refinery, and develop a better understanding of the skills required of workers in that industry. The event countered the picture of the jobs being mostly low tech, manual labor with moderate pay. What the Board discovered was that modern manufacturing jobs often involve advanced technical skills; jobs that are clean, personally rewarding, and high paying occupations.

Shortly after that tour, the WDB hosted a conference in Contra Costa County entitled "Manufacturing Matters! Executive Summit 2005." Over 150 attendees were informed of the fact that there are rewarding, high-paying positions available for job seekers in manufacturing and heavy refining industries. It was evident that schools and job training organizations had consistently overlooked positions in these industries when preparing students and clients for workforce entry.

Surveys of local high school and community college students conducted by the WDB confirmed that most had misperceptions about jobs in this occupation sector. Studies and surveys conducted in collaboration with local manufacturing companies further highlighted a disconnect between the companies and potential employees.

In February 2005, the WDB received a grant for a business retention and layoff aversion project in Contra Costa County. In identifying manufacturers in the County and surveying small businesses at risk of layoff or closure, further information was developed that pointed to a need for training in what was termed "advanced manufacturing skills."

In March 2005, the WDB released a report "Building Futures in California: Outcomes of the Manufacturing Matters! Executive Summit 2005." That report presented strategies for growing the manufacturing workforce in San Francisco's East Bay, and suggested that it would be necessary to change how the local labor force was recruited as well to develop training programs in manufacturing technology that did not then exist locally.

In January 2006, while continuing to work towards assisting area manufactures, the WDB Developed a "Manufacturing Assistance Program" utilizing federal layoff aversion grant funds to help small manufacturing businesses support their operations. Another "Manufacturing Matters 2006 Summit" was held to continue addressing workforce challenges. This conference focused on linking manufacturing to education, explored apprenticeship programs, looked at hiring challenges and solutions, and how to attract and retain a qualified workforce.

On a parallel track, the WDB had been working with their partner EASTBAY Works membership (Oakland PIC, Alameda WIB, and Richmond WIB) along with advanced manufacturing industries in Alameda and Contra Costa County, Workforce Investment Act (WIA) One Stop Operators, Los Medanos Community College (LMC), and numerous other interested groups to develop a grant application to the State for WIA Governor's Discretionary Displaced Worker Funds to address the defined training need for advanced manufacturing skills. This grant was approved by the State and the project was announced to the public in June 2006.

Private Sector partners to the Grant included all of Contra Costa's major refinery companies, Dow Chemical Company, USS-POSCO (steel manufacturing), United Steel Workers Union-Local 5 and several other local manufacturing businesses and organizations.

Contributions by these industry partners were critical in developing the grant by providing resources that could not be gained from other sources. All provided staff assistance and expertise to the planning process. In addition, Shell Oil coordinated a pool of industry funding of $40,000 to cover costs that could not otherwise be covered with public planning dollars. Dow Chemical also assigned Vera Miles, a high level company executive, full time for nine months to lead the task and to work with Los Medanos College (LMC) to find, develop, and approve a curriculum for an advanced manufacturing "Process Technician" (PTEC) training program.

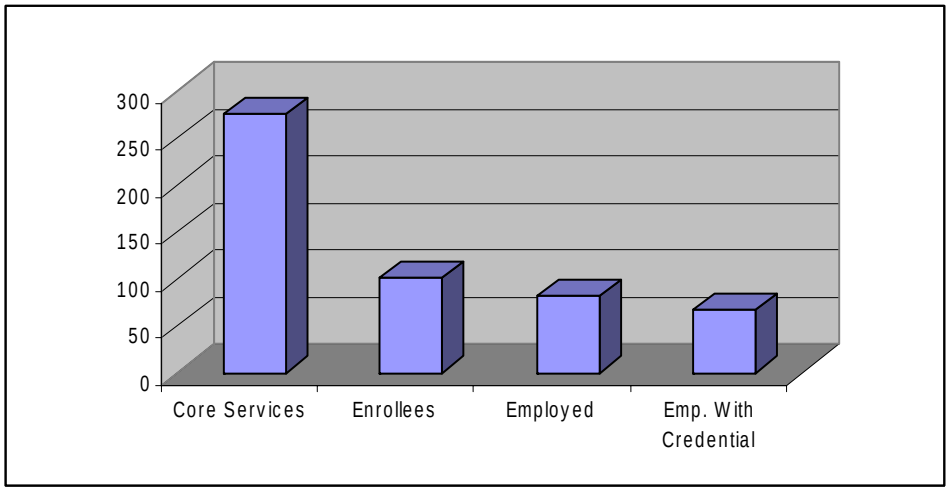
II. Grant Start-up, Goals and Objectives:

The Grant plan (Addendum A) was to recruit, assess, enroll, train and place successful trainees in advanced manufacturing occupations utilizing three cohorts of 27 participants each. The approved training curriculum for the grant (see addendum B) was to provide training on a compressed schedule of twenty (20) weeks with students attending Monday through Friday, four (4) to ten (10) in the evening. The courses covered were equal to 21 community college credits in the following areas:

- Introduction to Process Technology (3 Units)
- Petrochemical Safety, Health and Environment (1 Unit)
- Process Instrumentation (3 Units)
- Process Technology I – Equipment (3 Units)
- Applied Instrumentation (1 Unit)
- Process Technology II – Systems (3 Units)
- Process Technology III – Operations (3 Units)
- Process Trouble Shooting (4 Units)

The course schedules were to coincide with LMC's fall 2006, spring 2007 and fall 2007 semester schedule. The 20 week schedule required that it start before the regular semester with the first cohort to begin training by the first week of August of 2006. With barely two months between the June 2006 grant award and the start of the first cohort to enter training, the WDB was required to fast track the start up of grant activities. These activities included staff assignment/hiring; the development of Grant subcontracts and inter-agency agreements; expediting a marketing campaign; and, setting up record keeping protocols.

The basic performance goals of the Grant were to:



- Serve an estimated 276 One Stop customers who would receive "Core Self Services" as a result of the Grant.

- Recruit and enroll a total of 101 Dislocated Workers of which 81 (27 per cohort) would be enrolled in PTEC training at LMC in advanced manufacturing Process Technician skills.

- Twenty (20) Grant enrollees who were not enrolled in training would receive direct placement services in targeted advanced manufacturing or related industries.

- A minimum of 82 participants (81%) would exit as employed.

- A minimum of 67 participants (66%) would complete the program with a certificate and be employed.

- The average earnings replacement rate would be no more than $3,000 less (-$3,000) than that earned by the enrolled Dislocated Workers in their prior employment.

An additional goal of the Grant was to ensure the sustainability of the training activity in order to continue the preparation of skilled workers for advanced manufacturing employers in the two county East Bay Works target area. Unstated, but understood, was the priority to appropriately utilize the entire grant in support of grant objectives and to maximize grant outcomes for WIA participants.

III. Participating Agencies/Contracts:

A. Workforce Investment Board of Contra Costa County:

Board Management and Staff:

The primary staff of the WBD involved in the development, writing and submittal of the Grant was the Director, Bob Lanter and Strategic Planner, Linda Chandler. They were assisted in research, budget development and Grant preparation by other WDB professional and clerical support staff. After the Grant was awarded and until a project manager was hired in January of 2007, the Strategic Planner was assigned responsibility for Grant start up and operation which included:

- Coordinating all Grant partner efforts in the start up of the Grant.
- Negotiating, preparing, and finalizing the various Grant sub-contracts for Grant partners.
- Amending the Contra Costa One Stop Operator Memorandum of Understanding (MOU) defining the Operator's active role and budget in support of Grant activities.
- Overseeing the recruitment and selection of a Grant Project Manager and to Contract with Gruber & Pereira Associates for technical assistance.
- Coordinating a media campaign to enhance community awareness of the PTEC training project and provide outreach to potential Dislocated Workers for enrollment into the PTEC program (Addendum C - examples of media coverage).

The Goals of the Board and staff were to provide operational and budget oversight to ensure the successful implementation of the Grant and the attainment of all Grant goals. The Grant manager, when hired, reported directly to the WDB Director with the Strategic Planner remaining in the reporting loop and tasked to provide technical assistance and support as needed. Both the Director and Strategic Planner participated in Grant Partner meetings, reviewed monthly project reports and provided input as they determined necessary. Once hired, the Project Manager assumed overall responsibility for Grant progress and operation.

Contractor: PTEC Project Manager:

The Project Manager Contract started January, 2007, six months into the Grant and after the completion of the first cohort of PTEC trainees had completed training in December of 2006. The general duties were to oversee the continuation of the Grant, manage partner contracts, review Grant activities, report on Grant progress to the WDB Director, and to help coordinate and resolve issues as they were encountered. Specific contract tasks were to:

- Develop an initial report, project timeline detail and work plan (Addendum D).
- Provide monthly reports of Grant progress including a summary of Grant activities; a review of Grant and contract deliverables; a review and modification of project timeline as appropriate; client tracking and expenditure reports; and up dates on technical assistance and/or recommendations as necessary.
- Participate in PTEC Partner meetings and conduct PTEC contractor meetings during the term of the Grant as necessary.

- Provide presentations to WDB staff and board as requested by the Director.
- Develop and deliver a "Database of Sector Employers" for Advanced Manufacturing for Contra Costa and Alameda Counties.
- Provide a closeout report including a narrative, expenditures, client tracking, and final monitoring report.

Contractor: Gruber and Pereira Associates:

The consultant group, Gruber and Pereira Associates, played a central role in the development of and the awarding of the PTEC Grant. It was determined that the retention of their services to the Grant would help start up and implementation of grant activities and that they could advance certain underlying grant objectives. Specific to their contract were the following:

- Develop a Process Flow Binder and White Paper intended to document the development of the Grant as a template for future training programs in Advanced Manufacturing Industries.
- Provide technical assistance to participating workforce boards to ensure effective outreach, recruitment, assessment, and referral processes.
- Catalogue and document hiring practices, processes, and requirements for hiring in the targeted industries.
- Work with the Project Manager, to assist in the development of the "Data Base of Sector Employers."
- Identify at least two additional funding streams intended to sustain the "fast track" Grant training model.
- Work with the college (LMC) and the California Community College Foundation to institutionalize the PTEC curriculum and to determine the feasibility of listing the LMC PTEC training on the State Eligible Training Provider List (ETPL).
- Provide best practice information, updates and expert input to problem solving during the life of the Grant.

B. Foundation for California Community Colleges

The purpose of the contract with the Foundation for California Community Colleges was to provide a knowledgeable intermediary for LMC at the State Chancellors Office to ensure the completion of the curriculum application and accompanying support required for the review and approval of the new Process Technology (PTEC) courses in order to ensure a timely implementation of the training at LMC.

C. Los Medanos Community College (LMC):

The role of LMC was to present the PTEC training curriculum to Grant enrolled trainees in three cohorts in a compressed training timeline of 20 weeks of evening classes, 5 days per week and 6 hours per night. LMC had been an integral part of curriculum design in the Grant development stage and tasked with all of the details necessary to schedule, provide facilities, hire instructional staff, enroll students in the community college system, award college credit for the courses completed and certificates of completion to successful trainees.

LMC was also required by contract to work with and report trainee progress with Grant operator case management staff. Over $50,000 were provided to cover necessary curriculum start up, instructor training, student materials and incidental college expenses. The remainder of the $366,680 contract was disbursed in three lump sum payments at the successful conclusion of each of the three PTEC Training cohorts.

D. Mount Diablo Adult Education:

This $10,000 contract was to provide outreach and recruitment efforts to women, other "diverse populations," and veterans. Jobs in manufacturing carry the imprint of being "male" occupations which the Grant sought to counter. With the diverse nature of the communities served by the partner one stops, every effort was made to ensure the greatest access to the program that was possible in light of the entry level skills required for trainee success in the training regime.

E. Alameda County Workforce Investment Board (WIB):

As a partner in the Grant and its focus on the Alameda County service area, the Alameda WIB was allocated $70,000 by contract to "conduct outreach, recruitment…assessment and referral" of Alameda County participants to the PTEC program. Once determined WIA eligible and possessing the minimum requirements for referral, potential trainees were referred to the Concord (Contra Costa) One Stop for final testing, orientation and selection. Alameda management and staff participated in on-going Grant partner meetings; problem solving activities; client tracking; and placement and follow up services at the completion of each training cohort.

E. San Mateo Workforce Investment Board:

The San Mateo WIB was an original partner in the development of the Grant. Once the Grant was funded, they declined to participate as a funded partner due to lack of staffing and other resources necessary to be able to provide full services. Additionally, there were few employers that could be identified in their service area that could benefit from the graduates of the Grant training program. They did advertise the PTEC program in their One Stop Centers and several San Mateo County residents were referred with at least 1 being enrolled in the PTEC Training activity.

G. Steelworkers Union – Local 5

The Steelworkers Union – Local 5 did not contract with the WDB for funding from the Grant. They did, however, provide significant services voluntarily by providing ongoing support to the project to their membership, referral of applicants to the One Stop Centers, helping with our PTEC community awareness campaign, presenting a realistic description of industry work conditions at PTEC orientation meetings, staffing participant selection interview panels, and generally supporting the project goals and interests.

H. Contra Costa One Stop Operator:

The lead organization for case management and supportive service activities under the Grant was the Contra Costa WIA Operator which managed the WIA One Stop Centers in Contra Costa County. The Operator is a sub-component of the Contra Costa County Employment and Health Services Department (EHSD), as is the staff of the WDB. The WDB provides funding for the operation of the One Stops under a Memorandum of Understanding between the Contra Costa Workforce Development Board and the One Stop Operator which is reviewed and approved by the Contra Costa Board of Supervisors.

PTEC operational processes had to be designed, staff and resources assigned, funds modified into the MOU to cover grant expenses, and significant management effort expended to get the PTEC program up and running. With the late award of the Grant and the impending start of the training cycle at LMC, this became an immediate overriding priority of the WDB administration and the One Stop Operator. It was determined that sufficient management and oversight systems were already in place to institute the Grant activity "on the fly" as start up outreach and recruitment for the scheduled class became a priority.

The Operator became the prime responsible agent for meeting Grant participant objectives by:

- Coordinating recruitment efforts within the East Bay Works two county collaboration;
- Ensuring the recruitment, selection and timely enrollment of each cohort class;
- Coordinating with LMC instructional staff to counsel and track participant progress;
- Providing supportive services to each trainee (mileage, books, etc.) as needed; and,
- Providing employer outreach and placement services for all PTEC enrolled participants.

While all One Stops were entry doors into the Grant, including the Alameda One Stops under the Alameda WIB, Oakland One Stops under the Oakland PIC, and Richmond One Stops under the City of Richmond, the Concord One Stop was designated as the central service facility to which all applicants were referred for orientation, final selection, enrollment and case management for PTEC participants. Since the Grant did not provide supportive services, PTEC participants were co-enrolled under Contra Costa's formula Dislocated Worker funding to provide transportation, child care, class materials and other services necessary for participants to attend PTEC training.

An enhancement in using the Concord One-Stop as a central service center was that a computerized assessment facility was brought on-line concurrent with the start up of the Grant. This allowed the Concord Center to more efficiently administer their portion of the Wonderlic testing for PTEC applicants and to be able to offer client specific training services in math and writing remediation for PTEC trainees concurrent with their progress and demonstrated need during the training cycle.

IV. General Discussion of Grant Activities:

A. Participant Flow:

A Flow Chart depicting the participant flow designed for the operation of the Grant is included preceding this section. An explanation of the process follows:

1) All of the One Stops in the two county East Bay Works service area were tasked to provided outreach and participant referral to PTEC introductory workshops. These workshops were conducted in Alameda by the Alameda WIB and in Contra Costa County in both the Pittsburg and Contra Costa One Stop Centers. The workshop sessions introduced applicants to the PTEC program; went over opportunities for employment in advanced manufacturing in the East Bay area, including the potential for earnings and advancement; discussed selection requirements for the PTEC program; and gave an over view of the training program and training time line.

2) Alameda WIB and the Contra Costa One Stops screened for WIA Dislocated Worker eligibility and administered a standard "Wonderlic" education screening test (Addendum E) to assess each candidate's level of education against standards deemed necessary for enrollment and potential success in the LMC PTEC twenty week training component.

3) Those applicants who were WIA eligible and who had met the minimum verbal and math skills deemed necessary for the training on the Wonderlic assessment tests were then referred to the Contra Costa One Stop for an "orientation" workshop on the PTEC program. Project staff explained the 20 week training schedule and curriculum, available supportive services, and gave an overview of the Grant. Also, representatives of the industry and union explained the work environment, attendance policies and high level of dedication that was needed to be successful in local refinery and chemical manufacturing companies.

   One major industry issue was the rotating shift work schedule in most continuous process manufacturing. This schedule requires workers to work rotating day, night and graveyard shifts and to be on call on a scheduled basis to fill in for sick or other workers absent for any number of reasons. The jobs required that workers be able to lift heavy objects, work outside in all types of weather, climb equipment and ladders and to work on elevated structures and walkways. Alcohol or being under the influence of alcohol or drugs on the job was strictly prohibited and grounds for immediate dismissal. While the jobs were good jobs, paying above most in the area, attendees were encouraged to carefully consider whether the described working conditions were right for them.

4) Those applicants deciding to continue were scheduled for a selection interview by a panel of three interviewers composed of industry, LMC and Operator staff. The interviews were conducted to allow project partners to evaluate the applicant's

employability and potential for success in the training program. Each applicant was asked a standard series of questions (Addendum F) and their responses rated by the interviewers to provide a ranked listing of potential PTEC enrollees.

5) All successful applicants from the interviews were then referred to one of the industry partners where they underwent an industry "agility" test at a plant site to rate their ability to perform the physical requirements for work in the industry and to test their ability to climb ladders and maneuver through the production environment.

6) Those applicants selected for enrollment through the above processes were further subjected to employment background checks and drug testing to eliminate those barriers to employment once they achieved their PTEC certificate. This was done at the request of our industry partners as a necessary element in considering individuals for employment in industries considered high priority targets by the US department of Homeland Security.

7) As the result of each recruitment, successful applicants were enrolled in the appropriately scheduled LMC PTEC training cohort to begin their training.

8) At any point in the process that an applicant opted or was selected out, they were referred back to their originating One Stop for appropriate One Stop employment services but were not tracked or monitored further as the Grant participants.

9) After training, successful PTEC trainees were assisted by Operator and Alameda staff to access job openings in targeted advanced manufacturing industries and provided supportive services during their job search effort. Unsuccessful PTEC enrolled trainees that could not complete training were provided referral and placement services in the One Stops with the intent to place them in industry related employment wherever possible.

10) A small number of PTEC applicants that went through intake and assessment but who were not able to be enrolled into the training component were enrolled for direct placement services. The Grant provided referral and placement services with supportive services being provided from formula Dislocated Worker funds. Nine participants were enrolled with 6 being placed over the term of the Grant.

B. Training Facilities/Instructors:

LMC utilized a thirty (30) computer classroom for computer based instruction and process control systems modeling for PTEC training. Lecture classes were held in conventional classrooms by adjunct instructors drawn from the industry partners to the Grant. Hands on process control training was provided in a state of the art lab set up with industry input and funded by an outside grant the college obtained for that purpose. Other than a few field trips to partner industry sites for familiarization, all instruction was held on the LMC campus,

including sessions conducted by One Stop staff in the preparation of resumes, interview techniques, and job application skills.

LMC hired a retiree from Dow Chemical Company, David Kail, to be the Director of their new Advanced Manufacturing Training facility and program. Working closely with the Dean of Occupational Education, Kiran Kamath, David helped bring the program together and recruited instructors that were either currently employed in the petrochemical/chemical industry or who were recently retired from the industry. These prospective instructors were vetted by LMC faculty during an intense week long workshop on instructional techniques resulting in nine adjunct faculty assigned to bring the LMC PTEC program to fruition.

A further description of the LMC training facility and start up activity is contained in LMC's PTEC Final Report by David Kail, LLMC PTEC Director (Addendum G).

C. Staffing:

As stated above, until a grants manager was hired six months into the project, grant management during the start up of the Grant was assigned to the WDB's strategic planner, Linder Chandler, assisted by other WDB management and clerical staff. The grant manager was hired in January of 2007 and was assigned to coordinate activities and monitor Grant progress for the duration of the project.

Both the Contra Costa and Alameda One Stops assigned dedicated staffing to the project that was responsible for:

- Providing local outreach and client intake;
- Conducting Grant briefing (introductory) meetings;
- Conducting WIA and Grant initial testing and eligibility;
- Enrolling participants into the local SMARTware tracking system; and,
- Referring applicants to Grant orientation meetings conducted at the central Concord One Stop Center.

Alameda provided a case manager and limited management oversight in their One Stop System for the above activities. The Concord Operator assigned two case managers to the Grant, one in their Pittsburg One Stop office and one in their Concord One Stop Center. Applicants were referred from all three centers to the Concord One Stop for the PTEC orientations referenced above. This represented a hand off by Alameda staff to Concord One Stop staff for:

- Scheduling and conducting PTEC Orientation meetings;
- Referring applicants to a PTEC Grant staff/college/industry trainee selection Committee;
- Coordinating drug testing and back ground checks for final applicants,
- Referring final applicants to the training activity;
- Entering records into the JTA and SMARTware reporting systems;

- Providing continuous case management for trainees while in training, including WIA supportive services as necessary; and,
- Providing targeted placement and supportive services upon completion of training.

During the course of the Grant, the Concord One Stop case manager, Tobie Marsh, assumed more and more of the case load responsibility. Cohort I trainees were evenly divided between the Pittsburg staff, Monta Silva, and Tobie Marsh. In Cohorts II and III, Tobie assumed 75 percent and then 100 percent caseload responsibility respectively.

Additional staff resources were assigned by the Concord One Stop late in the Grant to provide specific employer outreach and placement services to all PTEC enrollees. These participants included those trainees successfully completing training, some who left training early and some who were not chosen for training but who had relevant skills for referral to industry related employment opportunities.

D. Project Coordination:

Project coordination occurred at many levels throughout the project. During the development of the project, numerous interagency information, process and collaboration meetings were held to identify project needs, goals and possible outcomes. After the Grant was funded, many of those same individuals and agencies continued to meet over the life of the project to review Grant progress, identify issues to be addressed, and to work collectively in meeting Grant goals. From January 2007 to March 2008, the grant manager conducted WDB Policy Group Briefings, chaired meetings of all Grant Partners, held 27 individual contractor/issues resolution meetings and provided 16 monthly reports to the WDB Director and management staff.

In general, the grant manager found management and staff of the Alameda WIB and One Stop to be very responsive and action oriented. Once advised of an issue, they were pro-active in discovering and working to a timely resolution.

The grant manager met repeatedly with Stephan Baiter, manager of the Contra Costa One Stop system on numerous issues relating to client selection, budgeting, partner coordination, and cohort training. Stephan was routinely receptive and open to comment and observation, worked to reach a common understanding of issues and proposed solution, was pro-active in providing documentation, and, in general, remained highly supportive of the goals of the Grant.

Other Grant partners and contractors were equally responsive and helpful, though on a more modest scale due to their less active involvement in Grant performance activities. LMC was of course principally responsible for the training of the PTEC cohorts. LMC staff and instructors interacted directly with the Contra Costa case managers, keeping issues at a participant cohort level were they were handled logically and expeditiously.

An example of the pro-active way in which problems were addresses during the life of the Grant was the recognition early in Cohort II that many of the trainees were having trouble

with the math necessary to be successful in the PTEC training design. This need was communicated directly to Tobie Marsh at the Concord Ones Stop by both trainees and instructors at LMC. After conferring with her One Stop manager, Stephan Baiter, a solution was adopted that opened the Concord One Stop Computerized Assessment Center to PTEC trainees for math remediation. These sessions were scheduled such that they did not interfere with the five nights a week PTEC class schedule. This new activity was supplied as a supportive service paid for by formula dislocated Worker funds in which all PTEC participants were co-enrolled. While the grant manager was informed of the problem by e-mail, the solution was developed and implemented at the One Stop Operator level in little more than a week without any intervening need for action on the part of WDB or grant management staff.

E. Diversity:

With the population diversity of the Grant project area, it was important that the project make every attempt to achieve a similar diversity of enrollments. The WDB contracted with Mount Diablo Adult Education for advertising and outreach services targeting women and veterans to ensure their access to Grant services. It was believed that general outreach and advertisement would generate sufficient interest to attract all other groups.

Characteristics	Enrolled	
Enrolled In Training	98	100%
Female	19	19%
Male	79	81%
Amer. Indian/Alaskan	2	2%
Asian	13	13%
Black	25	26%
Hawaiian	3	3%
White	45	46%
Hispanic/Latino	14	14%
Total Veterans	15	15%
Disabled Veteran	0	0%
Recently Separated Vet	5	5%
TANF (Welfare)	1	1%
Food Stamps	6	6%
UI Claimant	71	72%
UI Exhaustee	20	20%
Disabled	4	4%
Single Parent	13	13%
Low Income	39	40%
Offender	8	8%

Although Grant enrollees have been terminated from JTA code 528 at the end of the Grant, not all of the PTEC participants have completed WIA services subsequent to training completion and are continuing to receive services as formula Dislocated Worker participants. A review of Grant terminations will not therefore show realistic outcomes for all project enrollees at this time. However, an examination of the nearby table demonstrates that women and veterans were adequately represented in the enrollee mix although possibly not quite as high as we had hoped for. As a Dislocated Worker project, unemployment claimants and exhaustees were understandable high in the mix. Unanticipated were the 40% enrollment of dislocated workers who were also low income. Successful completion and employment of this participant group will have a major impact on their ability to move out of low income or moderate poverty status.

F. Reporting Systems:

Reporting systems utilized by Grant staff were the State Job Training Automation System (JTA) and EASTBAY Works SMARTware (Shared Multi-Agency Referral and Tracking)

system provided in partnership with the Sacramento Employment and Training Agency (SETA). The JTA system was utilized to provide regular reports to the state about enrollment, completion and outcome statistics. The SMARTware system was used to manage client flow, record case notes, and track incremental progress of participants throughout the Grant.

One feature of the SMARTware system is the use of bar code scanners to track universal client services in the EASTBAY Works participating One Stops. These activities are not part of the JTA reporting system and cover such functions as workshop referral and attendance, tracking a participant's employment research and self referral to local job listings and for compiling client information that can be used in targeted outreach. After the start up of cohort I, a bar code was added to capture referral of applicants to the PTEC group orientations for Cohorts II and III and for subsequent referral to training.

G. Sustainability:

A major goal of the Grant was to develop and establish an on-going, sustainable training activity for advanced manufacturing skills. The Grant provided for three intensive, short-term (20 week) training cohorts to meet the short term needs of our Industry partners. There were discussions early in the grant about the level of need to schedule additional 20 week training cohorts. It was determined that those three cohorts would most likely meet our industry partners immediate needs and that they would be very supportive of a long-term training option through the community college system.

With the approval of the developed Process Control Curriculum, having been expedited by our contract with the Foundation for California Community Colleges, LMC undertook the task of instituting the developed PTEC curriculum as a regular part of their education calendar. This led to a major investment in computer simulation training capacity and a state of the art fluids flow laboratory to provide hands on training in industrial fluid and process flow technology. The college regular program was established with a Certificate of Achievement program of 38 to 45 semester units that could be completed in three semesters of college work and a more regular Associates of Arts Degree program of four semester duration Addendum B). Industry helped to set the requirements for the programs and agreed to accept the certificate as evidence of entry level qualification to process technician jobs in the refining and chemical industries. An applicant with an AA degree in the subject would be preferred over those obtaining the more targeted certificates once the AA program became established.

The first class offerings for the in-house certificate and AA program began in the spring term of 2007. The first introductory PTEC classes were fully enrolled with extra students allowed to enroll as well due to the early terminations experienced in the Grant cohorts. As with the Grant cohorts, these classes are held in the evening but on the regular community college schedule and at a more normal learning pace. Class attendance remains steady and a high percentage is expected to complete the certificate program with a few going on to complete the AA requirements.

Subsequent enrollments into the spring 2008 introductory PTEC classes were significantly under enrolled with only 11 students attending the first night of instruction. This has led to concerns about the ability to sustain the PTEC training program over the long term. See Section VI. Grant Issues/Recommendations for further discussion on this topic.

V. Grant Budget, Training, and Placement Outcomes:

Grant Budget Utilization:

The following table shows the final budget distribution and use of Grant funds:

Contractor	Contract Amt.	Amt. Billed	Remaining
Los Medanos College	$366,680	$366,680	$0
Mt. Diablo Adult Ed.	$10,000	$10,000	$0
Alameda WIB	$70,000	$70,000	$0
C. C. Foundation	$25,000	$25,000	$0
WDB Adm. Pool	$8,570	$6,140	$2,430
Other Expenses	$16,750	$11,750	$5,000
One Stop Operator	$455,000	$403,197	$51,803
Totals	**$952,000**	**$892,767**	**$59,233**

The Contra Costa County EHSD utilizes an approved administrative cost pool to distribute costs to programs and grants based on an on-going time study of department case management staff. The effect of this method is to understate relative administrative costs to subsidiary grants being operated as a part of their overall costs structure. This "freed up" Grant funding that could be redirected to participant services in the form enhanced case management, resume and job seeking workshops, and the provision of added staff dedicated to job recruitment and participant placement services that were not part of the original Grant design. These added services played a part in the enhanced outcomes experienced in Cohort II and continues in Cohort III as discussed below.

As shown above, active management of project funding resulted in the expenditure of 99.4 percent of the available Grant funding on the project with the bulk of the funding ($891,680 or 96.3 %) applied to direct participant training, placement, and case management services.

Grant Outcomes: Participants

Grant Totals	Direct Placmts.	Cohort 1	Cohort 2	Cohort 3	Totals	Goal	% Attained
Enrolled	9	23	35	31	98	101	97.0%
In Training		23	35	31	89	81	109.9%
Termed Incomplete		4	5	4	13	19	68.4%
Completed W/Cert.		18	30	27	75	69	108.7%
Placed	6	18	33	16	73	82	89.0%
Industry Related	3	13	24	10	50	n/a	n/a
Employed W/ Certificate	0	16	28	14	58	67	86.6%

Overall Grant participant goals and outcomes are detailed in the chart above. While not a stated goal of the Grant, an internal expectation was that at least 85% of the trainees would be able to complete the training successfully and that most would be able to be placed in industry related employment.

In spite of a low initial enrollment in Cohort I due to the need for a quick start up, initial staff development, and working out systems and process controls, the Grant exceeded its training enrollment and certificate completion goals, primarily in exceeding design enrollments in cohort II and III. Cohort II outcomes exceeded all Grant goals for that training group. At the close of the Grant, Cohort III had not been able to show sufficient placement outcomes for one primary reason. The end of the training cycle held to coincide with the ending of the Colleges fall semester required the class to term in mid-November of 2007. Very few industry employers were hiring at that time, greatly restricting job development and referral opportunities. This is due to most refining operations scheduling systems maintenance and cleanout operations in the first three months of the calendar year (January–March) when product demand is reduced and portions of their plants can be idled for that purpose. Since these functions are contracted out to special contractors, refineries do not begin their regular annual hiring activities until March or April. This was just coming on line at the end of the project and is continuing at this time.

Wage Gain/Loss

Average Salary Comparisons	Pre-enrollment Wage	Wage at Termination
All Enrollees	$18.68	$21.67
All Placements	$18.80	$21.67
All Industry Related	$19.05	$21.92

The wage replacement goal for the Grant was to place participants at a wage that would be no more than $3,000 less (-) than their wage(s) prior to becoming a dislocated worker and applying for assistance at our One Stops. Utilizing a standard 2080 hour work year, that annual salary goal would relate to a drop in hourly wage of no more than -$1.44 per hour. An examination of the nearby table discloses that the average salary for Grant participants actually increased in each of three comparisons. Comparing the average wage of all enrollees with the average wage at termination of all those placed in employment during the Grant we find an increase in hourly wage of $ 2.99 per hour. Controlling for comparisons with only those who were placed by the grant (factoring out participants who were not employed at termination), we get a slight drop to $2.87 per hour. Again, controlling for only those participants placed in industry related employment (jobs for which the PTEC training was designed), we get an identical $2.87 hourly wage differential.

Even though the industry wage at placement for the third group was higher than the second group, the average pre-employment wage for these participants was higher as well. This may

be an anomaly with this particular Grant or it may suggest that past successes in employment and income relate to potential success after retraining for dislocated workers. Converting the hourly wage to an annual salary for comparison to our Grant Goal, we find that we achieved an increase in each group, with a +$6219 for all Enrollees and +$5,969 for all placements and all industry related placements by the Grant. This represents an annual salary improvement of +$9,219 and $8,969 over our stated Goal of no more than a -$3,000 drop in replacement wages for Grant participants.

Cohort I:

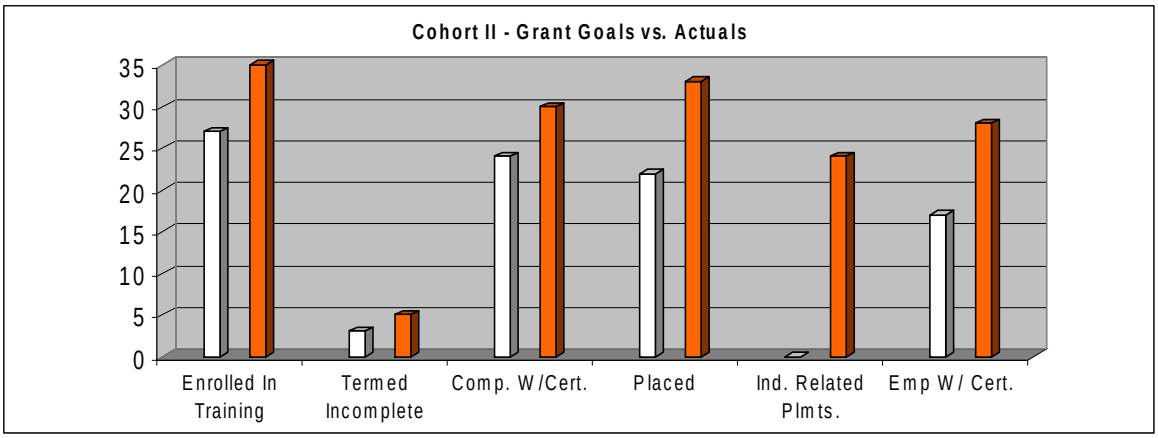
Cohort I	Goal	Cohort 1	% Achieved
Enrolled In Training	27	23	85.2%
Termed Incomplete	3	4	133.3%
Completed W/Cert.	24	18	75.0%
Placed	22	18	81.8%
Ind. Related.	n/a	13	
Employed W/ Cert.	17	16	94.1%

As stated above, Cohort I was under enrolled. The primary issues leading to this under enrollment were that the quick start up timeline was not conducive to an aggressive outreach and media relations campaign, which was brought on line concurrent with the Cohort I recruitment effort but did not come into full effective until just before the class was to begin. Also, while project staff was experienced with the use of testing in their selection process, it took the first go-round to correlate the Wonderlic testing to PTEC performance requirements. It was during this first cohort recruitment process that the project flow, introductory workshops, orientations, selection panel procedures, plant safety evaluations, background checks and drug testing procedures had to all be developed, reviewed and adjusted to meet the goals of the Grant.

As the instructors and case managers gained experience with the participants in Cohort I, our recruitment and selection systems were modified to better reflect the necessary prerequisites Grant participants needed to have as a predictor of success. It became an issue of balancing the instructor's concerns the student preparation and the case manager's concern for inclusion of the broadest clientele possible for enrollment into the Grant. This active discussion enhanced the selection process as evidenced by the comparison of the Cohort I goal outcome table above and a similar table and a chart for Cohort II displayed below.

Cohort II:

Cohort II	No. Goal	Cohort II	% Achieved
Enrolled In Training	27	35	129.6%
Termed Incomplete	3	5	166.7%
Complete W/Cert.	24	30	125.0%
Placed	22	33	150.0%
Industry Related	n/a	24	
Employed W/ Cert.	17	28	164.7%



As shown above, the substantial over enrollment in the class allowed room for a greater than planned early participant termination while still being able to meet cohort performance goals. Most of the early terminations were not from an inability to do the course work, although it proved to be a difficult training regime. With the ranks for the cohort being composed of dislocated workers, economic and family need forced some to seek employment before they could complete their course of studies. Several of these took jobs in related industries while others returned to previous employers or jobs utilizing their prior background and experience.

As stated earlier, when a deficiency in basic algebra and higher math skills became apparent in this cohort, the Contra Costa One Stop made their computerized assessment center available to PTEC trainees to over come this obstacle. The WDB also made additional resources available out of the grant to add staff dedicated to job outreach and placement assistance to better match successful trainees with employment opportunities at completion of training.

Cohort III:

Cohort III	No. Goal	Cohort III	% Achieved
Enrolled In Training	27	31	114.8%
Termed Incomplete	3	4	133.3%
Completed W/Cert.	24	27	112.5%
Placed	22	16	72.7%
Industry Related	n/a	10	
Employed W/ Cert.	17	14	82.4%

Again, a comparison of this table and the two above will show enrollments and training completion rates exceeding Grant goals. In recruiting for this cohort, a suggestion was made by LMC that we limit enrollments to those meeting a higher math threshold than in cohort II. After discussion with Stephan Baiter, concord One Stop administrator, David Kail, LMC PTEC Director, and the Grants Manager, it was decided to use the same criteria as before

with the Concord One Stop once again making their assessment center available for math remediation as required by individual PTRC trainees. We did agree to hold the enrollments to as close to 30 as possible due to the crowding experienced in Cohort II and there being only 30 computers available for training at one sitting in their computer classroom.

Also, as discussed above, the completion date for training this cohort was out of phase with major industry hiring schedules which are just now becoming active as this report is being written. Job development and placement services continue for this cohort being funded out of formula dislocated Worker funds into which these participants were co-enrolled during the Grant. Four of the above sixteen placements are in temporary positions providing the participant with an income while remaining in industry job search with One Stop staff support. We anticipate that the final placement outcomes will match or exceed that achieved by cohort II.

VI. Grant Issues/Recommendations:

Issue: Continued WIA participant access to PTEC training.

Discussion: One of the Goals for the Gruber & Periera Associates Contract was to identify new or existing resources to sustain the availability of PTEC training for the community and for WIA participants. In identifying additional grant sources, the college did apply for and was funded to continue PTEC services Community College students in their on-going semester based program. The WDB has contracted with the college to monitor and track these student's progress and Grant supported outcomes .

A further discussion to encourage the college to apply to have this on-going PTEC training program to be included under the state approved Employment Training Provider List (ETPL) was not productive. The College decided that it could not meet the listing requirements and so did not apply. This means that WIA funds may not be used to directly reimburse the college for the costs of PTEC training on behalf of WIA eligible clients. It is still possible, however, for interested WIA eligible clients to receive supportive service that would allow them to enroll and attend the regular college program. This would require the WIA client to commit to a three or four semester training time line for individuals which by definition are low income or dislocated from regular employment. It is highly unlikely that any such persons will be interested or able to take advantage of the training.

Recommendation: If it is desirable for continued WIA access to this training and employment opportunities, a program similar to the condensed cohort training regime is recommended, to be completed over no more that two semesters of instruction. This would allow for a nine month training schedule that would be less demanding than the 20 week cohort schedule but would be within the means of some WIA clients and be more reasonable for WIA service providers to consider for their clients. As it stands, this is completely in the college's purview and would need to be advocated by industry and/or WIA providers to become a reality.

Issue: Employer outreach/industry penetration,
Model Replication to other industries.

Discussion: One deliverable by the Grant Manager was to provide a "Database of Sector Employers" (Addendum H) for the project counties. While there are numerous data sources relating to business and employers in the project area, it was difficult to correlate those sources into a meaningful database. The most nearly useful source was State Labor market Information data bases on employers listed by Industry type. Even that data base required discretion in use of the industry coding that was not always consistent with branch or sub-branch production facilities. For instance, a major company holding (i.e. Safeway) would be coded by their primary business activity (grocery, sales) that would carry over to a local production site (bakery, or dairy) that could conceivably have advanced manufacturing skills needs.

After compiling a draft listing of possible PTEC Employers, it was further refined through telephone, questionnaires, and personal visits to determine employment opportunities in their workforce related to PTEC targeted skills training. In these reviews it became apparent that the course design was highly targeted to refinery and some chemical processing employment areas. It was less transferable to water and waste water treatment plants, electrical generation, industrial gas suppliers, etc. These industries did provide some employment to PTEC graduates but not to the extent that had been anticipated. This narrowed the scope of job search and employment opportunities for the Grant to rely primarily on refining and chemical production facilities. That limitation caused Cohort III graduates to have to wait until late March and April for those industry jobs instead of being able to be placed more readily at the end of training in November.

Recommendation: With the narrower than anticipated application of the PTEC curriculum to local employment opportunities, it appears that the current on-going class structure at LMC will be sufficient to meet industries needs in this area if these classes meet minimum student enrollment requirements. There does appear to be an opportunity, however, to broaden the training activity by introducing variations related to other advanced manufacturing areas where similar processing skills are needed. An example is Bay Area water and waste water treatment agencies and advanced manufacturing water reclamation applications. Currently, the strategic planner of the Contra Cost WDB is taking the lead in meeting with such agencies to discuss and design a training response much like the design of the PTEC program. This process is also building on the PTEC experience and recommendations as found in the extract of a "Report to Contra Costa Workforce Investment Board" by contractor Gruber & Periera (Addendum J). While this effort has only begun, it appears to be strongly supported by the industry and education providers.

Issue: Community/Workforce Awareness

Discussion: One of the Grant assumptions is that the operation of the PTEC training program would generate interest in youth and community college students in considering careers in advanced manufacturing through the community awareness campaign that was necessary to recruit trainees for the three training cohorts and of enhanced media focus on the LMC PTEC classes. The public relations company of Desmond McLeish, Inc. was tasked to do a pre and post survey on community awareness of high school and community college students. (Addendum K – Survey Results).

The survey confirmed an increase in the acceptance of high school youth to seek employment in local manufacturing (8% increase), in the awareness of such jobs being able to pay adequate living wages for the area, and of what constituted advanced manufacturing employers. The community college survey found that, "The number…considering employment in the industry, those that understood what jobs were within the manufacturing sector, what economic opportunities are in terms of wage level and the understanding of the work environment" had doubled from approximately 20 % to 40% over the two year media effort. Also, the number of individuals that "understood…job sectors listed were in the manufacturing industry" improved from 29% in the 2006 survey to 91% in the 2008 survey.

Other survey results concluded that there was enhanced knowledge of the pay level of mid-experienced manufacturing industry employees, showing a 39% rise in awareness; that awareness of the "non-blue collar" nature of modern manufacturing increased 18%; and that there was a 23% increase in community awareness that education beyond a high school diploma was needed.

While these survey results can not be attributed solely to our media campaign, it is a good indicator that the media effort had a greater effect than just fulfilling Grant recruitment needs for Cohort II and III. Additionally, the starting class of LMC regular semester based PYEC program was fully enrolled with trainees advancing through the college credit unit program. The second class enrollment, however, was disappointing, with only 11 enrolled in the introductory PTEC classes.

Recommendation: It is apparent that our media campaign had an impact on the acceptability of training and employment in modern advanced manufacturing businesses sectors. There needs to be a continuing emphasis if we are to extend that awareness to new students coming into the high school and community college system. Any new training programs such as the water and waste water discussions referenced above, should contain a dedicated media outreach component both for recruitment of targeted trainees and to continue community awareness of the opportunities for employment and careers in related manufacturing industries.